SPECIAL, 3/20/2017 1:30:00 PM

BE IT REMEMBERED that on March 20, 2017, there was begun and holden a SPECIAL session of the Commissioners Court of Jefferson County, Texas, with the following members and officers present and participating except those absent as indicated:

Honorable Jeff Branick, County Judge

Commissioner Eddie Arnold, Commissioner Pct. No. 1

Commissioner Brent Weaver, Commissioner Pct. No. 2

Commissioner Michael Sinegal, Commissioner Pct. No. 3

Commissioner Everette D. Alfred, Commissioner Pct. No. 4

Honorable Zena Stephens, Sheriff (ABSENT)

Chief Charlie Porter

Honorable Carolyn L. Guidry , County Clerk

When the following proceedings were had and orders made, to-wit:

Jeff R. Branick, County Judge
Eddie Arnold, Commissioner, Precinct One
Brent A. Weaver, Commissioner, Precinct Two
Michael S. Sinegal, Commissioner, Precinct Three
Everette "Bo" Alfred, Commissioner, Precinct Four

NOTICE OF MEETING AND AGENDA OF COMMISSIONERS' COURT OF JEFFERSON COUNTY, TEXAS March 20, 2017

Notice is hereby given that the Commissioners' Court of Jefferson County, Texas, willmeet at **1:30 PM,** on the **20th** day of **March 2017** at its regular meeting place in the Commissioners' Courtroom, 4th Floor, Jefferson County Courthouse, 1149 Pearl Street, Beaumont, Texas.

Said meeting will be a **Special** for the purpose of transacting the routine business of the County. Persons with disabilities requiring auxiliary aids for services who wish to attend this meeting should contact the County Judge's Office to arrange for assistance.

In addition to the routine business of the County, the subject of said meeting will be the following:

11:00 a.m.- Announcement of an executive (closed) session pursuant to Texas Government Code Section § 551.071 for the purpose of receiving information from its counsel regarding pending or contemplated litigation.

INVOCATION: Michael S. Sinegal, Commissioner, Precinct Three

PLEDGE OF ALLEGIANCE: Everette "Bo" Alfred, Commissioner, Precinct Four

PURCHASING:

1. Receive and file bids for (IFB 17-006/YS), Term Contract for Insecticides, Herbicides, Spray Adjuvants, and Adulticides for Jefferson County Mosquito Control District.

SEE ATTACHMENTS ON PAGES 17 - 864

Motion by: Commissioner Weaver
Second by: Commissioner Sinegal
In favor: County Judge Branick, Commissioner Arnold, Commissioner Weaver, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

2. Receive and file a renewal for (IFB 12-036/JW), Term Contract for Inmate Clothing and Supplies for Jefferson County with Bob Barker Company, Inc., Charm-Tex, ICS Jail Supplies, Shoe Corp of Birmingham, and Tabb Textile for a fourth one (1) year renewal from March 7, 2017 to March 6, 2018.

SEE ATTACHMENTS ON PAGES 865 - 869

Motion by: Commissioner Weaver
Second by: Commissioner Sinegal
In favor: County Judge Branick, Commissioner Arnold, Commissioner Weaver, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

3. Receive and file a renewal for (IFB 14-006/JW), Term Contract for Marine Motor Fuel for Jefferson County with C&I Oil Company, Inc. for a third one (1) year renewal from March 28, 2017 to March 27, 2018.

SEE ATTACHMENTS ON PAGES 870 - 870

Motion by: Commissioner Weaver
Second by: Commissioner Sinegal
In favor: County Judge Branick, Commissioner Arnold, Commissioner Weaver, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

4. Receive and file a Certificate of Construction Completion for (IFB 16-027/JW), Road Improvements for Jefferson County Phase II (County Transportation Infrastructure Fund) with Brystar Contracting, Inc. This project is funded by County Energy Transportation Reinvestment Zone (CERTZ).

SEE ATTACHMENTS ON PAGES 871 - 871

Motion by: Commissioner Weaver
Second by: Commissioner Sinegal
In favor: County Judge Branick, Commissioner Arnold, Commissioner Weaver, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

5. Consider and approve specifications for Invitation for Bid (IFB 17-010/YS), Term Contract Crushed Slag (Gr. 1, Type D, Class 2) and Asphalt Products for Jefferson County.

SEE ATTACHMENTS ON PAGES 872 - 906

Motion by: Commissioner Weaver
Second by: Commissioner Sinegal
In favor: County Judge Branick, Commissioner Arnold, Commissioner Weaver, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

6. Consider, approve, and execute a contract renewal for (IFB 14-010/JW), Term Contract for Armored Car Services for Jefferson County with Rochester Armored Car Co., Inc. for a third one (1) year renewal from April 18, 2017 to April 17, 2018.

SEE ATTACHMENTS ON PAGES 907 - 907

Motion by: Commissioner Weaver
Second by: Commissioner Sinegal
In favor: County Judge Branick, Commissioner Arnold, Commissioner Weaver, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

7. Consider, approve, and execute a contract extension for (IFB 12-010/KJS), Term Contract for Crushed Slag (Gr. 1, Type D, Class 2) and Asphalt Products with Martin Asphalt Company for a period of thirty (30) days, extending the current contract expiration date from April 25, 2017 to May 25, 2017.

SEE ATTACHMENTS ON PAGES 908 - 908

Motion by: Commissioner Weaver
Second by: Commissioner Sinegal
In favor: County Judge Branick, Commissioner Arnold, Commissioner Weaver, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

8. Consider, approve, and execute Certificate of Completion for (JOC 14-050/DC), Emergency Repair of the Fire Alarm System/Downtown Jail with Construction Zone of Texas, LLC.

SEE ATTACHMENTS ON PAGES 909 - 909

Motion by: Commissioner Weaver
Second by: Commissioner Sinegal
In favor: County Judge Branick, Commissioner Arnold, Commissioner Weaver, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

9. Consider, approve, and execute a Spectrum Customer Service Order and Service Agreement contract with Spectrum for Hi-Speed Internet/WiFi Service and one additional outlet at The Jack Brooks Regional Airport Maintenance Facility for a charge of $84.98 on a month to month agreement and one-time installation charge of $99.00.

SEE ATTACHMENTS ON PAGES 910 - 913

Motion by: Commissioner Weaver
Second by: Commissioner Sinegal
In favor: County Judge Branick, Commissioner Arnold, Commissioner Weaver, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

10. Consider, approve, and execute a Spectrum Customer Service Order and Service Agreement contract with Spectrum for Business TV w/HD Converter and one additional outlet at The Jack Brooks Regional Airport Administration Building for a charge of $61.98 on a month to month agreement and one-time installation charge of $99.00.

SEE ATTACHMENTS ON PAGES 914 - 917

Motion by: Commissioner Weaver
Second by: Commissioner Sinegal
In favor: County Judge Branick, Commissioner Arnold, Commissioner Weaver, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

11. Consider and approve an auction of surplus property as authorized by Local Government Code §263.152 (a) (1) to be auctioned by Horn's Auction Inc. The auction is scheduled for Saturday, April 1, 2017 at 9:00 A.M.

SEE ATTACHMENTS ON PAGES 918 - 920

Motion by: Commissioner Weaver
Second by: Commissioner Sinegal
In favor: County Judge Branick, Commissioner Arnold, Commissioner Weaver, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

12. Consider and approve donation of salvage property as authorized by Local Government Code §263.152 (a) (4), by donating it to a charitable organization, Goodwill Industries.

SEE ATTACHMENTS ON PAGES 921 - 924

Motion by: Commissioner Weaver
Second by: Commissioner Sinegal
In favor: County Judge Branick, Commissioner Arnold, Commissioner Weaver, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

COUNTY AGRILIFE EXTENSION:

13. Consider and possibly approve out of state travel for Terrie Looney, Coastal and Marine Resources Agent and Regional coordinator for Texas, to attend the National Ocean Sciences Bowl Finals in Corvallis, OR. April18-April 14, 2017. (Registration and travel costs are being paid by the Ocean Leadership consortium.)

SEE ATTACHMENTS ON PAGES 925 - 927

Motion by: Commissioner Arnold
Second by: Commissioner Alfred
In favor: County Judge Branick, Commissioner Arnold, Commissioner Weaver, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

COUNTY AIRPORT:

14. Consider, possibly approve, and authorize the County Judge to execute an Office Lease Agreement between Jefferson County and Neches Helicopter Training for office space at Jack Brooks Regional Airport.

SEE ATTACHMENTS ON PAGES 928 - 938

Motion by: Commissioner Arnold
Second by: Commissioner Alfred
In favor: County Judge Branick, Commissioner Arnold, Commissioner Weaver, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

COUNTY AUDITOR:

15. Consider and approve budget transfer - Constable Pct.1 - additional cost for portable printers.

120-3065-425-3084	MINOR EQUIPMENT	$430.00	
120-3065-425-1098	OVERTIME ALLOWANCE		$430.00

SEE ATTACHMENTS ON PAGES 939 - 939

Motion by: Commissioner Arnold
Second by: Commissioner Sinegal
In favor: County Judge Branick, Commissioner Arnold, Commissioner Weaver, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

16. Consider and approve budget transfer - R&B Pct.4 - additional cost for repairs.

114-0405-431-4008	AUTOMOBILES AND TRUCKS	$5,000.00	

114-0405-431-4018	ROAD MACHINERY	$15,000.00	
114-0402-431-3079	CRUSHED STONE		$20,000.00

SEE ATTACHMENTS ON PAGES 940 - 940

Motion by: Commissioner Arnold
Second by: Commissioner Sinegal
In favor: County Judge Branick, Commissioner Arnold, Commissioner Weaver, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

17. Consider and approve budget transfer - JP Pct.7 - additional cost for newspaper.

120-2048-412-5021	DUES/SUBSCRIPTIONS	$140.00	
120-2048-412-4052	POSTAGE		$140.00

SEE ATTACHMENTS ON PAGES 941 - 941

Motion by: Commissioner Arnold
Second by: Commissioner Sinegal
In favor: County Judge Branick, Commissioner Arnold, Commissioner Weaver, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

18. Consider and approve budget amendment – Sheriff – reclass match on grant.

120-1024-491-5097	PARTICIPATION	$5,000.00	
120-3059-421-6002	COMPUTER EQUIPMENT		$5,000.00

SEE ATTACHMENTS ON PAGES 942 - 942

Motion by: Commissioner Arnold
Second by: Commissioner Sinegal
In favor: County Judge Branick, Commissioner Arnold, Commissioner Weaver, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

19. Consider and approve budget amendment – Crime Lab – cell phone allowance for director previously funded by Inmate Phone commission contract.

120-3060-421-2001	F.I.C.A. EXPENSE	$18.00	
120-3060-421-2002	EMPLOYEES' RETIREMENT	$42.00	
120-3060-421-2007	CELLULAR PHONE ALLOWANCE	$240.00	
120-3059-421-2001	F.I.C.A. EXPENSE		$18.00
120-3059-421-2002	EMPLOYEES' RETIREMENT		$42.00

120-3059-421-2007	CELLULAR PHONE ALLOWANCE		$240.00

SEE ATTACHMENTS ON PAGES 943 - 944

Motion by: Commissioner Arnold
Second by: Commissioner Sinegal
In favor: County Judge Branick, Commissioner Arnold, Commissioner Weaver, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

20. Consider and approve downgrading 48 (27-Sheriff, 4-Jail, 1-Auto Theft Task Force, 16-Marine Division) $75 cell phone allowances to $40 cell phone allowances and utilize the savings to add 4-$40 cell phone allowances to the Sheriff department and add 12-$40 cell phone allowances (10.5-Sheriff, 1-Crime Lab, and .5-Jail) previously funded by the Inmate Phone commission contract. This proposal will equalize all cell phone allowances to the $40 plan for all receiving allowances for departments and funds under the guidance of the Sheriff. This proposal will realize a total annual savings of $15,593 for all the departments and funds.

SEE ATTACHMENTS ON PAGES 945 - 946

Motion by: Commissioner Arnold
Second by: Commissioner Sinegal
In favor: County Judge Branick, Commissioner Arnold, Commissioner Weaver, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

21. Consider and approve downgrade of a Senior Equipment Operator position with an annual budget of $49,002 to an Equipment Operator position with an annual budget of $44,720 or 110% of the salary range and increase the budgeted salary for two other Equipment Operator positions by $1,244 each to an annual budget of $44,720 or 110% of the salary range. This will result in an annual savings of $2,242 including benefits.

Pct 2

SEE ATTACHMENTS ON PAGES 947 - 947

Motion by: Commissioner Arnold
Second by: Commissioner Sinegal
In favor: County Judge Branick, Commissioner Arnold, Commissioner Weaver, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

22. Regular County Bills check #430835 through checks #431097(030617), check #431098 through checks #431379(031317) and check #431401 through checks #431632(032017).

SEE ATTACHMENTS ON PAGES 948 - 979

Motion by: Commissioner Arnold
Second by: Commissioner Sinegal
In favor: County Judge Branick, Commissioner Arnold, Commissioner Weaver, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

COUNTY CLERK:

23. Consider and approve Election Service Contract and Lease Agreement between Jefferson County Clerk and the City of Beaumont for the May 6, 2017 Election.

SEE ATTACHMENTS ON PAGES 980 - 994

Motion by: Commissioner Sinegal
Second by: Commissioner Alfred
In favor: County Judge Branick, Commissioner Arnold, Commissioner Weaver, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

24. Consider and approve Election Service Contract and Lease Agreement between Jefferson County Clerk and Beaumont Independent School District for the May 6, 2017 Election.

SEE ATTACHMENTS ON PAGES 995 - 1009

Motion by: Commissioner Sinegal
Second by: Commissioner Alfred
In favor: County Judge Branick, Commissioner Arnold, Commissioner Weaver, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

COUNTY COMMISSIONERS:

25. Consider and possibly approve a Professional Services Agreement by and Between Jefferson County and Texas Property Assessed Clean Energy Authority for the Pace Program in Jefferson County, Texas pursuant to Texas Local Government code Chapter 399 (the PACE Act.)

SEE ATTACHMENTS ON PAGES 1010 - 1023

Motion by: Commissioner Sinegal
Second by: Commissioner Weaver
In favor: County Judge Branick, Commissioner Arnold, Commissioner Weaver, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

26. Receive and file executed Limited English Proficiency Sample Plan A1010 for Texas Department of Agriculture Community Development Block Grant Fund Contract for first-time sewer service.

SEE ATTACHMENTS ON PAGES 1024 - 1026

Motion by: Commissioner Arnold
Second by: Commissioner Alfred
In favor: County Judge Branick, Commissioner Arnold, Commissioner Weaver, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

27. Consider and possibly approve a Proclamation for the Julie Rogers 'Gift of Life' Program 2017 National Kick Butts Day.

SEE ATTACHMENTS ON PAGES 1027 - 1029

Motion by: Commissioner Alfred
Second by: Commissioner Arnold
In favor: County Judge Branick, Commissioner Arnold, Commissioner Weaver, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

28. Consider, possibly approve a Proclamation for Red Cross Month.

SEE ATTACHMENTS ON PAGES 1030 - 1031

Motion by: Commissioner Alfred
Second by: Commissioner Weaver
In favor: County Judge Branick, Commissioner Arnold, Commissioner Weaver, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

29. Receive and file executed Resolution supporting the establishment of the PACE Program for Jefferson County, TX and Required Report.

SEE ATTACHMENTS ON PAGES 1032 - 1083

Motion by: Commissioner Sinegal
Second by: Commissioner Weaver
In favor: County Judge Branick, Commissioner Arnold, Commissioner Weaver, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

30. Consider and possibly approve a Resolution to Establish Pace Program in Jefferson County, Texas pursuant to Texas Local Government code Chapter 399 (The PACE Act).

SEE ATTACHMENTS ON PAGES 1084 - 1134

Motion by: Commissioner Sinegal
Second by: Commissioner Weaver
In favor: County Judge Branick, Commissioner Arnold, Commissioner Weaver, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

31. Consider and possibly approve exempting the following group from paying for security. Reaud Honors College at Lamar University, Great Plains Honors Council – 2017 Annual Conference scheduled for April 1, 2017. They are requesting a guided courthouse tour estimated attendance 50 participants between 2:30pm and 4:00pm. The security expense will be paid via budgeted funds.

SEE ATTACHMENTS ON PAGES 1135 - 1135

Motion by: Commissioner Arnold
Second by: Commissioner Alfred
In favor: County Judge Branick, Commissioner Arnold, Commissioner Weaver, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

32. Consider, possibly approve, receive and file Certificate of Appointment and Oath of Office for Austin Cecil Walkes MD as the Health Authority for Jefferson County, Texas, pursuant to Texas Health and Safety Code, Sec. 121.024.

SEE ATTACHMENTS ON PAGES 1136 - 1144

Motion by: Commissioner Arnold
Second by: Commissioner Alfred
In favor: County Judge Branick, Commissioner Arnold, Commissioner Weaver, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

33. Consider and possibly approve the reappointment of Directors for the Jefferson County Drainage District No. 6 for four-year terms: Joshua W. Allen and Miriam K. Johnson as appointments of Judge Branick- Bart Owens and Charles "Chuck" Guillory as appointments of Commissioner Alfred- and William F. Miranda as an appointment of Commissioner Arnold. (Effective March 13, 2017).

    Table Commissioner Arnold's appointment

    SEE ATTACHMENTS ON PAGES 1145 - 1145

    Motion by: Commissioner Arnold
    Second by: Commissioner Alfred
    In favor: County Judge Branick, Commissioner Arnold, Commissioner Weaver, Commissioner Sinegal, Commissioner Alfred
    Action: APPROVED

ADDENDUMS

34. Consider, possibly approve and authorize the County Judge to execute an Amendment to Management Agreement between Jefferson County, Texas and SMG regarding management of Ford Park Entertainment Complex.

    SEE ATTACHMENTS ON PAGES 1146 - 1148

    Motion by: Commissioner Arnold
    Second by: Commissioner Alfred
    In favor: County Judge Branick, Commissioner Arnold, Commissioner Weaver, Commissioner Sinegal, Commissioner Alfred
    Action: APPROVED

35. Consider, possibly approve and authorize the County Judge to execute an Amendment to Management Agreement between Jefferson County, Texas and Global Spectrum, LP regarding management of Ford Park Entertainment Complex.

    SEE ATTACHMENTS ON PAGES 1149 - 1151

    Motion by: Commissioner Arnold
    Second by: Commissioner Alfred
    In favor: County Judge Branick, Commissioner Arnold, Commissioner Weaver, Commissioner Sinegal, Commissioner Alfred
    Action: APPROVED

36. Conduct a public hearing, consider, possibly approve, The Commissioners Court designating Jefferson County as a region in which record owners of commercial, industrial and large multifamily residential (5 or more dwelling units) real property may enter into written contracts to impose assessments on the property to repay the financing by the owners of permanent improvements fixed to the property intended to decrease water or energy consumption or demand, pursuant to Texas Local Government Code Chapter 399 (the "PACE Act.")

Open meeting 2:15pm 2 speakers in support close meetin 2:23pm

Motion by: Commissioner Arnold
Second by: Commissioner Alfred
In favor: County Judge Branick, Commissioner Arnold, Commissioner Weaver, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

COUNTY TAX ASSESSOR-COLLECTOR:

37. Consider and possibly approve a Resolution giving permission to the Sheriff to conduct an auction to sell property currently held by Jefferson County and the entities for which it collects. The auction will be held on the first Tuesday of May, 2017.

SEE ATTACHMENTS ON PAGES 1152 - 1152

Motion by: Commissioner Arnold
Second by: Commissioner Weaver
In favor: County Judge Branick, Commissioner Arnold, Commissioner Weaver, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

COUNTY TREASURER:

38. Receive and File Investment Schedule for February, 2017 including the year to date total earnings on County funds.

SEE ATTACHMENTS ON PAGES 1153 - 1155

Motion by: Commissioner Sinegal
Second by: Commissioner Alfred
In favor: County Judge Branick, Commissioner Arnold, Commissioner Weaver, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

ENGINEERING:

39. Consider and possibly approve a Replat of Orange Farms Subdivision, Lot 5 and the North Half of Lot 4, Block 2 into Lot 5A and Lot 5B. This subdivision is located off of Hillebrandt Road in Precinct No. 2, and is not within any ETJ. This plat meets all Engineering guidelines.

SEE ATTACHMENTS ON PAGES 1156 - 1157

Motion by: Commissioner Alfred
Second by: Commissioner Sinegal
In favor: County Judge Branick, Commissioner Arnold, Commissioner Weaver, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

40. Consider and possibly approve Utility Permit 03-U-17 to Trinity Bay Conservation District for sanitary sewer force main line to begin at Kiker Road and along Glen Road for 600 ft. This project is located in Precinct No.3.

SEE ATTACHMENTS ON PAGES 1158 - 1168

Motion by: Commissioner Alfred
Second by: Commissioner Sinegal
In favor: County Judge Branick, Commissioner Arnold, Commissioner Weaver, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

41. Consider and possibly approve Utility Permit 04-U-17 to West Jefferson County MWD for sewer force main line to Denley Road as part of the Cheek Community Sewer Improvement Project Phase V. This project is located in Precinct No. 4.

SEE ATTACHMENTS ON PAGES 1169 - 1178

Motion by: Commissioner Alfred
Second by: Commissioner Sinegal
In favor: County Judge Branick, Commissioner Arnold, Commissioner Weaver, Commissioner Sinegal, Commissioner Alfred
Action: APPROVED

RISK MANAGEMENT:

42. Consider and possibly approve the appointment of Clint Woods by Commissioner Brent Weaver, to the Southeast Texas Government Employee Benefits Pool Board of Trustees. He will be replacing Mitch Woods, whose appointment was effective January 1, 2017.

    Motion by: Commissioner Weaver
    Second by: Commissioner Alfred
    In favor: County Judge Branick, Commissioner Arnold, Commissioner Weaver, Commissioner Sinegal, Commissioner Alfred
    Action: APPROVED

43. Consider and possibly approve the appointment of Leslie Little by Judge Jeff Branick, to the Southeast Texas Government Employee Benefits Pool Board of Trustees. She will be replacing Mark Domingue, whose appointment was effective January 1, 2017.

    Motion by: Commissioner Weaver
    Second by: Commissioner Alfred
    In favor: County Judge Branick, Commissioner Arnold, Commissioner Weaver, Commissioner Sinegal, Commissioner Alfred
    Action: APPROVED

_____

Jeff R. Branick
County Judge

JEFFERSON COUNTY PURCHASING DEPARTMENT
Deborah L. Clark, Purchasing Agent

1149 Pearl Street, 1st Floor, Beaumont, TX 77701 409-835-8593 Fax 409-835-8456

LEGAL NOTICE
Advertisement for Invitation for Bids

February 13, 2017

Notice is hereby given that sealed bids will be accepted by the Jefferson County Purchasing Department for IFB 17-006/YS, Term Contract for Insecticides, Herbicides, Spray Adjuvants, and Adulticides for Jefferson County Mosquito Control District. **Specifications for this project may be obtained from the Jefferson County website, http://www.co.jefferson.tx.us/Purchasing/main.htm or by calling 409-835-8593.**

Bids are to be sealed and addressed to the Purchasing Agent with the bid number and name marked on the outside of the envelope. Bidders shall forward an original and two (2) copies of their bid to the address shown below. Jefferson County does not accept bids submitted electronically. Late bids will be rejected as non-responsive. Bids will be publicly opened and read aloud in the Jefferson County Commissioners' Courtroom at the time and date below. Bidders are invited to attend the sealed bid opening.

BID NAME:	**IFB 17-006/YS**
BID NO:	**Term Contract for Insecticides, Herbicides, Spray Adjuvants, and Adulticides for Jefferson County Mosquito Control District**
DUE DATE/TIME:	**11:00 AM CDT, Tuesday, March 14, 2017**
MAIL OR DELIVER TO:	**Jefferson County Purchasing Department 1149 Pearl Street, 1st Floor Beaumont, Texas 77701**

Any questions relating to these requirements should be directed to Yea-Mei Sauer, Contract Specialist, at 409-835-8593 or ysauer@co.jefferson.tx.us.

Jefferson County encourages Disadvantaged Business Enterprises to participate in the bidding process. Jefferson County does not discriminate on the basis of race, color, national origin, sex, religion, age or disability in employment or the provisions of services. Individuals requiring special accommodations are requested to contact our office at 409-835-8593 to make arrangements no later than seven (7) calendar days prior to the submittal deadline. Jefferson County reserves the right to accept or reject any or all proposals, to waive technicalities and to take whatever action is in the best interest of Jefferson County.

All interested firms are invited to submit a bid in accordance with the terms and conditions stated in this bid.

RESPONDENTS ARE STRONGLY ENCOURAGED TO CAREFULLY READ THE ENTIRE INVITATION.

Deborah Clark

Deborah L. Clark, Purchasing Agent
Jefferson County, Texas
Publish: Beaumont Enterprise & Port Arthur News – February 15, 2017 & February 22, 2017

ORIGINAL

IFB 17-006/YS
Term Contract for Insecticides, Herbicides, Spray Adjuvants, and Adulticides for Jefferson County Mosquito Control District
Bids due: 11:00 AM CDT, Tuesday, March 14, 2017

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Bid Submissions:

Bidder is responsible for submitting one (1) *original* bid copy to include a completed copy of this specifications packet in its entirety; and two (2) numbered bid *hard copies* to include at a minimum all pages requiring completion and/or marked with instructions to be returned with bid submission and any other documentation requested within these specifications.

Additionally, Bidder must monitor the Jefferson County Purchasing Department Website (below) to see if addenda or additional instructions have been posted. Failure to return all required forms could result in a response being declared as non-responsive.

http://www.co.jefferson.tx.us/purchasing/main.htm

Instructions to Bidders

1. Bid Submission

Bids must be submitted in complete original form by mail or messenger to the following address:

Jefferson County Purchasing Department
1149 Pearl Street, 3rd Floor
Beaumont, TX 77701

Bids will be accepted at the above address until the time and date specified herein, and immediately after will be publicly opened and read aloud.

Bidder shall submit bid in a tightly sealed opaque envelope or box, plainly marked "SEALED BID." The outside of the envelope of box shall also include the Bid Number, Bid Name, Bid Due Date, and the Bidder's Name and Address; and shall be addressed to the Purchasing Agent.

Late bids will not be accepted and will be returned unopened to the bidder.

All bids submitted in response to this invitation shall become the property of Jefferson County and will be a matter of public record available for review.

2. Bid Submissions During Time of Inclement Weather, Disaster, or Emergency

In case of inclement weather or any other unforeseen event causing the County to close for business on the date of a bid/proposal/statement of qualifications submission deadline, the closing will automatically be postponed until the next business day that County offices are open to the public. Should inclement weather conditions or any other unforeseen event cause delays in courier service operations, the County may issue an addendum to all known vendors interested in the project to extend the deadline. It will be the responsibility of the vendor to notify the county of their interest in the project should these conditions impact their ability to submit a bid/proposal/statement of qualifications submission before the stated deadline. The County reserves the right to make the final judgement call to extend any deadline.

Should an emergency or unanticipated event interrupt normal County processes, and bid/proposal/statement of qualifications submissions cannot be received by the Jefferson County Purchasing Department's office by the exact time specified in the IFB and urgent County requirements preclude amendment to the IFB, the time specified for receipt of bids will be deemed to be extended to the same time of day specified in the solicitation on the first business day on which normal County processes resume.

3. Courthouse Security

Bidders are advised that all visitors to the Courthouse must pass through Security. **Bidders planning to hand deliver bids must allow time to get through Security, as a delay in entering the Courthouse will not be accepted as an excuse for late submittal.** Mondays and Tuesdays are particularly heavy days. Bidders are strongly urged to plan accordingly.

4. Preparation of Bids

The bid shall be legibly printed in ink or typed.

If a unit price or extension already entered is to be altered, it shall be crossed out and initialed in ink by the bidder.

The bid shall be legally signed and shall include the complete address of the bidder.

Jefferson County is exempt from Federal and State Sales Taxes, and such taxes shall not be included in bid prices.

5. Signatures

All bids, notifications, claims, and statements must be signed by an individual authorized to bind the bidder. The individual signing certifies, under penalty of perjury, that he or she has the legal authorization to bind the bidder.

6. County Holidays – 2017:

January 16	Monday	Martin Luther King, Jr. Day
February 20	Monday	President's Day
April 14	Friday	Good Friday
May 29	Monday	Memorial Day
July 4	Tuesday	Independence Day
September 4	Monday	Labor Day
November 10	Friday	Veteran's Day
November 23 & 24	Thursday & Friday	Thanksgiving
December 25 & 26	Monday & Tuesday	Christmas
January 1, 2018	Monday	New Year's

7. Rejection or Withdrawal

Submission of additional terms, conditions or agreements with the bid document are grounds for deeming a bid non-responsive and may result in bid rejection. Jefferson County reserves the right to reject any and all bids and to waive any informalities and minor irregularities or defects in bids. Bids may be withdrawn in person by a bidder or authorized representative, provided their identity is made known and a receipt is signed for the bid, but only if the withdrawal is made prior to the time set for receipt of bids. Bids are an irrevocable offer and may not be withdrawn within 90 days after opening date.

8. Emergency/Declared Disaster Requirements

In the event of an emergency or if Jefferson County is declared a disaster area, by the County, State, or Federal Government, this Acceptance of Offer may be subjected to unusual usage. Contractor shall service the county during such an emergency or declared disaster under the same terms and conditions that apply during non-emergency/disaster conditions. The pricing as specified in this Acceptance of Offer shall apply to serving the County's needs regardless of the circumstances. If Contractor is unable to supply the services under the terms of the Acceptance of Offer, then Contractor shall provide proof of such disruption and a copy of the invoice from Contractor's supplier(s). Additional profit margin as a result of supplying services during an emergency or declared disaster shall not be permitted. In the event that additional equipment, supplies, and materials are required during the declared disaster, additional shipping, handling and drayage fees may apply.

9. Award

The bid will be awarded to the responsible, responsive bidder(s) whose bid, conforming to the solicitation, will be most advantageous to Jefferson County – price and other factors considered. Unless otherwise specified in this IFB, Jefferson County reserves the right to accept a bid in whole or in part, and to award by item or by group, whichever is deemed to be in the best interest of Jefferson County. Any bidder who is in default to Jefferson County at the time of submittal of the bid shall have that bid rejected. Jefferson County reserves the right to clarify any contractual terms with the concurrence of the Contractor; however, any substantial nonconformity in the offer, as determined by Jefferson County, shall be deemed non-responsive and the offer rejected.

In evaluating bids, Jefferson County shall consider the qualifications of the bidders, and, where applicable, operating costs, delivery time, maintenance requirements, performance data, and guarantees of materials and equipment. In addition, Jefferson County may conduct such investigation as it deems necessary to assist in the evaluation of a bid and to establish the responsibility, qualifications, and financial ability of the bidders to fulfill the contract.

Jefferson County reserves the right to award this contract on the basis of **lowest and best bid** in accordance with the laws of the State of Texas, to waive any formality or irregularity, to make awards to more than one offeror, and/or to reject any or all bids. In the event the lowest dollar offeror meeting specifications is not a awarded a contract, Offeror may appear before the Commissioners' Court and present evidence concerning Offeror responsibility after officially notifying the Office of the Purchasing Agent of Offeror's intent to appear.

10. Contract

A response to an IFB is an offer to contract with Jefferson County based upon the terms, conditions, and specifications contained in the IFB. Bids do not become contracts unless and until they are executed by Jefferson County, eliminating a formal signing of a separate contract. For that reason, all of the terms and conditions of the contract are contained in the IFB, unless any of the terms and conditions is modified by an IFB Amendment, a Contract Amendment, or by mutually agreed terms and conditions in the contract documents.

11. Waiver of Subrogation

Bidder and bidder's insurance carrier waive any and all rights whatsoever with regard to subrogation against Jefferson County as an indirect party to any suit arising out of personal or property damages resulting from bidder's performance under this agreement.

12. Fiscal Funding

A multi-year contract (if requested by the specifications) continuing as a result of an extension option must include fiscal funding out. If, for any reason, funds are not appropriated to continue the contract, said contract shall become null and void.

13. Bid Results

Bid results are not provided in response to telephone inquiries. A preliminary tabulation of bids received will be posted on the Purchasing web page (http://co.jefferson.tx.us/ purchasing/main.htm) as soon as possible following bid opening. A final tabulation will be posted following bid award, and will also be available for review in the Purchasing Department.

14. Changes and Addenda to Bid Documents

Each change or addendum issued in relation to this IFB document will be on file in the Office of the Purchasing Agent, and will be posted on the Purchasing web site as soon as possible. It shall be the bidder's responsibility to make inquiry as to change or addenda issued, and to monitor the web site. All such changes or addenda shall become part of the contract and all bidders shall be bound by such addenda. Information on all changes or addenda issued will be available at the Office of the County Purchasing Agent.

15. Specifications

Unless otherwise stated by the bidder, the bid will be considered as being in accordance with Jefferson County's applicable standard specifications, and any special specifications outlined in the bid document. References to a particular trade name, manufacturer's catalogue, or model number are made for descriptive purposes to guide the bidder in interpreting the requirements of Jefferson County, and should not be construed as excluding bids on other types of materials, equipment, and supplies. However, the bidder, if awarded a contract, will be required to furnish the particular item referred to in the specifications or description unless departure or substitution is clearly noted and described in the bid. Jefferson County reserves the right to determine if equipment/ product being bid is an acceptable alternate. All goods shall be new unless otherwise so stated in the bid. Any

unsolicited alternate bid, or any changes, insertions, or omissions to the terms and conditions, specifications, or any other requirements of the bid, may be considered non-responsive.

16. Delivery

Bids shall include all charges for delivery, packing, crating, containers, etc. Unless otherwise stated by the bidder (in writing on the included Bid Form), prices bid will be considered as being based on F.O.B. destination/delivered freight included.

17. Interpretation of Bid and/or Contract Documents

All inquiries shall be made within a reasonable time prior to the date and time fixed for the bid opening, in order that a written response in the form of an addendum, if required, can be processed before the bids are opened. Inquiries received that are not made in a timely fashion may or may not be considered.

18. Currency

Prices calculated by the bidder shall be stated in U.S. dollars.

19. Pricing

Prices shall be stated in units of quantity specified in the bid documents. In case of discrepancy in computing the amount of the bid, the unit price shall govern.

20. Notice to Proceed/Purchase Order

The successful bidder may not commence work under this contract until authorized to do so by the Purchasing Agent.

21. Certification

By signing the offer section of the Offer and Acceptance page, bidder certifies:

- The submission of the offer did not involve collusion or other anti-competitive practices.
- The bidder has not given, offered to give, nor intends to give at any time hereafter, any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor, or service to any public servant in connection with the submitted offer.
- The bidder hereby certifies that the individual signing the bid is an authorized agent for the bidder and has the authority to bind the bidder to the contract.

22. Definitions

"County" – Jefferson County, Texas.

"Contractor" – The bidder whose proposal is accepted by Jefferson County.

23. Minority-Women Business Enterprise Participation

It is the desire of Jefferson County to increase the participation of Minority (MBE) and women-owned (WBE) businesses in its contracting and procurement programs. While the County does not have any preference or set aside programs in place, it is committed to a policy of equitable participation for these firms.

General Conditions of Bidding and Terms of Contract

By execution of this document, the vendor accepts all general and special conditions of the contract as outlined below and in the specifications and plans.

1. Bidding

1.1 Bids. All bids must be submitted on the bid form furnished in this package.

1.2 Authorized Signatures. The bid must be executed personally by the vendor, duly authorized partner of the partnership, or duly authorized officer of the corporation. If executed by an agent, a power of attorney or other evidence of authority to act on behalf of the vendor shall accompany the bid to become a valid bid.

1.3 Late Bids. Bids must be in the office of the Jefferson County Purchasing Agent before or at the specified time and date bids are due. Bids received after the submission deadline shall be rejected as non-responsive and returned unopened.

1.4 Withdrawal of Bids Prior to Bid Opening. A bid may be withdrawn before the opening date by submitting a written request to the Purchasing Agent. If time allows, the bidder may submit a new bid. Bidder assumes full responsibility for submitting a new bid before or at the specified time and date bids are due. Jefferson County reserves the right to withdraw a request for bids before the opening date.

1.5 Withdrawal of Bids after Bid Opening. Bidder agrees that its offer may not be withdrawn or cancelled by the vendor for a period of ninety (90) days following the date and time designated for the receipt of bids unless otherwise stated in the bid and/or specifications.

1.6 Bid Amounts. Bids shall show net prices, extensions where applicable and net total. In case of conflict between unit price and extension, the unit price will govern. Any ambiguity in the bid as a result of omission, error, unintelligible or illegible wording shall be interpreted in the favor of Jefferson County.

1.7 Exceptions and/or Substitutions. All bids meeting the intent of the specifications and plans will be considered for award. Vendors taking exception to the specifications and plans, or offering substitutions, shall state these exceptions in the section provided. If bid is made on an article other than the one specified, which a bidder considers comparable, the name and grade of said article must be specified in the bid and sufficient specifications and descriptive data must accompany same to permit thorough evaluation. The absence of stated exceptions and/or substitutions shall indicate that the vendor has not taken any exceptions to the specifications and shall be responsible to perform in strict accordance with the specifications. As a matter of practice, Jefferson County rejects exception(s) and /or substitutions as non-responsive but reserves the right to accept any and/or all of the exception(s) and/or substitution(s) deemed to be in the best interest of Jefferson County.

1.8 Alternates. The Invitation for Bid and/or specifications may expressly allow bidder to submit an alternate bid. Presence of such an offer shall not be considered an indication of non-responsiveness.

1.9 Descriptions. Unless otherwise specified, any reference to make, manufacturer and/or model used in the bid specifications is merely descriptive and not restrictive, and is used only to indicate type, style, or quality of material desired.

1.10 Bid Alterations. Bids cannot be altered or amended after submission deadline. Any interlineations, alterations, or erasures made before opening time must be initialed by the signer of the bid, guaranteeing authenticity.

1.11 Tax Exempt Status. Jefferson County is exempt from federal excise tax and state sales tax. Unless the bid form or specifications specifically indicate otherwise, the bid price must be net, exclusive of above-mentioned taxes and will be so construed. Therefore, the bid price shall not include taxes.

1.12 Quantities. Quantities indicated are estimated quantities only and are not a commitment to buy. Approximate usage does not constitute an order, but only implies the probable quantity that will be used. Commodities will be ordered on an as-needed basis. Bidder is responsible for accurate final counts.

1.13 Bid Award. Award of contract shall be made to the most responsible, responsive bidder, whose offer is determined to be the best value, taking into consideration the relative importance of price. Jefferson County reserves the right to be the sole judge as to whether items bid will serve the purpose intended. Jefferson County reserves the right to accept or reject in part or in whole any bid submitted, and to waive any technicalities or informalities for the best interest of the County. Jefferson County reserves the right to award based upon individual line items, sections or total bid.

1.14 Silence of Specifications for Complete Units. All materials, equipment and/or parts that will become a portion of the completed work, including items not specifically stated herein but, necessary to render the service(s) complete and operational per the specifications, are to be included in the bid price. Vendor may be required to furnish evidence that the service, as bid, will meet or exceed these requirements.

1.15 Addenda. Any interpretations, corrections or changes to the specifications and plans will be made by addenda no later than forty-eight (48) hours prior to the bid opening. Addenda will be posted on the Purchasing web site. Vendors are responsible for monitoring the web site in order to remain informed on addenda. Vendors shall acknowledge receipt of all addenda with submission of bid.

1.16 General Bid Bond/Surety Requirements. Failure to furnish bid bond/surety, if requested, will result in bid being declared non-responsive. Non-responsive bids will not be considered for award.

1.17 General Insurance Requirements. Failure to furnish Affidavit of Insurance, if required in these specifications, will result in bid being declared non-responsive. Non-responsive bids will not be considered for award.

1.18 Responsiveness. A responsive bid shall substantially conform to the requirements of this Invitation to Bid and/or specifications contained herein. Bidders who substitute any other terms, conditions, specifications and/or requirements or who qualify their bids in such a manner as to nullify or limit their liability to the contracting entity shall have their bids deemed non-responsive. Also, bids containing any clause that would limit contracting authority shall be considered non-responsive. Examples of non-responsive bids include but shall not be limited to: a) bids that fail to conform to required delivery schedules as set forth in the bid request; b) bids with prices qualified in such a manner that the bid price cannot be determined, such as with vague wording that may include "price in effect at the time of delivery," and c) bids made contingent upon award of other bids currently under consideration.

1.19 Responsible Standing of Bidder. To be considered for award, bidder must at least: have the ability to obtain adequate financial resources, be able to comply with required or proposed delivery/completion schedule, have a satisfactory record of performance; have a satisfactory record of integrity and ethics, and be otherwise qualified and eligible to receive award.

1.20 Proprietary Data. Bidder may, by written request, indicate as confidential any portion(s) of a bid that contain proprietary information, including manufacturing and/or design processes exclusive to the vendor. Jefferson County will protect from public disclosure such portions of a bid, unless directed otherwise by legal authority, including existing Open Records Acts.

1.21 Public Bid Opening. Bidders are invited to be present at the opening of bids. After the official opening of bids, a period of not less than one week is necessary to evaluate bids. The amount of time necessary for bid evaluation may vary and is determined solely by the County. Following the bid evaluation, all bids submitted are available for public review.

2. Performance

2.1 Design, Strength, and Quality. Design, strength, and quality of materials and workmanship must conform to the highest standards of manufacturing and engineering practices. The apparent silence of specifications and/or plans as to any detailed description concerning any point shall be regarded as meaning that only the best commercial practices are to prevail. All interpretations of these specifications and/or plans shall be made on the basis of this statement.

2.2 Age and Manufacture. All tangible goods being bid must be new and unused, unless otherwise specified, in first-class condition, of current manufacture, and furnished ready to use. All items not specifically mentioned that are required for a complete unit shall be furnished.

2.3 Delivery Location. All deliveries will be made to the address(es) specified on the purchase order during normal working hours of 8:00 a.m. to 4:00 p.m., Monday through Friday, unless otherwise authorized by the Purchasing Agent or designee.

2.4 Delivery Schedule. Delivery time may be an important consideration in the evaluation of best value. The maximum number of days necessary for delivery ARO shall be stated in the space, if provided, on the bid form.

2.5 Delivery Charges. All delivery and freight charges, F.O.B. destination shown on Jefferson County purchase order, as necessary to perform contract are to be included in the bid price.

2.6 Installation Charges. All charges for assembly, installation and set-up shall be included in the bid price. Unless otherwise stated, assembly, installation and set-up will be required.

2.7 Operating Instructions and Training. Clear and concise operating instructions and descriptive literature will be provided in English, if requested. On-site detailed training in the safe and efficient use and general maintenance of item(s) purchased shall be provided as needed at the request of Jefferson County. Instructions and training shall be at no additional cost to the County.

2.8 Storage. Bidder agrees to provide storage of custom ordered materials, if requested, for up to thirty (30) calendar days.

2.9 Compliance with Federal, State, County, and Local Laws. Bids must comply with all federal, state, county and local laws, including, but not limited to, all applicable standard safety, emission, and noise control requirements. Any vehicles or equipment shall contain all standard safety, emission, and noise control requirements required for the types and sizes of equipment at the time of their manufacture. The contractor agrees, during the performance of work or service, to comply with all applicable codes and ordinances of Jefferson County or the State of Texas as they may apply, as these laws may now read, or as they may hereafter be changed or amended.

2.10 OSHA. The bidder will certify all equipment complies with all regulations and conditions stipulated under the Williams-Steiger Occupational Safety and Health Act of 1971, as amended. The successful bidder will further certify that all items furnished under this project will conform and comply with federal and State of Texas OSHA standards. The successful bidder will agree to indemnify and hold harmless Jefferson County for any and all damages that may be assessed against the County.

2.11 Patents and Copyrights. The successful vendor agrees to protect the County from claims involving infringements of patents and/or copyrights.

2.12 Samples, Demonstrations and Testing. At Jefferson County's request and direction, bidder shall provide product samples and/or testing of items bid to ensure compliance with specifications. Samples, demonstrations and/or testing may be requested at any point prior to or following bid award. Samples, demonstrations and/or testing may be requested upon delivery and/or any point during the term of resulting contract. All samples (including return thereof), demonstrations, and/or testing shall be at the expense of the bidder/vendor.

2.13 Acceptability. All articles enumerated in the bid shall be subject to inspection by an officer designated for that purpose by Jefferson County. If found inferior to the quality called for, or not equal in value to the specifications, deficient in workmanship or otherwise, this fact shall be certified to the Purchasing Agent, who shall have the right to reject the whole or any part of the same. Items

and/or work determined to be contrary to specifications must be replaced at the vendor's expense. Inferior items not retrieved by the vendor within thirty (30) calendar days, or an otherwise agreed upon time, shall become the property of the County. If disposal of such items warrants an expense, an amount equal to the disposal expense will be deducted from amounts payable to the vendor.

2.14 Maintenance. Maintenance required for equipment bid should be available in Jefferson County by a manufacturer authorized maintenance facility. Cost for this service shall be shown on the bid sheet as requested or on a separate sheet, as required. If Jefferson County opts to include maintenance, it shall be so stated in the purchase order and said cost will be included. Service will commence only upon expiration of applicable warranties and should be priced accordingly.

2.15 Material Safety Data Sheets. Under the "Hazardous Communications Act," common known as the "Texas Right to Know Act," a bidder must provide the user department, with each delivery, material safety data sheets which are applicable to hazardous substances defined in the Act. Failure of the bidder to furnish this documentation, will be cause to reject any bid applying thereto.

2.16 Evaluation. Evaluation shall be used as a determinant as to which services are the most efficient and/or most economical for the County. It shall be based on all factors having a bearing on price and performance of the items in the user environment. All bids are subject to tabulation by the Jefferson County Purchasing Department and recommendation to Jefferson County Commissioners' Court. Compliance with all bid requirements and needs of the using department are considered in evaluating bids. Pricing is not the only criteria for making a recommendation. The Jefferson County Purchasing Department reserves to right to contact any bidder, at any time, to clarify, verify or requirement information with regard to this bid.

3. Purchase Orders and Payment

3.1 Purchase Orders. A purchase order(s) shall be generated by the Jefferson County Purchasing Agent to the successful vendor. The purchase order number must appear on all itemized invoices and packing slips. The County will not be held responsible for any work orders placed and/or performed without a valid current purchase order number. Payment will be made for all services rendered and accepted by the contract administrator for which a valid invoice has been received.

3.2 Invoices. All invoices shall reference the Purchase Order number. Invoices shall reference the bid item number or a detailed description for each item invoiced. If an item purchased and itemized on the invoice does not correspond to an item in any of the categories awarded to the vendor, invoice shall reference the item as "N/C" to indicate that it is a non-contract item. This requirement is to assist the County in verifying contract pricing on all invoices. Payment will be made under terms of net thirty (30) days unless otherwise agreed upon by seller and the purchasing department.

3.3 Prompt Payment. In accordance with the State of Texas Prompt Payment Act, Article 601f V.T.C.S., payment will be made after receive and acceptance by the County of the merchandise ordered and of a valid invoice. Successful bidder(s) is required to pay subcontractors within ten (10) days after the successful bidder receives payment from the County.

3.4 Funding. Jefferson County is operated and funded on an October 1 to September 30 basis; accordingly, the County reserves the right to terminate, without liability to the County, any contract for which funding is not available.

4. Contract

4.1 Contract Definition. The General Conditions of Bidding and Terms of Contract, Specifications, Plans, Bidding Forms, Addenda, and any other documents made a part of this bid shall constitute the complete bid. This bid, when duly accepted by Jefferson County, shall constitute a contract equally binding between the successful bidder and Jefferson County.

4.2 Contract Agreement. Once a contract is awarded, the unit prices offered by the successful bidder shall remain firm for the term of the contract. Contract shall commence on date of award and,

upon agreement between vendor(s) and Jefferson County, may be renewed annually for up to four (4) additional years. **(OMIT if N/A or EDIT if Needed)**

4.3 Change Order. No different or additional terms will become part of this contract with the exception of a change order. No oral statement of any person shall modify or otherwise change, or affect the terms, conditions or specifications stated in the resulting contract. All change orders to the contract will be made in writing and at the discretion and approval of Jefferson County. No change order will be binding unless signed by an authorized representative of the County and the vendor.

4.4 Price Re-determination. A price re-determination may be requested at the time of annual renewal. All requests for price re-determination shall be in written form. Cause for such request, i.e., manufacturer's direct cost, postage rates, Railroad Commission rates, Federal/State minimum wage law, Federal/State unemployment taxes, F.I.C.A, Insurance Coverage Rates, etc., shall be substantiated in writing by the source of the cost increase. The bidder's past experience of honoring contracts at the bid price will be an important consideration in the evaluation of the lowest and best bid. Jefferson County reserves the right to accept or reject any/all requests for price re-determination as it deems to be in the best interest of the County.

4.5 Termination. Jefferson County reserves the right to terminate the contract for default if the bidder breached any of the terms therein, including warranties of bidder or if the bidder becomes insolvent or commits acts of bankruptcy. Such right of termination is in addition to and not in lieu of any other remedies which Jefferson County may have in law or equity. Default may be construed as, but not limited to, failure to deliver the proper goods and/or service within the proper amount of time, and/or to properly perform any and all services required to Jefferson County's satisfaction and/or to meet all other obligations and requirements. Contracts may be terminated without cause upon thirty (30) days' written notice to either party unless otherwise specified. Jefferson County reserves the right to award canceled contract to the next lowest bidder. Bidder, in submitting this bid, agrees that Jefferson County shall not be liable to prosecution for damages in the event that the County declares the bidder in default.

4.6 Conflict of Interest. Employees of the County are not permitted to maintain financial interest in, or receive payment, directly or indirectly, borrow from, lend to, invest in, or engage in any substantial financial transaction with any individual, organization, supplier, or subcontractor who does business with the County without disclosure. When conflict of interest is discovered, it shall be grounds for termination of contract.

4.7 Injuries or Damages Resulting from Negligence. Successful vendor shall defend, indemnify and save harmless Jefferson County and all its officers, agents and employees from all suits, actions, or other claims of any character, name and description brought for or on account of any injuries or damages received or sustained by any person, persons, or property on account of any negligent act or fault of the successful vendor, or of any agent, employee, subcontractor or supplier in the execution of, or performance under, any contract which may result from bid award. Successful vendor shall pay any judgment with cost which may be obtained against Jefferson County growing out of such injury or damages.

4.8 Interest by Public Officials. No public official shall have interest in this contract, in accordance with Texas Local Government Code.

4.9 Warranty. The successful vendor shall warrant that all materials utilized in the performance of this contract shall conform to the proposed specifications and/or all warranties as stated in the Uniform Commercial Code and be free from all defects in material, workmanship and title.

4.10 Uniform Commercial Code. The successful vendor and Jefferson County agree that both parties have all rights, duties, and remedies available as stated in the Uniform Commercial Code.

4.11 Venue. This agreement will be governed and construed according to the laws of the State of Texas. This agreement is performable in the County of Jefferson, Texas.

4.12 Sale, Assignment, or Transfer of Contract. The successful vendor shall not sell, assign, transfer or convey this contract, in whole or in part, without the prior written consent of Jefferson County.

4.13 Silence of Specifications. The apparent silence of these specifications as to any detailed description concerning any point, shall be regarded as meaning that only the best commercial practices are to prevail. All interpretations of these specifications shall be made on the basis of this statement.

Special Requirements/Instructions

The following requirements and instructions supersede General Requirements where applicable.

1. Bid Requirement

Each bidder shall ensure that required parts of the bid are completed with accuracy and submitted as per the requirements within this specifications packet, including any addenda.

Bidder is responsible for submitting one (1) *original* bid copy to include a completed copy of this specifications packet in its entirety; and two (2) **numbered bid *hard copies* to include at a minimum all pages requiring completion and/or marked with instructions to be returned with bid submission and any other documentation requested within these specifications.**

All bids shall be tightly sealed in an opaque envelope or box and plainly marked "SEALED BID." The outside of the envelope or box shall also include: Bid Number, Bid Name, Bid Due Date, Bidder's Name and Address; and shall be addressed to the Purchasing Agent.

Jefferson County shall not be responsible for any effort or cost expended in the preparation of a response to this IFB. All protests should be coordinated through the Purchasing Office prior to award recommendation to Commissioners' Court.

2. Vendor Registration: SAM (System for Award Management).

Vendors doing business with Jefferson County are **required** to be registered with The System for Award Management (SAM), with an "active" status. The System for Award Management (SAM) is the Official U.S. Government system that consolidated the capabilities of CCR/FedReg, ORCA, and EPLS. There is NO fee to register for this site. Entities may register at no cost directly from the SAM website at: https://www.sam.gov

Bid Respondents are strongly encouraged to review their firm's SAM (System for Award Management) status prior to Bid Submission.

3. Awarded Vendor(s): Submission of FORM 1295 (Texas Ethics Commission)

As of January 1, 2016, per House Bill 1295, the Texas Ethics Commission (TEC) requires **all awarded vendors** to complete a Certificate of Interested Parties (FORM 1295) at time of notification of award. **Awarded Vendors** must visit the TEC website link below, enter the required information on Form 1295, and print a copy of the completed form. The form will include a certification of filing that will contain a unique certification number.

At the time of award, the Jefferson County Purchasing Department will submit a request to the Awarded Vendor to both:

1. Submit FORM 1295 online via the Texas Ethics Commission website link below.

2. Submit a printed copy of FORM 1295, signed by an Authorized Agent of the Awarded Vendor and notarized to the Jefferson County Purchasing Department.

FORM 1295, Completion Instructions, and Login Instructions are available via the Texas Ethics Commission Website at: https://www.ethics.state.tx.us/whatsnew/elf_info_form1295.htm

4. Multiple Vendor Award

Jefferson County reserves the right to award this contract to more than one vendor at the County's discretion.

5. Delivery

If delivery is required, all items must be packaged so as to be protected from damage during shipping and handling. Any item(s) damaged in shipping must be replaced in kind, or repaired, by the contractor, at the discretion of, and at no additional charge to, Jefferson County.

6. Payment

Jefferson County will pay original invoices that clearly itemize the goods and/or services provided as to quantity, part number, description, price, applicable discount (if any), labor charges showing time differential, if applicable and if previously agreed to, and delivery, installation, and set-up costs, if applicable and if previously agreed to. Only charges as stated on the Bid Form(s) submitted as a part of the bid will be considered.

Invoices must indicate Jefferson County as applicable, the address to which the product(s) and/or service(s) were delivered, and the applicable purchase order number. Invoices will be matched to delivery tickets prior to payment; therefore, all delivery tickets should have an accurate description of the product(s) and/or service(s).

Invoices shall be submitted to: Jefferson County Auditing Department, Attention: Accounts Payable, 1149 Pearl Street, 7th floor, Beaumont, TX 77701.

7. Usage Reports

Jefferson County reserves the right to request, and receive at no additional cost, up to two (2) times during the contract period, a usage report detailing the products and/or services furnished to date under a contract resulting from this IFB. The reports must be furnished no later than five (5) working days after written request and itemize all purchases to date by Jefferson County department, description of each item purchased, including manufacturer, quantity of each item purchased, per unit and extended price of each item purchased, and total amount and price of all items purchased.

8. Insurance

The contractor (including any and all subcontractors as defined in Section 9.1.3 below) shall, at all times during the term of this contract, maintain insurance coverages with not less than the type and requirements shown below. Such insurance is to be provided at the sole cost of the contractor. These requirements do not establish limits of the contractor's liability.

All policies of insurance shall waive all rights of subrogation against the County, its officers, employees and agents; a copy of the policy wording or endorsement is required.

Contractor shall furnish Jefferson County with Certificate of Insurance naming Jefferson County as additional insured and will provide the actual policy wording or endorsement showing as such.

All insurance must be written by an insurer licensed to conduct business in the State of Texas.

Minimum Insurance Requirements

Public Liability, including Products & Completed Operations	$1,000,000
Excess Liability	$1,000,000

Property Insurance (policy below that is applicable to this project):
- Improvements & Betterments Policy: Improvements/Remodeling (for Lease Tenants)
- Builder's Risk Policy: Structural Coverage for Construction Projects
- Installation Floater Policy: Improvements/Alterations to Existing Structure

Workers' Compensation	Statutory Coverage (see attached)

9. Workers' Compensation Insurance

9.1 Definitions:

9.1.1 **Certificate of coverage ("Certificate")** – A copy of a certificate of insurance, a certificate of authority to self-insure issued by the commission, or a coverage agreement, DWC-81, DWC-82, DWC-83, or DWC-84 showing statutory workers' compensation insurance coverage for the person's or entity's employees providing services on a project, for the duration of the project.

9.1.2 **Duration of the project** – Includes the time from the beginning of the work on the project until the contractor's/person's work on the project has been completed and accepted by the governmental entity.

9.1.3 **Persons providing services on the project ("subcontractor") in article 406.096** – Includes all persons or entities performing all or part of the services under the contractor has undertaken to perform on the project, regardless of whether that person contracted directly

with the contractor and regardless of whether that person has employees. This includes, without limitation, independent contractors, subcontractor, leasing companies, motor carriers, owner-operators, employees of any such entity, or employees of any entity which furnishes persons to provide services on the project. "Services" includes, without limitation, providing, hauling or delivering equipment or materials, or providing labor, transportation, or other service related to a project. "Services" does not include activities unrelated to the project, such as food/beverage vendors, office supply deliveries, and delivery of portable toilets.

9.2 The Contractor shall provide coverage, based on proper reporting of classification code and payroll amounts and filing any coverage agreements, which meets the statutory requirements of Texas Labor Code, Section 401.011(44) for all employees of the contractor providing services on the project, for the duration of the project.

9.3 The Contractor must provide a certificate of coverage to the governmental entity prior to being awarded the contract – refer to Section 8 above.

9.4 If the coverage period shown on the Contractor's current certificate of coverage ends during the duration of the project, the Contractor must, prior to the end of the coverage period, file a new certificate of coverage with the governmental entity showing that coverage has been extended.

9.5 The Contractor shall obtain from each person providing services on a project, and provide to the governmental entity:

9.5.1 A certificate of coverage, prior to that person beginning work on the project, so the governmental entity will have on file certificates of coverage showing coverage for all persons providing services on the project; and

9.5.2 No later than seven (7) days after receipt by the Contractor, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate ends during the duration of the project.

9.6 The Contractor shall retain all required certificates of coverage for the duration of the project and for one (1) year thereafter.

9.7 The Contractor shall notify the governmental entity in writing by certified mail or personal delivery, within ten (10) days after the contractor knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project.

9.8 The Contractor shall post on each project site a notice, in the text, form and manner prescribed by the Texas Department of Workers' Compensation, informing all persons providing services on the project that they are required to be covered, and stating how a person may verify coverage and report lack of coverage.

9.9 The Contractor shall contractually require each person with whom it contracts to provide services on a project to:

9.9.1 Provide coverage, based on reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of Texas Labor Code, Section 401.011(44) for all its employees providing services on the project, for the duration of the project.

9.9.2 Provide to the Contractor, prior to that person beginning work on the project a certificate of coverage showing that coverage is being provided for all employees of the person providing services on the project, for the duration of the project.

9.9.3 Provide the Contractor, prior to the end of coverage period, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the project.

9.9.4 Obtain from each person with whom it contracts, and provide to the Contractor:

9.9.4.1 A certificate of coverage, prior to the other person beginning work on the project; and

9.9.4.2 the coverage period, if the coverage period shown on the current certificate of a new certificate of coverage showing extension of coverage, prior to the end of coverage ends during the duration of the project.

9.9.5 Retain all required certificates of coverage on file for the duration of the project and for one (1) year thereafter.

9.9.6 Notify the governmental entity in writing by certified mail or personal delivery, within ten (10) days after the person knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project; and

9.9.7 Contractually require each person with whom it contracts to perform as required by paragraphs 9.1. – 9.7., with the certificates of coverage to be provided to the person for whom they are providing services.

9.10 By signing this contract or providing or causing to be provided a certificate of coverage, the Contractor is representing to the governmental entity that all employees of the contractor who will provide services of the project will be covered by workers' compensation coverage for the duration of the project, that the coverage will be based on proper reporting of classification codes and payroll amounts, and that all coverage agreements will be filed with the appropriate insurance carrier or, in the case of a self-insured, with the commission's Division of Self-Insurance Regulation. Providing false or misleading information may subject the contractor to administrative penalties, criminal penalties, civil penalties, or other civil actions.

9.11 The Contractor's failure to comply with any of these provisions is a breach of contract by the Contractor which entitles the governmental entity to declare the contract void if the Contractor does not remedy the breach within ten (10) days after receipt of notice of breach from the governmental entity.

Minimum Specifications

The following requirements and specifications supersede General Requirements where applicable. Contact Yea-Mei Sauer, Contract Specialist (e-mail: ysauer@co.jefferson.tx.us; phone: 409-835-8593), regarding any questions or comments. Please reference bid number IFB 17-006/YS.

Scope

Vendor shall provide Insecticides, Herbicides, Spray Adjuvants, and Adulticides for the Jefferson County Mosquito Control District subject to the terms and conditions stated for an initial period **beginning on or about date of award.**

Bidders shall attach to bid form, a current material safety data sheet and current labels for each chemical. Failure to do so may result in rejection of bid.

Prices quoted shall be F.O.B. Jefferson County Mosquito Control District, Jefferson County Airport, 1st Street, Nederland, TX. Bidder bears freight charges. All prices must be written in ink or typewritten.

Quote unit prices extended to lump sum prices. The basis of the award will be the unit prices quoted. The County reserves the right to increase or decrease the quantity purchased based on weather conditions and availability of funds.

The County reserves the right to make the award to one (1) successful bidder or per line item.

Purchase orders for insecticides, herbicides, adjuvants, and adulticides will be released to the successful bidder(s) **on an as-needed basis. MINIMUM ORDERS ARE NOT ACCEPTABLE.**

Refer questions of a commercial nature to Jamey West, Contract Specialist at 409-835-8593; and questions of a technical nature to Kevin Sexton, Jefferson County Mosquito Control, at 409-719-5940.

A price re-determination may be considered by Jefferson County only at the twelve (12) month and twenty-four (24) month anniversary dates of the contract. All requests for price re-determination shall be in written form. Cause for such request, i.e., manufacturer's direct cost, postage rates, Railroad Commission rates, Federal/State minimum wage law, Federal/State unemployment taxes, F.I.C.A, Insurance Coverage Rates, etc., shall be substantiated in writing by the source of the cost increase. The bidder's past experience of honoring contracts at the bid price will be an important consideration in the evaluation of the lowest and best bid. Jefferson County reserves the right to accept or reject any/all requests for price re-determination as it deems to be in the best interest of the County.

Approximate Annual Usage

Items listed on the Bid Form indicate our approximate annual usage. No promise is made or implied that these quantities will be purchased. Orders will be placed on an **as-needed basis** for the duration of the contract. Purchase Orders will be released to the successful bidder(s) as required. **MINIMUM ORDERS ARE NOT ACCEPTABLE.**

Contract

This bid, when properly accepted by Jefferson County Commissioners' Court, shall constitute a contract equally binding between the successful bidder and Jefferson County. No different or additional terms will become a part of this contract.

The brand name references are for description only, and are not intended to exclude other herbicides or adjuvants of equal quality. Bidders desiring to substitute items may do so provided brand name is **indicated on Bid Form.** Change of container size may disqualify bid. Dilution ratio will be a factor in award of chemicals.

Bidders shall attach to bid form a current material safety data sheet and current labels for each chemical. Failure to do so may result in rejection of bid.

Item	Description
1	**MSMA herbicide** – to contain 6.00 lb. MSMA (Mono-sodium Acid Methanearsonate) plus surfactant per gallon
2	**Tordon 101** – to contain 10.2% 4-amino3,5,6-trichloropicolinic acid (picloram), tri-isopropanolomine salt 39.6% 2,4-Dichlorophenoxyacetric acid, tri-isopropanolomiane salt.
3	**Roundup herbicide or equivalent** – to contain 41.0% by weight Isopropylamine Salt of Glyphosate
4	**Rodeo herbicide or equivalent** – to contain 53.5% by weight Isopropylamine Salt of Glyphosate
5	**Nalco Trol II or equivalent** – water soluble spray drift control agent
6	**Aqua-King or equivalent** – product must be a non-ionic aquatic surfactant approved for use in the State of Texas, contain 90% active ingredient (excluding alcohols, fatty acids, oils ethylene glycol or diethylene glycol), a minimum of 80% surfactant load, possess an HLB (hydrophilic to lipophilic balance) ratio of 12 to 17, a maximum of 10% isopropyl alcohol, have a flash point greater than 200 degrees F., and contain an anti-foaming agent that will provide instantaneous foam breakdown when agitation ceases.
7	**Malathion insecticide** – concentrate to contain a minimum of 9.9 lb. of malathion per gallon (96.5% by weight active ingredient). Product offered must have current approval in Texas for both aerial and ground ULV application against adult mosquitoes. Bulk shipments only.
8	**Scourge insecticide** – concentrate to contain 1.51 lb. Resmethrin (18% by weight active ingredient) and 4.51 lb. Piperonyl Butoxide Technical (54% by weight active ingredient) per gallon. Product offered must have current approval in Texas for ground ULV application against adult mosquitoes.
9	**Envion 30/30 insecticide or equivalent** - water compatible concentrate in 2.52 lb. Permethrin (30.0% by weight) and 2.52 lb. Piperonyl Butoxide (30.0% by weight) per gallon. Product offered must have current approval in Texas for aerial and ground ULV application against adult mosquitoes.
10	**Duet Adulticide or equivalent** – 1.00% Prallethrin: = 0.085 lbs. of Technical Prallethrin per gallon. Chemical name = (RS) – 2 methyl-4-oxo-3-(2-propynl) cyclopent-2-enyl- (1RS)-cis, trans-chyrsanthemate. 5.00 % Sumethrin: = 0.370 lbs. of Technical Sumethrin per gallon. Chemical name = 3-Phenoxbenzyl- (1RS, 3 RS; 1RS, 3SR) -2,-2dimethyl-3-(2-methylprop-1-enyl) cyclopropanecarboxlate. 5.00% PBO = 0.370 lbs. Technical Pepronyl Butoxide per gallon. Chemical name = Pyperonyl Butoxide. Returnable 275 gallon stainless steel totes with 2.5 inch quick connect hose attachment. Successful bidder will deliver full containers and pick up empty containers at no additional charge

Bidder Information Form

Instructions: Complete the form below. Please provide legible, accurate, and complete contact information. PLEASE PRINT.

Bid Name & Number: IFB 17-006/YS, Term Contract for Insecticides, Herbicides, Spray Adjuvants, and Adulticides for Jefferson County Mosquito Control District

Bidder's Company/Business Name: ADAPCO, LLC

Bidder's TAX ID Number: 59-2574523

Contact Person: Kathy Russell **Title:** Contract Manager

Phone Number (with area code): (407) 328-6519

Alternate Phone Number if available (with area code): (800) 367-6059

Fax Number (with area code): (866) 330-9888

Email Address: bids@myadapco.com

Mailing Address (Please provide a physical address for bid bond return, if applicable):

_____
Address

_____
City, State, Zip Code

OFFER AND ACCEPTANCE FORM

OFFER TO CONTRACT

To Jefferson County:

We hereby offer and agree to furnish the materials or service in compliance with all terms, conditions, specifications, and amendments in the Invitation for Bid and any written exceptions in the offer. We understand that the items in this Invitation for Bid, including, but not limited to, all required certificates are fully incorporated herein as a material and necessary part of the contract.

The undersigned hereby states, under penalty of perjury, that all information provided is true, accurate, and complete, and states that he/she has the authority to submit this bid, which will result in a binding contract if accepted by Jefferson County.

We acknowledge receipt of the following amendment(s): None, _____, _____, _____.

I certify, under penalty of perjury, that I have the legal authorization to bind the firm hereunder:

ADAPCO, LLC
Company Name

550 Aero Ln.
Address

Sanford, FL 32771
City State Zip

Signature of Person Authorized to Sign

Jason Trumbetta
Printed Name

Duly Authorized
Title

For clarification of this offer, contact:

Kathy Russell
Name

(407) 328-6519 (866) 330-9888
Phone Fax

bids@myadapco.com
E-mail

Bidder Shall Return Completed Form with Offer.

Acceptance of Offer

The Offer is hereby accepted for the following items: Term Contract for Insecticides, Herbicides, Spray Adjuvants, and Adulticides for Jefferson County Mosquito Control District. Contract Term: One (1) year from date of award with an option to renew for four (4) additional years.

The Contractor is now bound to sell the materials or services listed by the attached contract and based upon the Invitation for Bid, including all terms, conditions, specifications, amendments, etc., and the Contractor's Offer as accepted by Jefferson County.

This contract shall henceforth be referred to as Contract No. 17-006/YS, Term Contract for Insecticides, Herbicides, Spray Adjuvants, and Adulticides for Jefferson County Mosquito Control District. The Contractor has not been authorized to commence any billable work or to provide any material or service under this contract until Contractor receives a purchase order and/or a notice to proceed from the Jefferson County Purchasing Agent.

Countersigned:

Jeff R. Branick
County Judge

Date

Attest:

Carolyn L. Guidry
County Clerk

Bidder Shall Return Completed Form with Offer.

Bid Form

Item	Est Qty. (Gal.)	Description	Brand bid	MSDS Labels Attached	Price per Gallon	Total Price
1	700	MSMA Herbicide – 2.5 gal. container			$ No Bid	$
2	700	Tordon 101 Herbicide or equivalent – 2.5 gal. container			$ No Bid	$
3	700	Roundup Herbicide or equivalent – 2.5 gal. container			$ No Bid	$
4	100	Rodeo Herbicide or equivalent – 2.5 gal. container			$ No Bid	$
5	100	Nalco Trol II or equivalent – 2.5 gal. (or smaller) container			$ No Bid	$
6	400	Aqua-King Surfactant or equivalent – 2.5 gal. (or smaller) container			$ No Bid	$
7	20,000	Malathion Insecticide – **bulk shipment only**		Yes	$ 48.70/gl	$ 974,000.00
		ADAPCO will provide technical support, droplet testing, calibrations if required.				
8	250	Scourge Insecticide – 5 gal. containers	Scourge 18-54	Yes	$ 495.47/gl	$ 123,867.50
		ADAPCO will provide technical support, droplet testing, calibrations if required.				
9	600	Envion 30/30 insecticide – 2.5 gal. containers	Aqua Perm-X UL 30-30	Yes	$ 99.98/gl	$ 59,988.00
		ADAPCO will provide technical support, droplet testing, calibrations if required.				
10	1,375	Duet Adulticide 275 gal. steel containers			$ No Bid	$

Bidders shall attach to bid form a current material safety data sheet and current labels for each chemical. Failure to do so may result in rejection of bid.

Acknowledgment of Addenda (if any):

Addendum 1 None Date Received_____

Addendum 2 _____ Date Received_____

Addendum 3 _____ Date Received_____

Bidder Shall Return Completed Form with Offer.

Vendor References

Please list at least three (3) companies or governmental agencies (preferably a municipality) where the same or similar products and/or services as contained in this specification package were recently provided.

THIS FORM MUST BE RETURNED WITH YOUR BID.

REFERENCE ONE

Government/Company Name: Harris County TX Auditor

Address: 6104 Dixie Dr, Houston, TX 77087

Contact Person and Title: Mustapha Debboun or Nancy Garcia

Phone: (713) 440-4800 Fax: (713) 755-2892

Contract Period: Ongoing/Fiscal Year Scope of Work: Mosquito Control Chemicals, Equipment and Technology

REFERENCE TWO

Government/Company Name: Chambers County, TX

Address: 207 Airport Rd., Anahuac, TX 77514

Contact Person and Title: Lawrence Lewis

Phone: (409) 267-2720 Fax:

Contract Period: Ongoing/Fiscal Year Scope of Work: Mosquito Control Chemicals, Equipment and Technology

REFERENCE THREE

Government/Company Name: Brazoria County, TX

Address: 1380 County Rd 213, Angleton, TX 77515

Contact Person and Title: Francesca Henderson

Phone: (979) 864-1532 Fax:

Contract Period: Ongoing/Fiscal Year Scope of Work: Mosquito Control Chemicals, Equipment and Technology

Bidder Shall Return Completed Form with Offer.

Signature Page

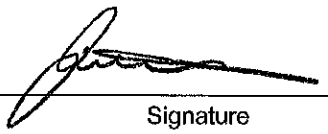
As permitted under Article 4413 (32c) V.A.C.S., other governmental entities may wish to participate under the same terms and conditions contained in this contract (i.e., piggyback). In the event any other entity participates, all purchase orders will be issued directly from and shipped directly to the entity requiring supplies/services. Jefferson County shall not be held responsible for any orders placed, deliveries made or payment for supplies/services ordered by another entity. Each entity reserves the right to determine their participation in this contract.

Would bidder be willing to allow other governmental entities to piggyback off this contract, if awarded, under the same terms and conditions? ..... **Yes** [X] **No** [ ]

This bid shall remain in effect for ninety (90) days from bid opening and shall be exclusive of federal excise and state and local sales tax (exempt).

The undersigned agrees, if this bid is accepted, to furnish any and all items upon which prices are offered, at the price and upon the terms and conditions contained in the Invitation for Bid, Conditions of Bidding, Terms of Contract, and Specifications and all other items made a part of the accepted contract.

The undersigned affirms that they are duly authorized to execute the contract, that this company, corporation, firm, partnership or individual has not prepared this bid in collusion with any other bidder, and that the contents of this bid as to prices, terms or conditions of said bid have not been communicated by the undersigned nor by any employee or agent to any other bidder or to any other person(s) engaged in this type of business prior to the official opening of this bid. And further, that neither the bidder nor their employees nor agents have been for the past six (6) months directly nor indirectly concerned in any pool or agreement or combination to control the price of goods or services on, nor to influence any person to bid or not to bid thereon.

ADAPCO, LLC Bidder (Entity Name)	 Signature
55 Aero Ln. Street & Mailing Address	Jason Trumbetta Print Name
Sanford, FL 32771 City, State & Zip	March 8, 2017 Date Signed
(407) 328-6519 Telephone Number	(866) 330-9888 Fax Number
bids@myadapco.com E-mail Address	

Bidder Shall Return Completed Form with Offer.

Conflict of Interest Questionnaire

CONFLICT OF INTEREST QUESTIONNAIRE — FORM CIQ

For vendor doing business with local governmental entity

This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session.

This questionnaire is being filed in accordance with Chapter 176, Local Government Code, by a vendor who has a business relationship as defined by Section 176.001(1-a) with a local governmental entity and the vendor meets requirements under Section 176.006(a).

By law this questionnaire must be filed with the records administrator of the local governmental entity not later than the 7th business day after the date the vendor becomes aware of facts that require the statement to be filed. *See* Section 176.006(a-1), Local Government Code.

A vendor commits an offense if the vendor knowingly violates Section 176.006, Local Government Code. An offense under this section is a misdemeanor.

OFFICE USE ONLY

Date Received

1 **Name of vendor who has a business relationship with local governmental entity.**

ADAPCO, LLC

2 [x] **Check this box if you are filing an update to a previously filed questionnaire.**

(The law requires that you file an updated completed questionnaire with the appropriate filing authority not later than the 7th business day after the date on which you became aware that the originally filed questionnaire was incomplete or inaccurate.)

3 **Name of local government officer about whom the information in this section is being disclosed.**

Mosquito Control Dept.

Name of Officer

This section (item 3 including subparts A, B, C, & D) must be completed for each officer with whom the vendor has an employment or other business relationship as defined by Section 176.001(1-a), Local Government Code. Attach additional pages to this Form CIQ as necessary.

A. Is the local government officer named in this section receiving or likely to receive taxable income, other than investment income, from the vendor?

[ ] Yes [x] No

B. Is the vendor receiving or likely to receive taxable income, other than investment income, from or at the direction of the local government officer named in this section AND the taxable income is not received from the local governmental entity?

[ ] Yes [x] No

C. Is the filer of this questionnaire employed by a corporation or other business entity with respect to which the local government officer serves as an officer or director, or holds an ownership interest of one percent or more?

[ ] Yes [x] No

D. Describe each employment or business and family relationship with the local government officer named in this section.

Distribution of Mosquito Control Chemicals and Equipment

4

Tom Heller

Signature of vendor doing business with the governmental entity

March 8, 2017

Date

Adopted 8/7/2015

Bidder Shall Return Completed Form with Offer.

Local Government Officer

Conflicts Disclosure Statement - OFFICE USE ONLY

LOCAL GOVERNMENT OFFICER CONFLICTS DISCLOSURE STATEMENT

FORM CIS

This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session.

This is the notice to the appropriate local governmental entity that the following local government officer has become aware of facts that require the officer to file this statement in accordance with Chapter 176, Local Government Code.

OFFICE USE ONLY

Date Received

1 **Name of Local Government Officer**

2 **Office Held**

3 **Name of vendor described by Sections 176.001(7) and 176.003(a), Local Government Code**

4 **Description of the nature and extent of employment or other business relationship with vendor named in item 3**

5 **List gifts accepted by the local government officer and any family member, if aggregate value of the gifts accepted from vendor named in item 3 exceeds $100 during the 12-month period described by Section 176.003(a)(2)(B).**

Date Gift Accepted _____ Description of Gift _____

Date Gift Accepted _____ Description of Gift _____

Date Gift Accepted _____ Description of Gift _____

(attach additional forms as necessary)

6 **AFFIDAVIT**

I swear under penalty of perjury that the above statement is true and correct. I acknowledge that the disclosure applies to each family member (as defined by Section 176.001(2), Local Government Code) of this local government officer. I also acknowledge that this statement covers the 12-month period described by Section 176.003(a)(2)(B), Local Government Code.

_____
Signature of Local Government Officer

AFFIX NOTARY STAMP / SEAL ABOVE

Sworn to and subscribed before me, by the said _____, this the _____ day of _____, 20_____, to certify which, witness my hand and seal of office.

_____ _____ _____
Signature of officer administering oath | Printed name of officer administering oath | Title of officer administering oath

Adopted 8/7/2015

Good Faith Effort (GFE) Determination Checklist

This information must be submitted with your bid.

Bidder intends to utilize subcontractors/subconsultants in the fulfillment of this contract (if awarded).
☐ Yes ☒ No

Instructions: In order to determine if a "Good Faith Effort" was made in soliciting HUBs for subcontracting opportunities, the following checklist and supporting documentation shall be completed by the Prime Contractor/Consultant, and returned with the Prime Contractor/ Consultant's bid. This list contains the **minimum** efforts that should be put forth by the Prime Contractor/Consultant when attempting to achieve or exceed the goals of HUB Subcontractor participation. The Prime Contractor/Consultant may extend his/her efforts in soliciting HUB Subcontractor participation beyond what is listed below.

Did the Prime Contractor/Consultant . . .

☒ Yes	☐ No	1. To the extent practical, and consistent with standard and prudent industry standards, divide the contract work into the smallest feasible portions, to allow for maximum HUB Subcontractor participation?
☐ Yes	☒ No	2. **Notify** in writing a reasonable number of HUBs, allowing sufficient time for effective participation of the planned work to be subcontracted?
☐ Yes	☒ No	3. **Provide** HUBs that were genuinely interested in bidding on a subcontractor, adequate information regarding the project (i.e., plans, specifications, scope of work, bonding and insurance requirements, and a point of contract within the Prime Contractor/Consultant's organization)?
☐ Yes	☒ No	4. **Negotiate** in good faith with interested HUBs, and not reject bids from HUBs that qualify as lowest and responsive bidders?
☐ Yes	☒ No	5. **Document** reasons HUBs were rejected? Was a written rejection notice, including the reason for rejection, provided to the rejected HUBs?
☐ Yes	☒ No	6. If Prime Contractor/Consultant has zero (0) HUB participation, **please explain the reasons why.**

If "No" was selected, please explain and include any pertinent documentation with your bid.
If necessary, please use a separate sheet to answer the above questions.

Jason Trumbetta
Printed Name of Authorized Representative

Signature

Duly Authorized
Title

March 8, 2017
Date

Bidder Shall Return Completed Form with Offer.

Notice of Intent (NOI) to Subcontract with Historically Underutilized Business (HUB)

This information must be submitted with your bid.

Bidder intends to utilize subcontractors/subconsultants in the fulfillment of this contract (if awarded).
☐ Yes ☒ No

Instructions for Prime Contractor/Consultant: Bidder shall submit this form with the bid; however, the information below may be submitted after contract award, but prior to beginning performance on the contract. Please submit one form for each HUB Subcontractor/Subconsultant with proper signatures, per the terms and conditions of your contract.

Contractor Name: ADAPCO, LLC HUB: p Yes p No

Address: 550 Aero Ln. Sanford, FL 32771
Street City State Zip

Phone (with area code): (407) 328-6519 Fax (with area code): (866) 330-9888

Project Title & No.: Term Contract for Insecticides, Herbicides, Spray Adjuvants and Adulticides

Prime Contract Amount: $ Unknown at this time

HUB Subcontractor Name: None

HUB Status (Gender & Ethnicity): _____

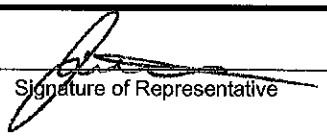
Certifying Agency: ☐ Tx. Bldg & Procurement Comm. ☐ Jefferson County ☐ Tx Unified Certification Prog.

Address: _____
Street City State Zip

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

Jason Trumbetta, Duly Authorized Printed Name of Contractor Representative	 Signature of Representative	March 8, 2017 Date
Printed Name of HUB	Signature of Representative	Date

NOTE: NOTHING ON THIS NOTICE OF INTENT FORM IS INTENDED TO CONFER ANY RIGHTS, EXPRESSED OR IMPLIED, TO ANY THIRD PARTIES.

Pre-Approval for Subcontractor Substitutions must be obtained from the Jefferson County Purchasing Agent's Representative. The "HUB Subcontractor/Subconsultant Change Form" must be completed and faxed to 409-835-8456.

Bidder Shall Return Completed Form with Offer.

Historically Underutilized Business (HUB) Subcontracting Participation Declaration Form

PAGE 1 OF 4

This information must be submitted with your bid.

Bidder intends to utilize subcontractors/subconsultants in the fulfillment of this contract (if awarded).
☐ Yes ☒ No

Prime Contractor: ADAPCO, LLC HUB: ☐ Yes ☒ No

HUB Status (Gender & Ethnicity): None

Address: 550 Aero Ln, Sanford, FL 32771
Street City State Zip

Phone (with area code): (407) 328-6519 Fax (with area code): (866) 330-9888

Project Title & No.: Term Contract for Insecticides, Herbicides Spray Adjuvants and Adulticides IFB/RFP No.: IFB 12-011/JW

Total Contract: $ Unknown at this time Total HUB Subcontract(s): $

Construction HUB Goals: 12.8% MBE:: % 12.6% WBE: %

Sub-goals: 1.7 African-American, 9.7% Hispanic, 0.7% Native American, 0.8% Asian American.
Use these goals as a guide to diversify.

FOR HUB OFFICE USE ONLY:

Verification date HUB Program Office reviewed and verified HUB Sub information Date: Initials:

PART I. HUB SUCONTRACTOR DISCLOSURE

HUB Subcontractor Name: None

HUB Status (Gender & Ethnicity):

Certifying Agency: ☐ Texas Bldg & Procurement Comm. ☐ Texas Unified Certification Prog.

Address:
Street City State Zip

Contact person: Title:

Phone (with area code): Fax (with area code):

Proposed Subcontract Amount: $ Percentage of Prime Contract: %

Description of Subcontract Work to be Performed:

Bidder Shall Return Completed Form with Offer.

Historically Underutilized Business (HUB) Subcontracting Participation Declaration Form

HUB SUBCONTRACTOR DISCLOSURE

PART I: Continuation Sheet **(Duplicate as Needed)**

HUB Subcontractor Name: _____

HUB Status (Gender & Ethnicity): _____

Certifying Agency: ☐ Tx. Bldg & Procurement Comm. ☐ Jefferson County ☐ Tx Unified Certification Prog.

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

_____

HUB Subcontractor Name: _____

HUB Status (Gender & Ethnicity): _____

Certifying Agency: ☐ Tx. Bldg & Procurement Comm. ☐ Jefferson County ☐ Tx Unified Certification Prog.

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

_____

All HUB Subcontractor Participation may be verified with the HUB Subcontractor(s) listed on Part I.

Bidder Shall Return Completed Form with Offer.

Historically Underutilized Business (HUB) Subcontracting Participation Declaration Form

PART II: STATEMENT OF NON-COMPLIANCE FOR NOT MEETING HUB SUBCONTRACTING GOALS

Please complete Good Faith Effort (GFE) Checklist and attach any supporting documentation.

Our firm was unable to meet the HUB goals for this project for the following reasons:

- ☐ All subcontractors to be utilized are "Non-HUBs." *(Complete Part III)*
- ☐ HUBs were solicited but did not respond.
- ☐ HUBs solicited were not competitive.
- ☐ HUBs were unavailable for the following trade(s):
- ☒ Other: Subcontractors will not be used.

Was the Jefferson County HUB Office contacted for assistance in locating HUBs? ☐ Yes ☐ No

PART III: DISCLOSURE OF OTHER "NON-HUB" SUBCONTRACTS

The bidder shall use this area to provide a listing of all "Non-HUB" Subcontractors, including suppliers, that will perform under this project. A list of those "Non-HUB" Subcontractors the bidder selects, after bid submission, shall be provided to the Purchasing Office not later than five (5) calendar days after being notified that bidder is the apparent low bidder. A list of those "Non-HUB" Subcontractors that are selected after contract award must be provided **immediately** after their selection.

Subcontractor Name: None

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

Subcontractor Name: _____

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

Bidder Shall Return Completed Form with Offer.

Historically Underutilized Business (HUB)
Subcontracting Participation Declaration Form

PAGE 4 OF 4

Subcontractor Name: _____

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

Subcontractor Name: _____

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

I hereby certify that I have read the *HUB Program Instructions and Information*, truthfully completed all applicable parts of this form, and **attached any necessary support documentation as required.** I fully understand that intentionally falsifying information on this document may result in my not receiving a contract award or termination of any resulting contract.

Name (print or type): Jason Trumbetta

Title: Duly Authorized

Signature: _____

Date: March 8, 2017

E-mail address: bids@myadapco.com

Contact person that will be in charge of invoicing for this project:

Name (print or type): Kim Coffey

Title: Customer Service

Date: March 8, 2017

E-mail address: orders@myadapco.com

Bidder Shall Return Completed Form with Offer.

Residence Certification/Tax Form

Pursuant to Texas Government Code §2252.001 *et seq.*, as amended, Jefferson County requests Resident Certification. §2252.001 *et seq.* of the Government Code provides some restrictions on the awarding of governmental contracts; pertinent provisions of §2252.001 are stated below:

(3) "Nonresident bidder" refers to a person who is not a resident.

(4) "Resident bidder" refers to a person whose principal place of business is in this state, including a contractor whose ultimate parent company or majority owner has its principal place of business in this state.

☐ I certify that _____ [company name] is a Resident Bidder of Texas as defined in Government Code §2252.001.

☒ I certify that ADAPCO, LLC [company name] is a Nonresident Bidder as defined in Government Code §2252.001 and our principal place of business is 550 Aero Ln. Sanford, FL (city and state).

Taxpayer Identification Number (T.I.N.):	59-2574523
Company Name submitting bid/proposal:	ADAPCO, LLC
Mailing address:	550 Aero Ln., Sanford, FL 32771
If you are an individual, list the names and addresses of any partnership of which you are a general partner:	

Property: List all taxable property owned by you or above partnerships in Jefferson County.

Jefferson County Tax Acct. No.*	Property address or location**
None	

* This is the property amount identification number assigned by the Jefferson County Appraisal District.

** For real property, specify the property address or legal description. For business property, specify the address where the property is located. For example, office equipment will normally be at your office, but inventory may be stored as a warehouse or other location.

Bidder Shall Return Completed Form with Offer.

Bid Affidavit

The undersigned certifies that the bid prices contained in this bid have been carefully reviewed and are submitted as correct and final. Bidder further certifies and agrees to furnish any and/or all commodities upon which prices are extended at the price offered, and upon the conditions contained in the specifications and the Notice to Bidders.

STATE OF Florida COUNTY OF Seminole

BEFORE ME, the undersigned authority, a Notary Public in and for the State of Florida,

on this day personally appeared Jason Trumbetta (name), who

after being by me duly sworn, did depose and say:

"I, Jason Trumbetta (name) am a duly authorized officer of/agent

for ADAPCO, LLC (name of firm) and have been duly authorized to execute the

foregoing on behalf of the said ADAPCO, LLC (name of firm).

I hereby certify that the foregoing bid has not been prepared in collusion with any other bidder or other person or persons engaged in the same line of business prior to the official opening of this bid. Further, I certify that the bidder is not now, nor has been for the past six (6) months, directly or indirectly concerned in any pool or agreement or combination, to control the price of services/commodities bid on, or to influence any person or persons to bid or not to bid thereon."

Name and address of bidder: ADAPCO, LLC

550 Aero Ln., Sanford, FL 32771

Fax: (866) 330-9888 Telephone# (407) 328-6519

by: Jason Trumbetta (print name) Title: Duly Authorized

Signature:

SUBSCRIBED AND SWORN to before me by the above-named Jason Trumbetta on

this the 8th day of March, 2017.

Notary Public in and for the State of FL

Kathryn A. Russell

KATHRYN A RUSSELL
MY COMMISSION #FF061805
EXPIRES December 7, 2017
(407) 398-0153 FloridaNotaryService.com

Bidder Shall Return Completed Form with Offer.

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ADAPCO

Creating value, growing together

ADAPCO GOOD FAITH EFFORT POLICY WITH SUPPLIER INFORMATION ATTACHED.

To Whom It May Concern:

ADAPCO is one of the leading distributors of innovative insecticide products, technology, and equipment to the professional mosquito control industries. ADAPCO, Inc. (an acronym for **A**llen, **D**an **A**nd **P**ete **CO**mpany) was founded by Allen Wooldridge, Pete Pederson and Dan Boyd in Orlando, FL in 1985. Since that time ADAPCO has grown into one of the largest distributor of products to the professional mosquito control industry, with products from over 20 well respected manufacturers. ADAPCO takes pride in partnering with manufacturers that are dedicated to improving the mosquito control industry through research and new product development, resulting in a wide range of the best quality products available for mosquito control.

One longtime supplier for ADAPCO is Automatic Coax and Cable, Inc. of Sanford FL. I have attached their ***Minority, Women & Service Disabled Veteran Business Certification***. They provide cables used in our Mosquito Control Equipment.

We currently employ 29 employees. We are committed to partnering with a diverse range of vendors and suppliers to provide products and services that meet or exceed our customers' needs which will in turn enable us to meet our goal of serving our customers better than anyone else can serve them.

ADAPCO continues to evaluate vendors and suppliers to find the industry experience, insight and capability needed to deliver products. We believe that small businesses should be given the maximum practicable opportunity to provide goods and services for which they are technically and financially qualified. Small businesses will include those owned and controlled by women, companies certified as owned by socially and economically disadvantaged individuals, companies certified as being located in a historically under-utilized business zone, and by veterans, including service-disabled veterans.

ADAPCO will strive to cultivate relationships with small businesses to incorporate these companies into our network of vendors and suppliers whenever possible. Where ever the need for chemicals, facilities and maintenance, leases, office and printing supplies, PC hardware, services, software, testing equipment are required, we will build these relationships so that our company can provide business opportunities to the most qualified and diverse businesses in order to help us achieve our business goals.

Our process for distribution of mosquito control chemicals and equipment would be as follows:

As a distributor ADAPCO orders products from our various manufacturers and we request shipments of product directly from our manufacturer to our customers requested shipping address. We may also request shipment from our various bonded and insured contracted warehouses located throughout the U.S.

ADAPCO
550 Aero Ln
Sanford, FL 32771
www.myadapco.com

P 1 800 367 0659
www.azelisamericas.com

azelis SPECIALTY AGRI/HORTI

ADAPCO

Creating value, growing together

Orders are submitted to ADAPCO (orders@myadapco.com or via phone to Inside sales - 800-367-0659). ADAPCO releases product either directly from the manufacturer or from one of our warehouses located throughout the US and will ask the warehouse to ship via ADAPCO's approved list of professional certified freight carriers. Carrier selection can be dependent on service times and current freight rates. Product is shipped via freight carrier directly to the customer address requested and product is released at time of signature from the customer.

ADAPCO continues to search websites provided by customers for all bids with regards to choosing Veteran owned; Minority, Woman, Disadvantaged Businesses entities whenever possible.

If you should have any questions or concerns please contact me at 407-328-6519 or via email at krussell@myadapco.com. For a quick snapshot of ADAPCO's mosquito control related database management, equipment, chemicals and services, please visit our website at www.myadapco.com.

Regards,

Kathy Russell

Kathy Russell
Bid Manager

Attachment: Office of Supplier Diversity Automatic Coax and Cable, Inc.



State of Florida

Minority, Women & Service-Disabled Veteran

Business Certification

Automatic Coax and Cable, Inc.

Is certified under the provisions of
287 and 295.187, Florida Statutes for a period from:

September 30, 2015 to September 30, 2017

Torey Alston, Executive Director

Florida Department of Management Services
Office of Supplier Diversity

KODADIS-01 GAIKWADSM

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 11/17/2016

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Willis of New York, Inc. c/o 26 Century Blvd P.O. Box 305191 Nashville, TN 37230-5191	CONTACT NAME: Willis Towers Watson Certificate Center PHONE (A/C, No, Ext): (877) 945-7378 FAX (A/C, No): (888) 467-2378 E-MAIL ADDRESS: certificates@willis.com
INSURED Adapco, Inc. 550 Aero Lane Sanford, FL 32771	INSURER(S) AFFORDING COVERAGE — NAIC # INSURER A : Indian Harbor Insurance Company — 36940 INSURER B : Commerce & Industry Insurance Company — 19410 INSURER C : Insurance Company of the State of Pennsylvania — 19429 INSURER D : INSURER E : INSURER F :

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY							
	CLAIMS-MADE X OCCUR			US00074856LI16A	09/30/2016	09/30/2017	EACH OCCURRENCE	$ 1,000,000
							DAMAGE TO RENTED PREMISES (Ea occurrence)	$ 100,000
							MED EXP (Any one person)	$ 5,000
							PERSONAL & ADV INJURY	$ 1,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	$ 2,000,000
	X POLICY PRO-JECT LOC						PRODUCTS - COMP/OP AGG	$ 2,000,000
	OTHER:							$
B	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident)	$ 1,000,000
	X ANY AUTO			2305103	11/15/2016	11/15/2017	BODILY INJURY (Per person)	$
	X OWNED AUTOS ONLY / SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	HIRED AUTOS ONLY / NON-OWNED AUTOS ONLY						PROPERTY DAMAGE (Per accident)	$
								$
	UMBRELLA LIAB OCCUR						EACH OCCURRENCE	$
	EXCESS LIAB CLAIMS-MADE						AGGREGATE	$
	DED RETENTION $							$
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY						X PER STATUTE OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y/N: N	N / A		WC 12852277	11/15/2016	11/15/2017	E.L. EACH ACCIDENT	$ 1,000,000
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$ 1,000,000
							E.L. DISEASE - POLICY LIMIT	$ 1,000,000
B	Auto Liability			2305104	11/15/2016	11/15/2017	Any Auto - CSL	1,000,000
C	Work Comp & Emp Liab			WC 12852278	11/15/2016	11/15/2017	See Attached	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
Re: IFB 12-011/JW, Term Contract for Insecticides, Herbicides, Spray Adjuvants, and Adulticides for Jefferson County Mosquito Control District

CERTIFICATE HOLDER

JEFFERSON COUNTY PURCHASING DEPARTMENT
Attn: Deborah L. Clark
1001 Pearl Street, 3rd Floor
Beaumont, TX 77701

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

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ADDITIONAL COVERAGE SCHEDULE

COVERAGE	LIMITS
POLICY TYPE: Workers Compensation and Employers' Liability **CARRIER: Insurance Company of the State of Pennsylvania** **POLICY TERM: 11/15/2016 - 11/15/2017** **POLICY NUMBER: WC 12852278**	**Per Statute** **$1,000,000 E.L. Each Accident** **$1,000,000 E.L. Disease Each Employee** **$1,000,000 E.L. Disease Policy Limit**

FYFANON® ULV MOSQUITO
INSECTICIDE

ULTRA LOW VOLUME CONCENTRATE INSECTICIDE

FOR USE ONLY BY FEDERAL, STATE, TRIBAL, OR LOCAL GOVERNMENT OFFICIALS RESPONSIBLE FOR PUBLIC HEALTH OR VECTOR CONTROL, OR BY PERSONS CERTIFIED IN THE APPROPRIATE CATEGORY OR OTHERWISE AUTHORIZED BY THE STATE OR TRIBAL LEAD PESTICIDE REGULATORY AGENCY TO PERFORM ADULT MOSQUITO CONTROL APPLICATIONS, OR BY PERSONS UNDER THEIR DIRECT SUPERVISION.

ACTIVE INGREDIENT:	
*Malathion	**96.5%**
INERT INGREDIENTS:	**3.5%**
TOTAL	**100.0%**

*O,O-dimethyl phosphorodithioate of diethyl mercaptosuccinate
Contains 9.9 lbs. malathion per gallon

KEEP OUT OF REACH OF CHILDREN
CAUTION

IN CASE OF MEDICAL EMERGENCY INVOLVING THIS PRODUCT, CALL TOLL FREE, DAY OR NIGHT 1-866-303-6950

SEE ADDITIONAL PRECAUTIONARY STATEMENTS AND DIRECTIONS FOR USE IN BOOKLET.

Net Contents: 5 Gallons

EPA Reg. No. 67760-34

EPA Est. No. 39578-TX-1

Cheminova, Inc.
P.O. Box 110566
Research Triangle Park, NC 27709
Product of Denmark
800-548-6113

10038481 03192015

®FYFANON is a trademark of Cheminova A/S

CHEMINOVA
HELPING YOU GROW

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Harmful by swallowing, inhalation or skin contact. Avoid contact with skin. Avoid breathing spray mist.

FIRST AID **This product is an organophosphate and is a cholinesterase inhibitor.**	
IF SWALLOWED:	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to by a poison control center or doctor. • Do not give anything by mouth to an unconscious person.
IF INHALED:	• Move person to fresh air. • If person is not breathing, call 911 or ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice.
IF ON SKIN OR CLOTHING:	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
IF IN EYES:	• Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-866-303-6950 for emergency medical treatment information.	

NOTE TO PHYSICIAN:
This product is a cholinesterase inhibitor. Treat symptomatically. Atropine is antidotal.

PERSONAL PROTECTIVE EQUIPMENT

Some materials that are chemical-resistant to this product are barrier laminate, butyl rubber, nitrile rubber, and viton. If you want more options, follow the instructions for category F on an EPA chemical-resistance category selection chart.

For all formulations and use patterns – mixers, loaders, applicators, flaggers, and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves
- Shoes plus socks

Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

ENGINEERING CONTROLS STATEMENTS

Pilots must use an enclosed cockpit in a manner that is consistent with the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d)(4-6)]. Pilots must wear the PPE required on this labeling for applicators.

USER SAFETY RECOMMENDATIONS

User should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to aquatic organisms, including fish and invertebrates. Use care when applying in or to an area which is adjacent to any body of water, and do not apply when weather conditions favor drift from target area. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product. When applying as a wide area mosquito adulticide, before making the first application in a season, it is advisable to consult with the state or tribal agency charged with primary responsibility for pesticide regulation to determine if other regulatory requirements exist. This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply or allow to drift onto blooming crops or weeds while bees are actively visiting the treatment area, except when applications are made to prevent or control a threat to public and/or animal health determined by a state, tribal or local public health or vector control agency on the basis of documented evidence of disease-causing agents in vector mosquitoes or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort. When applying as a wide area mosquito adulticide, do not apply over bodies of water (lakes, rivers, permanent streams, natural ponds, commercial fish ponds, swamps, marshes or estuaries), except when necessary to target areas where adult mosquitoes are present, and weather conditions will facilitate movement of applied material away from the water in order to minimize incidental deposition into the water body.

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

PHYSICAL OR CHEMICAL HAZARDS

Do not use or store near heat or open flame.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage and disposal.

PESTICIDE STORAGE: Fyfanon ULV Mosquito should be stored in the original unopened container in a secure, dry place. Do not contaminate with other pesticides or fertilizers. Fyfanon ULV Mosquito should never be heated above 55° C (131° F), and should not be stored for long periods of time at a temperature in excess of 25°C (77°F).

PESTICIDE DISPOSAL: To avoid wastes, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry).

CONTAINER DISPOSAL:

Nonrefillable containers (equal to or less than 5 gallons): Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available.
Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Nonrefillable containers (greater than 5 gallons): Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. **Triple rinse as follows:** Empty the remaining contents into application equipment or mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank and store rinsate for later use or disposal. Repeat this procedure two more times.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. For use by federal, state, tribal, or local government officials responsible for public health or vector control, or by persons certified in the appropriate category or otherwise authorized by the state or tribal lead pesticide regulatory agency to perform adult mosquito control applications, or by persons under their direct supervision.

MOSQUITO CONTROL IN POPULATED AND RURAL AREAS PRECAUTIONS AND RESTRICTIONS

Before making the first application in a season, it is advisable to consult with the state or tribal agency with primary responsibility for pesticide regulation to determine if other regulatory requirements exist.

RESTRICTIONS

- Do not apply more than 0.23 lb/ai/A/day.
- Only treat when mosquitoes are swarming or biting. Do not re-treat a site more than 3 times in any one week. However, more frequent treatments may be made to prevent or control a threat to public and/or animal health determined by a state, tribal or local health or vector control agency on the basis of documented evidence of disease causing agents in vector mosquitoes or the occurrence of mosquito-borne diseases in animal or human populations, or if specifically approved by the state or tribe during a natural disaster effort.
- Apply when wind speed is greater than or equal to 1 mph.
- Do not apply by fixed wing aircraft at height less than 100 feet, or by helicopter at a height less than 75 feet unless specifically approved by the state or tribe based on public health needs.

PRECAUTIONS

- IMPORTANT: IN AREAS WHERE AUTOMOBILES, TRAILERS, TRUCKS AND PLEASURE BOATS ARE PRESENT, undiluted spray droplets of Fyfanon ULV Mosquito will permanently damage vehicle paint finishes unless the aircraft used for the ultra low volume application meets all of the specifications listed under AERIAL APPLICATION.

AERIAL APPLICATION

Adult Mosquitoes on Rangeland, Pasture, and Other Uncultivated Non-Agricultural Areas (Wastelands, Roadsides)
Spray equipment must be adjusted so that the volume median diameter produced is less than 60 microns (Dv 0.5 < 60 um) and that 90% of the spray is contained in droplets smaller than 100 microns (Dv 0.9 < 100 um). The effects of flight speed and, for non-rotary nozzles, nozzle angle on the droplet size spectrum must be considered. Directions from the equipment manufacturer or vendor, pesticide registrant or a test facility using a wind tunnel and laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra. Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rate(s) are properly calibrated. Adult mosquito control over cities, towns, and other areas where automobiles, trailers, trucks, and pleasure boats are present: Apply 2.6 to 3.0 fluid ounces of Fyfanon ULV Mosquito per acre. Apply only when weather conditions are favorable. Wind and rising air currents may cause undesirable spray drift and reduce insect control. See Precautions and Restrictions for additional instructions.

GROUND-BASED APPLICATION

Spray equipment must be adjusted so that the volume median diameter is less than 30 microns (Dv 0.3 < 30 um) and that 90% of the spray is contained in droplets smaller than 50 microns (Dv 0.9 < 50 um). Directions from the equipment manufacturer or vendor, pesticide registrant or test facility using laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra. Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rate(s) are properly calibrated.

Thermal Aerosols or Fogs
For control of adult mosquitoes with thermal aerosols or fogs. Apply Fyfanon ULV Mosquito at the rate of 3.9 - 5.2 gallons Fyfanon ULV Mosquito in 100 gallons of finished solution by ground equipment delivering 40 gallons per hour at a vehicle speed of 5 miles per hour to treat a swath width of 300 feet (equivalent to 180 acres per hour). At 3.9 gallons Fyfanon per 100 gallons of finished solution this is equivalent to 0.08 lbs active/acre. At 5.2 gallons per 100 gallons of finished solution, this is equivalent to 0.11 lbs active/acre.

*There is a great variation in the chemical composition of fuel oils which may be used as thermal fog solvents. These differences may cause sludge and/or affect the solubility of the Fyfanon ULV Mosquito.

Nonthermal Aerosols
Adult Mosquito Control - Control of adult mosquitoes over a 300-foot swath can be obtained with nonthermal aerosols of Fyfanon ULV Mosquito using the following rates at the indicated vehicle speeds:

Rates for Fyfanon ULV Mosquito

Undiluted
Apply as follows:

Lbs.A.I./Acre/Day	Application Rates Fluid Ounces per Minute at Vehicle Speeds				Fluid Ounces of Fyfanon ULVMosquito per acre
	5 mph	10 mph	15 mph	20 mph	
0.03 – 0.06*	1.0 - 2.1	2.0 - 4.3	3.0 - 6.3	4.0 - 8.6	0.38 - 0.75

*Use higher rate of application when vegetation is dense and/or mosquito populations are heavy.

OPERATING EQUIPMENT
Each nonthermal aerosol generator used for dispersal of Fyfanon ULV Mosquito to control adult mosquitoes must have minimum capability of producing the droplet spectrum described under GROUND-BASED APPLICATION. The initial determination of droplet size is made after the unit is installed in a vehicle and prior to its use in mosquito control operations. Recheck the unit frequently to insure that proper droplet size is maintained for each operation. Determination of droplet size every two months is usually sufficient if the unit has been maintained in good operating condition. Equipment manufacturer's instructions setting forth cleaning and maintenance of the unit must be followed. The unit must be inspected before each operation to correct any leaks or obstructions in the spray system; to detect whether the nozzle, hoses, or other parts are worn and need replacement; to insure that the flow meter is properly calibrated and to determine that the pressure recommended by the manufacturer is being maintained.

Flow Rate - Must be regulated by accurate flow meter
- Not greater than 1 gallon per hour at 5 mph; 2 gallons per hour at 10 mph; 3 gallons per hour at 15 mph, or 4 gallons per hour at 20 mph

Nozzle Direction - Rear of the vehicle
- Upward at an angle of 45° or more

Vehicle Speed - Not greater than 20 mph
- Shut off spray equipment when vehicle is stopped

IMPORTANT: Spray droplets of undiluted Fyfanon ULV Mosquito will permanently damage automobile paint unless all the conditions described and recommended in this label are met. If accidental exposure does occur, the vehicle should be washed at once.

WARRANTY DISCLAIMER

Cheminova warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, CHEMINOVA MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

INHERENT RISKS OF USE

It is impossible to eliminate all risks associated with use of this product. Crop injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperatures, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of Cheminova or the Seller. All such risks shall be assumed by Buyer and User. Buyer and User agree to hold Cheminova and the Seller harmless for any claims related to such factors.

LIMITATION OF REMEDIES

To the extent consistent with applicable law, the exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability, or other legal theories), shall be limited to one of the following, at Cheminova's election:

(1) Refund of purchase price paid by buyer or user for product bought, or
(2) Replacement of amount of product used.

To the extent consistent with applicable law, Cheminova shall not be liable for consequential, incidental, or special damages or losses in any matter.

The terms of the Warranty Disclaimer above and this Limitation of Remedies cannot be varied by any written or verbal statements or agreements. No employee or sales agent of Cheminova or the Seller is authorized to vary or exceed the terms of the Warranty Disclaimer or this Limitation of Remedies in any manner.

SAFETY DATA SHEET

SECTION 1 – IDENTIFICATION

Product Identifier : **FYFANON ULV MOSQUITO**
EPA Reg. No. : **67760-34**
Product Use : Insecticide

Supplier's name and address:

Cheminova, Inc.
One Park Drive, Suite 150
PO Box 110566
Research Triangle Park, NC, USA
27709
Phone #: (919) 474-6600 (8:00 AM to 5:00 PM EST, Monday to Friday)

Manufacturer's name and address:

Cheminova A/S
PO Box 9
DK-7620
Lemvig, Denmark

Emergency Telephone #: 1-866-303-6950 (Medical Emergencies)
1-800-424-9300 (24 Hr. Chemtrec Number)

SDS Prepared by: Cheminova Inc.
SDS Preparation date: August 19, 2003
Revision date: May 27, 2015
Revision reason: GHS Revision

SECTION 2 – HAZARDS IDENTIFICATION

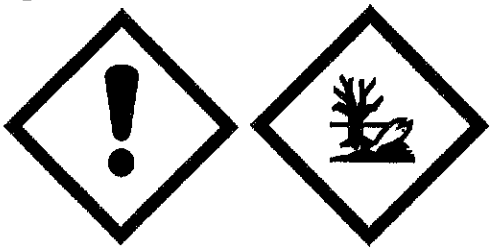
GHS Signal Word:

Warning

Classification:

Health	Environmental	Physical
Skin Irritation – Category 2 Eye Irritation – Category 2B	Aquatic Toxicity – Acute 1 Aquatic Toxicity – Chronic 1	Not applicable

GHS Pictogram:



Hazard Statements:

Causes skin irritation.
Causes eye irritation.
Very toxic to aquatic life.
Very toxic to aquatic life with long lasting effects.

Precautionary Statements:

Prevention:

Wash hands thoroughly after handling.
Wear protective gloves.
Avoid release to the environment.

Response:

If on skin: Wash with plenty of water.

For specific treatment, refer to product label.
If skin irritation occurs: Get medical advice/attention.
Take off contaminated clothing and wash it before reuse.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.
Collect spillage.

Storage:

Not applicable.

Disposal:

Dispose of contents/container according to label directions.

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS #	% (weight)
Malathion (O,O-dimethyl phosphorodithioate of diethyl mercaptosuccinate)	121-75-5	60.00 – 100.00

This material is classified as hazardous under OSHA regulations (29 CFR 1910.1200).

SECTION 4 – FIRST AID MEASURES

IF SWALLOWED:
- Call a poison control center or doctor immediately for treatment advice.
- Have a person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to do so by a poison control center or doctor.
- Do not give anything by mouth to an unconscious person.

IF INHALED:
- Move person to fresh air.
- If person is not breathing, call 911 or ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.
- Call poison control center or doctor for further treatment advice.

IF ON SKIN OR CLOTHING:
- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15-20 minutes.
- Call a poison control center or doctor for treatment advice.

IF IN EYES:
- Hold eye open and rinse slowly and gently with water for 15-20 minutes.
- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
- Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-866-303-6950 for emergency medical treatment information.

Note to physician: This product is a cholinesterase inhibitor. Treat symptomatically. Atropine is antidotal.

Signs and symptoms of short-term (acute) exposure

Inhalation : Fyfanon (malathion) is a cholinesterase inhibitor of low mammalian toxicity. However storage at too high temperature may induce formation of the much more toxic and synergistic contaminant isomalathion (LD50 acute oral, rat = 89 mg/kg). Malathion and isomalathion can affect you when breathed in and can cause organophosphorous poisoning. Symptoms of poisoning may include headache, nausea, vomiting, blurred vision, tightness in chest, drooling, frothing of mouth and nose, convulsions, coma and death.

Skin : Direct skin contact may result in little or no irritation. Malathion and isomalathion can be rapidly absorbed through all skin surfaces. Causes symptoms similar to those listed for inhalation.

Eyes : Direct contact causes eye irritation. Malathion and isomalathion can be rapidly absorbed through all skin and eye surfaces. Causes symptoms similar to those listed for inhalation.

Ingestion : Malathion and isomalathion are poisons through ingestion. Causes symptoms similar to those listed for inhalation.

Effects of long-term (chronic) exposure

: Repeated ingestion may cause severe weight loss.

Conditions aggravated by overexposure

: Prolonged or repeated overexposures may cause behavioral changes.

SECTION 5 – FIRE FIGHTING MEASURES

Fire hazards/conditions of flammability

: This product is considered non-flammable. Material will decompose rapidly when exposed to heat (>212° F/100° C) and flame, increasing the risk of explosion. Heat of decomposition may cause closed containers to build up pressure and explode.

Flammability classification (OSHA 29 CFR 1910.1200)

: Non-flammable.

Oxidizing properties : None known

Explosion data: Sensitivity to mechanical impact / static discharge

: Not expected to be sensitive to mechanical impact or static discharge.

Suitable extinguishing media

: Carbon dioxide or dry chemical for small fires. For large fires, use water spray or foam.

Special fire-fighting procedures/equipment

: Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode. Move containers from fire area if safe to do so. Water spray may be useful in cooling equipment exposed to heat and flame. Avoid spreading burning liquid with water spray used for cooling purposes.

Hazardous combustion products

: Carbon oxides; Oxides of phosphorus; oxides of sulfur; dimethyl sulfide; irritating fumes and smoke.

NFPA Rating :

0 – Minimal	1 – Slight	2 – Moderate	3 – Serious	4 – Severe
Health: 1	*Flammability:* 1	*Instability:* 1	*Special Hazards:*	None

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal precautions : Restrict access to area until completion of clean-up. Ensure clean-up is conducted by trained personnel only. All persons dealing with clean-up should wear the appropriate protective equipment including self-contained breathing apparatus. Refer to Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION, for additional information on acceptable personal protective equipment.

Environmental precautions : Ensure spilled product does not enter drains, sewers, waterways or confined spaces. If necessary, dike well ahead of the spill to prevent

runoff into drains, sewers, or any natural waterway or drinking supply. Do not flush into surface water or sanitary sewer system. Uncontrolled discharge into water courses may be alerted to the appropriate regulatory body.

Spill response/cleanup : Remove all sources of ignition. Ventilate area of release. Stop the spill at source if it is safe to do so. Contain and absorb spilled material with inert, non-combustible absorbent material, such as sand. Sweep up and shovel into suitable containers for disposal. For a water spill, confine the spill immediately with booms. Notify the appropriate authorities as required. Carefully cover spilled material with soda ash or quicklime to neutralize. Do not flush into surface water or sanitary sewer system. For large spills on surfaces other than pavement (e.g. soil or sand), spills may be handled by digging up and removing the affected surface and placing it in approved containers.

Prohibited materials : None known.

Special spill response procedures

: In case of spill/release in excess of the EPA reportable quantity is made into the environment, immediately notify the national response center in the United States (phone: 1-800-424-8002)
US CERCLA Reportable quantity (RQ): Malathion (100 lbs/45.4 kg)

SECTION 7 – HANDLING AND STORAGE

Safe handling procedures : This material is a toxic liquid. Wear chemically resistant protective equipment during handling. Use only in well-ventilated areas. Avoid contact with skin, eyes and clothing. Do not breathe vapors or spray mist. Do not use near welding operations, flames or hot surfaces. Malathion should never be heated above 131° F (55° C) and also local heating above this temperature should be avoided. Keep away from acids and other incompatibles. Keep containers tightly closed when not in use. Wash thoroughly after handling. Use caution when opening cap.

Storage requirements : Store in a cool, dry, well ventilated area. Keep way from incompatibles. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks. Product should be stored at temperatures not exceeding 68 to 77° F (20 to 25° C). protect against physical damage.

Incompatible materials : Strong alkalis, amines and strong oxidizing compounds. The product can corrode iron, steel, tin plate and copper. Fyfanon is rapidly hydrolyzed at pH > 7.0.

Special packaging materials: Always keep in containers made of the same materials as the supply container.

SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Limits

Ingredients	ACGIH TLV		OSHA PEL	
	TWA	STEL	PEL	STEL
Malathion	1 mg/m^3 (inhalable)	N/Av	15 mg/m^3 (total dust)	N/Av

Ventilation and engineering measures
: Provide sufficient ventilation to keep vapor concentration below the given TLV and/or PEL.

Respiratory protection : Respiratory protection is required if the concentrations exceed the TLV. Wear a pesticide respirator jointly approved by the MSHA and NIOSH. Seek advice from respiratory protection specialists.

Skin protection : Wear impervious gloves, such as barrier laminate, butyl rubber, nitrile rubber or viton. Advice should be sought from glove suppliers.

Eye / face protection : Safety glasses with side-shields or chemical splash goggles.

Other protective equipment
: Wear appropriate protective clothing to prevent skin contact, such as coveralls or long sleeved shirt, long pants, and shoes and socks. Other protective equipment, such as an eyewash station and safety shower, may be required depending on exposure and on workplace standards.

General hygiene considerations
: Avoid contact with skin, eyes and clothing. Remove soiled clothing and wash it thoroughly before reuse. Separate contaminated work clothes from street clothes. Always wash hands, face and arms with soap and water before smoking, eating or drinking. After work, take off all protective equipment, work clothes and shoes, and wash with soap and water. Respirator should be cleaned and filter replaced according to manufacturer's instructions. Wear only clean, uncontaminated clothes when leaving place of work. Persons working with this product for a longer period should have frequent blood tests for cholinesterase levels. If the cholinesterase levels fall below a critical point, no further exposure should be allowed until it has been determined, by means of blood tests, that cholinesterase levels have returned to normal.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Colorless to light yellow liquid
Odor: Slightly aromatic
Odor threshold: ND
pH: 3.7 – 3.8 (equal amounts Fyfanon and distilled water)
Melting point/Freezing point: 37.1° F (2.85° C)
Initial boiling point and boiling range: 313 – 315° F (156 – 157° C)
Flash point: 325° F (163° C)
Evaporation rate: ND
Flammability: Non-flammable
Upper/lower flammability and explosive limits: NA
Vapor pressure: 3.4×10^{-06} mmHg @ 25° C; 1.4×10^{-04} mmHg @ 45° C
Vapor density: ND
Bulk density: ND
Specific gravity: 1.23 g/mL @ 20° C
Solubility(ies): in water 148.2 mg/L @ 25° C
Partition coefficient (n-octanol/water): Kow = 560
Auto-ignition temperature: 532° F (278° C)
Decomposition temperature: ND
Viscosity: ND

ND=Not determined

NA=Not applicable

SECTION 10 – STABILITY AND REACTIVITY

Stability and reactivity : Stable if handled below 131 F (55 C). At higher temperatures decomposition may take place, and the released heat from decomposition can raise the temperature further and accelerate decomposition. Malathion can corrode iron, steel, tin plate and copper. It can be rapidly hydrolyzed at pH > 7.

Hazardous polymerization : Above 284 F (140 C) Fyfanon will decompose rapidly, significantly increasing the risk of inducing explosions. Direct local heating such as electric heating or by steam must be avoided. The decomposition is to a considerable extent dependant on time as well as temperature due to self-accelerating exothermic and autocatalytic reactions. The reactions involve rearrangements and polymerization releasing volatile, malodorous and inflammable compounds such as dimethyl sulfide.

Conditions to avoid : Open flames, sparks, high heat, direct sunlight, and close proximity to incompatible substances.

Materials to avoid and incompatibility

: Incompatible materials (see Section 7).

Hazardous decomposition products

: Storage at too high temperatures may induce formation of the more toxic and synergistic contaminant isomalathion. Refer to hazardous combustion products in Section 5.

SECTION 11 – TOXICOLOGICAL INFORMATION

Target organs : Eyes, skin, respiratory system, digestive system, central nervous system.

Routes of exposure : *Inhalation:* YES *Skin absorption:* YES *Skin & Eyes:* YES *Ingestion:* YES

Toxicological data : Fyfanon:

LC50 Inhalation (rat): >5.2 mg/L / 4 Hrs
LD50 Oral (rat): 5500 mg/kg
LD50 Dermal (rat): >2000 mg/kg
Eye irritation: Slight
Skin irritation: Slight
Skin sensitizer: Not a skin sensitizer

Carcinogenic status : No components are listed as carcinogens by ACGIH, IARC, OSHA or NTP.

Reproductive effects : Not expected to have other reproductive effects.

Teratogenicity : Not expected to be a teratogen.

Mutagenicity : Not expected to be mutagenic in humans.

Epidemiology : Not available.

Sensitization to material : None known.

Synergistic materials : Not available.

Irritancy : May cause eye and skin irritation. May cause irritation to upper respiratory system.

Other important hazards : Cholinesterase inhibitor may cause central nervous system depression. Contains a material which can cause peripheral nervous system damage.

Conditions aggravated by exposure

: None known.

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity : The toxicity of the active ingredients to wildlife species is measured to be:

Fish – 96-Hr LC50, Rainbow Trout (*Salmo gairdneri*) = 0.18 mg/L
37-day NOEC, Rainbow Trout (*Salmo gairdneri*) = 21 µg/L

Invertebrates – 48-hr EC50, Daphnids (*Daphnia magna*) = 0.72 mg/L
21-day NOEC, Daphnids (*Daphnia magna*) = 0.06 µg/L

Algae – 72-Hr LC50, Green Algae (*Selenastrum capricornutum)* = 4.06 mg/L

Birds – LD50, Bobwhite quail (*Colinus virginianus*) = 359 mg/kg
5-day dietary LC50, Bobwhite quail (*Colinus virginianus*) = 3497 mg/kg

Earthworms – 14-day LC50, *Eisenia foetida foetida* = 613 mg/kg soil

Bees –LD50, worker honey-bees, acute oral = 0.38 µg/bee
LD50, worker honey-bees, topical = 0.27 µg/bee

Mobility : Under normal conditions, the active ingredient is of medium mobility in soil, but is degraded rapidly.

Persistence : The active ingredient, Malathion, is readily biodegradable. It undergoes rapid degradation in the environment and, without problems, in sewage treatment plants. No adverse effects are observed at concentrations up to 100 mg/L in waste water treatment plants. Degradation occurs both aerobically and anaerobically, and biologically as well as abiologically. Under normal conditions, Malathion is of medium mobility in soil, but is degraded rapidly. The product should not be allowed to enter drains or water courses or be deposited where it can affect ground or surface waters. Do not discharge product unmonitored into the environment.

Bioaccumulation potential : The bioconcentration factor (BCF) of Malathion is 95 (average for several fish species).

Other adverse environmental effects

: This product is an insecticide. Malathion is toxic to birds, fish, aquatic invertebrates, aquatic life stages of amphibians and highly toxic to bees. The product should not be allowed to enter drains or water courses, or be deposited where it can affect ground or surface waters.

SECTION 13 – DISPOSAL CONSIDERATIONS

Handling for disposal : Handle wastes according to recommendations in Section 7.

Methods for disposal : Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Triple rinse (or equivalent) containers, then offer for recycling or recondition, or puncture and dispose of in a sanitary landfill. Dispose in accordance with all applicable federal, state, provincial and local regulations. Contact your local, state, provincial or federal environmental agency for specific rules.

RCRA : If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method.

SECTION 14 – TRANSPORT INFORMATION

Regulatory Information	UN Number	Shipping Name	Class	Packing Group	Label
49CFR/DOT	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (malathion)	9	III	
49CFR/DOT Additional information	None.				
TDG	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (malathion)	9	III	
TDG Additional information	Only regulated for marine transport.				

SECTION 15 – REGULATORY INFORMATION

US Federal Information:

FIFRA: This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required on safety data sheets, and for workplace labels on non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

CAUTION
Harmful by swallowing, inhalation or skin contact.
Avoid contact with skin.
Avoid breathing spray mist.

OSHA: This material is classified as hazardous under OSHA regulations (29CFR 1910.1200).

CERCLA Reportable Quantity (RQ) (40 CFR 117.302): Malathion (100 lbs/45.4 kg)

SARA TITLE III: Sec. 302, Extremely Hazardous Substances, 40 CFR 355: No Extremely Hazardous Substances are present in this material.

SARA TITLE III: Sec. 311 and 312, MSDS Requirements, 40 CFR 370 Hazard Classes: Immediate (Acute) Health Hazard; Chronic Health Hazard. Under SARA Sections 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are 500 pounds for the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

SARA TITLE III: Sec. 313, Toxic Chemicals Notification, 40 CFR 372: This material may be subject to SARA notification requirements, since it contains Toxic Chemical constituents above their de minimus concentrations. This product contains: Malathion

US State Right to Know Laws:

California Proposition 65: To the best of our knowledge, this product does not contain any chemicals known to the State of California to cause cancer or reproductive harm.

International Information:

This product is a Pest Control Product and is not regulated as a Controlled Product under the Hazardous Products Act (HPA). For informational purposes, this product would have the following WHMIS classification:

Class D2B (Materials Causing Other Toxic Effects, Toxic Materials)
Class F (Dangerously Reactive Material)

This product has been classified according to the hazard criteria of the CPR and the SDS contains all of the information required by the CPR.

SECTION 16 – OTHER INFORMATION

HMIS Rating : *-Chronic Hazard 0 – Minimal 1 – Slight 2 – Moderate 3 – Serious 4 – Severe

Health: * 1 *Flammability:* 1 *Reactivity:* 1

Prepared by: Cheminova Inc.
Telephone #: (919) 474-6600 (8:00 AM to 5:00 PM EST, Monday to Friday)
SDS Preparation date: August 19, 2003
Revision date: May 27, 2015
Revision reason: US GHS Revision

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ADAPCO GENERAL BID PACKAGE CONTENT*

**OTHER ITEMS TO APPLY DEPENDENT ON INDIVIDUAL BID SPECIFICATIONS*

ENCLOSED WITH EACH BID PACKET:

1. **ADAPCO CONTACT/PAYMENT INFORMATION PAGE** - Contact and Details regarding ADAPCO Bids/Orders/Payments
2. **CERTIFICATE OF LIABILITY INSURANCE** – General evidence of coverage with Additional Coverage Schedule.
3. **TAXPAYER ID** – W-9 Form
4. **ALL CLEAR REBATE PROGRAM:** If **ALTOSID/FOURSTAR OR ZENIVEX** items listed on your bid please see enclosed **All Clear Rewards Brochure** for Central Life Sciences Manufacturer **Rebates** which may apply toward customer purchases. ADAPCO can assist with all sales records and rebate forms information required.
5. **BID TABULATIONS and AWARDS REQUIRED** – Self-addressed stamped envelope enclosed, however emailed bid tabulations are preferred at bids@myadapco.com.
6. **SOLE SOURCE & DISTRIBUTION** Manufacturer Letters, if required.
7. **LABELS & SAFETY DATA SHEETS:** IF requirement of bid all Product Labels and SDS will be enclosed. Please also View or Print ALL SDS and Labels from our WEBSITE at **www.MyADAPCO.com**
8. **DROPLET ANALYSIS** - Droplet analysis and testing provided **FREE** with chemical and equipment purchases.
9. **AQUARESLIN** or **DELTAGARD** - First time purchases in 30 gallon drums may include lease of **FREE** FFast System. Please see enclosed brochure for and call us for details.
10. **ADAPCO E-Verify** - Company ID#494894

ADAPCO has a team of experts located throughout the United States ready to help you with the latest mosquito control technology, equipment, surveillance equipment and insecticide chemicals. Please give us a call at (800) 367-0659.

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ADAPCO CONTACT/PAYMENT INFORMATION PAGE

BID CONTACT:

Kathy Russell
Email: bids@myadapco.com
Direct Phone: (407) 328-6519

BID RELATED:

Bid Distribution to ADAPCO (Headquarters):
- **Email** (PREFERRED): bids@myadapco.com
- **Fax:** 866-330-9888
- **Mail:** ADAPCO, Inc.
  550 Aero Ln.
  Sanford, FL 32771-6342

ORDER PROCESSING:

- **Online:** www.myadapco.com
- **Email**: orders@myadapco.com
- **Fax**: 866.330.9888
- **Call**: 800.367.0659
- **Customer Service** is available to help with any orders or questions.

PAYMENT/ACCOUNTS RECEIVABLE CONTACT:

Jacky Ajalat – ar@myadapco.com
Please send check payments to:
ADAPCO, INC.
PO BOX 931574
ATLANTA, GA 31193-1574
Payment options include Check, Mastercard, Visa, American Express or Wire Transfers*
*Please call 800.367.0659 for Wire Transfer Information.

WEBSITE:

www.myadapco.com
- View Safety Data Sheets and Specimen Labels
- Find your Sales Representative and Inside Sales Representative
- View Product Information

KODADIS-01 GAIKWADSM

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 11/17/2016

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME: Willis Towers Watson Certificate Center	
Willis of New York, Inc. c/o 26 Century Blvd P.O. Box 305191 Nashville, TN 37230-5191	PHONE (A/C, No, Ext): (877) 945-7378	FAX (A/C, No): (888) 467-2378
	E-MAIL ADDRESS: certificates@willis.com	
	INSURER(S) AFFORDING COVERAGE	NAIC #
	INSURER A : Indian Harbor Insurance Company	36940
INSURED	INSURER B : Commerce & Industry Insurance Company	19410
Adapco, Inc. 550 Aero Lane Sanford, FL 32771	INSURER C : Insurance Company of the State of Pennsylvania	19429
	INSURER D :	
	INSURER E :	
	INSURER F :	

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY						EACH OCCURRENCE	$ 1,000,000
	CLAIMS-MADE [X] OCCUR			US00074856LI16A	09/30/2016	09/30/2017	DAMAGE TO RENTED PREMISES (Ea occurrence)	$ 100,000
							MED EXP (Any one person)	$ 5,000
							PERSONAL & ADV INJURY	$ 1,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	$ 2,000,000
	X POLICY [ ] PRO-JECT [ ] LOC						PRODUCTS - COMP/OP AGG	$ 2,000,000
	OTHER:							$
B	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident)	$ 1,000,000
	X ANY AUTO			2305103	11/15/2016	11/15/2017	BODILY INJURY (Per person)	$
	X OWNED AUTOS ONLY [ ] SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	HIRED AUTOS ONLY [ ] NON-OWNED AUTOS ONLY						PROPERTY DAMAGE (Per accident)	$
								$
	UMBRELLA LIAB [ ] OCCUR						EACH OCCURRENCE	$
	EXCESS LIAB [ ] CLAIMS-MADE						AGGREGATE	$
	DED [ ] RETENTION $							$
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY						X PER STATUTE [ ] OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y/N [N]	N/A		WC 12852277	11/15/2016	11/15/2017	E.L. EACH ACCIDENT	$ 1,000,000
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$ 1,000,000
							E.L. DISEASE - POLICY LIMIT	$ 1,000,000
B	Auto Liability			2305104	11/15/2016	11/15/2017	Any Auto - CSL	1,000,000
C	Work Comp & Emp Liab			WC 12852278	11/15/2016	11/15/2017	See Attached	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER

Evidence of Coverage

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

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ADDITIONAL COVERAGE SCHEDULE

COVERAGE	LIMITS
POLICY TYPE: Workers Compensation and Employers' Liability **CARRIER: Insurance Company of the State of Pennsylvania** **POLICY TERM: 11/15/2016 - 11/15/2017** **POLICY NUMBER: WC 12852278**	**Per Statute** **$1,000,000 E.L. Each Accident** **$1,000,000 E.L. Disease Each Employee** **$1,000,000 E.L. Disease Policy Limit**
POLICY TYPE: Non-Owned Aircraft Liability **CARRIER: National Union Fire Insurance Company of Pittsburgh** **POLICY TERM: 11/15/2016 - 11/15/2017** **POLICY NUMBER: AV011477594-07**	**$1,000,000** **Aerial Application policy covers Non-Chemical and Chemical Liability (BI and PD) per the policy terms, conditions, limitations and exclusions.**

Form **W-9**
(Rev. December 2014)
Department of the Treasury
Internal Revenue Service

Request for Taxpayer Identification Number and Certification

Give Form to the requester. Do not send to the IRS.

Print or type
See Specific Instructions on page 2.

1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank.
ADAPCO, LLC

2 Business name/disregarded entity name, if different from above

3 Check appropriate box for federal tax classification; check only one of the following seven boxes:
☐ Individual/sole proprietor or single-member LLC ☐ C Corporation ☐ S Corporation ☐ Partnership ☐ Trust/estate
☒ Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=partnership) ▶ C
Note. For a single-member LLC that is disregarded, do not check LLC; check the appropriate box in the line above for the tax classification of the single-member owner.
☐ Other (see instructions) ▶

4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3):
Exempt payee code (if any)
Exemption from FATCA reporting code (if any)
(Applies to accounts maintained outside the U.S.)

5 Address (number, street, and apt. or suite no.)
550 Aero Ln.

Requester's name and address (optional)

6 City, state, and ZIP code
Sanford, FL 32771

7 List account number(s) here (optional)

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN* on page 3.

Note. If the account is in more than one name, see the instructions for line 1 and the chart on page 4 for guidelines on whose number to enter.

Social security number
			–			–				

or

Employer identification number
5	9	–	2	5	7	4	5	2	3

Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
3. I am a U.S. citizen or other U.S. person (defined below); and
4. The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions on page 3.

Sign Here Signature of U.S. person ▶ [signature] Date ▶ January 1, 2017

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. Information about developments affecting Form W-9 (such as legislation enacted after we release it) is at *www.irs.gov/fw9*.

Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following:

- Form 1099-INT (interest earned or paid)
- Form 1099-DIV (dividends, including those from stocks or mutual funds)
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
- Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
- Form 1099-S (proceeds from real estate transactions)
- Form 1099-K (merchant card and third party network transactions)
- Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
- Form 1099-C (canceled debt)
- Form 1099-A (acquisition or abandonment of secured property)

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See *What is backup withholding?* on page 2.

By signing the filled-out form, you:

1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),
2. Certify that you are not subject to backup withholding, or
3. Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income, and
4. Certify that FATCA code(s) entered on this form (if any) indicating that you are exempt from the FATCA reporting, is correct. See *What is FATCA reporting?* on page 2 for further information.

Note. If you are a U.S. person and a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

Definition of a U.S. person. For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien;
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States;
- An estate (other than a foreign estate); or
- A domestic trust (as defined in Regulations section 301.7701-7).

Special rules for partnerships. Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax under section 1446 on any foreign partners' share of effectively connected taxable income from such business. Further, in certain cases where a Form W-9 has not been received, the rules under section 1446 require a partnership to presume that a partner is a foreign person, and pay the section 1446 withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid section 1446 withholding on your share of partnership income.

In the cases below, the following person must give Form W-9 to the partnership for purposes of establishing its U.S. status and avoiding withholding on its allocable share of net income from the partnership conducting a trade or business in the United States:

- In the case of a disregarded entity with a U.S. owner, the U.S. owner of the disregarded entity and not the entity;
- In the case of a grantor trust with a U.S. grantor or other U.S. owner, generally, the U.S. grantor or other U.S. owner of the grantor trust and not the trust; and
- In the case of a U.S. trust (other than a grantor trust), the U.S. trust (other than a grantor trust) and not the beneficiaries of the trust.

Foreign person. If you are a foreign person or the U.S. branch of a foreign bank that has elected to be treated as a U.S. person, do not use Form W-9. Instead, use the appropriate Form W-8 or Form 8233 (see Publication 515, Withholding of Tax on Nonresident Aliens and Foreign Entities).

Nonresident alien who becomes a resident alien. Generally, only a nonresident alien individual may use the terms of a tax treaty to reduce or eliminate U.S. tax on certain types of income. However, most tax treaties contain a provision known as a "saving clause." Exceptions specified in the saving clause may permit an exemption from tax to continue for certain types of income even after the payee has otherwise become a U.S. resident alien for tax purposes.

If you are a U.S. resident alien who is relying on an exception contained in the saving clause of a tax treaty to claim an exemption from U.S. tax on certain types of income, you must attach a statement to Form W-9 that specifies the following five items:

1. The treaty country. Generally, this must be the same treaty under which you claimed exemption from tax as a nonresident alien.

2. The treaty article addressing the income.

3. The article number (or location) in the tax treaty that contains the saving clause and its exceptions.

4. The type and amount of income that qualifies for the exemption from tax.

5. Sufficient facts to justify the exemption from tax under the terms of the treaty article.

Example. Article 20 of the U.S.-China income tax treaty allows an exemption from tax for scholarship income received by a Chinese student temporarily present in the United States. Under U.S. law, this student will become a resident alien for tax purposes if his or her stay in the United States exceeds 5 calendar years. However, paragraph 2 of the first Protocol to the U.S.-China treaty (dated April 30, 1984) allows the provisions of Article 20 to continue to apply even after the Chinese student becomes a resident alien of the United States. A Chinese student who qualifies for this exception (under paragraph 2 of the first protocol) and is relying on this exception to claim an exemption from tax on his or her scholarship or fellowship income would attach to Form W-9 a statement that includes the information described above to support that exemption.

If you are a nonresident alien or a foreign entity, give the requester the appropriate completed Form W-8 or Form 8233.

Backup Withholding

What is backup withholding? Persons making certain payments to you must under certain conditions withhold and pay to the IRS 28% of such payments. This is called "backup withholding." Payments that may be subject to backup withholding include interest, tax-exempt interest, dividends, broker and barter exchange transactions, rents, royalties, nonemployee pay, payments made in settlement of payment card and third party network transactions, and certain payments from fishing boat operators. Real estate transactions are not subject to backup withholding.

You will not be subject to backup withholding on payments you receive if you give the requester your correct TIN, make the proper certifications, and report all your taxable interest and dividends on your tax return.

Payments you receive will be subject to backup withholding if:

1. You do not furnish your TIN to the requester,

2. You do not certify your TIN when required (see the Part II instructions on page 3 for details),

3. The IRS tells the requester that you furnished an incorrect TIN,

4. The IRS tells you that you are subject to backup withholding because you did not report all your interest and dividends on your tax return (for reportable interest and dividends only), or

5. You do not certify to the requester that you are not subject to backup withholding under 4 above (for reportable interest and dividend accounts opened after 1983 only).

Certain payees and payments are exempt from backup withholding. See *Exempt payee code* on page 3 and the separate Instructions for the Requester of Form W-9 for more information.

Also see *Special rules for partnerships* above.

What is FATCA reporting?

The Foreign Account Tax Compliance Act (FATCA) requires a participating foreign financial institution to report all United States account holders that are specified United States persons. Certain payees are exempt from FATCA reporting. See *Exemption from FATCA reporting code* on page 3 and the Instructions for the Requester of Form W-9 for more information.

Updating Your Information

You must provide updated information to any person to whom you claimed to be an exempt payee if you are no longer an exempt payee and anticipate receiving reportable payments in the future from this person. For example, you may need to provide updated information if you are a C corporation that elects to be an S corporation, or if you no longer are tax exempt. In addition, you must furnish a new Form W-9 if the name or TIN changes for the account; for example, if the grantor of a grantor trust dies.

Penalties

Failure to furnish TIN. If you fail to furnish your correct TIN to a requester, you are subject to a penalty of $50 for each such failure unless your failure is due to reasonable cause and not to willful neglect.

Civil penalty for false information with respect to withholding. If you make a false statement with no reasonable basis that results in no backup withholding, you are subject to a $500 penalty.

Criminal penalty for falsifying information. Willfully falsifying certifications or affirmations may subject you to criminal penalties including fines and/or imprisonment.

Misuse of TINs. If the requester discloses or uses TINs in violation of federal law, the requester may be subject to civil and criminal penalties.

Specific Instructions

Line 1

You must enter one of the following on this line; **do not** leave this line blank. The name should match the name on your tax return.

If this Form W-9 is for a joint account, list first, and then circle, the name of the person or entity whose number you entered in Part I of Form W-9.

a. **Individual.** Generally, enter the name shown on your tax return. If you have changed your last name without informing the Social Security Administration (SSA) of the name change, enter your first name, the last name as shown on your social security card, and your new last name.

Note. ITIN applicant: Enter your individual name as it was entered on your Form W-7 application, line 1a. This should also be the same as the name you entered on the Form 1040/1040A/1040EZ you filed with your application.

b. **Sole proprietor or single-member LLC.** Enter your individual name as shown on your 1040/1040A/1040EZ on line 1. You may enter your business, trade, or "doing business as" (DBA) name on line 2.

c. **Partnership, LLC that is not a single-member LLC, C Corporation, or S Corporation.** Enter the entity's name as shown on the entity's tax return on line 1 and any business, trade, or DBA name on line 2.

d. **Other entities.** Enter your name as shown on required U.S. federal tax documents on line 1. This name should match the name shown on the charter or other legal document creating the entity. You may enter any business, trade, or DBA name on line 2.

e. **Disregarded entity.** For U.S. federal tax purposes, an entity that is disregarded as an entity separate from its owner is treated as a "disregarded entity." See Regulations section 301.7701-2(c)(2)(iii). Enter the owner's name on line 1. The name of the entity entered on line 1 should never be a disregarded entity. The name on line 1 should be the name shown on the income tax return on which the income should be reported. For example, if a foreign LLC that is treated as a disregarded entity for U.S. federal tax purposes has a single owner that is a U.S. person, the U.S. owner's name is required to be provided on line 1. If the direct owner of the entity is also a disregarded entity, enter the first owner that is not disregarded for federal tax purposes. Enter the disregarded entity's name on line 2, "Business name/disregarded entity name." If the owner of the disregarded entity is a foreign person, the owner must complete an appropriate Form W-8 instead of a Form W-9. This is the case even if the foreign person has a U.S. TIN.

Line 2

If you have a business name, trade name, DBA name, or disregarded entity name, you may enter it on line 2.

Line 3

Check the appropriate box in line 3 for the U.S. federal tax classification of the person whose name is entered on line 1. Check only one box in line 3.

Limited Liability Company (LLC). If the name on line 1 is an LLC treated as a partnership for U.S. federal tax purposes, check the "Limited Liability Company" box and enter "P" in the space provided. If the LLC has filed Form 8832 or 2553 to be taxed as a corporation, check the "Limited Liability Company" box and in the space provided enter "C" for C corporation or "S" for S corporation. If it is a single-member LLC that is a disregarded entity, do not check the "Limited Liability Company" box; instead check the first box in line 3 "Individual/sole proprietor or single-member LLC."

Line 4, Exemptions

If you are exempt from backup withholding and/or FATCA reporting, enter in the appropriate space in line 4 any code(s) that may apply to you.

Exempt payee code.

- Generally, individuals (including sole proprietors) are not exempt from backup withholding.
- Except as provided below, corporations are exempt from backup withholding for certain payments, including interest and dividends.
- Corporations are not exempt from backup withholding for payments made in settlement of payment card or third party network transactions.
- Corporations are not exempt from backup withholding with respect to attorneys' fees or gross proceeds paid to attorneys, and corporations that provide medical or health care services are not exempt with respect to payments reportable on Form 1099-MISC.

The following codes identify payees that are exempt from backup withholding. Enter the appropriate code in the space in line 4.

1—An organization exempt from tax under section 501(a), any IRA, or a custodial account under section 403(b)(7) if the account satisfies the requirements of section 401(f)(2)

2—The United States or any of its agencies or instrumentalities

3—A state, the District of Columbia, a U.S. commonwealth or possession, or any of their political subdivisions or instrumentalities

4—A foreign government or any of its political subdivisions, agencies, or instrumentalities

5—A corporation

6—A dealer in securities or commodities required to register in the United States, the District of Columbia, or a U.S. commonwealth or possession

7—A futures commission merchant registered with the Commodity Futures Trading Commission

8—A real estate investment trust

9—An entity registered at all times during the tax year under the Investment Company Act of 1940

10—A common trust fund operated by a bank under section 584(a)

11—A financial institution

12—A middleman known in the investment community as a nominee or custodian

13—A trust exempt from tax under section 664 or described in section 4947

The following chart shows types of payments that may be exempt from backup withholding. The chart applies to the exempt payees listed above, 1 through 13.

IF the payment is for . . .	THEN the payment is exempt for . . .
Interest and dividend payments	All exempt payees except for 7
Broker transactions	Exempt payees 1 through 4 and 6 through 11 and all C corporations. S corporations must not enter an exempt payee code because they are exempt only for sales of noncovered securities acquired prior to 2012.
Barter exchange transactions and patronage dividends	Exempt payees 1 through 4
Payments over $600 required to be reported and direct sales over $5,000[1]	Generally, exempt payees 1 through 5[2]
Payments made in settlement of payment card or third party network transactions	Exempt payees 1 through 4

[1] See Form 1099-MISC, Miscellaneous Income, and its instructions.

[2] However, the following payments made to a corporation and reportable on Form 1099-MISC are not exempt from backup withholding: medical and health care payments, attorneys' fees, gross proceeds paid to an attorney reportable under section 6045(f), and payments for services paid by a federal executive agency.

Exemption from FATCA reporting code. The following codes identify payees that are exempt from reporting under FATCA. These codes apply to persons submitting this form for accounts maintained outside of the United States by certain foreign financial institutions. Therefore, if you are only submitting this form for an account you hold in the United States, you may leave this field blank. Consult with the person requesting this form if you are uncertain if the financial institution is subject to these requirements. A requester may indicate that a code is not required by providing you with a Form W-9 with "Not Applicable" (or any similar indication) written or printed on the line for a FATCA exemption code.

A—An organization exempt from tax under section 501(a) or any individual retirement plan as defined in section 7701(a)(37)

B—The United States or any of its agencies or instrumentalities

C—A state, the District of Columbia, a U.S. commonwealth or possession, or any of their political subdivisions or instrumentalities

D—A corporation the stock of which is regularly traded on one or more established securities markets, as described in Regulations section 1.1472-1(c)(1)(i)

E—A corporation that is a member of the same expanded affiliated group as a corporation described in Regulations section 1.1472-1(c)(1)(i)

F—A dealer in securities, commodities, or derivative financial instruments (including notional principal contracts, futures, forwards, and options) that is registered as such under the laws of the United States or any state

G—A real estate investment trust

H—A regulated investment company as defined in section 851 or an entity registered at all times during the tax year under the Investment Company Act of 1940

I—A common trust fund as defined in section 584(a)

J—A bank as defined in section 581

K—A broker

L—A trust exempt from tax under section 664 or described in section 4947(a)(1)

M—A tax exempt trust under a section 403(b) plan or section 457(g) plan

Note. You may wish to consult with the financial institution requesting this form to determine whether the FATCA code and/or exempt payee code should be completed.

Line 5

Enter your address (number, street, and apartment or suite number). This is where the requester of this Form W-9 will mail your information returns.

Line 6

Enter your city, state, and ZIP code.

Part I. Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. If you are a resident alien and you do not have and are not eligible to get an SSN, your TIN is your IRS individual taxpayer identification number (ITIN). Enter it in the social security number box. If you do not have an ITIN, see *How to get a TIN* below.

If you are a sole proprietor and you have an EIN, you may enter either your SSN or EIN. However, the IRS prefers that you use your SSN.

If you are a single-member LLC that is disregarded as an entity separate from its owner (see *Limited Liability Company (LLC)* on this page), enter the owner's SSN (or EIN, if the owner has one). Do not enter the disregarded entity's EIN. If the LLC is classified as a corporation or partnership, enter the entity's EIN.

Note. See the chart on page 4 for further clarification of name and TIN combinations.

How to get a TIN. If you do not have a TIN, apply for one immediately. To apply for an SSN, get Form SS-5, Application for a Social Security Card, from your local SSA office or get this form online at *www.ssa.gov*. You may also get this form by calling 1-800-772-1213. Use Form W-7, Application for IRS Individual Taxpayer Identification Number, to apply for an ITIN, or Form SS-4, Application for Employer Identification Number, to apply for an EIN. You can apply for an EIN online by accessing the IRS website at *www.irs.gov/businesses* and clicking on Employer Identification Number (EIN) under Starting a Business. You can get Forms W-7 and SS-4 from the IRS by visiting IRS.gov or by calling 1-800-TAX-FORM (1-800-829-3676).

If you are asked to complete Form W-9 but do not have a TIN, apply for a TIN and write "Applied For" in the space for the TIN, sign and date the form, and give it to the requester. For interest and dividend payments, and certain payments made with respect to readily tradable instruments, generally you will have 60 days to get a TIN and give it to the requester before you are subject to backup withholding on payments. The 60-day rule does not apply to other types of payments. You will be subject to backup withholding on all such payments until you provide your TIN to the requester.

Note. Entering "Applied For" means that you have already applied for a TIN or that you intend to apply for one soon.

Caution: *A disregarded U.S. entity that has a foreign owner must use the appropriate Form W-8.*

Part II. Certification

To establish to the withholding agent that you are a U.S. person, or resident alien, sign Form W-9. You may be requested to sign by the withholding agent even if items 1, 4, or 5 below indicate otherwise.

For a joint account, only the person whose TIN is shown in Part I should sign (when required). In the case of a disregarded entity, the person identified on line 1 must sign. Exempt payees, see *Exempt payee code* earlier.

Signature requirements. Complete the certification as indicated in items 1 through 5 below.

1. Interest, dividend, and barter exchange accounts opened before 1984 and broker accounts considered active during 1983. You must give your correct TIN, but you do not have to sign the certification.

2. Interest, dividend, broker, and barter exchange accounts opened after 1983 and broker accounts considered inactive during 1983. You must sign the certification or backup withholding will apply. If you are subject to backup withholding and you are merely providing your correct TIN to the requester, you must cross out item 2 in the certification before signing the form.

3. Real estate transactions. You must sign the certification. You may cross out item 2 of the certification.

4. Other payments. You must give your correct TIN, but you do not have to sign the certification unless you have been notified that you have previously given an incorrect TIN. "Other payments" include payments made in the course of the requester's trade or business for rents, royalties, goods (other than bills for merchandise), medical and health care services (including payments to corporations), payments to a nonemployee for services, payments made in settlement of payment card and third party network transactions, payments to certain fishing boat crew members and fishermen, and gross proceeds paid to attorneys (including payments to corporations).

5. Mortgage interest paid by you, acquisition or abandonment of secured property, cancellation of debt, qualified tuition program payments (under section 529), IRA, Coverdell ESA, Archer MSA or HSA contributions or distributions, and pension distributions. You must give your correct TIN, but you do not have to sign the certification.

What Name and Number To Give the Requester

For this type of account:	Give name and SSN of:
1. Individual	The individual
2. Two or more individuals (joint account)	The actual owner of the account or, if combined funds, the first individual on the account[1]
3. Custodian account of a minor (Uniform Gift to Minors Act)	The minor[2]
4. a. The usual revocable savings trust (grantor is also trustee) b. So-called trust account that is not a legal or valid trust under state law	The grantor-trustee[1] The actual owner[1]
5. Sole proprietorship or disregarded entity owned by an individual	The owner[3]
6. Grantor trust filing under Optional Form 1099 Filing Method 1 (see Regulations section 1.671-4(b)(2)(i)(A))	The grantor*
For this type of account:	**Give name and EIN of:**
7. Disregarded entity not owned by an individual	The owner
8. A valid trust, estate, or pension trust	Legal entity[4]
9. Corporation or LLC electing corporate status on Form 8832 or Form 2553	The corporation
10. Association, club, religious, charitable, educational, or other tax-exempt organization	The organization
11. Partnership or multi-member LLC	The partnership
12. A broker or registered nominee	The broker or nominee
13. Account with the Department of Agriculture in the name of a public entity (such as a state or local government, school district, or prison) that receives agricultural program payments	The public entity
14. Grantor trust filing under the Form 1041 Filing Method or the Optional Form 1099 Filing Method 2 (see Regulations section 1.671-4(b)(2)(i)(B))	The trust

[1] List first and circle the name of the person whose number you furnish. If only one person on a joint account has an SSN, that person's number must be furnished.

[2] Circle the minor's name and furnish the minor's SSN.

[3] You must show your individual name and you may also enter your business or DBA name on the "Business name/disregarded entity" name line. You may use either your SSN or EIN (if you have one), but the IRS encourages you to use your SSN.

[4] List first and circle the name of the trust, estate, or pension trust. (Do not furnish the TIN of the personal representative or trustee unless the legal entity itself is not designated in the account title.) Also see *Special rules for partnerships* on page 2.

*Note. Grantor also must provide a Form W-9 to trustee of trust.

Note. If no name is circled when more than one name is listed, the number will be considered to be that of the first name listed.

Identity theft occurs when someone uses your personal information such as your name, SSN, or other identifying information, without your permission, to commit fraud or other crimes. An identity thief may use your SSN to get a job or may file a tax return using your SSN to receive a refund.

To reduce your risk:

- Protect your SSN,
- Ensure your employer is protecting your SSN, and
- Be careful when choosing a tax preparer.

If your tax records are affected by identity theft and you receive a notice from the IRS, respond right away to the name and phone number printed on the IRS notice or letter.

If your tax records are not currently affected by identity theft but you think you are at risk due to a lost or stolen purse or wallet, questionable credit card activity or credit report, contact the IRS Identity Theft Hotline at 1-800-908-4490 or submit Form 14039.

For more information, see Publication 4535, Identity Theft Prevention and Victim Assistance.

Victims of identity theft who are experiencing economic harm or a system problem, or are seeking help in resolving tax problems that have not been resolved through normal channels, may be eligible for Taxpayer Advocate Service (TAS) assistance. You can reach TAS by calling the TAS toll-free case intake line at 1-877-777-4778 or TTY/TDD 1-800-829-4059.

Protect yourself from suspicious emails or phishing schemes. Phishing is the creation and use of email and websites designed to mimic legitimate business emails and websites. The most common act is sending an email to a user falsely claiming to be an established legitimate enterprise in an attempt to scam the user into surrendering private information that will be used for identity theft.

The IRS does not initiate contacts with taxpayers via emails. Also, the IRS does not request personal detailed information through email or ask taxpayers for the PIN numbers, passwords, or similar secret access information for their credit card, bank, or other financial accounts.

If you receive an unsolicited email claiming to be from the IRS, forward this message to *phishing@irs.gov*. You may also report misuse of the IRS name, logo, or other IRS property to the Treasury Inspector General for Tax Administration (TIGTA) at 1-800-366-4484. You can forward suspicious emails to the Federal Trade Commission at: *spam@uce.gov* or contact them at *www.ftc.gov/idtheft* or 1-877-IDTHEFT (1-877-438-4338).

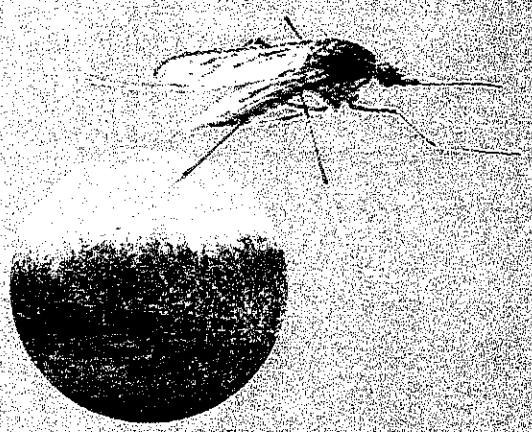
Visit IRS.gov to learn more about identity theft and how to reduce your risk.

Privacy Act Notice

Section 6109 of the Internal Revenue Code requires you to provide your correct TIN to persons (including federal agencies) who are required to file information returns with the IRS to report interest, dividends, or certain other income paid to you; mortgage interest you paid; the acquisition or abandonment of secured property; the cancellation of debt; or contributions you made to an IRA, Archer MSA, or HSA. The person collecting this form uses the information on the form to file information returns with the IRS, reporting the above information. Routine uses of this information include giving it to the Department of Justice for civil and criminal litigation and to cities, states, the District of Columbia, and U.S. commonwealths and possessions for use in administering their laws. The information also may be disclosed to other countries under a treaty, to federal and state agencies to enforce civil and criminal laws, or to federal law enforcement and intelligence agencies to combat terrorism. You must provide your TIN whether or not you are required to file a tax return. Under section 3406, payers must generally withhold a percentage of taxable interest, dividend, and certain other payments to a payee who does not give a TIN to the payer. Certain penalties may also apply for providing false or fraudulent information.

BE VECTORIOUS

Manage mosquito populations and your mosquito abatement budget at the same time. When you purchase Altosid®, FourStar® and Zenivex® products from Central Life Sciences you can get cash back with the 2017 All Clear Rebate.



HOW THE REBATE WORKS

Just fill out the attached form and submit it with all relevant invoice copies for purchases made from January 1, 2017 to December 31, 2017. The deadline for submission is January 31, 2018. One rebate submission per customer. Rebate program is available only in the U.S. for municipal, county and state agencies and U.S. commercial organizations that purchase Altosid®, FourStar® or Zenivex® products from an approved U.S. Central Life Sciences agent/distributor.

www.CentralMosquitoControl.com

2017 REBATE FORM

Get cash back for controlling mosquitoes by filling out this form. Remember to attach copies of your invoices.

FULL NAME _____

TITLE _____

COMPANY _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

PHONE NUMBER _____

EMAIL _____

Total dollar value of Altosid®, FourStar® and/or Zenivex® products purchased (excluding taxes) in 2017:

$ _____

HOW TO GET YOUR REBATE

1. Fill out form completely and cut on the line.
2. Attach all relevant invoice copies (important)!
   (must be from Central Life Sciences authorized agent/distributor)
3. Place in envelope with required postage and send to:

   Central Life Sciences
   2017 All Clear Rebate Program
   1501 East Woodfield Rd., Suite 200W
   Schaumburg, IL 60173

4. If you would like to donate any portion of your rebate to the Mosquito Research Foundation, please indicate amount here: $_____

   MRF
   Attn: Bill Schankel
   1120 Rt. 73, Suite 200
   Mt. Laurel, NJ 08054

Must be postmarked by January 31, 2018 to be eligible.

One rebate submission per customer.

Allow 4-6 weeks for processing.

Questions? Call 800-248-7763.

CUT HERE

ALL CLEAR REBATE ALL YEAR LONG

SMARTCONTROL

2017 Vector Rebate Program

Altosid®
Zenivex®
FOURSTAR®

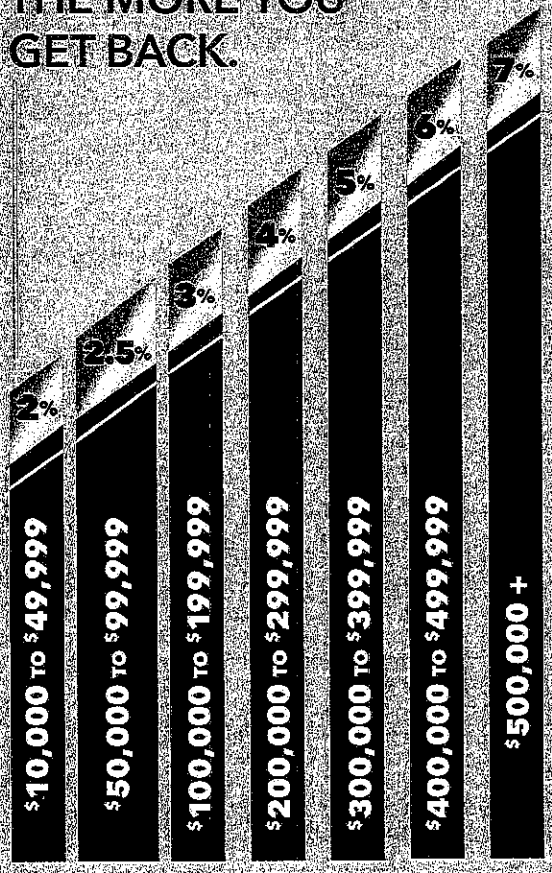
CENTRAL Life Sciences

ALL CLEAR REBATE
ALL YEAR LONG

Altosid® FOURSTAR® Zenivex®

UP TO 7% CASH BACK

THE MORE YOU BUY, THE MORE YOU GET BACK.



Altosid® FOURSTAR® Zenivex®



PROVEN

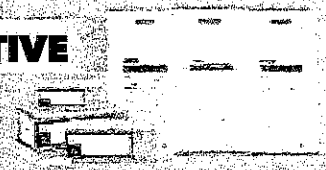
ALTOSID® LARVICIDES



- Industry standard for over 40 years
- Consistent, reliable performance
- Multiple formulations
- Target specific
- High quality (S)-methoprene

INNOVATIVE

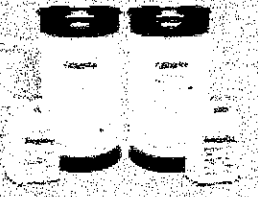
FOURSTAR® LARVICIDES



- Extended residual microbial formulations
- *Bsph/Bti* biological environmental profile
- High-bulk density, less target drift
- 45, 90 & 180-day residual briquets
- Dual-action flash and controlled release technology

ADVANCED

ZENIVEX® ADULTICIDES



- EPA reduced-risk classification
- Low toxicity profile
- Quick, permanent knockdown
- Approved for use over cropland*

*State registration pending in NY.

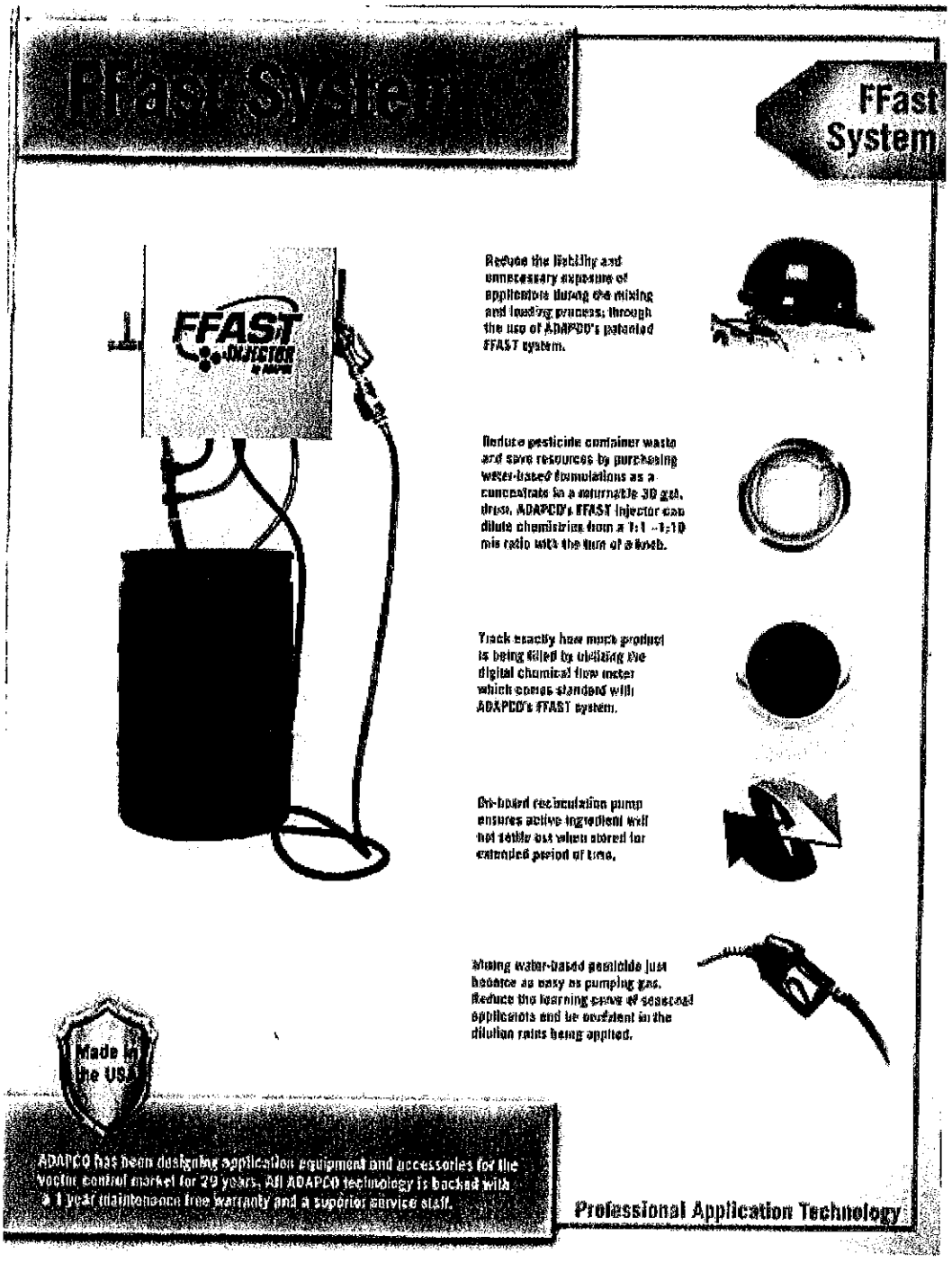
Always read and follow label directions. Altosid and Zenivex are trademarks of Wellmark International. FourStar is a registered trademark of BZE Microbials LLC. Central Life Sciences with design is a registered trademark of Central Garden & Pet Company. ©2017 Wellmark International

azelis SPECIALTY AGRI/HORTI

ADAPCO

Creating value, growing together

ADAPCO FFast System



ADAPCO
550 Aero Ln
Sanford, FL 32771
www.myadapco.com

P 1 800 367 0659
www.azelisamericas.com

RESTRICTED USE PESTICIDE

Due to Acute Fish Toxicity

For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicators Certification. Direct supervision for this product is defined as the certified applicator being physically present during mixing, loading, equipment repair, and equipment cleaning. Certified applicators must ensure that all persons involved in these activities under their direct supervision are informed of the precautionary statements.

Scourge®

Insecticide

with RESMETHRIN/PIPERONYL BUTOXIDE
18% + 54% MF FORMULA II

- A SYNTHETIC PYRETHROID FOR EFFECTIVE ADULT MOSQUITO (INCLUDING ORGANOPHOSPHATE RESISTANT SPECIES), MIDGE (BITING AND NON-BITING) AND BLACKFLY CONTROL
- FOR CONTROL OF BITING AND NON-BITING FLIES
- FOR AERIAL OR GROUND APPLICATION
- CONTAINS 1.51 LB/GAL (18% BY WT.) OF RESMETHRIN AND 4.51 LB/GAL (54% BY WT.) OF PIPERONYL BUTOXIDE

ACTIVE INGREDIENTS:	
Resmethrin*	18.0%
Piperonyl Butoxide†	54.0%
OTHER INGREDIENTS‡	28.0%
TOTAL	100.0%

*Contains Petroleum Distillate
†Cis/trans isomerization max. 30% (±) cis and min. 70% (±) trans
‡(butylcarbityl) (6-propylpiperonyl) ether and related compounds

EPA REG. NO. 432-667 EPA EST. NO. 432-TX-1

KEEP OUT OF REACH OF CHILDREN

CAUTION

Refer to attached labels for complete First Aid, Precautionary Statements, Directions for Use and Storage and Disposal Instructions.

(01)00785740194164

Net Contents
55 Gallons
SKU# 04192744
80913354A 120917AV1

BACKED by BAYER

PARA AL USARIO: Si usted no lee ingles, no use este producto hasta que la etiqueta le haya sido explicada ampliamente.
(TO THE USER: If you cannot read English, do not use this product until the label has been fully explained to you.)

For MEDICAL and TRANSPORTATION Emergencies ONLY Call 24 Hours A Day 1-800-334-7577
For PRODUCT USE Information Call 1-800-331-2867

FIRST AID

IF SWALLOWED	• Call a poison control center or doctor immediately for treatment advice. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give any liquid to the person. • Do not give anything by mouth to an unconscious person.
IF ON SKIN OR CLOTHING	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 to 20 minutes. • Call a poison control center or doctor for treatment advice.
IF IN EYES	• Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.

[Synthetic Pyrethroid]

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-334-7577 for emergency medical treatment information. In case of Medical emergencies or health and safety inquiries or in case of fire, leaking or damaged containers, information may be obtained by calling 1-800-334-7577.

Note To Physician: Contains petroleum distillates. Vomiting may cause pneumonia.

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS & DOMESTIC ANIMALS
CAUTION

Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove contaminated clothing and wash clothing before reuse.

Personal Protective Equipment (PPE)

Some materials that are chemical-resistant to this product are made of barrier laminate, nitrile rubber greater or equal to 14 mils or neoprene rubber greater or equal to 14 mils. If you want more options, follow the instructions for category E on an EPA chemical-resistance category selection chart.

All mixers, loaders, applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks
- Chemical-resistant gloves for all handlers except applicators using motorized ground equipment, pilots, and flaggers

See engineering controls for additional requirements

In addition to the above PPE, mixers and loaders supporting aerial applications to forest must wear at least a NIOSH-approved respirator with:
- a dust/mist filter with MSHA/NIOSH approved number prefix TC-21C or
- any R, P, or HE filter

Engineering Controls

Applicators using ground mechanical application equipment must use an enclosed cab that has a nonporous barrier that totally surrounds the occupants and prevents contact with pesticides outside the cab. Must be provided and have immediately available for use upon exiting the cab chemical-resistant gloves.

Pilots must use an enclosed cockpit. The cockpit must have a nonporous barrier that totally surrounds the occupants and prevents contact with pesticides outside the cab. Pilots must wear the PPE required on this labeling for applicators.

Human flagging is prohibited. Flagging to support aerial application is limited to use of the Global Positioning System (GPS) or mechanical flaggers.

User Safety Requirements

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Environmental Hazards

This pesticide is toxic to aquatic organisms, including fish, crustaceans, and oysters. Runoff from treated areas or deposition of spray droplets into a body of water may be hazardous to fish, crustaceans, and oysters.

Do not apply when bees are visiting the treatment area, except when applications are made to prevent or control a threat to public and/or animal health determined by a state, tribal, or local health or vector control agency on the basis of documented evidence of disease causing agents in vector mosquitoes, or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort.

Before making the first application in a season, it is advisable to consult with the state or tribal agency with primary responsibility for pesticide regulation to determine if other regulatory requirements exist.

Do not apply over bodies of water (lakes, rivers, permanent streams, natural ponds, commercial fish ponds, swamps, marshes, or estuaries), except when necessary to target areas where adult mosquitoes are present, and weather conditions will facilitate movement of applied material away from the water in order to minimize incidental deposition into the water body. Do not contaminate bodies of water when disposing of equipment rinsate or washwaters.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

READ ENTIRE LABEL FOR DIRECTIONS

This product is to be used for control of adult mosquitoes, (including organophosphate resistant species), midges (biting & non-biting), and blackflies by specially designed aircraft capable of applying ULTRA LOW VOLUME of finished spray formulation or by ground application with non-thermal or mechanical spray equipment that can deliver spray particles within the aerosol size range and at specified dosage levels.

NOTICE: This concentrate cannot be diluted in water. Mix well before using. Avoid storing excess diluted formulation in spray equipment tank beyond the period needed for application.

(continued on back label)

Spray Drift Management

Application Restrictions

In treatment of corrals, feed lots, swine lots, and zoos, cover any exposed drinking water, drinking water fountains and animal feed before application.

For use by federal, state, tribal, or local government officials responsible for public health or vector control or by persons certified in the appropriate category or otherwise authorized by the state or tribal lead pesticide regulatory agency to perform adult mosquito control applications, or by persons under their direct supervision.

Do not apply more than 0.007 lb of Resmethrin/acre per application.

Do not apply more than 0.2 lb of Resmethrin/acre per year in any treated area. More frequent treatments may be made to prevent or control a threat to public and/or animal health determined by a state, tribal, or local health or vector control agency on the basis of documented evidence of disease causing agents in vector mosquitoes or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort.

A variety of factors including weather conditions (e.g., wind direction, wind speed, temperature, relative humidity), and method of application (e.g., ground, aerial, airblast, chemigation) can influence pesticide drift. The applicator must evaluate all factors and make appropriate adjustments when applying this product.

WIND SPEED

Do not apply when wind speed is 0 mph.

DROPLET SIZE

Ground based application:

Spray equipment must be adjusted so that the volume median diameter is less than 30 microns (Dv 0.5 < 30 µm) and that 90% of the spray is contained in droplets smaller than 50 microns (Dv 0.9 < 50µm). Directions from the equipment manufacturer or vendor, pesticide registrant or a test facility using a laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra.

Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rate(s) are properly calibrated.

AERIAL APPLICATION:

Spray equipment must be adjusted so that the volume median diameter produced is less than 60 microns (Dv 0.5 < 60 µm) and that 90% of the spray is contained in droplets smaller than 80 microns (Dv 0.9 < 80 µm). The effects of flight speed, and for non-rotary nozzles, nozzle angle on the droplet size spectrum must be considered. Directions from the equipment manufacturer or vendor, pesticide registrant or a test facility using a wind tunnel and laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra.

EQUIPMENT CALIBRATION:

Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rate(s) are properly calibrated.

RELEASE HEIGHT:

Fixed wing:

Apply using a nozzle height of no less than 100 feet above the ground or canopy.

Rotary wing:

Apply using a nozzle height of no less than 75 feet above the ground or canopy.

Boom length:

The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter.

GENERAL

SCOURGE® Insecticide with RESMETHRIN/PIPERONYL BUTOXIDE 18% + 54% MF FORMULA II is designed for application as an Ultra-Low Volume (ULV) aerosol to control adult mosquitoes and flies in residential, industrial, urban, recreational areas, and other areas where the labeled pests are a problem.

SCOURGE Insecticide with RESMETHRIN/PIPERONYL BUTOXIDE 18% + 54% MF FORMULA II provides effective control of adult mosquitoes, black flies, gnats, biting and non-biting midges, stable flies, horse flies, deer flies, sheep flies, horn flies, yellow flies, and nuisance flying insects such as house flies in areas such as industrial areas, urban areas, parks, campsites, woodlands, athletic fields, golf courses, playgrounds, recreational and overgrown waste areas, roadsides, and other public areas where adult mosquitoes and flies occur.

All types of applications should be conducted at temperatures of 50°F or higher.

SCOURGE Insecticide with RESMETHRIN/PIPERONYL BUTOXIDE 18% + 54% MF FORMULA II **can be applied as undiluted or diluted with refined** soybean oil, light mineral oil of 54 second viscosity or other suitable solvent or diluent.

GROUND APPLICATION:

Vehicle-Mounted ULV Cold Aerosol Generators or Vehicle-Mounted Non-Thermal Aerosol (Cold Fog): Apply through non-thermal ULV application equipment and base acreage calculations on the equipment manufacturer's recommended swath width. Apply at a rate not to exceed 0.007 pounds of resmethrin per acre in any given 24 hour period. An optimum swath is created when SCOURGE Insecticide with RESMETHRIN/PIPERONYL BUTOXIDE 18% + 54% MF FORMULA II is applied from a truck that is being driven perpendicular to the wind direction. Direct the spray head of equipment to ensure even distribution of the spray cloud throughout the area. For best results, apply when insects are most active and meteorological conditions are conducive to keeping the spray cloud in the air column close to the ground. An inversion of air temperatures and a light breeze is preferable. Application during the cooler hours of the night or early morning is recommended.

SCOURGE Insecticide with RESMETHRIN/PIPERONYL BUTOXIDE 18% + 54% MF FORMULA II may be applied through ULV Cold Aerosol Generators, or other equipment designed for non-thermal ULV aerosol applications. The desired application rate may be obtained under different conditions by altering the dilution rate of SCOURGE Insecticide with RESMETHRIN/PIPERONYL BUTOXIDE 18% + 54% MF FORMULA II, the flow rate of the insecticide from the application equipment and the vehicle speed. Examples are given in the following Table.

Flow Rate (Fluid Ounces Per Minute)

Application Rate (lb resmethrin per Acre)	Vehicle Speed (MPH)	Undiluted	Diluted 1 + 1	Diluted 1 + 2	Diluted 1 + 4	Diluted 1 + 6
0.0015	10	0.77	1.56	2.32	3.90	5.40
	15	1.17	2.30	3.50	5.80	8.10
	20	1.54	3.10	4.62	7.70	10.80
0.00175	10	0.90	1.80	2.70	4.50	6.30
	15	1.35	2.70	4.05	6.75	9.45
	20	1.80	3.60	5.39	9.00	12.59
0.0035	10	1.80	3.60	5.39	9.00	12.59
	15	2.70	5.39	8.09	13.49	18.90
	20	3.60	7.20	10.80	17.98	25.17
0.007	10	3.59	7.19	10.79	17.98	25.17
	15	5.39	10.79	16.18	26.97	
	20	7.19	14.38	21.57		

In the State of New York: This product shall be applied at the rate of 0.001 to 0.007 pounds of Resmethrin per acre with suitable diluent, not to exceed a finished spray solution of 16 fl oz/acre. Where dense vegetation is present, the use of the higher label rates is recommended.

AERIAL APPLICATION:

SCOURGE Insecticide with RESMETHRIN/PIPERONYL BUTOXIDE 18% + 54% MF FORMULA II may be applied either diluted or undiluted at rates of 0.0035 to 0.007 pounds Resmethrin per acre by fixed wing or rotary aircraft that are capable of making a ULV application. Applications shall only be made when recommended by public health officials and trained personnel of mosquito abatement districts and other mosquito control programs.

For best results, treat when insects are most active and meteorological conditions are conducive to keeping the spray cloud close to the ground. In order to compensate for windy conditions and ensure drift onto the target area aerial application with aircraft equipped with Global Positioning Systems (GPS) is recommended.

USE OF FIXED WING AIRCRAFT OR HELICOPTERS

UNDILUTED

SCOURGE Insecticide with RESMETHRIN/PIPERONYL BUTOXIDE 18% + 54% MF FORMULA II may be applied undiluted at a treatment rate of 0.007 pounds of resmethrin per acre at a finished spray volume of 0.6 fl oz/acre.

DILUTED

For additional rates and dilutions see mixing instructions below.

MIXING INSTRUCTIONS FOR PRODUCT IN AIRCRAFT USAGE

If using SCOURGE Insecticide with RESMETHRIN/PIPERONYL BUTOXIDE 18% + 54% MF FORMULA II diluted follow the mixing instructions contained in the table for Aircraft usage.

FL oz/A of Finished Spray to be Applied	lb ai/A Wanted RESMETHRIN / PBO	Volumetric Dilution Needed	
		Product	Solvent
0.5	0.001/0.003	1 part	4.5 parts
	0.00175/0.00525	1 part	2.37 parts
	0.0035/0.0105	1 part	0.68 parts
1.0	0.001/0.003	1 part	10 part
	0.00175/0.00525	1 part	5.74 parts
	0.0035/0.0105	1 part	2.33 parts
	0.007/0.021	1 part	0.68 parts
3.0	0.001/0.003	1 part	34 parts
	0.00175/0.00525	1 part	19.2 parts
	0.0035/0.0105	1 part	9 parts
	0.007/0.021	1 part	4 parts

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

Pesticide Storage: Store product in its original container in a locked storage area.

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal:

Non-refillable container: Do not reuse or refill this container. Offer for recycling, if available. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with mineral oil. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill or incineration, or if allowed by State and Local authorities, by burning. If burned, stay out of smoke.

IMPORTANT: READ BEFORE USE

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once. By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

CONDITIONS: The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Bayer CropScience LP. All such risks shall be assumed by the user or buyer.

DISCLAIMER OF WARRANTIES: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE LP MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, THAT EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. No agent of Bayer CropScience LP is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE LP DISCLAIMS ANY LIABILITY WHATSOEVER FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

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Produced for:
Bayer Environmental Science
A Division of Bayer CropScience LP
2 T. W. Alexander Drive
Research Triangle Park, NC 27709

81001677A 120917AV1

Spray Drift Management

Application Restrictions

In treatment of corrals, feed lots, swine lots, and zoos, cover any exposed drinking water, drinking water fountains and animal feed before application.

For use by federal, state, tribal, or local government officials responsible for public health or vector control or by persons certified in the appropriate category or otherwise authorized by the state or tribal lead pesticide regulatory agency to perform adult mosquito control applications, or by persons under their direct supervision.

Do not apply more than 0.007 lb of Resmethrin/acre per application.

Do not apply more than 0.2 lb of Resmethrin/acre per year in any treated area. More frequent treatments may be made to prevent or control a threat to public and/or animal health determined by a state, tribal, or local health or vector control agency on the basis of documented evidence of disease causing agents in vector mosquitoes or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort.

A variety of factors including weather conditions (e.g., wind direction, wind speed, temperature, relative humidity), and method of application (e.g., ground, aerial, airblast, chemigation) can influence pesticide drift. The applicator must evaluate all factors and make appropriate adjustments when applying this product.

WIND SPEED

Do not apply when wind speed is 0 mph.

DROPLET SIZE

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Spray equipment must be adjusted so that the volume median diameter is less than 30 microns (Dv 0.5 < 30 µm) and that 90% of the spray is contained in droplets smaller than 50 microns (Dv 0.9 < 50µm). Directions from the equipment manufacturer or vendor, pesticide registrant or a test facility using a laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra.

Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rate(s) are properly calibrated.

AERIAL APPLICATION:

Spray equipment must be adjusted so that the volume median diameter produced is less than 60 microns (Dv 0.5 < 60 µm) and that 90% of the spray is contained in droplets smaller than 80 microns (Dv 0.9 < 80 µm). The effects of flight speed, and for non-rotary nozzles, nozzle angle on the droplet size spectrum must be considered. Directions from the equipment manufacturer or vendor, pesticide registrant or a test facility using a wind tunnel and laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra.

EQUIPMENT CALIBRATION:

Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rate(s) are properly calibrated.

RELEASE HEIGHT:

Fixed wing:

Apply using a nozzle height of no less than 100 feet above the ground or canopy.

Rotary wing:

Apply using a nozzle height of no less than 75 feet above the ground or canopy.

Boom length:

The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter.

GENERAL

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All types of applications should be conducted at temperatures of 50°F or higher.

SCOURGE Insecticide with RESMETHRIN/PIPERONYL BUTOXIDE 18% + 54% MF FORMULA II **can be applied as undiluted or diluted with refined** soybean oil, light mineral oil of 54 second viscosity or other suitable solvent or diluent.

GROUND APPLICATION:

Vehicle-Mounted ULV Cold Aerosol Generators or Vehicle-Mounted Non-Thermal Aerosol (Cold Fog): Apply through non-thermal ULV application equipment and base acreage calculations on the equipment manufacturer's recommended swath width. Apply at a rate not to exceed 0.007 pounds of resmethrin per acre in any given 24 hour period. An optimum swath is created when SCOURGE Insecticide with RESMETHRIN/PIPERONYL BUTOXIDE 18% + 54% MF FORMULA II is applied from a truck that is being driven perpendicular to the wind direction. Direct the spray head of equipment to ensure even distribution of the spray cloud throughout the area. For best results, apply when insects are most active and meteorological conditions are conducive to keeping the spray cloud in the air column close to the ground. An inversion of air temperatures and a light breeze is preferable. Application during the cooler hours of the night or early morning is recommended.

SCOURGE Insecticide with RESMETHRIN/PIPERONYL BUTOXIDE 18% + 54% MF FORMULA II may be applied through ULV Cold Aerosol Generators, or other equipment designed for non-thermal ULV aerosol applications. The desired application rate may be obtained under different conditions by altering the dilution rate of SCOURGE Insecticide with RESMETHRIN/PIPERONYL BUTOXIDE 18% + 54% MF FORMULA II, the flow rate of the insecticide from the application equipment and the vehicle speed. Examples are given in the following Table.

Flow Rate (Fluid Ounces Per Minute)

Application Rate (lb resmethrin per Acre)	Vehicle Speed (MPH)	Undiluted	Diluted 1 + 1	Diluted 1 + 2	Diluted 1 + 4	Diluted 1 + 6
0.0015	10	0.77	1.56	2.32	3.90	5.40
	15	1.17	2.30	3.50	5.80	8.10
	20	1.54	3.10	4.62	7.70	10.80
0.00175	10	0.90	1.80	2.70	4.50	6.30
	15	1.35	2.70	4.05	6.75	9.45
	20	1.80	3.60	5.39	9.00	12.59
0.0035	10	1.80	3.60	5.39	9.00	12.59
	15	2.70	5.39	8.09	13.49	18.90
	20	3.60	7.20	10.80	17.98	25.17
0.007	10	3.59	7.19	10.79	17.98	25.17
	15	5.39	10.79	16.18	26.97	
	20	7.19	14.38	21.57		

In the State of New York: This product shall be applied at the rate of 0.001 to 0.007 pounds of Resmethrin per acre with suitable diluent, not to exceed a finished spray solution of 16 fl oz/acre. Where dense vegetation is present, the use of the higher label rates is recommended.

AERIAL APPLICATION:

SCOURGE Insecticide with RESMETHRIN/PIPERONYL BUTOXIDE 18% + 54% MF FORMULA II may be applied either diluted or undiluted at rates of 0.0035 to 0.007 pounds Resmethrin per acre by fixed wing or rotary aircraft that are capable of making a ULV application. Applications shall only be made when recommended by public health officials and trained personnel of mosquito abatement districts and other mosquito control programs.

For best results, treat when insects are most active and meteorological conditions are conducive to keeping the spray cloud close to the ground. In order to compensate for windy conditions and ensure drift onto the target area aerial application with aircraft equipped with Global Positioning Systems (GPS) is recommended.

USE OF FIXED WING AIRCRAFT OR HELICOPTERS

UNDILUTED

SCOURGE Insecticide with RESMETHRIN/PIPERONYL BUTOXIDE 18% + 54% MF FORMULA II may be applied undiluted at a treatment rate of 0.007 pounds of resmethrin per acre at a finished spray volume of 0.6 fl oz/acre.

DILUTED

For additional rates and dilutions see mixing instructions below.

MIXING INSTRUCTIONS FOR PRODUCT IN AIRCRAFT USAGE

If using SCOURGE Insecticide with RESMETHRIN/PIPERONYL BUTOXIDE 18% + 54% MF FORMULA II diluted follow the mixing instructions contained in the table for Aircraft usage.

FL oz/A of Finished Spray to be Applied	lb ai/A Wanted RESMETHRIN / PBO	Volumetric Dilution Needed	
		Product	Solvent
0.5	0.001/0.003	1 part	4.5 parts
	0.00175/0.00525	1 part	2.37 parts
	0.0035/0.0105	1 part	0.68 parts
1.0	0.001/0.003	1 part	10 part
	0.00175/0.00525	1 part	5.74 parts
	0.0035/0.0105	1 part	2.33 parts
	0.007/0.021	1 part	0.68 parts
3.0	0.001/0.003	1 part	34 parts
	0.00175/0.00525	1 part	19.2 parts
	0.0035/0.0105	1 part	9 parts
	0.007/0.021	1 part	4 parts

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

Pesticide Storage: Store product in its original container in a locked storage area.

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal:

Non-refillable container: Do not reuse or refill this container. Offer for recycling, if available. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with mineral oil. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill or incineration, or if allowed by State and Local authorities, by burning. If burned, stay out of smoke.

IMPORTANT: READ BEFORE USE

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once. By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

CONDITIONS: The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Bayer CropScience LP. All such risks shall be assumed by the user or buyer.

DISCLAIMER OF WARRANTIES: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE LP MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, THAT EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. No agent of Bayer CropScience LP is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE LP DISCLAIMS ANY LIABILITY WHATSOEVER FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

LIMITATIONS OF LIABILITY: TO THE EXTENT OF THE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL NOT EXCEED THE PURCHASE PRICE PAID, OR AT BAYER CROPSCIENCE LP'S ELECTION, THE REPLACEMENT OF PRODUCT.

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Produced for:
Bayer Environmental Science
A Division of Bayer CropScience LP
2 T. W. Alexander Drive
Research Triangle Park, NC 27709

Bayer Environmental Science
SAFETY DATA SHEET

SCOURGE® INSECTICIDE WITH RESMETHRIN/PIPERONYL BUTOXIDE 18% + 54% MF FORMULA II

Version 3.0 / USA
102000004839

Revision Date: 07/28/2015
Print Date: 08/11/2015

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier

Trade name	SCOURGE® INSECTICIDE WITH RESMETHRIN/PIPERONYL BUTOXIDE 18% + 54% MF FORMULA II
Product code (UVP)	05952174
SDS Number	102000004839
EPA Registration No.	432-667

Relevant identified uses of the substance or mixture and uses advised against

Use	Insecticide
Restrictions on use	See product label for restrictions.

Information on supplier

Supplier	Bayer Environmental Science 2 T.W. Alexander Drive Research Triangle PK, NC 27709 United States
Responsible Department	Email: SDSINFO.BCS-NA@bayer.com

Emergency telephone no.

Emergency Telephone Number (24hr/ 7 days)	1-800-334-7577
Product Information Telephone Number	1-800-331-2867

SECTION 2: HAZARDS IDENTIFICATION

Classification in accordance with regulation HCS 29CFR §1910.1200
Flammable liquids: Category 4
Carcinogenicity: Category 2



Signal word: Warning

Hazard statements
Combustible liquid
Suspected of causing cancer.



Precautionary statements
Keep away from open flames/hot surfaces. - No smoking.
Wear protective gloves/ protective clothing/ eye protection/ face protection.
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
IF exposed or concerned: Get medical advice/ attention.
Store in a well-ventilated place. Keep cool.
Store locked up.
Dispose of contents/container in accordance with local regulation.

Other hazards
No other hazards known.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Component Name	CAS-No.	Concentration % by weight
Piperonyl butoxide	51-03-6	54.0
Resmethrin	10453-86-8	18.0
Solvent Naphtha (petroleum), heavy aromatic	64742-94-5	24.8
Naphthalene	91-20-3	2.8

SECTION 4: FIRST AID MEASURES

Description of first aid measures

General advice
When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.

Inhalation
Move to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a physician or poison control center immediately.

Skin contact
Take off contaminated clothing and shoes immediately. Wash off immediately with plenty of water for at least 15 minutes. Call a physician or poison control center immediately.

Eye contact
Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a physician or poison control center immediately.

Ingestion
Call a physician or poison control center immediately. Rinse out mouth and give water in small sips to drink. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person. Do not leave victim unattended.

Most important symptoms and effects, both acute and delayed

Symptoms	The following symptoms may occur:, Headache, Nausea, Diarrhoea, Drowsiness, Vomiting

Indication of any immediate medical attention and special treatment needed

Risks	Contains hydrocarbon solvents. May pose an aspiration pneumonia hazard. This product contains a pyrethroid. Pyrethroid poisoning should not be confused with carbamate or organophosphate poisoning.
Treatment	Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended. There is no specific antidote.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media

Suitable	Carbon dioxide (CO2), Dry chemical, Foam, Water spray
Unsuitable	None known.
Special hazards arising from the substance or mixture	Dangerous gases are evolved in the event of a fire.

Advice for firefighters

Special protective equipment for fire-fighters	Firefighters should wear NIOSH approved self-contained breathing apparatus and full protective clothing.
Further information	Keep out of smoke. Fight fire from upwind position. Cool closed containers exposed to fire with water spray. Do not allow run-off from fire fighting to enter drains or water courses.
Flash point	74 °C
Autoignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Explosivity	not applicable



SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Precautions	Avoid contact with spilled product or contaminated surfaces. Isolate hazard area. Keep unauthorized people away. Remove all sources of ignition.

Methods and materials for containment and cleaning up

Methods for cleaning up	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Collect and transfer the product into a properly labelled and tightly closed container. Clean contaminated floors and objects thoroughly, observing environmental regulations.
Additional advice	Use personal protective equipment. Do not allow to enter soil, waterways or waste water canal.
Reference to other sections	Information regarding safe handling, see section 7. Information regarding personal protective equipment, see section 8. Information regarding waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling	Handle and open container in a manner as to prevent spillage. Use only in area provided with appropriate exhaust ventilation.
Advice on protection against fire and explosion	Take measures to prevent the build up of electrostatic charge.
Hygiene measures	Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics. Remove Personal Protective Equipment (PPE) immediately after handling this product. Before removing gloves clean them with soap and water. Remove soiled clothing immediately and clean thoroughly before using again. Wash thoroughly and put on clean clothing.

Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers	Store in a cool, dry place and in such a manner as to prevent cross contamination with other crop protection products, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Components	CAS-No.	Control parameters	Update	Basis
Piperonyl butoxide	51-03-6	500 ppm (TWA)		OES BCS*
Resmethrin	10453-86-8	6.1 mg/m3 (TWA)		OES BCS*
Solvent Naphtha (petroleum), heavy aromatic	64742-94-5	2560ug/m3 (ST ESL)	07 2011	TX ESL
Solvent Naphtha (petroleum), heavy aromatic	64742-94-5	460ppb (ST ESL)	07 2011	TX ESL
Solvent Naphtha (petroleum), heavy aromatic	64742-94-5	256ug/m3 (AN ESL)	07 2011	TX ESL
Solvent Naphtha (petroleum), heavy aromatic	64742-94-5	46ppb (AN ESL)	07 2011	TX ESL
Solvent Naphtha (petroleum), heavy aromatic	64742-94-5	1,600 mg/m3/400 ppm (TWA PEL)	08 2010	US CA OEL
Naphthalene	91-20-3	10 ppm (TWA)	02 2012	ACGIH
Naphthalene	91-20-3	50 mg/m3/10 ppm (REL)	2010	NIOSH
Naphthalene	91-20-3	75 mg/m3/15 ppm (STEL)	2010	NIOSH
Naphthalene	91-20-3	50 mg/m3/10 ppm (PEL)	02 2006	OSHA Z1
Naphthalene	91-20-3	75 mg/m3/15 ppm (STEL)	1989	OSHA Z1A
Naphthalene	91-20-3	50 mg/m3/10 ppm (TWA)	1989	OSHA Z1A
Naphthalene	91-20-3	50 mg/m3/10 ppm (TWA)	06 2008	TN OEL
Naphthalene	91-20-3	75 mg/m3/15 ppm (STEL)	06 2008	TN OEL
Naphthalene	91-20-3	50ug/m3 (AN ESL)	07 2011	TX ESL
Naphthalene	91-20-3	200ug/m3 (ST ESL)	02 2013	TX ESL
Naphthalene	91-20-3	38ppb (ST ESL)	02 2013	TX ESL
Naphthalene	91-20-3	10ppb (AN ESL)	07 2011	TX ESL
Naphthalene	91-20-3	0.5 mg/m3/0.1 ppm (TWA PEL)	10 2014	US CA OEL
Naphthalene	91-20-3	10 ppm		OES BCS*



		(TWA)		

*OES BCS: Internal Bayer CropScience "Occupational Exposure Standard"

Exposure controls

Personal protective equipment
In normal use and handling conditions please refer to the label and/or leaflet. In all other cases the following recommendations would apply.

Respiratory protection	When respirators are required, select NIOSH approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industry recommendations.
Hand protection	Chemical resistant nitrile rubber gloves
Eye protection	Safety glasses with side-shields
Skin and body protection	Wear long-sleeved shirt and long pants and shoes plus socks.
General protective measures	Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and warm/tepid water. Keep and wash PPE separately from other laundry.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	beige to brown
Physical State	Liquid
Odor	mild
Odour Threshold	no data available
pH	no data available
Vapor Pressure	no data available
Vapor Density (Air = 1)	no data available
Density	ca. 1.00 g/cm³ at 20 °C
Bulk density	8.41 lb/gal
Evapouration rate	no data available
Boiling Point	no data available
Melting / Freezing Point	no data available
Water solubility	insoluble
Minimum Ignition Energy	not applicable

Decomposition temperature	no data available
Partition coefficient: n-octanol/water	not applicable
Viscosity	35.6 mPa.s at 21 °C
Flash point	74 °C
Autoignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Explosivity	not applicable

SECTION 10: STABILITY AND REACTIVITY

Reactivity	
Thermal decomposition	no data available
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Heat, flames and sparks.
Incompatible materials	Strong reducing agents, Strong oxidizing agents
Hazardous decomposition products	No decomposition products expected under normal conditions of use.

SECTION 11: TOXICOLOGICAL INFORMATION

Exposure routes	Ingestion, Skin Absorption, Eye contact, Inhalation
Immediate Effects	
Eye	Moderate eye irritation.
Skin	May cause slight irritation. Harmful if absorbed through skin.
Ingestion	Harmful if swallowed.

Information on toxicological effects

Acute oral toxicity	LD50 (rat) > 2,700 mg/kg
Acute inhalation toxicity	LC50 (male/female combined rat) > 2.6 mg/l Exposure time: 4 h

	Determined in the form of liquid aerosol. Highest attainable concentration. No deaths
Acute dermal toxicity	LD50 (rabbit) > 2,000 mg/kg
Skin irritation	Slight irritation (rabbit)
Eye irritation	Minimally irritating. (rabbit)
Sensitisation	Non-sensitizing. (guinea pig)

Assessment repeated dose toxicity

Piperonyl butoxide did not cause specific target organ toxicity in experimental animal studies.
Resmethrin did not cause specific target organ toxicity in experimental animal studies.

Assessment mutagenicity

Piperonyl butoxide was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.
Resmethrin was not genotoxic in a battery of in vitro tests.

Assessment carcinogenicity

Piperonyl butoxide was not carcinogenic in lifetime feeding studies in rats and mice.
Resmethrin was not carcinogenic in lifetime feeding studies in rats and mice.

ACGIH

Naphthalene	91-20-3	Group A3

NTP

Naphthalene	91-20-3	

IARC

Piperonyl butoxide	51-03-6	Overall evaluation: 3
Naphthalene	91-20-3	Overall evaluation: 2B

OSHA

None.

Assessment toxicity to reproduction

Piperonyl butoxide did not cause reproductive toxicity in a two-generation study in rats.
Resmethrin caused reproduction toxicity in a two-generation study in rats only at dose levels also toxic to the parent animals.

Assessment developmental toxicity

Piperonyl butoxide did not cause developmental toxicity in rats and rabbits.
Resmethrin caused developmental toxicity only at dose levels toxic to the dams.

Further information

Only acute toxicity studies have been performed on the formulated product.
The non-acute information pertains to the active ingredient(s).

SECTION 12: ECOLOGICAL INFORMATION

Biodegradability	Piperonyl butoxide: not rapidly biodegradable Resmethrin: not rapidly biodegradable
Koc	Piperonyl butoxide: Koc: 399 - 830 Resmethrin: Koc: 100000
Bioaccumulation	Piperonyl butoxide: Potential bioaccumulation Resmethrin: Bioconcentration factor (BCF) 68 Does not bioaccumulate.
Mobility in soil	Piperonyl butoxide: Moderately mobile in soils Resmethrin: Immobile in soil
Environmental precautions	Do not allow to get into surface water, drains and ground water. Drift and runoff from treated areas may be hazardous to aquatic organisms in adjacent sites. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area. Apply this product as specified on the label.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Product	Pesticide, spray mixture or rinse water that cannot be used according to label instructions may be disposed of on site or at an approved waste disposal facility. Dispose in accordance with all local, state/provincial and federal regulations.
Contaminated packaging	Do not re-use empty containers. Triple rinse containers. Puncture container to avoid re-use. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State/Provincial and local authorities, by burning. If burned, stay out of smoke. Follow advice on product label and/or leaflet.

RCRA Information Characterization and proper disposal of this material as a special or hazardous waste is dependent upon Federal, State and local laws and are the user's responsibility. RCRA classification may apply.

SECTION 14: TRANSPORT INFORMATION

49CFR

NA-Number	**1993**
Packaging group	III
Proper shipping name	COMBUSTIBLE LIQUID, N.O.S. (PETROLEUM DISTILLATES, NAPHTHALENE)
RQ	Reportable Quantity is reached with 3,571 lb of product.

IMDG

UN number	**3082**
Class	9
Packaging group	III
Marine pollutant	YES
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (RESMETHRIN SOLUTION)

IATA

UN number	**3082**
Class	9
Packaging group	III
Environm. Hazardous Mark	YES
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (RESMETHRIN SOLUTION)

This transportation information is not intended to convey all specific regulatory information relating to this product. It does not address regulatory variations due to package size or special transportation requirements.

Freight Classification: INSECTICIDES OR FUNGICIDES, N.O.I., OTHER THAN POISON

SECTION 15: REGULATORY INFORMATION

EPA Registration No. 432-667

SCOURGE® INSECTICIDE WITH RESMETHRIN/PIPERONYL BUTOXIDE 18% + 54% MF FORMULA II

US Federal Regulations
TSCA list

Piperonyl butoxide	51-03-6	
Solvent Naphtha (petroleum), heavy aromatic	64742-94-5	
Naphthalene	91-20-3	

US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)
None.
SARA Title III - Section 302 - Notification and Information
None.
SARA Title III - Section 313 - Toxic Chemical Release Reporting

Piperonyl butoxide	51-03-6	1.0%
Resmethrin	10453-86-8	1.0%
Naphthalene	91-20-3	

US States Regulatory Reporting
CA Prop65
This product contains a chemical known to the State of California to cause cancer.

Resmethrin	10453-86-8
Naphthalene	91-20-3

This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Resmethrin	10453-86-8	Developmental toxin.

US State Right-To-Know Ingredients

Piperonyl butoxide	51-03-6	NJ, RI
Resmethrin	10453-86-8	NJ, RI
Naphthalene	91-20-3	CA, CT, IL, MN, NJ, RI

Canadian Regulations
Canadian Domestic Substance List
None.

Environmental
CERCLA

Naphthalene	91-20-3	100 lbs

Clean Water Section 307 Priority Pollutants
Naphthalene 91-20-3
Safe Drinking Water Act Maximum Contaminant Levels
Naphthalene 91-20-3

EPA/FIFRA Information:
This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information required on the pesticide label:

SCOURGE® INSECTICIDE WITH RESMETHRIN/PIPERONYL BUTOXIDE 18% + 54% MF FORMULA II

Signal word: Caution!

Hazard statements: Harmful if swallowed or absorbed through skin.
Moderate eye irritation.
Avoid contact with skin, eyes and clothing.

SECTION 16: OTHER INFORMATION

Abbreviations and acronyms

49CFR	Code of Federal Regulations, Title 49
ACGIH	US. ACGIH Threshold Limit Values
CAS-Nr.	Chemical Abstracts Service number
EINECS	European inventory of existing commercial substances
ELINCS	European list of notified chemical substances
IARC	US. IARC Monographs on Occupational Exposures to Chemical Agents
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
N.O.S.	Not otherwise specified
NTP	US. National Toxicology Program (NTP) Report on Carcinogens
OECD	Organization for Economic Co-operation and Development
TDG	Transportation of Dangerous Goods
TWA	Time weighted average
UN	United Nations
WHO	World health organisation

NFPA 704 (National Fire Protection Association):
Health - 1 Flammability - 2 Instability - 0 Others - none

HMIS (Hazardous Materials Identification System, based on the Third Edition Ratings Guide)
Health - 1 Flammability - 2 Physical Hazard - 0 PPE -

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard

Reason for Revision: Revised according to the current OSHA Hazard Communication Standard (29CFR1910.1200)

Revision Date: 07/28/2015

This information is provided in good faith but without express or implied warranty. The customer assumes all responsibility for safety and use not in accordance with label instructions. The product names are registered trademarks of Bayer.

Aqua Perm-X™ UL 30-30

For use only by federal, state, tribal or local government officials responsible for public health or vector control, or by persons certified in the appropriate category or otherwise authorized by the state or tribal lead pesticide regulatory agency to perform adult mosquito control applications, or by persons under their direct supervision.

CONTROLS: Adult Mosquitoes (including organophosphate-resistant mosquitoes), Midges (biting and non-biting) and Black Flies

FOR USE AS A: ULV, thermal and barrier applications using ground and aerial equipment in areas including: residential, industrial, commercial and within or adjacent to listed crops and range grasses.

Formulation allows for dilution with water or oil. Refer to label for additional use sites.

SPECIMEN LABEL

ACTIVE INGREDIENTS:

Permethrin (CAS# 52645-53-1)	30%
Piperonyl Butoxide (CAS# 51-03-6)	30%
OTHER INGREDIENTS*:	40%
TOTAL:	100%

*Contains Petroleum Distillates
Contains 2.52 lbs. a.i. Permethrin per gallon and 2.52 lbs. a.i. Piperonyl Butoxide per gallon.

KEEP OUT OF REACH OF CHILDREN

CAUTION

See Additional Precautionary Statements, First Aid, Directions for Use including Storage and Disposal instructions.

For Chemical Spill, Leak, Fire, or Exposure,
Call: CHEMTREC 1-800-424-9300.
For Medical Emergencies Only, Call: 1-800-248-7763.

EPA Reg.No. 89459-76
EPA Est. No. 2724-TX-1

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Harmful if swallowed. Harmful if absorbed through skin. Avoid contact with skin, eyes, or clothing. Wear long sleeved shirt, long pants, shoes, socks, and chemical-resistant gloves (barrier laminate, nitrile rubber, neoprene rubber, or viton, Selection Category E). Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

FIRST AID	
If swallowed	• Immediately call a poison control center or doctor. • Do not induce vomiting unless told to by a poison control center or doctor. • Do not give **any** liquid to the person. • Do not give anything by mouth to an unconscious person.
If on skin or clothing	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
HOT LINE NUMBER: Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-248-7763 for emergency medical treatment information.	
NOTE TO PHYSICIAN: Contains petroleum distillate. May pose an aspiration pneumonia hazard.	

(continued)

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are barrier laminate, nitrile rubber, neoprene rubber, and viton. If you want more options, follow the instructions for category E on an EPA chemical-resistance category selection chart.

Mixers, loaders, applicators and other handlers must wear:

- Long-sleeve shirt and long pants,
- Shoes plus socks,

- Chemical-resistant gloves for all handlers except for applicators using motorized ground equipment, pilots, and flaggers,
- Chemical-resistant apron for mixers/loaders, persons cleaning equipment and persons exposed to concentrate.

See Engineering Controls for additional requirements.

USER SAFETY REQUIREMENTS

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with the product's concentrate. Do not reuse them.

ENGINEERING CONTROLS

Pilots must use an enclosed cockpit that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(6)]. Human flagging is prohibited. Flagging to support aerial application is limited to the use of the Global Positioning System (GPS) or mechanical flaggers.

USER SAFETY RECOMMENDATIONS

Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Users should remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

This pesticide is extremely toxic to fish and aquatic invertebrates. Runoff from treated areas or deposition of spray droplets into a body of water may be hazardous to fish and aquatic invertebrates. Do not apply over bodies of water (lakes, rivers, permanent streams, natural ponds, commercial fish ponds, swamps, marshes or estuaries), except when necessary to target areas where adult mosquitoes are present, and weather conditions will facilitate movement of applied material away from the water in order to minimize incidental deposition into the water body. Do not contaminate bodies of water when disposing of equipment rinsate or washwaters.

Bee Warning: This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift on blooming crops or weeds while bees are actively visiting the treatment areas, except when applications are made to prevent or control a threat to public and/or animal health determined by a state, tribal or local health or vector control agency on the basis of documented evidence of disease causing agents in vector mosquitoes or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

HOW TO APPLY AND WHERE TO USE

This product is designed for application as an Ultra-Low Volume (ULV) or thermal aerosol to control adult mosquitoes and flies of nuisance, public health or disease vector importance in areas including: residential areas, industrial areas, commercial areas, urban areas, parks, campgrounds, woodlands, athletic fields, golf courses, playgrounds, recreational areas, overgrown waste areas, roadsides, and other areas where adult mosquitoes and flies may be found.

Apply this product with ULV cold aerosol generators, thermal aerosol generators, mist-blowers, backpack sprayers, or handheld sprayers. Mist-blowers, backpack sprayers, handheld sprayers and low-pressure hand sprayers may be used for barrier or surface applications.

FOR BEST RESULTS, treat when mosquitoes or insects are most active and weather conditions are conducive to keeping the fog near the ground, e.g., cool temperatures, and consistent wind speeds are not greater than 10 mph. Applications during the cool hours of night or early morning are usually preferable. Apply this product only when wind speed is greater than 1 mph.

Do not retreat the same site more than once in 3 days. Do not exceed 25 applications at 0.007 lbs. permethrin per acre per application or 0.25 lbs. PBO per acre per application, or 0.18 lbs. of permethrin per acre per season or 2 lbs. PBO per acre per year. When targeting Aedes taeirorhynchus and other difficult species, applications of PBO may be made up to 0.08 lbs. PBO per acre. More frequent treatments may be made to prevent or control a threat to public and/or animal health determined by a state, tribal or local health or vector control agency on the basis of documented evidence of disease causing agents in vector mosquitoes or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort.

Apply this product over specific growing crops and range grasses prior to harvest for the control of adult mosquitoes and biting flies within or adjacent to these areas. Application can only be made where the following crops are present:

Alfalfa	Celery	Kiwifruit	Potatoes
Almonds	Cherries	Horseradish	Range grasses
Apples	Corn, fodder	Leafy vegetables (except *Brassica*)	Soybeans
Artichokes, globe	Corn, forage	Lettuce, head	Spinach
Asparagus	Corn, grain (field and pop)	Mushrooms	Tomatoes
Avocados	Corn, stover	Onions, dry bulb	Vegetables, cucurbit
Broccoli	Corn, sweet kernel + cob with husks removed	Peaches	Walnuts
Brussels sprouts	Eggplant	Pears	Watercress
Cabbage	Filberts	Peppers, bell	
Cauliflower	Garlic	Pistachios	

Do not allow spray treatment to drift on cropland (other than crops listed) or water supplies.

In treatment of corrals, feedlots, animal confinements/houses, swine lots and zoos, cover any exposed drinking water, drinking fountains and animal feed before application.

This product provides effective control of adult mosquitoes, black flies, gnats, biting and non-biting midges, stable flies, horse flies, deer flies, sheep flies, horn and heel flies, and nuisance flying insects such as house flies. Air temperatures should be greater than 50° F when conducting all types of applications.

Do not apply directly to sewers or drains, or to any area like a gutter where drainage to sewers, storm drains, water bodies, or aquatic habitat can occur, except as directed by this label.

Not for use in outdoor residential misting systems. Not for use in metered release systems.

GROUND APPLICATION

Vehicle-Mounted ULV Cold Aerosol Generators (Cold Fog): Apply through non-thermal ULV application equipment and base all acreage calculations on the equipment manufacturer's recommended swath width. Spray equipment must be adjusted so the volume median diameter or mass median diameter is less than 30 microns ($D_{v0.5}$ < 30 µm) and that 90% of the spray is contained in droplets smaller than 50 microns ($D_{v0.9}$ < 50 µm). Directions from the equipment manufacturer or vendor, pesticide registrant or a test facility using a laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra. Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rate(s) are properly calibrated. Apply at a rate not to exceed 0.007 lb. of permethrin per acre. An optimum swath is created when this product is applied from a truck being driven perpendicular to the wind direction. Direct the spray head of the equipment to ensure an optimum distribution of the spray cloud throughout the area. For best results, apply when insects are most active and meteorological conditions are conducive to keeping the spray cloud near the ground. An inversion of air temperatures and a light breeze of approximately 1 to 3 mph are preferable. During applications, consistent ground wind speeds should not exceed 10 mph. Application of this product during cooler hours of the night or early morning is recommended.

This product may be applied through all ULV Cold Aerosol Generators, or other similar equipment designed for non-thermal ULV aerosol applications. The desired application rate may be obtained from the chart below or by altering the dilution rate, the flow rate of the insecticide from the application equipment and the vehicle speed. Some examples are provided in the following chart. When an alternate rate is required, adjust the flow rate accordingly, provided the droplet size and spectrum remain within the label specifications

FLOW RATE (Fluid Ounces Per Minute) Dilutions Based on a 15-Gallon Tank*						
Application Rate (Pounds of Permethrin a.i./Acre)	Vehicle Speed (MPH)	Undiluted	Diluted 1:4	Diluted 1:5	Diluted 1:6:5	Diluted 1:9
0.00150	10	0.46	2.32	2.77	3.50	4.70
	15	0.70	3.47	4.15	5.20	7.00
	20	0.93	4.64	5.60	7.00	9.30
0.00175	10	0.55	2.70	3.24	4.05	5.40
	15	0.82	4.05	4.84	6.07	8.10
	20	1.09	5.40	6.48	8.10	10.80
0.00350	10	1.09	5.40	6.48	8.10	10.80
	15	1.65	8.10	9.68	12.10	16.10
	20	2.19	10.80	12.90	16.10	21.50
0.00700	10	2.19	10.70	12.90	16.10	21.50
	15	3.28	16.10	19.40	24.20	
	20	4.38	21.40	25.80		

*Dilution Instructions: Fill tank with the appropriate amount of water for the desired dilution, then add this product and mix well. The use of metering pumps, injector systems or other mixing systems is optional. Note: When using oil as a diluent, agitate well before use.

Where dense vegetation is present, use higher rates of application and/or a slower speed for best results.

BACKPACK OR HANDHELD SPRAYER APPLICATION: Apply through non-thermal ULV application equipment and base acreage calculations on a 300 foot swath. To apply undiluted at 0.007 lb. of permethrin per acre, adjust equipment to an output rate of 0.86 fluid ounces per minute and walk at 4 mph. To apply 0.0035 lb. of permethrin per acre, dilute 1 part of this product with 6 parts of diluent and apply at a rate of 3 fluid ounces per minute and walk at 4 mph.

THERMAL AEROSOL APPLICATION: For use in truck-mounted, handheld or other thermal fogging equipment. Spray equipment must be adjusted so the volume median diameter or mass median diameter is less than 30 microns ($D_{v0.5}$ < 30 µm) and that 90% of the spray is contained in droplets smaller than 48 microns ($D_{v0.9}$ < 48 µm). Directions from the equipment manufacturer or vendor, pesticide registrant or a test facility using a laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra. Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rate(s) are properly calibrated. Apply this product mixed with water or oil at a rate not to exceed 0.007 lb. per acre. Base acreage calculations on a 300 foot swath. For best results, direct the thermal fog into and allow to drift through areas where adult mosquitoes are found.

BARRIER APPLICATIONS: To control resting or flying adult mosquitoes in areas including animal quarters, roadsides, urban areas, residential areas, commercial areas, industrial areas, golf courses, parks, recreational areas, tire piles and all public areas where adult mosquitoes occur or find harborage. May be used to treat aggregation and harborage areas such as the perimeter of residential buildings, commercial buildings, storage buildings, crawlspaces, transport trailers, abandoned or uninhabited buildings and other areas where adult mosquitoes find harborage.

When this product is applied as a barrier application using low pressure hand sprayers, hydraulic sprayers or ground ULV equipment, do not apply within 100 feet (30 meters) of lakes and streams.

To apply this product using low pressure hand sprayers or other similar equipment, for the control of mosquitoes on resting or aggregation surfaces, mix 0.0875 fluid ounces (2.59 ml) in one gallon of water and apply sufficient spray to dampen the surface – approximately 700-750 square feet of treated area. Use equipment that is capable of delivering an even distribution of the labeled rate over the treatment area. For application using backpack or truck-mounted mist-blower equipment, apply this product undiluted at a rate not to exceed 5.08 fluid ounces per acre. If diluted, apply at a rate not to exceed 0.1 lb. permethrin a.i. per acre. Diluted or undiluted applications may be made onto foliage at the perimeter of areas such as recreational areas, parks, or golf courses from which mosquitoes or flies are to be excluded. Applications may be directed into harborage areas or other resting areas where adult mosquitoes or flies may be found.

URBAN ULV MOSQUITO CONTROL APPLICATIONS: For control of resting or flying adult mosquitoes, biting flies and biting midges in harborage areas such as but not limited to utility tunnels, sewers, storm drains and catch basins, pipe tunnels, basements, underground passages, parking decks, crawlspaces under buildings, abandoned buildings or uninhabited buildings. Apply this product, diluted or undiluted, using mechanical foggers, handheld or truck-mounted ULV equipment, thermal foggers or other spray equipment suitable for this type of application. This product may be applied at rates up to but not exceeding 0.007 lb. permethrin per acre.

AERIAL APPLICATION

Apply this product, either diluted or undiluted, at rates up to 0.007 lb. permethrin/PBO per acre by fixed wing or rotary aircraft equipped with a spraying system capable of making a ULV application. For aerial applications of this product, use ULV equipment and nozzles such as rotary atomizers or similar spray equipment. Spray equipment must be adjusted so the volume median diameter produced is less than 60 microns ($D_{v0.5}$ < 60 µm) and that

90% of the spray is contained in droplets smaller than 115 microns ($D_{v0.9}$ < 115 µm). Directions from the equipment manufacturer or vendor, pesticide registrant or a test facility using a wind tunnel and laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra. Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rate(s) are properly calibrated.

Aerial application of this product shall be made at altitudes ranging from 75 feet to 300 feet. Do not apply by fixed wing aircraft at a height less than 100 feet, or by helicopter at a height less than 75 feet unless specifically approved by the state or tribe based on public health needs. Do not apply when ground wind speed exceeds 10 mph. Aerial applications of this product shall only be made when recommended by public health officials and trained personnel of mosquito abatement districts and other mosquito control programs.

For best results, apply this product when insects are most active and meteorological conditions are conducive to keeping the spray cloud near the ground. Aerial applications using aircraft equipped with global positioning systems (GPS) may be needed to compensate for windy conditions and to ensure drift into target areas.

IN FLORIDA: Do not apply by aircraft unless approved by the Florida Department of Agriculture and Consumer Services.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

PESTICIDE STORAGE: Store upright at room temperature. Avoid exposure to extreme temperatures. In case of spill or leakage, soak up with an absorbent material such as sand, sawdust, earth, fuller's earth, etc. Dispose of with chemical waste.

PESTICIDE DISPOSAL: Pesticide, spray mixture or rinse water that cannot be used according to label instructions must be disposed of at or by an approved waste disposal facility.

CONTAINER DISPOSAL: Nonrefillable container. Do not reuse or refill this container. Triple rinse (or equivalent) promptly after emptying.

(Containers ≤ 5 gallons): Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

(Containers > 5 gallons): Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather, presence of other materials or other influencing factors in the use of the product, which are beyond the control of Central Garden & Pet Company or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Central Garden & Pet Company and Seller harmless for any claims relating to such factors.

Central Garden & Pet Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or Central Garden & Pet Company, and Buyer and User assume the risk of any such use. To the extent consistent with applicable law, CENTRAL GARDEN & PET COMPANY MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

In no event shall Central Garden & Pet Company or Seller be liable for any incidental, consequential or special damages resulting from the use or handling of this product. To the extent consistent with applicable law, **THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF CENTRAL GARDEN & PET COMPANY AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF CENTRAL GARDEN & PET COMPANY OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

Central Garden & Pet Company and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of Central Garden & Pet Company.

Central Garden & Pet Company, 1501 East Woodfield Road, 200W, Schaumburg, Illinois 60173
NOTE: This specimen label is for informational purposes only. All uses may not be approved in all states. See product labeling for use directions.
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Safety Data Sheet

Section 1: Identification

Product identifier

Product Name • **Aqua Perm-X UL 30-30**

Synonyms • 100209041; EPA Reg. No.: 89459-76; Prentox Perm-X UL 30-30

Product Description • Clear amber liquid.

Relevant identified uses of the substance or mixture and uses advised against

Recommended use • Pesticide.

Restrictions on use • KEEP OUT OF THE REACH OF CHILDREN. Avoid contact with eyes, skin or clothing. Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification. Do not take internally. Use in well ventilated area.

Details of the supplier of the safety data sheet

Manufacturer • Central Garden & Pet Company

1501 E. Woodfield Road, Suite 200W
Schaumburg, IL 60173
United States

Emergency telephone number

Manufacturer (Transportation) • 1-800-424-9300 - CHEMTREC

Manufacturer (Transportation) • 1-703-527-3887 - Chemtrec - Outside US collect calls accepted

Manufacturer • 1-800-248-7763

Section 2: Hazard Identification

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

Classification of the substance or mixture

OSHA HCS 2012 • Specific Target Organ Toxicity Single Exposure 1
Eye Irritation 2A
Acute Toxicity Oral 4
Acute Toxicity Inhalation 4
Skin Sensitization 1
Carcinogenicity 2
Aspiration 1

Label elements

OSHA HCS 2012

DANGER



Hazard statements
- May be fatal if swallowed and enters airways
- Causes damage to organs - nervous system via inhalation, ingestion
- Harmful if swallowed
- May cause an allergic skin reaction
- Causes serious eye irritation
- Harmful if inhaled
- Suspected of causing cancer.

Precautionary statements

Prevention
- Do not breathe dust, fume, gas, mist, vapours and/or spray.
- Wash thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Wear protective gloves/protective clothing/eye protection/face protection.
- Use only outdoors or in a well-ventilated area.
- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Contaminated work clothing should not be allowed out of the workplace.

Response
- IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
- Do NOT induce vomiting.
- Rinse mouth.
- IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a poison control center or doctor if you feel unwell.
- Specific treatment, see supplemental first aid information in Section 4 - First Aid Measures.
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- If eye irritation persists: Get medical advice/attention.
- IF exposed or concerned: Get medical advice/attention.
- IF ON SKIN: Wash with plenty of soap and water.
- If skin irritation or rash occurs: Get medical advice/attention.
- Wash contaminated clothing before reuse.

Storage/Disposal
- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.
- Store locked up.

Other hazards

OSHA HCS 2012
- This product is extremely toxic to fish and aquatic invertebrates. This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Section 3 - Composition/Information on Ingredients

Substances

- Material does not meet the criteria of a substance.

Mixtures

Composition		
Chemical Name	**Identifiers**	**%**
Permethrin	**CAS:**52645-53-1	30%

Piperonyl butoxide	**CAS**:51-03-6	30%
Naphthalene	**CAS**:91-20-3	0.1%
Distillates (petroleum), hydrotreated light	**CAS**:64742-47-8	14%
Other ingredients	NDA	25.9%

40% of the mixture consists of an ingredient of unknown acute inhalation toxicity.

Section 4: First-Aid Measures

Description of first aid measures

Inhalation
- IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing. Call a poison control center or doctor if you feel unwell.

Skin
- IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.

Eye
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Ingestion
- IF SWALLOWED: Aspiration hazard - do NOT induce vomiting. Call a physician or poison control center immediately. Rinse mouth.

Most important symptoms and effects, both acute and delayed

- Aspiration hazard, causes damage to organs - nervous system, causes eye irritation, suspected of causing cancer, may cause an allergic skin reaction in individuals with a sensitivity to Piperonyl butoxide, harmful if inhaled, harmful if swallowed. Refer to Section 11 - Toxicological Information.

Indication of any immediate medical attention and special treatment needed

Notes to Physician
- Treat symptomatically and supportively.

Section 5: Fire-Fighting Measures

Extinguishing media

Suitable Extinguishing Media
- Water fog, foam, dry chemical or carbon dioxide.

Unsuitable Extinguishing Media
- Avoid heavy hose streams.

Firefighting Procedures
- Do not allow fire fighting water to escape into waterways or sewers.

Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards
- No data available.

Hazardous Combustion Products
- Decomposes upon heating to produce toxic vapors/gases including carbon monoxide.

Advice for firefighters

- Do not allow run-off to enter waterways.
  Wear positive pressure self-contained breathing apparatus (SCBA).

Section 6 - Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Personal Precautions
- Wear appropriate personal protective equipment, avoid direct contact.

Emergency Procedures
- Eliminate all ignition sources. Do not allow runoff into water, storm drains or drainage ditches. Stop leak if you can do it without risk. Ventilate closed spaces before entering.

Environmental precautions

- Do NOT wash away into sewer. Avoid release to the environment.

Methods and material for containment and cleaning up

Containment/Clean-up Measures

- Absorb spills with an inert material, clay granules or other inert absorbent material and put in container for disposal.

Section 7 - Handling and Storage

Precautions for safe handling

Handling

- Use good safety and industrial hygiene practices. Wash thoroughly with soap and water after handling. Avoid breathing fumes. Avoid contact with skin or eyes. Avoid release to the environment. Avoid contact with heat and ignition sources. Do not use in areas without adequate ventilation.

Conditions for safe storage, including any incompatibilities

Storage

- Store in cool, dry, secure place. Keep out of reach of children. Avoid extreme temperatures. Keep container/package tightly closed and in a well-ventilated place. Keep only in original container. Store locked up.

Incompatible Materials or Ignition Sources

- Strong acids, strong bases, and oxidizing agents.

Other Information

- See product label for additional information.

Section 8 - Exposure Controls/Personal Protection

Control parameters

Exposure Limits/Guidelines

- No data available.

Exposure Limits/Guidelines				
	Result	ACGIH	NIOSH	OSHA
Naphthalene (91-20-3)	TWAs	10 ppm TWA	10 ppm TWA; 50 mg/m3 TWA	10 ppm TWA; 50 mg/m3 TWA
	STELs	15 ppm STEL	15 ppm STEL; 75 mg/m3 STEL	Not established

Exposure controls

Engineering Measures/Controls

- Adequate ventilation systems as needed to control concentrations of airborne contaminants below applicable threshold limit values.

Personal Protective Equipment

Pictograms

- 

Respiratory

- In case of inadequate ventilation, avoid breathing vapors or mist, wear a NIOSH approved chemical cartridge respirator with organic vapor cartridges and a pesticide pre-filter.

Eye/Face

- Wear chemical splash safety goggles.

Hands

- Wear chemical resistant gloves. Barrier laminate, nitrile rubber, neoprene rubber or Viton are recommended.

Skin/Body

- It is recommended for handlers to wear appropriate clothing to prevent skin contact including long sleeves, long pants, socks and shoes.

Environmental Exposure Controls

- Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways.

Other Information

- See product label for specific use PPE instructions.

Section 9 - Physical and Chemical Properties

Information on Physical and Chemical Properties

Material Description			
Physical Form	Liquid	Appearance/Description	Clear amber liquid.
Color	Clear amber.	Odor	Solvent
Odor Threshold	No data available		
General Properties			
Boiling Point	No data available	Melting Point	No data available
Decomposition Temperature	No data available	pH	6.25 @ 25°C (1% aq sol'n)
Specific Gravity/Relative Density	1.01 g/mL 8.47 lb/gal	Water Solubility	Insoluble
Viscosity	No data available		
Volatility			
Vapor Pressure	No data available	Vapor Density	No data available
Evaporation Rate	No data available		
Flammability			
Flash Point	> 231 F(> 110.5556 C)	UEL	No data available
LEL	No data available	Autoignition	No data available
Flammability (solid, gas)	No data available		
Environmental			
Octanol/Water Partition coefficient	No data available		

Section 10: Stability and Reactivity

Reactivity

- Non-reactive

Chemical stability

- Stable under normal temperatures and pressures.

Possibility of hazardous reactions

- Hazardous polymerization will not occur.

Conditions to avoid

- Excessive heat. Heat, sparks, open flame, other ignition sources, and oxidizing conditions.

Incompatible materials

- Strong oxidizers.

Hazardous decomposition products

- Thermal decomposition may produce oxides of carbon.

Section 11 - Toxicological Information

Information on toxicological effects

Components		
Permethrin (30%)	52645-53-1	**Acute Toxicity:** Ingestion/Oral-Rat LD50 • 500 mg/kg; Inhalation-Rat LC50 • 2.65 mg/L 4 Hour(s); Skin-Rabbit LD50 • >2000 mg/kg
Piperonyl butoxide (30%)	51-03-6	**Acute Toxicity:** Ingestion/Oral-Rat, adult female LD50 • 4570 mg/kg; Inhalation-Rat LC50 • >5.9 mg/L; Skin-Rat LD50 • >2000 mg/kg

GHS Properties	Classification
Acute toxicity	**OSHA HCS 2012** • Acute Toxicity - Dermal - Classification criteria not met; Acute Toxicity - Inhalation 4; Acute Toxicity - Oral 4
Aspiration Hazard	**OSHA HCS 2012** • Aspiration 1
Carcinogenicity	**OSHA HCS 2012** • Carcinogenicity 2
Germ Cell Mutagenicity	**OSHA HCS 2012** • Not classified - data lacking
Skin corrosion/Irritation	**OSHA HCS 2012** • Classification criteria not met
Skin sensitization	**OSHA HCS 2012** • Skin Sensitizer 1
STOT-RE	**OSHA HCS 2012** • Classification criteria not met
STOT-SE	**OSHA HCS 2012** • Specific Target Organ Toxicity Single Exposure 1
Toxicity for Reproduction	**OSHA HCS 2012** • Classification criteria not met
Respiratory sensitization	**OSHA HCS 2012** • Classification criteria not met
Serious eye damage/Irritation	**OSHA HCS 2012** • Eye Irritation 2A

Potential Health Effects

Inhalation

Acute (Immediate)
- Harmful if inhaled. Permethrin affects nervous system. Symptoms of overexposure to permethrin include diarrhea, salivation, tremors, convulsions, hyperactivity and hypersensitivity.

Chronic (Delayed)
- No data available.

Skin

Acute (Immediate)
- May cause an allergic reaction in individuals with a sensitivity to piperonyl butoxide.

Chronic (Delayed)
- No data available.

Eye

Acute (Immediate)
- Causes serious eye irritation.

Chronic (Delayed)
- No data available.

Ingestion

Acute (Immediate)
- Aspiration hazard - small amounts of liquid aspirated into the lungs during ingestion or from vomiting may cause chemical pneumonitis or pulmonary edema. Harmful if ingested. Permethrin affects nervous system. Symptoms of overexposure to permethrin include diarrhea, salivation, tremors, convulsions, hyperactivity and hypersensitivity.

Chronic (Delayed)
- No data available.

Carcinogenic Effects
- Naphthalene is listed as a suspected human carcinogen by IARC.

Carcinogenic Effects		
	CAS	IARC
Naphthalene	91-20-3	Group 2B-Possible Carcinogen

Section 12 - Ecological Information

Toxicity

Component	CAS	Data
Permethrin (30%)	52645-53-1	**Crustacea:** NOEC Crustacea *Daphnia magna* 0.000039 mg/L [Chronic]; NOEC Crustacea *Mysid shrimp* 0.000011 mg/L [Chronic]; LC50 Crustacea *Hexagenia bilineuta* 0.0001 mg/L [Acute]; 96 Hour (s) LC50 Crustacea *Mysid shrimp* 0.000019 mg/L [Acute]; **Fish:** 96 Hour(s) LC50 Fish *Blue gill* 0.00079 mg/L [Acute]; 96 Hour(s) LC50 Fish *Atlantic silverside* 0.0022 mg/L [Acute]; NOEC Fish *Fathead minnow* 0.0003 mg/L [Chronic]; NOEC Fish *Sheepshead minnow* 0.00083 mg/L [Chronic]
Piperonyl butoxide (30%)	51-03-6	**Crustacea:** 48 Hour(s) LC50 Crustacea *Daphnia magna* 0.51 mg/L [Acute]; 48 Hour(s) LC50 Crustacea *Mysid shrimp* 0.49 mg/L [Acute]; NOEC Crustacea *Daphnia magna* 0.03 mg/L [Chronic]; **Fish:** 96 Hour(s) LC50 Fish *Rainbow Trout* 1.9 mg/L [Acute]; 96 Hour(s) LC50 Fish *Sheephead minnow* 3.94 mg/L [Acute]; NOEC Fish *Fathead minnow* 0.04 mg/L [Chronic]
Distillates (petroleum), hydrotreated light (14%)	64742-47-8	**Fish:** 96 Hour(s) LC50 Fish *Rainbow Trout* 2.9 mg/L [Acute]

Persistence and degradability

- No data available

Bioaccumulative potential

- No data available

Mobility in Soil

- No data available

Other adverse effects

Ecological Fate
- No data available.

Potential Environmental Effects
- This product is extremely toxic to aquatic organisms, including fish and invertebrates. This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds.

Section 13 - Disposal Considerations

Waste treatment methods

Product waste
- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations. Never place unused product down any indoor or outdoor drain.

Packaging waste
- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations. Nonrefillable container. Do not reuse or refill container. See product label for container disposal instructions.

Section 14 - Transport Information

	UN number	UN proper shipping name	Transport hazard class(es)	Packing group	Environmental hazards
DOT	UN3082	Environmentally Hazardous Substance, liquid, n.o.s. (Permethrin)	9	III	Marine Pollutant
IMO/IMDG	UN3082	Environmentally Hazardous Substance, liquid, n.o.s. (Permethrin)	9	III	Marine Pollutant
IATA/ICAO	UN3082	Environmentally Hazardous Substance, liquid, n.o.s. (Permethrin)	9	III	Acute Aquatic Toxicity

Special precautions for user • None specified.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code • No data available

Other information

IMO/IMDG • No data available

IATA/ICAO • No data available

Key to abbreviations

= N/A = Not applicable.

Section 15 - Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • SARA Title III Section 313, Acute

FIFRA – Pesticide Labeling

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

CAUTION

Precautionary Statements • KEEP OUT OF THE REACH OF CHILDREN.

Hazards to Humans and Domestic Animals • PRECAUTIONARY STATEMENTS HAZARD TO HUMANS AND DOMESTIC ANIMALS CAUTION: Harmful if swallowed. Harmful if absorbed through skin. Avoid contact with skin, eyes, or clothing. Wear long sleeved shirt, long pants, shoes, socks, and chemical-resistant gloves (barrier laminate, nitrile rubber, neoprene rubber, or viton, Selection Category E). Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

First Aid • IF SWALLOWED: Immediately call a poison control center or doctor. • Do not induce vomiting unless told to by a poison control center or doctor. • Do not give any liquid to the person. • Do not give anything by mouth to an unconscious person. IF ON SKIN OR CLOTHING: Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice. NOTE TO PHYSICIAN: Contains petroleum distillate. May pose an aspiration pneumonia hazard.

Environmental Hazards • This pesticide is extremely toxic to fish and aquatic invertebrates. Runoff from treated areas or deposition of spray droplets into a body of water may be hazardous to fish and aquatic invertebrates. Do not apply over bodies of water (lakes, rivers, permanent streams, natural ponds, commercial fish ponds, swamps, marshes or estuaries), except when necessary to target areas where adult mosquitoes are present, and weather conditions will facilitate movement of applied material away from the water in order to minimize incidental deposition into the water body. Do not contaminate bodies of water when disposing of equipment rinsate or washwaters. Bee Warning: This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift on blooming crops or weeds while bees are actively visiting the treatment areas, except when applications are made to prevent or control a threat to public and/or animal health determined by a state, tribal or local health or vector control agency on the basis of documented evidence of disease causing agents in vector mosquitoes or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort.

Inventory		
Component	**CAS**	**TSCA**
Distillates		

(petroleum), hydrotreated light	64742-47-8	Yes
Naphthalene	91-20-3	Yes
Permethrin	52645-53-1	No
Piperonyl butoxide	51-03-6	Yes

United States

Environment

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

• Naphthalene	91-20-3	100 lb final RQ; 45.4 kg final RQ
• Piperonyl butoxide	51-03-6	Not Listed
• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Permethrin	52645-53-1	Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

• Naphthalene	91-20-3	0.1 % de minimis concentration
• Piperonyl butoxide	51-03-6	1.0 % de minimis concentration
• Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
• Permethrin	52645-53-1	1.0 % de minimis concentration

Section 16 - Other Information

Last Revision Date
- 24/April/2015

Preparation Date
- 24/April/2015

Disclaimer/Statement of Liability
- The information and statements herein are believed to be reliable but are not to be construed as a warranty or representation for which we assume legal responsibility. Users should undertake sufficient verification and testing to determine the suitability for their own particular purpose of any information or products referred to herein. NO WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE IS MADE.

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Bid Title: Insecticides, Herbicides, Adulticides
Bid #: IFB-12-011/JW
Bid Due: 03/14/17
Bid Opens: 11:00am Central

SEALED BID

ADAPCO
550 Aero Ln
Sanford, FL 32771

Jefferson County Purchasing Dept.
Attn: Sealed Bid – PURCHASING
1149 Pearl St., 1st Floor 3RD FLOOR
Beaumont, TX 77701

azelis SPECIALTY AGRI/HORTI

ADAPCO

Kathy Russell – (407) 328-6519
ADAPCO LLC
550 Aero Ln.
Sanford, FL 32771
krussell@myadapco.com

Page 1 of 1

ORIGIN ID:SFBA (407) 328-6519
KATHY RUSSELL
ADAPCO INCORPORATED
550 AERO LANE

SANFORD, FL 32771
UNITED STATES US

SHIP DATE: 09MAR17
ACTWGT: 1.00 LB
CAD: 5416512/INET3850

BILL SENDER

TO ATTN: PURCHASING - SEALED BID
JEFFERSON COUNTY PURCHASING
1149 PEARL ST, 1ST FLOOR

BEAUMONT TX 77701
(409) 835-8593
INV
PO:

REF: JEFFERSON CO TX IFB17-006/YS
DEPT: PURCHASING

546J/1ADB63C1

FedEx Express

FRI - 10 MAR 3:00P
STANDARD OVERNIGHT

TRK# 0201 7786 1208 0460

77701
IAH
TX-US

XH BPTA

RECEIVED 02:08 PM MAR 10 2017

RECEIVED 02:08 PM MAR 10 2

© 2015 FedEx 158396 REV 6/15 Exp.09/17

Align bottom of

JEFFERSON COUNTY PURCHASING DEPARTMENT

Deborah L. Clark, Purchasing Agent

1149 Pearl Street, 1st Floor, Beaumont, TX 77701 409-835-8593 Fax 409-835-8456

LEGAL NOTICE
Advertisement for Invitation for Bids

ORIGINAL

February 13, 2017

Notice is hereby given that sealed bids will be accepted by the Jefferson County Purchasing Department for IFB 17-006/YS, Term Contract for Insecticides, Herbicides, Spray Adjuvants, and Adulticides for Jefferson County Mosquito Control District. **Specifications for this project may be obtained from the Jefferson County website, http://www.co.jefferson.tx.us/Purchasing/main.htm or by calling 409-835-8593.**

Bids are to be sealed and addressed to the Purchasing Agent with the bid number and name marked on the outside of the envelope. Bidders shall forward an original and two (2) copies of their bid to the address shown below. Jefferson County does not accept bids submitted electronically. Late bids will be rejected as non-responsive. Bids will be publicly opened and read aloud in the Jefferson County Commissioners' Courtroom at the time and date below. Bidders are invited to attend the sealed bid opening.

BID NAME:	**IFB 17-006/YS**
BID NO:	**Term Contract for Insecticides, Herbicides, Spray Adjuvants, and Adulticides for Jefferson County Mosquito Control District**
DUE DATE/TIME:	**11:00 AM CDT, Tuesday, March 14, 2017**
MAIL OR DELIVER TO:	**Jefferson County Purchasing Department 1149 Pearl Street, 1st Floor Beaumont, Texas 77701**

Any questions relating to these requirements should be directed to Yea-Mei Sauer, Contract Specialist, at 409-835-8593 or ysauer@co.jefferson.tx.us.

Jefferson County encourages Disadvantaged Business Enterprises to participate in the bidding process. Jefferson County does not discriminate on the basis of race, color, national origin, sex, religion, age or disability in employment or the provisions of services. Individuals requiring special accommodations are requested to contact our office at 409-835-8593 to make arrangements no later than seven (7) calendar days prior to the submittal deadline. Jefferson County reserves the right to accept or reject any or all proposals, to waive technicalities and to take whatever action is in the best interest of Jefferson County.

All interested firms are invited to submit a bid in accordance with the terms and conditions stated in this bid.

RESPONDENTS ARE STRONGLY ENCOURAGED TO CAREFULLY READ THE ENTIRE INVITATION.

Deborah Clark

Deborah L. Clark, Purchasing Agent
Jefferson County, Texas
Publish: Beaumont Enterprise & Port Arthur News – February 15, 2017 & February 22, 2017

IFB 17-006/YS
Term Contract for Insecticides, Herbicides, Spray Adjuvants, and Adulticides for Jefferson County Mosquito Control District
Bids due: 11:00 AM CDT, Tuesday, March 14, 2017

ORIGINAL

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Bid Submissions:

Bidder is responsible for submitting one (1) *original* bid copy to include a completed copy of this specifications packet in its entirety; and two (2) numbered bid *hard copies* to include at a minimum all pages requiring completion and/or marked with instructions to be returned with bid submission and any other documentation requested within these specifications.

Additionally, Bidder must monitor the Jefferson County Purchasing Department Website (below) to see if addenda or additional instructions have been posted. Failure to return all required forms could result in a response being declared as non-responsive.

http://www.co.jefferson.tx.us/purchasing/main.htm

Instructions to Bidders

1. Bid Submission

Bids must be submitted in complete original form by mail or messenger to the following address:

Jefferson County Purchasing Department
1149 Pearl Street, 3rd Floor
Beaumont, TX 77701

Bids will be accepted at the above address until the time and date specified herein, and immediately after will be publicly opened and read aloud.

Bidder shall submit bid in a tightly sealed opaque envelope or box, plainly marked "SEALED BID." The outside of the envelope of box shall also include the Bid Number, Bid Name, Bid Due Date, and the Bidder's Name and Address; and shall be addressed to the Purchasing Agent.

Late bids will not be accepted and will be returned unopened to the bidder.

All bids submitted in response to this invitation shall become the property of Jefferson County and will be a matter of public record available for review.

2. Bid Submissions During Time of Inclement Weather, Disaster, or Emergency

In case of inclement weather or any other unforeseen event causing the County to close for business on the date of a bid/proposal/statement of qualifications submission deadline, the closing will automatically be postponed until the next business day that County offices are open to the public. Should inclement weather conditions or any other unforeseen event cause delays in courier service operations, the County may issue an addendum to all known vendors interested in the project to extend the deadline. It will be the responsibility of the vendor to notify the county of their interest in the project should these conditions impact their ability to submit a bid/proposal/statement of qualifications submission before the stated deadline. The County reserves the right to make the final judgement call to extend any deadline.

Should an emergency or unanticipated event interrupt normal County processes, and bid/proposal/statement of qualifications submissions cannot be received by the Jefferson County Purchasing Department's office by the exact time specified in the IFB and urgent County requirements preclude amendment to the IFB, the time specified for receipt of bids will be deemed to be extended to the same time of day specified in the solicitation on the first business day on which normal County processes resume.

3. Courthouse Security

Bidders are advised that all visitors to the Courthouse must pass through Security. **Bidders planning to hand deliver bids must allow time to get through Security, as a delay in entering the Courthouse will not be accepted as an excuse for late submittal.** Mondays and Tuesdays are particularly heavy days. Bidders are strongly urged to plan accordingly.

4. Preparation of Bids

The bid shall be legibly printed in ink or typed.

If a unit price or extension already entered is to be altered, it shall be crossed out and initialed in ink by the bidder.

The bid shall be legally signed and shall include the complete address of the bidder.

Jefferson County is exempt from Federal and State Sales Taxes, and such taxes shall not be included in bid prices.

5. Signatures

All bids, notifications, claims, and statements must be signed by an individual authorized to bind the bidder. The individual signing certifies, under penalty of perjury, that he or she has the legal authorization to bind the bidder.

6. County Holidays – 2017:

January 16	Monday	Martin Luther King, Jr. Day
February 20	Monday	President's Day
April 14	Friday	Good Friday
May 29	Monday	Memorial Day
July 4	Tuesday	Independence Day
September 4	Monday	Labor Day
November 10	Friday	Veteran's Day
November 23 & 24	Thursday & Friday	Thanksgiving
December 25 & 26	Monday & Tuesday	Christmas
January 1, 2018	Monday	New Year's

7. Rejection or Withdrawal

Submission of additional terms, conditions or agreements with the bid document are grounds for deeming a bid non-responsive and may result in bid rejection. Jefferson County reserves the right to reject any and all bids and to waive any informalities and minor irregularities or defects in bids. Bids may be withdrawn in person by a bidder or authorized representative, provided their identity is made known and a receipt is signed for the bid, but only if the withdrawal is made prior to the time set for receipt of bids. Bids are an irrevocable offer and may not be withdrawn within 90 days after opening date.

8. Emergency/Declared Disaster Requirements

In the event of an emergency or if Jefferson County is declared a disaster area, by the County, State, or Federal Government, this Acceptance of Offer may be subjected to unusual usage. Contractor shall service the county during such an emergency or declared disaster under the same terms and conditions that apply during non-emergency/disaster conditions. The pricing as specified in this Acceptance of Offer shall apply to serving the County's needs regardless of the circumstances. If Contractor is unable to supply the services under the terms of the Acceptance of Offer, then Contractor shall provide proof of such disruption and a copy of the invoice from Contractor's supplier(s). Additional profit margin as a result of supplying services during an emergency or declared disaster shall not be permitted. In the event that additional equipment, supplies, and materials are required during the declared disaster, additional shipping, handling and drayage fees may apply.

9. Award

The bid will be awarded to the responsible, responsive bidder(s) whose bid, conforming to the solicitation, will be most advantageous to Jefferson County – price and other factors considered. Unless otherwise specified in this IFB, Jefferson County reserves the right to accept a bid in whole or in part, and to award by item or by group, whichever is deemed to be in the best interest of Jefferson County. Any bidder who is in default to Jefferson County at the time of submittal of the bid shall have that bid rejected. Jefferson County reserves the right to clarify any contractual terms with the concurrence of the Contractor; however, any substantial nonconformity in the offer, as determined by Jefferson County, shall be deemed non-responsive and the offer rejected.

In evaluating bids, Jefferson County shall consider the qualifications of the bidders, and, where applicable, operating costs, delivery time, maintenance requirements, performance data, and guarantees of materials and equipment. In addition, Jefferson County may conduct such investigation as it deems necessary to assist in the evaluation of a bid and to establish the responsibility, qualifications, and financial ability of the bidders to fulfill the contract.

Jefferson County reserves the right to award this contract on the basis of **lowest and best bid** in accordance with the laws of the State of Texas, to waive any formality or irregularity, to make awards to more than one offeror, and/or to reject any or all bids. In the event the lowest dollar offeror meeting specifications is not a awarded a contract, Offeror may appear before the Commissioners' Court and present evidence concerning Offeror responsibility after officially notifying the Office of the Purchasing Agent of Offeror's intent to appear.

10. Contract

A response to an IFB is an offer to contract with Jefferson County based upon the terms, conditions, and specifications contained in the IFB. Bids do not become contracts unless and until they are executed by Jefferson County, eliminating a formal signing of a separate contract. For that reason, all of the terms and conditions of the contract are contained in the IFB, unless any of the terms and conditions is modified by an IFB Amendment, a Contract Amendment, or by mutually agreed terms and conditions in the contract documents.

11. Waiver of Subrogation

Bidder and bidder's insurance carrier waive any and all rights whatsoever with regard to subrogation against Jefferson County as an indirect party to any suit arising out of personal or property damages resulting from bidder's performance under this agreement.

12. Fiscal Funding

A multi-year contract (if requested by the specifications) continuing as a result of an extension option must include fiscal funding out. If, for any reason, funds are not appropriated to continue the contract, said contract shall become null and void.

13. Bid Results

Bid results are not provided in response to telephone inquiries. A preliminary tabulation of bids received will be posted on the Purchasing web page (http://co.jefferson.tx.us/ purchasing/main.htm) as soon as possible following bid opening. A final tabulation will be posted following bid award, and will also be available for review in the Purchasing Department.

14. Changes and Addenda to Bid Documents

Each change or addendum issued in relation to this IFB document will be on file in the Office of the Purchasing Agent, and will be posted on the Purchasing web site as soon as possible. It shall be the bidder's responsibility to make inquiry as to change or addenda issued, and to monitor the web site. All such changes or addenda shall become part of the contract and all bidders shall be bound by such addenda. Information on all changes or addenda issued will be available at the Office of the County Purchasing Agent.

15. Specifications

Unless otherwise stated by the bidder, the bid will be considered as being in accordance with Jefferson County's applicable standard specifications, and any special specifications outlined in the bid document. References to a particular trade name, manufacturer's catalogue, or model number are made for descriptive purposes to guide the bidder in interpreting the requirements of Jefferson County, and should not be construed as excluding bids on other types of materials, equipment, and supplies. However, the bidder, if awarded a contract, will be required to furnish the particular item referred to in the specifications or description unless departure or substitution is clearly noted and described in the bid. Jefferson County reserves the right to determine if equipment/ product being bid is an acceptable alternate. All goods shall be new unless otherwise so stated in the bid. Any

unsolicited alternate bid, or any changes, insertions, or omissions to the terms and conditions, specifications, or any other requirements of the bid, may be considered non-responsive.

16. Delivery

Bids shall include all charges for delivery, packing, crating, containers, etc. Unless otherwise stated by the bidder (in writing on the included Bid Form), prices bid will be considered as being based on F.O.B. destination/delivered freight included.

17. Interpretation of Bid and/or Contract Documents

All inquiries shall be made within a reasonable time prior to the date and time fixed for the bid opening, in order that a written response in the form of an addendum, if required, can be processed before the bids are opened. Inquiries received that are not made in a timely fashion may or may not be considered.

18. Currency

Prices calculated by the bidder shall be stated in U.S. dollars.

19. Pricing

Prices shall be stated in units of quantity specified in the bid documents. In case of discrepancy in computing the amount of the bid, the unit price shall govern.

20. Notice to Proceed/Purchase Order

The successful bidder may not commence work under this contract until authorized to do so by the Purchasing Agent.

21. Certification

By signing the offer section of the Offer and Acceptance page, bidder certifies:

- The submission of the offer did not involve collusion or other anti-competitive practices.
- The bidder has not given, offered to give, nor intends to give at any time hereafter, any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor, or service to any public servant in connection with the submitted offer.
- The bidder hereby certifies that the individual signing the bid is an authorized agent for the bidder and has the authority to bind the bidder to the contract.

22. Definitions

"County" – Jefferson County, Texas.

"Contractor" – The bidder whose proposal is accepted by Jefferson County.

23. Minority-Women Business Enterprise Participation

It is the desire of Jefferson County to increase the participation of Minority (MBE) and women-owned (WBE) businesses in its contracting and procurement programs. While the County does not have any preference or set aside programs in place, it is committed to a policy of equitable participation for these firms.

General Conditions of Bidding and Terms of Contract

By execution of this document, the vendor accepts all general and special conditions of the contract as outlined below and in the specifications and plans.

1. Bidding

1.1 Bids. All bids must be submitted on the bid form furnished in this package.

1.2 Authorized Signatures. The bid must be executed personally by the vendor, duly authorized partner of the partnership, or duly authorized officer of the corporation. If executed by an agent, a power of attorney or other evidence of authority to act on behalf of the vendor shall accompany the bid to become a valid bid.

1.3 Late Bids. Bids must be in the office of the Jefferson County Purchasing Agent before or at the specified time and date bids are due. Bids received after the submission deadline shall be rejected as non-responsive and returned unopened.

1.4 Withdrawal of Bids Prior to Bid Opening. A bid may be withdrawn before the opening date by submitting a written request to the Purchasing Agent. If time allows, the bidder may submit a new bid. Bidder assumes full responsibility for submitting a new bid before or at the specified time and date bids are due. Jefferson County reserves the right to withdraw a request for bids before the opening date.

1.5 Withdrawal of Bids after Bid Opening. Bidder agrees that its offer may not be withdrawn or cancelled by the vendor for a period of ninety (90) days following the date and time designated for the receipt of bids unless otherwise stated in the bid and/or specifications.

1.6 Bid Amounts. Bids shall show net prices, extensions where applicable and net total. In case of conflict between unit price and extension, the unit price will govern. Any ambiguity in the bid as a result of omission, error, unintelligible or illegible wording shall be interpreted in the favor of Jefferson County.

1.7 Exceptions and/or Substitutions. All bids meeting the intent of the specifications and plans will be considered for award. Vendors taking exception to the specifications and plans, or offering substitutions, shall state these exceptions in the section provided. If bid is made on an article other than the one specified, which a bidder considers comparable, the name and grade of said article must be specified in the bid and sufficient specifications and descriptive data must accompany same to permit thorough evaluation. The absence of stated exceptions and/or substitutions shall indicate that the vendor has not taken any exceptions to the specifications and shall be responsible to perform in strict accordance with the specifications. As a matter of practice, Jefferson County rejects exception(s) and /or substitutions as non-responsive but reserves the right to accept any and/or all of the exception(s) and/or substitution(s) deemed to be in the best interest of Jefferson County.

1.8 Alternates. The Invitation for Bid and/or specifications may expressly allow bidder to submit an alternate bid. Presence of such an offer shall not be considered an indication of non-responsiveness.

1.9 Descriptions. Unless otherwise specified, any reference to make, manufacturer and/or model used in the bid specifications is merely descriptive and not restrictive, and is used only to indicate type, style, or quality of material desired.

1.10 Bid Alterations. Bids cannot be altered or amended after submission deadline. Any interlineations, alterations, or erasures made before opening time must be initialed by the signer of the bid, guaranteeing authenticity.

1.11 Tax Exempt Status. Jefferson County is exempt from federal excise tax and state sales tax. Unless the bid form or specifications specifically indicate otherwise, the bid price must be net, exclusive of above-mentioned taxes and will be so construed. Therefore, the bid price shall not include taxes.

1.12 Quantities. Quantities indicated are estimated quantities only and are not a commitment to buy. Approximate usage does not constitute an order, but only implies the probable quantity that will be used. Commodities will be ordered on an as-needed basis. Bidder is responsible for accurate final counts.

1.13 Bid Award. Award of contract shall be made to the most responsible, responsive bidder, whose offer is determined to be the best value, taking into consideration the relative importance of price. Jefferson County reserves the right to be the sole judge as to whether items bid will serve the purpose intended. Jefferson County reserves the right to accept or reject in part or in whole any bid submitted, and to waive any technicalities or informalities for the best interest of the County. Jefferson County reserves the right to award based upon individual line items, sections or total bid.

1.14 Silence of Specifications for Complete Units. All materials, equipment and/or parts that will become a portion of the completed work, including items not specifically stated herein but, necessary to render the service(s) complete and operational per the specifications, are to be included in the bid price. Vendor may be required to furnish evidence that the service, as bid, will meet or exceed these requirements.

1.15 Addenda. Any interpretations, corrections or changes to the specifications and plans will be made by addenda no later than forty-eight (48) hours prior to the bid opening. Addenda will be posted on the Purchasing web site. Vendors are responsible for monitoring the web site in order to remain informed on addenda. Vendors shall acknowledge receipt of all addenda with submission of bid.

1.16 General Bid Bond/Surety Requirements. Failure to furnish bid bond/surety, if requested, will result in bid being declared non-responsive. Non-responsive bids will not be considered for award.

1.17 General Insurance Requirements. Failure to furnish Affidavit of Insurance, if required in these specifications, will result in bid being declared non-responsive. Non-responsive bids will not be considered for award.

1.18 Responsiveness. A responsive bid shall substantially conform to the requirements of this Invitation to Bid and/or specifications contained herein. Bidders who substitute any other terms, conditions, specifications and/or requirements or who qualify their bids in such a manner as to nullify or limit their liability to the contracting entity shall have their bids deemed non-responsive. Also, bids containing any clause that would limit contracting authority shall be considered non-responsive. Examples of non-responsive bids include but shall not be limited to: a) bids that fail to conform to required delivery schedules as set forth in the bid request; b) bids with prices qualified in such a manner that the bid price cannot be determined, such as with vague wording that may include "price in effect at the time of delivery," and c) bids made contingent upon award of other bids currently under consideration.

1.19 Responsible Standing of Bidder. To be considered for award, bidder must at least: have the ability to obtain adequate financial resources, be able to comply with required or proposed delivery/completion schedule, have a satisfactory record of performance; have a satisfactory record of integrity and ethics, and be otherwise qualified and eligible to receive award.

1.20 Proprietary Data. Bidder may, by written request, indicate as confidential any portion(s) of a bid that contain proprietary information, including manufacturing and/or design processes exclusive to the vendor. Jefferson County will protect from public disclosure such portions of a bid, unless directed otherwise by legal authority, including existing Open Records Acts.

1.21 Public Bid Opening. Bidders are invited to be present at the opening of bids. After the official opening of bids, a period of not less than one week is necessary to evaluate bids. The amount of time necessary for bid evaluation may vary and is determined solely by the County. Following the bid evaluation, all bids submitted are available for public review.

2. Performance

2.1 Design, Strength, and Quality. Design, strength, and quality of materials and workmanship must conform to the highest standards of manufacturing and engineering practices. The apparent silence of specifications and/or plans as to any detailed description concerning any point shall be regarded as meaning that only the best commercial practices are to prevail. All interpretations of these specifications and/or plans shall be made on the basis of this statement.

2.2 Age and Manufacture. All tangible goods being bid must be new and unused, unless otherwise specified, in first-class condition, of current manufacture, and furnished ready to use. All items not specifically mentioned that are required for a complete unit shall be furnished.

2.3 Delivery Location. All deliveries will be made to the address(es) specified on the purchase order during normal working hours of 8:00 a.m. to 4:00 p.m., Monday through Friday, unless otherwise authorized by the Purchasing Agent or designee.

2.4 Delivery Schedule. Delivery time may be an important consideration in the evaluation of best value. The maximum number of days necessary for delivery ARO shall be stated in the space, if provided, on the bid form.

2.5 Delivery Charges. All delivery and freight charges, F.O.B. destination shown on Jefferson County purchase order, as necessary to perform contract are to be included in the bid price.

2.6 Installation Charges. All charges for assembly, installation and set-up shall be included in the bid price. Unless otherwise stated, assembly, installation and set-up will be required.

2.7 Operating Instructions and Training. Clear and concise operating instructions and descriptive literature will be provided in English, if requested. On-site detailed training in the safe and efficient use and general maintenance of item(s) purchased shall be provided as needed at the request of Jefferson County. Instructions and training shall be at no additional cost to the County.

2.8 Storage. Bidder agrees to provide storage of custom ordered materials, if requested, for up to thirty (30) calendar days.

2.9 Compliance with Federal, State, County, and Local Laws. Bids must comply with all federal, state, county and local laws, including, but not limited to, all applicable standard safety, emission, and noise control requirements. Any vehicles or equipment shall contain all standard safety, emission, and noise control requirements required for the types and sizes of equipment at the time of their manufacture. The contractor agrees, during the performance of work or service, to comply with all applicable codes and ordinances of Jefferson County or the State of Texas as they may apply, as these laws may now read, or as they may hereafter be changed or amended.

2.10 OSHA. The bidder will certify all equipment complies with all regulations and conditions stipulated under the Williams-Steiger Occupational Safety and Health Act of 1971, as amended. The successful bidder will further certify that all items furnished under this project will conform and comply with federal and State of Texas OSHA standards. The successful bidder will agree to indemnify and hold harmless Jefferson County for any and all damages that may be assessed against the County.

2.11 Patents and Copyrights. The successful vendor agrees to protect the County from claims involving infringements of patents and/or copyrights.

2.12 Samples, Demonstrations and Testing. At Jefferson County's request and direction, bidder shall provide product samples and/or testing of items bid to ensure compliance with specifications. Samples, demonstrations and/or testing may be requested at any point prior to or following bid award. Samples, demonstrations and/or testing may be requested upon delivery and/or any point during the term of resulting contract. All samples (including return thereof), demonstrations, and/or testing shall be at the expense of the bidder/vendor.

2.13 Acceptability. All articles enumerated in the bid shall be subject to inspection by an officer designated for that purpose by Jefferson County. If found inferior to the quality called for, or not equal in value to the specifications, deficient in workmanship or otherwise, this fact shall be certified to the Purchasing Agent, who shall have the right to reject the whole or any part of the same. Items

and/or work determined to be contrary to specifications must be replaced at the vendor's expense. Inferior items not retrieved by the vendor within thirty (30) calendar days, or an otherwise agreed upon time, shall become the property of the County. If disposal of such items warrants an expense, an amount equal to the disposal expense will be deducted from amounts payable to the vendor.

2.14 Maintenance. Maintenance required for equipment bid should be available in Jefferson County by a manufacturer authorized maintenance facility. Cost for this service shall be shown on the bid sheet as requested or on a separate sheet, as required. If Jefferson County opts to include maintenance, it shall be so stated in the purchase order and said cost will be included. Service will commence only upon expiration of applicable warranties and should be priced accordingly.

2.15 Material Safety Data Sheets. Under the "Hazardous Communications Act," common known as the "Texas Right to Know Act," a bidder must provide the user department, with each delivery, material safety data sheets which are applicable to hazardous substances defined in the Act. Failure of the bidder to furnish this documentation, will be cause to reject any bid applying thereto.

2.16 Evaluation. Evaluation shall be used as a determinant as to which services are the most efficient and/or most economical for the County. It shall be based on all factors having a bearing on price and performance of the items in the user environment. All bids are subject to tabulation by the Jefferson County Purchasing Department and recommendation to Jefferson County Commissioners' Court. Compliance with all bid requirements and needs of the using department are considered in evaluating bids. Pricing is not the only criteria for making a recommendation. The Jefferson County Purchasing Department reserves to right to contact any bidder, at any time, to clarify, verify or requirement information with regard to this bid.

3. Purchase Orders and Payment

3.1 Purchase Orders. A purchase order(s) shall be generated by the Jefferson County Purchasing Agent to the successful vendor. The purchase order number must appear on all itemized invoices and packing slips. The County will not be held responsible for any work orders placed and/or performed without a valid current purchase order number. Payment will be made for all services rendered and accepted by the contract administrator for which a valid invoice has been received.

3.2 Invoices. All invoices shall reference the Purchase Order number. Invoices shall reference the bid item number or a detailed description for each item invoiced. If an item purchased and itemized on the invoice does not correspond to an item in any of the categories awarded to the vendor, invoice shall reference the item as "N/C" to indicate that it is a non-contract item. This requirement is to assist the County in verifying contract pricing on all invoices. Payment will be made under terms of net thirty (30) days unless otherwise agreed upon by seller and the purchasing department.

3.3 Prompt Payment. In accordance with the State of Texas Prompt Payment Act, Article 601f V.T.C.S., payment will be made after receive and acceptance by the County of the merchandise ordered and of a valid invoice. Successful bidder(s) is required to pay subcontractors within ten (10) days after the successful bidder receives payment from the County.

3.4 Funding. Jefferson County is operated and funded on an October 1 to September 30 basis; accordingly, the County reserves the right to terminate, without liability to the County, any contract for which funding is not available.

4. Contract

4.1 Contract Definition. The General Conditions of Bidding and Terms of Contract, Specifications, Plans, Bidding Forms, Addenda, and any other documents made a part of this bid shall constitute the complete bid. This bid, when duly accepted by Jefferson County, shall constitute a contract equally binding between the successful bidder and Jefferson County.

4.2 Contract Agreement. Once a contract is awarded, the unit prices offered by the successful bidder shall remain firm for the term of the contract. Contract shall commence on date of award and,

upon agreement between vendor(s) and Jefferson County, may be renewed annually for up to four (4) additional years. **(OMIT if N/A or EDIT if Needed)**

4.3 Change Order. No different or additional terms will become part of this contract with the exception of a change order. No oral statement of any person shall modify or otherwise change, or affect the terms, conditions or specifications stated in the resulting contract. All change orders to the contract will be made in writing and at the discretion and approval of Jefferson County. No change order will be binding unless signed by an authorized representative of the County and the vendor.

4.4 Price Re-determination. A price re-determination may be requested at the time of annual renewal. All requests for price re-determination shall be in written form. Cause for such request, i.e., manufacturer's direct cost, postage rates, Railroad Commission rates, Federal/State minimum wage law, Federal/State unemployment taxes, F.I.C.A, Insurance Coverage Rates, etc., shall be substantiated in writing by the source of the cost increase. The bidder's past experience of honoring contracts at the bid price will be an important consideration in the evaluation of the lowest and best bid. Jefferson County reserves the right to accept or reject any/all requests for price re-determination as it deems to be in the best interest of the County.

4.5 Termination. Jefferson County reserves the right to terminate the contract for default if the bidder breached any of the terms therein, including warranties of bidder or if the bidder becomes insolvent or commits acts of bankruptcy. Such right of termination is in addition to and not in lieu of any other remedies which Jefferson County may have in law or equity. Default may be construed as, but not limited to, failure to deliver the proper goods and/or service within the proper amount of time, and/or to properly perform any and all services required to Jefferson County's satisfaction and/or to meet all other obligations and requirements. Contracts may be terminated without cause upon thirty (30) days' written notice to either party unless otherwise specified. Jefferson County reserves the right to award canceled contract to the next lowest bidder. Bidder, in submitting this bid, agrees that Jefferson County shall not be liable to prosecution for damages in the event that the County declares the bidder in default.

4.6 Conflict of Interest. Employees of the County are not permitted to maintain financial interest in, or receive payment, directly or indirectly, borrow from, lend to, invest in, or engage in any substantial financial transaction with any individual, organization, supplier, or subcontractor who does business with the County without disclosure. When conflict of interest is discovered, it shall be grounds for termination of contract.

4.7 Injuries or Damages Resulting from Negligence. Successful vendor shall defend, indemnify and save harmless Jefferson County and all its officers, agents and employees from all suits, actions, or other claims of any character, name and description brought for or on account of any injuries or damages received or sustained by any person, persons, or property on account of any negligent act or fault of the successful vendor, or of any agent, employee, subcontractor or supplier in the execution of, or performance under, any contract which may result from bid award. Successful vendor shall pay any judgment with cost which may be obtained against Jefferson County growing out of such injury or damages.

4.8 Interest by Public Officials. No public official shall have interest in this contract, in accordance with Texas Local Government Code.

4.9 Warranty. The successful vendor shall warrant that all materials utilized in the performance of this contract shall conform to the proposed specifications and/or all warranties as stated in the Uniform Commercial Code and be free from all defects in material, workmanship and title.

4.10 Uniform Commercial Code. The successful vendor and Jefferson County agree that both parties have all rights, duties, and remedies available as stated in the Uniform Commercial Code.

4.11 Venue. This agreement will be governed and construed according to the laws of the State of Texas. This agreement is performable in the County of Jefferson, Texas.

4.12 Sale, Assignment, or Transfer of Contract. The successful vendor shall not sell, assign, transfer or convey this contract, in whole or in part, without the prior written consent of Jefferson County.

4.13 Silence of Specifications. The apparent silence of these specifications as to any detailed description concerning any point, shall be regarded as meaning that only the best commercial practices are to prevail. All interpretations of these specifications shall be made on the basis of this statement.

Special Requirements/Instructions

The following requirements and instructions supersede General Requirements where applicable.

1. Bid Requirement

Each bidder shall ensure that required parts of the bid are completed with accuracy and submitted as per the requirements within this specifications packet, including any addenda.

Bidder is responsible for submitting one (1) *original* bid copy to include a completed copy of this specifications packet in its entirety; and two (2) numbered bid *hard copies* to include at a minimum all pages requiring completion and/or marked with instructions to be returned with bid submission and any other documentation requested within these specifications.

All bids shall be tightly sealed in an opaque envelope or box and plainly marked "SEALED BID." The outside of the envelope or box shall also include: Bid Number, Bid Name, Bid Due Date, Bidder's Name and Address; and shall be addressed to the Purchasing Agent.

Jefferson County shall not be responsible for any effort or cost expended in the preparation of a response to this IFB. All protests should be coordinated through the Purchasing Office prior to award recommendation to Commissioners' Court.

2. Vendor Registration: SAM (System for Award Management).

Vendors doing business with Jefferson County are **required** to be registered with The System for Award Management (SAM), with an "active" status. The System for Award Management (SAM) is the Official U.S. Government system that consolidated the capabilities of CCR/FedReg, ORCA, and EPLS. There is NO fee to register for this site. Entities may register at no cost directly from the SAM website at: https://www.sam.gov

Bid Respondents are strongly encouraged to review their firm's SAM (System for Award Management) status prior to Bid Submission.

3. Awarded Vendor(s): Submission of FORM 1295 (Texas Ethics Commission)

As of January 1, 2016, per House Bill 1295, the Texas Ethics Commission (TEC) requires **all awarded vendors** to complete a Certificate of Interested Parties (FORM 1295) at time of notification of award. **Awarded Vendors** must visit the TEC website link below, enter the required information on Form 1295, and print a copy of the completed form. The form will include a certification of filing that will contain a unique certification number.

At the time of award, the Jefferson County Purchasing Department will submit a request to the Awarded Vendor to both:

1. Submit FORM 1295 online via the Texas Ethics Commission website link below.

2. Submit a printed copy of FORM 1295, signed by an Authorized Agent of the Awarded Vendor and notarized to the Jefferson County Purchasing Department.

FORM 1295, Completion Instructions, and Login Instructions are available via the Texas Ethics Commission Website at: https://www.ethics.state.tx.us/whatsnew/elf_info_form1295.htm

4. Multiple Vendor Award

Jefferson County reserves the right to award this contract to more than one vendor at the County's discretion.

5. Delivery

If delivery is required, all items must be packaged so as to be protected from damage during shipping and handling. Any item(s) damaged in shipping must be replaced in kind, or repaired, by the contractor, at the discretion of, and at no additional charge to, Jefferson County.

6. Payment

Jefferson County will pay original invoices that clearly itemize the goods and/or services provided as to quantity, part number, description, price, applicable discount (if any), labor charges showing time differential, if applicable and if previously agreed to, and delivery, installation, and set-up costs, if applicable and if previously agreed to. Only charges as stated on the Bid Form(s) submitted as a part of the bid will be considered.

Invoices must indicate Jefferson County as applicable, the address to which the product(s) and/or service(s) were delivered, and the applicable purchase order number. Invoices will be matched to delivery tickets prior to payment; therefore, all delivery tickets should have an accurate description of the product(s) and/or service(s).

Invoices shall be submitted to: Jefferson County Auditing Department, Attention: Accounts Payable, 1149 Pearl Street, 7th floor, Beaumont, TX 77701.

7. Usage Reports

Jefferson County reserves the right to request, and receive at no additional cost, up to two (2) times during the contract period, a usage report detailing the products and/or services furnished to date under a contract resulting from this IFB. The reports must be furnished no later than five (5) working days after written request and itemize all purchases to date by Jefferson County department, description of each item purchased, including manufacturer, quantity of each item purchased, per unit and extended price of each item purchased, and total amount and price of all items purchased.

8. Insurance

The contractor (including any and all subcontractors as defined in Section 9.1.3 below) shall, at all times during the term of this contract, maintain insurance coverages with not less than the type and requirements shown below. Such insurance is to be provided at the sole cost of the contractor. These requirements do not establish limits of the contractor's liability.

All policies of insurance shall waive all rights of subrogation against the County, its officers, employees and agents; a copy of the policy wording or endorsement is required.

Contractor shall furnish Jefferson County with Certificate of Insurance naming Jefferson County as additional insured and will provide the actual policy wording or endorsement showing as such.

All insurance must be written by an insurer licensed to conduct business in the State of Texas.

Minimum Insurance Requirements

Public Liability, including Products & Completed Operations	$1,000,000
Excess Liability	$1,000,000

Property Insurance (policy below that is applicable to this project):
- Improvements & Betterments Policy: Improvements/Remodeling (for Lease Tenants)
- Builder's Risk Policy: Structural Coverage for Construction Projects
- Installation Floater Policy: Improvements/Alterations to Existing Structure

Workers' Compensation	Statutory Coverage (see attached)

9. Workers' Compensation Insurance

9.1 Definitions:

9.1.1 **Certificate of coverage ("Certificate")** – A copy of a certificate of insurance, a certificate of authority to self-insure issued by the commission, or a coverage agreement, DWC-81, DWC-82, DWC-83, or DWC-84 showing statutory workers' compensation insurance coverage for the person's or entity's employees providing services on a project, for the duration of the project.

9.1.2 **Duration of the project** – Includes the time from the beginning of the work on the project until the contractor's/person's work on the project has been completed and accepted by the governmental entity.

9.1.3 **Persons providing services on the project ("subcontractor") in article 406.096** – Includes all persons or entities performing all or part of the services under the contractor has undertaken to perform on the project, regardless of whether that person contracted directly

with the contractor and regardless of whether that person has employees. This includes, without limitation, independent contractors, subcontractor, leasing companies, motor carriers, owner-operators, employees of any such entity, or employees of any entity which furnishes persons to provide services on the project. "Services" includes, without limitation, providing, hauling or delivering equipment or materials, or providing labor, transportation, or other service related to a project. "Services" does not include activities unrelated to the project, such as food/beverage vendors, office supply deliveries, and delivery of portable toilets.

9.2 The Contractor shall provide coverage, based on proper reporting of classification code and payroll amounts and filing any coverage agreements, which meets the statutory requirements of Texas Labor Code, Section 401.011(44) for all employees of the contractor providing services on the project, for the duration of the project.

9.3 The Contractor must provide a certificate of coverage to the governmental entity prior to being awarded the contract – refer to Section 8 above.

9.4 If the coverage period shown on the Contractor's current certificate of coverage ends during the duration of the project, the Contractor must, prior to the end of the coverage period, file a new certificate of coverage with the governmental entity showing that coverage has been extended.

9.5 The Contractor shall obtain from each person providing services on a project, and provide to the governmental entity:

9.5.1 A certificate of coverage, prior to that person beginning work on the project, so the governmental entity will have on file certificates of coverage showing coverage for all persons providing services on the project; and

9.5.2 No later than seven (7) days after receipt by the Contractor, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate ends during the duration of the project.

9.6 The Contractor shall retain all required certificates of coverage for the duration of the project and for one (1) year thereafter.

9.7 The Contractor shall notify the governmental entity in writing by certified mail or personal delivery, within ten (10) days after the contractor knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project.

9.8 The Contractor shall post on each project site a notice, in the text, form and manner prescribed by the Texas Department of Workers' Compensation, informing all persons providing services on the project that they are required to be covered, and stating how a person may verify coverage and report lack of coverage.

9.9 The Contractor shall contractually require each person with whom it contracts to provide services on a project to:

9.9.1 Provide coverage, based on reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of Texas Labor Code, Section 401.011(44) for all its employees providing services on the project, for the duration of the project.

9.9.2 Provide to the Contractor, prior to that person beginning work on the project a certificate of coverage showing that coverage is being provided for all employees of the person providing services on the project, for the duration of the project.

9.9.3 Provide the Contractor, prior to the end of coverage period, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the project.

9.9.4 Obtain from each person with whom it contracts, and provide to the Contractor:

9.9.4.1 A certificate of coverage, prior to the other person beginning work on the project; and

9.9.4.2 the coverage period, if the coverage period shown on the current certificate of a new certificate of coverage showing extension of coverage, prior to the end of coverage ends during the duration of the project.

9.9.5 Retain all required certificates of coverage on file for the duration of the project and for one (1) year thereafter.

9.9.6 Notify the governmental entity in writing by certified mail or personal delivery, within ten (10) days after the person knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project; and

9.9.7 Contractually require each person with whom it contracts to perform as required by paragraphs 9.1. – 9.7., with the certificates of coverage to be provided to the person for whom they are providing services.

9.10 By signing this contract or providing or causing to be provided a certificate of coverage, the Contractor is representing to the governmental entity that all employees of the contractor who will provide services of the project will be covered by workers' compensation coverage for the duration of the project, that the coverage will be based on proper reporting of classification codes and payroll amounts, and that all coverage agreements will be filed with the appropriate insurance carrier or, in the case of a self-insured, with the commission's Division of Self-Insurance Regulation. Providing false or misleading information may subject the contractor to administrative penalties, criminal penalties, civil penalties, or other civil actions.

9.11 The Contractor's failure to comply with any of these provisions is a breach of contract by the Contractor which entitles the governmental entity to declare the contract void if the Contractor does not remedy the breach within ten (10) days after receipt of notice of breach from the governmental entity.

Minimum Specifications

The following requirements and specifications supersede General Requirements where applicable. Contact Yea-Mei Sauer, Contract Specialist (e-mail: ysauer@co.jefferson.tx.us; phone: 409-835-8593), regarding any questions or comments. Please reference bid number IFB 17-006/YS.

Scope

Vendor shall provide Insecticides, Herbicides, Spray Adjuvants, and Adulticides for the Jefferson County Mosquito Control District subject to the terms and conditions stated for an initial period **beginning on or about date of award**.

Bidders shall attach to bid form, a current material safety data sheet and current labels for each chemical. Failure to do so may result in rejection of bid.

Prices quoted shall be F.O.B. Jefferson County Mosquito Control District, Jefferson County Airport, 1st Street, Nederland, TX. Bidder bears freight charges. All prices must be written in ink or typewritten.

Quote unit prices extended to lump sum prices. The basis of the award will be the unit prices quoted. The County reserves the right to increase or decrease the quantity purchased based on weather conditions and availability of funds.

The County reserves the right to make the award to one (1) successful bidder or per line item.

Purchase orders for insecticides, herbicides, adjuvants, and adulticides will be released to the successful bidder(s) **on an as-needed basis. MINIMUM ORDERS ARE NOT ACCEPTABLE.**

Refer questions of a commercial nature to Jamey West, Contract Specialist at 409-835-8593; and questions of a technical nature to Kevin Sexton, Jefferson County Mosquito Control, at 409-719-5940.

A price re-determination may be considered by Jefferson County only at the twelve (12) month and twenty-four (24) month anniversary dates of the contract. All requests for price re-determination shall be in written form. Cause for such request, i.e., manufacturer's direct cost, postage rates, Railroad Commission rates, Federal/State minimum wage law, Federal/State unemployment taxes, F.I.C.A, Insurance Coverage Rates, etc., shall be substantiated in writing by the source of the cost increase. The bidder's past experience of honoring contracts at the bid price will be an important consideration in the evaluation of the lowest and best bid. Jefferson County reserves the right to accept or reject any/all requests for price re-determination as it deems to be in the best interest of the County.

Approximate Annual Usage

Items listed on the Bid Form indicate our approximate annual usage. No promise is made or implied that these quantities will be purchased. Orders will be placed on an **as-needed basis** for the duration of the contract. Purchase Orders will be released to the successful bidder(s) as required. **MINIMUM ORDERS ARE NOT ACCEPTABLE.**

Contract

This bid, when properly accepted by Jefferson County Commissioners' Court, shall constitute a contract equally binding between the successful bidder and Jefferson County. No different or additional terms will become a part of this contract.

The brand name references are for description only, and are not intended to exclude other herbicides or adjuvants of equal quality. Bidders desiring to substitute items may do so provided brand name is **indicated on Bid Form**. Change of container size may disqualify bid. Dilution ratio will be a factor in award of chemicals.

Bidders shall attach to bid form a current material safety data sheet and current labels for each chemical. Failure to do so may result in rejection of bid.

Item	Description
1	**MSMA herbicide** – to contain 6.00 lb. MSMA (Mono-sodium Acid Methanearsonate) plus surfactant per gallon
2	**Tordon 101** – to contain 10.2% 4-amino3,5,6-trichloropicolinic acid (picloram), tri-isopropanolomine salt 39.6% 2,4-Dichlorophenoxyacetric acid, tri-isopropanolomiane salt.
3	**Roundup herbicide or equivalent** – to contain 41.0% by weight Isopropylamine Salt of Glyphosate
4	**Rodeo herbicide or equivalent** – to contain 53.5% by weight Isopropylamine Salt of Glyphosate
5	**Nalco Trol II or equivalent** – water soluble spray drift control agent
6	**Aqua-King or equivalent** – product must be a non-ionic aquatic surfactant approved for use in the State of Texas, contain 90% active ingredient (excluding alcohols, fatty acids, oils ethylene glycol or diethylene glycol), a minimum of 80% surfactant load, possess an HLB (hydrophilic to lipophilic balance) ratio of 12 to 17, a maximum of 10% isopropyl alcohol, have a flash point greater than 200 degrees F., and contain an anti-foaming agent that will provide instantaneous foam breakdown when agitation ceases.
7	**Malathion insecticide** – concentrate to contain a minimum of 9.9 lb. of malathion per gallon (96.5% by weight active ingredient). Product offered must have current approval in Texas for both aerial and ground ULV application against adult mosquitoes. Bulk shipments only.
8	**Scourge insecticide** – concentrate to contain 1.51 lb. Resmethrin (18% by weight active ingredient) and 4.51 lb. Piperonyl Butoxide Technical (54% by weight active ingredient) per gallon. Product offered must have current approval in Texas for ground ULV application against adult mosquitoes.
9	**Envion 30/30 insecticide or equivalent** - water compatible concentrate in 2.52 lb. Permethrin (30.0% by weight) and 2.52 lb. Piperonyl Butoxide (30.0% by weight) per gallon. Product offered must have current approval in Texas for aerial and ground ULV application against adult mosquitoes.
10	**Duet Adulticide or equivalent** – 1.00% Prallethrin: = 0.085 lbs. of Technical Prallethrin per gallon. Chemical name = (RS) – 2 methyl-4-oxo-3-(2-propynl) cyclopent-2-enyl- (1RS)-cis, trans-chyrsanthemate. 5.00 % Sumethrin: = 0.370 lbs. of Technical Sumethrin per gallon. Chemical name = 3-Phenoxbenzyl- (1RS, 3 RS; 1RS, 3SR) -2,-2dimethyl-3-(2-methylprop-1-enyl) cyclopropanecarboxlate. 5.00% PBO = 0.370 lbs. Technical Pepronyl Butoxide per gallon. Chemical name = Pyperonyl Butoxide. Returnable 275 gallon stainless steel totes with 2.5 inch quick connect hose attachment. Successful bidder will deliver full containers and pick up empty containers at no additional charge

Bidder Information Form

Instructions: Complete the form below. Please provide legible, accurate, and complete contact information. PLEASE PRINT.

Bid Name & Number: IFB 17-006/YS, Term Contract for Insecticides, Herbicides, Spray Adjuvants, and Adulticides for Jefferson County Mosquito Control District

Bidder's Company/Business Name: Clarke Mosquito Control Products, Inc

Bidder's TAX ID Number: 36-3672438

Contact Person: Doug Carroll **Title:** Control Consultant

Phone Number (with area code): 817-600-5353

Alternate Phone Number if available (with area code): 800-323-5727

Fax Number (with area code): 630-443-3070

Email Address: customercare@clarke.com

Mailing Address (Please provide a physical address for bid bond return, if applicable):

675 Sidwell Ct
Address

St Charles, IL 60174
City, State, Zip Code

OFFER AND ACCEPTANCE FORM

OFFER TO CONTRACT

To Jefferson County:

We hereby offer and agree to furnish the materials or service in compliance with all terms, conditions, specifications, and amendments in the Invitation for Bid and any written exceptions in the offer. We understand that the items in this Invitation for Bid, including, but not limited to, all required certificates are fully incorporated herein as a material and necessary part of the contract.

The undersigned hereby states, under penalty of perjury, that all information provided is true, accurate, and complete, and states that he/she has the authority to submit this bid, which will result in a binding contract if accepted by Jefferson County.

We acknowledge receipt of the following amendment(s): _____, _____, _____, _____.

I certify, under penalty of perjury, that I have the legal authorization to bind the firm hereunder:

Clarke Mosquito Control Products, Inc
Company Name

675 Sidwell Ct
Address

St Charles | IL | 60174
City | State | Zip

Signature of Person Authorized to Sign

Joel Fruendt
Printed Name

VP and General Manager
Title

For clarification of this offer, contact:

Doug Carroll
Name

817-600-5353 | 630-443-3070
Phone | Fax

customercare@clarke.com
E-mail

Bidder Shall Return Completed Form with Offer.

Acceptance of Offer

The Offer is hereby accepted for the following items: Term Contract for Insecticides, Herbicides, Spray Adjuvants, and Adulticides for Jefferson County Mosquito Control District. Contract Term: One (1) year from date of award with an option to renew for four (4) additional years.

The Contractor is now bound to sell the materials or services listed by the attached contract and based upon the Invitation for Bid, including all terms, conditions, specifications, amendments, etc., and the Contractor's Offer as accepted by Jefferson County.

This contract shall henceforth be referred to as Contract No. 17-006/YS, Term Contract for Insecticides, Herbicides, Spray Adjuvants, and Adulticides for Jefferson County Mosquito Control District. The Contractor has not been authorized to commence any billable work or to provide any material or service under this contract until Contractor receives a purchase order and/or a notice to proceed from the Jefferson County Purchasing Agent.

Countersigned:

Jeff R. Branick
County Judge

Date

Attest:

Carolyn L. Guidry
County Clerk

Bidder Shall Return Completed Form with Offer.

Bid Form

Item	Est Qty. (Gal.)	Description	Brand bid	MSDS Labels Attached	Price per Gallon	Total Price
1	700	MSMA Herbicide – 2.5 gal. container			$ NO BID	$
2	700	Tordon 101 Herbicide or equivalent – 2.5 gal. container			$ NO BID	$
3	700	Roundup Herbicide or equivalent – 2.5 gal. container			$ NO BID	$
4	100	Rodeo Herbicide or equivalent – 2.5 gal. container			$ NO BID	$
5	100	Nalco Trol II or equivalent – 2.5 gal. (or smaller) container			$ NO BID	$
6	400	Aqua-King Surfactant or equivalent – 2.5 gal. (or smaller) container			$ NO BID	$
7	20,000	Malathion Insecticide – **bulk shipment only**			$ NO BID	$
8	250	Scourge Insecticide – 5 gal. containers			$ NO BID	$
9	600	Envion 30/30 insecticide – 2.5 gal. containers			$ NO BID	$
10	1,375	Duet Adulticide 275 gal. steel containers	Duet	Yes	$ 138.60	$ 190,575.00

Bidders shall attach to bid form a current material safety data sheet and current labels for each chemical. Failure to do so may result in rejection of bid.

Acknowledgment of Addenda (if any):

Addendum 1 _____ Date Received_____

Addendum 2 _____ Date Received_____

Addendum 3 _____ Date Received_____

Bidder Shall Return Completed Form with Offer.

Vendor References

Please list at least three (3) companies or governmental agencies (preferably a municipality) where the same or similar products and/or services as contained in this specification package were recently provided.

THIS FORM MUST BE RETURNED WITH YOUR BID.

REFERENCE ONE

Government/Company Name: Orange County Mosquito Control

Address: 714 Polk Ave, Orange, TX 77630-6348

Contact Person and Title: Patrick D. Beebe, Director

Phone: 409-883-5717 Fax: 409-886-7990

Contract Period: currently through June 2017 Scope of Work: mosquito control products

REFERENCE TWO

Government/Company Name: City of Baytown Health Department

Address: PO Box 424, Baytown, TX 77522-0424

Contact Person and Title: James Garcia

Phone: 281-420-5384 Fax:

Contract Period: ongoing purchases Scope of Work: mosquito control products

REFERENCE THREE

Government/Company Name: City of Portland

Address: 1101 Moore Avenue Portland, TX 78374

Contact Person and Title: Josh Irvin

Phone: 361-777-2943 Fax: 361-777-4601

Contract Period: ongoing purchases Scope of Work: mosquito control products

Bidder Shall Return Completed Form with Offer.

Signature Page

As permitted under Article 4413 (32c) V.A.C.S., other governmental entities may wish to participate under the same terms and conditions contained in this contract (i.e., piggyback). In the event any other entity participates, all purchase orders will be issued directly from and shipped directly to the entity requiring supplies/services. Jefferson County shall not be held responsible for any orders placed, deliveries made or payment for supplies/services ordered by another entity. Each entity reserves the right to determine their participation in this contract.

Would bidder be willing to allow other governmental entities to piggyback off this contract, if awarded, under the same terms and conditions? ..... **Yes** [X] **No** [ ]

This bid shall remain in effect for ninety (90) days from bid opening and shall be exclusive of federal excise and state and local sales tax (exempt).

The undersigned agrees, if this bid is accepted, to furnish any and all items upon which prices are offered, at the price and upon the terms and conditions contained in the Invitation for Bid, Conditions of Bidding, Terms of Contract, and Specifications and all other items made a part of the accepted contract.

The undersigned affirms that they are duly authorized to execute the contract, that this company, corporation, firm, partnership or individual has not prepared this bid in collusion with any other bidder, and that the contents of this bid as to prices, terms or conditions of said bid have not been communicated by the undersigned nor by any employee or agent to any other bidder or to any other person(s) engaged in this type of business prior to the official opening of this bid. And further, that neither the bidder nor their employees nor agents have been for the past six (6) months directly nor indirectly concerned in any pool or agreement or combination to control the price of goods or services on, nor to influence any person to bid or not to bid thereon.

Clarke Mosquito Control Products, Inc	
Bidder (Entity Name)	Signature
675 Sidwell Ct	Joel Fruendt
Street & Mailing Address	Print Name
ST Charles, IL 60174	2/22/17
City, State & Zip	Date Signed
800-323-5727	630-443-3070
Telephone Number	Fax Number
customercare@clarke.com	
E-mail Address	

Bidder Shall Return Completed Form with Offer.

Conflict of Interest Questionnaire

CONFLICT OF INTEREST QUESTIONNAIRE — FORM CIQ

For vendor doing business with local governmental entity

This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session.

This questionnaire is being filed in accordance with Chapter 176, Local Government Code, by a vendor who has a business relationship as defined by Section 176.001(1-a) with a local governmental entity and the vendor meets requirements under Section 176.006(a).

By law this questionnaire must be filed with the records administrator of the local governmental entity not later than the 7th business day after the date the vendor becomes aware of facts that require the statement to be filed. *See* Section 176.006(a-1), Local Government Code.

A vendor commits an offense if the vendor knowingly violates Section 176.006, Local Government Code. An offense under this section is a misdemeanor.

OFFICE USE ONLY

Date Received

1 **Name of vendor who has a business relationship with local governmental entity.**

Clarke Mosquito Control Products, Inc

2 ☐ **Check this box if you are filing an update to a previously filed questionnaire.**

(The law requires that you file an updated completed questionnaire with the appropriate filing authority not later than the 7th business day after the date on which you became aware that the originally filed questionnaire was incomplete or inaccurate.)

3 **Name of local government officer about whom the information in this section is being disclosed.**

N/A

Name of Officer

This section (item 3 including subparts A, B, C, & D) must be completed for each officer with whom the vendor has an employment or other business relationship as defined by Section 176.001(1-a), Local Government Code. Attach additional pages to this Form CIQ as necessary.

A. Is the local government officer named in this section receiving or likely to receive taxable income, other than investment income, from the vendor?

☐ Yes ☐ No

B. Is the vendor receiving or likely to receive taxable income, other than investment income, from or at the direction of the local government officer named in this section AND the taxable income is not received from the local governmental entity?

☐ Yes ☐ No

C. Is the filer of this questionnaire employed by a corporation or other business entity with respect to which the local government officer serves as an officer or director, or holds an ownership interest of one percent or more?

☐ Yes ☐ No

D. Describe each employment or business and family relationship with the local government officer named in this section.

4

Signature of vendor doing business with the governmental entity

3/22/17

Date

Adopted 8/7/2015

Bidder Shall Return Completed Form with Offer.

Local Government Officer

Conflicts Disclosure Statement - OFFICE USE ONLY

LOCAL GOVERNMENT OFFICER CONFLICTS DISCLOSURE STATEMENT

FORM CIS

This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session.

This is the notice to the appropriate local governmental entity that the following local government officer has become aware of facts that require the officer to file this statement in accordance with Chapter 176, Local Government Code.

OFFICE USE ONLY

Date Received

1 **Name of Local Government Officer**

N/A

2 **Office Held**

3 **Name of vendor described by Sections 176.001(7) and 176.003(a), Local Government Code**

4 **Description of the nature and extent of employment or other business relationship with vendor named in item 3**

5 **List gifts accepted by the local government officer and any family member, if aggregate value of the gifts accepted from vendor named in item 3 exceeds $100 during the 12-month period described by Section 176.003(a)(2)(B).**

Date Gift Accepted _____ Description of Gift _____

Date Gift Accepted _____ Description of Gift _____

Date Gift Accepted _____ Description of Gift _____

(attach additional forms as necessary)

6 **AFFIDAVIT**

I swear under penalty of perjury that the above statement is true and correct. I acknowledge that the disclosure applies to each family member (as defined by Section 176.001(2), Local Government Code) of this local government officer. I also acknowledge that this statement covers the 12-month period described by Section 176.003(a)(2)(B), Local Government Code.

_____
Signature of Local Government Officer

AFFIX NOTARY STAMP / SEAL ABOVE

Sworn to and subscribed before me, by the said _____, this the _____ day of _____, 20 _____, to certify which, witness my hand and seal of office.

_____ _____ _____
Signature of officer administering oath | Printed name of officer administering oath | Title of officer administering oath

Adopted 8/7/2015

Good Faith Effort (GFE) Determination Checklist

This information must be submitted with your bid.

Bidder intends to utilize subcontractors/subconsultants in the fulfillment of this contract (if awarded).
☐ Yes ☒ No Bid is for product, not service

Instructions: In order to determine if a "Good Faith Effort" was made in soliciting HUBs for subcontracting opportunities, the following checklist and supporting documentation shall be completed by the Prime Contractor/Consultant, and returned with the Prime Contractor/ Consultant's bid. This list contains the **minimum** efforts that should be put forth by the Prime Contractor/Consultant when attempting to achieve or exceed the goals of HUB Subcontractor participation. The Prime Contractor/Consultant may extend his/her efforts in soliciting HUB Subcontractor participation beyond what is listed below.

Did the Prime Contractor/Consultant . . . N/A

☐ Yes ☐ No 1. To the extent practical, and consistent with standard and prudent industry standards, divide the contract work into the smallest feasible portions, to allow for maximum HUB Subcontractor participation?

☐ Yes ☐ No 2. **Notify** in writing a reasonable number of HUBs, allowing sufficient time for effective participation of the planned work to be subcontracted?

☐ Yes ☐ No 3. **Provide** HUBs that were genuinely interested in bidding on a subcontractor, adequate information regarding the project (i.e., plans, specifications, scope of work, bonding and insurance requirements, and a point of contract within the Prime Contractor/Consultant's organization)?

☐ Yes ☐ No 4. **Negotiate** in good faith with interested HUBs, and not reject bids from HUBs that qualify as lowest and responsive bidders?

☐ Yes ☐ No 5. **Document** reasons HUBs were rejected? Was a written rejection notice, including the reason for rejection, provided to the rejected HUBs?

☐ Yes ☐ No 6. If Prime Contractor/Consultant has zero (0) HUB participation, **please explain the reasons why.**

If "No" was selected, please explain and include any pertinent documentation with your bid.
If necessary, please use a separate sheet to answer the above questions.

Joel Fruendt
Printed Name of Authorized Representative

Signature

VP & General Manager
Title

2/22/17
Date

Bidder Shall Return Completed Form with Offer.

Notice of Intent (NOI) to Subcontract with Historically Underutilized Business (HUB)

This information must be submitted with your bid.

Bidder intends to utilize subcontractors/subconsultants in the fulfillment of this contract (if awarded).
☐ Yes ☒ No

Instructions for Prime Contractor/Consultant: Bidder shall submit this form with the bid; however, the information below may be submitted after contract award, but prior to beginning performance on the contract. Please submit one form for each HUB Subcontractor/Subconsultant with proper signatures, per the terms and conditions of your contract.

Contractor Name: N/A HUB: p Yes p No

Address: _____
Street City State Zip

Phone (with area code): _____ Fax (with area code): _____

Project Title & No.: _____

Prime Contract Amount: $ _____

HUB Subcontractor Name: _____

HUB Status (Gender & Ethnicity): _____

Certifying Agency: ☐ Tx. Bldg & Procurement Comm. ☐ Jefferson County ☐ Tx Unified Certification Prog.

Address: _____
Street City State Zip

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

_____

Printed Name of Contractor Representative	Signature of Representative	Date
Printed Name of HUB	Signature of Representative	Date

NOTE: NOTHING ON THIS NOTICE OF INTENT FORM IS INTENDED TO CONFER ANY RIGHTS, EXPRESSED OR IMPLIED, TO ANY THIRD PARTIES.

Pre-Approval for Subcontractor Substitutions must be obtained from the Jefferson County Purchasing Agent's Representative. The "HUB Subcontractor/Subconsultant Change Form" must be completed and faxed to 409-835-8456.

Bidder Shall Return Completed Form with Offer.

Historically Underutilized Business (HUB) Subcontracting Participation Declaration Form

PAGE 1 OF 4

This information must be submitted with your bid.

Bidder intends to utilize subcontractors/subconsultants in the fulfillment of this contract (if awarded).
☐ Yes ☒ No

Prime Contractor: _____ HUB: ☐ Yes ☐ No

HUB Status (Gender & Ethnicity): _____

Address: _____
Street City State Zip

Phone (with area code): _____ Fax (with area code): _____

Project Title & No.: _____ IFB/RFP No.: _____

Total Contract: $ _____ Total HUB Subcontract(s): $ _____

Construction HUB Goals: 12.8% MBE:: _____ % 12.6% WBE: _____ %

Sub-goals: 1.7 African-American, 9.7% Hispanic, 0.7% Native American, 0.8% Asian American.
Use these goals as a guide to diversify.

FOR HUB OFFICE USE ONLY:

Verification date HUB Program Office reviewed and verified HUB Sub information Date: _____ Initials: _____

PART I. HUB SUCONTRACTOR DISCLOSURE

HUB Subcontractor Name: _____

HUB Status (Gender & Ethnicity): _____

Certifying Agency: ☐ Texas Bldg & Procurement Comm. ☐ Texas Unified Certification Prog.

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

Bidder Shall Return Completed Form with Offer.

Historically Underutilized Business (HUB) Subcontracting Participation Declaration Form

HUB SUBCONTRACTOR DISCLOSURE

PART I: Continuation Sheet **(Duplicate as Needed)**

HUB Subcontractor Name: _____

HUB Status (Gender & Ethnicity): _____

Certifying Agency: ☐ Tx. Bldg & Procurement Comm. ☐ Jefferson County ☐ Tx Unified Certification Prog.

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $_____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

_____

HUB Subcontractor Name: _____

HUB Status (Gender & Ethnicity): _____

Certifying Agency: ☐ Tx. Bldg & Procurement Comm. ☐ Jefferson County ☐ Tx Unified Certification Prog.

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $_____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

_____

All HUB Subcontractor Participation may be verified with the HUB Subcontractor(s) listed on Part I.

Bidder Shall Return Completed Form with Offer.

Historically Underutilized Business (HUB)
Subcontracting Participation Declaration Form

PART II: STATEMENT OF NON-COMPLIANCE FOR NOT MEETING HUB SUBCONTRACTING GOALS

Please complete Good Faith Effort (GFE) Checklist and attach any supporting documentation.

Our firm was unable to meet the HUB goals for this project for the following reasons:

- ☐ All subcontractors to be utilized are "Non-HUBs." *(Complete Part III)*
- ☐ HUBs were solicited but did not respond.
- ☐ HUBs solicited were not competitive.
- ☐ HUBs were unavailable for the following trade(s):
- ☒ Other: Not using subcontractors

Was the Jefferson County HUB Office contacted for assistance in locating HUBs? ☐ Yes ☐ No

PART III: DISCLOSURE OF OTHER "NON-HUB" SUBCONTRACTS

The bidder shall use this area to provide a listing of all "Non-HUB" Subcontractors, including suppliers, that will perform under this project. A list of those "Non-HUB" Subcontractors the bidder selects, after bid submission, shall be provided to the Purchasing Office not later than five (5) calendar days after being notified that bidder is the apparent low bidder. A list of those "Non-HUB" Subcontractors that are selected after contract award must be provided **immediately** after their selection.

Subcontractor Name: _____

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

Subcontractor Name: _____

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

Bidder Shall Return Completed Form with Offer.

Historically Underutilized Business (HUB)
Subcontracting Participation Declaration Form

PAGE 4 OF 4

Subcontractor Name: _____

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $_____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

Subcontractor Name: _____

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $_____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

I hereby certify that I have read the *HUB Program Instructions and Information*, truthfully completed all applicable parts of this form, and **attached any necessary support documentation as required**. I fully understand that intentionally falsifying information on this document may result in my not receiving a contract award or termination of any resulting contract.

Name (print or type): _____

Title: _____

Signature: _____

Date: _____

E-mail address: _____

Contact person that will be in charge of invoicing for this project:

Name (print or type): _____

Title: _____

Date: _____

E-mail address: _____

Bidder Shall Return Completed Form with Offer.

Residence Certification/Tax Form

Pursuant to Texas Government Code §2252.001 *et seq.*, as amended, Jefferson County requests Resident Certification. §2252.001 *et seq.* of the Government Code provides some restrictions on the awarding of governmental contracts; pertinent provisions of §2252.001 are stated below:

(3) "Nonresident bidder" refers to a person who is not a resident.

(4) "Resident bidder" refers to a person whose principal place of business is in this state, including a contractor whose ultimate parent company or majority owner has its principal place of business in this state.

☐ I certify that _____ [company name] is a Resident Bidder of Texas as defined in Government Code §2252.001.

☐ I certify that Clarke Mosquito Control Products, Inc [company name] is a Nonresident Bidder as defined in Government Code §2252.001 and our principal place of business is _____ St Charles, IL (city and state).

Taxpayer Identification Number (T.I.N.):	36-3672438
Company Name submitting bid/proposal:	Clarke Mosquito Control Products, Inc
Mailing address:	675 Sidwell Ct, St Charles, IL 60174
If you are an individual, list the names and addresses of any partnership of which you are a general partner:	

Property: List all taxable property owned by you or above partnerships in Jefferson County.

Jefferson County Tax Acct. No.*	Property address or location**

* This is the property amount identification number assigned by the Jefferson County Appraisal District.

** For real property, specify the property address or legal description. For business property, specify the address where the property is located. For example, office equipment will normally be at your office, but inventory may be stored as a warehouse or other location.

Bidder Shall Return Completed Form with Offer.

Bid Affidavit

The undersigned certifies that the bid prices contained in this bid have been carefully reviewed and are submitted as correct and final. Bidder further certifies and agrees to furnish any and/or all commodities upon which prices are extended at the price offered, and upon the conditions contained in the specifications and the Notice to Bidders.

STATE OF Illinois COUNTY OF Kane

BEFORE ME, the undersigned authority, a Notary Public in and for the State of Illinois,

on this day personally appeared _____, who
(name)

after being by me duly sworn, did depose and say:

"I, _____ am a duly authorized officer of/agent
(name)

for _____ and have been duly authorized to execute the
(name of firm)

foregoing on behalf of the said_____.
(name of firm)

I hereby certify that the foregoing bid has not been prepared in collusion with any other bidder or other person or persons engaged in the same line of business prior to the official opening of this bid. Further, I certify that the bidder is not now, nor has been for the past six (6) months, directly or indirectly concerned in any pool or agreement or combination, to control the price of services/commodities bid on, or to influence any person or persons to bid or not to bid thereon."

Name and address of bidder: Clarke Mosquito Control Products, Inc

675 Sidwell Ct, St Charles, IL 60174

Fax: 630-443-3070 Telephone# 800-323-5727

by: Joel Fruendt Title: VP & General Manager
(print name)

Signature: J. L. Fruendt

SUBSCRIBED AND SWORN to before me by the above-named
Joel L. Fruendt on

this the 23rd day of February, 2017.

Brenda A. Francis
Notary Public in and for
the State of Illinois

BRENDA A FRANCIS
Official Seal
Notary Public - State of Illinois
My Commission Expires Mar 15, 2020

Bidder Shall Return Completed Form with Offer.

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 10/31/2016

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER HUB International Midwest Limited 55 East Jackson Boulevard Chicago IL 60604	CONTACT NAME: CSU Chicago - Midwest PHONE (A/C, No, Ext): FAX (A/C, No): E-MAIL ADDRESS: CSUChicago@hubinternational.com
INSURED Clarke Mosquito Control Products, Inc. 675 Sidwell Court Saint Charles, IL 60174	INSURER(S) AFFORDING COVERAGE — NAIC # INSURER A : Lexington Insurance Company — 19437 INSURER B : Commerce & Industry Insurance Compa — 19410 INSURER C : National Union Fire Insurance Compa — 19445 INSURER D : INSURER E : INSURER F :

COVERAGES **CERTIFICATE NUMBER:** 1082345471 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY CLAIMS-MADE [X] OCCUR X Pollution Legal Liability GEN'L AGGREGATE LIMIT APPLIES PER: X POLICY [ ] PRO-JECT [ ] LOC OTHER:			EG1950828	11/1/2016	11/1/2017	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG Pollution Legal Liab	$1,000,000 $300,000 $25,000 $1,000,000 $2,000,000 $2,000,000 $1,000,000
B	AUTOMOBILE LIABILITY X ANY AUTO ALL OWNED AUTOS SCHEDULED AUTOS X HIRED AUTOS NON-OWNED AUTOS			CA6530642	11/1/2016	11/1/2017	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident) 	$1,000,000 $ $ $ $
A	X UMBRELLA LIAB X OCCUR EXCESS LIAB CLAIMS-MADE DED X RETENTION $0			EGU1950829	11/1/2016	11/1/2017	EACH OCCURRENCE AGGREGATE 	$10,000,000 $10,000,000 $
C C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y/N: N If yes, describe under DESCRIPTION OF OPERATIONS below	N/A		012-77-2854 (AOS) 012-77-5855 (CA Only)	11/1/2016 11/1/2016	11/1/2017 11/1/2017	X PER STATUTE OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	 $1,000,000 $1,000,000 $1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Pollution Legal Liability includes coverage for Third Party On-site, Third Party Off-site, Hostile Fire and Building Equipment, Products Pollution, Contractors Pollution and Transportation Cargo. Jefferson County is included as Additional Insured (excluding Workers' Compensation coverage) as required by written contract with the named insured.

CERTIFICATE HOLDER

Jefferson County
1149 Pearl Street
Beaumont TX 77701

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

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clarke

DUET®

Dual-Action Adulticide

For use only by federal, state, tribal, or local government officials responsible for public health or vector control, or by persons certified in the appropriate category or otherwise authorized by the state or tribal lead pesticide regulatory agency to perform adult mosquito control applications, or by persons under their direct supervision.

A Quick Knockdown, Oil Soluble Synergized Synthetic Pyrethroid for Effective Control of Adult Mosquitoes, Gnats, Biting and Non-Biting Midges, and Blackflies in Outdoor Residential and Recreational Areas.

ACTIVE INGREDIENTS:	
Prallethrin: (RS)-2-methyl-4-oxo-3-(2-propynyl) cyclopent-2-enyl-(1RS)-cis, trans-chrysanthemate	1.00%
Sumithrin®: 3-Phenoxybenzyl-(1RS, 3RS, 1RS, 3SR)-2,2-dimethyl-3-(2-methylprop-1-enyl) cyclopropanecarboxylate	5.00%
* Piperonyl Butoxide	5.00%
** OTHER INGREDIENTS	89.00%
	100.00%

Contains 0.0717 pounds of Prallethrin/Gallon, 0.359 pounds of Sumithrin®/Gallon and 0.359 pounds of Piperonyl Butoxide (PBO)/Gallon
*(butylcarbityl)(6-propylpiperonyl) ether and related compounds
**Contains petroleum distillate

KEEP OUT OF REACH OF CHILDREN

CAUTION

PRECAUCION AL USUARIO: SI usted no lee ingles, no use este producto hasta que la etiqueta haya sido explicado ampliamente

FIRST AID	
IF SWALLOWED:	• Immediately call a poison control center or doctor. • Do not induce vomiting unless told to do so by a poison control center or a doctor. • Do not give any liquid to the person. • Do not give anything by mouth to an unconscious person.
NOTE TO PHYSICIAN: Contains petroleum distillates - vomiting may cause aspiration pneumonia.	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For information regarding medical emergencies or pesticide incidents, call 1-888-740-8712.	

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Harmful if swallowed. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

PERSONAL PROTECTIVE EQUIPMENT (PPE) Mixers, loaders, applicators, and other handlers must wear the following: long-sleeved shirt, long pants, shoes and socks. See engineering controls for additional requirements.

USER SAFETY REQUIREMENTS Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent material that have been drenched or heavily contaminated with the product's concentrate. Do not reuse them.

USER SAFETY RECOMMENDATIONS Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Users should remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

ENGINEERING CONTROLS Pilots must use an enclosed cockpit that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(6)]. Human flagging is prohibited. Flagging to support aerial applications is limited to the use of the Global Positioning System (GPS) or mechanical flaggers.

ENVIRONMENTAL HAZARDS

This pesticide is highly toxic to aquatic organisms, including fish and aquatic invertebrates. Runoff from treated areas or deposition of spray droplets into a body of water may be hazardous to fish and aquatic invertebrates. Before making the first application in a season, it is advisable to consult with the state or tribal agency with primary responsibility for pesticide regulation to determine if other regulatory requirements exist. Do not apply over bodies of water (lakes, rivers, permanent streams, natural ponds, commercial fish ponds, swamps, marshes or estuaries), except when necessary to target areas where adult mosquitoes are present, and weather conditions will facilitate movement of applied material away from the water in order to minimize incidental deposition into the water body. Do not contaminate bodies of water when disposing of equipment rinsate or washwaters.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply to or allow drift onto blooming crops or weeds when bees are foraging in the treatment area, except when applications are made to prevent or control a threat to public and/or animal health determined by a state, tribal or local health or vector control agency on the basis of documented evidence of disease causing agents in vector mosquitoes or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort.

PHYSICAL OR CHEMICAL HAZARDS

Do not use or store near heat or open flame.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

USE RESTRICTIONS

For use only by federal, state, tribal, or local government officials responsible for public health or vector control, or by persons certified in the appropriate category or otherwise authorized by the state or tribal lead pesticide regulatory agency to perform adult mosquito control applications, or by persons under their direct supervision.

IN CALIFORNIA: This product is to be applied by County Health Department, State Department of Health Services, Mosquito and Vector Control or Mosquito Abatement District personnel only.

IN FLORIDA: Aerial applications of this product require trained personnel to perform industry accepted assays to monitor resistance formation in targeted mosquitoes.

Do not treat a site with more than 0.0036 lb. of each a.i., Sumithrin and piperonyl butoxide and 0.00072 lbs. prallethrin per acre in a single application or in any 24-hour period. Do not apply more than 0.0108 lb. each of Sumithrin and piperonyl butoxide and 0.0022 lb. prallethrin to the same treatment area in a 7 day period. Do not apply more than 0.0216 lb. each of Sumithrin and piperonyl butoxide and 0.0043 lb. prallethrin to the same treatment area in 1 month. Do not exceed 0.1 lb. of Sumithrin or piperonyl butoxide or 0.02 lb. prallethrin per acre in any site in one year. More frequent applications may be made to prevent or control a threat to public and/or animal health determined by a state, tribal, or local health or vector control agency on the basis of documented evidence of disease causing agents in vector mosquitoes or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort.

NOTE: When rotating products with other insecticides containing piperonyl butoxide, do not exceed 2 lbs. PBO per acre per year.

Not for use in outdoor residential misting systems. Not for use in metered release systems.

DUET cannot be diluted in water. Dilute this product with light mineral oil if dilution is preferred.

USE INFORMATION

DUET is approved for application as a thermal aerosol and as an Ultra Low Volume (ULV) nonthermal aerosol (cold fog) in mosquito adulticiding programs involving outdoor residential, urban, industrial, and recreational areas where adult mosquitoes are present in annoying numbers, and in vegetation surrounding parks, woodlands, swamps, marshes, overgrown areas and golf courses.

DUET may be applied over crops or to areas favoring drift over crops, including row, tree, fruit, citrus, pasture and other areas where agricultural enterprises take place.

SPRAY DROPLET SIZE DETERMINATION

Ground-based, wide area mosquito abatement application: Spray equipment must be adjusted so that the volume median diameter (VMD) is less than 30 microns (Dv 0.5 < 30 um) and that 90% of the spray is contained in droplets smaller than 50 microns (Dv 0.9 < 50 um). Directions from the equipment manufacturer or vendor, pesticide registrant, or a test facility using a laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra. Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rate(s) are properly calibrated.

Aerial Equipment, wide area mosquito abatement application: Spray equipment must be adjusted so that the volume median diameter produced is less than 60 microns (Dv 0.5 < 60 um) and that 90% of the spray is contained in droplets smaller than 115 microns (Dv 0.9 < 115 um). The effects of flight speed and, for non-rotary atomizers, nozzle angle on the droplet size spectrum must be considered. Directions from the equipment manufacturer or vendor, pesticide registrant, or a test facility using a wind tunnel and laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra. Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rate(s) are properly calibrated.

GROUND ULV APPLICATION

To control Mosquitoes and other listed insects, apply DUET at a flow rate of 2.6 to 7.8 fluid ounces per minute at an average vehicle speed of 10 mph using a swath width of 300 feet for acreage calculations (see chart below). For best results, apply when mosquitoes are most active and meteorological conditions are conducive to keeping the spray cloud close to the ground. Certain mosquito species such as *Aedes aegypti* and *Aedes albopictus*, are most active during the day. Application in calm air conditions is to be avoided. Apply only when ground wind speed is greater than or equal to 1 mph. All types of applications should be conducted at temperatures above 50 °F. Under normal residential conditions a flow rate of 4.8 fluid ounces per minute at an average vehicle speed of 10 mph is recommended. If a different vehicle speed is used, adjust rate accordingly. These rates are equivalent to 0.00024 to 0.00072 pounds of Prallethrin and 0.0012 to 0.0036 pounds of Sumithrin® and Piperonyl Butoxide per acre. Vary flow rate according to vegetation density and mosquito population. Use higher flow rate

in heavy vegetation or when populations are high. DUET may also be diluted with a suitable solvent such as mineral oil and applied by GROUND ULV equipment so long as 1.28 fluid ounces per acre of DUET is not exceeded. Refer to the dilution tables on this label for flow rate calculations for diluted end-use formulations of DUET. Use the following tables to calculate application rates:

Pounds a.i./Acre			DUET Fl.oz./Acre	Flow Rates in fluid oz./minute at truck speeds of:			
Prallethrin	Sumithrin®	PBO		5 MPH	10 MPH	15 MPH	20 MPH
0.00072	0.0036	0.0036	1.28	3.9	7.8	11.7	15.6
0.00044	0.0022	0.0022	0.79	2.4	4.8	7.1	9.5
0.00036	0.0018	0.0018	0.64	1.9	3.9	5.8	7.8
0.00024	0.0012	0.0012	0.43	1.3	2.6	3.9	5.2

DUET may be applied through truck mounted thermal fogging equipment. Do not exceed the maximum rates listed above. May be applied at speeds of 5 to 20 mph. To reduce oil requirement and sludge buildup in equipment, use a 60-100-second viscosity mineral "fog" oil or other fuel-type oil. Use a clean, well-maintained and properly calibrated fogger. Do not wet foliage since oil base formulations may be phytotoxic.

Urban ULV Mosquito Control: DUET may be applied for control of resting or flying adult mosquitoes in urban and industrial areas such as utility tunnels, pipe chases, underground basements, underground passages, parking decks, open parking garages, abandoned warehouses, crawl spaces, uninhabited buildings, rail yards, waste yards, junkyards, tire dumps, and other areas where adult mosquitoes may be found. Apply using mechanical-foggers, or truck-mounted ULV equipment, or other spray equipment suitable for this application. Apply at rates up to but not exceeding 0.0036 lb of each a.i., Sumithrin and piperonyl butoxide and 0.00072 lbs. prallethrin per acre in a single application or in any 24-hour period.

AERIAL APPLICATION

DUET may be applied at rates of 0.43 to 1.28 fluid ounces of DUET per acre by fixed wing or rotary aircraft equipped with suitable ULV application equipment. Appropriate spray systems include rotary atomizers, flat fan, high pressure, and high pressure impaction nozzles characterized and oriented to achieve the droplet characteristics specified in this label. DUET may also be diluted with a suitable solvent such as mineral oil and applied by aerial ULV equipment so long as 1.28 fluid ounces per acre of DUET is not exceeded. Refer to the dilution tables on this label for flow rate calculations for diluted end-use formulations of DUET. Do not apply by fixed wing aircraft at a height less than 100 feet above the ground or canopy, or by helicopter at a height less than 75 feet above the ground or canopy unless specifically approved by the state or tribe based on public health needs. When making aerial application at an altitude of less than 100 feet, apply only when wind speed at altitude is greater than or equal to 5 mph. When making application at an altitude of 100 feet or greater, apply only when wind speed at altitude is greater than or equal to 3 mph.

DILUTION CALCULATIONS

For a 4% Sumithrin product, dilute 1 gallon DUET with 0.25 gallon oil. Finished spray contains 0.29 lbs Sumithrin & PBO and 0.06 pounds Prallethrin per gallon.

Dosage Description	Pounds a.i./Acre			Fluid oz. Finished spray/Acre	Flow Rates in fluid oz./minute at truck speeds of:			
	Prallethrin	Sumithrin	PBO		5 MPH	10 MPH	15 MPH	20 MPH
High Population	0.00072	0.0036	0.0036	1.61	4.9	9.7	14.6	19.5
Recommended	0.00044	0.0022	0.0022	0.98	3.0	5.9	8.9	11.9
Light Population	0.00036	0.0018	0.0018	0.80	2.4	4.9	7.3	9.7
	0.00024	0.0012	0.0012	0.54	1.6	3.2	4.9	6.5

For a 2.5% Sumithrin product, dilute 1 gallon DUET with 1 gallon oil. Finished spray contains 0.179 lbs Sumithrin & PBO and 0.036 pounds Prallethrin per gallon.

Dosage Description	Pounds a.i./Acre			Fluid oz. Finished spray/Acre	Flow Rates in fluid oz./minute at truck speeds of:			
	Prallethrin	Sumithrin	PBO		5 MPH	10 MPH	15 MPH	20 MPH
High Population	0.00072	0.0036	0.0036	2.57	7.8	15.6	23.4	31.1
Recommended	0.00044	0.0022	0.0022	1.57	4.8	9.5	14.3	19.0
Light Population	0.00036	0.0018	0.0018	1.28	3.9	7.8	11.7	15.6
	0.00024	0.0012	0.0012	0.86	2.6	5.2	7.8	10.4

For a 2% Sumithrin product, dilute 1 gallon DUET with 1.5 gallons oil. Finished spray contains 0.143 lbs Sumithrin & PBO and 0.029 pounds Prallethrin per gallon.

Dosage Description	Pounds a.i./Acre			Fluid oz. Finished spray/Acre	Flow Rates in fluid oz./minute at truck speeds of:			
	Prallethrin	Sumithrin	PBO		5 MPH	10 MPH	15 MPH	20 MPH
High Population	0.00072	0.0036	0.0036	3.21	9.7	19.5	29.2	38.9
Recommended	0.00044	0.0022	0.0022	1.96	5.9	11.9	17.8	23.8
Light Population	0.00036	0.0018	0.0018	1.61	4.9	9.7	14.6	19.5
	0.00024	0.0012	0.0012	1.07	3.2	6.5	9.7	13.0

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

PESTICIDE STORAGE: Store in a cool, dry place. Keep container closed.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL:

[For 2.5-gallon Jugs]: Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with mineral oil and recap. Shake for 10 seconds. Pour rinsate into application equipment or a rinse tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

[For refillable drums & totes]: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into rinsate collection system. Repeat this rinsing procedure two more times. Offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

FOR MORE INFORMATION CALL 1-800-323-5727

NOTICE: To the extent provided by law, Seller makes no warranty, expressed or implied, concerning the use of this product other than as indicated on the label. Buyer assumes all risk of use and/or handling of this material when use and/or handling is contrary to label instructions.

Sumithrin® - Registered Trademark of Sumitomo Chemical Company, Ltd.
Duet® - Registered Trademark of Clarke Mosquito Control Products, Inc.

MANUFACTURED FOR:
CLARKE MOSQUITO CONTROL PRODUCTS, INC.
159 N. GARDEN AVENUE
ROSELLE, ILLINOIS 60172

AVAILABLE PACKAGING: 2.5 GAL, 30 GAL, 55 GAL, 275 GAL TOTE

LOT NO.: Marked on Container Label

EPA REG. NO.: 1021-1795-8329

EPA EST. NO.: _____

AL0477

clarke

SAFETY DATA SHEET

DUET® Dual-Action Adulticide

Effective Date: 1 June 2015
v.01

SECTION 1. Identification of the Substance/Mixture and of the Company

Product Identifier

Formulation Identifier: DUET® Dual-Action Adulticide

EPA Registration Number: 1021-1795-8329

Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Relevant identified uses: An insecticide for mosquito and vector control
Uses advised against: See product label for use restrictions

Details of the Supplier

Clarke Mosquito Control Products, Inc.
675 Sidwell Court
St. Charles, IL 60174 U.S.A.
+1 (630) 894-2000
Email: Clarke@clarke.com

Emergency Telephone Number

24 Hour MEDICAL Emergency: SafetyCall®: (888) 740-8712 or (952) 852-9509
24 Hour TRANSPORTATION Emergency: CHEMTREC®: (800)-424-9300
International: (703) 527-3887

SECTION 2. Hazards identification

United States (US)
According to OSHA 29 CFR 1910.1200 HCS

Classification of the Substance or Mixture

Acute Toxicity (Inhalation): Category 4

Aspiration Toxicity: Category 1

Pictogram:



Signal Word: DANGER

Hazard Statements: Harmful if inhaled.
May be fatal if swallowed and enters airways.

Precautionary Statements:

PREVENTION: Avoid breathing mist/vapors/spray. Use only outdoors or in well-ventilated area.

RESPONSE: IF INHALED- Remove victim to fresh air and keep at rest in a position for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

IF SWALLOWED: Immediately call a poison center/doctor. Do NOT induce vomiting.

STORAGE: Store locked up in a well ventilated place. Keep container tightly closed.

DISPOSAL: Dispose of contents/container to an approved waste disposal plant.

Other Hazards Not Classifiable Under OSHA 2012 HCS - Not applicable

Comments: This material is considered hazardous by the 2012 OSHA Hazard Communication Standard [29 CFR 1910.1200(a)(1), and the GHS

SECTION 3. Composition/Information on Ingredients

Components

Substance Name	CAS No.	Concentration % w/w
ETOC® (Prallethrin)	23031-36-9	1.0
SUMITHRIN® (d-Phenothrin)	26002-80-2	5.0
Piperonyl Butoxide	51-03-6	5.0
Petroleum Distillates, hydrotreated light	64742-47-8	10-20 *
White Mineral Oil	8042-47-5	50-75 *

* The exact percentage (concentration) of composition has been withheld as trade secret.
Ingredients not identified are non-hazardous and/or are not required to be disclosed pursuant to 29 CFR 1910.1200 (2012), and are withheld as trade secret.

SECTION 4. First Aid Measures

Description of First Aid Measures

Eye contact: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes then continue rinsing. Call a poison control center/doctor for treatment advice.

Skin Contact: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

Ingestion: If swallowed, IMMEDIATELY call a poison control center or doctor for treatment advice. DO NOT give **any** liquid to the person. Do not induce vomiting unless told to do so by a poison control center or doctor. Never give anything by mouth to an unconscious person.

Inhalation: Remove affected person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

Indication of Immediate Medical Attention and Special Treatment

Notes to Physician: Contains Pyrethoids and Petroleum Distillates – vomiting may pose an aspiration hazard. For skin effects, a highly efficient therapeutic agent for Pyrethrin/Pyrethroid exposure is topical application of Tocopherol Acetate (Vitamin E).

SECTION 5. Fire-Fighting Measures

Extinguishing Media

Suitable Extinguishing Media: Water Fog, Carbon Dioxide (CO_2), Dry Chemical, foam

Unsuitable Extinguishing Media: Do not use water jet.

Special Hazards Arising From the Substance or Mixture

Specific Hazards: No information available.

Explosion data:
Sensitivity to Mechanical Impact: None
Sensitivity to static discharge: Yes, use proper bonding and/or grounding procedures.

Special Protective Equipment and Precautions for Fire-Fighters

Protection against fire: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Special Procedures: Treat as oil fire. Move container from fire area if it can be done without risk. Do not scatter spilled material with high-pressure water streams. Dike for later disposal. Use extinguishing agents

appropriate for surrounding fire. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.

SECTION 6. Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures

General Precautions: Use appropriate protection (see section 8). Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Use personal protective equipment as required.

Environmental Precautions: Prevent product from entering into drains and waterways. Collect and dispose of this material and its container in accordance with national and regional regulations. If the product has contaminated surface water, inform the appropriate authorities.

Methods and Material for Containment and Cleaning Up

Methods for containment: Prevent further leakage of spillage if safe to do so. Move containers from spill area.

Small spill: Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

Large Spill: Prevent entry into sewers, water courses, basements or confined areas. Dam up and soak up with inert absorbent material. Pick up and transfer to properly labeled containers. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

SECTION 7. Handling and Storage

Precautions for Safe Handling

Protective measures: Wear a long-sleeved shirt, long pants, shoes and socks. Take prudent precautions to avoid contact with skin, eyes, and clothing. Mechanical ventilation should be used when handling this product in enclosed spaces. Do not contaminate water, food or feedstuffs, by storage, handling, or by disposal.

Hygiene Measures: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for Safe Storage, Including Any Incompatibilities

Storage Conditions: Store in a cool, dry place. Keep container closed. Always store pesticides in the original container. Store away from food and pet food. Keep out of reach of children.

Electrostatic Accumulation Hazard: This product contains petroleum distillates for which there is potential for the accumulation of static electricity. Consideration should be given to bonding and grounding of equipment during loading, unloading, and transfer of this product.

SECTION 8. Exposure Controls / Personal Protection

These precautions are suggested for conditions where the potential for exposure exists. Emergency conditions may require additional precautions.

Control Parameters

Component Name	CAS No.	List	Type	Value
ETOC® (Prallethrin)	23031-36-9	OSHA; ACGIH		None
SUMITHRIN® (d-Phenothrin)	026002-80	OSHA; ACGIH		None
Piperonyl Butoxide	51-03-6	OSHA; ACGIH		None
Petroleum Distillates	64742-47-8	OSHA & ACGIH	TLV/TWA (as oil-mist, if generated)	5 mg/m³

Mineral Oil	8042-47-5	OSHA & ACGIH	PEL / TLV, TWA (oil mist, mineral)	5 mg/m³

Exposure controls

Engineering Controls: Use with adequate ventilation. Local exhaust ventilation may be necessary for some operations..

Individual Protection Measures, such as Personal Protection Equipment:

Eye Protection: Safety Glasses, Goggles or Face Shield. Take prudent precautions to avoid contact with eyes.

Skin Protection: Wear a long-sleeved shirt and long pants, shoes and socks.

Hand Protection: It is good industrial hygiene practice to minimize skin contact. If required or preferred, use suitable protective chemical resistant gloves such as latex, nitrile, or neoprene.

Respiratory Protection: None required. If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn.

SECTION 9. Physical and Chemical Properties

Information on Basic Physical and Chemical Properties

Appearance:	Clear, yellow-colored liquid
Color:	1.0 on Gardner Scale
Odor:	Solvent odor
Odor Threshold:	No information available
pH:	Not applicable. Product is not miscible in water
Melting Point:	No information available
Freezing Point:	No information available
Initial Boiling Point:	No information available
Flash Point:	>93.3°C (>200°F) (Tag Closed Cup)
Evaporation Rate:	No information available
Flammability:	No information available
Explosion limits [U/L]:	No information available
Vapor Pressure:	No information available
Vapor Density (Air =1):	Heavier than air
Relative Density:	No information available
Specific Gravity (Water = 1)	0.860 @ 20°C (68°F)
Solubility:	Immiscible
Partition Coefficient:	No information available
Auto-Ignition Temperature:	No information available
Viscosity:	18 cPs @ 22.0°C (71.6°F) Brookfield
Decomposition Temperature:	No information available
Explosive Properties:	No information available
Oxidizing Properties:	No information available
VOC Content (%):	<1.000%

SECTION 10. Stability and Reactivity

Reactivity
No data available

Chemical Stability

Stable under recommended normal storage conditions

Possibility of Hazardous Reactions

Hazardous Reactions:	None under normal conditions
Hazardous Polymerization:	Hazardous polymerization does not occur
Conditions to avoid	Extremes of temperature and direct sunlight
Incompatible materials	Not compatible with strong acids and bases. Not compatible with oxidizing agents.

Hazardous decomposition products
Carbon monoxide (CO), Carbon dioxide (CO_2)

SECTION 11. Toxicological information

Information on Likely Routes of Exposure

Routes of entry: Oral, Dermal, Inhalation
May be fatal if swallowed and enters airways due to petroleum distillate. Vomiting may cause aspiration pneumonia.

Information on Toxicological Effects

Acute Toxicity / Effects

Assessment of acute toxicity: Slightly toxic after ingestion. Relatively non-toxic after short-term inhalation. Moderately toxic after short term skin contact. Some or all of the toxicity data reported is bridged from a substantially similar formula.

Oral, (Rat) LD_{50}	>5,000 mg/kg
Dermal, (Rabbit) LD_{50}	>2,000 mg/kg
Inhalation, Rat LC_{50}	>2.04 mg/l (4 hours)
Skin Corrosion/Irritation:	Slight irritation at 72 hours. Irritation Index = 0.92
Serious Eye Damage/Irritation:	Irritation clearing in 24 hours.
Skin Sensitization:	Negative; Not considered to be a dermal sensitizer (Buehler).
Conditions aggravated by exposure:	None known

Chronic Toxicity / Effects

Assessment of repeated dose toxicity: No significant signs or symptoms indicative of any adverse health effects are expected to occur.

Germ Cell Mutagenicity	This product has not been tested. The statement has been derived from the properties of the individual components. No data is available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	Not carcinogenic. This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP. Marginally higher incidences of benign liver tumors in mice were observed following lifetime high dose exposures to PBO. The significance of these observations is undetermined and under review. The doses at which tumors were observed for PBO greatly exceeded potential exposure from labeled uses.
Reproductive Effects:	This product has not been tested. The statement has been derived from the properties of the individual components. No data is available to indicate product or any components present at greater than 0.1% produce a fertility impairing effect. No indication of a developmental toxic / teratogenic effect.
STOT – Single exposure	Not classified
STOT – Repeated exposure	Not classified

SECTION 12. Ecological Information

Ecotoxicity:

Product specific data is not available. Data referenced is in relation to active ingredients, d-Phenothrin and PBO

Toxicity to Fish:	d-Phenothrin 96-hr Acute LC_{50} 16.7 µg/L (rainbow trout), 15.8 µg/L (bluegill sunfish) PBO: 96-hour Acute LC_{50} 6/12 ppm (rainbow trout) Prallethrin LC50 0.012 mg/L (rainbow trout)
Toxicity to Aquatic Invertebrates:	d-Phenothrin 48-hr LC_{50} 4.4 µg/L *Daphnia magna* d-Phenothrin 48-hr LC_{50} 0.025 µg/L *Mysidopsis bahia* PBO: 96-hr LC_{50} 0.49 ppm, *Americamysis bahia* Prallethrin 48-hr EC_{50} 0.0062 mg/L *Daphnia*
Toxicity to Plants:	No data available

Persistence and Degradability
Product specific data not available. Data referenced is in relation to the active ingredients, d-Phenothrin and PBO

Biodegradability:	Not readily biodegradable (by OECD criteria)
Bioconcentration Factor:	d-Phenothrin: 592 (edible), 4,000 (non-edible) PBO: 2, 175 Prallethrin: no data available
Log Kow:	d-Phenothrin: 6 PBO: 4.95 Prallethrin: 4.49
Depuration:	d-Phenothrin, PBO: 2-4 days
Mobility in Soil:	d-Phenothrin has low water solubility and binds tightly to soil. Based on these properties, d-phenothrin is relatively immobile in soil and its potential to contaminate groundwater is low. PBO is not very soluble in water and adheres moderately to soil with organic matter. Prallethrin is not very water soluble and adheres moderately with organic material. The hazard for prallethrin to move off the site of application with rain or irrigation is rated moderate.

SECTION 13. Disposal Considerations

Waste Treatment and Disposal methods

Pesticide wastes are regulated. Consult product label for chemical substance and container disposal instructions. Avoid release to the environment. Improper disposal of excess product or rinsate is a violation of Federal law. If these wastes cannot be disposed or by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA regional office for guidance.

Container disposal: Rinse thoroughly in accordance with label instructions.

SECTION 14. Transport Information

DOT (US) Not regulated

IMDG (Vessel)

UN Number: UN3082
Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S (d-PHENOTHRIN)
Hazard Class: 9
Packing Group: III
Marine Pollutant: Yes

ICAO/IATA (Air transport)
UN Number: UN3082
Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S (d-PHENOTHRIN)
Hazard Class: 9
Packing Group: III
Marine Pollutant: Yes



SAFETY DATA SHEET

DUET® Dual-Action Adulticide

SECTION 15. Regulatory Information

FIFRA Information: This chemical is a pesticide product regulated by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information for safety data sheet, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

Signal word: CAUTION
KEEP OUT OF REACH OF CHILDEN

PRECAUTIONARY STATEMENTS: HAZARDS TO HUMANS AND DOMESTIC ANIMALS: CAUTION. Harmful if swallowed. Wash thoroughly with soap and water after handling and before eating, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

Personal Protective Equipment (PPE): Mixers, loaders, applicators, and other handlers must wear the following: long-sleeve shirt, long pants, shoes and socks. See engineering controls for additional requirements.

User safety requirements: Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent material that have been drenched or heavily contaminated with the product's concentrate. Do not reuse them.

User Safety Recommendations: Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Users should remove clothing/PPE immediately if pesticide gets inside, then wash thoroughly and put on clean clothing. Users should remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

Engineering controls: Pilots must use an enclosed cockpit that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(6)]. Human flagging is prohibited. Flagging to support aerial applications is limited to use of the Global Positioning System (GPS) or mechanical flaggers.

FIRST AID

If swallowed:	Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or a doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.
Note to physician:	Contains petroleum distillates. Vomiting may cause aspiration pneumonia.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For information regarding medical emergencies or pesticide incidents call 1-888-740-8712.

Other Federal Regulations

SARA TITLE III CLASSIFICATION

Section 302: None
Section 311/312: Immediate (acute) health hazard
Section 313: This product contains the following chemicals subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

CAS Number	Chemical Name	% by wt.
26002-80-2	d-phenothrin	5.0
51-03-6	piperonyl butoxide	5.0

CERCLA RQ: None

U.S. California Proposition 65: Not listed

STATE RIGHT-TO-KNOW : National, state, provincial or local emergency planning, community right-to-know or other laws, regulations or ordinances may be applicable--consult applicable national, state, provincial or local laws.

OSHA HAZARD COMMUNICATION STANDARD: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.



SAFETY DATA SHEET

DUET® Dual-Action Adulticide

SECTION 16. Other Information

DISCLAIMER OF LIABILITY: The information in this SDS was obtained from sources we believe to be reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared as is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

NFPA Health Hazards 2
Flammability 1
Instability 0
Physical and Chemical Properties –

HMIS Health Hazards 1
Flammability 1
Physical Hazards 0
Personal Protection X

™ DUET is a Trademark of Clarke Mosquito Control Products, Inc.
® Sumithrin is a Registered Trademark of Sumitomo Company Ltd.
® ETOC is a Registered Trademark of Sumitomo Company Ltd.

End of document



ORIGIN ID:GRGA (630) 671-3182
CHERI ZARAS
CLARKE MOSQUITO CONTROL
675 SIDWELL COURT

ST CHARLES, IL 60174
UNITED STATES US

SHIP DATE: 0 MAR 17
ACTWGT: 1.00 LB
CAD: 104902476/INET3850

BILL SENDER

TO

JEFFERSON COUNTY PURCHASING DEPT
1149 PEARL ST
3RD FLOOR
BEAUMONT TX 77701
(630) 894-2000 REF:
INV:
PO: DEPT:

546.G/1ADB/53C1

FedEx Express

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The World On Time.

SEALED BID

RECEIVED 10:42 AM MAR 08 2017

BID # IFB 17-006/YS

Name: Term Contract for Insecticides, Herbicides, Spray Adjuvants, + Adulticides for Jefferson County MCD

Due Tuesday, March 14 @ 11 AM

Clarke Mosquito Control Products, Inc
615 Sidwell Ct
St. Charles, IL 60174

JEFFERSON COUNTY PURCHASING DEPARTMENT

Deborah L. Clark, Purchasing Agent

1149 Pearl Street, 1st Floor, Beaumont, TX 77701 409-835-8593 Fax 409-835-8456

LEGAL NOTICE
Advertisement for Invitation for Bids

February 13, 2017

Notice is hereby given that sealed bids will be accepted by the Jefferson County Purchasing Department for IFB 17-006/YS, Term Contract for Insecticides, Herbicides, Spray Adjuvants, and Adulticides for Jefferson County Mosquito Control District. **Specifications for this project may be obtained from the Jefferson County website, http://www.co.jefferson.tx.us/Purchasing/main.htm or by calling 409-835-8593.**

Bids are to be sealed and addressed to the Purchasing Agent with the bid number and name marked on the outside of the envelope. Bidders shall forward an original and two (2) copies of their bid to the address shown below. Jefferson County does not accept bids submitted electronically. Late bids will be rejected as non-responsive. Bids will be publicly opened and read aloud in the Jefferson County Commissioners' Courtroom at the time and date below. Bidders are invited to attend the sealed bid opening.

BID NAME: **IFB 17-006/YS**

BID NO: **Term Contract for Insecticides, Herbicides, Spray Adjuvants, and Adulticides for Jefferson County Mosquito Control District**

DUE DATE/TIME: **11:00 AM CDT, Tuesday, March 14, 2017**

MAIL OR DELIVER TO: **Jefferson County Purchasing Department**
1149 Pearl Street, 1st Floor
Beaumont, Texas 77701

Any questions relating to these requirements should be directed to Yea-Mei Sauer, Contract Specialist, at 409-835-8593 or ysauer@co.jefferson.tx.us.

Jefferson County encourages Disadvantaged Business Enterprises to participate in the bidding process. Jefferson County does not discriminate on the basis of race, color, national origin, sex, religion, age or disability in employment or the provisions of services. Individuals requiring special accommodations are requested to contact our office at 409-835-8593 to make arrangements no later than seven (7) calendar days prior to the submittal deadline. Jefferson County reserves the right to accept or reject any or all proposals, to waive technicalities and to take whatever action is in the best interest of Jefferson County.

All interested firms are invited to submit a bid in accordance with the terms and conditions stated in this bid.

RESPONDENTS ARE STRONGLY ENCOURAGED TO CAREFULLY READ THE ENTIRE INVITATION.

Deborah Clark

Deborah L. Clark, Purchasing Agent
Jefferson County, Texas
Publish: Beaumont Enterprise & Port Arthur News – February 15, 2017 & February 22, 2017

IFB 17-006/YS
Term Contract for Insecticides, Herbicides, Spray Adjuvants, and Adulticides for Jefferson County Mosquito Control District
Bids due: 11:00 AM CDT, Tuesday, March 14, 2017

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Bid Submissions:

Bidder is responsible for submitting one (1) *original* bid copy to include a completed copy of this specifications packet in its entirety; and two (2) numbered bid *hard copies* to include at a minimum all pages requiring completion and/or marked with instructions to be returned with bid submission and any other documentation requested within these specifications.

Additionally, Bidder must monitor the Jefferson County Purchasing Department Website (below) to see if addenda or additional instructions have been posted. Failure to return all required forms could result in a response being declared as non-responsive.

http://www.co.jefferson.tx.us/purchasing/main.htm

Instructions to Bidders

1. Bid Submission

Bids must be submitted in complete original form by mail or messenger to the following address:

Jefferson County Purchasing Department
1149 Pearl Street, 3rd Floor
Beaumont, TX 77701

Bids will be accepted at the above address until the time and date specified herein, and immediately after will be publicly opened and read aloud.

Bidder shall submit bid in a tightly sealed opaque envelope or box, plainly marked "SEALED BID." The outside of the envelope of box shall also include the Bid Number, Bid Name, Bid Due Date, and the Bidder's Name and Address; and shall be addressed to the Purchasing Agent.

Late bids will not be accepted and will be returned unopened to the bidder.

All bids submitted in response to this invitation shall become the property of Jefferson County and will be a matter of public record available for review.

2. Bid Submissions During Time of Inclement Weather, Disaster, or Emergency

In case of inclement weather or any other unforeseen event causing the County to close for business on the date of a bid/proposal/statement of qualifications submission deadline, the closing will automatically be postponed until the next business day that County offices are open to the public. Should inclement weather conditions or any other unforeseen event cause delays in courier service operations, the County may issue an addendum to all known vendors interested in the project to extend the deadline. It will be the responsibility of the vendor to notify the county of their interest in the project should these conditions impact their ability to submit a bid/proposal/statement of qualifications submission before the stated deadline. The County reserves the right to make the final judgement call to extend any deadline.

Should an emergency or unanticipated event interrupt normal County processes, and bid/proposal/statement of qualifications submissions cannot be received by the Jefferson County Purchasing Department's office by the exact time specified in the IFB and urgent County requirements preclude amendment to the IFB, the time specified for receipt of bids will be deemed to be extended to the same time of day specified in the solicitation on the first business day on which normal County processes resume.

3. Courthouse Security

Bidders are advised that all visitors to the Courthouse must pass through Security. **Bidders planning to hand deliver bids must allow time to get through Security, as a delay in entering the Courthouse will not be accepted as an excuse for late submittal.** Mondays and Tuesdays are particularly heavy days. Bidders are strongly urged to plan accordingly.

4. Preparation of Bids

The bid shall be legibly printed in ink or typed.

If a unit price or extension already entered is to be altered, it shall be crossed out and initialed in ink by the bidder.

The bid shall be legally signed and shall include the complete address of the bidder.

Jefferson County is exempt from Federal and State Sales Taxes, and such taxes shall not be included in bid prices.

5. Signatures

All bids, notifications, claims, and statements must be signed by an individual authorized to bind the bidder. The individual signing certifies, under penalty of perjury, that he or she has the legal authorization to bind the bidder.

6. County Holidays – 2017:

January 16	Monday	Martin Luther King, Jr. Day
February 20	Monday	President's Day
April 14	Friday	Good Friday
May 29	Monday	Memorial Day
July 4	Tuesday	Independence Day
September 4	Monday	Labor Day
November 10	Friday	Veteran's Day
November 23 & 24	Thursday & Friday	Thanksgiving
December 25 & 26	Monday & Tuesday	Christmas
January 1, 2018	Monday	New Year's

7. Rejection or Withdrawal

Submission of additional terms, conditions or agreements with the bid document are grounds for deeming a bid non-responsive and may result in bid rejection. Jefferson County reserves the right to reject any and all bids and to waive any informalities and minor irregularities or defects in bids. Bids may be withdrawn in person by a bidder or authorized representative, provided their identity is made known and a receipt is signed for the bid, but only if the withdrawal is made prior to the time set for receipt of bids. Bids are an irrevocable offer and may not be withdrawn within 90 days after opening date.

8. Emergency/Declared Disaster Requirements

In the event of an emergency or if Jefferson County is declared a disaster area, by the County, State, or Federal Government, this Acceptance of Offer may be subjected to unusual usage. Contractor shall service the county during such an emergency or declared disaster under the same terms and conditions that apply during non-emergency/disaster conditions. The pricing as specified in this Acceptance of Offer shall apply to serving the County's needs regardless of the circumstances. If Contractor is unable to supply the services under the terms of the Acceptance of Offer, then Contractor shall provide proof of such disruption and a copy of the invoice from Contractor's supplier(s). Additional profit margin as a result of supplying services during an emergency or declared disaster shall not be permitted. In the event that additional equipment, supplies, and materials are required during the declared disaster, additional shipping, handling and drayage fees may apply.

9. Award

The bid will be awarded to the responsible, responsive bidder(s) whose bid, conforming to the solicitation, will be most advantageous to Jefferson County – price and other factors considered. Unless otherwise specified in this IFB, Jefferson County reserves the right to accept a bid in whole or in part, and to award by item or by group, whichever is deemed to be in the best interest of Jefferson County. Any bidder who is in default to Jefferson County at the time of submittal of the bid shall have that bid rejected. Jefferson County reserves the right to clarify any contractual terms with the concurrence of the Contractor; however, any substantial nonconformity in the offer, as determined by Jefferson County, shall be deemed non-responsive and the offer rejected.

In evaluating bids, Jefferson County shall consider the qualifications of the bidders, and, where applicable, operating costs, delivery time, maintenance requirements, performance data, and guarantees of materials and equipment. In addition, Jefferson County may conduct such investigation as it deems necessary to assist in the evaluation of a bid and to establish the responsibility, qualifications, and financial ability of the bidders to fulfill the contract.

Jefferson County reserves the right to award this contract on the basis of **lowest and best bid** in accordance with the laws of the State of Texas, to waive any formality or irregularity, to make awards to more than one offeror, and/or to reject any or all bids. In the event the lowest dollar offeror meeting specifications is not a awarded a contract, Offeror may appear before the Commissioners' Court and present evidence concerning Offeror responsibility after officially notifying the Office of the Purchasing Agent of Offeror's intent to appear.

10. Contract

A response to an IFB is an offer to contract with Jefferson County based upon the terms, conditions, and specifications contained in the IFB. Bids do not become contracts unless and until they are executed by Jefferson County, eliminating a formal signing of a separate contract. For that reason, all of the terms and conditions of the contract are contained in the IFB, unless any of the terms and conditions is modified by an IFB Amendment, a Contract Amendment, or by mutually agreed terms and conditions in the contract documents.

11. Waiver of Subrogation

Bidder and bidder's insurance carrier waive any and all rights whatsoever with regard to subrogation against Jefferson County as an indirect party to any suit arising out of personal or property damages resulting from bidder's performance under this agreement.

12. Fiscal Funding

A multi-year contract (if requested by the specifications) continuing as a result of an extension option must include fiscal funding out. If, for any reason, funds are not appropriated to continue the contract, said contract shall become null and void.

13. Bid Results

Bid results are not provided in response to telephone inquiries. A preliminary tabulation of bids received will be posted on the Purchasing web page (http://co.jefferson.tx.us/ purchasing/main.htm) as soon as possible following bid opening. A final tabulation will be posted following bid award, and will also be available for review in the Purchasing Department.

14. Changes and Addenda to Bid Documents

Each change or addendum issued in relation to this IFB document will be on file in the Office of the Purchasing Agent, and will be posted on the Purchasing web site as soon as possible. It shall be the bidder's responsibility to make inquiry as to change or addenda issued, and to monitor the web site. All such changes or addenda shall become part of the contract and all bidders shall be bound by such addenda. Information on all changes or addenda issued will be available at the Office of the County Purchasing Agent.

15. Specifications

Unless otherwise stated by the bidder, the bid will be considered as being in accordance with Jefferson County's applicable standard specifications, and any special specifications outlined in the bid document. References to a particular trade name, manufacturer's catalogue, or model number are made for descriptive purposes to guide the bidder in interpreting the requirements of Jefferson County, and should not be construed as excluding bids on other types of materials, equipment, and supplies. However, the bidder, if awarded a contract, will be required to furnish the particular item referred to in the specifications or description unless departure or substitution is clearly noted and described in the bid. Jefferson County reserves the right to determine if equipment/ product being bid is an acceptable alternate. All goods shall be new unless otherwise so stated in the bid. Any

unsolicited alternate bid, or any changes, insertions, or omissions to the terms and conditions, specifications, or any other requirements of the bid, may be considered non-responsive.

16. Delivery

Bids shall include all charges for delivery, packing, crating, containers, etc. Unless otherwise stated by the bidder (in writing on the included Bid Form), prices bid will be considered as being based on F.O.B. destination/delivered freight included.

17. Interpretation of Bid and/or Contract Documents

All inquiries shall be made within a reasonable time prior to the date and time fixed for the bid opening, in order that a written response in the form of an addendum, if required, can be processed before the bids are opened. Inquiries received that are not made in a timely fashion may or may not be considered.

18. Currency

Prices calculated by the bidder shall be stated in U.S. dollars.

19. Pricing

Prices shall be stated in units of quantity specified in the bid documents. In case of discrepancy in computing the amount of the bid, the unit price shall govern.

20. Notice to Proceed/Purchase Order

The successful bidder may not commence work under this contract until authorized to do so by the Purchasing Agent.

21. Certification

By signing the offer section of the Offer and Acceptance page, bidder certifies:

- The submission of the offer did not involve collusion or other anti-competitive practices.
- The bidder has not given, offered to give, nor intends to give at any time hereafter, any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor, or service to any public servant in connection with the submitted offer.
- The bidder hereby certifies that the individual signing the bid is an authorized agent for the bidder and has the authority to bind the bidder to the contract.

22. Definitions

"County" – Jefferson County, Texas.

"Contractor" – The bidder whose proposal is accepted by Jefferson County.

23. Minority-Women Business Enterprise Participation

It is the desire of Jefferson County to increase the participation of Minority (MBE) and women-owned (WBE) businesses in its contracting and procurement programs. While the County does not have any preference or set aside programs in place, it is committed to a policy of equitable participation for these firms.

General Conditions of Bidding and Terms of Contract

By execution of this document, the vendor accepts all general and special conditions of the contract as outlined below and in the specifications and plans.

1. Bidding

1.1 Bids. All bids must be submitted on the bid form furnished in this package.

1.2 Authorized Signatures. The bid must be executed personally by the vendor, duly authorized partner of the partnership, or duly authorized officer of the corporation. If executed by an agent, a power of attorney or other evidence of authority to act on behalf of the vendor shall accompany the bid to become a valid bid.

1.3 Late Bids. Bids must be in the office of the Jefferson County Purchasing Agent before or at the specified time and date bids are due. Bids received after the submission deadline shall be rejected as non-responsive and returned unopened.

1.4 Withdrawal of Bids Prior to Bid Opening. A bid may be withdrawn before the opening date by submitting a written request to the Purchasing Agent. If time allows, the bidder may submit a new bid. Bidder assumes full responsibility for submitting a new bid before or at the specified time and date bids are due. Jefferson County reserves the right to withdraw a request for bids before the opening date.

1.5 Withdrawal of Bids after Bid Opening. Bidder agrees that its offer may not be withdrawn or cancelled by the vendor for a period of ninety (90) days following the date and time designated for the receipt of bids unless otherwise stated in the bid and/or specifications.

1.6 Bid Amounts. Bids shall show net prices, extensions where applicable and net total. In case of conflict between unit price and extension, the unit price will govern. Any ambiguity in the bid as a result of omission, error, unintelligible or illegible wording shall be interpreted in the favor of Jefferson County.

1.7 Exceptions and/or Substitutions. All bids meeting the intent of the specifications and plans will be considered for award. Vendors taking exception to the specifications and plans, or offering substitutions, shall state these exceptions in the section provided. If bid is made on an article other than the one specified, which a bidder considers comparable, the name and grade of said article must be specified in the bid and sufficient specifications and descriptive data must accompany same to permit thorough evaluation. The absence of stated exceptions and/or substitutions shall indicate that the vendor has not taken any exceptions to the specifications and shall be responsible to perform in strict accordance with the specifications. As a matter of practice, Jefferson County rejects exception(s) and /or substitutions as non-responsive but reserves the right to accept any and/or all of the exception(s) and/or substitution(s) deemed to be in the best interest of Jefferson County.

1.8 Alternates. The Invitation for Bid and/or specifications may expressly allow bidder to submit an alternate bid. Presence of such an offer shall not be considered an indication of non-responsiveness.

1.9 Descriptions. Unless otherwise specified, any reference to make, manufacturer and/or model used in the bid specifications is merely descriptive and not restrictive, and is used only to indicate type, style, or quality of material desired.

1.10 Bid Alterations. Bids cannot be altered or amended after submission deadline. Any interlineations, alterations, or erasures made before opening time must be initialed by the signer of the bid, guaranteeing authenticity.

1.11 Tax Exempt Status. Jefferson County is exempt from federal excise tax and state sales tax. Unless the bid form or specifications specifically indicate otherwise, the bid price must be net, exclusive of above-mentioned taxes and will be so construed. Therefore, the bid price shall not include taxes.

1.12 Quantities. Quantities indicated are estimated quantities only and are not a commitment to buy. Approximate usage does not constitute an order, but only implies the probable quantity that will be used. Commodities will be ordered on an as-needed basis. Bidder is responsible for accurate final counts.

1.13 Bid Award. Award of contract shall be made to the most responsible, responsive bidder, whose offer is determined to be the best value, taking into consideration the relative importance of price. Jefferson County reserves the right to be the sole judge as to whether items bid will serve the purpose intended. Jefferson County reserves the right to accept or reject in part or in whole any bid submitted, and to waive any technicalities or informalities for the best interest of the County. Jefferson County reserves the right to award based upon individual line items, sections or total bid.

1.14 Silence of Specifications for Complete Units. All materials, equipment and/or parts that will become a portion of the completed work, including items not specifically stated herein but, necessary to render the service(s) complete and operational per the specifications, are to be included in the bid price. Vendor may be required to furnish evidence that the service, as bid, will meet or exceed these requirements.

1.15 Addenda. Any interpretations, corrections or changes to the specifications and plans will be made by addenda no later than forty-eight (48) hours prior to the bid opening. Addenda will be posted on the Purchasing web site. Vendors are responsible for monitoring the web site in order to remain informed on addenda. Vendors shall acknowledge receipt of all addenda with submission of bid.

1.16 General Bid Bond/Surety Requirements. Failure to furnish bid bond/surety, if requested, will result in bid being declared non-responsive. Non-responsive bids will not be considered for award.

1.17 General Insurance Requirements. Failure to furnish Affidavit of Insurance, if required in these specifications, will result in bid being declared non-responsive. Non-responsive bids will not be considered for award.

1.18 Responsiveness. A responsive bid shall substantially conform to the requirements of this Invitation to Bid and/or specifications contained herein. Bidders who substitute any other terms, conditions, specifications and/or requirements or who qualify their bids in such a manner as to nullify or limit their liability to the contracting entity shall have their bids deemed non-responsive. Also, bids containing any clause that would limit contracting authority shall be considered non-responsive. Examples of non-responsive bids include but shall not be limited to: a) bids that fail to conform to required delivery schedules as set forth in the bid request; b) bids with prices qualified in such a manner that the bid price cannot be determined, such as with vague wording that may include "price in effect at the time of delivery," and c) bids made contingent upon award of other bids currently under consideration.

1.19 Responsible Standing of Bidder. To be considered for award, bidder must at least: have the ability to obtain adequate financial resources, be able to comply with required or proposed delivery/completion schedule, have a satisfactory record of performance; have a satisfactory record of integrity and ethics, and be otherwise qualified and eligible to receive award.

1.20 Proprietary Data. Bidder may, by written request, indicate as confidential any portion(s) of a bid that contain proprietary information, including manufacturing and/or design processes exclusive to the vendor. Jefferson County will protect from public disclosure such portions of a bid, unless directed otherwise by legal authority, including existing Open Records Acts.

1.21 Public Bid Opening. Bidders are invited to be present at the opening of bids. After the official opening of bids, a period of not less than one week is necessary to evaluate bids. The amount of time necessary for bid evaluation may vary and is determined solely by the County. Following the bid evaluation, all bids submitted are available for public review.

2. Performance

2.1 Design, Strength, and Quality. Design, strength, and quality of materials and workmanship must conform to the highest standards of manufacturing and engineering practices. The apparent silence of specifications and/or plans as to any detailed description concerning any point shall be regarded as meaning that only the best commercial practices are to prevail. All interpretations of these specifications and/or plans shall be made on the basis of this statement.

2.2 Age and Manufacture. All tangible goods being bid must be new and unused, unless otherwise specified, in first-class condition, of current manufacture, and furnished ready to use. All items not specifically mentioned that are required for a complete unit shall be furnished.

2.3 Delivery Location. All deliveries will be made to the address(es) specified on the purchase order during normal working hours of 8:00 a.m. to 4:00 p.m., Monday through Friday, unless otherwise authorized by the Purchasing Agent or designee.

2.4 Delivery Schedule. Delivery time may be an important consideration in the evaluation of best value. The maximum number of days necessary for delivery ARO shall be stated in the space, if provided, on the bid form.

2.5 Delivery Charges. All delivery and freight charges, F.O.B. destination shown on Jefferson County purchase order, as necessary to perform contract are to be included in the bid price.

2.6 Installation Charges. All charges for assembly, installation and set-up shall be included in the bid price. Unless otherwise stated, assembly, installation and set-up will be required.

2.7 Operating Instructions and Training. Clear and concise operating instructions and descriptive literature will be provided in English, if requested. On-site detailed training in the safe and efficient use and general maintenance of item(s) purchased shall be provided as needed at the request of Jefferson County. Instructions and training shall be at no additional cost to the County.

2.8 Storage. Bidder agrees to provide storage of custom ordered materials, if requested, for up to thirty (30) calendar days.

2.9 Compliance with Federal, State, County, and Local Laws. Bids must comply with all federal, state, county and local laws, including, but not limited to, all applicable standard safety, emission, and noise control requirements. Any vehicles or equipment shall contain all standard safety, emission, and noise control requirements required for the types and sizes of equipment at the time of their manufacture. The contractor agrees, during the performance of work or service, to comply with all applicable codes and ordinances of Jefferson County or the State of Texas as they may apply, as these laws may now read, or as they may hereafter be changed or amended.

2.10 OSHA. The bidder will certify all equipment complies with all regulations and conditions stipulated under the Williams-Steiger Occupational Safety and Health Act of 1971, as amended. The successful bidder will further certify that all items furnished under this project will conform and comply with federal and State of Texas OSHA standards. The successful bidder will agree to indemnify and hold harmless Jefferson County for any and all damages that may be assessed against the County.

2.11 Patents and Copyrights. The successful vendor agrees to protect the County from claims involving infringements of patents and/or copyrights.

2.12 Samples, Demonstrations and Testing. At Jefferson County's request and direction, bidder shall provide product samples and/or testing of items bid to ensure compliance with specifications. Samples, demonstrations and/or testing may be requested at any point prior to or following bid award. Samples, demonstrations and/or testing may be requested upon delivery and/or any point during the term of resulting contract. All samples (including return thereof), demonstrations, and/or testing shall be at the expense of the bidder/vendor.

2.13 Acceptability. All articles enumerated in the bid shall be subject to inspection by an officer designated for that purpose by Jefferson County. If found inferior to the quality called for, or not equal in value to the specifications, deficient in workmanship or otherwise, this fact shall be certified to the Purchasing Agent, who shall have the right to reject the whole or any part of the same. Items

and/or work determined to be contrary to specifications must be replaced at the vendor's expense. Inferior items not retrieved by the vendor within thirty (30) calendar days, or an otherwise agreed upon time, shall become the property of the County. If disposal of such items warrants an expense, an amount equal to the disposal expense will be deducted from amounts payable to the vendor.

2.14 Maintenance. Maintenance required for equipment bid should be available in Jefferson County by a manufacturer authorized maintenance facility. Cost for this service shall be shown on the bid sheet as requested or on a separate sheet, as required. If Jefferson County opts to include maintenance, it shall be so stated in the purchase order and said cost will be included. Service will commence only upon expiration of applicable warranties and should be priced accordingly.

2.15 Material Safety Data Sheets. Under the "Hazardous Communications Act," common known as the "Texas Right to Know Act," a bidder must provide the user department, with each delivery, material safety data sheets which are applicable to hazardous substances defined in the Act. Failure of the bidder to furnish this documentation, will be cause to reject any bid applying thereto.

2.16 Evaluation. Evaluation shall be used as a determinant as to which services are the most efficient and/or most economical for the County. It shall be based on all factors having a bearing on price and performance of the items in the user environment. All bids are subject to tabulation by the Jefferson County Purchasing Department and recommendation to Jefferson County Commissioners' Court. Compliance with all bid requirements and needs of the using department are considered in evaluating bids. Pricing is not the only criteria for making a recommendation. The Jefferson County Purchasing Department reserves to right to contact any bidder, at any time, to clarify, verify or requirement information with regard to this bid.

3. Purchase Orders and Payment

3.1 Purchase Orders. A purchase order(s) shall be generated by the Jefferson County Purchasing Agent to the successful vendor. The purchase order number must appear on all itemized invoices and packing slips. The County will not be held responsible for any work orders placed and/or performed without a valid current purchase order number. Payment will be made for all services rendered and accepted by the contract administrator for which a valid invoice has been received.

3.2 Invoices. All invoices shall reference the Purchase Order number. Invoices shall reference the bid item number or a detailed description for each item invoiced. If an item purchased and itemized on the invoice does not correspond to an item in any of the categories awarded to the vendor, invoice shall reference the item as "N/C" to indicate that it is a non-contract item. This requirement is to assist the County in verifying contract pricing on all invoices. Payment will be made under terms of net thirty (30) days unless otherwise agreed upon by seller and the purchasing department.

3.3 Prompt Payment. In accordance with the State of Texas Prompt Payment Act, Article 601f V.T.C.S., payment will be made after receive and acceptance by the County of the merchandise ordered and of a valid invoice. Successful bidder(s) is required to pay subcontractors within ten (10) days after the successful bidder receives payment from the County.

3.4 Funding. Jefferson County is operated and funded on an October 1 to September 30 basis; accordingly, the County reserves the right to terminate, without liability to the County, any contract for which funding is not available.

4. Contract

4.1 Contract Definition. The General Conditions of Bidding and Terms of Contract, Specifications, Plans, Bidding Forms, Addenda, and any other documents made a part of this bid shall constitute the complete bid. This bid, when duly accepted by Jefferson County, shall constitute a contract equally binding between the successful bidder and Jefferson County.

4.2 Contract Agreement. Once a contract is awarded, the unit prices offered by the successful bidder shall remain firm for the term of the contract. Contract shall commence on date of award and,

upon agreement between vendor(s) and Jefferson County, may be renewed annually for up to four (4) additional years. **(OMIT if N/A or EDIT if Needed)**

4.3 Change Order. No different or additional terms will become part of this contract with the exception of a change order. No oral statement of any person shall modify or otherwise change, or affect the terms, conditions or specifications stated in the resulting contract. All change orders to the contract will be made in writing and at the discretion and approval of Jefferson County. No change order will be binding unless signed by an authorized representative of the County and the vendor.

4.4 Price Re-determination. A price re-determination may be requested at the time of annual renewal. All requests for price re-determination shall be in written form. Cause for such request, i.e., manufacturer's direct cost, postage rates, Railroad Commission rates, Federal/State minimum wage law, Federal/State unemployment taxes, F.I.C.A, Insurance Coverage Rates, etc., shall be substantiated in writing by the source of the cost increase. The bidder's past experience of honoring contracts at the bid price will be an important consideration in the evaluation of the lowest and best bid. Jefferson County reserves the right to accept or reject any/all requests for price re-determination as it deems to be in the best interest of the County.

4.5 Termination. Jefferson County reserves the right to terminate the contract for default if the bidder breached any of the terms therein, including warranties of bidder or if the bidder becomes insolvent or commits acts of bankruptcy. Such right of termination is in addition to and not in lieu of any other remedies which Jefferson County may have in law or equity. Default may be construed as, but not limited to, failure to deliver the proper goods and/or service within the proper amount of time, and/or to properly perform any and all services required to Jefferson County's satisfaction and/or to meet all other obligations and requirements. Contracts may be terminated without cause upon thirty (30) days' written notice to either party unless otherwise specified. Jefferson County reserves the right to award canceled contract to the next lowest bidder. Bidder, in submitting this bid, agrees that Jefferson County shall not be liable to prosecution for damages in the event that the County declares the bidder in default.

4.6 Conflict of Interest. Employees of the County are not permitted to maintain financial interest in, or receive payment, directly or indirectly, borrow from, lend to, invest in, or engage in any substantial financial transaction with any individual, organization, supplier, or subcontractor who does business with the County without disclosure. When conflict of interest is discovered, it shall be grounds for termination of contract.

4.7 Injuries or Damages Resulting from Negligence. Successful vendor shall defend, indemnify and save harmless Jefferson County and all its officers, agents and employees from all suits, actions, or other claims of any character, name and description brought for or on account of any injuries or damages received or sustained by any person, persons, or property on account of any negligent act or fault of the successful vendor, or of any agent, employee, subcontractor or supplier in the execution of, or performance under, any contract which may result from bid award. Successful vendor shall pay any judgment with cost which may be obtained against Jefferson County growing out of such injury or damages.

4.8 Interest by Public Officials. No public official shall have interest in this contract, in accordance with Texas Local Government Code.

4.9 Warranty. The successful vendor shall warrant that all materials utilized in the performance of this contract shall conform to the proposed specifications and/or all warranties as stated in the Uniform Commercial Code and be free from all defects in material, workmanship and title.

4.10 Uniform Commercial Code. The successful vendor and Jefferson County agree that both parties have all rights, duties, and remedies available as stated in the Uniform Commercial Code.

4.11 Venue. This agreement will be governed and construed according to the laws of the State of Texas. This agreement is performable in the County of Jefferson, Texas.

4.12 Sale, Assignment, or Transfer of Contract. The successful vendor shall not sell, assign, transfer or convey this contract, in whole or in part, without the prior written consent of Jefferson County.

4.13 Silence of Specifications. The apparent silence of these specifications as to any detailed description concerning any point, shall be regarded as meaning that only the best commercial practices are to prevail. All interpretations of these specifications shall be made on the basis of this statement.

Special Requirements/Instructions

The following requirements and instructions supersede General Requirements where applicable.

1. Bid Requirement

Each bidder shall ensure that required parts of the bid are completed with accuracy and submitted as per the requirements within this specifications packet, including any addenda.

Bidder is responsible for submitting one (1) *original* bid copy to include a completed copy of this specifications packet in its entirety; and two (2) numbered bid *hard copies* to include at a minimum all pages requiring completion and/or marked with instructions to be returned with bid submission and any other documentation requested within these specifications.

All bids shall be tightly sealed in an opaque envelope or box and plainly marked "SEALED BID." The outside of the envelope or box shall also include: Bid Number, Bid Name, Bid Due Date, Bidder's Name and Address; and shall be addressed to the Purchasing Agent.

Jefferson County shall not be responsible for any effort or cost expended in the preparation of a response to this IFB. All protests should be coordinated through the Purchasing Office prior to award recommendation to Commissioners' Court.

2. Vendor Registration: SAM (System for Award Management).

Vendors doing business with Jefferson County are **required** to be registered with The System for Award Management (SAM), with an "active" status. The System for Award Management (SAM) is the Official U.S. Government system that consolidated the capabilities of CCR/FedReg, ORCA, and EPLS. There is NO fee to register for this site. Entities may register at no cost directly from the SAM website at: https://www.sam.gov

Bid Respondents are strongly encouraged to review their firm's SAM (System for Award Management) status prior to Bid Submission.

3. Awarded Vendor(s): Submission of FORM 1295 (Texas Ethics Commission)

As of January 1, 2016, per House Bill 1295, the Texas Ethics Commission (TEC) requires **all awarded vendors** to complete a Certificate of Interested Parties (FORM 1295) at time of notification of award. **Awarded Vendors** must visit the TEC website link below, enter the required information on Form 1295, and print a copy of the completed form. The form will include a certification of filing that will contain a unique certification number.

At the time of award, the Jefferson County Purchasing Department will submit a request to the Awarded Vendor to both:

1. Submit FORM 1295 online via the Texas Ethics Commission website link below.

2. Submit a printed copy of FORM 1295, signed by an Authorized Agent of the Awarded Vendor and notarized to the Jefferson County Purchasing Department.

FORM 1295, Completion Instructions, and Login Instructions are available via the Texas Ethics Commission Website at: https://www.ethics.state.tx.us/whatsnew/elf_info_form1295.htm

4. Multiple Vendor Award

Jefferson County reserves the right to award this contract to more than one vendor at the County's discretion.

5. Delivery

If delivery is required, all items must be packaged so as to be protected from damage during shipping and handling. Any item(s) damaged in shipping must be replaced in kind, or repaired, by the contractor, at the discretion of, and at no additional charge to, Jefferson County.

6. Payment

Jefferson County will pay original invoices that clearly itemize the goods and/or services provided as to quantity, part number, description, price, applicable discount (if any), labor charges showing time differential, if applicable and if previously agreed to, and delivery, installation, and set-up costs, if applicable and if previously agreed to. Only charges as stated on the Bid Form(s) submitted as a part of the bid will be considered.

Invoices must indicate Jefferson County as applicable, the address to which the product(s) and/or service(s) were delivered, and the applicable purchase order number. Invoices will be matched to delivery tickets prior to payment; therefore, all delivery tickets should have an accurate description of the product(s) and/or service(s).

Invoices shall be submitted to: Jefferson County Auditing Department, Attention: Accounts Payable, 1149 Pearl Street, 7th floor, Beaumont, TX 77701.

7. Usage Reports

Jefferson County reserves the right to request, and receive at no additional cost, up to two (2) times during the contract period, a usage report detailing the products and/or services furnished to date under a contract resulting from this IFB. The reports must be furnished no later than five (5) working days after written request and itemize all purchases to date by Jefferson County department, description of each item purchased, including manufacturer, quantity of each item purchased, per unit and extended price of each item purchased, and total amount and price of all items purchased.

8. Insurance

The contractor (including any and all subcontractors as defined in Section 9.1.3 below) shall, at all times during the term of this contract, maintain insurance coverages with not less than the type and requirements shown below. Such insurance is to be provided at the sole cost of the contractor. These requirements do not establish limits of the contractor's liability.

All policies of insurance shall waive all rights of subrogation against the County, its officers, employees and agents; a copy of the policy wording or endorsement is required.

Contractor shall furnish Jefferson County with Certificate of Insurance naming Jefferson County as additional insured and will provide the actual policy wording or endorsement showing as such.

All insurance must be written by an insurer licensed to conduct business in the State of Texas.

Minimum Insurance Requirements

Public Liability, including Products & Completed Operations	$1,000,000
Excess Liability	$1,000,000

Property Insurance (policy below that is applicable to this project):
- Improvements & Betterments Policy: Improvements/Remodeling (for Lease Tenants)
- Builder's Risk Policy: Structural Coverage for Construction Projects
- Installation Floater Policy: Improvements/Alterations to Existing Structure

Workers' Compensation	Statutory Coverage (see attached)

9. Workers' Compensation Insurance

9.1 Definitions:

9.1.1 **Certificate of coverage ("Certificate")** – A copy of a certificate of insurance, a certificate of authority to self-insure issued by the commission, or a coverage agreement, DWC-81, DWC-82, DWC-83, or DWC-84 showing statutory workers' compensation insurance coverage for the person's or entity's employees providing services on a project, for the duration of the project.

9.1.2 **Duration of the project** – Includes the time from the beginning of the work on the project until the contractor's/person's work on the project has been completed and accepted by the governmental entity.

9.1.3 **Persons providing services on the project ("subcontractor") in article 406.096** – Includes all persons or entities performing all or part of the services under the contractor has undertaken to perform on the project, regardless of whether that person contracted directly

with the contractor and regardless of whether that person has employees. This includes, without limitation, independent contractors, subcontractor, leasing companies, motor carriers, owner-operators, employees of any such entity, or employees of any entity which furnishes persons to provide services on the project. "Services" includes, without limitation, providing, hauling or delivering equipment or materials, or providing labor, transportation, or other service related to a project. "Services" does not include activities unrelated to the project, such as food/beverage vendors, office supply deliveries, and delivery of portable toilets.

9.2 The Contractor shall provide coverage, based on proper reporting of classification code and payroll amounts and filing any coverage agreements, which meets the statutory requirements of Texas Labor Code, Section 401.011(44) for all employees of the contractor providing services on the project, for the duration of the project.

9.3 The Contractor must provide a certificate of coverage to the governmental entity prior to being awarded the contract – refer to Section 8 above.

9.4 If the coverage period shown on the Contractor's current certificate of coverage ends during the duration of the project, the Contractor must, prior to the end of the coverage period, file a new certificate of coverage with the governmental entity showing that coverage has been extended.

9.5 The Contractor shall obtain from each person providing services on a project, and provide to the governmental entity:

9.5.1 A certificate of coverage, prior to that person beginning work on the project, so the governmental entity will have on file certificates of coverage showing coverage for all persons providing services on the project; and

9.5.2 No later than seven (7) days after receipt by the Contractor, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate ends during the duration of the project.

9.6 The Contractor shall retain all required certificates of coverage for the duration of the project and for one (1) year thereafter.

9.7 The Contractor shall notify the governmental entity in writing by certified mail or personal delivery, within ten (10) days after the contractor knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project.

9.8 The Contractor shall post on each project site a notice, in the text, form and manner prescribed by the Texas Department of Workers' Compensation, informing all persons providing services on the project that they are required to be covered, and stating how a person may verify coverage and report lack of coverage.

9.9 The Contractor shall contractually require each person with whom it contracts to provide services on a project to:

9.9.1 Provide coverage, based on reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of Texas Labor Code, Section 401.011(44) for all its employees providing services on the project, for the duration of the project.

9.9.2 Provide to the Contractor, prior to that person beginning work on the project a certificate of coverage showing that coverage is being provided for all employees of the person providing services on the project, for the duration of the project.

9.9.3 Provide the Contractor, prior to the end of coverage period, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the project.

9.9.4 Obtain from each person with whom it contracts, and provide to the Contractor:

9.9.4.1 A certificate of coverage, prior to the other person beginning work on the project; and

9.9.4.2 the coverage period, if the coverage period shown on the current certificate of a new certificate of coverage showing extension of coverage, prior to the end of coverage ends during the duration of the project.

9.9.5 Retain all required certificates of coverage on file for the duration of the project and for one (1) year thereafter.

9.9.6 Notify the governmental entity in writing by certified mail or personal delivery, within ten (10) days after the person knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project; and

9.9.7 Contractually require each person with whom it contracts to perform as required by paragraphs 9.1. – 9.7., with the certificates of coverage to be provided to the person for whom they are providing services.

9.10 By signing this contract or providing or causing to be provided a certificate of coverage, the Contractor is representing to the governmental entity that all employees of the contractor who will provide services of the project will be covered by workers' compensation coverage for the duration of the project, that the coverage will be based on proper reporting of classification codes and payroll amounts, and that all coverage agreements will be filed with the appropriate insurance carrier or, in the case of a self-insured, with the commission's Division of Self-Insurance Regulation. Providing false or misleading information may subject the contractor to administrative penalties, criminal penalties, civil penalties, or other civil actions.

9.11 The Contractor's failure to comply with any of these provisions is a breach of contract by the Contractor which entitles the governmental entity to declare the contract void if the Contractor does not remedy the breach within ten (10) days after receipt of notice of breach from the governmental entity.

Minimum Specifications

The following requirements and specifications supersede General Requirements where applicable. Contact Yea-Mei Sauer, Contract Specialist (e-mail: ysauer@co.jefferson.tx.us; phone: 409-835-8593), regarding any questions or comments. Please reference bid number IFB 17-006/YS.

Scope

Vendor shall provide Insecticides, Herbicides, Spray Adjuvants, and Adulticides for the Jefferson County Mosquito Control District subject to the terms and conditions stated for an initial period **beginning on or about date of award.**

Bidders shall attach to bid form, a current material safety data sheet and current labels for each chemical. Failure to do so may result in rejection of bid.

Prices quoted shall be F.O.B. Jefferson County Mosquito Control District, Jefferson County Airport, 1st Street, Nederland, TX. Bidder bears freight charges. All prices must be written in ink or typewritten.

Quote unit prices extended to lump sum prices. The basis of the award will be the unit prices quoted. The County reserves the right to increase or decrease the quantity purchased based on weather conditions and availability of funds.

The County reserves the right to make the award to one (1) successful bidder or per line item.

Purchase orders for insecticides, herbicides, adjuvants, and adulticides will be released to the successful bidder(s) **on an as-needed basis. MINIMUM ORDERS ARE NOT ACCEPTABLE.**

Refer questions of a commercial nature to Jamey West, Contract Specialist at 409-835-8593; and questions of a technical nature to Kevin Sexton, Jefferson County Mosquito Control, at 409-719-5940.

A price re-determination may be considered by Jefferson County only at the twelve (12) month and twenty-four (24) month anniversary dates of the contract. All requests for price re-determination shall be in written form. Cause for such request, i.e., manufacturer's direct cost, postage rates, Railroad Commission rates, Federal/State minimum wage law, Federal/State unemployment taxes, F.I.C.A, Insurance Coverage Rates, etc., shall be substantiated in writing by the source of the cost increase. The bidder's past experience of honoring contracts at the bid price will be an important consideration in the evaluation of the lowest and best bid. Jefferson County reserves the right to accept or reject any/all requests for price re-determination as it deems to be in the best interest of the County.

Approximate Annual Usage

Items listed on the Bid Form indicate our approximate annual usage. No promise is made or implied that these quantities will be purchased. Orders will be placed on an **as-needed basis** for the duration of the contract. Purchase Orders will be released to the successful bidder(s) as required. **MINIMUM ORDERS ARE NOT ACCEPTABLE.**

Contract

This bid, when properly accepted by Jefferson County Commissioners' Court, shall constitute a contract equally binding between the successful bidder and Jefferson County. No different or additional terms will become a part of this contract.

The brand name references are for description only, and are not intended to exclude other herbicides or adjuvants of equal quality. Bidders desiring to substitute items may do so provided brand name is **indicated on Bid Form.** Change of container size may disqualify bid. Dilution ratio will be a factor in award of chemicals.

Bidders shall attach to bid form a current material safety data sheet and current labels for each chemical. Failure to do so may result in rejection of bid.

Item	Description
1	**MSMA herbicide** – to contain 6.00 lb. MSMA (Mono-sodium Acid Methanearsonate) plus surfactant per gallon
2	**Tordon 101** – to contain 10.2% 4-amino3,5,6-trichloropicolinic acid (picloram), tri-isopropanolomine salt 39.6% 2,4-Dichlorophenoxyacetric acid, tri-isopropanolomiane salt.
3	**Roundup herbicide or equivalent** – to contain 41.0% by weight Isopropylamine Salt of Glyphosate
4	**Rodeo herbicide or equivalent** – to contain 53.5% by weight Isopropylamine Salt of Glyphosate
5	**Nalco Trol II or equivalent** – water soluble spray drift control agent
6	**Aqua-King or equivalent** – product must be a non-ionic aquatic surfactant approved for use in the State of Texas, contain 90% active ingredient (excluding alcohols, fatty acids, oils ethylene glycol or diethylene glycol), a minimum of 80% surfactant load, possess an HLB (hydrophilic to lipophilic balance) ratio of 12 to 17, a maximum of 10% isopropyl alcohol, have a flash point greater than 200 degrees F., and contain an anti-foaming agent that will provide instantaneous foam breakdown when agitation ceases.
7	**Malathion insecticide** – concentrate to contain a minimum of 9.9 lb. of malathion per gallon (96.5% by weight active ingredient). Product offered must have current approval in Texas for both aerial and ground ULV application against adult mosquitoes. Bulk shipments only.
8	**Scourge insecticide** – concentrate to contain 1.51 lb. Resmethrin (18% by weight active ingredient) and 4.51 lb. Piperonyl Butoxide Technical (54% by weight active ingredient) per gallon. Product offered must have current approval in Texas for ground ULV application against adult mosquitoes.
9	**Envion 30/30 insecticide or equivalent** - water compatible concentrate in 2.52 lb. Permethrin (30.0% by weight) and 2.52 lb. Piperonyl Butoxide (30.0% by weight) per gallon. Product offered must have current approval in Texas for aerial and ground ULV application against adult mosquitoes.
10	**Duet Adulticide or equivalent** – 1.00% Prallethrin: = 0.085 lbs. of Technical Prallethrin per gallon. Chemical name = (RS) – 2 methyl-4-oxo-3-(2-propynl) cyclopent-2-enyl- (1RS)-cis, trans-chyrsanthemate. 5.00 % Sumethrin: = 0.370 lbs. of Technical Sumethrin per gallon. Chemical name = 3-Phenoxbenzyl- (1RS, 3 RS; 1RS, 3SR) -2,-2dimethyl-3-(2-methylprop-1-enyl) cyclopropanecarboxlate. 5.00% PBO = 0.370 lbs. Technical Pepronyl Butoxide per gallon. Chemical name = Pyperonyl Butoxide. Returnable 275 gallon stainless steel totes with 2.5 inch quick connect hose attachment. Successful bidder will deliver full containers and pick up empty containers at no additional charge

Bidder Information Form

Instructions: Complete the form below. Please provide legible, accurate, and complete contact information. PLEASE PRINT.

Bid Name & Number: IFB 17-006/YS, Term Contract for Insecticides, Herbicides, Spray Adjuvants, and Adulticides for Jefferson County Mosquito Control District

Bidder's Company/Business Name: Crop Production Services, Inc.

Bidder's TAX ID Number: 04-3769161

Contact Person: AJ Thibodeaux **Title:** Territory Manager

Phone Number (with area code): 713-705-9800

Alternate Phone Number if available (with area code): 281-987-9400 Wes Flower Warehouse Manager

Fax Number (with area code): 281-987-8969

Email Address: aubrey.thibodeaux.cpsagu.com

Mailing Address (Please provide a physical address for bid bond return, if applicable):

13622 E. Hardy Road
Address
Houston, TX 77039
City, State, Zip Code

OFFER AND ACCEPTANCE FORM

OFFER TO CONTRACT

To Jefferson County:

We hereby offer and agree to furnish the materials or service in compliance with all terms, conditions, specifications, and amendments in the invitation for Bid and any written exceptions in the offer. We understand that the items in this Invitation for Bid, including, but not limited to, all required certificates are fully incorporated herein as a material and necessary part of the contract.

The undersigned hereby states, under penalty of perjury, that all information provided is true, accurate, and complete, and states that he/she has the authority to submit this bid, which will result in a binding contract if accepted by Jefferson County.

We acknowledge receipt of the following amendment(s): _____, _____, _____, _____.

I certify, under penalty of perjury, that I have the legal authorization to bind the firm hereunder:

Crop Production Services, Inc.
Company Name

13622 E. Hardy Road
Address

Houston TX 77039
City State Zip

Signature of Person Authorized to Sign

Tim Smith
Printed Name

Region Manager
Title

For clarification of this offer, contact:

AJ Thibodeaux
Name

713-705-9800 281-987-8969
Phone Fax

aubrey.thibodeaux@cpsagu.com
E-mail

Bidder Shall Return Completed Form with Offer.

Acceptance of Offer

The Offer is hereby accepted for the following items: Term Contract for Insecticides, Herbicides, Spray Adjuvants, and Adulticides for Jefferson County Mosquito Control District. Contract Term: One (1) year from date of award with an option to renew for four (4) additional years.

The Contractor is now bound to sell the materials or services listed by the attached contract and based upon the Invitation for Bid, including all terms, conditions, specifications, amendments, etc., and the Contractor's Offer as accepted by Jefferson County.

This contract shall henceforth be referred to as Contract No. 17-006/YS, Term Contract for Insecticides, Herbicides, Spray Adjuvants, and Adulticides for Jefferson County Mosquito Control District. The Contractor has not been authorized to commence any billable work or to provide any material or service under this contract until Contractor receives a purchase order and/or a notice to proceed from the Jefferson County Purchasing Agent.

Countersigned:

Jeff R. Branick
County Judge

Date

Attest:

Carolyn L. Guidry
County Clerk

Bidder Shall Return Completed Form with Offer.

Bid Form

2017 Bid sheet

Item	Est Qty. (Gal.)	Description	Brand bid	MSDS Labels Attached	Price per Gallon	Total Price
1	700	MSMA Herbicide – 2.5 gal. container	TargeT6	✓	$ 25.85	$ 18,095
2	700	Tordon 101 Herbicide or equivalent – 2.5 gal. container	Chaston	✓	$ 41.52	$ 29,064
3	700	Roundup Herbicide or equivalent – 2.5 gal. container	mnsl Dog Plus	✓	$ 10.95	$ 2,665
4	100	Rodeo Herbicide or equivalent – 2.5 gal. container	Aquanext	✓	$ 14.95	$ 1495
5	100	Nalco Trol II or equivalent – 2.5 gal. (or smaller) container	Moby Control	✓	$ 8.00	$ 800.00
6	400	Aqua-King Surfactant or equivalent – 2.5 gal. (or smaller) container	Spreader 90	✓	$ 12.99	$ 5,196.
7	20,000	Malathion Insecticide – **bulk shipment only**			$	$ N/B
8	250	Scourge Insecticide – 5 gal. containers			$	$ N/B
9	600	Envion 30/30 Insecticide – 2.5 gal. containers			$	$ N/B
10	1,375	Duet Adulticide 275 gal. steel containers			$	$ N/B

Bidders shall attach to bid form a current material safety data sheet and current labels for each chemical. Failure to do so may result in rejection of bid.

Acknowledgment of Addenda (if any):

Addendum 1 _____ Date Received_____

Addendum 2 _____ Date Received_____

Addendum 3 _____ Date Received_____

Bidder Shall Return Completed Form with Offer.

Vendor References

Please list at least three (3) companies or governmental agencies (preferably a municipality) where the same or similar products and/or services as contained in this specification package were recently provided.

THIS FORM MUST BE RETURNED WITH YOUR BID.

REFERENCE ONE

Government/Company Name: Jefferson County D. D. #7

Address: 4401 Ninth Ave, Port Arthur, TX 77643

Contact Person and Title: Mark English P.A.

Phone: 409-985-7354 Fax: —

Contract Period: — Scope of Work: —

REFERENCE TWO

Government/Company Name: Galveston County

Address: 722 Moody 5th Floor Galveston County, TX 77550-5372

Contact Person and Title: Bruce A Hughes

Phone: 409-770-5372 Fax: —

Contract Period: — Scope of Work: —

REFERENCE THREE

Government/Company Name: Brazoria County Dist #3

Address:

Contact Person and Title: Richard McLaurin "Manager"

Phone: 281-331-3433 Fax: —

Contract Period: — Scope of Work: —

Bidder Shall Return Completed Form with Offer.

Signature Page

As permitted under Article 4413 (32c) V.A.C.S., other governmental entities may wish to participate under the same terms and conditions contained in this contract (i.e., piggyback). In the event any other entity participates, all purchase orders will be issued directly from and shipped directly to the entity requiring supplies/services. Jefferson County shall not be held responsible for any orders placed, deliveries made or payment for supplies/services ordered by another entity. Each entity reserves the right to determine their participation in this contract.

Would bidder be willing to allow other governmental entities to piggyback off this contract, if awarded, under the same terms and conditions? ..... **Yes** ☐ **No** ☐

This bid shall remain in effect for ninety (90) days from bid opening and shall be exclusive of federal excise and state and local sales tax (exempt).

The undersigned agrees, if this bid is accepted, to furnish any and all items upon which prices are offered, at the price and upon the terms and conditions contained in the Invitation for Bid, Conditions of Bidding, Terms of Contract, and Specifications and all other items made a part of the accepted contract.

The undersigned affirms that they are duly authorized to execute the contract, that this company, corporation, firm, partnership or individual has not prepared this bid in collusion with any other bidder, and that the contents of this bid as to prices, terms or conditions of said bid have not been communicated by the undersigned nor by any employee or agent to any other bidder or to any other person(s) engaged in this type of business prior to the official opening of this bid. And further, that neither the bidder nor their employees nor agents have been for the past six (6) months directly nor indirectly concerned in any pool or agreement or combination to control the price of goods or services on, nor to influence any person to bid or not to bid thereon.

Crop Production Services, Inc.
Bidder (Entity Name)

13622 E. Hardy Road
Street & Mailing Address

Houston, TX 77039
City, State & Zip

281-987-9400 Warehouse location
Telephone Number

aubrey.thibodeaux@cpsagu.com
E-mail Address

Signature

Tim Smith
Print Name

2/23/2017
Date Signed

281-987-8969
Fax Number

Bidder Shall Return Completed Form with Offer.

Conflict of Interest Questionnaire

CONFLICT OF INTEREST QUESTIONNAIRE — FORM CIQ

For vendor doing business with local governmental entity

This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session.

This questionnaire is being filed in accordance with Chapter 176, Local Government Code, by a vendor who has a business relationship as defined by Section 176.001(1-a) with a local governmental entity and the vendor meets requirements under Section 176.006(a).

By law this questionnaire must be filed with the records administrator of the local governmental entity not later than the 7th business day after the date the vendor becomes aware of facts that require the statement to be filed. *See* Section 176.006(a-1), Local Government Code.

A vendor commits an offense if the vendor knowingly violates Section 176.006, Local Government Code. An offense under this section is a misdemeanor.

OFFICE USE ONLY
Date Received

1 **Name of vendor who has a business relationship with local governmental entity.**

2 ☐ **Check this box if you are filing an update to a previously filed questionnaire.**

(The law requires that you file an updated completed questionnaire with the appropriate filing authority not later than the 7th business day after the date on which you became aware that the originally filed questionnaire was incomplete or inaccurate.)

3 **Name of local government officer about whom the information in this section is being disclosed.**

_____
Name of Officer

This section (item 3 including subparts A, B, C, & D) must be completed for each officer with whom the vendor has an employment or other business relationship as defined by Section 176.001(1-a), Local Government Code. Attach additional pages to this Form CIQ as necessary.

A. Is the local government officer named in this section receiving or likely to receive taxable income, other than investment income, from the vendor?

☐ Yes ☐ No

B. Is the vendor receiving or likely to receive taxable income, other than investment income, from or at the direction of the local government officer named in this section AND the taxable income is not received from the local governmental entity?

☐ Yes ☐ No

C. Is the filer of this questionnaire employed by a corporation or other business entity with respect to which the local government officer serves as an officer or director, or holds an ownership interest of one percent or more?

☐ Yes ☐ No

D. Describe each employment or business and family relationship with the local government officer named in this section.

4

_____ _____
Signature of vendor doing business with the governmental entity — Date

Adopted 8/7/2015

Bidder Shall Return Completed Form with Offer.

Local Government Officer

Conflicts Disclosure Statement - OFFICE USE ONLY

LOCAL GOVERNMENT OFFICER CONFLICTS DISCLOSURE STATEMENT — **FORM CIS**

This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session.

This is the notice to the appropriate local governmental entity that the following local government officer has become aware of facts that require the officer to file this statement in accordance with Chapter 176, Local Government Code.

OFFICE USE ONLY

Date Received

1 Name of Local Government Officer

2 Office Held

3 Name of vendor described by Sections 176.001(7) and 176.003(a), Local Government Code

4 Description of the nature and extent of employment or other business relationship with vendor named in Item 3

5 List gifts accepted by the local government officer and any family member, if aggregate value of the gifts accepted from vendor named in item 3 exceeds $100 during the 12-month period described by Section 176.003(a)(2)(B).

Date Gift Accepted _____ Description of Gift _____

Date Gift Accepted _____ Description of Gift _____

Date Gift Accepted _____ Description of Gift _____

(attach additional forms as necessary)

6 AFFIDAVIT

I swear under penalty of perjury that the above statement is true and correct. I acknowledge that the disclosure applies to each family member (as defined by Section 176.001(2), Local Government Code) of this local government officer. I also acknowledge that this statement covers the 12-month period described by Section 176.003(a)(2)(B), Local Government Code.

_____
Signature of Local Government Officer

AFFIX NOTARY STAMP / SEAL ABOVE

Sworn to and subscribed before me, by the said _____, this the _____ day of _____, 20 _____, to certify which, witness my hand and seal of office.

_____
Signature of officer administering oath — Printed name of officer administering oath — Title of officer administering oath

Adopted 8/7/2015

Good Faith Effort (GFE) Determination Checklist

This information must be submitted with your bid.

Bidder intends to utilize subcontractors/subconsultants in the fulfillment of this contract (if awarded).
☐ Yes ☐ No

Instructions: In order to determine if a "Good Faith Effort" was made in soliciting HUBs for subcontracting opportunities, the following checklist and supporting documentation shall be completed by the Prime Contractor/Consultant, and returned with the Prime Contractor/ Consultant's bid. This list contains the **minimum** efforts that should be put forth by the Prime Contractor/Consultant when attempting to achieve or exceed the goals of HUB Subcontractor participation. The Prime Contractor/Consultant may extend his/her efforts in soliciting HUB Subcontractor participation beyond what is listed below.

Did the Prime Contractor/Consultant . . .

☐ Yes ☐ No 1. To the extent practical, and consistent with standard and prudent industry standards, divide the contract work into the smallest feasible portions, to allow for maximum HUB Subcontractor participation?

☐ Yes ☐ No 2. **Notify** in writing a reasonable number of HUBs, allowing sufficient time for effective participation of the planned work to be subcontracted?

☐ Yes ☐ No 3. **Provide** HUBs that were genuinely interested in bidding on a subcontractor, adequate information regarding the project (i.e., plans, specifications, scope of work, bonding and insurance requirements, and a point of contract within the Prime Contractor/Consultant's organization)?

☐ Yes ☐ No 4. **Negotiate** in good faith with interested HUBs, and not reject bids from HUBs that qualify as lowest and responsive bidders?

☐ Yes ☐ No 5. **Document** reasons HUBs were rejected? Was a written rejection notice, including the reason for rejection, provided to the rejected HUBs?

☐ Yes ☐ No 6. If Prime Contractor/Consultant has zero (0) HUB participation, **please explain the reasons why.**

If "No" was selected, please explain and include any pertinent documentation with your bid. If necessary, please use a separate sheet to answer the above questions.

Tim Smith
Printed Name of Authorized Representative

Signature

Region Manager
Title

2/22/2017
Date

Bidder Shall Return Completed Form with Offer.

Notice of Intent (NOI) to Subcontract with Historically Underutilized Business (HUB)

This information must be submitted with your bid.

Bidder intends to utilize subcontractors/subconsultants in the fulfillment of this contract (if awarded).
☐ Yes ☐ No

Instructions for Prime Contractor/Consultant: Bidder shall submit this form with the bid; however, the information below may be submitted after contract award, but prior to beginning performance on the contract. Please submit one form for each HUB Subcontractor/Subconsultant with proper signatures, per the terms and conditions of your contract.

Contractor Name: _____ HUB: p Yes p No

Address: _____
Street City State Zip

Phone (with area code): _____ Fax (with area code): _____

Project Title & No.: _____

Prime Contract Amount: $ _____

HUB Subcontractor Name: _____

HUB Status (Gender & Ethnicity): _____

Certifying Agency: ☐ Tx. Bldg & Procurement Comm. ☐ Jefferson County ☐ Tx Unified Certification Prog.

Address: _____
Street City State Zip

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

Printed Name of Contractor Representative	Signature of Representative	Date
Printed Name of HUB	Signature of Representative	Date

NOTE: NOTHING ON THIS NOTICE OF INTENT FORM IS INTENDED TO CONFER ANY RIGHTS, EXPRESSED OR IMPLIED, TO ANY THIRD PARTIES.

Pre-Approval for Subcontractor Substitutions must be obtained from the Jefferson County Purchasing Agent's Representative. The "HUB Subcontractor/Subconsultant Change Form" must be completed and faxed to 409-835-8456.

Bidder Shall Return Completed Form with Offer.

Historically Underutilized Business (HUB) Subcontracting Participation Declaration Form

This information must be submitted with your bid.

Bidder intends to utilize subcontractors/subconsultants in the fulfillment of this contract (if awarded).
☐ Yes ☐ No

Prime Contractor: _____ HUB: ☐ Yes ☐ No

HUB Status (Gender & Ethnicity): _____

Address: _____
Street City State Zip

Phone (with area code): _____ Fax (with area code): _____

Project Title & No.: _____ IFB/RFP No.: _____

Total Contract: $ _____ Total HUB Subcontract(s): $ _____

Construction HUB Goals: 12.8% MBE:: _____ % 12.6% WBE: _____ %

Sub-goals: 1.7 African-American, 9.7% Hispanic, 0.7% Native American, 0.8% Asian American.
Use these goals as a guide to diversify.

FOR HUB OFFICE USE ONLY:

Verification date HUB Program Office reviewed and verified HUB Sub information Date: _____ Initials: _____

PART I. HUB SUCONTRACTOR DISCLOSURE

HUB Subcontractor Name: _____

HUB Status (Gender & Ethnicity): _____

Certifying Agency: ☐ Texas Bldg & Procurement Comm. ☐ Texas Unified Certification Prog.

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

Bidder Shall Return Completed Form with Offer.

Historically Underutilized Business (HUB) Subcontracting Participation Declaration Form

HUB SUBCONTRACTOR DISCLOSURE

PART I: Continuation Sheet **(Duplicate as Needed)**

HUB Subcontractor Name: _____

HUB Status (Gender & Ethnicity): _____

Certifying Agency: ☐ Tx. Bldg & Procurement Comm. ☐ Jefferson County ☐ Tx Unified Certification Prog.

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $_____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

_____

HUB Subcontractor Name: _____

HUB Status (Gender & Ethnicity): _____

Certifying Agency: ☐ Tx. Bldg & Procurement Comm. ☐ Jefferson County ☐ Tx Unified Certification Prog.

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $_____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

_____

All HUB Subcontractor Participation may be verified with the HUB Subcontractor(s) listed on Part I.

Bidder Shall Return Completed Form with Offer.

Historically Underutilized Business (HUB) Subcontracting Participation Declaration Form

PART II: STATEMENT OF NON-COMPLIANCE FOR NOT MEETING HUB SUBCONTRACTING GOALS

Please complete Good Faith Effort (GFE) Checklist and attach any supporting documentation.

Our firm was unable to meet the HUB goals for this project for the following reasons:

- ☐ All subcontractors to be utilized are "Non-HUBs." *(Complete Part III)*
- ☐ HUBs were solicited but did not respond.
- ☐ HUBs solicited were not competitive.
- ☐ HUBs were unavailable for the following trade(s):
- ☐ Other: _____

Was the Jefferson County HUB Office contacted for assistance in locating HUBs? ☐ Yes ☐ No

PART III: DISCLOSURE OF OTHER "NON-HUB" SUBCONTRACTS

The bidder shall use this area to provide a listing of all "Non-HUB" Subcontractors, including suppliers, that will perform under this project. A list of those "Non-HUB" Subcontractors the bidder selects, after bid submission, shall be provided to the Purchasing Office not later than five (5) calendar days after being notified that bidder is the apparent low bidder. A list of those "Non-HUB" Subcontractors that are selected after contract award must be provided **immediately** after their selection.

Subcontractor Name: _____

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

Subcontractor Name: _____

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

Bidder Shall Return Completed Form with Offer.

Historically Underutilized Business (HUB) Subcontracting Participation Declaration Form

Subcontractor Name: _____

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

Subcontractor Name: _____

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

I hereby certify that I have read the *HUB Program Instructions and Information*, truthfully completed all applicable parts of this form, and **attached any necessary support documentation as required.** I fully understand that intentionally falsifying information on this document may result in my not receiving a contract award or termination of any resulting contract.

Name (print or type): _____

Title: _____

Signature: _____

Date: _____

E-mail address: _____

Contact person that will be in charge of invoicing for this project:

Name (print or type): _____

Title: _____

Date: _____

E-mail address: _____

Bidder Shall Return Completed Form with Offer.

Residence Certification/Tax Form

Pursuant to Texas Government Code §2252.001 *et seq.*, as amended, Jefferson County requests Resident Certification. §2252.001 *et seq.* of the Government Code provides some restrictions on the awarding of governmental contracts; pertinent provisions of §2252.001 are stated below:

(3) "Nonresident bidder" refers to a person who is not a resident.

(4) "Resident bidder" refers to a person whose principal place of business is in this state, including a contractor whose ultimate parent company or majority owner has its principal place of business in this state.

☐ I certify that _____ [company name] is a Resident Bidder of Texas as defined in Government Code §2252.001.

☐ I certify that _____ [company name] is a Nonresident Bidder as defined in Government Code §2252.001 and our principal place of business is _____ _____ (city and state).

Taxpayer Identification Number (T.I.N.):	04-3769161
Company Name submitting bid/proposal:	Crop Production Services, Inc.
Mailing address:	13622 E. Hardy Road, Houston, TX 77039
If you are an individual, list the names and addresses of any partnership of which you are a general partner:	

Property: List all taxable property owned by you or above partnerships in Jefferson County.

Jefferson County Tax Acct. No.*	Property address or location**

* This is the property amount identification number assigned by the Jefferson County Appraisal District.

** For real property, specify the property address or legal description. For business property, specify the address where the property is located. For example, office equipment will normally be at your office, but inventory may be stored as a warehouse or other location.

Bidder Shall Return Completed Form with Offer.

Bid Affidavit

The undersigned certifies that the bid prices contained in this bid have been carefully reviewed and are submitted as correct and final. Bidder further certifies and agrees to furnish any and/or all commodities upon which prices are extended at the price offered, and upon the conditions contained in the specifications and the Notice to Bidders.

STATE OF Arkansas COUNTY OF Drew

BEFORE ME, the undersigned authority, a Notary Public in and for the State of Arkansas,

on this day personally appeared Tim Smith (name), who

after being by me duly sworn, did depose and say:

"I, Tim Smith (name) am a duly authorized officer of/agent

for Crop Production Services, Inc. (name of firm) and have been duly authorized to execute the

foregoing on behalf of the said Crop Production Services, Inc. (name of firm).

I hereby certify that the foregoing bid has not been prepared in collusion with any other bidder or other person or persons engaged in the same line of business prior to the official opening of this bid. Further, I certify that the bidder is not now, nor has been for the past six (6) months, directly or indirectly concerned in any pool or agreement or combination, to control the price of services/commodities bid on, or to influence any person or persons to bid or not to bid thereon."

Name and address of bidder: Crop Production Services, Inc.

13622 E Hardy Road, Houston, TX 77039

Fax: 281-987-8969 Telephone# 281-987-9400

by: Tim Smith (print name) Title: Region Manager

Signature:

SUBSCRIBED AND SWORN to before me by the above-named

Tim Smith on

this the 23rd day of February, 2017.

Adrienne King
Notary Public in and for
the State of Arkansas

ADRIENNE KING
Notary Public-Arkansas
Drew County
My Commission Expires 01-05-2025
Commission # 12402409

Bidder Shall Return Completed Form with Offer.

SPREADER 90

NON-IONIC SURFACTANT
SPREADER • ACTIVATOR
ALCOHOL FREE • NON-FLAMMABLE

Principal Functioning Agents:

1,2-Propanediol, alkylphenol ethoxylate, dimethylpolysiloxane	90%
Constituents Ineffective as Spray Adjuvants	10%
TOTAL	**100%**

CA Reg No. 34704-50055
WA Reg No. 34704-05002

KEEP OUT OF REACH OF CHILDREN
WARNING

NET CONTENTS:

- ☐ **30 GL (113.6 L)**
- ☐ **275 GL (1040.9 L)**
- ☐ _____

Loveland PRODUCTS INC
PO Box 1286 • Greeley, CO 80632-1286

WARNING: Causes substantial but temporary eye injury. Avoid contact with skin or clothing. Harmful if inhaled or absorbed through skin. Do not get in eyes or on clothing. Wear protective eyewear (goggles or face shield). Avoid breathing spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco. Remove and wash contaminated clothing before reuse. **Personal Protective Equipment:** Wear protective eyewear (goggles or face shield), chemical-resistant gloves, long-sleeved shirt and long pants, shoes plus socks when mixing or applying SPREADER 90.

First Aid: If in Eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice. **If on skin or clothing:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice. **If swallowed:** Call a poison control center or doctor immediately for treatment advice. Have a person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person. **If inhaled:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advice. **FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: 1-866-944-8565.** Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

General: SPREADER 90 is a low foaming, non-ionic type spreader, adjuvant. SPREADER 90 provides quick wetting, more uniform distribution, and increases retention of spray by reducing surface tension. SPREADER 90 is formulated alcohol free and non-flammable. SPREADER 90 is readily dispersible in water and compatible with fertilizer and pesticide mixtures. This product can be used in terrestrial or aquatic settings **(not for aquatic use in Washington).** Some pesticides have stated adjuvant use rates. In all cases, the pesticide manufacturer's label should be consulted regarding specific adjuvant use recommendations and that rate followed. Do not add adjuvant at a level that would exceed 5% of the finished spray volume.

Directions for Use: Fill spray tank 1/2 full with water and begin agitation. Add pesticides as directed by label, while maintaining agitation. After pesticides are thoroughly mixed, add selected rate of SPREADER 90 as suggested by the label of pesticide being used.

	Fluid oz. / 100 gal.
Insecticides, Fungicides, Acaracides	4 - 16
Herbicides, Defoliants, Desiccants	8 - 64
Foliar Nutrients	12 - 32
Industrial spraying right-of-ways, non crop areas	16 - 32

Environmental Hazards: Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

Storage: Heated storage not required. Store in cool, dry place. Store in original container. Keep tightly closed. Do not reuse empty container.

Disposal: Do not contaminate water, food or feed by storage or disposal. Wastes may be disposed of on-site or at an approved waste disposal facility. Triple rinse (or equivalent) adding rinse water to spray tank. Offer container for recycling or dispose of container in sanitary landfill, or by other procedures approved by appropriate authorities. Recycling decontaminated containers is the best option of container disposal. The Agricultural Container Recycling Council (ACRC) operates the national recycling program. To contact your state and local ACRC recycler visit the ACRC web page at www.acrecycle.org.

For help with any spill, leak, fire or exposure involving this material, call day or night CHEMTREC 1-800-424-9300.

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

BEFORE BUYING OR USING THIS PRODUCT, read the entire Directions for Use and the following Conditions of Sale and Limitation of Warranty and Liability. By buying or using this product, the buyer or user accepts the following Conditions of Sale and Limitation of Warranty and Liability, which no employee or agent of LOVELAND PRODUCTS, INC. or the seller is authorized to vary in any way.

Follow the Directions for Use of this product carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop or other plant injury, ineffectiveness, or other unintended consequences may result from such risks as weather or crop conditions, mixture with other chemicals not specifically identified in this product's label, or use of this product contrary to the label instructions, all of which are beyond the control of LOVELAND PRODUCTS, INC. and the seller. The buyer or user of this product assumes all such inherent risks.

Subject to the foregoing inherent risks, LOVELAND PRODUCTS, INC. warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use when the product is used in strict accordance with such Directions for Use under normal conditions of use. EXCEPT AS WARRANTED IN THIS LABEL AND TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THIS PRODUCT IS SOLD "AS IS," AND LOVELAND PRODUCTS, INC. MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ELIGIBILITY OF THIS PRODUCT FOR ANY PARTICULAR TRADE USAGE.

IN THE UNLIKELY EVENT THAT BUYER OR USER BELIEVES THAT LOVELAND PRODUCTS, INC. HAS BREACHED A WARRANTY CONTAINED IN THIS LABEL AND TO THE EXTENT REQUIRED BY APPLICABLE LAW, BUYER OR USER MUST SEND WRITTEN NOTICE OF ITS CLAIM TO THE FOLLOWING ADDRESS: LOVELAND PRODUCTS, INC., ATTENTION: LAW DEPARTMENT, PO BOX 1286, GREELEY, CO 80632.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE BUYER'S OR USER'S EXCLUSIVE REMEDY FOR ANY INJURY, LOSS, OR DAMAGE RESULTING FROM THE HANDLING OR USE OF THIS PRODUCT, INCLUDING BUT NOT LIMITED TO CLAIMS OF BREACH OF WARRANTY OR CONTRACT, NEGLIGENCE, STRICT LIABILITY, OR OTHER TORTS, SHALL BE LIMITED TO ONE OF THE FOLLOWING, AT THE ELECTION OF LOVELAND PRODUCTS, INC. OR THE SELLER: DIRECT DAMAGES NOT EXCEEDING THE PURCHASE PRICE OF THE PRODUCT OR REPLACEMENT OF THE PRODUCT. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, LOVELAND PRODUCTS, INC. AND THE SELLER SHALL NOT BE LIABLE TO THE BUYER OR USER OF THIS PRODUCT FOR ANY CONSEQUENTIAL, SPECIAL, OR INDIRECT DAMAGES, OR DAMAGES IN THE NATURE OF A PENALTY.

MATERIAL SAFETY DATA SHEET

SPREADER 90

FOR CHEMICAL EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT, CALL CHEMTREC - DAY OR NIGHT 1-800-424-9300

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

FORMULATED FOR:

Loveland Products, Inc.
P.O. Box 1286 • Greeley, CO 80632-1286

24-Hour Emergency Phone: 1-800-424-9300
Medical Emergencies: 1-800-301-7976
U.S. Coast Guard National Response Center: 1-800-424-8802

PRODUCT NAME: SPREADER 90
CHEMICAL NAME: Surfactant-Spreader-Activator
CHEMICAL FAMILY: 2,2' Dihydroxydiethyl ether, Alkyphenol ethoxylate, and dimethylpolysiloxane
CA REG. NO.: Pending
WA REG. NO.: 34704-05002

MSDS Number: SP90-05-LPI **MSDS Revisions:** All sections **Date Of Issue:** 02/24/05 **Supersedes:** 07/26/04

2. HAZARDS IDENTIFICATION SUMMARY

KEEP OUT OF REACH OF CHILDREN – WARNING – Causes substantial but temporary eye injury. Avoid contact with skin or clothing. Do not get in eyes or on clothing. Wear goggles, face shield, or safety glasses. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco.

This product is clear, colorless liquid with mild odor. Primary routes of entry are eye contact and skin contact.

3. COMPOSITION, INFORMATION ON INGREDIENTS

Chemical Ingredients:	Percentage by Weight:	CAS No.	TLV (Units)
2,2' Dihydroxydiethyl ether, Alkyphenol ethoxylate And dimethylpolysiloxane	90.00	Mixture	None listed
Other Ingredients	10.00		

4. FIRST AID MEASURES

If in Eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.

If on Skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

If Swallowed: Call a poison control center or doctor immediately for treatment advice. Have a person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

If Inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advice.

FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: 1-800-301-7976. Have the product container or label with you when calling a poison control center or doctor or going for treatment.

5. FIRE FIGHTING MEASURES

FLASH POINT (°F/Test Method): >212°F/>100°C (T.C.C.)
FLAMMABLE LIMITS (LFL & UFL): Not established
EXTINGUISHING MEDIA: Dry chemical, carbon dioxide (CO_2), foam, water spray or fog.
HAZARDOUS COMBUSTION PRODUCTS: May include but are not limited to oxides of carbon and oxides of sulfur.
SPECIAL FIRE FIGHTING PROCEDURES: Use water spray to cool containers exposed to fire. Remain upwind. Avoid breathing smoke. Wear self-contained breathing apparatus and full protective gear.
UNUSUAL FIRE AND EXPLOSION HAZARDS: None

6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:
Avoid breathing vapors and contact with liquid. Collect as much liquid as possible in a clean container for reuse or absorb and sweep up immediately and transfer to suitable containers for disposal. Flush spill area with water after clean up. Check local, state and federal regulations for proper disposal.
CAUTION: Keep spills and cleaning runoff out of municipal sewers and open bodies of water.

7. HANDLING AND STORAGE

HANDLING: Wear goggles, face shield, or safety glasses. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco. Use with adequate ventilation.

STORAGE: Heated storage is not required. Store in a cool, dry place. Store in original container. Keep tightly closed. Do not reuse empty container. Do not contaminate water, food or feed by storage or disposal.

BREWER International
The Natural Leader In Chemistry

POLY CONTROL 2.... Specimen Label

STICKER AND DRIFT CONTROL AGENT FOR PESTICIDES

Ingredients

Active Ingredient: Polyacrylamide copolymer.....30%

Inert Ingredients:.....70%

Total:.....100%

Poly Control 2 is a sticker and drift control agent. Poly Control 2 is nonionic so it works with most herbicides.

CAUTION

Do not take internally. Avoid skin contact. May cause skin and eye irritation. Keep out of the reach of children. Read and follow all label directions and Cautions on all products used.

ANTIDOTE

If swallowed: Do not induce vomiting. Get medical attention. In case of skin contact, flush thoroughly with water.

CHARACTERISTICS

Poly Control 2 is a white liquid polymer that is formulated to aid the control of drift in spray solutions. Poly Control 2 also aids sticking and spreading of Spray solutions at lower rates. Poly Control 2 will also aid sinking at higher Rates. Poly Control 2 is very slippery when spilled, use sand, sawdust or similar absorbent material on any spill. Surfactants in Poly Control 2 are exempt from the requirements of tolerance under Title 40,CFR,180.1001 (d).

DIRECTIONS FOR USE

Shake well before using. Do not add water to container. Aquatic sinking use 1-2 gallons per 100 gallons of spray solution. Add slowly while agitating 3-4 minutes. Terrestrial drift use 3-8 ounces per 100 gallons of spray solution. The longer agitation occurs the thicker the viscosity. Rates can vary dependent upon

pressure, spray solution, wind speed, nozzle selection, and configuration. For sinking, rates can vary with flow of water. For sticking use 1-3 ounces per 100 gallons of spray solution.

CONDITIONS FOR SALE

We warrant that this product conforms to the chemical description on the label and is reasonably fit for the purposes set forth on the label when used according to directions under normal use conditions. There are no other warranties, whether expressed or implied, including a warranty of fitness for a particular purpose. This warranty does not extend to the handling or use of this product contrary to label instructions or under abnormal conditions not reasonably foreseeable to seller, and buyer assumes all risk of any such use.

MANUFACTURED BY

Brewer International. PO Box 690037,Vero Beach, FL 32969-0037

(772)562-0555, (800)228-1833, www.Brewerint.com

SAFETY DATA SHEET
Poly Control 2

MSDS DATE: *revised* 2/13/2015

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT IDENTIFIER: Poly Control 2

PRODUCT USE: Industrial Uses
Washing and cleaning products
Industrial spraying
Wide dispersive outdoor use of processing aids in open systems

SUPPLIER DETAILS: Name: Brewer International, Incorporated
Address: PO Box 690037
Vero Beach, FL 32969
Phone: (800) 228-1833
Fax: (772) 778-2490

EMERGENCY PHONE: Chem Tel (800) 255-3924 available 24 hours

SECTION 2: HAZARDS IDENTIFICATION

HAZARD CLASSIFICATION: This product is considered not hazardous under 29 CFR 1910.1200

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT: Nonionic Polymer Emulsion

CAS #	WT%
Not Applicable	98

INGREDIENT: Hydrotreated Light Paraffin Distillate

CAS #	WT%
64742-55-8	2

SECTION 4: FIRST AID MEASURES

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical attention.

IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs, get medical attention.

IF SWALLOWED: Rinse mouth. Call a doctor if you feel unwell.

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a doctor if you feel unwell.

SECTION 5: FIRE-FIGHTING MEASURES

FLASH POINT:
F: >350°
C: >176.6°

SAFETY DATA SHEET
Poly Control 2

MSDS DATE: *revised* 2/13/2015

SUITABLE EXTINGUISHING MEDIA: Water, Dry chemicals, foam, carbon dioxide, water spray or fog.

UNSUITABLE EXTINGUISHING MEDIA: None

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL: None

SPECIAL PROTECTIVE ACTIONS FOR FIRE-FIGHTERS: Evacuate the area promptly. Observe all precautions that apply to any fire where chemicals are stored. Wear suitable protective equipment.

SECTION 6: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Keep unnecessary personnel away. **DO NOT** touch damaged containers or spilled material unless wearing appropriate protective gear. Keep people away from and upwind of spill/leak. Keep out of low areas. Ensure adequate ventilation. Ventilate closed spaces before entering them.

ENVIRONMENTAL PRECAUTIONS: Prevent further leakage or spillage if safe to do so. Keep out of drains, sewers ditches and waterways.

METHODS FOR CONTAINMENT: ELIMINATE all ignition sources (no smoking, flares, sparks or flames in the immediate area). Stop the flow of the material and dike spill area when possible without exposure to unnecessary risk.

METHODS FOR CLEANING UP: DO NOT release this product into the environment. Use equipment rated for use around combustible materials. For large spills, absorb spilled liquid with suitable non-combustible absorbent material such as dirt or sand. For small spills, wipe up with suitable absorbent material such as cloth. Clean exposed surfaces thoroughly to remove any residual contamination. Never return spills in original containers for re-use. Dispose any contaminated absorbents appropriately. For waste disposal, see section 13 of this MSDS.

SECTION 7: HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Wash hands and exposed skin thoroughly after handling. **DO NOT** breathe vapors or spray. Use only out doors or in a well-ventilated area. Keep material away from heat, sparks, and flame. Use appropriate personal protective equipment. **DO NOT** get in eyes, on skin or on clothing. Avoid prolonged and repeated contact. **DO NOT** swallow. Eating, drinking and smoking in work areas is prohibited. Remove contaminated clothing and protective equipment before entering eating areas. The container is hazardous when emptied and should be disposed of appropriately.

STORAGE: Store in a well-ventilated place with proper sprinkler/fire deterrent system. Keep container tightly closed. Store locked up. Freezing will affect the physical condition and may damage the material.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

INGREDIENT(S)	EXPOSURE LIMITS
Hydrotreated Light Paraffin Distillate	OSHA PEL: 5.00 mg/m^3 ACGIH TWA: 5.00 mg/m^3 ACGIH STEL: 10.00 mg/m^3

PEL= Permissible Exposure Limits
TWA= Time Weighted Average
STEL= Short term Exposure Limit

ACGIH= American Conference of Governmental Industrial Hygienists
OSHA= Occupational Safety and Health Administration

ENGINEERING CONTROLS: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. Maintain air concentrations below occupational exposure limits. Use local exhaust when misting occurs. Natural ventilation is adequate in absence of mists. Keep away from sparks and flames.

RESPIRATORY PROTECTION: No personal respiratory protective equipment normally required. An approved respirator must be worn if airborne concentrations are above any recommended exposure limits. In misty atmospheres, use an approved respirator.

EYE PROTECTION: If material could be misted or splashed into eyes, wear safety glasses with side shields (or goggles). Eye wash fountain should be available.

SKIN PROTECTION: Impervious gloves are recommended.

WORK HYGIENIC PRACTICES: When using, do not eat, drink or smoke. Do not get in eyes. Do not get this material in contact with skin. Wash hands and face before breaks and immediately after handling the product. Launder contaminated clothing before reuse. Have eye wash and emergency shower facilities immediately available. Handle in accordance with good industrial hygiene and safety practice.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: White ranging to clear

ODOR: Low chemical odor

ODOR THRESHOLD: No data available

PHYSICAL STATE: Liquid

pH: 6–8 @ 5 g/l

FREEZING POINT: No data available

BOILING POINT: No data available

FLASH POINT: >350°F (176.6°C) estimated

EVAPORATION RATE (N-Butyl Acetate = 1): No data available

FLAMMABILITY (SOLID, GAS): No data available

UPPER/LOWER FLAMMABILITY: No data available

VAPOR PRESSURE (mmHg): < 0.01 **estimated**
@ 68°F (20.0°C)

VAPOR DENSITY (AIR = 1): No data available

SPECIFIC GRAVITY (H2O = 1): No data available
@ 68°F (20.0°C)

SOLUBILITY IN WATER: Yes

PARTITION COEFFICIENT (N-Octanol/Water): No data available

AUTO-IGNITION TEMPERATURE: No data available

DECOMPOSITION TEMPERATURE: No data available

VISCOSITY: No data available

SECTION 10: STABILITY AND REACTIVITY

REACTIVITY/POSSIBILITY OF HAZARDOUS REACTIONS: Hazardous polymerization does not occur. Prevent oxidation by avoiding long-term exposure to air.

CHEMICAL STABILITY: Material is stable under normal conditions.

CONDITIONS TO AVOID: Keep away from heat, sparks, static discharge or flames.

INCOMPATIBLE MATERIALS: Strong acids and bases, including acidic clays; alkali metals; halogens; peroxides; vinyl chloride; and iodine pentafluoride.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: carbon oxides, nitrogen oxides

SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE TOXICITY: Product ingredients have been shown to have a low oral toxicity (LD_{50}>5 g/kg) when tested on rats.

SKIN CORROSION/IRRITATION: Not expected

EYE DAMAGE/IRRITATION: Not expected

RESPIRATORY OR SKIN SENSITIZATION: The product is not expected to be sensitizing.

GERM CELL MUTAGENICITY: No data available

CARCINOGENICITY: No components present in excess of 0.1% by weight listed as carcinogens by OSHA, NTP, IARC or ACGIH.

REPRODUCTIVE TOXICITY: No data available

SPECIFIC TARGET ORGAN TOXICITY

SINGLE EXPOSURE: Not expected

REPEATED EXPOSURE: Not expected

ASPIRATION HAZARD: No data available

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY

Fish: LC_{50} > 100 mg/L, Danio rerio/96 hr
Algae: IC_{50} > 100 mg/L, Scenedesmus subspicatus/72 hr
Daphnia: EC_{50} > 100 mg/L, Daphnia magna/48 hr

PERSISTENCE AND DEGRADABILITY: Not readily biodegradable (40% after 28 days).

BIOACCUMULATIVE POTENTIAL: This product is not expected to bioaccumulate.

MOBILITY IN SOIL: No data available

OTHER ADVERSE EFFECTS: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

SAFETY DATA SHEET
Poly Control 2

MSDS DATE: *revised* 2/13/2015

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Incinerate or dispose of in accordance with Local, State, and Federal Regulations. Commercially clean containers prior to disposal. Oil soaked rags should be disposed of properly to prevent spontaneous combustion. Do not allow this material to drain into sewers/water supplies. For the safety of persons conducting disposal, please refer to the information in section 8.

SECTION 14: TRANSPORT INFORMATION

DOT
Not regulated

IATA
Not regulated

IMDG
Not regulated

TDG
Not regulated

ENVIRONMENTAL HAZARDS: The product is not a known marine pollutant as defined by 49 CFR part 171.8 or TDG regulations.

SECTION 15: REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS: This product is a Hazardous Chemical as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List or exempt under 40 CFR 720.30.

CERCLA (COMPREHENSIVE RESPONSE COMPENSATION, AND LIABILITY ACT) reportable substances:
not regulated

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

HAZARD CATEGORIES
IMMEDIATE HAZARD: No
DELAYED HAZARD: No
FIRE HAZARD: No
PRESSURE HAZARD: No
REACTIVE HAZARD: No

313 REPORTABLE INGREDIENTS: No

302 EXTREMELY HAZARDOUS SUBSTANCE: No

CALIFORNIA PROPOSITION 65: *The following statement is made in order to comply with the California Safe Drinking Water and Toxic Enforcement Act of 1986.* This product may contain trace amounts of chemical(s) known to the State of California to cause cancer: residual acrylamide.

SAFETY DATA SHEET
Poly Control 2

MSDS DATE: *revised* 2/13/2015

SECTION 16: OTHER INFORMATION

NFPA RATINGS

HEALTH: 1
FIRE: 1
REACTIVITY: 0

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MATERIAL SAFETY DATA SHEET

SPREADER 90

FOR CHEMICAL EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT, CALL CHEMTREC - DAY OR NIGHT 1-800-424-9300

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

FORMULATED FOR:

Loveland Products, Inc.
P.O. Box 1286 • Greeley, CO 80632-1286

24-Hour Emergency Phone: 1-800-424-9300
Medical Emergencies: 1-800-301-7976
U.S. Coast Guard National Response Center: 1-800-424-8802

PRODUCT NAME: SPREADER 90
CHEMICAL NAME: Surfactant-Spreader-Activator
CHEMICAL FAMILY: 2,2' Dihydroxydiethyl ether, Alkyphenol ethoxylate, and dimethylpolysiloxane
CA REG. NO.: Pending
WA REG. NO.: 34704-05002

MSDS Number: SP90-05-LPI **MSDS Revisions:** All sections **Date Of Issue:** 02/24/05 **Supersedes:** 07/26/04

2. HAZARDS IDENTIFICATION SUMMARY

KEEP OUT OF REACH OF CHILDREN – WARNING – Causes substantial but temporary eye injury. Avoid contact with skin or clothing. Do not get in eyes or on clothing. Wear goggles, face shield, or safety glasses. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco.

This product is clear, colorless liquid with mild odor. Primary routes of entry are eye contact and skin contact.

3. COMPOSITION, INFORMATION ON INGREDIENTS

Chemical Ingredients:	Percentage by Weight:	CAS No.	TLV (Units)
2,2' Dihydroxydiethyl ether, Alkyphenol ethoxylate And dimethylpolysiloxane	90.00	Mixture	
Other Ingredients	10.00		None listed

4. FIRST AID MEASURES

If in Eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.

If on Skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

If Swallowed: Call a poison control center or doctor immediately for treatment advice. Have a person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

If Inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advice.

FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: 1-800-301-7976. Have the product container or label with you when calling a poison control center or doctor or going for treatment.

5. FIRE FIGHTING MEASURES

FLASH POINT (°F/Test Method): >212°F/>100°C (T.C.C.)
FLAMMABLE LIMITS (LFL & UFL): Not established
EXTINGUISHING MEDIA: Dry chemical, carbon dioxide (CO_2), foam, water spray or fog.
HAZARDOUS COMBUSTION PRODUCTS: May include but are not limited to oxides of carbon and oxides of sulfur.
SPECIAL FIRE FIGHTING PROCEDURES: Use water spray to cool containers exposed to fire. Remain upwind. Avoid breathing smoke. Wear self-contained breathing apparatus and full protective gear.
UNUSUAL FIRE AND EXPLOSION HAZARDS: None

6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:
Avoid breathing vapors and contact with liquid. Collect as much liquid as possible in a clean container for reuse or absorb and sweep up immediately and transfer to suitable containers for disposal. Flush spill area with water after clean up. Check local, state and federal regulations for proper disposal.
CAUTION: Keep spills and cleaning runoff out of municipal sewers and open bodies of water.

7. HANDLING AND STORAGE

HANDLING: Wear goggles, face shield, or safety glasses. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco. Use with adequate ventilation.

STORAGE: Heated storage is not required. Store in a cool, dry place. Store in original container. Keep tightly closed. Do not reuse empty container. Do not contaminate water, food or feed by storage or disposal.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: Work in well-ventilated area, local exhaust may be required if working in confined space.
RESPIRATORY PROTECTION: Not normally required, if vapors or dusts exceed acceptable levels, wear a NIOSH/ MSHA approved pesticide respirator.
EYE PROTECTION: Chemical goggles or shielded safety glasses.
SKIN PROTECTION: Wear protective clothing: long-sleeved shirts and pants, hat, rubber boots with socks. Wear rubber or chemical-resistant gloves.

OSHA PEL 8 hr TWA	ACGIH TLV-TWA
None established	none established

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Clear, colorless liquid with mild odor
SPECIFIC GRAVITY (Water = 1): 1.07 g/ml
VAPOR PRESSURE: Not established
PERCENT VOLATILE (by volume): Not established
BULK DENSITY: 8.93 lbs/gal.
BOILING POINT: Not established
EVAPORATION RATE: Not established
SOLUBILITY: Soluble
pH: 7.5 (1% solution)

Note: These physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specification items.

10. STABILITY AND REACTIVITY

STABILITY: Stable
INCOMPATIBILITY: Strong oxidizers.
CONDITIONS TO AVOID: High alkaline conditions.
HAZARDOUS DECOMPOSITION PRODUCTS: None known.
HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Oral LD_{50} (rat): not established
Eye Irritation (rabbit): Causes substantial but temporary eye irritation
Inhalation LC_{50} (rat): May cause respiratory tract irritation.
Carcinogenic Potential: None listed in OSHA, NTP, IARC or ACGIH
Acute Dermal LD_{50} (rabbit): not established
Skin Irritation (rabbit): May cause irritation
Skin Sensitization (guinea pig): not established

12. ECOLOGICAL INFORMATION

Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

13. DISPOSAL CONSIDERATIONS

Do not reuse containers. Triple rinse (or equivalent) adding rinse water to spray tank, then offer for recycling at an ACRC site (go to http://www.acrecycle.org/ for locations) or by reconditioning, or puncture and dispose of in a sanitary landfill or by other procedures approved by appropriate authorities. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Do not contaminate water, food or feed storage or disposal.

14. TRANSPORT INFORMATION

DOT Shipping Description: NOT REGULATED BY USDOT
U.S. Surface Freight Classification: ADHESIVES, ADJUVANTS, SPREADERS OR STICKERS (NMFC 4610; CLASS: 60)
Consult appropriate ICAO/IATA and IMDG regulations for shipment requirements in the Air and Maritime shipping modes

15. REGULATORY INFORMATION

NFPA & HMIS Hazard Ratings:

NFPA		HMIS	
2	Health	2	Health
0	Flammability	0	Flammability
0	Instability	0	Reactivity
		H	PPE

0	Least
1	Slight
2	Moderate
3	High
4	Severe

MATERIAL SAFETY DATA SHEET

SARA Hazard Notification/Reporting
SARA Title III Hazard Category: Immediate Y | Fire N | Sudden Release of Pressure N
Delayed N | Reactive N

Reportable Quantity (RQ) under U.S. CERCLA: Not listed
SARA, Title III, Section 313: Not listed
RCRA Waste Code: Not listed
CA Proposition 65: None listed

16. OTHER

MSDS STATUS: New

PREPARED BY: Registrations and Regulatory Affairs

REVIEWED BY: Environmental/ Regulatory Services

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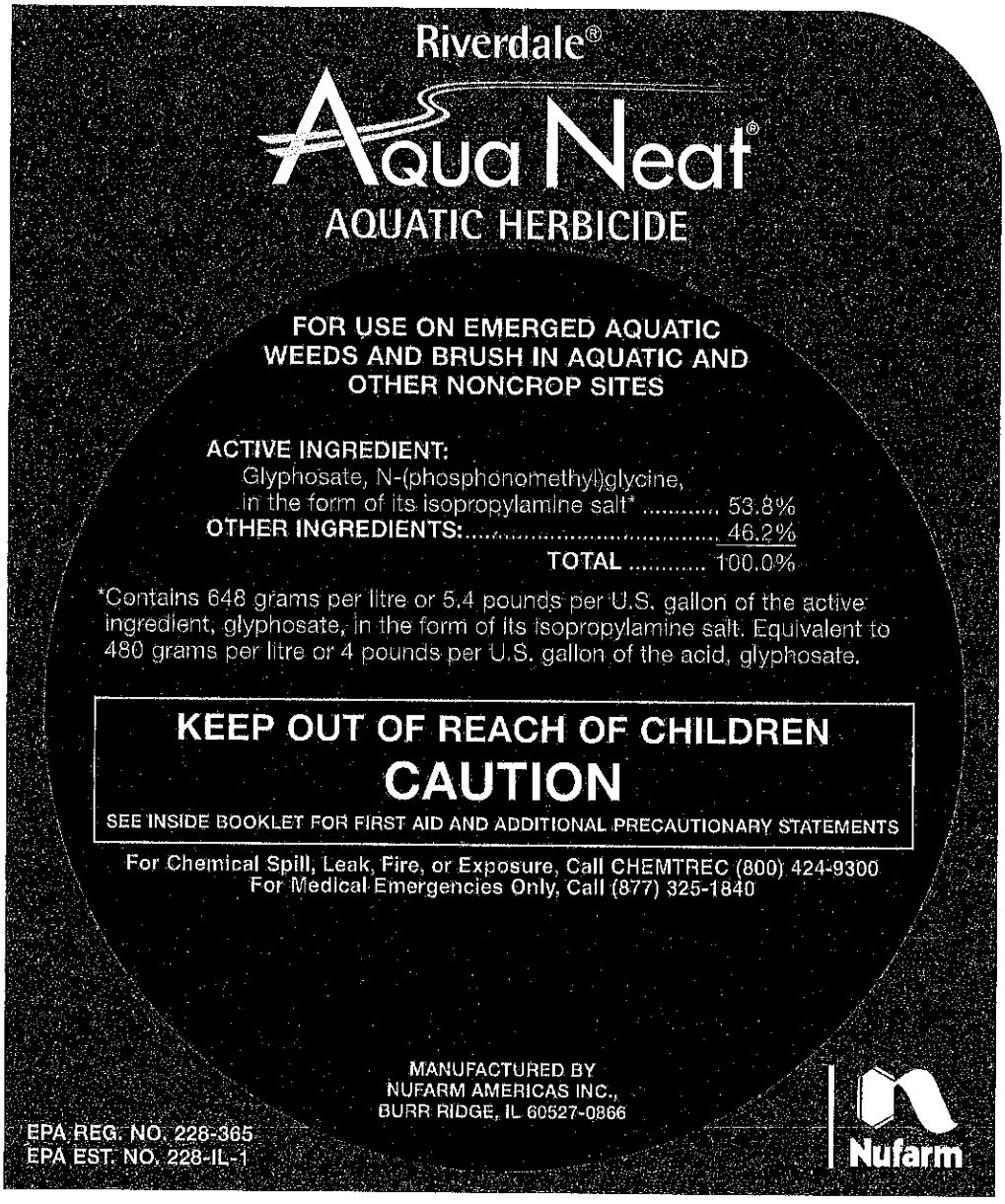

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PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION

HARMFUL IF INHALED. Avoid breathing spray mist. Remove contaminated clothing and wash clothing before reuse. Wash thoroughly with soap and water after handling.

FIRST AID	
IF INHALED	• Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. • Call a poison control center or doctor for further treatment advice.

HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-877-325-1840 for emergency medical treatment information.

ENVIRONMENTAL HAZARDS

Do not contaminate water when disposing of equipment washwaters. Treatment of aquatic weeds can result in oxygen depletion or loss due to decomposition of dead plants. This oxygen loss can cause fish suffocation.

In case of: SPILL OR LEAK, soak up and remove to a landfill.

PHYSICAL OR CHEMICAL HAZARDS

Spray solutions of this product should be mixed, stored and applied using only stainless steel, aluminum, fiberglass, plastic and plastic-lined steel containers.

DO NOT MIX, STORE OR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL(EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS. This product or spray solutions of this product react with such Containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling. READ ENTIRE LABEL BEFORE USING THIS PRODUCT. USE STRICTLY IN ACCORDANCE WITH LABEL PRECAUTIONARY STATEMENTS AND DIRECTIONS.

GENERAL INFORMATION

This product, a water-soluble liquid, mixes readily with water and nonionic surfactant to be applied as a foliar spray for the control or destruction of many herbaceous and woody plants.

This product moves through the plant from the point of foliage contact to and into the root system. Visible effects on most annual weeds occur within 2 to 4 days but on most perennial brush species may not occur for 7 days or more. Extremely cool or cloudy weather following treatment may slow the activity of this product and delay visual effects of control. Visible effects are a gradual wilting and yellowing of the plant which advances to complete browning of above-ground growth and deterioration of underground plant parts.

Unless otherwise directed on this label, delay application until vegetation has emerged and reached the stages described for control of such vegetation under the "WEEDS CONTROLLED" section of this label. Unemerged plants arising from unattached underground rhizomes or root stocks of perennials or crush will not be affected by the spray and will continue to grow. For this reason best control of most perennial weeds or brush is obtained when treatment is made at late growth stages approaching maturity.

Always use the higher rate of this product per acre within the recommended range when vegetation is heavy or dense.

Do not treat weeds or brush under poor growing conditions such as drought stress, disease or insect damage, as reduced control may result. Reduced results may also occur when treating weeds or brush heavily covered with dust.

Reduced control may result when applications are made to any weed or brush species that have been mowed, grazed or cut, and have not been allowed to regrow to the recommended stage for treatment.

Rainfall or irrigation occurring within 6 hours after application may reduce effectiveness. Heavy rainfall or irrigation within 2 hours after application may wash the product off the foliage and a repeat treatment may be required.

When this product comes in contact with soil (on the soil surface or as suspended soil or sediment in water) it is bound to soil particles. Under recommended use situations, once this product is bound to soil particles, it is not available for plant uptake and will not harm off-site vegetation where roots grow into the treatment area or if the soil is transported off-site. Under recommended use conditions, the strong affinity of this product to soil particles prevents this product from leaching out of the soil profile and entering ground water. The affinity between this product and soil particles remains until this product is degraded, which is primarily a biological degradation process carried out under both aerobic and anaerobic conditions by soil micro flora.

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This product does not provide residual weed control. For subsequent residual weed control, follow a label-approved herbicide program. Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used.

Read **"WARRANTY"** before buying or using. If items are not acceptable, return at once unopened. Buyer and all users are responsible for all loss or damage in connection with the use of handling of mixtures of this product or other materials that are not expressly recommended in this label. Mixing this product with herbicides or other materials not recommended in this label may result in reduced performance.

For more product information, call toll-free 1-800-852-5234.

ATTENTION

AVOID CONTACT WITH FOLIAGE, GREEN STEMS, EXPOSED NON-WOODY ROOTS, OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES, SINCE SEVERE INJURY OR DESTRUCTION MAY RESULT. AVOID DRIFT. EXTREME CARE MUST BE USED WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS.

Do not allow the herbicide solution to mist, drip, drift or splash onto desirable vegetation since minute quantities of this product can cause severe damage or destruction to the crop, plants or other areas on which treatment was not intended. The likelihood of plant or crop injury occurring from the use of this product is greatest when winds are gusty or in excess of 5 miles per hour or when other conditions, including lesser wind velocities, will allow spray drift to occur. When spraying, avoid combinations of pressure and nozzle type that will result in splatter or fine particles (mist) which are likely to drift. AVOID APPLYING AT EXCESSIVE SPEED OR PRESSURE.

NOTE: Use of this product in any manner not consistent with this label may result in injury to persons, animals or crops, or other unintended consequences. When not in use, keep container closed to prevent spills and contamination.

MIXING AND APPLICATION INSTRUCTIONS

APPLY THESE SPRAY SOLUTIONS IN PROPERLY MAINTAINED AND CALIBRATED EQUIPMENT CAPABLE OF DELIVERING DESIRED VOLUMES. HAND-GUN APPLICATIONS SHOULD BE PROPERLY DIRECTED TO AVOID SPRAYING DESIRABLE PLANTS. NOTE: REDUCED RESULTS MAY OCCUR IF WATER CONTAINING SOIL IS USED, SUCH AS WATER FROM PONDS AND UNLINED DITCHES.

MIXING

This product mixes readily with water. Mix spray solutions of this product as follows: fill the mixing or spray tank with the required amount of water while adding the required amount of this product (see "DIRECTIONS FOR USE" and "WEEDS CONTROLLED" sections of this label). Near the end of the filling process, add the required surfactant and mix well. Remove hose from tank immediately after filling to avoid siphoning back into the water source. During mixing and application, foaming of the spray solution may occur. To prevent or minimize foam, avoid the use of mechanical agitators, place the filling hose below the surface of the spray solution, terminate by-pass and return lines at the bottom of the tank and if needed use an approved anti-foam or defoaming agent.

Keep by-pass line on or near bottom of tank to minimize foaming. Screen size in nozzle or line strainers should be no finer than 50 mesh. Carefully select correct nozzle to avoid spraying a fine mist. For best results with conventional ground application equipment, use flat fan nozzles. Check for even distribution of spray droplets.

When using this product, mix 2 or more quarts of a nonionic surfactant per 100 gallons of spray solution. Use a nonionic surfactant labeled for use with herbicides. The surfactant must contain 50 percent or more active ingredient.

Always read and follow the manufacturer's surfactant label recommendations for best results.

These surfactants should not be used in excess of 1 quart per acre when making broadcast applications.

Colorants or marking dyes approved for use with herbicides may be added to spray mixtures of this product. Colorants or dyes used in spray solutions of this product may reduce performance, especially at lower rates or dilutions. Use colorants or dyes according to the manufacturer's label recommendations.

Clean sprayer and parts immediately after using this product by thoroughly flushing with water and dispose of rinsate according to labeled use or disposal instructions.

Carefully observe all cautionary statements and other information appearing in the surfactant label.

APPLICATION EQUIPMENT AND TECHNIQUES

AERIAL EQUIPMENT

Use the recommended rates of this product and surfactant in 3 to 20 gallons of water per acre as a broadcast spray, unless otherwise specified. See the "WEEDS CONTROLLED" section of this label for specific rates. Aerial applications of this product may only be made as specifically recommended in this label.

AVOID DRIFT - DO NOT APPLY DURING INVERSION CONDITIONS, WHEN WINDS ARE GUSTY OR UNDER ANY OTHER CONDITION WHICH WILL ALLOW DRIFT. DRIFT MAY CAUSE DAMAGE TO ANY VEGETATION CONTACTED TO WHICH TREATMENT IS NOT INTENDED. TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, APPROPRIATE BUFFER ZONES MUST BE MAINTAINED.

Coarse sprays are less likely to drift; therefore, do not use nozzles or nozzle configurations which dispense spray as fine spray droplets. Do not angle nozzles forward into the airstream and do not increase spray volume by increasing nozzle pressure above the manufacturer's recommendations.

Drift control additives may be used. When a drift control additive is used, read and carefully observe the cautionary statements and all other information appearing in the additive label.

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Ensure uniform application - To avoid streaked, uneven or overlapped application, use appropriate marking devices.

Thoroughly wash aircraft, especially landing gear, after each day of spraying to remove residues of this product accumulated during spraying or from spills. PROLONGED EXPOSURE OF THIS PRODUCT TO UNCOATED STEEL SURFACES MAY RESULT IN CORROSION AND POSSIBLE FAILURE OF THE PART. LANDING GEAR ARE MOST SUSCEPTIBLE. The maintenance of an organic coating (paint) which meets aerospace specification MIL-C-38413 may prevent corrosion.

For use of this product by air in California see additional instructions below (page 5).

SPRAY DRIFT MANAGEMENT

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions. The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

1. The distance of the outer most nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees. Where states have more stringent regulations, they should be observed.

The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory Information.

Importance of Droplet Size

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see Wind, Temperature and Humidity, and Temperature Inversion section of this label).

Controlling Droplet Size

Volume-Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.

Pressure-Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy protection. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.

Number of nozzles-Use the minimum number of nozzles that provide uniform coverage.

Nozzle Orientation-Orienting nozzles so that the spray is released backwards, parallel to the airstream will produce larger droplets than other orientations. Significant deflection from the horizontal will reduce droplet size and increase drift potential.

Nozzle Type-Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce larger droplets than other nozzle types.

Boom Length-For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.

Application-Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

Swath Adjustment

When applications are made with a cross-wind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.).

Wind

Drift potential is lowest between wind speeds of 2 to 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. Note: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect drift.

Temperature And Humidity

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

Temperature Inversions

Applications should not occur during a temperature inversion, because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun set and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a connected cloud (under low wind conditions) indicates an inversion, while smoke that moves upwards and rapidly dissipates indicates good vertical air mixing.

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Sensitive Areas
The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive areas).

FOR AERIAL APPLICATION IN CALIFORNIA ONLY

EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF SPRAY WITH FOLIAGE, GREEN STEMS, OR FRUIT OF DESIRABLE CROPS, PLANTS, TREES, OR OTHER DESIRABLE VEGETATION SINCE SEVERE DAMAGE OR DESTRUCTION MAY RESULT.

Aquatic and Other Noncrop Sites
When applied as directed and under the conditions described in the "Weeds Controlled" section of the label booklet for this product, this herbicide will control or partially control the labeled weeds growing in the following industrial, recreational and public areas, or other similar sites.

Aquatic Sites-including all bodies of fresh and brackish water which may be flowing, nonflowing or transient. This includes lakes, rivers, streams, ponds, seeps, irrigation and drainage ditches, canals, reservoirs, estuaries and similar sites.

If aquatic sites are present in the noncrop areas and are part of the intended treatment, read and observe the following directions:

There is no limit on the use of treated water for irrigation, recreation or domestic purposes.

Consult local state fish and game agency and water control authorities before applying this product to public water. Permits may be required to treat such water.

NOTE: Do not apply this product within 1/2 mile upstream of an active potable water intake in flowing water (i.e., river, stream, etc.) or within 1/2 mile of an active potable water intake in a standing body of water such as a lake, pond or reservoir. To make aquatic applications around and within 1/2 mile of active potable water intakes, the water intake must be turned off for a minimum period of 48 hours after the application. The water intake may be turned on prior to 48 hours if the glyphosate level in the intake water is below 0.7 parts per million as determined by laboratory analysis. These aquatic applications may be made ONLY in those cases where there are alternative water sources or holding ponds which would permit the turning off of an active potable water intake for a minimum period of 48 hours after application.

This product does not control plants which are completely submerged or have a majority of their foliage underwater.

AVOID DRIFT - DO NOT APPLY WHEN WINDS ARE GUSTY OR UNDER ANY OTHER CONDITION WHICH WILL ALLOW DRIFT. DRIFT MAY CAUSE DAMAGE TO ANY VEGETATION CONTACTED TO WHICH TREATMENT IS NOT INTENDED. TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, APPROPRIATE BUFFER ZONES MUST BE MAINTAINED.

Use the following guidelines when aerial applications are made near crops or desirable perennial vegetation after bud break and before total leaf drop, and/or near other desirable vegetation or annual crops.

1. Do not apply within 100 feet of all desirable vegetation or crop(s).
2. If wind up to 5 miles per hour is blowing toward desirable vegetation or crop(s), do not apply within 500 feet of the desirable vegetation or crop(s).
3. Winds blowing from 5 to 10 miles per hour toward desirable vegetation or crop(s) may require buffer zones in excess of 500 feet.
4. Do not apply when winds are in excess of 10 miles per hour or when inversion conditions exist.

FOR AERIAL APPLICATION IN FRESNO COUNTY, CALIFORNIA ONLY
From February 15 through March 31 only. For aerial application outside of these dates, refer to the "FOR AERIAL APPLICATION IN CALIFORNIA ONLY" section printed above.

APPLICABLE AREA
This supplement only applies to the area contained inside the following boundaries within
Fresno County, California only.
North: Fresno County line
South: Fresno County line
East: State Highway 99
West: Fresno County line

GENERAL INFORMATION

Observe the following directions to minimize off-site movement during aerial application of this herbicide. Minimization of off-site movement is the responsibility of the grower, Pest Control Advisor, and aerial applicator.

Written Recommendations
A written recommendation MUST be submitted by or on behalf of the applicator to the Fresno County Agricultural Commissioner 24 hours prior to the application. This written recommendation MUST state the proximity of surrounding crops, and that conditions of each manufacturer's applicable product label(s) and this label have been satisfied.

Aerial Applicator Training and Equipment
Aerial application of this herbicide is limited to pilots who have successfully completed a Fresno County Agricultural Commissioner

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and California Department of Pesticide Regulation approved training program for aerial application of herbicides. All aircraft must be inspected, critiqued in flight, and certified at a Fresno County Agricultural Commissioner approved fly-in. Test and calibrate spray equipment at intervals sufficient to insure that proper rates of herbicides and adjuvants are being applied during commercial use. Applicator must document such calibrations and testing. Demonstration of performance at Fresno County Agricultural Commissioner approved "fly-ins" constitutes such documentation, or other written records showing calculations and measurements of flight and spray parameters acceptable to the Fresno County Agricultural Commissioner.

Application at night

Do not apply this product by air earlier than 30 minutes prior to sunrise and/or later than 30 minutes after sunset without prior permission from the Fresno County Agricultural Commissioner.

BOOM EQUIPMENT

For control of weed or brush species listed in this label using conventional boom equipment - Use the recommended rates of this product and surfactant in 3 to 30 gallons of water per acre as a broadcast spray, unless otherwise specified. See the "WEEDS CONTROLLED" section of this label for specific rates. AS density of vegetation increases, spray volume should be increased within the recommended range to ensure complete coverage. Carefully select correct nozzle to avoid spraying a fine mist. For best results with ground application equipment, use flat fan nozzles. Check for even distribution of spray droplets.

HAND-HELD and HIGH-VOLUME EQUIPMENT

Use Coarse Sprays Only

For control of weeds listed in this label using knapsack sprayers or high-volume spraying equipment utilizing handguns or other suitable nozzle arrangements - Prepare a 3/4 to 2 percent solution of this product in water, add a nonionic surfactant and apply to foliage of vegetation to be controlled. For specific rates of application and instructions for control of various annual and perennial weeds, see the "WEEDS CONTROLLED" section in this label.

Applications should be made on a spray-to-wet basis. Spray coverage should be uniform and complete. Do not spray to point of runoff.

This product may be used as a 5 to 8 percent solution for low-volume directed sprays for spot treatment of trees and brush. It is most effective in areas where there is a low density of undesirable trees or brush. If a straight stream nozzle is used, start the application at the top of the targeted vegetation and spray from top to bottom in a lateral zig-zag motion. Ensure that at least 50 percent of the leaves are contacted by the spray solution. For flat fan and cone nozzles and with hand-directed mist blowers, mist the application over the foliage of the targeted vegetation. Small, open-branched trees need only be treated from one side. If the foliage is thick or there are multiple root sprouts, applications must be made from several sides to ensure adequate spray coverage.

Prepare the desired volume of spray solution by mixing the amount of this product in water, shown in the following table:

Spray Solution

	AMOUNT OF AQUANEAT AQUATIC HERBICIDE					
DESIRED VOLUME	**3/4%**	**1%**	**1-1/4%**	**1-1/2%**	**5%**	**8%**
1 Gal.	1 oz.	1-1/3 oz.	1-2/3 oz.	2 oz.	6 oz.	10-1/4 oz.
25 Gal.	1-1/2 pt.	1 qt.	1-1/4 qt.	1-1/2 qt.	5 qt.	2 gal.
100 Gal.	3 qt.	1 gal.	1-1/4 gal.	1-1/2 gal.	5 gal.	8 gal.

2 tablespoons = 1 fluid ounce

For use in knapsack sprayers, it is suggested that the recommended amount of this product be mixed with water in a larger container. Fill sprayer with the mixed solution and add the correct amount of surfactant.

WEEDS CONTROLLED

ANNUAL WEEDS

Apply to actively growing annual grasses and broadleaf weeds.

Allow at least 3 days after application before disturbing treated vegetation. After this period the weeds may be mowed, tilled or burned. See "DIRECTIONS FOR USE", "GENERAL INFORMATION" and "MIXING AND APPLICATION INSTRUCTIONS" for labeled uses and specific application instructions.

Broadcast Application - Use 1-1/2 pints of this product per acre plus 2 or more quarts of a nonionic surfactant per 100 gallons of spray solution if weeds are less than 6 inches tall. If weeds are greater than 6 inches tall, use 2-1/2 pints of this product per acre plus 2 or more quarts of an approved nonionic surfactant per 100 gallons of spray solution.

Hand-Held, High-Volume Application - Use a 3/4 percent solution of this product in water plus 2 or more quarts of a nonionic surfactant per 100 gallons of spray solution and apply to foliage of vegetation to be controlled.

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When applied as directed under the conditions described in this label, this product plus nonionic surfactant WILL CONTROL the following ANNUAL WEEDS:

Balsamapple**
Momordica charantia
Barley
Hordeum vulgare
Barnyardgrass
Echinlochloa crus-galli
Bassia, fivehook
Bassia hyssopifolia
Bluegrass, annual
Poa annua
Bluegrass, bulbous
Poa bulbosa
Brome
Bromus spp.
Buttercup
Ranunculus spp.
Cheat
Bromus secalinus
Chickweed, mouseear
Cerastium vulgatum
Cocklebur
Xanthium strumarium
Corn, volunteer
Zea mays
Crabgrass
Digitaria spp.
Dwarfdandelion
Krigia cespitosa
Falseflax, smallseed
Camelina microcarpa
Fiddleneck
Amsinckia spp.
Flaxleaf fleabane
Conyza bonariensis
Fleabane
Erigeron spp.
Foxtail
Setaria spp.
Foxtail, Carolina
Alopecurus carolinianus
Grounsel, common
Senecio vulgaris
Horseweed/Marestail
Conyza canadensis
Kochia
Kochia scoparia
Lambsquarters, common
Chenopodium album
Lettuce, prickly
Lactuca serriola
Morningglory
Ipomoea spp.
Mustard, blue
Chorispora tenella
Mustard, tansy
Descurainia pinnata
Mustard, tumble
Sisymbrium altissimum
Mustard, wild
Sinapis arvensis
Oats, wild
Avena fatua
Panicum
Panicum spp.
Pennycress, field
Thlaspi arvense
Pigweed, redroot
Amaranthus retroflexus
Pigweed, smooth
Amaranthus hybridus
Ragweed, common
Ambrosia artemisiifolia
Ragweed, giant
Ambrosia trifida
Rocket, London
Sisymbrium irio
Rye
Secale cereale
Ryegrass, Italian*
Lolium multiflorum
Sandbur, field
Cenchrus spp.
Shattercane
Sorghum bicolor
Shepherd's-purse
Capsella bursa-pastoris
Signalgrass, broadleaf
Brachiaria platyphylla
Smartweed, Pennsylvania
Polygonum pensylvanicum
Sowthistle, annual
Sonchus oleraceus
Spanishneedles*
Bidens bipinnata
Spurry, umbrella
Holosteum umbellatum
Stinkgrass
Eragrostis cilianensis
Sunflower
Helianthus annus
Thistle, Russian
Salsola kali
Velvetleaf
Abutilon theophrasti
Wheat
Triticum aestivum
Witchgrass
Panicum capillare

*Apply 3 pints of this product per acre.
**Apply with hand-held equipment only.

Annual weeds will generally continue to germinate from seed throughout the growing season. Repeat treatments will be necessary to control later germinating weeds.

PERENNIAL WEEDS

Apply this product as follows to control or destroy most vigorously growing perennial weeds. Unless otherwise directed, allow at least 7 days after application before disturbing vegetation.

Add 2 or more quarts of a nonionic surfactant per 100 gallons of spray solution to the rates of this product given in this list. See the "GENERAL INFORMATION", "DIRECTIONS FOR USE" and "MIXING AND APPLICATION" sections in this label for specific uses and application instructions.

NOTE: If weeds have been mowed or tilled, do not treat until regrowth has reached the recommended stages. Fall treatments must be applied before a killing frost.

Repeat treatments may be necessary to control weeds regenerating from underground parts or seed.

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When applied as recommended under the conditions described, this product plus surfactant WILL CONTROL the following PERENNIAL WEEDS:

Alfalfa
Medicago sativa
Alligatorweed*
Alternanthera philoxeroides
Anise/Fennel
Foeniculum culgare
Artichoke, Jerusalem
Helianthus tuberosus
Bahiagrass
Paspalum notatum
Bermudagrass
Cynodon dactylon
Bindweed, field
Convolvulus arvensis
Bluegrass, Kentucky
Poa pratensis
Blueweed, Texas
Helianthus ciliaris
Brackenfern
Pteridium spp.
Bromegrass, smooth
Bromus inermis
Canarygrass, reed
Phalaris arundinacea
Cattail
Typha spp.
Clover, red
Trifolium pratense
Clover, white
Trifolium repens
Cogongrass
Imperata clylindrica
Cordgrass
Spartina spp.
Cutgrass, giant*
Zizaniopsis miliacea
Dallisgrass
Paspalum dilatatum
Dandelion
Taraxacum officinale
Dock, curly
Rumex crispus
Dogbane, hemp
Apocynum cannabinum
Fescue
Festuca spp.
Fescue, tall
Festuca arundinacea
Guineagrass
Panicum maximum
Hemlock, poison
Conium maculatum
Horsenettle
Solanum carolinense
Horseradish
Armoracia rusticana
Ice Plant
Mesembryanthemum crystallinum
Johnsongrass
Sorghum halepense
Kikuyugrass
Pennisetum clandestinum
Knapweed
Centaurea repens
Lantana
Lantana camara
Lespedeza: common, sericea
Lespedeza striata
Lespedeza cuneata
Loosestrife, purple
Lythrum salicaria
Lotus, American
Nelumbo lutea
Maidencane
Panicum hematomon
Milkweed
Asclepias spp.
Muhly, wirestem
Muhlenbergia frondosa
Mullein, common
Verbascum thapsus
Napiergrass
Pennisetum purpureum
Nightshade, silverleaf
Solanum elaeagnifolium
Nutsedge: purple, yellow
Cyperus rotundus
Cyperus esculentus
Orchardgrass
Dactylis glomerata
Pampasgrass
Cortaderia jubata
Paragrass
Brachiaria mutica
Phragmites**
Phragmites spp.
Quackgrass
Agropyron repens
Reed, giant
Arundo donax
Ryegrass, perennial
Lolium perenne
Smartweed, swamp
Polygonum coccineum
Spatterdock
Nuphar luteum
Starthistle, yellow
Centaurea solstitialis
Sweet potato, wild*
Ipomoea pandurata
Thistle, artichoke
Cynara cardunculus
Thistle, Canada
Cirsium arvense
Timothy
Phleum pratense
Torpedograss*
Panicum repens
Tules, common
Scirpus acutus
Vaseygrass
Paspalum urvillei
Velvetgrass
Holcus spp.
Waterhyacinth
Eichornia crassipes
Waterlettuce
Pistia stratiotes
Waterprimrose
Ludwigia spp.
Wheatgrass, western
Agropyron smithii

*Partial control.

**Partial control in southeastern states. See specific recommendations below.

Alligatorweed - Apply 6 pints of this product per acre as a broadcast spray or as a 1-1/4 percent solution with hand-held equipment to provide partial control of alligatorweed. Apply when most of the target plants are in bloom. Repeat applications will be required to maintain such control.

Bermudagrass - Apply 7-1/2 pints of this product per acre as a broadcast spray or as a 1-1/2 percent solution with hand-held equipment. Apply when target plants are actively growing and when seedheads appear.

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Bindweed, field/Silverleaf Nightshade/Texas Blueweed - Apply 6 to 7-1/2 pints of this product per acre as a broadcast spray west of the Mississippi River and 4-1/2 to 6 pints of this product per acre east of the Mississippi River. With hand-held equipment, use a 1-1/2 percent solution. Apply when target plants are actively growing and are at or beyond full bloom. For silverleaf nightshade, best results can be obtained when application is made after berries are formed. Do not treat when weeds are under drought stress. New leaf development indicates active growth. For best results apply in late summer or fall.

Brackenfern - Apply 4-1/2 to 6 pints of this product per acre as a broadcast spray or as a 3/4 to 1 percent solution with hand-held equipment. Apply to fully expanded fronds which are at least 18 inches long.

Cattail - Apply 4-1/2 to 6 pints of this product per acre as a broadcast spray or as a 3/4 percent solution with hand-held equipment. Apply when target plants are actively growing and are at or beyond the early-to-full bloom stage of growth. Best results are achieved when application is made during the summer or fall months.

Cogongrass - Apply 4-1/2 to 7-1/2 pints of this product per acre as a broadcast spray. Apply when cogongrass is at least 18 inches tall and actively growing in late summer or fall. Allow 7 or more days after application before tillage or mowing. Due to uneven stages of growth and the dense nature of vegetation preventing good spray coverage, repeat treatments may be necessary to maintain control.

Cordgrass - Apply 4-1/2 to 7-1/2 pints of this product per acre as a broadcast spray or as a 1 to 2 percent solution with hand-held equipment. Schedule applications in order to allow 6 hours before treated plants are covered by tidewater. The presence of debris and silt on the cordgrass plants will reduce performance. It may be necessary to wash targeted plants prior to application to improve uptake of this product into the plant.

Cutgrass, giant - Apply 6 pints of this product per acre as a broadcast spray or as a 1 percent solution with hand-held equipment to provide partial control of giant cutgrass. Repeat applications will be required to maintain such control, especially where vegetation is partially submerged in water. Allow for substantial regrowth to the 7- to 10-leaf stage prior to retreatment.

Dogbane, hemp/Knapweed/Horseradish - Apply 6 pints of this product per acre as a broadcast spray or as a 1-1/2 percent solution with hand-held equipment. Apply when target plants are actively growing and most have reached the late bud-to-flower stage of growth. For best results, apply in late summer or fall.

Fescue, tall - Apply 4-1/2 pints of this product per acre as a broadcast spray or as a 1 percent solution with hand-held equipment. Apply when target plants are actively growing and most have reached the boot-to-head stage of growth. When applied prior to the boot stage, less desirable control may be obtained.

Guineagrass - Apply 4-1/2 pints of this product per acre as a broadcast spray or as a 3/4 percent solution with hand-held equipment. Apply when target plants are actively growing and when most have reached at least the 7-leaf stage of growth.

Johnsongrass/Bluegrass, Kentucky/Bromegrass, smooth/Canarygrass, reed/Orchardgrass/Ryegrass, perennial/Timothy/Wheatgrass, western - Apply 3 to 4-1/2 pints of this product per acre as a broadcast spray or as a 3/4 percent solution with hand-held equipment. Apply when target plants are actively growing and most have reached the boot-to-head stage of growth. When applied prior to the boot stage, less desirable control may be obtained. In the fall, apply before plants have turned brown.

Lantana - Apply this product as a 3/4 to 1 percent solution with hand-held equipment. Apply to actively growing Lantana at or beyond the bloom stage of growth. Use the higher application rate for plants that have reached the woody stage of growth.

Loosestrife, purple - Apply 4 pints of this product per acre as a broadcast spray or as a 1 to 1-1/2 percent solution using hand-held equipment. Treat when plants are actively growing at or beyond the bloom stage of growth. Best results are achieved when application is made during summer or fall months. Fall treatments must be applied before a killing frost.

Lotus, American - Apply 4 pints of this product per acre as a broadcast spray or as a 3/4 percent solution with hand-held equipment. Treat when plants are actively growing at or beyond the bloom stage of growth. Best results are achieved when application is made during summer or fall months. Fall treatments must be applied before a killing frost. Repeat treatment may be necessary to control regrowth from underground parts and seeds.

Maidencane/Paragrass - Apply 6 pints of this product per acre as a broadcast spray or as a 3/4 percent solution with hand-held equipment. Repeat treatments will be required, especially to vegetation partially submerged in water. Under these conditions, allow for regrowth to the 7- to 10-leaf stage prior to retreatment.

Milkweed, common - Apply 4-1/2 pints of this product per acre as a broadcast spray or as a 1-1/2 percent solution with hand-held equipment. Apply when target plants are actively growing and most have reached the late bud-to-flower stage of growth.

Nutsedge: purple, yellow - Apply 4-1/2 pints of this product per acre as a broadcast spray, or as a 3/4 percent solution with hand-held equipment to control existing nutsedge plants and immature nutlets attached to treated plants. Apply when target plants are in flower or when new nutlets can be found at rhizome tips. Nutlets which have not germinated will not be controlled and may germinate following treatment. Repeat treatments will be required for long-term control.

Pampasgrass - Apply a 1-1/2 percent solution of this product with hand-held equipment when plants are actively growing.

Phragmites - For partial control of phragmites in Florida and the counties of other states bordering the Gulf of Mexico, apply 7-1/2 pints per acre as a broadcast spray or apply a 1-1/2 percent solution with hand-held equipment. In other areas of the U.S., apply 4 to 6 pints per acre as a broadcast spray or apply a 3/4 percent solution with hand-held equipment for partial control. For best results, treat during late summer or fall months when plants are actively growing and in full bloom. Due to the dense nature of the vegetation,

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which may prevent good spray coverage and uneven stages of growth, repeat treatments may be necessary to maintain control. Visual control symptoms will be slow to develop.

Quackgrass/Kikuyugrass/Muhly, wirestem - Apply 3 to 4-1/2 pints of this product per acre as a broadcast spray or as a 3/4 percent solution with hand-held equipment when most quackgrass or wirestem muhly is at least 8 inches in height (3 to 4-leaf stage of growth) and actively growing. Allow 3 or more days after application before tillage.

Reed, giant/Ice plant - For control of giant reed and ice plant, apply a 1-1/2 percent solution of this product with hand-held equipment when plants are actively growing. For giant reed, best results are obtained when applications are made in late summer to fall.

Spatterdock - Apply 6 pints of this product per acre as a broadcast spray or as a 3/4 percent solution with hand-held equipment. Apply when most plants are in full bloom. For best results, apply during the summer or fall months.

Sweet potato, wild - Apply this product as a 1-1/2 percent solution using hand-held equipment. Apply to actively growing weeds that are at or beyond the bloom stage of growth. Repeat applications will be required. Allow the plant to reach the recommended stage of growth before retreatment.

Thistle: Canada, artichoke - Apply 3 to 4-1/2 pints of this product per acre as a broadcast spray or as a 1-1/2 percent solution with hand-held equipment for Canada thistle. To control artichoke thistle, apply a 2 percent solution as a spray to wet application. Apply when target plants are actively growing and are at or beyond the bud stage of growth.

Torpedograss - Apply 6 to 7-1/2 pints of this product per acre as a broadcast spray or as a 3/4 to 1-1/2 percent solution with hand-held equipment to provide partial control of torpedograss. Use the lower rates under terrestrial conditions, and the higher rates under partially submerged or a floating mat condition. Repeat treatments will be required to maintain such control.

Tules, common - Apply this product as a 1-1/2 percent solution with hand-held equipment. Apply to actively growing plants at or beyond the seedhead stage of growth. After application, visual symptoms will be slow to appear and may not occur for 3 or more weeks.

Waterhyacinth - Apply 5 to 6 pints of this product per acre as a broadcast spray or apply a 3/4 to 1 percent solution with hand-held equipment. Apply when target plants are actively growing and at or beyond the early bloom stage of growth. After application, visual symptoms may require 3 or more weeks to appear with complete necrosis and decomposition usually occurring within 60 to 90 days. Use the higher rates when more rapid visual effects are desired.

Waterlettuce - For control, apply a 3/4 to 1 percent solution using hand-held equipment to actively growing plants. Use higher rates where infestations are heavy. Best results are obtained from mid-summer through winter applications. Spring applications may require retreatment.

Waterprimrose - Apply this product as a 3/4 percent solution using hand-held equipment. Apply to plants that are actively growing at or beyond the bloom stage of growth, but before fall color changes occur. Thorough coverage is necessary for best control.

Other perennials listed on this label - Apply 4-1/2 to 7-1/2 pints of this product per acre as a broadcast spray or as a 3/4 to 1-1/2 percent solution with hand-held equipment. Apply when target plants are actively growing and most have reached early head or early bud stage of growth.

WOODY BRUSH AND TREES

When applied as recommended under the conditions described, this product plus surfactant CONTROLS or PARTIALLY CONTROLS the following woody brush plants and trees:

Alder
Alnus spp.
Ash*
Fraxinus spp.
Aspen, quaking
Populus tremuloides
Bearclover, Bearmat
Chamaebatia foliolosa
Birch
Betula spp.
Blackberry
Rubus spp.
Broom:
French
Cytisus monspessulanus
Scotch
Cytisus scoparius
Buckwheat, California*
Eriogonum fasciculatum
Cascara*
Rhamnus purshiana
Catsclaw*
Acacia greggi
Ceanothus
Ceanothus spp.
Chamise
Adenostoma fasciculatum
Cherry:
Bitter
Prunus emarginata
Black
Prunus serotina
Pin
Prunus pensylvanica
Coyote brush
Bacharis consanguinea
Creeper, Virginia*
Parthenocissus quinquefolia
Dewberry
Rubus trivialis
Dogwood
Cornus spp.
Elderberry
Sambucus spp.
Elm*
Ulmus spp.
Eucalyptus, bluegum
Eucalyptus globulus
Hasardia*
Haplopappus squamosus
Hawthorn
Crataegus spp.
Hazel
Corylus spp.
Hickory
Carya spp.
Holly, Florida; Brazilian Peppertree
Schinus terebinthifolius
Honeysuckle
Lonicera spp.
Hornbeam, American
Carpinus caroliniana

(continued)

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WOODY BRUSH AND TREES *(continued)*

Kudzu
Pueraria lobata
Locust, black*
Robinia pseudoacacia
Manzanita
Arctostaphylos spp
Maple:
Red**
Acer rubrum
Sugar
Acer saccharum
Vine*
Acer circinatum
Monkey Flower*
Mimulus guttatus
Oak:
Black*
Quercus velutina
Northern pine
Quercus palustris
Post
Quercus stellata
Red
Quercus rubra
Southern red
Quercus falcata
White*
Quercus alba
Persimmon*
Diospyros spp.
Poison Ivy
Rhus radicans
Poison Oak
Rhus toxicodendron
Poplar, yellow*
Liriodendron tulipifera
Prunus
Prunus spp.
Raspberry
Rubus spp.
Redbud, eastern
Cercis canadensis
Rose, multiflora
Rosa multiflora
Russian-olive
Elaeagnus angustifolia
Sage: black, white
Salvia spp.
Sagebrush, California
Artemisia californica
Salmonberry
Rubus spectabilis
Salt cedar*
Tamarix spp.
Saltbush, Sea myrtle
Baccharis halimifolia
Sassafras
Sassafras albidum
Sourwood*
Oxdendrum arboreum
Sumac:
Poison*
Rhus vernix
Smooth*
Rhus glabra
Winged*
Phus copallina
Sweet gum
Liquidambar styraciflua
Swordfern*
Polystichum munitum
Tallowtree, Chinese
Sapium sebiferum
Thimbleberry
Rubus parviflorus
Tobacco, tree*
Nicotiana glauca
Trumpetcreeper
Campsis radicans
Waxmyrtle, southern*
Myrica cerifera
Willow
Salix spp.

*Partial control
**See below for control or partial control instruction.

NOTE: If brush has been mowed or tilled or trees have been cut, do not treat until regrowth has reached the recommended stage of growth.

Apply the recommended rate of this product plus 2 or more quarts of a nonionic surfactant per 100 gallons of spray solution when plants are actively growing and, unless otherwise directed, after full-leaf expansion. Use the higher rate for larger plants and/or dense areas of growth. On vines, use the higher rate for plants that have reached the woody stage of growth. Best results are obtained when application is made in late summer or fall after fruit formation.

In arid areas, best results are obtained when application is made in the spring or early summer when brush species are at high moisture content and are flowering. Ensure thorough coverage when using hand-held equipment. Symptoms may not appear prior to frost or senescence with fall treatments.

Allow 7 or more days after application before tillage, mowing or removal. Repeat treatments may be necessary to control plants regenerating from underground parts or seed. Some autumn colors on undesirable deciduous species are acceptable provided no major leaf drop has occurred. Reduced performance may result if fall treatments are made following a frost.

See the "DIRECTIONS FOR USE" and "MIXING AND APPLICATION INSTRUCTIONS" sections in this label for labeled use and specific application instructions.

Applied as a 5 to 8 percent solution as a directed application as described in the "HAND-HELD AND HIGH-VOLUME EQUIPMENT" section, this product will control or partially control all species listed in this section of this label. Use the higher rate of application for dense stands and larger woody brush and trees.

Apply the product as follows to control or partially control the following woody brush and trees.

Alder/Blackberry/Dewberry/Honeysuckle/Oak,Post/Raspberry - For control, apply 4-1/2 to 6 pints per acre as a broadcast spray or as a 3/4 to 1-1/4 percent solution with hand-held equipment.

Aspen,Quaking/Hawthorn/Trumpetcreeper - For control, apply 3 to 4-1/4 pints of this product per acre as a broadcast spray or as a 3/4 to 1-1/4 percent solution with hand-held equipment.

Birch/Elderberry/Hazel/Salmonberry/Thimbleberry - For control, apply 3 pints per acre of this product as a broadcast spray or as a 3/4 percent solution with hand-held equipment.

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Broom: French, Scotch - For control, apply a 1-1/4 to 1-1/2 percent solution with hand-held equipment.

Buckwheat, California/Hasardia/Monkey Flower/Tobacco, Tree - For partial control of these species apply a 3/4 to 1-1/2 percent solution of this product as a foliar spray with hand-held equipment. Thorough coverage of foliage is necessary for best results.

Catsclaw - For partial control, apply a 1-1/4 to 1-1/2 percent solution with hand-held equipment when at least 50 percent of the new leaves are fully developed.

Cherry: Bitter, Black, Pin/Oak, Southern Red/Sweet Gum/Prunus - For control, apply 3 to 7 -1/2 pints of this product per acre as a broadcast spray or as a 1 to 1-1/2 percent solution with hand-held equipment.

Coyote brush - For control, apply a 1-1/4 to 1-1/2 percent solution with hand-held equipment when at least 50 percent of the new leaves are fully developed.

Dogwood/Hickory/Salt cedar - For partial control, apply a 1 to 2 percent solution of this product with hand-held equipment or 6 to 7-1/2 pints per acre as a broadcast spray.

Eucalyptus, bluegum - For control of eucalyptus resprouts, apply a 1-1/2 percent solution of this product with hand-held equipment when resprouts are 6 to 12-feet tall. Ensure complete coverage. Apply when plants are actively growing. Avoid application to drought-stressed plants.

Holly, Florida/Waxmyrtle, southern - For partial control, apply this product as a 1-1/2 percent solution with hand-held equipment.

Kudzu - For control, apply 6 pints of this product per acre as a broadcast spray or as a 1-1/2 percent solution with hand-held equipment. Repeat applications will be required to maintain control.

Maple, Red - For control, apply as a 3/4 to 1-1/4 percent solution with hand-held equipment when leaves are fully developed. For partial control, apply 2 to 7-1/2 pints of this product per acre as a broadcast spray.

Maple, Sugar/Oak: Northern Pine, Red - For control, apply as a 3/4 to 1-1/4 percent solution with hand-held equipment when at least 50 percent of the new leaves are fully developed.

Poison Ivy/Poison Oak - For control, apply 6 to 7-1/2 pints of this product per acre as a broadcast spray or as a 1-1/2 percent solution with hand-held equipment. Repeat applications may be required to maintain control. Fall treatments must be applied before leaves lose green color.

Rose, multiflora - For control, apply 3 pints of this product per acre as a broadcast spray or as a 1-1/2 percent solution with hand-held equipment. Treatments should be made prior to leaf deterioration by leaf-feeding insects.

Sage, black/Sagebrush, California/Chamise/Tallowtree, Chinese - For control of these species, apply a 3/4 percent solution with hand-held equipment. Thorough coverage of foliage is necessary for best results.

Saltbush, Sea myrtle - For control, apply this product as a 1 percent solution with hand-held equipment.

Willow - For control, apply 4-1/2 pints of this product per acre as a broadcast spray or as a 3/4 percent solution with hand-held equipment.

Other woody brush and trees listed in this label - For partial control, apply 3 to 7-1/2 pints of this product per acre as a broadcast spray or as a 3/4 to 1-1/2 percent solution with hand-held equipment.

AQUATIC AND OTHER NONCROP SITES

When applied as directed and under the conditions described in the "WEEDS CONTROLLED" section in this label, this product will control or partially control the labeled weeds growing in the following industrial, recreational and public areas or other similar aquatic and terrestrial sites.

Aquatic Sites - This product may be applied to emerged weeds in all bodies of fresh and brackish water which may be flowing, non-flowing or transient. This includes lakes, rivers, streams, ponds, estuaries, rice levees, seeps, irrigation and drainage ditches, canals, reservoirs, wastewater treatment facilities, wildlife habitat restoration and management areas, and similar sites.

If aquatic sites are present in the noncrop area and are part of the intended treatment, read and observe the following directions:

This product does not control plants which are completely submerged or have a majority of their foliage under water.

There is no restriction on the use of treated water for irrigation, recreation or domestic purposes.

Consult local state fish and game agency and water control authorities before applying this product to public water. Permits may be required to treat such water.

NOTE: Do not apply this product directly to water within 1/2 mile up-stream of an active potable water intake in flowing water (i.e., river, stream, etc.) or within 1/2 mile of an active potable water intake in a standing body of water such as lake, pond or reservoir. To make aquatic applications around and within 1/2 mile of active potable water intakes, the water intake must be turned off for a minimum period of 48 hours after the application. The water intake may be turned on prior to 48 hours if the glyphosate level in the intake water is below 0.7 parts per million as determined by laboratory analysis. These aquatic applications may be made ONLY in those cases where there are alternative water sources or holding ponds which would permit the turning off of an active potable water intake for a minimum period of 48 hours after the applications. This restriction does not apply to intermittent inadvertent overspray of water in terrestrial use sites.

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For treatments after drawdown of water or in dry ditches, allow 7 or more days after treatment before reintroduction of water to achieve maximum weed control. Apply this product within 1 day after drawdown to ensure application to actively growing weeds.

Floating Mats of vegetation may require retreatment. Avoid wash-off of sprayed foliage by spray boat or recreational boat backwash or by rainfall within 6 hours of application. Do not re-treat within 24 hours following the initial treatment.

Applications made to moving bodies of water must be made while traveling upstream to prevent concentration of this herbicide in water. When making any bankside applications, do not overlap more than 1 foot into open water. Do not spray in bodies of water where weeds do not exist. The maximum application rate of 7-1/2 pints per acre must not be exceeded in any single broadcast application that is being made over water.

When emerged infestations require treatment of the total surface area of impounded water, treating the area in strips may avoid oxygen depletion due to decaying vegetation. Oxygen depletion may result in fish kill.

Other Noncrop-Type Sites - This product may be used to control the listed weeds in terrestrial noncrop sites and/or in aquatic sites within these areas.

Airports
Golf Courses
Habitat Restoration & Management Areas
Highways & Roadsides
Industrial Plant Sites
Lumberyards
Parking Areas
Parks
Petroleum Tank Farms
Pipeline, Power, Telephone & Utility Rights-of-Way
Pumping Installations
Railroads
Schools
Storage Areas
Similar Sites

WILDLIFE HABITAT RESTORATION AND MANAGEMENT AREAS

This product is recommended for the restoration and/or maintenance of native habitat and in wildlife management areas.

Habitat Restoration and Maintenance - When applied as directed, exotic and other undesirable vegetation may be controlled in habitat management areas. Applications may be made to allow recovery of native plant species, to open up water to attract waterfowl, and for similar broad-spectrum vegetation control requirements in habitat management areas. Spot treatments may be made to selectively remove unwanted plants for habitat enhancement. For spot treatments, care should be exercised to keep spray off of desirable plants.

Wildlife Food Plots - This product may be used as site preparation treatment prior to planting wildlife food plots. Apply as directed to control vegetation in the plot area. Any wildlife food species may be planted after applying this product, or native species may be allowed to reinfest the area. If tillage is needed to prepare a seedbed, wait 7 days after applying this product before tilling to allow for maximum effectiveness.

WIPER APPLICATIONS

For wick or wiper applications, mix 1 gallon of this product with 2 gallons of clean water to make a 33 percent solution. Addition of a nonionic surfactant at a rate of 10 percent by volume of total herbicide solution is recommended.

Wiper applications can be used to control or suppress annual and perennial weeds listed on this label. In heavy weed stand, a double application in opposite directions may improve results. See the "WEEDS CONTROLLED" section in this label for recommended timing, growth stage and other instructions for achieving optimum results.

CUT STUMP APPLICATION

Woody vegetation may be controlled by treating freshly cut stumps of trees and resprouts with this product. Apply this product using suitable equipment to ensure coverage of the entire cambium. Cut vegetation close to the soil surface. **Apply a 50 to 100 percent solution of this product to freshly cut surface immediately after cutting.** Delay in applying this product may result in reduced performance. For best results, trees should be cut during periods of active growth and full leaf expansion.

When used according to directions for cut stump application, this product will CONTROL, PARTIALLY CONTROL OR SUPPRESS most woody brush and tree species, some of which are listed below:

Alder
Alnus spp.
Coyote brush*
Baccharis consanguinea
Dogwood*
Cornus spp.
Eucalyptus
Eucalyptus
Hickory*
Carya spp.
Madrone
Arbutus menziesii
Maple*
Acer spp.
Oak
Quercus spp.
Poplar
Populus spp.
Reed, giant
Arundo donax
Salt Cedar
Tamarix spp.
Sweet gum
Liquidambar styraciflua
Sycamore
Platanus occidentalis

*This product is not approved for this use on these species in the State of California.

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INJECTION AND FRILL APPLICATIONS

Woody vegetation may be controlled by injection or frill application of this product. Apply this product using suitable equipment which must penetrate into living tissue. Apply the equivalent of 1 ml of this product per 2 to 3 inches of trunk diameter. This is best achieved by applying 25 to 100 percent concentration of this product either to a continuous frill around the tree or as cuts evenly spaced around the tree below all branches. As tree diameter increases in size, better results are achieved by applying dilute material to a continuous frill or more closely spaced cuttings. Avoid application techniques that allow runoff to occur from frill or cut areas in species that exude sap freely after frills or cutting. In species such as these, make frill or cut at an oblique angle so as to produce a cupping effect and use undiluted material. For best results, applications should be made during periods of active growth and full leaf expansion.

This treatment WILL CONTROL the following woody species:

Oak *Quercus spp.*	**Sweet gum** *Liquidambar styraciflua*
Poplar *Populus spp.*	**Sycamore** *Plantanus occidentalis*

This treatment WILL SUPPRESS the following woody species:

Black gum* *Nyssa sylvatica*	**Hickory** *Carya spp.*
Dogwood *Cornus spp*	**Maple,red** *Acer rubrum*

*This product is not approved for this use on this species in the state of California.

INJECTION METHOD FOR CONTROL OF JAPANESE KNOTWEED *(Polygonum cuspidatum)* & GIANT KNOTWEED *(Polygonum polystachyum)*

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling.

This label must be in the possession of the user at the time of application.

All applicable directions and precautions in the Aquaneat Herbicide label booklet must be followed.

See the "GENERAL INFORMATION" and "MIXING AND APPLICATION INSTRUCTIONS" sections of the Nufarm Aquaneat Herbicide label booklet for essential product performance information.

This product may be used for control of Japanese knotweed and giant knotweed using individual stem treatment. Individual knotweed stems may be treated by injecting up to 5 ml of undiluted Aquaneat directly into the hollow stem just below a node. A hole suitable for injecting the herbicide should be made through both sides of the stem using an awl or other convenient pointed tool about 6 inches above the ground, just below a node. (Nodes are circular thickenings or scars surrounding the stem where leaves are or were previously attached.) The herbicide is then injected into this hole. Each stem of the knotweed plant must be treated.

Aquaneat can be injected using any injection device capable of delivering a 5 ml dose. For convenience and accuracy a hand-operated injection device designed to deliver repeated pre-measured doses from a supply reservoir is recommended. Commercially available dose measuring equipment may be adapted for this purpose. Calibrate the devise to deliver a dose of 5 ml per injection cycle. A sharpened hollow probe for puncturing the stem and delivery of the herbicide can also be integrated into the delivery system.

Restriction: Do not apply more than 7.5 quarts of Aquaneat per acre. At 5 ml per stem, 7.5 quarts is sufficient to treat a maximum of 1420 stems per acre.

RELEASE OF BERMUDAGRASS OR BAHIAGRASS ON NONCROP SITES
RELEASE OF DORMANT BERMUDAGRASS AND BAHIAGRASS

When applied as directed, this product will provide control or suppression of many winter annual weeds and tall fescue for effective release of dormant bermudagrass or bahiagrass. Make applications to dormant bermudagrass or bahiagrass.

For best results on winter annuals, treat when weeds are in an early growth stage (below 6 inches in height) after most have germinated. For best results on tall fescue, treat when fescue is in or beyond the 4 to 6-leaf stage.

WEEDS CONTROLLED

Rate recommendations for control or suppression of winter annuals and tall fescue are listed below.

Apply the recommended rates of this product in 10 to 25 gallons of water per acre plus 2 quarts nonionic surfactant per 100 gallons of total spray volume.

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WEEDS CONTROLLED OR SUPPRESSED*

NOTE: C = Control
S = Suppression

AQUANEAT AQUATIC HERBICIDE (FLUID OZ/ACRE)

WEED SPECIES	6	9	12	18	24	48
Barley, little *Hordeum pusillum*	S	C	C	C	C	C
Bedstraw, catchweed *Galium aparine*	S	C	C	C	C	C
Bluegrass, annual *Poa annua*	S	C	C	C	C	C
Chervil *Chaerophyllum tainturieri*	S	C	C	C	C	C
Chickweed, common *Stellaria media*	S	C	C	C	C	C
Clover, crimson *Trifolium incarnatum*	•	S	S	C	C	C
Clover, large hop *Trifolium campestre*	•	S	S	C	C	C
Speedwell, corn *Veronica arvensis*	S	C	C	C	C	C
Fescue, tall *Festuca arundinacea*	•	•	•	•	S	S
Geranium, Carolina *Geranium carolinianum*	•	•	S	S	C	C
Henbit *Lamium amplexicaule*	•	S	C	C	C	C
Ryegrass, Italian *Ollum multiflorum*	•	•	S	C	C	C
Vetch, common *Vicia sativa*	•	•	S	C	C	C

*These rates apply only to sites where an established competitive turf is present.

RELEASE OF ACTIVELY GROWING BERMUDAGRASS

NOTE: USE ONLY ON SITES WHERE BAHIAGRASS OR BERMUDAGRASS ARE DESIRED FOR GROUND COVER AND SOME TEMPORARY INJURY OR YELLOWING OF THE GRASSES CAN BE TOLERATED.

When applied as directed, this product will aid in the release of bermudagrass by providing control of annual species listed in the "WEEDS CONTROLLED" section in this label, and suppression or partial control of certain perennial weeds.

For control or suppression of those annual species listed in this label, use 3/4 to 2-1/4 pints of this product as a broadcast spray in 10 to 25 gallons of spray solution per acre, plus 2 quarts of a nonionic surfactant per 100 gallons of total spray volume. Use the lower rate when treating annual weeds below 6 inches in height (or length of runner in annual vines). Use the higher rate as size of plants increases or as they approach flower or seedhead formation.

Use the higher rate for partial control or longer-term suppression of the following perennial species. Use lower rates for shorter-term suppression of growth.

Bahiagrass Johnsongrass**
DallisgrassTrumpetcreeper*
Fescue (tall)Vaseygrass

*Suppression at the higher rate only.
**Johnsongrass is controlled at the higher rate.

Use only on well-established bermudagrass. Bermudagrass injury may result from the treatment but regrowth will occur under moist conditions. Repeat applications in the same season are not recommended, since severe injury may result.

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STORAGE AND DISPOSAL

Do not contaminate water, foodstuffs, feed or seed by storage or disposal.

STORAGE: STORE ABOVE 10°F(-12°C) TO KEEP PRODUCTS FROM CRYSTALLIZING. Crystals will settle to the bottom. If allowed to crystallize, place in a warm room 68°F(20°C) for several days to redissolve and shake, roll or agitate to mix well before using.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, state or local procedures.

Emptied container retains vapor and product residue. Observe all label safeguards until container is destroyed.

CONTAINER DISPOSAL: Do not reuse container. Triple rinse container. Then puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

CONTAINER DISPOSAL FOR REFILLABLE CONTAINERS: Close all openings which have been opened during use and replace all caps. Contact Nufarm's Customer Service Department at 1-708/754-3330, to arrange for return of the empty refillable container.

BAHIAGRASS SEEDHEAD AND VEGETATIVE SUPPRESSION

When applied as directed in the "NONCROP SITES" section in this lave, this product will provide significant inhibition of seedhead emergence and will suppress vegetative growth for a period of approximately 45 days with single applications and approximately 120 days with sequential applications.

Apply this product 1 to 2 weeks after full green-up of bahiagrass or after the bahiagrass has been mowed to a uniform height of 3 to 4 inches. Applications must be made prior to seedhead emergence. Apply 5 fluid ounces per acre of this product, plus 2 quarts of an approved nonionic surfactant per 100 gallons of total spray volume in 10 to 25 gallons of water per acre.

Sequential applications of this product plus nonionic surfactant may be made at approximately 45-day intervals to extend the period of seedhead and vegetative growth suppression. For continued vegetative growth suppression, sequential applications must be made prior to seedhead emergence.

Apply no more than 2 sequential applications per year. As a first sequential application, apply 3 fluid ounces of this product per acre plus nonionic surfactant. A second sequential application of 2 to 3 fluid ounces per acre plus nonionic surfactant may be made approximately 45 days after the last application.

ANNUAL GRASS GROWTH SUPPRESSION

For growth suppression of some annual grasses, such as annual ryegrass, wild barley and wild oats growing in coarse turf on roadsides or other industrial areas, apply 3 to 4 ounces of this product in 10 to 40 gallons of spray solution per acre. Mix 2 quarts of a nonionic surfactant per 100 gallons of spray solution. Applications should be made when annual grasses are actively growing and before the seedheads are in the boot stage of development. Treatments made after seedhead emergence may cause injury to the desired grasses.

WARRANTY

Seller warrants that the product conforms to its chemical description and is reasonably fit for the purpose stated on the label when used in accordance with directions under normal conditions of use, but neither this warranty nor any other warranty of merchantability or fitness for a particular purpose, expressed or implied, extends to the use of this product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to seller, and buyer and the limit of liability of any such use. The exclusive remedy of user or buyer and the limit of liability of Nufarm Americas Inc. is the purchase price paid for the quantity of product involved.

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RIVERDALE® AQUA NEAT® AQUATIC HERBICIDE

FOR USE ON EMERGED AQUATIC WEEDS AND BRUSH IN AQUATIC AND OTHER NONCROP SITES

ACTIVE INGREDIENTS:	
Glyphosate, N-(phosphonomethyl)glycine, in the form of its isopropylamine salt*	53.8%
OTHER INGREDIENTS:	46.2%
TOTAL	100.0%

*Contains 648 grams per litre or 5.4 pounds per U.S. gallon of the active ingredient, glyphosate, in the form of its isopropylamine salt. Equivalent to 480 grams per litre or 4 pounds per U.S. gallon of the acid, glyphosate.

KEEP OUT OF REACH OF CHILDREN

CAUTION

SEE ATTACHED BOOKLET FOR ADDITIONAL PRECAUTIONARY STATEMENTS

For Chemical Spill, Leak, Fire, or Exposure, Call CHEMTREC (800) 424-9300. For Medical Emergencies Only, Call (877) 325-1840.

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION

HARMFUL IF INHALED. Avoid breathing spray mist. Remove contaminated clothing and wash clothing before reuse. Wash thoroughly with soap and water after handling.

FIRST AID	
IF INHALED	• Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. • Call a poison control center or doctor for further treatment advice.

HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-877-325-1840 for emergency medical treatment information.

ENVIRONMENTAL HAZARDS

Do not contaminate water when disposing of equipment washwaters. Treatment of aquatic weeds can result in oxygen depletion or loss due to decomposition of dead plants. This oxygen loss can cause fish suffocation.

In case of: SPILL OR LEAK, soak up and remove to a landfill.

PHYSICAL OR CHEMICAL HAZARDS

Spray solutions of this product should be mixed, stored and applied using only stainless steel, aluminum, fiberglass, plastic and plastic-lined steel containers.

DO NOT MIX, STORE OR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS. This product or spray solutions of this product react with such Containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling. READ ENTIRE LABEL BEFORE USING THIS PRODUCT. USE STRICTLY IN ACCORDANCE WITH LABEL PRECAUTIONARY STATEMENTS AND DIRECTIONS.

STORAGE AND DISPOSAL

Do not contaminate water, foodstuffs, feed or seed by storage or disposal.

STORAGE: STORE ABOVE 10°F(-12°C) TO KEEP PRODUCTS FROM CRYSTALLIZING. Crystals will settle to the bottom. If allowed to crystallize, place in a warm room 68°F(20°C) for several days to redissolve and shake, roll or agitate to mix well before using.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, state or local procedures.

Emptied container retains vapor and product residue. Observe all label safeguards until container is destroyed.

CONTAINER DISPOSAL: Do not reuse container. Triple rinse container. Then puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

CONTAINER DISPOSAL FOR REFILLABLE CONTAINERS: Close all openings which have been opened during use and replace all caps. Contact Nufarm's Customer Service Department at 1-708/754-3330, to arrange for return of the empty refillable container.

MANUFACTURED BY
NUFARM AMERICAS INC.
BURR RIDGE, IL 60527-0866

EPA REG. NO. 228-365
EPA EST. NO. 228-IL-1

PULL HERE TO OPEN
PRESS TO RESEAL

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Nufarm

For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident,
Call CHEMTREC Day or Night: 1-800-424-9300.
For Medical Emergencies Only, Call 1-877-325-1840.

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: AquaNeat® Aquatic Herbicide
Synonyms: Isopropylamine Salt of Glyphosate; Glyphosate IPA Salt
EPA Reg. No.: 228-365

Company Name: Nufarm Americas Inc.
150 Harvester Drive, Suite 200
Burr Ridge, IL 60527

Date of Issue: April 5, 2007 **Supersedes:** March 29, 2005
Sections Revised: New or updated information all sections

2. HAZARDS IDENTIFICATION

Emergency Overview:
Appearance and Odor: Colorless viscous solution with little odor.
Warning Statements: Keep out of reach of children. CAUTION. Harmful if inhaled. Avoid breathing spray mist.

Potential Health Effects:
Likely Routes of Exposure: Skin contact and inhalation.
Eye Contact: Slightly irritating based on toxicity studies.
Skin Contact: Slightly toxic and slightly irritating based on toxicity studies.
Ingestion: Slightly toxic based on toxicity studies. No significant adverse health effects are expected to develop if only small amounts (less than a mouthful) are swallowed.
Inhalation: Low inhalation toxicity.
Medical Conditions Aggravated by Exposure: None known

See Section 11: TOXICOLOGICAL INFORMATION for more information.

Potential Environmental Effects:
Available data on similar formulations suggest that this product would be slightly to moderately toxic to aquatic organisms and practically non-toxic to avian species, honeybees and earthworms.

See Section 12: ECOLOGICAL INFORMATION for more information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT	CAS NO.	% BY WEIGHT
Glyphosate, N-(phosphonomethyl) glycine, in the form of its isopropylamine salt	38641-94-0	53.8
Other Ingredients		46.2

4. FIRST AID MEASURES

If Inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.
If in Eyes: Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
If Swallowed: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.
If on Skin: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.

5. FIRE FIGHTING MEASURES

Flash Point: Not applicable due to aqueous formulation
Autoignition Temperature: Not determined **Flammability Limits:** Not determined

Extinguishing Media: In case of fire, use water (flood with water), dry chemical, CO_2, or alcohol foam.
Special Fire Fighting Procedures: Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full fire-fighting turn out gear. Dike area to prevent runoff and contamination of water sources. Dispose of fire control water later.
Unusual Fire and Explosion Hazards: Containers will burst from internal pressure under extreme fire conditions. If water is used to fight fire or cool containers, dike to prevent runoff contamination of municipal sewers and waterways.
Hazardous Decomposition Materials (Under Fire Conditions): May produce gases such as oxides of carbon, nitrogen, and phosphorous.

National Fire Protection Association (NFPA) Hazard Rating:
Rating for this product: Health: 1 **Flammability:** 1 **Reactivity:** 0
Hazards Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Wear appropriate protective gear for the situation. See Personal Protection information in Section 8.
Environmental Precautions: Prevent material from entering public sewer systems or any waterways. Do not flush to drain. Large spills to soil or similar surfaces may necessitate removal of topsoil. The affected area should be removed and placed in an appropriate container for disposal.
Methods for Containment: Dike spill using absorbent or impervious materials such as earth, sand or clay. Collect and contain contaminated absorbent and dike material for disposal.
Methods for Cleanup and Disposal: Pump any free liquid into an appropriate closed container. Thoroughly scrub floor or other impervious surface with a strong industrial detergent and rinse with water. Collect washings for disposal. Decontaminate tools and equipment following cleanup. See Section 13: DISPOSAL CONSIDERATIONS for more information.
Other Information: Large spills may be reportable to the National Response Center (800-424-8802) and to state and/or local agencies.

7. HANDLING AND STORAGE

Handling:
Avoid breathing spray mist. Remove contaminated clothing and wash clothing before reuse. Wash thoroughly with soap and water after handling.

Spray solutions of this product should be mixed, stored and applied using only stainless steel, aluminum, fiberglass, plastic or plastic-lined containers.

DO NOT MIX, STORE OR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS. This product or spray solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source.

Storage:
STORE ABOVE 10°F (-12°C) TO KEEP PRODUCT FROM CRYSTALLIZING. Crystals will settle to the bottom. If allowed to crystallize, place in a warm room 68°F (20°C) for several days to redissolve and shake, roll or agitate to mix well before using. Do not contaminate water, foodstuff, feed or seed by storage or disposal.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls:
Where engineering controls are indicated by specific use conditions or a potential for excessive exposure, use local exhaust ventilation at the point of generation.

Personal Protective Equipment:
Eye/Face Protection: To avoid contact with eyes, wear chemical goggles or shielded safety glasses An emergency eyewash or water supply should be readily accessible to the work area.
Skin Protection: To avoid contact with skin, wear long pants, long-sleeved shirt, socks and shoes. An emergency shower or water supply should be readily accessible to the work area.
Respiratory Protection: Not normally required. If vapors or mists exceed acceptable levels, wear NIOSH approved air-purifying respirator with cartridges/canisters approved for use against pesticides.
General Hygiene Considerations: Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this material: 1) do not store, use and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored; 2) wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics or using the toilet.

Exposure Guidelines:

	OSHA		ACGIH		
Component	TWA	STEL	TWA	STEL	Unit
Isopropylamine Salt of Glyphosate	NE	NE	NE	NE	

NE = Not Established

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor: Colorless viscous solution with little odor.

Boiling Point:	Not determined	**Solubility in Water:**	Miscible
Density:	10.00 pounds/gallon	**Specific Gravity:**	1.201 @ 20°C
Evaporation Rate:	Not determined	**Vapor Density:**	Not determined
Freezing Point:	10°F (-12°C)	**Vapor Pressure:**	Not determined
pH:	5.0 - 5 .4	**Viscosity:**	67.9 cPs @ 20°C

Note: Physical data are typical values, but may vary from sample to sample. A typical value should not be construed as a guaranteed analysis or as a specification.

10. STABILITY AND REACTIVITY

Chemical Stability: This material is stable under normal handling and storage conditions.
Conditions to Avoid: Excessive heat. Do not store near heat or flame.
Incompatible Materials: Strong oxidizing agents: bases and acids. This product reacts with galvanized steel or unlined steel (except stainless steel) to produce hydrogen gas that may form a highly combustible gas mixture which could flash or explode.
Hazardous Decomposition Products: Under fire conditions may produce gases such as oxides of carbon, nitrogen, and phosphorous.
Hazardous Reactions: Hazardous polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

Toxicological Data:
Data from laboratory studies conducted on a similar, but not identical, formulation:
Oral: Rat LD_{50}: >5,000 mg/kg
Dermal: Rabbit LD_{50}: >5,000 mg/kg
Inhalation: Rat 4-hr LC_{50}: >4.24 mg/l
Eye Irritation: Rabbit: Minimally irritating
Skin Irritation: Rabbit: Non-irritating
Skin Sensitization: Not a contact sensitizer in guinea pigs following repeated skin exposure.

Subchronic (Target Organ) Effects: Repeated overexposure to glyphosate may decrease body weight gains and effects to liver.
Carcinogenicity / Chronic Health Effects: Prolonged overexposure to glyphosate may cause effects to the liver. There was no evidence of carcinogenicity in animal studies using glyphosate. EPA has given glyphosate a Group E classification (evidence of non-carcinogenicity in humans).
Reproductive Toxicity: In laboratory animal studies with glyphosate, effects on reproduction have been seen only at doses that produced significant toxicity to the parent animals.
Developmental Toxicity: In animal studies, glyphosate did not cause birth defects in animals; other effects were seen in the fetus only at doses which caused toxic effects to the mother.
Genotoxicity: Glyphosate has produced no genetic changes in a variety of standard tests using animals and animal or bacterial cells.

Assessment Carcinogenicity: None listed with ACGIH, IARC, NTP or OSHA.

See Section 2: HAZARDS IDENTIFICATION for more information.

12. ECOLOGICAL INFORMATION

Ecotoxicity:
Data on Glyphosate technical:

96-hour LC_{50} Bluegill:	120 mg/l	Bobwhite Quail 8-day Dietary LC_{50}:	>4,500 ppm
96-hour LC_{50} Rainbow Trout:	86 mg/l	Mallard Duck 8-day Dietary LC_{50}:	>4,500 ppm
48-hour LC_{50} Daphnia:	780 mg/l		

Environmental Fate:
In the environment, salts of glyphosate rapidly dissociate to glyphosate, which adsorbs strongly to soil and is expected to be immobile in soil. Glyphosate is readily degraded by soil microbes to AMPA (aminomethyl phosphonic acid) that is further degraded to carbon dioxide. Glyphosate and AMPA are unlikely to enter ground water due to their strong adsorptive characteristics. Terrestrially-applied glyphosate has the potential to move into surface waters through soil erosion because it may be adsorbed to soil particles suspended in the runoff. Aquatic applications registered for certain formulations may also result in glyphosate entering surface waters. Complete degradation is slow, but dissipation in

water is rapid because glyphosate is bound in sediments and has low biological availability to aquatic organisms. These characteristics suggest a low potential for bioconcentration in aquatic organisms and this has been verified by laboratory investigations of glyphosate bioconcentration in numerous marine and freshwater organisms with and without soil. The maximum whole body bioconcentration factors for fish were observed to be less than 1X. Bioconcentration factors for sediment dwelling mollusks and crayfish tended to be slightly higher, but were always less than 10X. In addition, any residues accumulated in organisms were rapidly eliminated.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method:
Wastes resulting from the use of this product that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, state or local procedures. Emptied container retains vapor and product residue. Observe all label safeguards until container is destroyed.

Container Handling and Disposal:
Plastic Bottles and Non-Returnable Plastic Drums: Do not reuse container. Triple rinse container. Then puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.
Returnable/Refillable Containers: Close all openings which have been opened during use and replace all caps. Contact Nufarm Customer Service at 1-800-345-3330, to arrange for return of the empty refillable container.

14. TRANSPORTATION INFORMATION

Follow the precautions indicated in Section 7: HANDLING AND STORAGE of this MSDS.

DOT
Non Regulated – See 49 CFR 173.132(b)(3)

IMDG
Non Regulated – See IMDG 2.6.2.1.3

IATA
Non Regulated – See IATA 3.6.1.5.3

15. REGULATORY INFORMATION

U.S. Federal Regulations:

TSCA Inventory: This product is exempted from TSCA because it is solely for FIFRA regulated use.

SARA Hazard Notification/Reporting:
Hazard Categories Under Criteria of SARA Title III Rules (40 CFR Part 370): Immediate

Section 313 Toxic Chemical(s): None

Reportable Quantity (RQ) under U.S. CERCLA: None

RCRA Waste Code: None

State Information:
Other state regulations may apply. Check individual state requirements.

California Proposition 65: Not listed

16. OTHER INFORMATION

This Material Safety Data Sheet (MSDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-ACCEPTED PRODUCT LABELING (attached to and accompanying the product container). This MSDS provides important health, safety and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course.

Use, storage and disposal of pesticide products are regulated by the EPA under the authority of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) through the product labeling, and all necessary and appropriate precautionary, use, storage, and disposal information is set forth on that labeling. It is a violation of Federal law to use a pesticide product in any manner not prescribed on the EPA-accepted label.

Although the information and recommendations set forth herein (hereinafter "Information") are presented in good faith and believed to be correct as of the date hereof, Nufarm Americas Inc. makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for their purposes prior to use. In no event will Nufarm Americas Inc. be responsible for damages of any nature whatsoever resulting from the use of or reliance upon Information. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH INFORMATION REFERS.

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GROUP 9 HERBICIDE

AVOID CONTACT OF HERBICIDE WITH FOLIAGE, GREEN STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES, BECAUSE SEVERE INJURY OR DESTRUCTION MAY RESULT.

ACTIVE INGREDIENT	
***Glyphosate, N-(phosphonomethyl)glycine, in the form of its isopropylamine salt**	**41.0%**
OTHER INGREDIENTS:	**59.0%**
TOTAL	**100.0%**

*Contains 480 grams per liter or 4.0 pounds per U.S. gallon of the active ingredient, glyphosate, in the form of its isopropylamine salt. Equivalent to 356 grams per liter or 3.0 pounds per U.S. gallon of the acid, glyphosate.

Licensed for Roundup Ready® alfalfa, cotton, corn, canola, Flex cotton, sugarbeets and soybeans.

KEEP OUT OF REACH OF CHILDREN
CAUTION

SPECIMEN

FIRST AID	
If in eyes:	• Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
If on skin or clothing:	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 to 20 minutes. • Call a poison control center or doctor for treatment advice.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. **FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: 1-866-944-8565.**	

EPA REG. NO. 34704-890

EPA EST. NO. 34704-MS-001

NET CONTENTS 2.5 GAL (9.46 L)

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1.0 INGREDIENTS

ACTIVE INGREDIENT	
***Glyphosate, N-(phosphonomethyl)glycine, in the form of its isopropylamine salt**	**41.0%**
OTHER INGREDIENTS:	**59.0%**
TOTAL	**100.0%**

2.0 EMERGENCY PHONE NUMBERS

24-Hour Emergency Phone: 1-800-424-9300
Medical Emergencies: 1-866-944-8565
U.S. Coast Guard National Response Center: 1-800-424-8802

3.0 PRECAUTIONARY STATEMENTS

3.1 HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing.

DOMESTIC ANIMALS: This product is considered to be relatively nontoxic to dogs and other domestic animals; however, ingestion of this product or large amounts of freshly sprayed vegetation may result in temporary gastrointestinal irritation (vomiting, diarrhea, colic, etc.). If such symptoms are observed, provide the animal with plenty of fluids to prevent dehydration. Call a veterinarian if symptoms persist more than 24 hours.

3.2 PERSONAL PROTECTIVE EQUIPMENT: (PPE)

Some of the materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category A on an EPA chemical-resistance category selection chart.

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants,
- Shoes plus socks,
- Chemical resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride.

Follow manufacturer's instructions for cleaning/maintaining PPE (Personal Protective Equipment). If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing

3.3 ENVIRONMENTAL HAZARDS

Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

3.4 PHYSICAL OR CHEMICAL HAZARDS

Spray solutions of this product should be mixed, stored and applied using only stainless steel, aluminum, fiberglass, plastic or plastic-lined steel containers.

DO NOT MIX, STORE, OR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS. This product or spray solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source.

Read the entire label before using this product. Use only according to label instructions.
Read the Conditions of Sale and Limitation of Liability, Section 18.0, at the end of the label before buying or using. If terms are unacceptable, return at once unopened.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.
For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulations.

3.5 AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with Worker Protection Standard (WPS), 40 CFR part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval (REI). The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.
Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 4 hours.
PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:
- Coveralls
- Chemical resistant gloves made of any waterproof material
- Shoes plus socks

3.6 NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses.
Keep people and pets off treated areas until spray solution has dried.

3.7 Seed Potato Precaution

Potatoes grown for seed are very sensitive to glyphosate at extremely low concentrations. Exposure of the seed potato crop can cause germination failure or deformities. Daughter tuber damage may occur at levels where mother crop symptoms are not visible. Multiple sprouting from eyes, weak and distorted stems, little potato syndrome, cauliflower sprouts, root distortions, excessive root growth, suppressed tuber initiation and bulking, failure or delay in opening of eyes, and rotting of tubers in the field or store can result. Subsequent plantings of seed pieces from the exposed mother crop can result in delayed or no emergence or produce lower than normal yields.

Glyphosate can contaminate seed potato crops through carryover residue in application equipment or drift from applying glyphosate to nearby crops.

Always follow good wash-out procedures using detergents or other suitable cleaning agents to remove all residual traces of glyphosate from application equipment that may be used to apply other products to seed potato crops.

To avoid contamination from spray drift follow the directions and precautions in the Spray Drift Management, Section 7.1.

4.0 USE INFORMATION

Product Description: This product is a postemergent, systemic herbicide with no soil residual activity. It is generally non-selective and gives broad-spectrum control of many annual weeds, perennial weeds, woody brush and trees. It is formulated as a water-soluble liquid. It may be applied through most standard industrial or field-type sprayers after dilution and thorough mixing with water or other carriers according to label instructions.

Ammonium sulfate, drift control additives, or dyes and colorants may be used. See Mixing, Section 6.0, for instructions.

Time to Symptoms: This product moves through the plant from the point of foliage contact to and into the root system. Visible effects on most annual weeds occur within 2 to 4 days, but on most perennial weeds may not occur for 7 days or more. Extremely cool or cloudy weather following treatment may slow activity of this product and delay development of visual symptoms. Visible effects are a gradual wilting and yellowing of the plant which advances to complete browning of aboveground growth and deterioration of underground plant parts.

Stage of Weeds: Annual weeds are easiest to control when they are small. Best control of most perennial weeds is obtained when treatment is made at late growth stages approaching maturity. Refer to the Annual Weeds, Perennial Weeds, and Woody Brush and Trees rate tables, Sections 14.0, 15.0 and 16.0, for recommendations for specific weeds.

Always use the higher rate of this product per acre within the labeled rate range when weed growth is heavy or dense or weeds are growing in an undisturbed (non-cultivated) area.

Do not treat weeds under poor growing conditions such as drought stress, disease or insect damage, as reduced weed control may result. Reduced results may also occur when treating weeds heavily covered with dust.

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Cultural Considerations: Reduced control may result when applications are made to annual or perennial weeds that have been mowed, grazed, or cut, and have not been allowed to regrow to the recommended stage for treatment.

Rainfastness: Heavy rainfall soon after application may wash this product off of the foliage and a repeat application may be required for adequate control.

Spray Coverage: For best results, spray coverage should be uniform and complete. Do not spray weed foliage to the point of runoff.

Mode of Action: The active ingredient in this product inhibits an enzyme found only in plants that is essential to formation of specific amino acids.

No Soil Activity: Weeds must be emerged at the time of application to be controlled by this product. Weeds germinating from seed after application will not be controlled. Unemerged plants arising from unattached underground rhizomes or root stocks of perennials will not be affected by the herbicide and will continue to grow.

Biological Degradation: Degradation of this product is primarily a biological process carried out by soil microbes.

Tank Mixing: This product does not provide residual weed control. For subsequent residual weed control follow a label-approved herbicide program. Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used. Use according to the most restrictive label directions for each product in the mixture.

Buyer and all users are responsible for all loss or damage in connection with the use or handling of mixtures of this product with herbicides or other materials that are not expressly recommended in this label. Mixing this product with herbicides or other materials not recommended on this label may result in reduced performance.

Annual Maximum Use Rate: Except as otherwise specified in a food crop section of this label, the combined total of all treatments must not exceed 8.0 quarts of this product per acre per year. For non-food/non-crop uses, the combined total of all treatments must not exceed 10.6 quarts of this product per acre per year. The maximum use rates stated throughout this product's labeling apply to this product combined with the use of all other herbicides containing glyphosate or sulfosate as the active ingredient, whether applied as mixtures or separately. Calculate the application rates and ensure that the total use of this and other glyphosate or sulfosate containing products does not exceed stated maximum use rate.

Note: Use of this product in any manner not consistent with this label may result in injury to persons, animals or crops, or other unintended consequences. Keep container closed to prevent spills and contamination.

5.0 WEED RESISTANCE MANAGEMENT

Glyphosate, the active ingredient in this product is a Group 9 herbicide. Target site resistance to Group 9 herbicides is rare. Any weed population may contain plants naturally resistant to Group 9 herbicides. Weed species resistant to Group 9 herbicides may be effectively managed utilizing another herbicide from a different Group or using other cultural practices or mechanical practices.

5.1 Weed Management Directions

To minimize the occurrence of glyphosate resistant biotypes, observe the following weed management recommendations:

- Scout your fields before and after herbicide applications.
- Start with a clean field, use either a burndown herbicide application or tillage.
- Control weeds early when they are relatively small.
- Add other herbicides (e.g. a selective and/or a residual herbicide) and cultural practices (e.g. tillage or crop rotation) where appropriate.
- One method of adding other herbicides into a continuous Roundup Ready® system is to rotate to other Roundup Ready crops.
- Utilize the labeled rate for the most difficult-to-control weed in your field. Avoid tank mixtures with other herbicides that reduce this product's efficacy (through antagonism), or tank mixture recommendations that encourage application rates of this product below the label recommendations.
- Control weed escapes and prevent weeds from setting seeds.
- Clean equipment before moving from field to field to minimize the spread of weed seed or plant parts.
- Use new commercial seed that is as free of weed seed as possible.
- Report any incidence of repeated non performance of this product on a particular weed to your Loveland Products, Inc. representative, local retailer, or county extension agent.

5.2 Management Directions for Glyphosate Resistance Biotypes

Note: Appropriate testing is critical in order to determine if a weed is resistant to glyphosate. Contact your Loveland Products, Inc. representative to determine if resistance has been confirmed to any particular weed biotype in your area, or visit on the internet www.weedresistancemangement.com or www.weedscience.org. For more information see the Annual Weeds and Perennial Weeds tables, Sections 14.0 and 15.0.

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Control directions for biotypes confirmed as resistant to glyphosate are made available on separately published supplemental labeling or fact sheets for this product and can be obtained from your local retailer or Loveland Products, Inc. representative.

Since the occurrence of new glyphosate-resistant weeds cannot be determined until after product use and scientific confirmation, Loveland Products, Inc. is not responsible for any losses that may result from the failure of this product to control glyphosate resistant weed biotypes.

The following good agronomic practices are recommended to reduce the spread of confirmed glyphosate-resistant biotypes:
- If a naturally occurring resistant biotype is present in your field, this product should be tank mixed or applied sequentially with an appropriately labeled herbicide with a different mode of action to achieve control.
- Cultural and mechanical control practices (e.g., crop rotation or tillage) may also be used as appropriate.
- One method for adding other herbicides into a continuous Roundup Ready system is to rotate to other Roundup Ready crops.
- Scout treated fields after herbicide applications and control escaping weeds including resistant biotypes before they set seed.
- Thoroughly clean equipment before leaving fields known to contain resistant biotypes.

6.0 MIXING

Clean sprayer parts immediately after using this product by thoroughly flushing with water.

NOTE: REDUCED RESULTS MAY OCCUR IF WATER CONTAINING SOIL IS USED, SUCH AS VISIBLY MUDDY WATER OR WATER FROM PONDS AND DITCHES THAT IS NOT CLEAR.

6.1 Mixing with Water

This product mixes readily with water. Mix spray solutions of this product as follows: Fill the mixing or spray tank with the required amount of water. Add the labeled amount of this product near the end of the filling process and mix well. Use caution to avoid siphoning back into the carrier source. Use approved anti-back-siphoning devices where required by state or local regulations. During mixing and application, foaming of the spray solution may occur. To prevent or minimize foam, avoid the use of mechanical agitators, terminate by pass and return lines at the bottom of the tank and, if needed, use an approved anti-foam or de-foaming agent.

6.2 Tank Mixing Procedure

Mix labeled tank mixtures of this product with water as follows:
1. Place a 20- to 35-mesh screen or wetting basket over filling port.
2. Through the screen, fill the spray tank 1/2 full with water and start agitation.
3. If ammonium sulfate is used, add it slowly through the screen into the tank. Continue agitation. Ensure that dry ammonium sulfate is completely dissolved in the spray tank before adding other products.
4. If a wettable powder is used, make a slurry with the water carrier and add it SLOWLY through the screen into the tank. Continue agitation.
5. If a flowable formulation is used, premix 1 part flowable with 1 part water. Add diluted mixture SLOWLY through the screen into the tank. Continue agitation.
6. If an emulsifiable concentrate formulation is used, premix 1 part emulsifiable concentrate with 2 parts water. Add diluted mixture slowly through the screen into the tank. Continue agitation.
7. Continue filling the spray tank with water and add the required amount of this product near the end of the filling process.
8. Add individual formulations to the spray tank as follows: wettable powder, flowable, emulsifiable concentrate, drift control additive and water soluble liquid.

Maintain good agitation at all times until the contents of the tank are sprayed. If the spray mixture is allowed to settle, thorough agitation is required to resuspend the mixture before spraying is resumed.

Keep by-pass line on or near the bottom of the tank to minimize foaming. Screen size in nozzle or line strainers should be no finer than 50 mesh.

Always predetermine the compatibility of labeled tank mixtures of this product with water carrier by mixing small proportional quantities in advance.

Refer to Tank Mixing, Section 4.0, for additional precautions.

6.3 Mixing for Hand-Held Sprayers

Prepare the desired volume of spray solution by mixing the amount of this product in water as shown in the following table:

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Spray Solution

	Amount Mad Dog® Plus					
Desired Volume	**0.5%**	**1.0%**	**1.5%**	**2.0%**	**5.0%**	**10.0%**
1.0 gal	0.6 oz	1.3 oz	2.0 oz	2.6 oz	6.5 oz	13.0 oz
25.0 gal	1.0 pt	1.0 qt	1.5 qt	2.0 qt	5.0 qt	10.0 qt
100 gal	2.0 qt	1.0 gal	1.5 gal	2.0 gal	5.0 gal	10.0 gal

2.0 tablespoons = 1.0 fluid ounce

For use in knapsack sprayers, it is suggested that the labeled amount of this product be mixed with water in a larger container. Fill sprayer with the mixed solution.

6.4 Surfactants
Optional Statements
No additional surfactant in the spray solution is needed or recommended. This includes additives containing surfactants, buffering agents or pH adjusting agents when Mad Dog Plus is the only pesticide used unless otherwise directed.
OR
Additional surfactants labeled for use with herbicides may be used. Do not reduce application rates of this herbicide when adding surfactants. Read and carefully observe cautionary statements and other information appearing on the additives label.

Enhanced product performance may be obtained with use of Loveland Products, Inc. Leci-Tech® adjuvants. Consult with your local Loveland Products, Inc. representative for advice on specific product selection.

6.5 Ammonium Sulfate
The addition of 1.0 to 2.0% dry ammonium sulfate by weight or 8.5 to 17.0 pounds per 100 gallons of water may increase the performance of this product particularly when tank mixed with certain residual herbicides on annual and perennial weeds. The equivalent rate of ammonium sulfate in a liquid formulation may also be used.

Ensure that ammonium sulfate is completely dissolved in the spray tank before adding herbicides. Thoroughly rinse the spray system with clean water after use to reduce corrosion.

Note: When using ammonium sulfate, apply this product at rates specified in this label. Lower rates will result in reduced performance.

6.6 Colorants or Dyes
Agriculturally approved colorants or marking dyes may be added to this product. Colorants or dyes used in spray solutions of this product may reduce performance, especially at lower rates or dilutions. Use colorants or dyes according to the manufacturer's recommendations.

6.7 Drift Control Additives
Drift control additives may be used with all equipment types, except wiper applicators, sponge bars and CDA equipment. When a drift control additive is used, read and carefully observe the cautionary statements and all other information appearing on the additive label.

Enhanced product performance may be obtained with use of Loveland Products, Inc. Leci-Tech adjuvants. Consult with your local Loveland Products, Inc. representative for advice on specific product selection.

Note: The use of drift control additives can affect spray coverage which may result in reduced performance.

7.0 APPLICATION EQUIPMENT AND TECHNIQUES

Do not apply this product through any type of irrigation system.

This product may be applied with the following application equipment:
- Aerial - Fixed wing and helicopter.
- Ground Broadcast Spray - Boom or boomless systems, pull-type sprayer, floaters, pick-up sprayers, spray coupes and other ground broadcast equipment.
- Hand-held or High-volume spray equipment - Knapsack and backpack sprayers, Pump up pressure sprayers, Handguns, Handwands, Mistblowers*, Lances and other Hand-held and Motorized spray equipment used to direct the spray onto weed foliage.
- Selective Equipment - Shielded and hooded sprayers, Wiper applicators and Sponge bars.
- Injection Systems - Aerial or ground injection sprayers.
- Controlled Droplet Applicator (CDA) - Hand-held or Boom mounted applicators which produce a spray consisting of a narrow range of droplet sizes.

*This product is not registered in California or Arizona for use in mistblowers.
APPLY THESE SPRAY SOLUTIONS IN PROPERLY MAINTAINED AND CALIBRATED EQUIPMENT CAPABLE OF DELIVERING DESIRED VOLUMES.

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7.1 Drift Precaution
Do not allow the herbicide solution to mist, drip, drift, or splash onto desirable vegetation. Extreme care must be exercised to avoid contact of spray with foliage, green stems or fruit of desirable crops, plants, trees or other desirable vegetation since minute quantities of this product can cause severe damage or destruction to the crop, plants or other areas on which treatment was NOT intended. Examples of, but not limited to, crop types that may be sensitive to glyphosate exposure include rice, small grain cereals, peanuts, potatoes, vegetables, fruits and ornamentals.

Applicators should be aware of any potentially sensitive crops near application zone before making application. To prevent injury to adjacent desirable vegetation, appropriate buffer zones must be maintained.

1. Do not apply within 100 feet of any desirable vegetation or crops.
2. If wind up to 5 miles per hour is blowing toward desirable vegetation or crops, do not apply within 500 feet upwind of the desirable vegetation or crops.
3. Winds blowing from 5 to 10 miles per hour toward desirable vegetation or crops will likely require buffer zones in excess of 500 feet.

If unsure of appropriate buffer zone, contact your local Extension Agent for advice.

7.2 Aerial Equipment
DO NOT APPLY THIS PRODUCT USING AERIAL SPRAY EQUIPMENT EXCEPT UNDER CONDITIONS AS SPECIFIED WITHIN THIS LABEL. FOR AERIAL APPLICATION IN CALIFORNIA AND ARKANSAS, REFER TO INSTRUCTIONS SPECIFIC TO THOSE STATES.

This product plus dicamba tank mixtures may not be applied by air in California.

Use the specified rates of this herbicide in 3.0 to 15.0 gallons of water per acre unless otherwise specified on this label. Unless otherwise specified, do not exceed 1.0 quart per acre. Aerial applications of this product may be made in annual cropping conventional tillage systems, fallow and reduced tillage systems and preharvest applications. Refer to the individual use area sections of this label for labeled volumes and application rates.

Ensure uniform application - To avoid streaked, uneven or overlapped application, use appropriate marking devices.

Aerial Spray Drift Management
AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR. The interaction of many equipment-and-weather related factors determine the potential for spray drift. The applicator is responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

1. The distance of the outer most nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they must be observed.

Information on Droplet Size
The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (See Wind, Temperature and Humidity, and Temperature Inversions sections of this label).

Controlling Droplet Size
- **Volume** - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** - Do not exceed the nozzle manufacturers recommended pressures. For many nozzle types lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- **Number of Nozzles** - Use the minimum number of nozzles that provide uniform coverage.
- **Nozzle Orientation** - Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- **Nozzle Type** - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

- **Boom Length**- For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.
- **Application Height** - Applications must not be made at a height greater than 10 feet above the top of the target plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

Swath Adjustment
When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance must increase with increasing drift potential (higher wind, smaller drops, etc.).

Wind
Drift potential is lowest between wind speeds of 2 to 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application must be avoided below 2 mph due to variable wind direction and high inversion potential. **Note:** Local terrain can influence wind patterns. Every applicator must be familiar with local wind patterns and how they affect spray drift.

Temperature and Humidity
When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

Temperature Inversions
Applications must not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

Sensitive Areas
The pesticide must only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

Avoid direct application to any body of water

Aircraft Maintenance - Thoroughly wash aircraft, especially landing gear, after each day of spraying to remove residues of this product accumulated during spraying or from spills. PROLONGED EXPOSURE OF THIS PRODUCT TO UNCOATED STEEL SURFACES MAY RESULT IN CORROSION AND POSSIBLE FAILURE OF THE PART. LANDING GEAR ARE MOST SUSCEPTIBLE. The maintenance of an organic coating (paint), which meets aerospace specification MIL-C-38413 may prevent corrosion.

FOR AERIAL APPLICATION IN CALIFORNIA ONLY

Aerial applications of this product are allowed in the following situations:
1. In fallow and reduced tillage systems prior to the emergence or transplanting of labeled crops.
2. In alfalfa and pasture renovation applications.
3. Over-the-top applications in Roundup Ready corn and cotton.
4. Preharvest in alfalfa, corn, cotton, wheat, Roundup Ready corn and Roundup Ready cotton.

Do not plant subsequent crops other than those listed in the label booklet for 30 days following application.

When tank mixing this product with 2,4-D for aerial applications, only 2,4-D amine formulations may be used. This tank mixture may be used for fallow and reduced tillage systems and alfalfa and pasture renovation applications only.

DO NOT EXCEED A MAXIMUM RATE OF 2.0 QUARTS PER ACRE OF THIS PRODUCT WHEN MAKING APPLICATIONS BY AIR IN FALLOW AND REDUCED TILLAGE SYSTEMS AND ALFALFA AND PASTURE RENOVATION APPLICATIONS.

DO NOT EXCEED A MAXIMUM RATE OF 1.0 QUART PER ACRE OF THIS PRODUCT WHEN MAKING APPLICATIONS BY AIR IN ALFALFA, CORN, COTTON, WHEAT, ROUNDUP READY CORN AND ROUNDUP READY COTTON PRIOR TO HARVEST. THIS RESTRICTION ALSO APPLIES TO OVER-THE-TOP APPLICATIONS IN ROUNDUP READY CORN AND COTTON.

Aerial Equipment
Use the labeled rates of this product in 3.0 to 15.0 gallons of water per acre.

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Use the following guidelines when aerial applications are made near crops or desirable perennial vegetation after bud break and before total leaf drop, and/or near other desirable vegetation or annual crops.

1. Do not apply within 100 feet of all desirable vegetation or crop(s).
2. If wind up to 5 miles per hour is blowing toward desirable vegetation or crop(s), do not apply within 500 feet of the desirable vegetation or crop(s).
3. Winds blowing from 5 to 10 miles per hour toward desirable vegetation or crop(s) may require buffer zones in excess of 500 feet.
4. Do not apply when winds are in excess of 10 miles per hour or when inversion conditions exist.

FOR AERIAL APPLICATION IN FRESNO COUNTY CALIFORNIA
(From February 15 through March 31 Only)

Applicable Area
The area contained inside the following boundaries within Fresno County, California

North: Fresno County line	East: State Highway 99
South: Fresno County line	West: Fresno County line

Use Information: Always read and follow the label directions and precautionary statements for all products used in aerial application.

Observe the following directions to minimize off-site movement during aerial application of this product. Minimization of off-site movement is the responsibility of the grower, Pest Control Advisor and aerial applicator.

Written Recommendations: A written recommendation MUST be submitted by or on behalf of the applicator to the Fresno County Agricultural Commissioner 24 hours prior to the application. This written recommendation MUST state the proximity of surrounding crops and that conditions of each manufacturer's product label and this label have been satisfied.

Aerial Applicator Training and Equipment: Aerial application of this product is limited to pilots who have successfully completed a Fresno County Agricultural Commissioner and California Department of Pesticide Regulation approved training program for aerial application of herbicides. All aircraft must be inspected, critiqued in flight and certified at a Fresno County Agricultural Commissioner approved fly-in. Test and calibrate spray equipment at intervals sufficient to insure that proper rates of herbicides and adjuvants are being applied during commercial use. Applicator must document such calibrations and testing. Demonstration of performance at Fresno County Agricultural Commissioner approved fly-ins constitutes such documentation, or other written records showing calculations and measurements of flight and spray parameters acceptable to the Fresno County Agricultural Commissioner.

Applications at Night: Do not apply this product by air earlier than 30 minutes prior to sunrise and/or later than 30 minutes after sunset without prior permission from the Fresno County Agricultural Commissioner.

Note: For aerial application from April 1 through February 14, refer to the "For Aerial Application in California Only" section of this label.

FOR AERIAL APPLICATION IN ARKANSAS ONLY

AVOID DRIFT. DO NOT APPLY INTO STILL AIR WHERE THERE IS A TEMPERATURE INVERSION LAYER LOW ENOUGH FOR FINE SPRAY PARTICLES TO BECOME SUSPENDED AND MOVE OUTSIDE THE TARGET AREA WHEN THE INVERSION LAYER MOVES. DO NOT APPLY WHEN WINDS ARE GUSTY OR UNDER ANY OTHER CONDITION THAT FAVORS DRIFT. DRIFT IS LIKELY TO CAUSE DAMAGE TO ANY VEGETATION CONTACTED. TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, APPROPRIATE BUFFER ZONES MUST BE MAINTAINED.

Use the specified rate of this product in 3.0 to 15.0 gallons of water per acre. Use sufficient carrier volume and appropriate equipment set up to form droplets large enough to avoid drift potential. Coarse droplets in the 300 to 500 (VMD) micron range are recommended.

Applications should typically be made with the nozzle release point at 8 to 15 feet above the top of the target plants unless a greater height is required for aircraft safety. The distance of the outermost nozzles on the boom must not exceed 75% of the length of the wingspan or rotor. In many cases, reducing this distance to 65% of the length of the wingspan or rotor will improve drift control without affecting the swath width.

Nozzles must always discharge backward parallel with the air stream and never discharge downwards more than 45 degrees on fixed wing aircraft or forward of the prevailing airflow on rotary winged aircraft. Avoid the use of nozzles with wide-angle discharge.

Do not apply this product when wind speeds are in excess of 10 miles per hour.

Do not apply when there is a low-level inversion where fine spray particles could be suspended in still air and move outside the target area when the inversion layer moves. These conditions may occur when wind speeds are less than 2 mph.

Use the following guidelines when applications are made near crops or other desirable vegetation:
1. Do not apply within 100 feet of any desirable vegetation or crops.
2. If wind up to 5 miles per hour is blowing toward desirable vegetation or crops, do not apply within 500 feet upwind of the desirable vegetation or crops.
3. Winds blowing from 5 to 10 miles per hour toward desirable vegetation or crops will likely require buffer zones in excess of 500 feet.

7.3 Ground Broadcast Equipment
Use the specified rates of this product in 3.0 to 40.0 gallons of water per acre as a broadcast spray unless otherwise specified. As density of weeds increases, spray volume should be increased within the labeled range to ensure complete coverage. Carefully select proper nozzles to avoid spraying a fine mist. For best results with ground application equipment, use flat fan nozzles. Check for even distribution of spray droplets.

7.4 Hand-Held or High-Volume Equipment
Apply to foliage of vegetation to be controlled. For applications made on a spray-to-wet basis, spray coverage must be uniform and complete. Do not spray to the point of runoff. Use coarse sprays only. For labeled rates and timing refer to Annual Weeds - Hand-Held or High-Volume Equipment, Section 14.3.

7.5 Selective Equipment
This product may be applied through shielded applicators, hooded sprayers, wiper applicators or sponge bars after dilution and thorough mixing with water to listed weeds growing in any non-crop site specified on this label.

In cropping systems, hooded sprayers, shielded sprayers, and wipers may be used in row-middles (in between rows of crop plants) where any dripping or leaking will not contact crop foliage. Such equipment must be capable of preventing all crop contact with herbicide solutions and operated without leakage of spray mists or dripping onto crop. Wipers over-the-top of crops may be used only when specifically labeled in this product's labeling.

AVOID CONTACT OF HERBICIDE WITH DESIRABLE VEGETATION

Contact of the herbicide solution with desirable vegetation may result in damage or destruction. Applicators used above desirable vegetation must be adjusted so that the lowest spray stream or wiper contact point is at least 2 inches above the desirable vegetation. Droplets, mist, foam or splatter of the herbicide solution settling on desirable vegetation may result in discoloration, stunting or destruction.

Applications made above the crops should be made when the weeds are a minimum of 6 inches above the desirable vegetation. Better results may be obtained when more of the weed is exposed to the herbicide solution. Weeds not contacted by the herbicide solution will not be affected. This may occur in dense clumps, severe infestations or when the height of the weeds varies so that not all weeds are contacted. In these instances, repeat treatment may be necessary.

Shielded and Hooded Applicators
When applied under the conditions described in the following paragraphs for shielded and hooded applications, this product at labeled rates will control those weeds listed in the Annual Weeds and Perennial Weeds tables, Sections 14.0 and 15.0. A hooded sprayer is a type of shielded applicator where the spray pattern is fully enclosed including top, sides, front and back, thereby shielding the crop from the spray solution. Keep shields on these sprayers adjusted to protect desirable vegetation. When applying to crops grown on raised beds, ensure that the hood is designed to completely enclose the spray solution. If necessary, extend the front and rear flaps of the hoods to reach the ground in deep furrows. EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF HERBICIDE WITH DESIRABLE VEGETATION.

This equipment must be set up and operated in a manner that avoids bouncing or raising the hoods off the ground in any way. If the hoods are raised, spray particles may escape and come into contact with the crop, causing damage or destruction of the crop. Avoid operation on rough or sloping ground where the spray hoods might be raised off the ground.

Use hoods designed to minimize excessive dripping or run off down the insides of the hoods. A single, low pressure/low drift flat-fan nozzle with an 80 to 95° spray angle positioned at the top center of the hood is recommended. Minimum spray volume must be 20.0 to 30.0 gallons per acre.

These procedures will reduce the potential for crop injury:
- The spray hoods must be operated on the ground or skimmed across the ground.
- Leave at least an 8 inch untreated strip over the drill row. For example, if the crop row width is 38 inches the maximum width of the spray hood should be 30 inches.
- Maximum tractor speed: 5 miles per hour to avoid bouncing of the spray hoods.
- Maximum wind speed: 10 miles per hour.
- Use low-drift nozzles that provide uniform coverage within the treated area.

Crop injury may occur when the foliage of treated weeds comes into direct contact with leaves of the crop. Do not apply this product when the leaves of the crop are growing in direct contact with weeds to be treated. Droplets, mist, foam or splatter of the herbicide solution may contact the crop and cause discoloration, stunting or destruction.

EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF HERBICIDE WITH DESIRABLE VEGETATION.

Wiper Applicators
When applied under the conditions described in the following paragraphs, this product CONTROLS many weeds, including Bristly starbur, Common rye, Shattercane, Sicklepod, Spanish needles, Texas panicum, and Volunteer corn; and SUPPRESSES many weeds including Bermuda grass, Canada thistle, Dogfennel, Florida beggarweed, Giant ragweed, Guineagrass, Hemp dogbane, Johnsongrass, Milkweed, Musk thistle, Redroot pigweed, Silverleaf nightshade, Smutgrass, Sunflower, Vaseygrass, and Velvetleaf.

Wiper applicators are devices that physically wipe appropriate amounts of this product directly onto the weed.

Equipment must be designed, maintained and operated to prevent the herbicide solution from contacting desirable vegetation. Operate this equipment at ground speeds no greater than 5 mph. Performance may be improved by reducing speed in areas of heavy weed infestations to ensure adequate wiper saturation. Better results may be obtained if 2 applications are made in opposite directions.
Avoid leakage or dripping onto desirable vegetation. Adjust height of applicator to ensure adequate contact with weeds. Keep wiping surfaces clean. Be aware that on sloping ground the herbicide solution may migrate, causing dripping on the lower end and drying of the wicks on the upper end of a wiper applicator.

Do not use wiper equipment when weeds are wet.

Mix only the amount of solution to be used during a 1-day period, as reduced activity may result from use of leftover solutions. Clean wiper parts immediately after using this product by thoroughly flushing with water.

Do not add surfactant to the herbicide solution.

For Rope or Sponge Wick Applicators - Mix 1.0 gallon of this product in 2.0 gallons of water to prepare a 33% solution. Apply this solution to weeds listed above in this section.

For Panel Applicators - Solutions ranging from 33 to 100% of this product in water may be used in panel wiper applicators.

7.6 Injection Systems
This product may be used in aerial or ground injection spray systems. It may be used as a liquid concentrate or diluted prior to injecting into the spray stream. Do not mix this product with the concentrate of other products when using injection systems.

7.7 Controlled Droplet Application (CDA) Equipment
The rate of this product applied per acre by vehicle-mounted CDA equipment must not be less than the amount labeled in this label when applied by conventional broadcast equipment. For vehicle-mounted CDA equipment, apply 3.0 to 20.0 gallons of water per acre.

For the control of annual weeds with hand-held CDA units, apply a 20% solution of this product at a flow rate of 2.0 fluid ounces per minute and a walking speed of 1.5 mph (1.0 quart per acre). For the control of perennial weeds, apply a 20 to 40% solution of this product at a flow rate of 2.0 fluid ounces per minute and a walking speed of 0.75 mph (2.0 to 4.0 quarts per acre).

Controlled droplet application equipment produces a spray pattern which is not easily visible. Extreme care must be exercised to avoid spray or drift contacting the foliage or any other green tissue of desirable vegetation, as damage or destruction may result.

8.0 ANNUAL AND PERENNIAL CROPS (Alphabetical)

This section is organized alphabetically by crop category. There may be several labeled crops listed in a crop category.

SEE THE INDIVIDUAL CROP CATEGORIES FOR SPECIFIC INSTRUCTIONS, PREHARVEST INTERVALS, AND ADDITIONAL PRECAUTIONS AND RESTRICTIONS.

See Roundup Ready Crops, Section 11.0, or separately published Loveland Products, Inc. supplemental labeling for instructions for treating Roundup Ready crops.

Types of Applications
Chemical fallow, Preplant fallow beds, Preplant, Preemergence, At-planting, Hooded sprayers in row-middles, Shielded sprayers in row-middles, Wiper applications in row-middles and Postharvest treatments.

Additional application types may be specified or allowed in individual crop categories.

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Use Directions
Apply this product during fallow intervals preceding planting, prior to planting or transplanting, at-planting or preemergent to annual and perennial crops listed in this label, except where specifically limited. For any crop NOT listed in this label, applications must be made at least 30 days prior to planting. UNLESS OTHERWISE SPECIFIED, WEED CONTROL APPLICATIONS MAY BE MADE ACCORDING TO THE RATES LISTED IN ANNUAL WEEDS, PERENNIAL WEEDS, AND WOODY BRUSH AND TREES RATE TABLES, SECTIONS 14.0, 15.0 AND 16.0. Repeat applications may be made up to a maximum of 8.0 quarts per acre per year.

Postdirected hooded sprayers and wiper equipment capable of preventing all crop contact with herbicide solutions may be used in mulched or unmulched row-middles after crop establishment. Where specifically noted below, wipers may also be used above certain crops to control tall weeds. Refer to Selective Equipment, Section 7.5, for essential precautions when using hooded sprayers or wipers to avoid crop injury caused by leakage of spray mists or dripping onto crops. Crop injury is possible with these applications and shall be the sole responsibility of the applicator.

The maximum use rates stated throughout this product's labeling apply to this product combined with the use of all other herbicides containing glyphosate or sulfosate as the active ingredient, whether applied as mixtures or separately. Calculate the application rates and ensure that the total use of this and other glyphosate- or sulfosate-containing products does not exceed stated maximum use rate.

Precautions
- Avoid contact of herbicide with foliage, green shoots or stems, bark, exposed roots (including those emerging from plastic mulch), or fruit of crops because severe injury or destruction may result.
- Apply before seed germination in coarse sandy soils to further minimize the risk of injury.

Restrictions
- Unless otherwise specified in this product's labeling, treatments with selective equipment including wipers and hooded sprayers must be made at least 14 days prior to harvest.
- In crops where spot treatments are allowed, do not treat more than 10% of the total field to be harvested. The crop receiving spray in treated area will be killed. Take care to avoid drift or spray outside the target area for the same reason.
- When making preemergence and at-planting applications, applications must be made before crop emergence to avoid severe crop injury. Broadcast applications made at emergence will result in injury or death to emerged seedlings.
- Postharvest or fallow applications must be made at least 30 days prior to planting any non-labeled crop.
- For broadcast postemergent treatments, do not harvest or feed treated vegetation for 8 weeks following application, unless otherwise specified.

8.1 CEREAL CROPS
LABELED CROPS: Barley, Buckwheat, Millet (Pearl and Proso), Oats, Rice, Rye, Quinoa, Teff, Teosinte, Triticale, Wheat (all), Wild rice

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
See Types of Applications in Section 8.0	See Use Directions in Section 8.0	See Restrictions in Section 8.0
Preplant Preemergence At-planting	This product may be applied before, during or after planting of cereal crops. Applications must be made prior to emergence of the crop.	Do not treat rice fields or levees when the field contains floodwater.
Red rice control (prior to planting rice)	Apply 1.5 qt of this product in 5.0 to 10.0 gal of water/A. Flush fields prior to application to obtain uniform germination and stand of red rice. Make application when the majority of the red rice plants are in the 2-leaf stage and no more than 4 inches tall. Red rice plants with less than 2 true leaves may only be partially controlled.	Avoid spraying during low humidity conditions, as reduced control may result. DO NOT TREAT RICE FIELDS OR LEVEES WHEN THE FIELDS CONTAIN FLOOD WATER. DO NOT REFLOOD TREATED FIELDS FOR 8 DAYS FOLLOWING APPLICATION.
Spot treatment (except rice)	This product may be applied as a spot treatment in cereal crops. Apply this product before heading in small grains.	Do not treat more than 10% of the total field area to be harvested. The crop receiving spray in the treated area will be killed. Take care to avoid drift or spray outside target area for the same reason.
Over-the-top wiper applications (feed barley and wheat only)	Wiper applications may be used in wheat. To control common rye or cereal rye, apply after the weeds have headed and achieved maximum growth, when the rye is at least 6 inches above the wheat crop.	Allow at least 35 days between application and harvest. Do not use roller applicators.

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8.1 Cereal Crops cont'd.:

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
See Types of Applications in Section 8.0	See Use Directions in Section 8.0	See Restrictions in Section 8.0
Preharvest (feed barley and wheat only)	This product provides weed control when applied prior to harvest of wheat. Apply after the hard-dough stage of grain (30% or less grain moisture) and at least 7 days prior to harvest. Wheat stubble may be grazed immediately after harvest. This product may be applied using either aerial or ground spray equipment. For ground applications, apply this product in 10.0 to 20.0 gal of water/A. For aerial applications, apply this product in 3.0 to 10.0 gal of water/A.	Do not apply more than 1.0 qt of this product/A. Do not apply to wheat or barley grown for seed, as a reduction in germination or vigor may occur. Allow 7 days between application and harvest or grazing.
Postharvest	This product may be applied after harvest of cereal crops. Higher rates may be required for control of large weeds which were growing in the crop at the time of harvest. Tank mixtures with 2,4-D or dicamba may be used.	For any crop not listed on this label, applications must be made at least 30 days prior to planting the next crop. Allow a minimum of 7 days between treatment and harvest or feeding of treated vegetation.

8.2 CORN (Non-Roundup Ready)
LABELED CROPS: Field corn, Seed corn, Silage corn, Sweet corn and Popcorn

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
See Types of Applications in Section 8.0	See Use Directions in Section 8.0	See Restrictions in Section 8.0
Preplant Preemergence At-planting	This product may be applied before, during or after planting corn. Applications must be made prior to emergence of the crop. Tank Mixtures: Apply these tank mixtures in 10.0 to 20.0 gal of water or 10.0 to 60.0 gal of nitrogen solution/A. 2,4 D Aim® Atrazine Axiom® Balance® Bicep Magnum® Bicep II Magnum® Bullet® Degree® Degree Xtra® Distinct ® Dual Magnum® Dual II Magnum® Epic® Frontier®/Outlook® FulTime® Guardsman®/Leadoff® Harness® Harness Xtra Harness Xtra 5.6L Lariat® Intrro® Linex®/Lorox® Marksman® Micro-Tech® Stealth® Python® simazine Topnotch® For difficult-to-control annual weeds such as Barnyardgrass, Broadleaf signal grass, Crabgrass, Fall panicum, and Shattercane, up to 2 inches tall, and Pennsylvania smartweed up to 6 inches tall, apply this product at 2.0 pt/A in these tank mixtures. For other labeled weeds, apply 1.5 to 2.0 pt of this product/A when weeds are less than 6 inches tall, 2.0 to 3.0 pt when weeds are over 6 inches tall. When using nitrogen solutions as the carrier, use rate may need to be increased for acceptable weed control.	Applications of 2,4-D or dicamba must be made at least 7 days prior to planting corn. For southern states, do not apply in nitrogen solutions to tough-to-control grasses such as Annual ryegrass, Barnyardgrass, Broadleaf signalgrass, Fall panicum, and any perennial weeds. The area covered by this recommendation includes from Route 50 South in IL and IN and the following states: AK, AL, DE, FL, GA, KY, LA, MD, MI, NJ, NC, OK, SC, TN, TX, VA, and West VA.
Spot treatment	For spot treatments, apply this product prior to silking of corn.	Do not treat more than 10% of the total field area to be harvested. The crop receiving spray in the treated area will be killed. Take care to avoid drift or spray outside target area for the same reason.

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8.2 Corn (Non-Roundup Ready) cont'd.:

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
See Types of Applications in Section 8.0 Hooded sprayers	See Use Directions in Section 8.0 This product may be used through hooded sprayers for weed control between the rows of corn. Only hooded sprayers that completely enclose the spray pattern may be used. See additional instructions for the use of hooded sprayers in the Application Equipment and Techniques, Section 7.0, of this label. PRECAUTION: Contact of this product in any manner to any vegetation to which treatment is not intended may cause damage. Such damage shall be the sole responsibility of the applicator.	See Restrictions in Section 8.0 Corn must be at least 12 inches tall, measured without extending leaves. Do not apply more than 1.0 qt of this product/A for each application and no more than 3.0 qt/A/yr for hooded sprayer applications.
Preharvest	Make applications at 35% grain moisture or less. Ensure that maximum kernel fill is complete and the corn is physiologically mature (black layer formed). For ground applications, apply up to 3.0 qt of this product/A. For aerial applications, apply up to 2.0 qt of this product/A. PRECAUTION: It is not recommended that corn grown for seed be treated because a reduction in germination or vigor may occur.	Allow a minimum of 7 days between application and harvest.
Postharvest	This product may be applied after harvest of corn. Higher rates may be required for control of large weeds which were growing in the crop at the time of harvest. Tank mixtures with 2,4-D or dicamba may be used.	Allow a minimum of 7 days between treatment and harvest or feeding of treated vegetation.

8.3 COTTON

LABELED CROPS: Cotton (Non-Roundup Ready)

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
See Types of Applications in Section 8.0 Preplant Preemergence At-planting	See Use Directions in Section 8.0 This product may be applied before, during or after planting cotton.	See Restrictions in Section 8.0 Applications must be made prior to emergence of the crop.
Hooded sprayer Selective equipment	This product may be applied through hooded sprayers, shielded applicators or wiper applicators in cotton.	See Selective Equipment, Section 7.5, for information on proper use and calibration of this equipment application and harvest. Allow at least 7 days between application and harvest.
Spot treatment	For spot treatments, apply this product prior to boll opening of cotton.	Do not treat more than 10% of the total field area to be harvested. The crop receiving spray in treated area will be killed. Take care to avoid drift or spray outside target area for the same reason.
Preharvest	This product provides weed control and cotton regrowth inhibition when applied prior to harvest of cotton. For weed control, apply at rates given in the Annual Weeds, Perennial Weeds and Woody Brush and Trees rate tables, Sections 14.0, 15.0, and 16.0. Apply 1.0 pt to 2.0 qt of this product/A for cotton regrowth inhibition. Up to 2.0 qt of this product may be applied using either aerial or ground spray equipment. Apply after sufficient bolls have developed to produce the desired yield of cotton. Applications made prior to this time could affect maximum yield potential. Tank Mixtures: This product may be tank mixed with DEF® 6, Folex® Ginstar® or Prep® to provide additional enhancement of cotton leaf drop.	Allow at least 7 days between application and harvest. Do not apply to cotton grown for seed, as a reduction in germination or vigor may occur. THE USE OF ADDITIVES OTHER THAN THOSE LISTED ON THIS LABEL FOR PREHARVEST APPLICATION TO COTTON IS PROHIBITED.

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8.4 FALLOW SYSTEMS

LABELED CROPS: This product may be applied during the fallow period prior to planting or emergence of any crop on this label

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
See Types of Applications in Section 8.0	See Use Directions in Section 8.0	See Restrictions in Section 8.0
Chemical fallow	This product may be applied during the fallow period prior to planting or emergence of any crop listed on this label. This product may be used as a substitute for tillage to control annual weeds in fallow fields. Also, broadcast or spot treatments will control or suppress many perennial weeds in fallow fields. Ground or aerial application equipment may be used. Tank mixtures with 2,4-D and dicamba may be used. Applications up to 2.0 qt/A may be made by aerial application in fallow sites where there is sufficient buffer to prevent injury due to drift onto adjacent crops.	For any crop not listed on this label applications must be made at least 30 days prior to planting. DO NOT APPLY DICAMBA TANK MIXTURES BY AIR IN CA. Refer to the specific product labels for crop rotation restrictions and cautionary statements of all products used in tank mixtures.
Preplant fallow beds	This product may be applied to fallow beds prior to planting or emergence of any crop listed on this label. This product will control weeds listed in the Annual Weeds, Perennial Weeds and Woody Brush and Trees rate tables, Sections 14.0, 15.0, and 16.0. Tank Mixtures: In addition, 12.0 fl oz of this product plus 2.0 to 3.0 oz of Goal® 2XL (or generic equivalent)/A will control the following weeds with the maximum height or length indicated: 3" - Chickweed, Common cheeseweed, Groundsel; 6" - London rocket, Shepherd's-purse. 16.0 fl oz of this product plus 2.0 to 3.0 oz of Goal 2XL (or generic equivalent)/A will control the following weeds with the maximum height or length indicated: 6" - Common cheeseweed, Groundsel, Marestail (Conyza canadensis), 12" - Chickweed, London rocket, Shepherd's-purse. PRECAUTION: Some crop injury may occur if dicamba is applied within 45 days of planting.	For any crop not listed on this label applications must be made at least 30 days prior to planting. DO NOT APPLY DICAMBA TANK MIXTURES BY AIR IN CA. Refer to the specific product labels for crop rotation restrictions and cautionary statements of all products used in tank mixtures.
Aid-to-tillage	This product may be used in conjunction with tillage practices in fallow systems or preplant to labeled crops to control Cheat, Downy brome, Foxtail, Tansy mustard, and Volunteer wheat. Apply 12.0 fl oz of this product in 3.0 to 10.0 gal of water/A. Make applications before weeds are 6 inches in height. Application must be followed by conventional tillage practices no later than 15 days after treatment and before regrowth occurs. PRECAUTION: Tank mixtures with residual herbicides may result in reduced performance.	Allow at least 1 day after application before tillage.

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8.5 GRAIN SORGHUM (Milo)
LABELED CROPS: Grain Sorghum (Milo)

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
See Types of Applications in Section 8.0 Preplant Preemergence At-planting	See Use Directions in Section 8.0 This product may be applied alone or in tank mixture before, during or after planting grain sorghum. Applications must be made prior to emergence of the crop. Tank Mixtures: Apply these tank mixtures in 10.0 to 20.0 gal of water or 10.0 to 60.0 gal of nitrogen solution/A. Atrazine — Lariat Bicep II Magnum — Lasso® Bullet® — Micro-Tech Dual II Magnum — Milo-Pro® For difficult-to-control annual weeds such as Barnyardgrass, Broadleaf signalgrass, Crabgrass, Fall panicum, and Shattercane up to 2 inches tall, and Pennsylvania smartweed up to 6 inches tall, apply this product at 2.0 pt/A in these tank mixtures. For other labeled annual weeds, apply, 1.5 to 2.0 pt of this product/A when weeds are less than 6 inches tall, and 2.0 to 3.0 pt when weeds are over 6 inches tall. When using nitrogen solutions as the carrier, the use rate may need to be increased for acceptable weed control.	See Restrictions in Section 8.0 For spot treatment. Do not treat more than 10% of the total field area to be harvested. The crop receiving spray in treated area will be killed. Take care to avoid drift or spray outside target area for the same reason. For wiper applicators, allow at least 40 days between application and harvest. Do not use roller applicators. Do not feed or graze treated milo fodder. Do not ensile treated vegetation.
Spot treatment Over-the-top wiper applications	This product may be applied as a spot treatment in grain sorghum. Make spot treatments before heading of milo. This product may be applied with wiper applicators to control or suppress the weeds listed under Shielded and Hooded Applicators in Section 7.5.	See Restrictions in Section 8.0 For spot treatment do not treat more than 10% of the total field area to be harvested. The crop receiving spray in treated area will be killed. Take care to avoid drift or spray outside target area for the same reason. For wiper applicators, allow at least 40 days between application and harvest. Do not use roller applicators. Do not feed or graze treated milo fodder. Do not ensile treated vegetation.
Hooded sprayers	This product may be used through hooded sprayers for weed control between the rows of milo. Only hooded sprayers that completely enclose the spray pattern may be used. See additional instruction for the use of Shielded and Hooded Applicators in Section 7.5. Crop injury may occur when the foliage of treated weeds comes into direct contact with leaves of the crop. Do not apply this product when the leaves of the crop are growing in direct contact with weeds to be treated. Droplets, mist, foam or splatter of the herbicide solution may contact the crop and cause discoloration, stunting or destruction.	Milo must be at least 12 inches tall, measured without extending leaves. Treat before milo sends tillers between the drill rows. If such tillers are contacted with the spray solution, the main plant may be killed. Contact of this product in any manner to any vegetation to which treatment is not intended may cause damage. Such damage shall be the sole responsibility of the applicator. Do not graze or feed milo forage or fodder following applications of this product through hooded sprayers. Do not apply more than 1.0 qt of this product/A/application and no more than 3.0 qt/A for hooded sprayer applications.
Preharvest	Make applications at 30% grain moisture or less. The use of this product for Preharvest grain sorghum (milo) is not registered in CA. As with other herbicides that cause sudden plant death, avoid Preharvest applications of this product to milo infected with charcoal rot as lodging can occur.	Do not apply more than 2.0 qt of this product/A. Allow a minimum of 7 days between application and harvest of sorghum. It is not recommended that sorghum grown for seed be treated, as a reduction in germination or vigor may occur.

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8.5 Grain Sorghum (Milo) cont'd.:

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
See Types of Applications in Section 8.0 Postharvest	See Use Directions in Section 8.0 This product may be applied after harvest of grain sorghum. Higher rates may be required for control of large weeds which were growing in the crop at the time of harvest. Tank mixtures with 2,4-D or dicamba may be used. This product may be applied to grain sorghum (milo) stubble following harvest to suppress or control regrowth. Apply 1.0 qt of this product/A for control, or 1.5 pt of this product/A for suppression.	See Restrictions in Section 8.0 Allow a minimum of 7 days between treatment and harvest or feeding of treated vegetation.

8.6 HERBS AND SPICES

LABELED CROPS: Allspice, Angelica, Star anise, Annatto (seed), Balm, Basil, Borage, Burnet, Chamomile, Caper buds, Caraway, Black caraway, Cardamom, Cassia bark, Cassia buds, Catnip, Celery seed, Chervil (dried), Chive, Chinese chive, Cilantro (seed), Cinnamon, Clary, Clove buds, Coriander leaf (cilantro or Chinese parsley), Coriander seed (cilantro), Costmary, Cilantro (leaf), Cumin, Curry (leaf), Dill (dillweed), Dill (seed), Epazote, Fennel seed (common and Florence), Fenugreek, White ginger flower, Grains of Paradise, Horehound, Hyssop, Juniper berry, Lavender, Lemongrass, Lovage (leaf and seed), Mace, Marigold, Marjoram (including oregano), Mexican oregano, Miaga flower, Mustard (seed), Nasturtium, Nutmeg, Parsley (dried), Pennyroyal, Pepper (black and white), Pepper leaves, Peppermint, Perilla, Poppy (seed), Rosemary, Rue, Saffron, Sage, Savory (summer and winter), Spearmint, Stevia leaves, Sweet bay, Tansy, Tarragon, Thyme, Vanilla, Wintergreen, Woodruff, Wormwood

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
See Types of Applications in Section 8.0	See Use Directions in Section 8.0 **PRECAUTION:** This product could cause crop injury. When applying this product prior to transplanting or direct seeding crops into plastic mulch, care must be taken to remove product residues from the plastic prior to planting. Residual product can be removed by a single 0.5-inch application of water, either by natural rainfall or via a sprinkler system. Care must be taken to ensure that the washwater flushes off the plastic mulch and does not enter transplant holes. Applications made at emergence will result in injury or death to emerged seedlings. For some crops below, it is recommended to make applications 3 days before transplanting or planting.	See Restrictions in Section 8.0
Over-the-top wiper application Spot Treatment (Peppermint and Spearmint only)	This product may be applied as a spot treatment or over-the-top of peppermint or spearmint with wiper applications in spearmint and peppermint. Apply spot treatments on a spray-to-wet basis with hand-held equipment, such as backpack sprayers, pump up pressure sprayers, hand guns, hand wands, or any other hand-held or motorized spray equipment used to direct the spray solution to a limited area. In wiper applications, the applicator must be adjusted so that the wiper contact point is at least 2 inches above the crop. Weeds should be a minimum of 6 inches taller than the crop. PRECAUTION: Contact of the herbicide solution with the crop may result in discoloration, stunting, or destruction.	Allow at least 7 days between application and harvest. Further applications may be made in the same area at 30-day intervals. In spot treatment applications, no more than 10% of the total field area to be harvested can be treated at one time. Crop sprayed in treated area will be killed. Take care not to spray or allow spray to drift outside the target area to avoid unwanted crop destruction.

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8.7 OIL SEED CROPS
LABELED CROPS: Borage, Buffalo gourd (seed), Canola (Non-Roundup Ready), Crambe, Flax, Jojoba, Lesquerella, Meadowfoam, Mustard (seed), Rape, Safflower, Sesame, Sunflower

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
See Types of Applications in Section 8.0 Preplant At-planting Preemergence	See Use Directions in Section 8.0 This product may be applied before, during or after planting oilseed crops listed in this section, but must be applied prior to crop emergence. Observe the maximum application rates listed at the beginning of this section. Tank Mixtures: For sunflower, a tank mixture with Stealth may be applied before, during or after planting into conventionally tillage soil, a cover crop, established sod or previous crop residue.	See Restrictions in Section 8.0
Preharvest (except Buffalo gourd)	This product provides weed control and serves as a harvest aid when applied to a physiologically mature oilseed crop listed in this section. For safflower, apply up to 3.0 qt of this product/A when seed has lost its opaque character, approximately 20 to 30 days after the end of flowering of the secondary branches. For sunflower, apply up to 1.0 qt of this product when the backsides of the sunflower heads are yellow and bracts are turning brown and seed moisture content is less than 35%. For all other oilseed crops listed in this section (except Buffalo gourd), apply up to 48.0 fl oz of this product/A prior to harvest.	DO NOT MAKE A PREHARVEST APPLICATION if you have exceeded the maximum application rates for the combined total of all preemergence and selective equipment applications listed in the table in this section. Make only 1 preharvest application of this product and allow a minimum of 7 days between application and harvest or feeding to livestock. Application must be made a minimum of 30 days prior to the planting of any crop not listed on the Roundup Ultra® herbicide product label.
	Maximum Application Rates if a Preharvest Application is Made	
	Safflower Combined total for all Preemergence and Selective Equipment applications 3.0 qt/A Preharvest application 3.0 qt/A	
	Sunflower Combined total for all Preemergence and Selective Equipment applications 1.0 qt/A Preharvest application 1.0 qt/A	
	All Other Oilseed Crops Listed (Except Buffalo gourd) Combined total for all Preemergence and Selective Equipment applications 2.0 qt/A Preharvest application 48.0 fl oz/A	
Postharvest	This product may be applied for weed control after harvest of oilseed crops. Higher rates might be required for control of large weeds that were growing in the field at the time of harvest. Tank mixtures with 2,4-D or dicamba may be used. Ensure that the specific product being used is labeled for postharvest application in the crop harvested. Read and follow label directions for all products in the tank mixture.	Do not exceed a total application rate of 8.0 qt of this product/A/year. Allow a minimum of 7 days between application of this product and harvest or feeding of vegetation in the application area. Application must be made a minimum of 30 days prior to the planting of any crop not listed on the Roundup Ultra herbicide product label.
Selective equipment	This product may be applied using a wiper applicator or shielded sprayer between crop rows once the crop is established. Observe the maximum application rates listed at the beginning of this section. See Application and Techniques, Section 7.0 for additional instructions on the use of wiper applicators and shielded sprayers.	See the use instructions at the beginning of this section for important information on maximum application rates for preemergence and selective equipment applications of this product.

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8.8 SOYBEANS

LABELED CROPS: Soybeans (Non-Roundup Ready)

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
See Types of Applications in Section 8.0 Preplant Preemergence At-planting	See Use Directions in Section 8.0 This product may be applied before, during or after planting soybeans. Applications must be made prior to emergence of the crop. Refer to table below for tank mixtures that may be applied before, during or after planting in conventional tillage systems, into a cover crop, established sod or in previous crop residue. This product may be tank mixed with 2,4-D or 2,4-DB. See the 2,4-D label for intervals between application and planting. For difficult-to-control weeds such as Fall panicum, Barnyardgrass, Crabgrass, Shattercane and Broadleaf signalgrass up to 2 inches tall, and Pennsylvania smartweed up to 6 inches tall, apply this product at 2.0 pt/A in these tank mixtures. For other labeled annual weeds, apply 1.5 to 2.0 pt of this product/A when weeds are less than 6 inches tall and 2.0 to 3.0 pt when weeds are over 6 inches tall. Tank Mixes: Aim, Assure® II, Authority®, Boundary®, Canopy, Canopy XL, Command, Domain, Dual, Dual II Magnum, Firstrate, Flexstar®, Frontline/Outlook, Fusion®, Gauntlet®, Intrro, Linex, Lorox/Linuron, Lorox Plus, Magnum, Micro-Tech, Pursuit®, Pursuit Plus, Reflex®, Scepter®, Sencor®/Lexone, Squadron®, Stealth, Steel®, Valor®	See Restrictions in Section 8.0 The tank mix recommendations in this section are not registered in CA.
Spot treatment	For spot treatments, apply this product prior to initial pod set in soybeans.	Do not treat more than 10% of the total field area to be harvested. The crop receiving spray in treated area will be killed. Take care to avoid drift or spray outside target area for the same reason.
Preharvest	This product provides weed control when applied prior to harvest of soybeans. Apply at rates given in the Annual Weeds, Perennial Weeds and Woody Brush and Trees rate tables, Sections 14.0, 15.0, and 16.0. This product may be applied using either aerial or ground spray equipment. Apply after pods have set and lost all green color. Care should be taken to avoid excessive seed shatter loss due to ground application equipment.	Do not apply more than 5.0 qt/A of this product for preharvest applications. Do not apply more than 2.0 qt/A of this product by air. Allow a minimum of 7 days between application and harvest of soybeans. Do not graze or harvest treated hay or fodder for livestock feed within 25 days of last preharvest application. (If the application rate is 1.0 qt/A or lower, the grazing restriction is reduced to 14 days after the last preharvest application.) Do not apply to soybeans grown for seed as a reduction in germination or vigor may occur.
Selective equipment	This product may be applied through shielded applicators, hooded sprayers, wiper applicators or sponge bars in soybeans. See Selective Equipment, Section 7.5, for information on proper use and calibration of this equipment.	Allow at least 7 days between application and harvest.

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8.9 SUGARCANE
LABELED CROPS: Sugarcane

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
See Types of Applications in Section 8.0	See Use Directions in Section 8.0	See Restrictions in Section 8.0
Preplant Preemergence At-planting	This product may be applied in or around sugarcane fields or in fields prior to the emergence of plant cane.	Do not apply to vegetation in or around ditches, canals or ponds containing water to be used for irrigation.
Spot treatment	This product may be applied as a spot treatment in sugarcane. For control of volunteer or diseased sugarcane make a 1% solution of this product in water and spray-to-wet the foliage of vegetation to be controlled. Volunteer or diseased sugarcane should have at least 7 new leaves.	Avoid spray contact with healthy cane plants since severe damage or destruction may result. Do not feed or graze treated sugarcane foliage following application.
Fallow treatments	This product may be used as a replacement for tillage in fields that are lying fallow between sugarcane crops. This product may also be used to remove the last stubble of ratoon cane. For removal of last stubble of ratoon cane, apply 4.0 to 5.0 qt of this product in 10.0 to 40.0 gal of water/A to new growth having at least 7 new leaves. Ground or aerial application equipment may be used. Applications up to 3.0 qt/A may be made by aerial application in fallow sites where there is sufficient buffer to prevent injury due to drift onto adjacent crops. Tank mixtures with 2,4-D and dicamba may be used.	Allow 7 or more days after application before tillage.
Hooded sprayers	This product may be used through hooded sprayers for weed control between the rows of sugarcane. See Application Equipment and Techniques, Section 7.0, for additional Use Directions. Minimize the potential for spray particles to escape from under the hood by operating the sprayer at appropriate ground speeds, nozzle pressures and wind speeds. Operation on rough or sloping ground may result in spray particles escaping from the hood. When applying to sugarcane that is grown on raised beds, ensure that the hood is designed to completely enclose the spray. If necessary, extend the front and rear flaps of the hoods to reach the ground in furrows between the rows. PRECAUTION: Droplets, mist, foam or splatter of the herbicide solution settling on the crop may result in discoloration, stunting or destruction. Such damage shall be the sole responsibility of the applicator.	Do not allow treated weeds to come into contact with the crop.
For aid in sugarcane ripening (FL, HI, LA, PR and TX)	This product is a foliar-applied plant growth regulator to hasten ripening and increase the level of sucrose in sugarcane. It is effective in both low and high-tonnage sugarcane. When applied as directed, under the conditions described, this product will hasten ripening and extend the period of high sucrose level in sugarcane. As a result of leaf desiccation, improved trash burn can be expected. Most of the sucrose increase is concentrated in the top nodes of the treated cane stalk. In order to recover the maximum sugar where topping is practiced during harvest, top at the base of the fourth leaf. Prior to application, consult your state sugarcane authority or local Loveland Products, Inc.	Do not make application to sugarcane grown for seed, as a reduction in germination or vigor may occur. Do not feed or graze treated sugarcane forage following application. Do not apply for enhanced ripening to any crops other than sugarcane. Use of this product in any manner not consistent with this label may result in injury to persons, animals or crops, or other unintended consequences.

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8.9 Sugarcane cont'd.:

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
See Types of Applications in Section 8.0	See Use Directions in Section 8.0	See Restrictions in Section 8.0
For aid in sugarcane ripening (FL, HI, LA, PR and TX) cont'd.:	representative regarding the degree of sucrose response anticipated from the variety of sugarcane to be treated. Do not plant subsequent crops in treated fields other than the following for 30 days after application: alfalfa or other forage legumes, beans (all types), corn (all types), cotton, melons (all types), pasture grasses, peanuts, potatoes (Irish or sweet), sorghum (milo), soybeans squash (all types) or wheat. Application Rates: Use the following application rates and timing instructions according to the state in which the sugarcane is grown. PRECAUTION: Application of this product may initiate development of shooting eyes. This product may not increase the sucrose content of sugarcane under conditions of good nature ripening. Within 2 to 3 weeks after application, this product may produce a slight yellowing to pronounced browning and drying of leaves, and a shortening of upper internodes. Spindle death may occur. Rainfall within 6 hours after application may reduce effectiveness. **Note:** Use the higher rate within the labeled range when treating sugarcane under adverse ripening conditions or when less responsive varieties are to be treated. FL - Apply 5.0 to 12.0 fl oz of this product/A 3 to 6 weeks before harvest of LAST RATOON CANE ONLY. HI - Apply 9.0 to 21.0 fl oz of this product/A 4 to 10 weeks before harvest. LA - Apply 3.5 to 12.0 fl oz of this product/A 3 to 7 weeks before harvest of RATOON CANE ONLY. PR - Apply 5.0 fl oz of this product/A 3 to 5 weeks before harvest of RATOON CANE ONLY. TX - Apply 5.0 to 12.0 fl oz of this product/A 3 to 5 weeks before harvest of RATOON CANE ONLY.	Do not make application to sugarcane grown for seed, as a reduction in germination or vigor may occur. Do not feed or graze treated sugarcane forage following application. Do not apply for enhanced ripening to any crops other than sugarcane. Use of this product in any manner not consistent with this label may result in injury to persons, animals or crops, or other unintended consequences.

8.10 VEGETABLE CROPS

NOTE: THIS VEGETABLE CROPS SECTION GIVES DIRECTIONS THAT APPLY TO ALL LISTED VEGETABLE CROPS WITHIN SECTION 8.10 GROUPED ALPHABETICALLY BELOW. SEE THE INDIVIDUAL CROP CATEGORIES FOR SPECIFIC INSTRUCTIONS, Preharvest INTERVALS, PRECAUTIONS AND RESTRICTIONS.

Types of Applications: Chemical fallow, Preplant fallow beds, Preplant, Preemergence, Prior to transplanting vegetables, At-planting, Hooded sprayers in row-middles, Shielded sprayers in row-middles, Wiper applications in row-middles, and Postharvest, Directed applications (Non-Bearing Ginseng), Over-the-top wiper applications (Rutabagas only).

Precautions, Restrictions: When applying this product prior to transplanting or direct-seeding crops into plastic mulch, care must be taken to remove residues of this product, which could cause crop injury, from the plastic prior to planting. Residues can be removed by single 0.5 inch application of water, either by natural rainfall or via a sprinkler system. Care must be taken to insure that the wash water flushed off the plastic mulch does not enter transplant holes. Applications made at emergence will result in injury or death to emerged seedlings.

Avoid contact of herbicide with foliage, green shoots or stems, bark exposed roots (including those emerging from plastic mulch), or fruit of crops because severe injury or destruction may result. When making preemergence and at-planting applications, applications must be made before crop emergence to avoid severe crop injury. Apply before seed germination in coarse sandy soils to further minimize the risk of injury. In crops with vines, hooded sprayer, shielded sprayer and wiper applications to row-middles must be made prior to vine development otherwise severe injury or destruction may result. Unless otherwise specified in this product's labeling, treatments with selective equipment including wipers and hooded sprayers must be made at least 14 days prior to harvest. Postharvest or fallow applications must

be made at least 30 days prior to planting any non-labeled crop. See Application Equipment and Techniques, Section 7.0, for additional information.

8.10-1 BRASSICA VEGETABLES

LABELED CROPS: Broccoli, Broccoli (raab), Brussels sprouts, Cabbage, Cabbage (Chinese), Cabbage (Chinese mustard), Cauliflower, Cavalo broccolo, Chinese broccoli (gai lon), Chinese cabbage (bok choy and napa), Collards, Kale, Kohlrabi, Mizuna, Mustard greens, Mustard spinach, Rape greens

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
See Vegetable Crops in Section 8.10	See Use Directions in Section 8.0	See Restrictions in Section 8.10

8.10-2 BULB VEGETABLES

LABELED CROPS: Garlic, Great-headed garlic, Leek, Onion (dry bulb and green), Shallot, Welsh onion, Shallot

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
See Vegetable Crops in Section 8.10	See Use Directions in Section 8.0	See Restrictions in Section 8.10

8.10-3 CUCURBIT VEGETABLES AND FRUITS

LABELED CROPS: Chayote (fruit), Chinese waxgourd, Citron melon, Cucumber, Gherkin, Gourds, Gourds (edible including hyotan, cucuzza, hechima, Chinese okra), Melons (All), *Momordica* spp. (includes balsam apple, balsam pear, bittermelon, Chinese cucumber), Muskmelon (cantaloupe, casaba, crenshaw, golden pershaw, honeydew, honey ball, mango melon, and Persian, pineapple, Santa Claus, snake), Pumpkin, Summer squash (including crookneck, scallop, straightneck, vegetable marrow, zucchini), Winter squash (including butternut, calabaza, hubbard, acorn, spaghetti), Watermelon

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
See Vegetable Crops in Section 8.10	See Use Directions in Section 8.0	For cantaloupe, casaba melon, crenshaw melon, cucumber, gherkin, gourds, honeydew melon, honey ball melon, mango melon, melons (all), muskmelon, Persian melon, pumpkin, squash (summer and winter), and watermelon, allow at least 3 days between application and planting.

8.10-4 LEAFY VEGETABLES

LABELED CROPS: Amaranth (Chinese spinach), Arrugula (roquette), Beet greens, Cardoon, Celery, Celery (Chinese), Celtuce, Chaya, Chervil, Chrysanthemum (edible-leaved), Chrysanthemum (Garland), Corn salad, Cress (garden and upland), Dandelion dock (sorrel), Dokudami, Endive (escarole), Fennel (Florence), Gow kee, Lettuce (head and leaf), Orach, Parsley, Purslane (garden and winter), Radicchio (red chicory), Rhubarb, Spinach (All), Swiss Chard, Watercress (upland), Water Spinach

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
See Vegetable Crops in Section 8.10	See Use Directions in Section 8.0	See Vegetable Crops in Section 8.10 For watercress, avoid application within 3 days prior to seeding and during the period between seeding and emergence to minimize the risk of injury.

8.10-5 FRUITING VEGETABLES

LABELED CROPS: Eggplant, Ground cherry (*Physalis* spp.), Pepino, Pepper (includes bell, chili, cooking, pimento, sweet), Tomatillo, Tomato

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
See Vegetable Crops in Section 8.10	See Use Directions in Section 8.0 PRECAUTION: For tomato, hooded or shielded sprayer applications in row-middles are not recommended.	See Vegetable Crops in Section 8.10 For eggplant, ground cherry, pepino, pepper (all), tomatillo, and tomato allow at least 3 days between application and planting.

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8.10-6 LEGUME VEGETABLES (succulent or dried)
LABELED CROPS: Bean (*Lupinus*: includes grain lupin, sweet lupin, white lupin, and white sweet lupin), Bean (*Phaseolus*: includes field bean, kidney bean, lima bean, navy bean, pinto bean, runner bean, snap bean, tepary bean, wax bean), Bean (*Vigna*: includes adzuki bean, asparagus bean, blackeyed pea, catjang, Chinese longbean, cowpea, crowder pea, moth bean, mung bean, rice bean, southern pea, urd bean, yardlong bean) Broad bean (fava), Chickpea (garbanzo), Guar, Jackbean, Lablab bean, Lentil pea, (*Pisum*: includes dwarf pea, edible podded pea, English pea, field pea, garden pea, green pea, snowpea, sugar snap pea), Pigeon pea, Soybean (immature seed), Sword bean

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
See Vegetable Crops in Section 8.10	See Use Directions in Section 8.0	See Vegetable Crops in Section 8.10
Preharvest broadcast spray (Dry beans)	This product may be applied as an over-the-top broadcast spray to control labeled weeds prior to the harvest of dry beans. Apply up to 32.0 fl oz in 3.0 to 20.0 gal of water/A at the hard dough stage of the legume seed (30% grain moisture or less). Either ground broadcast or aerial applications may be made.	Apply at least 7 days before harvest for dry beans. Apply at least 7 days before harvest for dry peas, lentils and chickpeas. Only 1 application/yr may be made; do not combine a Preharvest spray with a spot treatment on the same crop area. Preharvest application is not recommended for dry beans, dry peas, lentils and chickpeas grown for seed, as a reduction in germination or vigor may occur. Do not feed treated vines and hay from these crops to livestock. Do not apply this product through any type of irrigation system. Do not treat field (feed) peas, since these are considered to be grown as livestock feed.
Preharvest broadcast spray (Dry peas, Lentils and Chickpeas)	This product may be applied as an over-the-top broadcast spray to control labeled weeds prior to the harvest of dry peas, lentils and chickpeas. Apply up to 64.0 fl oz in 3.0 to 20.0 gal of water/A at the hard dough stage of the legume seed (30% grain moisture or less). Either ground broadcast or aerial applications may be made.	
Spot treatment (Dry beans, Dry peas, Lentils, and Chickpeas)	This product may be applied as spot treatment to control troublesome weeds such as Canada thistle, Quackgrass, Mayweed (Dog fennel), and Milkweed in dry beans. Apply up to 26.0 fl oz in 10.0 to 20.0 gal of water through ground spray equipment or use a 2% solution in a handheld sprayer. For best results, applications should be made at or beyond the bud stage of growth. The crop receiving spray in treated areas will be killed.	Apply at least 14 days before harvest. Only 1 application per year may be made; do not combine a Preharvest spray with a spot treatment on the same crop. Do not feed treated vines and hay from these crops to livestock. Do not apply this product through any type of irrigation system. Do not treat field cowpeas, since these are considered to be grown as livestock feed.

8.10-7 ROOT & TUBER VEGETABLES
LABELED CROPS: Arracacha, Arrowroot, Artichoke (Chinese & Jerusalem), Beet (garden), Burdock, Canna, Carrot, Cassava (bitter & sweet), Celeriac, Chayote (root), Chervil, Chicory, Chufa, Dasheen, Galangal, Ginger, Ginseng, Horseradish, Leren, Kava, Parsley, Parsnips, Potato (Irish), Radish, Radish (Oriental), Rutabaga, Salsify, Salsify (Black and Spanish), Skirret, Sweet potato, Tanier, Tumeric, Turnip, Wasabi, Yacon, Yams, Yam bean, Yam (True)

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
See Vegetable Crops in Section 8.10	See Use Directions in Section 8.0	See Vegetable Crops in Section 8.10
Direct application (Non-bearing Ginseng)	This product may be used for weed control in established non-bearing ginseng. Applications may be made with boom equipment, CDA, shielded sprayers, hand-held and high-volume wands, lances, and orchard guns or with wiper application equipment. PRECAUTION: Extreme care must be exercised to avoid contact of herbicide solution, spray, drift or mist with foliage or green bark of trunk, branches, suckers, fruit or other parts of desirable plants. Contact of this product with other than matured brown bark can result in serious crop damage.	Applications must be made at least 1 year prior to harvest.
Over-the-top wiper application (Rutabaga only)	Wiper applicators may be used over-the-top of rutabagas.	Allow at least 14 days between application and harvest of rutabagas.

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8.11 MISCELLANEOUS CROPS

LABELED CROPS: Aloe vera, Asparagus, Bamboo shoots, Globe artichoke, Okra, Peanut (ground nut), Pineapple, Strawberry, Sugar Beet (Non-Roundup Ready)

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
See Vegetable Crops in Section 8.10	See Use Directions in Section 8.0	See Vegetable Crops in Section 8.10 Avoid contact of herbicide with foliage, green shoots or stems, bark, exposed roots (including those emerging from plastic mulch), or fruit of crops because severe injury or destruction may result. When making preemergence and at-planting applications, applications must be made before crop emergence to avoid serious crop injury. Apply before seed germination in coarse sandy soils to further minimize the risk of injury. In crops with vines, hooded sprayer, shielded sprayer and wiper applications to row-middles must be made prior to vine development otherwise severe injury or destruction may result. Unless otherwise specified in this product's labeling, treatments with selective equipment including wipers and hooded sprayers must be made at least 14 days prior to harvest. Postharvest or fallow applications must be made at least 30 days prior to planting any non-labeled crop.
Weed control Site preparation	This product may be applied for weed control or for site preparation prior to planting or transplanting crops listed in this section.	When applying this product prior to transplanting or direct seeding crops into plastic mulch, care must be taken to remove residues of this product from the plastic prior to transplanting. Residues can be removed by 0.5 inch natural rainfall or by applying water via a sprinkler system. Care must be taken to insure that the wash water flushes off the plastic mulch and does not enter transplant holes. Injury made at emergence will result in injury or death to emerged seedlings. Do not apply within a week before the first asparagus spears emerge. Do not feed or graze treated pineapple forage following application.
Spot treatment (Asparagus)	This product may be applied immediately after cutting, but prior to the emergence of new spears.	Do not treat more than 10% of the total field area to be harvested. Do not harvest within 5 days of treatment.
Postharvest (Asparagus)	This product may be applied after the last harvest and all spears have been removed. If spears are allowed to re-grow, delay application until ferns have developed. Delayed treatments should be applied as a directed or shielded spray in order to avoid contact of the spray with ferns, stems or spears.	Direct contact of the spray with the asparagus may result in serious crop injury. Select and use recommended types of spray equipment for postemergence Postharvest applications. A directed spray is any application where the spray pattern is aligned in such a way as to avoid direct contact of the spray with the crop. A shielded spray is any application where a physical barrier is positioned and maintained between the spray and the crop to prevent contact of spray with the crop.

9.0 TREE, VINE AND SHRUB CROPS (Alphabetical)

NOTE: THIS SECTION GIVES DIRECTIONS THAT APPLY TO ALL LISTED TREE, VINE AND SHRUB CROPS WITHIN SECTION 9 CROP GROUPS. INDIVIDUAL CROPS MAY HAVE MORE SPECIFIC INSTRUCTIONS, Preharvest INTERVALS, PRECAUTIONS AND RESTRICTIONS.

Types of Applications: Preplant (Site Preparation), Broadcast Sprays, Weed control, Middles (between rows of trees, vines or shrubs), Strips (within rows of trees, vines or shrubs), Selective Equipment (shielded sprayers, wiper treatments), Directed Sprays, Spot Treatments, Perennial Grass Suppression, Cut Stump.

Applications may be made with boom equipment, CDA, shielded sprayers, hand-held and high-volume wands, lances, orchard guns, or with wiper applicator equipment, except as directed.

Use Directions: This product may be applied in middles (between rows of trees or vines), strips (within rows of trees or vines), and for weed control or perennial grass suppression in established tree fruit and tree nut groves, orchards, berries and vineyards. This product may also be used for site preparation prior to planting or transplanting these crops. **APPLY AT 1.0 PINT TO 5.0 QUARTS PER ACRE ACCORDING TO THE ANNUAL WEEDS, PERENNIAL WEEDS, AND WOODY BRUSH AND TREES RATE TABLES, SECTIONS 14.0, 15.0 AND 16.0.** Utilize rates at the higher end of the labeled rate range when weeds are stressed, growing in dense populations or are greater than 12 inches tall. Repeat applications may be made up to a maximum of 10.6 quarts per acre per year.

The maximum use rates stated throughout this product's labeling apply to this product combined with the use of all other herbicides containing glyphosate or sulfosate as the active ingredient, whether applied as mixtures or separately. Calculate the application rates and ensure that the total use of this and other glyphosate or sulfosate containing products does not exceed stated maximum use rate.

Precautions

- Extreme care must be exercised to avoid contact of herbicide solution, spray, drift or mist with foliage or green bark of trunk, branches, suckers, fruit or other part of the trees, canes and vines.
- Avoid applications when recent pruning wounds or other mechanical injury has occurred.
- Contact of this product with other than mature brown bark can result in serious crop damage or destruction.
- For applications in strips (within rows of trees), only selective equipment (directed sprays, hooded sprayers, shielded applicators, or wipers) must be used to minimize the potential for leakage or drift of herbicide sprays onto crop.

See Application Equipment and Techniques, Section 7.0, for additional directions and precautions.

Restrictions

- Only wipers or shielded applicators capable of preventing all contact with crop may be used.
- Only shielded or directed sprayers may be used in crops with potential for crop contact, and then only where there is sufficient clearance.
- For berry crops, hooded or shielded sprayers must be fully enclosed including top, sides, front and back.
- Allow a minimum of 3 days between applications and transplanting.

Middles (between rows of trees, vines or bushes)

Use Directions: This product will control or suppress annual and perennial weeds and ground covers growing between the rows of labeled tree and vine crops. If weeds are under drought stress, irrigate prior to application. Reduced control may result if weeds have been mowed prior to application.

Tank Mixtures: A tank mixture of this product plus Goal 2XL (or generic equivalent) may be used for annual weeds in middles between rows of citrus crops, tree fruits, tree nuts and vine crops. This mixture is recommended when weeds are stressed or growing in dense populations. 16.0 to 32.0 ounces per acre of this product plus 3.0 to 12.0 ounces per acre of Goal 2XL will control annual weeds with a maximum height or diameter of 6 inches, including Annual sowthistle, Common cheeseweed (malva), Common groundsel, Common lambsquarters, Common purslane (suppression), Common ryegrass, Crabgrass, Filaree (suppression), Horseweed/marestail (*Conyza canadensis*), Junglerice, Redroot pigweed, Shephard's-purse, and Stinging nettle. 16.0 to 32.0 ounces per acre of this product plus 3.0 to 12.0 ounces per acre of Goal 2XL will control Common cheeseweed (malva) or Hairy fleabane (*Conyza bonanensis*) with a maximum height or diameter of 3 inches.

Strips (in rows of trees, vines or bushes)

Tank Mixtures: This product may be applied in rows of tree or vine crops and may also be tank mixed with the following products (or generic equivalent).

Caliber 90	Krovar® I	Sim-Trol® 4L
Devrinol® 50 DF	Krovar II	Solicam® DF
Direx® 4L	Princep®	Stealth
Goal 2XL	Simazine 4L	Sulfan AS
Karmex® DF	Simazine 80W	Surflan 75W

Do not apply these tank mixtures in Puerto Rico.
Refer to the individual product labels for specific crops, rates, geographic restrictions and precautionary statements.

Perennial Grass Suppression
This product will suppress perennial grasses such as Bahiagrass, Bermudagrass, Tall fescue, Orchardgrass, Kentucky bluegrass, and Quackgrass that are grown as ground covers in tree and vine crops.

For suppression of Tall fescue, Fine fescue, Orchardgrass and Quackgrass, apply 8.0 fluid ounces of this product in 10.0 to 20.0 gallons of water per acre.

For suppression of Kentucky bluegrass covers, apply 6.0 fluid ounces of this product per acre. Do not add ammonium sulfate.

For best results, mow cool season grass covers in the spring to even their height and apply this product 3 to 4 days after mowing.

For suppression of vegetative growth and seedhead inhibition of Bahiagrass for approximately 45 days, apply 6.0 fluid ounces of this product in 10.0 to 25.0 gallons of water per acre. Apply 1 to 2 weeks after full green up or after mowing to a uniform height of 3 to 4 inches. This application must be made prior to seedhead emergence.

For suppression up to 120 days, apply 4.0 fluid ounces of this product per acre, followed by an application of 2.0 to 4.0 fluid ounces per acre about 45 days later. Make no more than 2 applications per year.
For burndown of Bermudagrass, apply 1.0 to 2.0 quarts of this product in 3.0 to 20.0 gallons of water per acre. Use this treatment only if reduction of the Bermudagrass stand can be tolerated. When burndown is required prior to harvest, allow at least 21 days to ensure sufficient time for burndown to occur.

For suppression of Bermudagrass, apply 6.0 to 16.0 fluid ounces of this product per acre east of the Rocky Mountains and 16.0 fluid ounces of this product per acre west of the Rocky Mountains. Apply in a total spray volume of 3.0 to 20.0 gallons per acre, no sooner than 1 to 2 weeks after full green-up. If the Bermudagrass is mowed prior to application, maintain a minimum of 3 inches in height. Sequential applications may be made when regrowth occurs and Bermudagrass injury and stand reduction can be tolerated. East of the Rocky Mountains, rates of 6.0 to 10.0 fluid ounces per acre should be used in shaded conditions or where a lesser degree of suppression is desired.

9.1 CUT STUMPS (Tree crops)
LABELED CROPS:
Citrus Trees: Calamondin, Chironja, Citron, Citrus hybrids, Grapefruit, Kumquat, Lemon, Lime, Mandarin (Tangerine), Orange (all), Pummelo, Tangelo, Tangor
Fruit Trees: Apple, Apricot, Cherry (sweet sour), Crabapple, Loquat, Mayhaw, Nectarine, Olive, Peach, Pear, Plum/Prune (all), Quince
Nut Trees: Almond, Beechnut, Brazil nut, Butternut, Cashew, Chestnut, Chinquapin, Filbert (hazelnut), Hickory Nut, Macadamia, Pecan, Pistachio, Walnut (Black, English)

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
Suitable Hand-Held Equipment Section 7.4	Cut stump applications of this product may be made during site preparation or site renovation, prior to transplanting tree crops. This product will control regrowth of cut stumps and resprouts of many types of tree species, some of which are listed below. Apply this product using suitable equipment to ensure coverage of the entire cambium. Cut trees or resprouts close to the soil surface. Apply a 50 to 100% solution of this product to the freshly-cut surface immediately after cutting. Delays in application may result in reduced performance. For best results, applications should be made during periods of active growth and full leaf expansion. PRECAUTION: Some sprouts, stems, or trees may share the same root system. Adjacent trees having a similar age, height and spacing may signal shared roots. Whether grafted or shared, injury is likely to occur to non-treated stems/trees when one or more trees sharing common roots are treated.	DO NOT MAKE CUT STUMP APPLICATIONS WHEN THE ROOTS OF ADJACENT DESIRABLE TREES MAY BE GRAFTED TO THE ROOTS OF THE CUT STUMP. INJURY RESULTING FROM ROOT GRAFTING MAY OCCUR IN ADJACENT TREES.

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9.2 BERRY CROPS

LABELED CROPS: Blackberry (including bingleberry, black satin berry, boysenberry, Cherokee blackberry, chesterberry, Cheyenne blackberry, coryberry, darrowberry, dewberry, Dirksen thornless berry, Himalayaberry, hullberry, juneberry, lavacaberry, lowberry, lucretiaberry, marionberry, nectarberry, olallieberry, Oregon evergreen berry, Phenomenalberry, rangeberry, ravenberry, rossberry, Shawnee blackberry and youngberry), Blueberry, Cranberry, Currant, Elderberry, Gooseberry, Huckleberry, Loganberry, Raspberry (Black, Red), Salai

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
See Types of Applications in Section 9.0	See Use Directions in Section 9.0	See Restrictions in Section 9.0 Do not permit herbicide solution to contact desirable vegetation, including green shoots, canes or foliage. Allow a minimum of 30 days between last application and harvest of cranberries. For other small fruits and berries, allow a minimum of 14 days between last application and harvest. Do not make directed sprays within the cranberry bush areas prior to berry harvest.
Spot treatment (Cranberry production)	May be used to control weeds growing in dry ditches (interior and perimeter) of cranberry production areas. Hand-held sprayers or other appropriate application equipment listed under Application Equipment and Techniques, Section 7.0, may be used. Drop water level to remove standing water in ditches prior to application. In hand-held sprayers use 1 to 2% solution of this product. Spray to wet vegetation, not to run off. For treatments after draw down of water in dry ditches, allow 2 or more days after treatment before reintroduction of water to achieve maximum weed control. Apply this product within 1 day after draw down to ensure application to actively growing weeds.	Allow a minimum of 30 days between last application and harvest of cranberries. Do not apply this material through irrigation system. Do not make applications by air. Do not apply directly to water. Use nozzles that emit medium- to large-sized droplets to minimize drift in order to avoid crop injury.
Postharvest (Cranberry production)	Make applications only after cranberries have been harvested to control weeds growing within the field. Best results will be obtained if applications are made to vines that appear dormant (after they have turned red). Hand-held sprayers, wipers or other appropriate application equipment listed under Application Equipment and Techniques, Section 7.0, may be used. If using hand-held sprayers, use a 0.5 to 1% solution of this product. spray-to-wet vegetation, not to run off. If using hand-held boom sprayers, apply 2.0 to 4.0 qt of his product/A.	Do not treat more than 10% of the total bog. Allow a minimum of 6 months after the last application and next harvest of cranberries. Do not apply this product through the irrigation system. Do not make applications by air. Do not apply directly to water. Even though vines appear dormant, contact of the herbicide solution with desirable vegetation may result in damage or severe plant injury. Cranberry plants that are directly sprayed may be killed.

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9.3 CITRUS

LABELED CROPS: Calamondin, Chironja, Citron, Citrus Hybrids, Grapefruit, Kumquat, Lemon, Lime, Mandarin (tangerine), Orange (All), Pummelo, Satsuma Mandarin, Tangelo (ugli), Tangor

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
See Types of Applications in Section 9.0	See Use Directions in Section 9.0 FL and TX only: For burn down or control of the weeds listed below, apply the labeled rates of this product in 3.0 to 40.0 gal of water/A. Where weed foliage is dense, use 10.0 to 30.0 gal of water/A. For Goatweed, apply 2.0 to 3.0 qt of this product/A. Apply in 20.0 to 30.0 gal of water/A when plants are actively growing. Use 2.0 qt/A when plants are less than 8 inches tall and 3.0 qt/A when plants are greater than 8 inches tall. If Goatweed is greater than 8 inches tall, the addition of Krovar II or Karmex may improve control. Refer to the individual product labels for specific crops, rates, geographic restrictions and precautionary statements.	See Restrictions in Section 9.0 Allow a minimum of 1 day between last application and harvest. For citron groves apply as directed sprays only.

Perennial weeds S=Suppression B=Burndown PC=Partial Control C=Control

Weed Species	Mad Dog Plus Rate Per Acre			
	1.0 Qt	2.0 Qt	3.0 Qt	5.0 Qt
Bermudagrass	B		PC	C
Guineagrass Texas and Florida Ridge	B	C	C	C
Guineagrass Florida Flatwoods		B	C	C
Paragrass	B	C	C	C
Torpedograss	S		PC	C

9.4 MISCELLANEOUS TREE FOOD CROPS

LABELED CROPS: Cactus (fruits & pads), Palm (heart, leaves), Palm (oil)

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
See Types of Applications in Section 9.0	See Use Directions in Section 9.0	See Restrictions in Section 9.0

9.5 NON-FOOD TREE CROPS

LABELED CROPS: Pine, Poplar, Eucalyptus, Christmas Trees, Other Non-food Tree Crops

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
See Types of Applications in Section 9.0 Directed sprays Spot treatments Wiper applications	See Use Directions in Section 9.0 This product may be used as a post directed spray and spot treatment around established poplar, eucalyptus, Christmas Trees and other non-food tree crops. PRECAUTION: Care must be exercised to avoid contact of spray drift or mist with foliage or green bark of established Christmas trees and other pine trees. Desirable plants may be protected from the spray solution by using shields or coverings made of cardboard or other impermeable material.	See Restrictions in Section 9.0 THIS PRODUCT IS NOT LABELED FOR USE AS AN OVER-THE-TOP BROADCAST SPRAY IN CHRISTMAS TREES AND OTHER PINE TREES.
Site preparation	This product may be used prior to planting non-food tree crops.	Precautions must be taken to protect non-target plants during site preparations applications.
Directed spray (Eucalyptus and Poplar production)	This product can be used around established eucalyptus and poplar trees to control undesirable vegetation. Use a 1 to 2% spray solution to control herbaceous weeds in eucalyptus farms. Use a 2% spray solution for control of undesirable woody brush and trees. For "hard-to-control" weeds, use a 5 to 10% spray solution. Avoid contact of spray, drift, or mist with foliage, green bark or non-woody surface roots of plants.	AVOID HERBICIDE CONTACT WITH DESIRABLE VEGETATION.

9.5 Non-Food Tree Crops cont'd.:

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
See Types of Applications in Section 9.0 Wiper Application (Eucalyptus and Poplar production)	See Use Directions in Section 9.0 This product may be used through wick or other suitable wiper applicators for control or partial control of grass and broadleaf weeds listed in Annual Weeds and Perennial Weeds, Sections 14.0 and 15.0. For wick applicators, mix 1.0 gal of this product with 2.0 gal water to make a 33% solution. For wiper systems that can handle thicker solutions, such as force-fed systems, a 33 to 100% solution may be used. For best results, ensure that the herbicide solution is allowed to contact the maximum amount of leaf surface. As weed densities increase, decrease equipment speed to allow sufficient herbicide flow to wet all weed surfaces contacted. Weeds not contacted will be unaffected.	See Restrictions in Section 9.0

9.6 POME FRUIT

LABELED CROPS: Apple, Crabapple, Loquat, Mayhaw, Pear (including Oriental pear), Quince

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
See Types of Applications in Section 9.0	See Use Directions in Section 9.0	See Restrictions in Section 9.0 Allow a minimum of 1 day between last application and harvest in pome fruits.

9.7 STONE FRUIT

LABELED CROPS: Apricot, Cherry (Sweet, Tart), Nectarine, Olive, Peach, Pear, Plum/Prune (All types), Plumcot

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
See Types of Applications in Section 9.0	See Use Directions in Section 9.0	See Restrictions in Section 9.0 Allow a minimum of 17 days between last application and harvest in stone fruit crops. For olive groves, apply as directed sprays only.

Restrictions on application equipment:

For cherries, any application equipment listed in this section may be used in all states.

Any application equipment listed in this section may be used in apricots, nectarines, peaches and plums/prunes growing in Arizona, California, Colorado, Idaho, Kansas, Kentucky, New Jersey, North Dakota, Oklahoma, Oregon, Texas, Utah and Washington, except for peaches grown in the states specified in the following paragraph. In all other states, use wiper equipment only.

For peaches grown in Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina and Tennessee only, apply with a shielded boom spray or shielded wiper applicator, which prevents any contact of this product with the foliage or bark of trees. Apply no later than 90 days after first bloom. Applications made after this time may result in severe damage. Remove suckers and low hanging limbs at least 10 days prior to application. Avoid application near trees with recent pruning wounds or other mechanical injury. Apply only near trees that have been planted in the orchard for 2 or more years.
EXTREME CARE MUST BE TAKEN TO ENSURE NO PART OF THE PEACH TREE IS CONTACTED.

9.8 TREE NUTS

LABELED CROPS: Almond, Beechnut, Betelnut, Brazil nut, Butternut, Cashew, Chestnut, Chinquapin, Coconut, Filbert (Hazelnut), Hickory nut, Macadamia, Pecan, Pine nut, Pistachio, Walnut (Black, English)

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
See Types of Applications in Section 9.0	See Use Directions in Section 9.0	See Restrictions in Section 9.0 Allow a minimum of 3 days between last application and harvest of tree nuts, except coconut. Allow 14 days between application and harvest in coconuts.

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9.9 TROPICAL CROPS AND SUBTROPICAL TREES AND FRUIT

LABELED CROPS: Ambarella, Atemoya, Avocado, Banana, Barbados Cherry (acerola), Biriba, Blimbe, Breadfruit, Cacao (cocoa) bean, Canistel, Carambola (starfruit), Cherimoya, Coffee, Custard apple, Dates, Durian, Feijoa, Figs, Governor's plum, Guava, Ilama, Imbe, Imbu, Jaboticaba, Jackfruit, Longan, Lychee, Mamey apple, Mango, Mangosteen, Marmaladebox (genip), Mountain papaya, Papaya, Pawpaw, Plantain, Persimmon, Pomegranate, Pulasan, Rambutan, Rose apple, Sapodilla, Sapote (black, mamey, white), Spanish lime, Soursop, Star apple, Sugar apple, Surinam cherry, Tamarind, Tea, Ti (roots and leaves), Wax jambu

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
See Types of Applications in Section 9.0	See Use Directions in Section 9.0 This product may be applied for weed control or for site preparation prior to transplanting crops listed in this section. In coffee and banana, delay applications 3 months after transplanting to allow the new coffee or banana plant to become established.	See Restrictions in Section 9.0 Allow a minimum of 1 day between last application and harvest of banana, guava, papaya and plantain crops. Allow a minimum of 14 days between last application and harvest of any other tropical or subtropical tree fruit. Allow a minimum of 28 days between last application and harvest in coffee crops.
Bananacide (Banana only)	This product may be used to destroy banana plants infected with the Banana bunchy top virus as well as non-infected banana plants to establish a disease free buffer around plantations. Remove all fruit from the plants within the treatment area prior to treatment. Inject 1/25 fl oz (1.0 mL) of this products concentrate/2 to 3 inches of pseudostem diameter. Make the injection at least 1 ft above ground, except for very small plants, which should be injected vertically into the top. Any subsequent regrowth must also be destroyed. All plants and mats (or units) adjacent (within a 4-ft radius) to a treated mat shall be mechanically destroyed. For control of the Banana bunchy top virus, it is critical that the grower follow a strict control program involving monitoring for diseased plants, spraying to control the aphid vector, and destruction of all infected mats (or units). An infected plant may not show symptoms of the disease for up to 125 days, therefore it is critical that the entire mat (or unit) containing the diseased plant be destroyed immediately.	Do not apply more than 1/2 fl oz (15.0 mL) of this product's concentrate/mat (or units). Remove all fruit from plants and mats (or units) prior to treatment. Do not harvest any fruit or plant materials from treated mats (or units) following injection. Do not allow livestock to consume treated materials. Following transplant of new banana plants into treated areas, allow plants to become established for 3 months before applying this product for weed control.

9.10 VINE CROPS

LABELED CROPS: Grapes (raisin, table, wine), Hops, Kiwi, Passion fruit

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
See Types of Applications in Section 9.0	See Use Directions in Section 9.0 Applications must not be made when green shoots, canes or foliage are in the spray zone. In the northeast and Great Lakes regions, applications must be made prior to the end of bloom stage of grapes to avoid injury, or make applications with shielded sprayers or wiper equipment.	See Restrictions in Section 9.0 Allow a minimum of 14 days between last application and harvest. Do not use selective equipment in kiwi.

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10.0 PASTURE, GRASSES, FORAGE LEGUMES AND RANGELANDS

10.1 ALFALFA, CLOVER AND OTHER FORAGE LEGUMES

LABELED CROPS: Alfalfa, Clover, Kenaf, Kudzu, Lespedeza, Leucaena, Lupin, Sainfoin, Trefoil, Velvet bean, Vetch (all types)

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
Preplant Preemergence At-planting	This product may be applied before, during or after planting crops listed. Make applications according to the rates listed in Annual Weeds, Perennial Weeds, and Woody Brush and Trees rate tables, Sections 14.0, 15.0 and 16.0. Applications must be made prior to emergence of the crop.	If a single application is made at rates of 2.0 qt/A or less, no waiting period between treatment and feeding or grazing is required. If application rates greater than 2.0 qt/A are made, remove domestic livestock before application and wait 8 weeks after application before grazing or harvesting.
Spot treatment Over-the-top wiper applications (Alfalfa and Clover only)	This product may be applied as a spot treatment in alfalfa or clover. This product may be applied with wiper applicators to control or suppress the weeds listed in Wiper Applicators, Section 7.5. Applications may be made in the same area at 30-day intervals.	For spot treatment and wiper applications, apply in areas where the movement of domestic livestock can be controlled. No more than 1/10 of any acre can be treated at one time. Remove domestic livestock before application and wait 14 days after application before grazing livestock or harvesting.
Dormant (Alfalfa only)	This product will control or suppress many weeds including Downy brome, Cheatgrass and Quackgrass, in dormant alfalfa. Apply 8.0 to 12.0 oz/A of this product. Apply in the spring to alfalfa that is dormant. Applications should be made after spring temperatures have warmed enough to encourage resumption of weed growth, but prior to initiation of trifoliate leaf expansion of the alfalfa. Applications made after expansion of the first trifoliate leaf of the alfalfa will cause growth reduction and reduced crop yield. Slight discoloration of the alfalfa may occur, but the alfalfa will regreen and regrow under moist soil conditions as effects of this product wear off. PRECAUTION: Application of this product can cause crop injury. Any crop injury is the sole responsibility of the applicator.	Do not use ammonium sulfate when spraying dormant alfalfa with Mad Dog Plus. Do not use this product where a slight yield reduction in the first cutting of alfalfa cannot be tolerated. Do not make more than 1 application/yr. Allow 36 hours after application before grazing livestock or harvesting.
Preharvest (Alfalfa only)	This product may be used in declining alfalfa stands or any stand of alfalfa where crop destruction is acceptable. This application will severely injure or destroy the stand of alfalfa. This product will control annual and perennial weeds including Quackgrass, when applied prior to the harvest of alfalfa. Use up to 1.0 qt of this product/A. Applications may be made at any time of the year. For control of Quackgrass, apply in the spring, late summer or fall when Quackgrass is actively growing. Treatments for Quackgrass must be followed by deep tillage for complete control.	Make only 1 application to an existing stand of alfalfa/yr. Do not apply more than 2.0 qt of this product/A as a Preharvest treatment. Do not use for alfalfa grown for seed, as a reduction in germination or vigor may occur. The treated crop and weeds can be harvested and fed to livestock after 36 hr.
Renovation	This product may be applied as a broadcast spray to existing stands of alfalfa, clover, and other labeled forage legumes. Labeled crops may be planted into the treated area. Make applications according to the rates listed in Annual Weeds, Perennial Weeds, and Woody Brush and Trees rate tables, Sections 14.0, 15.0 and 16.0.	Remove domestic livestock before application. If application rates of 2.0 qt/A or less are used, wait 36 hr after application before grazing or harvesting. If application rates greater than 2.0 qt/A are used, wait 8 wk after application before grazing or harvesting.

10.2 CONSERVATION RESERVE PROGRAM (CRP)
LABELED CROPS: Conservation Reserve Program (CRP) Acres

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
Renovation (rotating out of CRP) Site preparation	This product may be used to prepare CRP land for crop production. Refer to Federal, State or local use guides for CRP renovation recommendations. Make applications according to the rates listed in Annual Weeds, Perennial Weeds, and Woody Brush and Trees rate tables, Sections 14.0, 15.0 and 16.0. For any crop not listed in the crops sections of this label, applications must be made at least 30 days prior to planting. PRECAUTION: Some stunting of CRP perennial grasses will occur if broadcast applications are made when plants are not dormant.	Do not apply more than 3.0 qt/A/yr onto CRP grasses.
Postemergence weed control in dormant acres Over-the-top wiper application	This product may be used to suppress competitive growth and seed production of undesirable vegetation in CRP acres. Such applications may be made with wiper application equipment or as a broadcast or spot treatment to dormant CRP grasses. For selective applications with broadcast spray equipment, apply 12.0 to 16.0 fl oz of this product/A in early spring before desirable CRP grasses, such as crested and tall wheatgrass, break dormancy and initiate green growth. Late fall applications can be made after desirable perennial grasses have reached dormancy.	Do not apply more than 3.0 qt/A year onto CRP grasses.

10.3 GRASS or TURFGRASS SEED PRODUCTION
LABELED CROPS: Any grass (*Gramineae* family), except corn, sorghum, sugarcane and those listed under Cereal Crops in Section 8.1.

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
Preplant Preemergence Renovation Site preparation	This product may be applied before, during, or after planting or for renovation of turf or forage grass areas grown for seed production. Make applications according to the rates listed in Annual Weeds, Perennial Weeds, and Woody Brush and Trees rate tables, Sections 14.0, 15.0 and 16.0. Applications must be made prior to the emergence of the crop to avoid injury. For maximum control of existing vegetation, delay planting to determine if any regrowth from escaped underground plant parts occurs. Where repeat treatments are necessary, sufficient regrowth must be attained prior to application. For warm-season grasses, such as bermudagrass, summer or fall applications provide best control.	Do not disturb soil or underground plant parts before treatment. Tillage or renovation techniques such as vertical mowing, coring or slicing should be delayed for 7 days after application to allow proper translocation into underground plant parts. If application rates total 3.0 qt/A or less, no waiting period between treatment and feeding or livestock grazing is required. If the rate is greater than 3.0 qt/A, remove domestic livestock and wait 8 wk following application before grazing or harvesting.
Shielded sprayer	Apply 1.0 to 3.0 qt of this product as a broadcast spray in 10.0 to 20.0 gal of total spray volume/A. Uniform planting in straight rows aid in shielded sprayer applications. Best results are obtained when the grass seed crop is small enough to easily pass by or through the protective shields. PRECAUTION: Contact of this product in any manner to any vegetation to which treatment is not intended may cause damage. Grower assumes all responsibility for crop losses from misapplication.	

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10.3 Grass or Turfgrass Seed Production cont'd.:

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTION
Over-the-top wiper applications	This product may be applied with wiper applicators to control or suppress the weeds listed under Wiper Applications in Section 7.5. Weeds should be a minimum of 6 inches above the desirable vegetation. Better results may be obtained when more of the weed is exposed to the herbicide solution. Weeds not contacted by the herbicide solution will not be affected. This may occur in dense clumps, severe infestations, or when weed height varies so that not all weeds are contacted. In these instances, repeat treatments may be necessary. Better results may be obtained if 2 applications are made in opposite directions.	Contact of the herbicide solution with desirable vegetation may result in damage or destruction. Applicators must be adjusted so that the wiper contact point is at least 2 inches above the desirable vegetation.
Spot treatments	Use a 1 to 1.5% solution. Apply this product prior to heading of grasses.	The crop receiving the spray in the treated area will be killed. Avoid drift or spray outside of the target area for the same reason.
Creating rows in Annual ryegrass	Use 16.0 to 32.0 fl oz of this product/A. Use the higher rate when the ryegrass is greater than 6 inches tall. Best results are obtained when applications are made before the ryegrass reaches 6 inches in height. PRECAUTION: Set nozzle height to allow the establishment of the desired row spacing while preventing spray droplets, spray fines, or drift to contact the ryegrass plants not treated. Use of low-pressure nozzles, or drop nozzles designed to target the application over a narrow band are recommended. Grower assumes all responsibility for crop losses from misapplication.	

10.4 PASTURES

LABELED CROPS: Any grass (*Gramineae* family), except corn, sorghum, sugarcane and those listed under Cereal Crops in Section 8.1, including Bahiagrass, Bermudagrass, Bluegrass, Brome, Fescue, Guineagrass, Kikuygrass, Orchardgrass, Pangola grass, Ryegrass, Timothy, Wheatgrass

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
Spot treatment Over-the-top wiper applications	This product may be applied as a spot treatment or with wiper applicators in pastures. Applications may be made in the same area at 30-day intervals.	For spot treatments or wiper application methods using rates of 3.0 qt/A or less, the entire field or any portion of it may be treated. When spot treatment or wiper applications are made using rates above 3.0 qt/A, no more the 10% of the total pasture may be treated at any one time. To achieve maximum performance, remove domestic livestock before application and wait 7 days after application before grazing livestock or harvesting.
Preplant Preemergence Pasture renovation Stand removal	This product may be applied prior to planting or emergence of forage grasses. In addition this product may be used to control perennial pasture species listed on this label prior to re-planting. Make applications according to the rates listed in Annual Weeds, Perennial Weeds, and Woody Brush and Trees rate tables, Sections 14.0, 15.0 and 16.0.	If application rates total 3.0 qt/A or less, no waiting period between treatment and feeding or livestock grazing is required. If the rate is greater than 3.0 qt/A, remove domestic livestock and wait 8 wk following application before grazing or harvesting.

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10.4 Pastures cont'd.:

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
Chemical mowing (Bermudagrass pastures prior to spring growth or immediately after first cutting	This product may be applied at 16.0 fl oz/A to control the weeds listed below and most other winter annual grass and broadleaf weeds in established coastal bermudagrass pastures. Annual bluegrass, Cheat, Crabgrass, Henbit, Johnsongrass seedling, Little barley, Oats, Ryegrass, Sandbur field, Wheat, Wild mustard **Applications prior to spring growth:** Apply this product in the late winter or early spring but before new coastal bermudagrass growth begins in the spring. Applications to new growth can damage the bermudagrass. **Applications following the first cutting:** Apply this product after the first bermudagrass cutting when the bermudagrass has not yet begun to regrow. Applications made after regrowth has begun can damage the bermudagrass.	Labeled application rates totaling 3.0 qt/A or less do not require a waiting period between treatment and feeding or livestock grazing. NOTE: ONLY 1 APPLICATION/YR MAY BE MADE TO ANY ONE FIELD. A SPRING APPLICATION PRIOR TO GROWTH AND AN APPLICATION FOLLOWING THE FIRST CUTTING MAY NOT BE MADE ON THE FIELD DURING THE SAME YEAR.

Colorado, Idaho, Iowa, Kansas, Montana, Nebraska, North Dakota, Oregon, South Dakota, Utah, Washington, and Wyoming Only
Bromus Species: This product may be used to treat Cheatgrass (*Bromus secalinus*), Downy brome (*Bromus tectorum*), Japanese brome (*Bromus japonicus*), and Soft chess (*Bromus mollis*) found in industrial, rangeland and pasture sites. Apply 8.0 to 16.0 fluid ounces of product per acre on a broadcast basis. For best results, treatment should coincide with early seedhead emergence of the most mature plants. Delaying the application until this growth stage will maximize the emergence of other weedy grass flushes. Applications should be made to the same site each year until seed banks are depleted and the desirable perennial grasses are able to become reestablished on the site.

Medusahead: To treat medusahead, apply 16.0 fluid ounces of this product per acre as soon as plants are actively growing, and prior to the 4-leaf stage. Applications may be made in the fall or spring.

Application Equipment and Techniques: Applications may be made using ground or aerial equipment. Aerial applications for these uses may be made using fixed wing or helicopter equipment. For aerial applications, apply in 2.0 to 10.0 gallons of water per acre. For applications using ground equipment, apply in 10.0 to 20.0 gallons of water per acre.

When applied as directed there are no grazing restrictions.

10.5 RANGELANDS
LABELED CROPS: Rangeland (Perennial cool- and warm-season grass rangelands)

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
Postemergence	This product will control or suppress many annual weeds growing in perennial cool- and warm-season grass rangelands. Preventing viable seed production is key to the successful control and invasion of annual grassy weeds in rangelands. Follow-up applications in sequential years should eliminate most of the viable seeds. Grazing of treated areas should be delayed to encourage growth of desirable perennials. Allowing desirable perennials to flower and reseed in the treated area will encourage successful transition. Apply 12.0 to 16.0 fl oz/A to control or suppress many annual weeds growing in perennial cool and warm-season grass rangelands including Cereal rye, Cheatgrass, Downy brome and Jointed goatgrass. Apply when most mature brome plants are in early flower and before the plants, including seedheads, turn color. Allowing for secondary weed flushes to occur in the spring following rain events further depletes the seed reserve and encourages perennial grass conversion on weedy sites. Fall applications are	Do not use ammonium sulfate when spraying rangeland grasses with this product. Do not apply more than 3.0 qt/A/yr. Slight discoloration of the desirable grasses may occur, but they will regreen and regrow under moist soil conditions as effects of this product wear off.

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10.5 Rangelands cont'd.:

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
Postemergence cont'd.:	possible, and recommended, where spring moisture is usually limited and fall germination allows for good weed growth. For Medusahead, apply 16.0 fl oz/A at the 3-leaf stage. Delaying applications beyond this stage will result in reduced or unacceptable control. Fire may be useful in eliminating the thatch layer produced by slow decaying culms prior to application. Allow new growth to occur before spraying after a burn.	Do not use ammonium sulfate when spraying rangeland grasses with this product. Do not apply more than 3.0 qt/A/yr. Slight discoloration of the desirable grasses may occur, but they will regreen and regrow under moist soil conditions as effects of this product wear off.

10.6 TURFGRASS SOD PRODUCTION
LABELED CROPS: Turfgrass for Sod

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
Preplant Preemergence Renovation Site preparation	This product controls most existing vegetation prior to renovating turf grass areas or establishing turfgrass grown for sod. Broadcast of hand-held equipment may be used to control sod remnants or other unwanted vegetation after sod is harvested. For maximum control of existing vegetation, delay planting or sodding to determine if any regrowth from escaped underground plant parts occurs. Where repeat treatments are necessary, sufficient regrowth must be attained prior to application. For warm-season grasses such as bermudagrass, summer or fall applications provide the best control. Where existing vegetation is growing under mowed turfgrass management, apply this product after omitting at least one regular mowing to allow sufficient growth for good interception of the spray. Make applications according to the rates listed in Annual Weeds, Perennial Weeds, and Woody Brush and Trees rate tables, Sections 14.0, 15.0 and 16.0. Desirable turfgrasses may be planted following the above procedures.	If application rates total 3.0 qt/A or less, no waiting period between treatment and feeding or livestock grazing is required. If the rate is greater than 3.0 qt/A, remove domestic livestock and wait 8 wk following application before grazing or harvesting. Do not disturb soil or underground plant before treatment. Tillage or renovation techniques such as vertical mowing, coring, or slicing should be delayed for 7 days after application to allow translocation into underground plant parts.
Spot treatment	Hand-held equipment may be used for spot treatment of unwanted vegetation growing in existing turfgrass.	
Turfgrass renovation for sod production	This product controls most existing vegetation prior to renovating turfgrass areas or establishing turfgrass grown for seed or sod. For maximum control of existing vegetation, delay planting or sodding to determine if any regrowth from escaped underground plant parts occurs. Where repeat treatments are necessary, sufficient regrowth must be attained prior to application. For warm-season grasses such as bermudagrass, summer or fall applications provide the best control. Where existing vegetation is growing under mowed turfgrass management, apply this product after omitting at least one regular mowing to allow sufficient growth for good interception of the spray. Do not disturb soil or underground plant parts before treatment. Tillage or renovation techniques such as vertical mowing, coring or slicing should be delayed for 7 days after application to allow translocation into underground plant parts. Desirable turfgrass may be planted following the above procedures. Hand-held equipment may be used for spot treatment of unwanted vegetation growing in existing turfgrass. Broadcast or hand-held equipment may be used to control sod remnants or other unwanted vegetation after sod is harvested.	Do not feed or graze turfgrass grown for seed or sod production for 8 wk following application.

10.7 RELEASE OF BERMUDAGRASS OR BAHIAGRASS

Dormant applications

This product may be used to control or partially control many winter annual weeds and tall fescue for effective release of dormant bermudagrass or bahiagrass. Treat only when turf is dormant and prior to spring greenup. This product may also be tank mixed with Oust® for residual control. Tank mixtures of this product with Oust may delay greenup.

For best results on winter annuals, treat when plants are in an early growth stage (below 6 inches in height) after most have germinated. For best results on tall fescue, treat when fescue is at or beyond the 4- to 6-leaf stage.
Apply 8.0 to 64.0 fluid ounces of this product per acre alone or in a tank mixture with 0.25 to 1.0 ounce per acre of Oust. Apply the labeled rates in 10.0 to 40.0 gallons of water per acre. Use only in areas where bermudagrass or bahiagrass are desirable ground covers and where some temporary injury or discoloration can be tolerated. To avoid delays in greenup and minimize injury, add no more than 1.0 ounce of Oust per acre on bermudagrass and no more than 0.5 ounce of Oust per acre on bahiagrass and avoid treatments when these grasses are in a semi-dormant condition.

Actively Growing Bermudagrass

This product may be used to control or partially control many annual and perennial weeds for effective release of actively growing bermudagrass. Apply 1.0 to 3.0 pints of this product in 10.0 to 40.0 gallons of spray solution per acre. Use the lower rate when treating annual weeds below 6 inches in height (or runner length). Use the higher rate as weeds increase in size or as they approach flower or seedhead formation. These rates will also provide partial control of the following perennial species:

Bahiagrass	Fescue, tall	Trumpetcreeper
Bluestem, silver	Johnsongrass	Vaseygrass

This product may be tank mixed with Oust. If tank mixed, use no more than 1.0 to 2.0 pints of this product with 1.0 to 2.0 ounces of Oust per acre. Use the lower rates of each product to control annual weeds less than 6 inches in height (or runner length) that are listed in this label and the Oust label. Use the higher rates as annual weeds increase in size and approach the flower or seedhead stages. These rates will also provide partial control of the following perennial weeds:

Bahiagrass	Dallisgrass	Fescue, tall	Trumpetcreeper
Bluestem, silver	Dock, curly	Johnsongrass	Vaseygrass
Broomsedge	Dogfennel	Poorjoe	Vervain, blue

Use only on well-established bermudagrass. Bermudagrass injury may result from the treatment, but regrowth will occur under moist conditions. Repeat applications of the tank mix in the same season are not recommended, since severe injury may occur.

Actively Growing Bahiagrass

For suppression of vegetative growth and seedhead inhibition of bahiagrass for approximately 45 days, apply 6.0 fluid ounces of this product in 10.0 to 40.0 gallons of water per acre. Apply 1 to 2 weeks after full green-up or after mowing to a uniform height of 3 to 4 inches. This application must be made prior to seedhead emergence.

For suppression up to 120 days, apply 4.0 fluid ounces of this product per acre, followed by an application of 2.0 to 4.0 fluid ounces per acre about 45 days later. Make no more than 2 applications per year.

A tank mixture of this product plus Oust may be used. Apply 6.0 fluid ounces of this product plus 0.25 ounce of Oust per acre 1 to 2 weeks following an initial spring mowing. Make only 1 application per year.

11.0 ROUNDUP READY CROPS

The following instructions or those separately published on Loveland Products, Inc. supplemental labeling include all applications which can be made onto the specified Roundup Ready crops during the complete cropping season. DO NOT combine these instructions with other recommendations made for crop varieties that do not contain the Roundup Ready gene in Annual and Perennial Crops, Section 8.0.

THIS PRODUCT IS TO BE USED FOR POSTEMERGENCE APPLICATION ONLY ON CROP VARIETIES DESIGNATED AS CONTAINING A ROUNDUP READY GENE OR GLYPHOSATE TOLERANT GENE.

Applying this product to crop varieties that are not designated as glyphosate tolerant will result in severe crop injury and yield loss. Avoid contact with foliage, green stems, or fruit of crops or any desirable plants that do not contain a Roundup Ready or glyphosate-tolerant gene, since severe injury or destruction will result.

The Roundup Ready designation indicates that the crop variety contains a patented gene that provides tolerance to this product. Information on Roundup Ready crop varieties may be obtained from your seed supplier. Roundup Ready crop varieties must be purchased from an authorized licensed seed supplier.

Note: Roundup Ready seed, and the method of selectivity controlling weeds using glyphosate on a Roundup Ready crop, are protected under several U.S. Patents. A license to use Roundup Ready seed must be obtained prior to use.

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For ground applications with broadcast equipment, apply this product in 5.0 to 20.0 gallons of spray solution per acre. Carefully select proper nozzle and spray pressure to avoid spraying a fine mist. For best results with ground application equipment use flat spray nozzles. Check for even distribution of spray droplets.

For aerial applications apply this product in 3.0 to 15.0 gallons of water per acre. See Application Equipment and Techniques, Section 7.0, for procedures to avoid spray drift that may cause injury to any vegetation not intended for treatment. Use of appropriate buffer zones will help prevent injury to adjacent vegetation.

ATTENTION: AVOID DRIFT. EXTREME CARE MUST BE USED WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS WHICH DO NOT CONTAIN A GLYPHOSATE TOLERANT GENE.

See Mixing and Application Equipment and Techniques, Sections 6.0 and 7.0, for additional directions and restrictions on the application of this product.

Tank mixtures with other herbicides, insecticides, fungicides, micronutrients or fertilizers may result in reduced weed control or crop injury and are NOT recommended for over-the-top applications of this product unless otherwise noted in this product label, supplemental labeling or fact sheets published separately by Loveland Products, Inc.

Enhanced product performance may be obtained with use of Loveland Products, Inc. Leci-Tech® adjuvants. Consult with your local Loveland Products, Inc. representative for advice on specific product selection.

Ammonium sulfate may be mixed with this product for applications to Roundup Ready crops. Refer to Mixing, Sections 6.0, for use directions for ammonium sulfate.

Sprayer Preparation: It is important that sprayer and mixing equipment be clean and free of pesticide residue before making applications of this product. Follow the cleaning procedures specified on the label of the product(s) previously used. THOROUGHLY CLEAN THE SPRAY TANK AND ALL LINES AND FILTERS TO ELIMINATE POTENTIAL CONTAMINATION FROM OTHER HERBICIDES PRIOR TO MIXING AND APPLYING THIS PRODUCT.

Note: The following recommendations are based on a clean start at-planting by using a burndown application or tillage to control existing weeds before crop emergence. In no-till and stale seedbed systems, a preplant burn-down treatment of this product is recommended to control existing weeds prior to crop emergence. Some weeds, such as Annual morningglory, Black nightshade, Broadleaf signalgrass, Burcucumber, Giant ragweed, Sandbur, Shattercane, Sicklepod, Texas panicum, Wild proso millet and Woolly cupgrass with multiple germination times or suppressed (stunted) weeds may require a second application of this product for complete control. The second application should be made after some regrowth has occurred and at least 10 days after a previous application of this product.

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11.1 ROUNDUP READY ALFALFA

FOR POSTEMERGENCE APPLICATION ONLY ON ALFALFA VARIETIES DESIGNATED AS CONTAINING A ROUNDUP READY GENE.

The Roundup Ready designation indicates that the alfalfa contains a patented gene, which provides tolerance to this product. Information on Roundup Ready alfalfa varieties may be obtained from your seed supplier or Loveland Products, Inc. representative. Roundup Ready crop varieties must be purchased from an authorized licensed seed supplier.

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
Preplant At-planting Preemergence Postemergence	This product will control many troublesome emerged weeds with over-the-top applications in Roundup Ready alfalfa. For ground applications with broadcast equipment, apply this product in 3.0 to 40.0 gal of spray solution/A. Carefully select proper nozzle and spray pressure to avoid spraying a fine mist. For best results with ground application equipment, use flat fan nozzles. Check for even distribution of spray droplets. For aerial application: Use the labeled rates of this product in 3.0 to 15.0 gal of spray solution/A. **A. New Stand Establishment (seeding year)** Prior to first cutting during new stand establishment: From emergence up to 4 trifoliate leaves: 2.0 qt/A From 5 trifoliate leaves up to 5 days before first cutting: 2.0 qt/A After first cutting in newly established stands: In-crop application/cutting, up to 5 days before cutting: 2.0 qt/A **B. Established Stands (non-seeding year)** In-Crop applications/cutting, up to 5 days before cutting: 2.0 qt/A During stand establishment, due to the biology and breeding constraints of alfalfa, up to 10% of the seedlings may not contain the Roundup Ready gene and will not survive after the first application of this product. To eliminate the undesirable effects of stand gaps created by the loss of plants not containing a Roundup Ready gene, a single application of at least 1.0 qt/A of this product should be applied at or before the 3- to 4-trifoliate growth stage. In both newly seeded and established stands, in order to maximize yield and quality potential of forage and hay, applications of this product should be made after weeds have emerged but before alfalfa growth or re-growth interferes with application spray coverage of the target weeds. In addition to those weeds listed in the Mad Dog Plus herbicide label booklet, this product will suppress or control the parasitic weed, Dodder (*Cuscuta* spp.) in Roundup Ready alfalfa. Repeat applications may be necessary for complete control.	DO NOT EXCEED 2.0 QT OF THIS PRODUCT /A WHEN MAKING APPLICATIONS BY AIR. Any single over-the-top application of this product must not exceed 2.0 qt (64.0 fl oz)/A. Sequential applications of this production must be at least 7 days apart. The combined total/yr for all in-crop applications in newly established and established stands must not exceed 6.0 qt (192 fl oz)/A. Remove domestic livestock before application and wait a minimum of 5 days after last application before grazing, or cutting and feeding of Roundup Ready alfalfa forage and hay.
Over-the-top applications	This product may be applied postemergence to Roundup Ready alfalfa from emergence until 5 days prior to cutting. Any single over-the-top applications of this product must not exceed 2.0 qt/A. ATTENTION: Where Roundup Ready alfalfa is grown with a companion or cover crop, or is over seeded with a second species, over-the-top applications of this product will eliminate the non-Roundup Ready species. Tank mixtures with other herbicides, insecticides, or fungicides may result in crop injury or reduced week control and are NOT recommended for over-the-top applications of this product.	Sequential applications of this production must be at least 7 days apart.

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11.1 - Roundup Ready Alfalfa cont'd.:

MAXIMUM ALLOWABLE APPLICATION RATES	
Combined total per year for all applications, including preplant during year of establishment	7.75 qt/A
Combined total per year for in-crop applications for newly established and established stands	6.0 qt/A
Preplant, At-planting and Preemergence single applications	2.0 qt/A

11.2 ROUNDUP READY CANOLA (Spring Varieties)
LABELED CROPS: Roundup Ready spring canola is defined as those Roundup Ready canola varieties that are seeded in the spring and harvested in the fall and do not enter a winter dormancy period.

DO NOT USE THIS PRODUCT ON SPRING CANOLA WITH A ROUNDUP READY GENE PLANTED IN THE FOLLOWING STATES: ALABAMA, DELAWARE, FLORIDA, GEORGIA, KENTUCKY, MARYLAND, NEW JERSEY, NORTH CAROLINA, SOUTH CAROLINA, TENNESSEE, VIRGINIA, AND WEST VIRGINIA EXCEPT FOR USES IN WILDLIFE FOOD PLOTS THAT WILL NOT BE FOR HUMAN OR LIVESTOCK FOOD.

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
Preplant At-planting Preemergence	This product may be applied before, during or after planting Roundup Ready spring canola.	Maximum quantity of this product that may be applied for all preplant, at-planting and preemergence applications combined is 2.0 qt/season.
Postemergence (in-crop)	This product may be applied postemergence to Roundup Ready spring canola from emergence through the 6-leaf stage of development. Applications made during bolting or flowering may result in crop injury and yield loss. To maximize yield potential, make applications early to eliminate competing weeds. **Single Application** - Apply 11.0 to 16.0 fl oz of this product/A no later than the 6-leaf stage for the control of annual weeds. Avoid overlapping applications as this may result in temporary yellowing, delayed flowering, and or growth reduction. Similar crop injury may result when applications of more than 11.0 fl oz/A are applied after the 4-leaf stage.	No more than 2 in-crop (over-the-top) broadcast applications may be made from crop emergence through the 6-leaf stage of development and the total of all in-crop applications must not exceed 22.0 fl oz of this product/A. Allow a minimum of 60 days between last application and canola harvest.
	Sequential Application - Apply 11.0 fl oz of this product/A to 1- to 3-leaf canola followed by a sequential application at a minimum interval of 10 days, but no later than the 6-leaf stage. Sequential applications are recommended for early emerged annual weeds and perennial weeds such as Canada thistle and Quackgrass, or when multiple applications are needed for adequate weed control.	No more than 2 in-crop (over-the-top) broadcast applications may be made from crop emergence through the 6-leaf stage of development and the total of all in-crop applications must not exceed 22.0 fl oz of this product/A. Allow a minimum of 60 days between last application and canola harvest.

Enhanced product performance may be obtained with use of Loveland Products, Inc. Leci-Tech adjuvants. Consult with your local Loveland Products, Inc. representative for advice on specific product selection.

MAXIMUM ALLOWABLE APPLICATION RATES	
Total of all preplant, at-planting, preemergence applications	2.0 qt/A
Total of all in-crop applications from emergence to 6-leaf stage	1.0 qt/A

11.3 ROUNDUP READY CANOLA (Fall and Winter Varieties)
LABELED CROPS: Roundup Ready winter canola is defined as those Roundup Ready canola varieties that are seeded in early fall and harvested the following spring or summer. Winter canola varieties are intended to enter a cold period dormancy in the winter.

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
Preplant At-planting Preemergence	This product may be applied before, during or after planting Roundup Ready winter canola.	Maximum quantity of this product that may be applied for all preplant, at-planting and preemergence applications combined is 2.0 qt/A/season.

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11.3 Roundup Ready Canola (Fall & Winter Varieties) cont'd.:

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
Postemergence (in-crop)	This product may be applied to Roundup Ready winter canola varieties from emergence to canopy closure in the fall and prior to bolting in the spring. Applications made during or after bolting may result in crop injury and yield loss. To maximize yield potential, make applications early to eliminate competing weeds. Some weeds with multiple germination times, or suppressed (stunted) weeds, or weeds that have overwintered may require sequential applications of this product for control. The second application should be made after some re-growth has occurred and at least 60 days after a previous application of this product. **Single Application** - Apply 22.0 to 32.0 fl oz of this product/A in the fall. Applications in the fall should be made when weeds are small and actively growing. Use the higher rate in the labeled range when weed densities are high, when weeds have overwintered or when weeds become large and well-established. Applications of greater than 16.0 fl oz/A prior to the 6-leaf stage may result in reduced crop growth in the fall. Avoid overlaps. Spray overlaps may result in temporary yellowing and/or growth reduction. **Sequential Applications** - Apply 16.0 to 32.0 fl oz of this product/A to 2-leaf or larger canola in the fall, followed by a sequential application at the same rate and at a minimum interval of 60 days, but before bolting in the spring. Sequential applications are recommended for early emerging annual weeds and winter emerging weeds such as Downy brome, Jointed goatgrass and Ryegrass, and for weeds that have overwintered. This product will control or suppress most perennial weeds. For some perennial weeds, sequential applications may be required to reduce competition with the crop.	No more than 2 over-the-top broadcast applications may be made from crop emergence up to the onset of bolting, and the total in-crop application must not exceed 2.0 qt of this product/A. Applications of greater than 24.0 fl oz/A prior to the 6-leaf stage may result in reduced crop growth in the fall. Allow a minimum of 60 days between last application and harvest of canola grain. No waiting period is required between application and open grazing of livestock.

Enhanced product performance may be obtained with use of Loveland Products, Inc. Lecl-Tech adjuvants. Consult with your local Loveland Products, Inc. representative for advice on specific product selection.

MAXIMUM ALLOWABLE APPLICATION RATES	
Total of all preplant, at-planting, preemergence applications	2.0 qt/A
Total of all in-crop applications from emergence to canopy closure or prior to bolting in the spring	2.0 qt/A

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11.4 ROUNDUP READY CORN

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
Preplant Preemergence At-planting	This product may be applied alone or in a tank mixture before, during or after planting corn. Tank Mixtures: This product may be tank mixed with Bullet, Degree, Degree Xtra, Harness, Harness Xtra, Harness Xtra 5.6L, Lariat, Lasso, or Micro-Tech at 50 to 100% of labeled rate. Refer to the specific product label and observe all precautions and limitations on the label for any preemergence herbicide application, including application timing restrictions, soil restrictions, minimum re-cropping interval and rotational guidelines. The more restrictive requirements apply. Note: For maximum weed control, a postemergence (in-crop) application of this product should be applied following the use of less than labeled rates of the preemergence residual products listed above. Make applications according to the rates listed in Annual Weeds, Perennial Weeds, and Woody Brush and Trees rate tables, Sections 14.0, 15.0 and 16.0.	Applying this product to crop varieties that are not designated as glyphosate tolerant will result in severe crop injury and yield loss. Avoid contact with foliage, green stems, or fruit of crops, or any desirable plants that do not contain a Roundup Ready or glyphosate-tolerant gene, since severe injury or destruction will result. AVOID DRIFT. EXTREME CARE MUST BE USED WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS WHICH DO NOT CONTAIN A GLYPHOSATE TOLERANT GENE. See Mixing and Application Equipment and Techniques, Sections 6.0 and 7.0, for additional directions and restrictions on the application of this product.
Postemergence (in-crop)	This product may be applied postemergence to Roundup Ready corn from emergence through the V8 stage (8 leaves with collars) or until corn height reaches 30 inches, whichever comes first. When applied as directed, this product controls labeled annual grass and broadleaf weeds in Roundup Ready corn. Many perennial grasses and broadleaf weeds will be controlled or suppressed with 1 or more application of this product. The postemergent application of 24.0 to 32.0 fl oz/A of this product should be made before the weeds reach a height and/or density that the weeds become competitive with the crop, generally 4-inch tall weeds or less. This product may be applied alone as a post-emergence in-crop application to provide control of emerged weeds listed on this label. If new flushes of weeds occur, a sequential application of this product at 24.0 to 32.0 fl oz/A will control the labeled grasses and broadleaf weeds. Tank Mixtures: This product may be applied in tank mixture with Bullet, Degree, Degree Xtra, Harness, Harness Xtra, Harness Xtra 5.6L, and Micro-Tech at 50 to 100% of labeled rate. This product may be applied in tank mixture with Permit and atrazine at labeled rates. Refer to the specific product label and observe all precautions and limitations on the label for all products used in tank mixtures, including application timing restrictions, soil restrictions, minimum re-cropping interval and rotational guidelines. The more restrictive requirements apply. Tank Mix Partner — Maximum Height of Corn Degree, Degree Xtra, Harness, Harness Xtra, Harness Xtra 5.6L — 11 inches Bullet*, Micro-Tech* — 5 inches Atrazine — 12 inches *Bullet and Micro-Tech are not registered for use as a postemergence application in TX.	See Roundup Ready Crops, Section 11.0, for precautionary instructions for use in Roundup Ready crops. Single in-crop applications of this product are not to exceed 1.0 qt/A. Sequential in-crop applications of this product from emergence through the V8 stage or 30 inches must not exceed 2.0 qt/A/ growing season. Allow a minimum of 10 days between in-crop applications of this product. Allow a minimum of 50 days between application of this product and harvest of corn forage.

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11.4 Roundup Ready Corn cont'd.:

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
Postemergence with drop nozzles	For Roundup Ready corn from emergence through the V8 stage (8 leaves with collars) or until corn height reaches 30 inches, whichever comes first, this product may be applied over-the-top broadcast or with drop nozzles. When corn height is 24 to 30 inches (free standing), for optimum spray coverage and weed control, drop nozzles are recommended. For corn heights 30 to 48 inches (free standing), apply this product only using ground application equipment with drop nozzles adjusted to avoid spraying into the whorls of the corn plants.	Single in-crop applications of this product must not exceed 32.0 fl oz/A. The maximum combined total of multiple in-crop applications from emergence through the 48-inch stage is 64.0 fl oz/A. If product is applied to whorls of corn, plant injury and yield reduction can occur.
Preharvest	In Roundup Ready corn, up to 1.0 qt/A of this product can be applied preharvest. Make applications at 35% grain moisture or less. Ensure that maximum kernel fill is complete and the corn is physiologically mature (black layer formed).	Allow a minimum of 7 days between application and harvest.
Postharvest	This product may be applied after harvest of corn. Higher rates may be required for control of large weeds that were growing in the crop at the time of harvest. Tank mixtures with 2,4-D or dicamba may be used.	Allow a minimum of 7 days between treatment and harvest or feeding of treated vegetation.

Enhanced product performance may be obtained with use of Loveland Products, Inc. Leci-Tech adjuvants. Consult with your local Loveland Products, Inc. representative for advice on specific product selection.

MAXIMUM ALLOWABLE APPLICATION RATES	
Combined total per year for all applications	8.0 qt/A
Total of all preplant, preemergence, at-planting applications	5.0 qt/A
Total in-crop applications from emergence through the V8 stage or 30 inches	2.0 qt/A
Maximum Preharvest application rate after maximum kernel fill is complete and the crop is physiologically mature (black layer formation) until 7 days before harvest	1.0 qt/A

11.5 ROUNDUP READY COTTON

ATTENTION: USE OF THIS PRODUCT IN ACCORDANCE WITH LABEL DIRECTIONS IS EXPECTED TO RESULT IN NORMAL GROWTH OF ROUNDUP READY COTTON; HOWEVER, VARIOUS ENVIRONMENTAL CONDITIONS, AGRONOMIC PRACTICES AND OTHER FACTORS MAKE IT IMPOSSIBLE TO ELIMINATE ALL RISKS ASSOCIATED WITH THIS PRODUCT, EVEN WHEN APPLICATIONS ARE MADE IN CONFORMANCE WITH THE LABEL SPECIFICATIONS. IN SOME CASES, THESE FACTORS CAN RESULT IN BOLL LOSS, DELAYED MATURITY AND/OR YIELD LOSS.

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
Preplant Preemergence At-planting	This product may be applied before, during or after planting cotton. Make applications according to the rates listed in Annual Weeds, Perennial Weeds, and Woody Brush and Trees rate tables, Sections 14.0, 15.0 and 16.0.	See Roundup Ready Crops, Section 11.0, for precautionary instructions for use in Roundup Ready crops.

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11.5 Roundup Ready Cotton cont'd.:

ATTENTION: *USE OF THIS PRODUCT IN ACCORDANCE WITH LABEL DIRECTIONS IS EXPECTED TO RESULT IN NORMAL GROWTH OF ROUNDUP READY COTTON; HOWEVER, VARIOUS ENVIRONMENTAL CONDITIONS, AGRONOMIC PRACTICES AND OTHER FACTORS MAKE IT IMPOSSIBLE TO ELIMINATE ALL RISKS ASSOCIATED WITH THIS PRODUCT, EVEN WHEN APPLICATIONS ARE MADE IN CONFORMANCE WITH THE LABEL SPECIFICATIONS. IN SOME CASES, THESE FACTORS CAN RESULT IN BOLL LOSS, DELAYED MATURITY AND/OR YIELD LOSS.*

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
Postemergence (over-the-top)	This product may be applied by aerial or ground application equipment at rates up to 1.0 qt/A/ application postemergence to Roundup Ready cotton from the ground cracking stage until the 4-leaf (node) stage of development (until the 5th true leaf reaches the size of a quarter). Over-the-top applications made after the 4-leaf (node) stage of development may result in boll loss, delayed maturity and/or yield loss. **Salvage Treatment:** This treatment may be used after the 4-leaf stage of development and must only be used where weeds threaten to cause the loss of the crop. 1.0 qt/A may be applied either as over-the-top applications or as a post directed treatment sprayed higher on the cotton plants and over the weeds. NOTE: SALVAGE TREATMENTS WILL RESULT IN SIGNIFICANT BOLL LOSS, DELAYED MATURITY AND/OR YIELD LOSS. NO MORE THAN 1 SALVAGE TREATMENT MAY BE USED/GROWING SEASON.	See Roundup Ready Crops, Section 11.0, for precautionary instructions for use in Roundup Ready crops. The combined total application of this product from cotton emergence until harvest must not exceed 6.0 qt/A. NO MORE THAN 2 OVER-THE-TOP BROADCAST APPLICATIONS MAY BE MADE FROM CROP EMERGENCE THROUGH THE 4-LEAF (NODE) STAGE OF DEVELOPMENT. NO MORE THAN 2 APPLICATIONS MAY BE MADE FROM THE 5-LEAF STAGE THROUGH LAYBY. SEQUENTIAL IN-CROP OVER-THE-TOP OR POST DIRECTED APPLICATIONS OF THIS PRODUCT MUST BE AT LEAST 10 DAYS APART AND COTTON MUST HAVE AT LEAST 2 NODES OF INCREMENTAL GROWTH BETWEEN APPLICATIONS. ALLOW A MINIMUM OF 7 DAYS BETWEEN APPLICATION AND HARVEST.
Selective equipment	This product may be applied using precision post-directed or hooded sprayers at rates up to 1.0 qt/A/ application to Roundup Ready cotton through layby. At this stage, post directed equipment must be used which directs the spray to the base of the cotton plants. Contact of the spray with cotton leaves should be avoided to the maximum extent possible. To minimize spray onto the leaves of the cotton plants, place nozzles in a low position directing a horizontal spray pattern under the cotton leaves to contact weeds in the row, and maintain low spray pressure (less than 30 psi). For best results, make applications while weeds are small (less than 3 inches).	See Selective Equipment, Section 7.5, for information on proper use and calibration of this equipment.
Preharvest	This product may be applied for preharvest annual and perennial weed control as a broadcast treatment to Roundup Ready cotton after 20% boll crack. Up to 2.0 qt of this product may be applied using either aerial or ground spray equipment. Tank Mixtures: This product may be tank mixed with DEF 6, Folex, Ginstar, or Prep (or generic equivalents). Note: This product will not enhance the performance of these harvest aids when applied to Roundup Ready cotton.	Allow a minimum of 7 days between application and harvest of cotton. Do not apply this product to cotton grown for seed, as a reduction in germination or vigor may occur. REFER TO MANUFACTURER'S LABELS FOR USE OF ADDITIVES (such as surfactants, stickers and spreaders) FOR Preharvest APPLICATION TO COTTON.

Enhanced product performance may be obtained with use of Loveland Products, Inc. Leci-Tech adjuvants. Consult with your local Loveland Products, Inc. representative for advice on specific product selection.

MAXIMUM ALLOWABLE APPLICATION RATES	
Combined total per year for all applications	8.0 qt/A
Total of all preplant, preemergence, at-planting applications	5.0 qt/A
Total in-crop applications from ground cracking to layby	4.0 qt/A
Maximum Preharvest application rate	2.0 qt/A

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11.6 ROUNDUP READY FLEX COTTON

ATTENTION: USE OF THIS PRODUCT IN ACCORDANCE WITH LABEL DIRECTIONS IS EXPECTED TO RESULT IN NORMAL GROWTH OF ROUNDUP READY COTTON; HOWEVER, VARIOUS ENVIRONMENTAL CONDITIONS, AGRONOMIC PRACTICES AND OTHER FACTORS MAKE IT IMPOSSIBLE TO ELIMINATE ALL RISKS ASSOCIATED WITH THIS PRODUCT, EVEN WHEN APPLICATIONS ARE MADE IN CONFORMANCE WITH THE LABEL SPECIFICATIONS. IN SOME CASES, THESE FACTORS CAN RESULT IN BOLL LOSS, DELAYED MATURITY AND/OR YIELD LOSS.

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
Preplant Preemergence At-planting	This product may be applied before, during or after planting Roundup Ready Flex cotton. Always plant into a weed free seedbed. In no till and stale seedbed systems, always burn down existing weeds before cotton emerges. Make applications according to the rates listed in Annual Weeds, Perennial Weeds, and Woody Brush and Trees rate tables, Sections 14.0, 15.0 and 16.0.	See Roundup Ready Crops, Section 11.0, for precautionary instructions for use in Roundup Ready crops.
Postemergence (over-the-top)	When applied in accordance with this label, Mad Dog Plus herbicide will control labeled annual grasses and broadleaf weeds in Roundup Ready Flex cotton. To maximize yield potential, spray cotton early to eliminate competing weeds. Many perennial weeds will be controlled or suppressed with 1 or more applications of this product. An initial application of 1.0 qt/A on 1- to 3-inch tall annual grass and broadleaf weeds is recommended. This product may be applied by ground application equipment at rates up to 1.5 qt/A/application post-emergence to Roundup Ready Flex cotton. In addition to broadcast applications, post directed equipment may be used to achieve weed coverage. **Note:** For specific rates of application and instructions refer to the Annual Weeds and Perennial Weeds rate tables, Sections 14.0 and 15.0.	The maximum rate for any single in-crop application of this product is 1.5 qt/A made using ground application equipment. In-crop application rates above 1.0 qt/A made alone or with the addition of other crop chemical products containing surfactant may cause a crop response including leaf speckling or leaf necrosis. Except for Preharvest use, do not exceed a maximum rate of 1.0 qt/A of this product when making applications by air. Between layby and 60% open bolls the maximum combined total rate of this product that may be applied is 2.0 qt/A. The maximum combined total of all applications made from crop emergence through 60% open bolls must not exceed 6.0 qt/A. Application after 10th leaf or 10th node may result in plant injury and yield loss.
Preharvest	This product may be applied for preharvest annual and perennial weed control as a broadcast treatment to Roundup Ready Flex cotton after 60% boll crack. Up to 2.0 qt of this product may be applied using either aerial or ground spray equipment. **Note:** This product will not enhance the performance of harvest aids when applied to Roundup Ready Flex cotton.	Allow a minimum of 7 days between application and harvest of cotton. Do not apply this product to cotton grown for seed, as a reduction in germination or vigor may occur. THE USE OF ADDITIVES, OTHER THAN THOSE LISTED ON THIS LABEL, FOR Preharvest APPLICATION TO COTTON IS PROHIBITED.

Enhanced product performance may be obtained with use of Loveland Products, Inc. Leci-Tech adjuvants. Consult with your local Loveland Products, Inc. representative for advice on specific product selection.

MAXIMUM ALLOWABLE APPLICATION RATES	
Combined total per year for all applications (calculate the combined rate to be used for all preplant, in-crop and preharvest applications)	8.0 qt/A
Total of all preplant, at-planting, preemergence applications	5.0 qt/A
Total in-crop applications from ground cracking to 60% open bolls	6.0 qt/A
Maximum allowed from 60% bolls open to 7 days prior to harvest	2.0 qt/A

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11.7 ROUNDUP READY SOYBEANS

THE USE OF THIS PRODUCT FOR IN-CROP APPLICATIONS OVER ROUNDUP READY SOYBEANS MAY NOT BE PRACTICED IN CALIFORNIA UNLESS THE APPLICATOR HAS AT THE TIME OF APPLICATION A CALIFORNIA APPROVED SUPPLEMENTAL LABEL SPECIFYING THE ACCEPTED DIRECTION FOR USE.

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
Preplant Preemergence At-planting	This product may be applied before, during or after planting soybeans. Make applications according to the rates listed in Annual Weeds, Perennial Weeds, and Woody Brush and Trees rate tables, Sections 14.0, 15.0 and 16.0.	See Roundup Ready Crops, Section 11.0, for precautionary instructions for use in Roundup Ready crops.
Postemergence (in-crop) Preharvest	When applied as directed, this product will control labeled annual grasses and broadleaf weeds in Roundup Ready soybeans. Applications of this product can be made in Roundup Ready soybeans from emergence (cracking) throughout flowering. Refer to Annual Weeds rate table, Section 14.0, for rate recommendations. For specific annual weeds, an initial application of 1.0 qt/A on 2- to 8-inch tall weeds is recommended. Weeds will generally be 2 to 8 inches tall, 2 to 5 weeks after planting. If the initial application is delayed and weeds are larger, apply a higher rate of this product. This product may be used up to 2.0 qt/A in any single in-crop application for control of annual weeds and where heavy weed densities exist. A 1.0- to 2.0 qt/A rate (single or multiple applications) of this product will control or suppress perennial weeds such as: Bermudagrass, Canada thistle, Common milkweed, Field bindweed, Hemp dogbane, Horsenettle, Johnsongrass, Marestail (horseweed), Nutsedge, Quackgrass, Redvine, Rhizome, Swamp smartweed, Trumpetcreeper and Wirestem muhly. For best results, allow perennial weed species to achieve at least 6 inches of growth before spraying with this product. Under adverse growing conditions such as drought, hail, wind damage or a poor soybean stand that slows or delays canopy closure, a sequential application of this may be necessary to control late flushes of weeds. IN THE SOUTHERN STATES, A SEQUENTIAL APPLICATION OF THIS PRODUCT WILL BE REQUIRED TO CONTROL NEW FLUSHES OF WEEDS IN THE ROUNDUP READY SOYBEAN CROP. To control Giant ragweed, it is recommended that 1.0 qt/A of this product be applied when the weed is 8 to 12 inches tall to increase control and possibly avoid the need for a sequential application.	The combined total application from crop emergence through harvest must not exceed 3.0 qt/A. The maximum rate for any single in-crop application is 2.0 qt/A. The maximum combined total of this product that can be applied during flowering is 2.0 qt/A.
Preharvest	This product provides weed control when applied prior to harvest of soybeans. Up to 1.0 qt/A of this product can be applied by aerial or ground application.	Care should be taken to avoid excessive seed shatter loss due to ground application equipment. Allow a minimum of 14 days between final application and harvest of soybean grain or feeding of soybean grain, forage or hay.
Postharvest	This product may be applied after harvest of Roundup Ready soybeans. Higher rates may be required for control of large weeds that were growing in the crop at the time of harvest. Tank mixtures 2,4-D or dicamba may be used.	

Enhanced product performance may be obtained with use of Loveland Products, Inc. Leci-Tech adjuvants. Consult with your local Loveland Products, Inc. representative for advice on specific product selection.

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11.7 Roundup Ready Soybeans cont'd.:

MAXIMUM ALLOWABLE APPLICATION RATES	
Combined total per year for all applications	8.0 qt/A
Total of all preplant, preemergence, at-planting applications	5.0 qt/A
Total in-crop applications from cracking throughout flowering	3.0 qt/A
Maximum Preharvest application rate	1.0 qt/A

11.8 ROUNDUP READY SUGAR BEETS

The Roundup Ready designation indicates that the sugar beet contains a patented gene, which provides tolerance to this product. Information on Roundup Ready sugarbeet may be obtained from your seed supplier or Loveland Products, Inc. representative. Roundup Ready crop varieties must be purchased from an authorized licensed seed supplier.

DO NOT combine these instructions with other recommendations made for crop varieties that do not contain a Roundup Ready gene listed in Annual and Perennial Crops, Section 8.0.

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
Preplant At-planting Preemergence	This product may be applied before, during or after planting of Roundup Ready sugar beets. Make applications according to the rates listed in Annual Weeds, Perennial Weeds, and Woody Brush and Trees rate tables, Sections 14.0, 15.0 and 16.0.	Maximum quantity of this product that may be applied for all preplant, at-planting and preemergence applications combined is 5.0 qt/A/season.
Postemergence (in-crop)	This product may be applied over-the-top of Roundup Ready sugar beets for control of annual grasses and broadleaf weeds from emergence to 30 days prior to harvest. To maximize yield potential, spray sugar beets early to eliminate competing weeds. Up to 4 sequential applications of this product may be made with at least 10 days between applications. This product will control or suppress most perennial weeds. For some perennial weeds, repeat applications may be required to eliminate crop competition throughout the growing season.	The combined total application from crop emergence through harvest must not exceed 4.5 qt/A. The maximum rate for any single application between emergence to the 8-leaf stage is 1.5 qt/A. The maximum rate for any single application between the 8-leaf stage and canopy closure is 1.0 qt/A. Allow a minimum of 30 days between last application and sugar beet harvest. For any crop NOT listed in the crops sections of this label, applications must be at least 30 days prior to planting.

Enhanced product performance may be obtained with use of Loveland Products, Inc. Leci-Tech adjuvants. Consult with your local Loveland Products, Inc. representative for advice on specific product selection.

MAXIMUM ALLOWABLE APPLICATION RATES	
Combined total per year for all applications	8.0 qt/A
Total of all preplant, preemergence applications	5.0 qt/A
Emergence to 8-leaf stage	2.5 qt/A
Between 8-leaf stage and canopy closure	2.0 qt/A

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12.0 NON-CROP USES AROUND THE FARMSTEAD

12.1 WEED CONTROL, TRIM AND EDGE

LABELED SITES: Non-crop areas including building foundations, along and in fences, in dry ditches and canals, along ditchbanks, farm roads, shelterbelts, prior to landscape plantings and equipment storage areas.

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
Any suitable application equipment described in Section 7.0.	This product may be used to control annual weeds, perennials weeds and woody brush which are found in any part of the farmstead. Make applications according to the rates listed in Annual Weeds, Perennial Weeds, and Woody Brush and Trees rate tables, Sections 14.0, 15.0 and 16.0. Tank Mixtures: This product may be tank mixed with the following products (or generic equivalents). Refer to these product labels for approved farmstead sites and application rates. For annual weeds, use 1.0 qt/A of this product when weeds are less than 6 inches tall and 1.5 qt/A when weeds are greater than 6 inches tall. For perennial weeds, apply 2.0 to 5.0 qt/A in these tank mixes. For tank mixtures with these products through backpack sprayers, handguns or other high-volume spray-to-wet applications, see the Hand-Held or High-Volume Equipment, Section 7.4, for allowable application rates. Arsenal® Barricade® 65WG Diuron Endurance® Escort® Karmex DF Krovar DF Oust Pendulum® 3.3 EC Pendulum WDG Plateau® Princep DF Princep Liquid Ronstar® 50 WP Sahara® Simazine Surflan Vanquish® 2,4-D For control or partial control of the following perennial weeds, apply 1.0 to 2.0 qt Mad Dog Plus + 2.0 to 4.0 oz of Oust/A. Bahiagrass Bermudagrass Broomsedge Dallisgrass Dock, curly Dogfennel Fescue, tall Johnsongrass Poorjoe Quackgrass Vaseygrass Vervain, blue	This product plus dicamba tank mixtures may not be applied by air in CA.

12.2 GREENHOUSE/SHADEHOUSE

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
Spot spray Directed spray	This product may be used to control weeds in and around greenhouses and shadehouses. Make applications according to the rates listed in Annual Weeds, Perennial Weeds, and Woody Brush and Trees rate tables, Sections 14.0, 15.0 and 16.0.	Air circulation fans must be turned off during application. Desirable vegetation should not be present during application.

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12.3 CHEMICAL MOWING

LABELED USES: Farm Ditches and Other Parts of Farmsteads

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
Any suitable application equipment described in Section 7.0.	This product will suppress perennial grasses listed in this section to serve as a substitute for mowing. Use 8.0 fl oz of Mad Dog Plus/A when treating tall fescue, fine fescue, orchardgrass or quackgrass covers. Use 6.0 fl oz of Mad Dog Plus/A when treating Kentucky bluegrass. Use 16.0 fl oz of Mad Dog Plus when treating bermudagrass. Use 64.0 fl oz of Mad Dog Plus when treating Torpedograss or Paragrass. Apply treatments in 10.0 to 20.0 gal of spray solution/A.	Use only in areas where some temporary injury or discoloration of perennial grasses can be tolerated.

12.4 CUT STUMPS

LABELED USES: Cut Stumps (on any non-crop site listed on this label)

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
Suitable Hand-held equipment	This product will control regrowth of cut stumps and resprouts of many types of woody brush and tree species, some of which are listed below. Apply this product using suitable equipment to ensure coverage of the entire cambium. Cut trees or resprouts close to the soil surface. Apply a 50 to 100% solution of this product to the freshly-cut surface immediately after cutting. Delays in application may result in reduced performance. For best results, applications should be made during periods of active growth and full leaf expansion. Alder — Reed, giant Eucalyptus — Salt cedar Madrone — Sweetgum Oak — Tan oak Pepper, Brazilian — Willow Pine, Austrian	Some sprouts, stems, or trees may share the same root system. Adjacent trees having a similar age, height and spacing may signal shared roots. Whether grafted or shared, injury is likely to occur to non-treated stems/trees when one or more trees sharing common roots are treated.

12.5 HABITAT MANAGEMENT

LABELED USES: Habitat Restoration & Maintenance, Wildlife Food Plots

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
Any suitable application equipment described in Section 7.0.	This product may be used to control exotic and other undesirable vegetation in habitat management and natural areas including rangeland and wildlife refuges. Applications can be made to allow recovery of native plant species, prior to planting desirable native species, and for similar broad-spectrum vegetation control requirements in habitat management areas. Make applications according to the rates listed in Annual Weeds, Perennial Weeds, and Woody Brush & Trees rate tables, Sections 14.0, 15.0 and 16.0. Spot treatments can be made to selectively remove unwanted plants for habitat maintenance and enhancement. This product may be used as a site preparation treatment to control annual and perennial weeds prior to planting wildlife food plots. Any wildlife food species may be planted after applying this product, or native species may be allowed to repopulate the area.	If tillage is needed to prepare a seedbed, wait 7 days after application before tillage to allow translocation into underground plant parts.

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13.0 FORESTRY, INDUSTRIAL, TURF AND ORNAMENTAL

13.1 FORESTRY SITE PREPARATION

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
Boom sprayers Shielded boom sprayers High-volume off-center nozzles Hand-held equipment and similar equipment	This product is recommended for the control or partial control of woody brush, trees and herbaceous weeds in forestry. This product is also recommended for use in preparing or establishing wildlife openings with these sites and maintaining logging roads. Make applications according to the rates listed in Annual Weeds, Perennial Weeds, and Woody Brush & Trees rate tables, Sections 14.0, 15.0 and 16.0. This product is recommended for use in site preparation prior to planting any tree species, including Christmas trees, eucalyptus, hybrid tree cultivars and silvicultural nursery sites. Use higher rates of this product within the labeled range for control or partial control of woody brush, trees and hard-to-control perennial herbaceous weeds. For best results, apply to actively growing woody brush and trees after full leaf expansion and before fall color and leaf drop. Increase rates within the labeled range for control of perennial herbaceous weeds any time after emergence and before seedheads, flowers or berries appear. Use the lower rates of this product within the labeled range for control of annual herbaceous weeds and actively growing perennial herbaceous weeds after seedheads, flowers or berries appear. Apply to the foliage of actively growing annual herbaceous weeds any time after emergence. Tank Mixtures: Tank mixtures of this product may be used to increase the spectrum of vegetation controlled. When tank mixing, read and carefully observe the label claims, cautionary statements and all information on the labels of all products used. Use according to the restrictive precautionary statements for each product in the mixture. Note: For forestry site preparation, make sure the tank mix product is approved for use prior to planting the desired species. Observe planting interval restrictions. Any labeled rate of this product may be used in a tank mix with the following products (or generic equivalents) for forestry site preparation. Arsenal Applicators Concentrate Chopper® Escort or Escort XP Garlon® 3A Garlon 4A Landmark® XP Oust or Oust XP Westar® For control of herbaceous weeds, use the lower labeled tank mixture rates. For control of dense stands or tough-to-control woody brush and trees, use the higher labeled rates.	Do not apply this product as an over-the-top broadcast spray for forestry, conifer or hardwood release unless otherwise specified on this label, or in separate supplemental labeling published by Loveland Products, Inc. for this product.

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13.2 NON-CROP AREAS AND INDUSTRIAL SITES

LABELED USES: Non-crop areas including airports, apartment complexes, Christmas tree farms, commercial sites, Conservation Reserve Program (CRP) areas, ditch banks, dry ditches, dry canals, fencerows, golf courses, greenhouses, industrial sites, landscape areas, lumber yards, manufacturing sites, municipal sites, natural areas, office complexes, ornamentals parks, parking areas, pastures, petroleum tank farms, and pumping installations, plant nurseries, public areas, railroads, rangeland, recreational areas, residential areas, rights-of-way, roadsides, schools, sod or turf, seed farms, sports complexes, storage areas, substations, turfgrass, areas utility sites, warehouse areas and wildlife management areas

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
This product may be applied with any suitable application equipment described in Section 7.0.	This product may be used to trim and edge around objects in non-crop sites, for spot treatment of unwanted vegetation and to eliminate unwanted weeds growing in established shrub beds or ornamental plantings. This product may be used prior to planting an area to ornamentals, flowers, turfgrass (sod or seed), or prior to laying asphalt or beginning construction projects. Make applications according to the rates listed in Annual Weeds, Perennial Weeds, and Woody Brush & Trees rate tables, Sections 14.0, 15.0 and 16.0. Repeated applications of this product may be used, as weeds emerge, to maintain bare ground. Tank Mixtures: This product may be tank mixed with the following products (or generic equivalents) provided that the specific product is registered for use on the target site. Refer to these product labels for approved sites and application rates. Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used. Use according to the most restrictive precautionary statements for each product in the mixture. User is responsible for ensuring that the mixture product's label allows the specific applications. Arsenal Atrazine Barricade 65WG Certainty® dicamba* diuron Endurance Escort Escort XP Gallery® 75DF Garlon 3A Garlon 4 Goal 2XL Krovar I DF Oust Oust XP Outrider® pendimethalin Plateau Crossbow® L Landmark II MP Landmark II Poast® Ronstar 50 WP simazine Surflan AS Surflan WDG Transline® Velpar® DF Velpar L 2,4-D When applied as a tank mixture for bare ground, this product provides control of the emerged annual weeds and control of partial control of emerged perennial weeds, woody brush and trees. For control or partial control of the following perennial weeds, apply 1.0 to 2.0 qt of Mad Dog Plus + 2.0 to 4.0 oz of Oust or Oust XP/A. Bahiagrass Bermudagrass Broomsedge Dallisgrass Dock, curly Dogfennel Fescue, tall Johnsongrass Poorjoe Quackgrass Vaseygrass Vervain, blue	*This product plus dicamba tank mixtures may not be applied by air in CA.

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13.3 INJECTION AND FRILL (Woody Brush and Trees)
LABELED SITES: Woody brush & Trees in non-crop areas

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
Injection or Frill applications	Apply this product using suitable equipment which must penetrate into the living tissue. Apply the equivalent of 1.0 mL of this product per each 2 to 3 inches of trunk diameter at breast height (DBH). This is best achieved by applying a 50 to 100% concentration of Mad Dog Plus either to a continuous frill around the tree or as cuts evenly spaced around the tree below all branches. As tree diameter increases in size, better results are achieved by applying diluted material to a continuous frill or more closely spaced cuttings. For best results, application should be made during periods of active growth and after full leaf expansion. This product will control many species, some of which are listed below: Control: Oak, Poplar, Sweetgum, Sycamore Partial Control: Black gum, Dogwood, Hickory, Maple, red	Avoid application techniques that allow runoff to occur from frilled or cut areas in species that exude sap freely. In species such as this make the frill or cuts at an oblique angle to produce a cupping effect and use a 100% concentration of this product.

13.4 HOLLOW STEM INJECTION
LABELED SITES: Hollow-stem plants growing in any non-crop site specified on this label.

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
Hand-held injection devices that deliver labeled amounts of this product	For control of the following hollow stem plants, use the application rates below: • Japanese Knotweed (*Polygonum cuspidatum*) Inject 5.0 mL/stem Mad Dog Plus between 2nd and 3rd internode. • Bohemian Knotweed (*Polygonum bohemicum*) Inject 5.0 mL/stem Mad Dog Plus between 2nd and 3rd internode. • Giant Hogweed (*Hercleum mantegazzianum*) Inject 1 leaf cane/plant 12 inches above the root crown with 5.0 mL of a 5% v/v solution of Mad Dog Plus. • Poison Hemlock (*Conium maculatum*) Inject 1 leaf cane/plant 10 to 12 inches above the root crown with 5.0 mL of a 5% v/v solution of Mad Dog Plus. • Field horsetail (*Equisetum arvense*) Inject 1 segment above the root crown with 0.5 mL/stem of Mad Dog Plus. Use a small syringe that calibrates to this rate. • Canada Thistle (*Circisum arvense*) Cut 8 to 9 of the tallest plants at bud stage in a clump with clippers. Use a cavity needle that is pushed into the stem center and then slowly removed as 0.5 mL/stem of this product is injected into the stem.	The combined total for all treatments must not exceed 7.0 qt of Mad Dog Plus/A. At 5.0 mL/stem, 7.0 qt should treat approximately 1300 stems/A.

13.5 ORNAMENTALS, PLANT NURSERIES AND CHRISTMAS TREES

LABELED SITES: Plant Nurseries, Christmas Tree farms and other non-food tree production sites

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
Post directed Trim and edge	This product may be used as a post directed spray around established woody ornamental species (including arborvitae azalea, boxwood, crabapple, eucalyptus, euonymus, fir, Douglas fir, jojoba, hollies, lilac, magnolia, maple, oak, poplar, privet, pine, spruce and yew, growing in plant nurseries, on Christmas tree farms or on other non-food tree production sites), or to trim and edge around trees, buildings, sidewalks, roads, potted plants and other objects in a production setting. Apply at a concentration labeled by Annual Weeds, Perennial Weeds, and Woody Brush and Trees rate tables, Sections 14.0, 15.0 and 16.0, appropriate to the species of weed to be controlled. Desirable plants may be protected from the spray solution by using shields or coverings made of cardboard or other impermeable material.	UNLESS OTHERWISE DIRECTED, THIS PRODUCT IS NOT ALLOWED FOR USE AS AN OVER-THE-TOP BROADCAST SPRAY IN ORNAMENTALS AND CHRISTMAS TREES. Care must be taken to avoid contact of spray, drift or mist with foliage or green bark of desirable ornamental species.
Site preparation	This product may be used prior to planting any tree, shrub or vine, including Christmas tree species, in a nursery or production setting.	
Wiper application	This product may be used through wick or other suitable wiper applicators to control or partially control undesirable vegetation around established trees, shrubs or vines. See Selective Equipment, Section 7.5, for further information about the proper use of wiper applicators.	

13.6 PARKS, RECREATIONAL AND RESIDENTIAL AREAS

LABELED SITES: Around Trees, Fences, Paths, Driveways, around Buildings, Patios, Sidewalks, Flower Beds, around Shrubs, and other Ornamental Plants

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
Trim and edge Spot treatment	This product may be used to eliminate unwanted weeds growing in areas listed above. Use suitable hand-held equipment for directed spraying according to instructions in Mixing for Hand-Held Sprayers, Section 6.3. If necessary, use cardboard or plastic to shield desirable plants. Do not use for spot weed control in lawns since desirable lawn grass will also be killed.	Spray only when air is calm. Care must be taken to avoid contact of spray, drift or mist with foliage or green bark of desirable ornamental species.
Site preparation Lawn renovation	This product may be used prior to planting an area to ornamentals, flowers, turfgrass (sod or seed), lawn renovation or prior to laying asphalt or beginning construction projects. Make applications according to the rates listed in Annual Weeds, Perennial Weeds, and Woody Brush and Trees rate tables, Sections 14.0, 15.0 and 16.0. Apply using suitable broadcast or directed spray equipment. For lawn renovation, thorough coverage is necessary to kill all weeds and old lawn. For best results, apply when daytime temperatures are at least 60 ° F. Do not mow for 7 days before or after treatment. Seven days after application, soil may be tilled, fertilized and seeded.	Spray only when air is calm. Care must be taken to avoid contact of spray, drift or mist with foliage or green bark of desirable ornamental species.

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13.7 RAILROADS

LABELED SITES: Railroad Rights-of-Way, Railroad Ballast areas

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
Boom sprayers Shielded boom sprayers High-volume off-center nozzles Hand-held equipment	All of the instructions in Noncrop Areas and Industrial Sites, Section 13.2, apply to railroads. Make applications according to the rates listed in Annual Weeds, Perennial Weeds, and Woody Brush and Trees rate tables, Sections 14.0, 15.0 and 16.0. This product may be used to maintain bare ground on railroad ballast and shoulders. Repeat applications of this product may be used as weeds emerge to maintain bare ground. This product may be used to control tall-growing weeds to improve line of sight at railroad crossings and reduce the need for mowing along rights-of-way. For crossing applications, up to 80.0 gal of spray solution/A may be used. Tank Mixtures: This product may be tank mixed with the following products (or generic equivalent) for ballast, shoulder, spot, bare ground and crossing treatments provided that the specific product is registered for use on such sites. Refer to these product labels for approved non-crop sites and application rates. Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used. Use according to the most restrictive precautionary statements for each product in the mixture. Arsenal — Krovar I DF Dicamba — Oust Diuron — Sahara Escort — Spike® Garlon 3A — Velpar Garlon 4 — 2,4-D Hyvar® X Brush control: This product may be used to control woody brush and trees on railroad rights-of-way. Apply 4.0 to 10.0 qt of Mad Dog Plus/A as a broadcast spray, using boom-type or boomless nozzles. Up to 80.0 gal of spray solution/A may be used. Apply a 0.5 to 2% solution of this product when using high-volume spray-to-wet applications. Apply a 5 to 10% solution of this product when using low volume directed sprays for spot treatment. This product may be mixed with the following products (or generic equivalent) for enhanced control of woody brush and trees: Arsenal — Tordon® 22K Escort — Tordon K Garlon 3A — Transline Garlon 4 — Vanquish Kernite — Velpar	Observe application precautions in Application and Techniques, Section 7.0. Avoid application to non-target plants due to drift, overspray or runoff.

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13.8 ROADSIDES

LABELED SITES: Roadside Rights-of-Way areas (including Shoulders, Guardrails and Signposts)

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
Boom sprayers Shielded boom sprayers High-volume off-center nozzles Hand-held equipment and similar equipment	All the instructions in the Noncrop Areas and Industrial Sites, Section 13.2, apply to roadsides. Make applications according to the rates listed in Annual Weeds, Perennial Weeds, and Woody Brush and Trees rate tables, Sections 14.0, 15.0 and 16.0. This product may be used on road shoulders, under guardrails and around signposts and other objects along roadsides that may be obstacles to mowing. Tank Mixtures: This product may be tank mixed with the following products (or generic equivalent) for shoulder, guardrail, spot and bare ground treatments: Diuron — Princep Liquid Endurance — Rifle® Escort — Ronstar 50 WP Krovar I DF — Sahara Oust — Simazine Pendulum 3.3 EC — Surflan Pendulum WDG — Vanquish Princep DF — 2,4-D See Noncrop Areas and Industrial Sites, Section 13.2, for instructions for tank mixing.	Observe application precautions in Application Equipment and Techniques, Section 7.0. Avoid application to non-target plants due to drift, overspray or runoff.
Spot treatment	This product must be used as a spot treatment to control unwanted vegetation growing along roadsides.	

13.9 UTILITY SITES

LABELED SITES: Electrical power, Pipeline and Telephone rights-of-way, and in other sites associated with these rights-of-way, including Substations, Roadsides, Railroads or Similar Rights-of-way that run in conjunction with Utilities

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
Boom sprayers Shielded boom sprayers High-volume off-center nozzles Hand-held equipment and similar equipment	This product may be used in utility sites and substations to control unwanted vegetation and to eliminate unwanted weeds growing in established shrub beds or ornamental plantings. This product may be used prior to planting a utility site to ornamentals, flowers, turfgrass (sod or seed), or beginning construction projects. Make applications according to the rates listed in Annual Weeds, Perennial Weeds, and Woody Brush and Trees rate tables, Sections 14.0, 15.0 and 16.0. Repeated applications of this product may be used as weeds emerge to maintain bare ground. This product can also be used when preparing or establishing wildlife openings within these sites, maintaining access roads and for side trimming along utility rights-of-way. For control of herbaceous weeds, use the lower labeled tank mixture rates. For control of dense stands of tough-to-control woody brush and trees, use the higher labeled rates. Tank Mixtures: Tank mixtures of this product may be used to increase the spectrum of control for herbaceous weeds, woody brush and trees. This product may be tank mixed with the following products (or generic equivalent). Refer to these products labels for approved non-crop sites and application rates. Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used. Use	Observe application precautions in Application Equipment and Techniques, Section 7.0 Avoid application to non-target plants due to drift, overspray or runoff.

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13.9 Utility Sites cont'd.:

TYPES OF APPLICATIONS	USE DIRECTIONS	RESTRICTIONS
Boom sprayers *Shielded boom sprayers* *High-volume off-center nozzles* *Hand-held equipment and similar equipment cont'd.:*	according to the most restrictive precautionary statements for each product in the mixture. User is responsible for ensuring that the mixture product's label allows the specific application when tank mixing with a single generic active ingredient listed below. Arsenal Atrazine[1] Barricade 65WG dicamba[1] diuron[1] Endurance Escort Escort XP Garlon 3A[2] Garlon 4[3] Krenite® Krovar 1 DF Oust Oust XP Outrider pendimethalin[1] Plateau Princep Ronstar 50WP Sahara simazine[1] Surflan AS Surflan WDG Transline Vanquish Velpar DF Velpar L 2,4-D[2] [1]Tank mixtures with product containing this generic active ingredient may be made provided the specific product is registered for the use. [2]Ensure that Garlon 3A is thoroughly mixed with water according to label directions before adding this product. Have spray mixture agitating at the time this product is added to avoid spray incompatibility problems. [3]For side trimming treatments, it is recommended that this product be used alone or in a tank mixture with Garlon 4.	Observe application precautions in Application Equipment and Techniques, Section 7.0 Avoid application to non-target plants due to drift, overspray or runoff.

14.0 ANNUAL WEEDS RATE TABLES (Alphabetical by Species)

WATER CARRIER VOLUMES OF 3.0 TO 10.0 GALLONS PER ACRE FOR GROUND APPLICATIONS AND 3.0 TO 5.0 GALLONS PER ACRE FOR AERIAL APPLICATIONS ARE REQUIRED.

- Apply to actively growing annual weeds. Annual weeds are generally easiest to control when they are small.
- Older, mature (hardened) annual weed species may require higher rates even if they meet the size requirements.
- Do not tank mix with soil residual herbicides when using these rates unless otherwise specified.
- For weeds that have been mowed, grazed or cut, allow regrowth to occur prior to treatment.
- This product may be used up to 48.0 fluid ounces per acre where heavy weed densities exist.

ANNUAL WEEDS RATE TABLE

WEED SPECIES	APPLICATION RATE (Fl Oz/Acre)				
	16	24	32	40	48
	Maximum height/length (in inches)				
Ammannia, purple	3"	6"	12"	-	18"
Annoda, spurred	-	2"	3"	5"	8"
Barley	18"	18+"	-	-	-
Barnyardgrass	-	3"	6"	7"	9"
Bassia, fivehook	-	-	6"	-	-
Beggarweed, Florida	-	5"	8"	-	-
Bittercress	12"	20"	-	-	-
Bluegrass, annual	10"	-	-	-	-
Bluegrass, bulbous	6"	-	-	-	-
Brome, downy[1, 2]	6"	12"	-	-	-
Brome, Japanese	6"	12"	24"	-	-
Browntop panicum	6"	8"	12"	-	24"
Buckwheat, wild[3]	-	1"	2"	-	-
Burcucumber	-	6"	12"	-	18"

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WEED SPECIES	APPLICATION RATE (Fl Oz/Acre)				
	16	24	32	40	48
	Maximum height/length (in inches)				
Buttercup	6"	20"	-	-	-
Carolina geranium	-	-	4"	-	9"
Carpetweed	-	6"	12"	-	-
Cheat[2]	6"	20"	-	-	-
Chervil	20"	-	-	-	-
Chickweed	-	12"	18"	-	-
Cocklebur	12"	18"	24"	-	36"
Copperleaf, hophornbeam	-	2"	4"	-	6"
Copperleaf, Virginia	-	2"	4"	-	6"
Coreopsis, plains	-	6"	12"	-	18"
Corn, volunteer	6"	12"	20"	-	-
Corn speedwell	12"	-	-	-	-
Crabgrass	3"	6"	12"	-	-
Crowfootgrass	-	-	6"	-	12"
Cutleaf evening primrose	-	-	3"	-	6"
Devilsclaw (unicorn plant)	-	3"	6"	-	-
Dwarf dandelion	12"	-	-	-	-
Eastern mannagrass	8"	12"	-	-	-
Eclipta	-	4"	8"	12"	-
Fall panicum	4"	-	6"	-	12"
Falsedandelion	-	20"	-	-	-
Falseflax, smallseed	12"	-	-	-	-
Fiddleneck	-	6"	12"	-	-
Field pennycress	6"	12"	-	-	-
Filaree	-	-	6"	-	12"
Fleabane, annual	6"	20"	-	-	-
Fleabane, hairy (*Conyza bonariensis*)	-	-	6"	-	10"
Fleabane, rough	3"	6"	12"	-	-
Florida pusley	-	-	4"	-	6"
Foxtail, giant, bristly, yellow	6"	12"	20"	-	-
Foxtail, Carolina	10"	-	-	-	-
Foxtail, green	12"	-	-	-	-
Goatgrass, jointed	6"	12"	-	-	-
Goosegrass	-	3"	6"	-	12"
Grain sorghum (milo)	6"	12"	20"	-	-
Groundcherry	-	3"	6"	-	9"
Groundsel, common	-	6"	10"	-	-
Hemp sesbania	-	2"	4"	6"	8"
Henbit	-	-	6"	-	12"
Horseweed/Marestail (*Conyza canadensis*)	-	6"	12"	-	18"
Itchgrass	6"	8"	12"	-	18"
Jimsonweed	-	-	12"	-	18"
Johnsongrass, seedling	6"	12"	18"	-	24"
Junglerice	-	3"	6"	7"	9"
Knotweed	-	-	6"	-	12"
Kochia[4]	-	3" to 6"	12"	-	-
Lambsquarters	-	6"	12"	-	20"
Little barley	6"	12"	-	-	-
London rocket	6"	-	24"	-	-
Mayweed	-	2"	6"	12"	18"
Morningglory (*Ipomoea* spp.)	-	-	3"	-	6"
Mustard, blue	6"	12"	18"	-	-
Mustard, tansy	6"	12"	18"	-	-
Mustard, tumble	6"	12"	18"	-	-
Mustard, wild	6"	12"	18"	-	-
Nightshade, black	-	4"	6"	-	12"

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WEED SPECIES	APPLICATION RATE (Fl Oz/Acre)				
	16	24	32	40	48
	Maximum height/length (in inches)				
Nightshade, hairy	-	4"	6"	-	12"
Oats	3"	6"	18"	-	-
Pigweed	-	12"	18"	24"	-
Prickly lettuce	-	6"	12"	-	-
Purslane	-	-	3"	-	6"
Ragweed, common	-	6"	12"	-	18"
Ragweed, giant	-	6"	12"	-	18"
Red rice	-	-	4"	-	-
Rye volunteer/cereal[2]	6"	18"	18"+	-	-
Ryegrass	-	-	6"	-	12"
Sandbur, field	6"	12"	-	-	-
Sandbur, longspine	6"	12"	-	-	-
Shattercane	6"	12"	20"	-	-
Shepherdspurse	6"	12"	-	-	-
Sicklepod	-	2"	4"	-	8"
Signalgrass, broadleaf	-	3"	6"	7"	9"
Smartweed, ladysthumb	-	-	6"	-	9"
Smartweed, Pennsylvania	-	-	6"	-	9"
Sowthistle, annual	-	-	6"	-	12"
Spanishneedles	-	-	6"	-	12"
Speedwell, purslane	12"	-	-	-	-
Sprangletop	6"	12"	20"	-	-
Spurge, prostrate	-	6"	12"	-	-
Spurge, spotted	-	6"	12"	-	-
Spurry, umbrella	6"	-	-	-	-
Stinkgrass	-	12"	-	-	-
Sunflower	12"	18"	-	-	-
Swinecress	-	5"	12"	-	-
Teaweed/Prickly sida	-	2"	4"	-	6"
Texas panicum	6"	8"	12"	24"	-
Thistle, Russian[5]	-	6"	12"	-	-
Velvetleaf	-	-	6"	-	12"
Virginia pepperweed	-	18"	-	-	-
Waterhemp	-	-	6"	-	12"
Wheat[2]	6"	12"	18"	-	-
Wheat (overwintered)	-	6"	12"	-	18"
Wild oats	3"	6"	18"	-	-
Wild proso millet	-	6"	12"	-	18"
Witchgrass	-	12"	-	-	-
Woolly cupgrass	-	6"	12"	-	-
Yellow rocket	-	12"	20"	-	-

[1] For control of Downy brome in no-till systems use 24.0 fluid ounces per acre.
[2] Performance is better if application is made before this weed reaches the boot stage of growth.
[3] Use 24.0 fluid ounces per acre of this product to control Wild buckwheat in the cotyledon to 2-leaf stage.
Use 32.0 fluid ounces per acre to control 2- to 4-leaf Wild buckwheat.
For improved control of Wild buckwheat over 2 inches in size, use sequential treatments of 32.0 fluid ounces followed by 32.0 fluid ounces of this product per acre.
[4] Do not treat Kochia in the button stage.
[5] Control of Russian thistle may vary based on environmental conditions and spray coverage.
Whenever possible, a tank mixture with 2,4-D as described below may improve control.

14.1 ANNUAL WEEDS - Water Carrier Volumes of 10.0 to 40.0 Gallons per Acre
Apply 1.0 to 2.0 quarts of this product per acre. Use 1.0 quart per acre if weeds are less than 6 inches tall, and 1.5 quarts per acre if weeds are 6 to 12 inches tall, and 2.0 quarts per acre if weeds are greater than 12 inches tall.

These rates will provide control of weeds listed in the annual weed control tables when water carrier volumes are 10.0 to 40.0 gallons per acre for ground applications. Older, mature (hardened) annual weed species may require higher rates even of they meet the size requirements.

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14.2 ANNUAL WEEDS - Tank Mixtures with 2,4-D or Dicamba or Picloram 22K
12.0 to 16.0 fluid ounces of this product plus 0.25 pound active ingredient of dicamba or 0.5 pound active ingredient of 2,4-D per acre or 1.0 to 2.0 fluid ounces of Picloram 22K per acre will control the following weeds with the maximum height or length indicated:

6" - Prickly lettuce, Marestail/Horseweed (*Conyza canadensis*), Morningglory (*Ipomoea* spp), Kochia (dicamba only); Wild buckwheat (Picloram 22K only).

12" - Cocklebur, Lambsquarters, Pigweed, Russian thistle (2,4-D only).

16.0 fluid ounces of this product plus 0.5 pound active ingredient of 2,4-D per acre will control the following weeds when they are a maximum height or length of 6 inches: Common ragweed, Giant ragweed, Pennsylvania smartweed, and Velvetleaf.

Refer to the specific product labels for crop rotation restrictions and cautionary statements of all products used in tank mixtures. Some crop injury may occur if dicamba or Picloram 22K is applied within 45 days of planting.

DO NOT APPLY DICAMBA TANK MIXTURES BY AIR IN CALIFORNIA.

14.3 ANNUAL WEEDS – Hand-Held or High-Volume Equipment
For control of weeds listed in the Annual Weeds rate table, Section 14.0, apply a 0.5% solution of this product to weeds less than 6 inches in height or runner length. Apply prior to seedhead formation in grass or bud formation in broadleaf weeds. For annual weeds over 6 inches tall, or unless otherwise specified, use a 1% solution.

For best results, use a 2% solution on harder-to-control perennials, such as Bermudagrass, Canada thistle, Dock, Dogbane milkweed, Field bindweed and Hemp.

When using application methods that result in less than complete coverage, use a 5% solution for annual and perennial weeds and a 5 to 10% solution for Woody brush and Trees.

14.4 ANNUAL WEEDS - Tank Mixtures with Atrazine for Fallow and Reduced Tillage Systems
For use only in Colorado, Kansas, Nebraska, Oklahoma, Oregon, South Dakota, and Washington. In Oregon and Washington, do not exceed 1.0 pound of atrazine per acre.

24.0 to 28.0 fluid ounces of this product plus 1.0 to 2.0 pounds of atrazine per acre will control the following weeds: Barnyardgrass (requires 28.0 ounces for control), Downy brome, Field sandbur, Green foxtail, Kochia (add 0.125 pound of dicamba for control) Lambsquarters, Pigweed, Prickly lettuce, Stinkgrass, Tansy mustard, Russian thistle, Volunteer wheat and Witchgrass.

Refer to the specific product labels for crop rotation restrictions and cautionary statements of all products used in tank mixtures.

15.0 PERENNIAL WEEDS RATE TABLE (Alphabetical by Species)

Apply to actively growing perennial weeds.

Note: If weeds have been mowed or tilled, do not treat until plants have resumed active growth and have reached the recommended stages.

Repeat treatments may be necessary to control weeds regenerating from underground parts or seed. Repeat treatments must be made prior to crop emergence.

Unless otherwise stated, allow 7 or more days after application before tillage.

Do not treat when weeds are under drought stress as good soil moisture is necessary for active growth.

For hand-held sprayers, prepare the desired volume of spray solution by mixing the amount of this product in water as shown in the following table:

Spray Solution

	Amount of Mad Dog Plus					
Desired Volume	**0.5%**	**1%**	**1.5 %**	**2%**	**5%**	**10%**
1.0 Gal	0.6 oz	1.3 oz	2.0 oz	2.6 oz	6.5 oz	13.0 oz
25.0 Gal	1.0 pt	1.0 qt	1.5 qt	2.0 qt	5.0 qt	10.0 qt
100 Gal	2.0 qt	1.0 gal	1.5 gal	2.0 gal	5.0 gal	10.0 gal

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WEED SPECIES	RATE (QT/A)	WATER VOLUME (GPA)	HAND-HELD % SOLUTION	COMMENTS
Alfalfa	1.0 to 2.0	3.0 to 10.0	2%	Make applications after the last hay cutting in the fall. Allow Alfalfa to regrow to a height of 6 to 8 inches or more prior to treatment. Applications should be followed with deep tillage at least 7 days after treatment, but before soil freeze-up.
Alligatorweed	4.0	3.0 to 20.0	1.5%	Partial control. Apply when most of the plants are in bloom. Repeat applications will be required to maintain control.
Anise (fennel)			1 to 2%	Apply as a spray-to-wet treatment. Optimum results are obtained when plants are treated at the bud to full-bloom stage of growth.
Bahiagrass	3.0 to 5.0	3.0 to 20.0	2%	Apply when most plants have reached the early head stage.
Bentgrass	1.5	10.0 to 20.0	2%	For suppression in grass seed production areas. For ground applications only. Ensure entire crown area has resumed growth prior to a fall application. Bentgrass should have at least 3 inches of growth. Tillage prior to treatment should be avoided. Tillage 7 to 10 days after application is recommended for best results.
Bermudagrass	3.0 to 5.0	3.0 to 20.0	2%	For control, apply 5.0 qt of Mad Dog Plus/A. For partial control, apply 3.0 qt/A. Treat when Bermudagrass is actively growing and seedheads are present. Retreatment may be necessary to maintain control.
Bermudagrass, water (Knotgrass)	1.0 to 1.5	5.0 to 10.0	2%	Apply 1.5 qt of Mad Dog Plus in 5.0 to 10.0 gal of water/A. Apply when Water bermudagrass is 12 to 18 inches in length. Allow 7 or more days before tilling, flushing or flooding the field. Fall applications only: Apply 1.0 qt of Mad Dog Plus in 5.0 to 10.0 gal of water/A. Fallow fields should be tilled prior to application. Apply prior to frost on Water bermudagrass that is 12 to 18 inches in length. This product is not registered in CA for use on Water bermudagrass.
Bindweed, field	0.5 to 5.0	3.0 to 20.0	2%	Do not treat when weeds are under drought stress as good soil moisture is necessary for active growth. For control, apply 4.0 to 5.0 qt of Mad Dog Plus/A west of the Mississippi River and 3.0 to 4.0 qt east of the Mississippi River. Apply when the weeds are at or beyond full bloom. For best results, apply in late summer or fall. Fall treatments must be applied before a killing frost. Also for control, apply 2.0 qt of Mad Dog Plus + 0.5 lb AI of Rifle in 10.0 to 20.0 gal of water/A. Do not apply by air. For suppression on irrigated agricultural land, apply 1.0 to 2.0 qt of Mad Dog Plus + 1.0 lb AI of 2,4-D in 10.0 to 20.0 gal of water/A with ground equipment only. Applications should be made following harvest or in fall fallow ground when the Bindweed is actively growing and the majority of runners are 12 inches or more in length. The use of at least 1 irrigation will promote active Bindweed growth. For suppression, apply 16.0 fl oz of Mad Dog Plus + 0.5 lb AI 2,4-D in 3.0 to 10.0 gal of water/A for ground applications and 3.0 to 5.0 gal of water/A for aerial applications. Apply by air in fallow and reduced tillage systems only. Applications should be delayed until maximum emergence has occurred and when

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WEED SPECIES	RATE (QT/A)	WATER VOLUME (GPA)	HAND-HELD % SOLUTION	COMMENTS
Bindweed, field cont'd.				vines are between 6 to 18 inches in length. In CA only, apply 1.0 to 5.0 qt of Mad Dog Plus/A. Actual rate needed for suppression or control will vary within this range depending on local conditions. For suppression on irrigated land where annual tillage is performed, apply 1.0 qt of this product in 3.0 to 10.0 gal of water/A. Apply to Bindweed that has reached a length of 12 inches or greater. Allow maximum weed emergence and runner growth. Allow 3 or more days after application before tillage.
Bluegrass, Kentucky	1.0 to 2.0	3.0 to 40.0	2%	Apply 2.0 qt of Mad Dog Plus in 10.0 to 40.0 gal of water/A when most plants have reached boot-to-early seedhead stage of development. For partial control in pasture or hay crop renovation, apply 1.0 to 1.5 qt of Mad Dog Plus in 3.0 to 10.0 gal of water/A. Apply to actively growing plants when most have reached 4 to 12 inches in height.
Blueweed, Texas	3.0 to 5.0	3.0 to 40.0	2%	Apply 4.0 to 5.0 qt of Mad Dog Plus/A west of the Mississippi River and 3.0 to 4.0 qt/A east of the Mississippi River. Apply when plants are at or beyond full bloom. New leaf development indicates active growth. For best results, apply in late summer or fall. Fall treatments must be applied before a killing frost.
Brackenfern	3.0 to 4.0	3.0 to 40.0	1 to 1.5%	Apply to fully expanded fronds which are at least 18 inches long.
Bromegrass, smooth	1.0 to 2.0	3.0 to 40.0	2%	Apply 2.0 qt of Mad Dog Plus in 10.0 to 40.0 gal of water/A when most plants have reached boot-to-early seedhead stage of development. For partial control in pasture or hay crop renovation, apply 1.0 to 1.5 qt of Mad Dog Plus in 3.0 to 10.0 gal of water/A. Apply to actively growing plants when most have reached 4 to 12 inches in height.
Bursage, woolly-leaf	-	3.0 to 20.0	2%	For control, apply 2.0 qt of Mad Dog Plus + 1.0 pt of Rifle/A. For partial control, apply 1.0 qt of Mad Dog Plus + 1.0 pt of Rifle/A. Apply when plants are producing new active growth which has been initiated by moisture for at least 2 weeks and when plants are at or beyond flowering.
Canarygrass, reed	2.0 to 3.0	3.0 to 40.0	2%	For best results, apply when most plants have reached the boot-to-head stage of growth.
Cattail	3.0 to 5.0	3.0 to 40.0	2%	Apply when most plants have reached the early head stage.
Clover; red, white	3.0 to 5.0	3.0 to 20.0	2%	Apply when most plants have reached the early bud stage. Also for control, apply 16.0 to 32.0 fl oz of Mad Dog Plus + 0.5 to 1.0 lb of 2,4 -D in 3.0 to 10.0 gal of water/A.
Cogongrass	3.0 to 5.0	10.0 to 40.0	2%	Apply when Cogongrass is at least 18 inches tall in late summer or fall. Due to uneven stages of growth and the dense nature of vegetation preventing good spray coverage, repeat treatments may be necessary to maintain control.
Dallisgrass	3.0 to 5.0	3.0 to 20.0	2%	Apply when most plants have reached the early head stage.
Dandelion	3.0 to 5.0	3.0 to 40.0	2%	Apply when most plants have reached the early bud stage of growth. Also for control, apply 16.0 fl oz of Mad Dog Plus + 0.5 lb Al 2,4-D in 3.0 to 10.0 gal of water/A.

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WEED SPECIES	RATE (QT/A)	WATER VOLUME (GPA)	HAND-HELD % SOLUTION	COMMENTS
Dock, curly	3.0 to 5.0	3.0 to 40.0	2%	Apply when most plants have reached the early bud stage of growth. Also for control, apply 16.0 fl oz of Mad Dog Plus + 0.5 lb AI 2,4-D in 3.0 to 10.0 gal of water/A.
Dogbane, hemp	4.0	3.0 to 40.0	2%	Apply when most plants have reached the late bud to flower stage of growth. Following crop harvest or mowing, allow weeds to regrow to a mature stage prior to treatment. For best results, apply in late summer or fall. For suppression, apply 16.0 fl oz of Mad Dog Plus + 0.5 lb AI of 2,4-D in 3.0 to 10.0 gal of water/A for ground applications and 3.0 to 5.0 gal of water/A for aerial applications. Delay applications until maximum emergence of Dogbane has occurred.
Fescue (except tall)	3.0 to 5.0	3.0 to 20.0	2%	Apply when most plants have reached the early head stage.
Fescue, tall	1.0 to 3.0	3.0 to 40.0	2%	Apply 3.0 qt of Mad Dog Plus/A when most plants have reached boot-to-early seedhead stage of development. Fall applications only: Apply 1.0 qt of Mad Dog Plus in 3.0 to 10.0 gal of water/A. Apply to Fescue in the fall when plants have 6 to 12 inches of new growth. A sequential application of 1.0 pt/A of Mad Dog Plus will improve long-term control and control seedlings germinating after fall treatments or the following spring.
Guineagrass	2.0 to 3.0	3.0 to 40.0	1%	Apply when most plants have reached at least the 7-leaf stage of growth. Ensure thorough coverage when using hand-held equipment.
Horsenettle	3.0 to 5.0	3.0 to 20.0	2%	Apply when most plants have reached the early bud stage.
Horseradish	4.0	3.0 to 40.0	2%	Apply when most plants have reached the late bud to flower stage of growth. For best results, apply in late summer or fall.
Iceplant	-	-	1.5 to 2%	Iceplant should be at or beyond the early bud stage of growth. Thorough coverage is necessary for best control.
Jerusalem artichoke	3.0 to 5.0	3.0 to 20.0	2%	Apply when most plants are in the early bud stage.
Johnsongrass	0.5 to 3.0	3.0 to 40.0	1%	In annual cropping systems, apply 1.0 to 2.0 qt of Mad Dog Plus/A. Apply 1.0 qt of Mad Dog Plus in 3.0 to 10.0 gal of water/A. Use 2.0 qt of Mad Dog Plus when applying 10.0 to 40.0 gal of water/A. In noncrop, or areas where annual tillage (no till) is not practiced, apply 2.0 to 3.0 qt of Mad Dog Plus in 10.0 to 40.0 gal of water/A. For best results, apply when most plants have reached the boot to head stage of growth or in the fall prior to frost. Allow 7 or more days after application before tillage. Do not tank mix with residual herbicides when using the 1.0 qt/A rate. For burndown of Johnsongrass, apply 1.0 pt of Mad Dog Plus in 3.0 to 10.0 gal of water/A before the plants reach a height of 12 inches. For this use, allow at least 3 days after treatment before tillage. Spot treatment (partial control or suppression) - Apply a 1% solution of this product when Johnsongrass is 12 to 18 inches in height. Coverage must be uniform and complete.

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WEED SPECIES	RATE (QT/A)	WATER VOLUME (GPA)	HAND-HELD % SOLUTION	COMMENTS
Kikuyugrass	2.0 to 3.0	3.0 to 40.0	2%	Spray when most Kikuyugrass is at least 8 inches in height (3- or 4-leaf stage of growth). Allow 3 or more days after application before tillage.
Knapweed	4.0	3.0 to 40.0	2%	Apply when most plants have reached the late bud to flower stage of growth. For best results, apply in late summer or fall.
Lantana	-	-	1 to 1.25%	Apply at or beyond the bloom stage of growth. Use the higher application rate for plants that have reached the woody stage of growth.
Lespedeza	3.0 to 5.0	3.0 to 20.0	2%	Apply when most plants have reached the early bud stage.
Milkweed, common	3.0	3.0 to 40.0	2%	Apply when most plants have reached the late bud to flower stage of growth.
Muhly, wirestem	1.0 to 2.0	3.0 to 40.0	2%	Use 1.0 qt of Mad Dog Plus in 3.0 to 10.0 gal of water/A. Use 2.0 qt of Mad Dog Plus when applying 10.0 to 40.0 gal of water/A or in pasture, sod, or non crop areas. Spray when the Wirestem muhly is 8 inches or more in height. Do not till between harvest and fall applications or in the fall or spring prior to spring applications. Allow 3 or more days after application before tillage.
Mullein, common	3.0 to 5.0	3.0 to 20.0	2%	Apply when most plants are in the early bud stage.
Napiergrass	3.0 to 5.0	3.0 to 20.0	2%	Apply when most plants are in the early head stage.
Nightshade, silverleaf	2.0	3.0 to 10.0	2%	Applications should be made when at least 60% of the plants have berries. Fall treatments must be applied before a killing frost.
Nutsedge; purple, yellow	0.5 to 3.0	3.0 to 40.0	1 to 2%	Apply 3.0 qt of Mad Dog Plus/A or apply a 1 to 2% solution for control of Nutsedge plants and immature nutlets attached to treated plants. Treat when plants are in flower or when new nutlets can be found at rhizome tips. Nutlets which have not germinated will not be controlled and may germinate following treatment. Repeat treatments will be required for long-term control of ungerminated tubers. Sequential applications: 1.0 to 2.0 qt of Mad Dog Plus in 3.0 to 10.0 gal of water/A will also provide control. Make applications when a majority of the plants are in the 3- to 5-leaf stage (less than 6 inches tall). Repeat this application, as necessary, when newly emerging plants reach the 3- to 5-leaf stage. Subsequent applications will be necessary for long-term control. For partial control of existing plants apply 1.0 pt to 2.0 qt of Mad Dog Plus in 3.0 to 40.0 gal of water/A. Treat when plants have 3 to 5 leaves and most are less than 6 inches tall. Repeat treatments will be required to control subsequent emerging plants or regrowth of existing plants.
Orchardgrass	1.0 to 2.0	3.0 to 40.0	2%	Apply 2.0 qt of Mad Dog Plus in 10.0 to 40.0 gal of water/A when most plants have reached boot-to-early seedhead stage of development. For partial control in pasture or hay crop renovation, apply 1.0 to 1.5 qt of Mad Dog Plus in 3.0 to 10.0 gal of water/A. Apply to actively growing plants when most have reached 4 to 12 inches in height. Orchardgrass sods going to no till corn: Apply 1.0 to 1.5 qt of Mad Dog Plus in 3.0 to 10.0 gal of water/A. Apply to Orchardgrass that is a minimum of 12 inches tall for spring applications and 6 inches tall for fall applications. Allow at least 3 days following application before planting. A sequential application of atrazine will be necessary for optimum results.

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Pampasgrass	-	-	1.5 to 2%	Pampasgrass should be at or beyond the boot stage of growth. Thorough coverage is necessary for best control.
Paragrass	3.0 to 5.0	3.0 to 20.0	2%	Apply when most plants are in the early head stage.
Phragmites	3.0 to 5.0	10.0 to 40.0	1 to 2%	For partial control. For best results, treat during late summer or fall months or when plants are actively growing and in full bloom. Treatment before or after this stage may lead to reduced control. Due to the dense nature of the vegetation, which may prevent good spray coverage or uneven stages of growth, repeat treatments may be necessary to maintain control. Visual control symptoms will be slow to develop.
Poison hemlock	-	-	1 to 2%	Apply as a spray-to-wet treatment. Optimum results are obtained when plants are treated at the bud to full-bloom stage of growth.
Pokeweed common	1.0	3.0 to 40.0	2%	Apply to actively growing plants up to 24 inches tall.
Quackgrass	1.0 to 3.0	3.0 to 40.0	2%	In annual cropping systems, or in pastures and sods followed by deep tillage: Apply 1.0 qt of Mad Dog Plus in 3.0 to 10.0 gal of water/A. For 10.0 to 40.0 gal of water/A, apply 2.0 qt of Mad Dog Plus. Do not tank mix with residual herbicides when using the 1.0 qt rate. Spray when Quackgrass is 6 to 8 inches in height. Do not till between harvest and fall applications or in fall or spring prior to spring application. Allow 3 or more days after application before tillage. In pastures or sods, use a moldboard plow for best results. In pastures, sods or noncrop areas where deep tillage does not follow application: Apply 2.0 to 3.0 qt of Mad Dog Plus in 10.0 to 40.0 gal of water/A when the Quackgrass is greater than 8 inches tall.
Redvine	0.75 to 2.0	5.0 to 10.0	2%	For suppression, apply 24.0 fl oz of Mad Dog Plus/A at each of 2 applications 7 to 14 days apart or a single application of 2.0 qt/A. Apply labeled rates in 5.0 to 10.0 gal of water/A. Apply in late September or early October to plants which are at least 18 inches tall and have been growing 45 to 60 days since the last tillage operation. Make applications at least 1 week before a killing frost.
Reed, giant	-	-	2%	Best results are obtained when applications are made in late summer to fall.
Ryegrass, perennial	1.0 to 3.0	3.0 to 40.0	1%	In annual cropping systems, apply 1.0 to 2.0 qt of Mad Dog Plus/A. Apply 1.0 qt of this product in 3.0 to 10.0 gal of water/A. Use 2.0 qt of Mad Dog Plus when applying 10.0 to 40.0 gal of water/A. In non crop, or areas where annual tillage (no till) is not practiced, apply 2.0 to 3.0 qt of Mad Dog Plus in 10.0 to 40.0 gal water/A. For best results, apply when most plants have reached the boot-to-head stage of growth or in the fall prior to frost. Do not tank mix with residual herbicides when using the 1.0 qt/A rate.
Smartweed, swamp	3.0 to 5.0	3.0 to 40.0	2%	Apply when most plants have reached the early bud stage of growth. Also for control, apply 16.0 fl oz of Mad Dog Plus + 0.5 lb AI 2,4-D in 3.0 to 10.0 gal of water/A in the late summer or fall.

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WEED SPECIES	RATE (QT/A)	WATER VOLUME (GPA)	HAND-HELD % SOLUTION	COMMENTS
Sowthistle, perennial	2.0 to 3.0	3.0 to 40.0	2%	Apply when most plants are at or beyond the bud stage of growth. After harvest mowing or tillage in the late summer or fall allow at least 4 weeks for initiation of active growth and rosette development prior to the application of Mad Dog Plus. Fall treatments must be applied before a killing frost. Allow 3 or more days after application before tillage.
Spurge, leafy	-	3.0 to 10.0	2%	For suppression, apply 16.0 fl oz of Mad Dog Plus + 0.5 lb AI 2,4-D in 3.0 to 10.0 gal of water/A in the late summer or fall. If mowing has occurred prior to treatment, apply when most of the plants are 12 inches tall.
Starthistle, yellow	2.0	10.0 to 40.0	2%	Best results are obtained when applications are made during the rosette, bolting and early flower stages.
Sweet potato wild	-	-	2%	Partial control. Apply to plants that are at or beyond the bloom stage of growth. Repeat applications may be required.
Thistle, artichoke	-	-	2%	Partial control. Apply to plants that are at or beyond the bloom stage of growth. Repeat applications may be required.
Thistle, Canada	2.0 to 3.0	3.0 to 40.0	2%	Apply when most plants are at or beyond the bud stage of growth. After harvest, mowing or tillage in the late summer or fall, allow at least 4 weeks for initiation of active growth and rosette development prior to the application of this product. Fall treatments must be applied before a killing frost. Allow 3 or more days after application before tillage. For suppression, apply 1.0 qt of Mad Dog Plus, or 1.0 pt of Mad Dog Plus + 0.5 lb AI 2,4-D in 3.0 to 10.0 gal of water/A in the late summer or fall after harvest, mowing or tillage. Allow rosette regrowth to a minimum of 6 inches in diameter before treating. Applications can be made as long as leaves are still green and plants are actively growing at the time of application. Allow 3 or more days after application before tillage.
Timothy	2.0 to 3.0	3.0 to 40.0	2%	For best results, apply when most plants have reached the boot-to-head stage of growth.
Torpedograss	4.0 to 5.0	3.0 to 40.0	2%	For partial control. Apply when most plants are at or beyond the seedhead stage of growth. Repeat applications will be required to maintain control. Fall treatments must be applied before frost.
Trumpetcreeper	2.0	5.0 to 10.0	2%	Partial control. Apply in late September or October, to plants which are at least 18 inches tall and have been growing 45 to 60 days since the last tillage operation. Make applications at least 1 week before a killing frost.
Vaseygrass	3.0 to 5.0	3.0 to 20.0	2%	Apply when most plants are in the early head stage.
Velvetgrass	3.0 to 5.0	3.0 to 20.0	2%	Apply when most plants are in the early head stage.
Wheatgrass, western	2.0 to 3.0	3.0 to 40.0	2%	For best results, apply when most plants have reached the boot-to-head stage of growth.

Refer to the specific product labels and comply with all restrictions and application instructions for all products used in tank mixes.

15.1 PERENNIAL WEEDS - Bromus Species and Medusahead
For use in the states of Colorado, Idaho, Iowa, Kansas, Montana, Nebraska, North Dakota, Oregon, South Dakota, Utah, Washington, and Wyoming only.

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Bromus Species: This product may be used to treat Cheatgrass (*Bromus secalinus*), Downy brome (*Bromus tectorum*), Japanese brome (*Bromus japonicus*) and Soft chess (*Bromus mollis*) found in industrial, rangeland and pasture sites. Apply 8.0 to 16.0 fluid ounces of product per acre on a broadcast basis. For best results, treatment should coincide with early seedhead emergence of the most mature plants. Delaying the application until this growth stage will maximize the emergence of other weedy grass flushes. Applications should be made to the same site each year until seed banks are depleted and the desirable perennial grasses are able to become reestablished on the site.

Medusahead: To treat medusahead, apply 16.0 fluid ounces of this product per acre as soon as plants are actively growing and prior to the 4-leaf stage. Applications may be made in the fall or spring.

Application Equipment and Techniques: Applications may be made using ground or aerial equipment. Aerial applications for these uses may be made using fixed wing or helicopter equipment. For aerial applications, apply in 2.0 to 10.0 gallons of water per acre. For applications using ground equipment, apply in 10.0 to 20.0 gallons of water per acre.

When applied as directed there are no grazing restrictions.

16.0 WOODY BRUSH AND TREES RATE TABLE (Alphabetical by Species)

Apply this product after full leaf expansion, unless otherwise directed. Use the higher rate for larger plants and/or dense areas of growth. On vines, use the higher rate for plants that have reached the woody stage of growth. Best results are obtained when application is made in late summer or fall after fruit formation.

In arid areas, best results are obtained when applications are made in the spring to early summer when brush species are at high moisture content and are flowering.

Unless otherwise directed, apply broadcast treatments in 3.0 to 40.0 gallons of water per acre. Ensure thorough coverage when using hand-held equipment. Symptoms may not appear prior to frost or senescence with fall treatments.

Allow 7 or more days after application before tillage, mowing or removal. Repeat treatments may be necessary to control plants regenerating from underground parts or seed. Some autumn colors on undesirable deciduous species are acceptable provided no major leaf drop has occurred. Reduced performance may result if fall treatments are made following a frost.

WEED SPECIES	RATE (QT/A)	HAND-HELD % SOLUTION	COMMENTS
Alder	3.0 to 4.0	1 to 1.5%	For control
Ash	2.0 to 5.0	1 to 2%	Partial control
Aspen, quaking	2.0 to 3.0	1 to 1.5%	For control
Bearmat (Bearclover)	2.0 to 5.0	1 to 2%	Partial control
Beech	2.0 to 5.0	1 to 2%	Partial control
Birch	2.0	1%	For control
Blackberry	3.0 to 4.0	1 to 1.5%	For control. Make applications after plants have reached full leaf maturity. Best results are obtained when applications are made in late summer or fall. Applications may also be made after leaf drop and until a killing frost or as long as stems are green. After berries have set or dropped in late fall, blackberry can be controlled by applying a 0.5% solution of this product. For control of blackberries after leaf drop and until a killing frost or as long as stems are green, apply 3.0 to 4.0 qt of Mad Dog Plus in 10.0 to 40.0 gal of water/A.
Blackgum	2.0 to 5.0	1 to 2%	For control
Bracken	2.0 to 5.0	1 to 2%	For control
Broom; French Scotch	-	1.5 to 2%	For control
Buckwheat, California	-	1 to 2%	For partial control. Thorough coverage of foliage is necessary for best results.
Cascara	2.0 to 5.0	1 to 2%	Partial control
Catsclaw	-	1 to 1.5%	Partial control
Ceanothus	2.0 to 5.0	1 to 2%	Partial control
Chamise	-	1%	For control. Thorough coverage of foliage is necessary for best results.
Cherry; bitter, black, pin	2.0 to 3.0	1 to 1.5%	For control
Coyote brush	-	1.5 to 2%	For control. Apply when at least 50% of the new leaves are fully developed.
Dogwood	2.0 to 5.0	1 to 2%	Partial control
Elderberry	2.0	1%	For control
Elm	2.0 to 5.0	1 to 2%	Partial control

MAD DOG® PLUS
EPA REG. NO. 34704-890

WEED SPECIES	RATE (QT/A)	HAND-HELD % SOLUTION	COMMENTS
Eucalyptus	-	2%	For control of eucalyptus resprouts, apply when resprouts are 6 to 12 feet tall. Ensure complete coverage. Avoid application to drought-stressed plants.
Florida holly (Brazilian peppertree)	2.0 to 5.0	1 to 2%	Partial control
Gorse	2.0 to 5.0	1 to 2%	Partial control
Hasardia	-	1 to 2%	Partial control. Thorough coverage of foliage is necessary for best results.
Hawthorn	2.0 to 3.0	1 to 1.5%	For control
Hazel	2.0	1%	For control
Hickory	2.0 to 5.0	1 to 2%	Partial control
Honeysuckle	3.0 to 4.0	1 to 1.5%	For control
Hornbeam, American	2.0 to 5.0	1 to 2%	Partial control
Kudzu	4.0	2%	For control. Repeat applications may be required to maintain control.
Locust, black	2.0 to 4.0	1 to 2%	Partial control
Madrone resprouts	-	2%	Partial control. Apply to resprouts that are 3 to 6 feet tall. Best results are obtained with spring/early summer treatments.
Manzanita	2.0 to 5.0	1 to 2%	Partial control
Maple, red	2.0 to 4.0	1 to 1.5%	For control, apply a 1 to 1.5% solution when at least 50% of the new leaves are fully developed. For partial control, apply 2.0 to 4.0 qt of Mad Dog Plus/A.
Maple, sugar	-	1 to 1.5%	For control. Apply when at least 50% of the new leaves are fully developed.
Monkey flower	-	1 to 2%	Partial control. Thorough coverage of foliage is necessary for best results.
Oak; black, white	2.0 to 4.0	1 to 2%	Partial control
Oak, post	3.0 to 4.0	1 to 1.5%	For control
Oak; northern, pin	-	1 to 1.5%	For control. Apply when at least 50% of the new leaves are fully developed.
Oak, southern, red	2.0 to 3.0	1 to 1.5%	For control
Persimmon	2.0 to 5.0	1 to 2%	Partial control
Pine	2.0 to 5.0	1 to 2%	For control
Poison ivy/Poison oak	4.0 to 5.0	2%	For control. Repeat applications may be required to maintain control. Fall treatments must be applied before leaves lose green color.
Poplar, yellow	2.0 to 5.0	1 to 2%	Partial control
Redbud, eastern	2.0 to 5.0	1 to 2%	For control
Rose, multiflora	2.0	1%	For control. Treatments should be made prior to leaf deterioration by leaf-eating insects.
Russian olive	2.0 to 5.0	1 to 2%	Partial control
Sage, black	-	1%	For control. Thorough coverage of foliage is necessary for best results.
Sage, white	2.0 to 5.0	1 to 2%	Partial control
Sage brush, California	-	1%	For control. Thorough coverage of foliage is necessary for best results.
Salmonberry	2.0	1%	For control
Salt-cedar	2.0 to 5.0	1 to 2%	For control
Sassafras	2.0 to 5.0	1 to 2%	Partial control
Sourwood	2.0 to 5.0	1 to 2%	Partial control
Sumac; poison, smooth, winged	2.0 to 4.0	1 to 2%	Partial control
Sweetgum	2.0 to 3.0	1 to 1.5%	For control
Swordfern	2.0 to 5.0	1 to 2%	Partial control
Tallowtree, Chinese	-	1%	For control. Thorough coverage of foliage is necessary for best results.
Tan oak resprouts	-	2%	For partial control. Apply to resprouts that are less than 3 to 6 feet tall. Best results are obtained with fall applications.
Thimbleberry	2.0	1%	For control
Tobacco, tree	-	1 to 2%	Partial control
Trumpetcreeper	2.0 to 3.0	1 to 1.5%	For control
Vine maple	2.0 to 5.0	1 to 2%	Partial control
Virginia creeper	2.0 to 5.0	1 to 2%	For control
Waxmyrtle, southern	2.0 to 5.0	1 to 2%	Partial control
Willow	3.0	1%	For control

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Refer to the specific product labels and comply with all restrictions and application instructions for all products used in tank mixes.

17.0 STORAGE AND DISPOSAL

Do not contaminate water, foodstuffs, feed or seed by storage or disposal.

PESTICIDE STORAGE: Store above 10 °F (-12 °C) to keep product from crystallizing. Crystals will settle to the bottom. If allowed to crystallize, place in a warm room 68 °F (20 °C) for several days to redissolve and roll or shake container or recirculate in mini-bulk or bulk container to mix well before using.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, state, or local procedures. Emptied container retains vapor and product residue. Observe all labeled safeguards until container is cleansed, reconditioned, or destroyed.

Container Disposal Nonrefillable container. Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state. Once cleaned, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or manufacturer, or contact The Agricultural Container Recycling Council (ACRC) at www.acrecycle.org.

Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

For packages up to 5 gallons: Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. **Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

For packages greater than 5 gallons and less than 56 gallons: Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. **Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

For packages greater than 56 gallons: To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

For refillable containers: Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

Container Disposal: Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment by shaking and tapping sides and bottom to loosen clinging particles. Offer for recycling if available or dispose of empty bag in a sanitary landfill or by incineration. Do not burn, unless allowed by state and local ordinances.

For help with any spill, leak, fire or exposure involving this material, call day or night CHEMTREC - 1-800-424-9300.

18.0 CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

BEFORE BUYING OR USING THIS PRODUCT, read the entire Directions for Use and the following Conditions of Sale and Limitation of Warranty and Liability. By buying or using this product, the buyer or user accepts the following Conditions of Sale and Limitation of Warranty and Liability, which no employee or agent of LOVELAND PRODUCTS, INC. or the seller is authorized to vary in any way.

Follow the Directions for Use of this product carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop or other plant injury, ineffectiveness, or other unintended consequences may result from such risks as weather or crop conditions, mixture with other chemicals not specifically identified in this product's label, or use of this product contrary to the label instructions, all of which are beyond the control of LOVELAND PRODUCTS, INC. and the seller. The buyer or user of this product assumes all such inherent risks.

Subject to the foregoing inherent risks, LOVELAND PRODUCTS, INC. warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use when the product is used in strict accordance with such Directions for Use under normal conditions of use. EXCEPT AS WARRANTED IN THIS LABEL AND TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THIS PRODUCT IS SOLD "AS IS," AND LOVELAND PRODUCTS, INC. MAKES NO OTHER WARRANTY, EXPRESS OR

IMPLIED, INCLUDING BUT NOT LIMITED TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ELIGIBILITY OF THIS PRODUCT FOR ANY PARTICULAR TRADE USAGE.

IN THE UNLIKELY EVENT THAT BUYER OR USER BELIEVES THAT LOVELAND PRODUCTS, INC. HAS BREACHED A WARRANTY CONTAINED IN THIS LABEL AND TO THE EXTENT REQUIRED BY APPLICABLE LAW, BUYER OR USER MUST SEND WRITTEN NOTICE OF ITS CLAIM TO THE FOLLOWING ADDRESS: LOVELAND PRODUCTS, INC., ATTENTION: LAW DEPARTMENT, P.O. BOX 1286, GREELEY, CO 80632-1286.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE BUYER'S OR USER'S EXCLUSIVE REMEDY FOR ANY INJURY, LOSS, OR DAMAGE RESULTING FROM THE HANDLING OR USE OF THIS PRODUCT, INCLUDING BUT NOT LIMITED TO CLAIMS OF BREACH OF WARRANTY OR CONTRACT, NEGLIGENCE, STRICT LIABILITY, OR OTHER TORTS, SHALL BE LIMITED TO ONE OF THE FOLLOWING, AT THE ELECTION OF LOVELAND PRODUCTS, INC. OR THE SELLER: DIRECT DAMAGES NOT EXCEEDING THE PURCHASE PRICE OF THE PRODUCT OR REPLACEMENT OF THE PRODUCT. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, LOVELAND PRODUCTS, INC. AND THE SELLER SHALL NOT BE LIABLE TO THE BUYER OR USER OF THIS PRODUCT FOR ANY CONSEQUENTIAL, SPECIAL, OR INDIRECT DAMAGES, OR DAMAGES IN THE NATURE OF A PENALTY.

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Bullet, Certainty, Degree, Degree Xtra, Flexstar, Fusion, Harness, Intrro, Lariat, Lasso, Micro-Tech, Outrider, Reflex, Roundup Ready and Roundup Ultra are registered trademarks of Monsanto Technology LLC
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Linex and Lorox are registered trademarks of Tessenderlo Kerley, Inc.
Milo-Pro is a registered trademark of Albaugh, Inc.
Sim-Trol is a registered trademark of Sipcam Agro USA, Inc.
Valor is a registered trademark of Valent U.S.A. Corporation

MATERIAL SAFETY DATA SHEET

MAD DOG® PLUS

FOR CHEMICAL EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT, CALL CHEMTREC - DAY OR NIGHT 1-800-424-9300

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

FORMULATED FOR:

LOVELAND PRODUCTS, INC.
P.O. Box 1286 • Greeley, CO 80632-1286

24-Hour Emergency Phone: 1-800-424-9300
Medical Emergencies: 1-866-944-8565
U.S. Coast Guard National Response Center: 1-800-424-8802

PRODUCT NAME: MAD DOG® PLUS
CHEMICAL NAME: Glyphosate: N- (phosphonomethyl)glycine, in the form of its Isopropylamine salt
CHEMICAL FAMILY: Herbicide
EPA REG. NO.: 34704-890
MSDS Number: 000890-09-LPI **MSDS Revisions:** Section1 and 4 revised **Date of Issue:** 02/04/09 **Supersedes:** 04/21/08

2. HAZARDS IDENTIFICATION SUMMARY

KEEP OUT OF REACH OF CHILDREN – CAUTION – Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling.

This product is clear, viscous yellow-colored solution with amine odor. Primary routes of entry are Inhalation, eye contact and skin contact.

3. COMPOSITION, INFORMATION ON INGREDIENTS

Chemical Ingredients:	Percentage by Weight:	CAS No.	TLV (Units)
Isopropylamine salt of Glyphosate	41.00	38641-94-0	none established
Inert Ingredients	59.00		

4. FIRST AID MEASURES

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes then continue rinsing eye. Call a poison control center or doctor for treatment advice.

If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: 1-866-944-8565. Have the product container or label with you when calling a poison control center or doctor.

5. FIRE FIGHTING MEASURES

FLASH POINT (°F/Test Method): None
FLAMMABLE LIMITS (LFL & UFL): Not established
EXTINGUISHING MEDIA: Use medium appropriate to surrounding fire. Dry chemical, carbon dioxide, foam, water spray or fog.
HAZARDOUS COMBUSTION PRODUCTS: Toxic fumes may be emitted in a fire situation.
SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained breathing apparatus and full protective clothing. Fight fire from upwind.
UNUSUAL FIRE AND EXPLOSION HAZARDS: If water is used to fight fire, contain runoff, using dikes to prevent contamination of water supplies. Keep containers cool with water spray.

6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:
In case of leak or spill, contain material and dispose as waste. Do not contaminate any body of water. Sweep up material. Place it and damaged unusable containers in a landfill approved for pesticides. Check local, state and federal regulations for proper disposal.
CAUTION: Prevent spilled material from flowing onto adjacent land, or into municipal sewers and open bodies of water.

7. HANDLING AND STORAGE

HANDLING: Wash hands after handling, and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

STORAGE: Store above 10°F (-12.2°C) to keep product from crystallizing. Crystals will settle to the bottom of the container. If allowed to crystallize, place in a warm room at 68°F (20°C) for several days to redissolve. Roll or shake container or recirculate in mini-bulk or bulk containers to mix well before using. Keep tightly closed. Do not contaminate water, foodstuffs, feed or seed by storage or disposal.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets with requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40CFR 170.240 (d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

RESPIRATORY PROTECTION: Not normally required, if mists/vapors exceed acceptable levels, wear a NIOSH approved pesticide respirator for organic vapor and dust/mist.

EYE PROTECTION: Chemical goggles or shielded safety glasses.

SKIN PROTECTION: Wear protective clothing: long-sleeved shirts and pants, and shoes plus socks. Wear chemical-resistant gloves.

	OSHA PEL 8 hr TWA	ACGIH TLV-TWA
For product	none established	none established

Personal Protective Equipment (PPE): Applicators and other handlers must wear: long sleeved shirt and long pants, shoes plus socks, and protective eyewear, chemical resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride. Discard clothing and other absorbent material that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Clear, viscous yellow-colored solution with amine odor

SPECIFIC GRAVITY (Water = 1): 1.1680 g/ml **BULK DENSITY:** 9.75 lbs/gal. **SOLUBILITY:** Soluble

VAPOR PRESSURE: Not established **BOILING POINT:** Not established **pH:** 4.4 (1% solution)

PERCENT VOLATILE (by volume): Not established **EVAPORATION RATE:** Not established

Note: These physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specification items.

10. STABILITY AND REACTIVITY

STABILITY: Stable **CONDITIONS TO AVOID:** Use of galvanized or unlined steel.

INCOMPATIBILITY: This product and its spray solutions will react with galvanized or unlined steel to produce hydrogen gas that may form a highly combustible gas mixture, which could flash or explode if ignited. Acids and bases.

HAZARDOUS DECOMPOSITION PRODUCTS: Will emit toxic fumes as it burns.

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Oral LD_{50} (rat): >5000 mg/kg **Acute Dermal LD_{50} (rabbit):** >2000 mg/kg

Eye Irritation (rabbit): Causes moderate eye irritation **Skin Irritation (rabbit):** Essentially non-irritating

Inhalation LC_{50} (rat): >7.03 mg/L (4 Hr. Aerosol) **Skin sensitization (guinea pig):** Not a sensitizer

Carcinogenic Potential: None listed in OSHA, NTP, IARC or ACGIH

12. ECOLOGICAL INFORMATION

This product is slightly to moderately toxic in aquatic studies. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. This product has been shown to be practically non-toxic to avian species following sub-acute dietary exposure. Do not contaminate water when disposing of equipment wash waters.
Do not apply when weather conditions favor drift from target area.

13. DISPOSAL CONSIDERATIONS

CONTAINER DISPOSAL: Nonrefillable container. Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state. Once cleaned, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or manufacturer, or contact The Agricultural Container Recycling Council (ACRC) at www.acrecycle.org. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. **For packages up to 5 gallons: Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. **Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. **For packages greater than 5 gallons and less than 56 gallons: Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures.Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. **Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip.

MATERIAL SAFETY DATA SHEET

MAD DOG® PLUS

Disposal Considerations, continued

Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. **For packages greater than 56 gallons:** To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. **For refillable containers:** Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

14. TRANSPORT INFORMATION

DOT Shipping Description: NOT REGULATED USDOT.

U.S. Surface Freight Classification: COMPOUND, TREE OR WEED KILLING, NOI (NMFC 50320, SUB 2: CLASS 60)

Consult appropriate ICAO/IATA and IMDG regulations for shipment requirements in the Air and Maritime shipping modes.

15. REGULATORY INFORMATION

NFPA & HMIS Hazard Ratings:

NFPA				HMIS	
2	Health	0	Least	2	Health
1	Flammability	1	Slight	1	Flammability
1	Instability	2	Moderate	1	Reactivity
		3	High	H	PPE
		4	Severe		

SARA Hazard Notification/Reporting
SARA Title III Hazard Category:

Immediate	Y	Fire	N	Sudden Release of Pressure	N
Delayed	N	Reactive	N		

Reportable Quantity (RQ) under U.S. CERCLA: Not listed
SARA, Title III, Section 313: Not listed
RCRA Waste Code: Not listed
CA Proposition 65: Not listed

16. OTHER INFORMATION

MSDS STATUS: Sections 1 and 4 revised

PREPARED BY: Registrations and Regulatory Affairs

REVIEWED BY: Environmental/ Regulatory Services

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Disclaimer and Limitation of Liability: This data sheet was developed from information on the constituent materials identified herein and does not relate to the use of such materials in combination with any other material or process. No warranty is expressed or implied with respect to the completeness or ongoing accuracy of the information contained in this data sheet, and LOVELAND PRODUCTS, INC. disclaims all liability for reliance on such information. This data sheet is not a guarantee of safety. Users are responsible for ensuring that they have all current information necessary to safely use the product described by this data sheet for their specific purpose.

Specimen Label

RESTRICTED USE PESTICIDE
May Injure (Phytotoxic) Susceptible, Non-Target Plants. For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification. Commercial certified applicators must also ensure that all persons involved in these activities are informed of the precautionary statements.

Dow AgroSciences™

Tordon* 101 Mixture

Specialty Herbicide

*Trademark of Dow AgroSciences LLC

A weed and brush herbicide for control of unwanted annual and perennial broadleaf weeds, and woody plants and vines on forest planting sites and non-crop areas including industrial, manufacturing, and storage sites; rights-of-way, such as electrical power lines, communication lines, pipelines, highways, railroads; and wildlife openings in forest and non-crop areas

Active Ingredient(s):	
picloram: 4-amino-3,5,6-trichloropicolinic acid, triisopropanolamine salt	10.2%
2,4-dichlorophenoxyacetic acid, triisopropanolamine salt	39.6%
Inert Ingredients	50.2%
Total	100.0%

Acid equivalents:
picloram: 4-amino-3,5,6-trichloropicolinic acid - 5.7% - 0.54 lb/gal
2,4-dichlorophenoxyacetic acid - 21.2% - 2 lb/gal

EPA Reg. No. 62719-5

Keep Out of Reach of Children

DANGER **PELIGRO**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

Precautionary Statements

Hazards to Humans and Domestic Animals

Corrosive • Causes Irreversible Eye Damage • Harmful If Swallowed Or Inhaled.

Do not get in eyes, on skin, or on clothing. Avoid breathing spray mist.

Personal Protective Equipment (PPE)

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category C on an EPA chemical resistance category selections chart.

Applicators and other handlers must wear:
- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as Barrier Laminate, Butyl Rubber, Nitrile Rubber, Neoprene Rubber, Polyvinyl Chloride (PVC), or Viton
- Shoes plus socks
- Protective eyewear
- **For containers of over 1 gallon, but less than 5 gallons:** Mixers and loaders who do not use a mechanical system (such as probe and pump) to transfer the contents of this container must wear coveralls or a Chemical-resistant apron in addition to other required PPE.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. After each day of use, clothing or PPE must not be reused until it has been cleaned.

Engineering Controls Statements

For containers of 5 gallons or more: A mechanical system (such as probe and pump) must be used for transferring the contents of this container. If the contents of a non-refillable pesticide container are emptied, the probe must be rinsed before removal. If the mechanical system is used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4)], the handler PPE requirements may be reduced or modified as specified in the WPS.

When handlers use closed systems, enclosed cabs or aircraft in a manner that meets the requirements listed in the Worker Protections Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

User Safety Recommendations

Users should:
- Wash hands, before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

First Aid

If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a Poison Control Center or doctor for treatment advice.
If swallowed: Call a Poison Control Center or doctor immediately for treatment advice. Have a person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a Poison Control Center or doctor. Do not give anything by mouth to an unconscious person.
If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center of doctor for further treatment advice.

Have the product container or label with you when calling a Poison Control Center or doctor or going for treatment. You may also contact 1-800-992-5994 for emergency medical treatment information.

Note to Physician: Probable mucosal damage may contraindicate the use of gastric lavage.

Environmental Hazards

This pesticide is toxic to some plants at very low concentrations. Non-target plants may be adversely affected if pesticide is allowed to drift from areas of application. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

Picloram is known to leach through soil into ground water under certain conditions as a result of agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

This chemical can contaminate surface water through spray drift. Under some conditions, picloram may also have a high potential for runoff into surface water (primarily via dissolution in runoff water). These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas over-laying extremely shallow ground water, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas over-laying tile drainage systems that drain to surface water.

Most cases of groundwater contamination involving phenoxy herbicides such as 2,4-D have been associated with mixing/loading and disposal sites. Caution should be exercised when handling 2,4-D pesticides at such sites to prevent contamination of groundwater supplies. Use of closed systems for mixing or transferring this pesticide will reduce the probability of spills. Placement of the mixing/loading equipment on an impervious pad to contain spills will help prevent groundwater contamination.

Physical or Chemical Hazards

Combustible - Do not use or store near heat or open flame.

Notice: Read the entire label. Use only according to label directions. **Before using this product, read Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies elsewhere on this label. If terms are unacceptable, return at once unopened.**

In case of emergency endangering health or the environment involving this product, call 1-800-992-5994. If you wish to obtain additional product information, visit our web site at www.dowagro.com.

Agricultural Chemical: Do not ship or store with food, feeds, drugs or clothing.

Directions for Use

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
Read all Directions for Use carefully before applying.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation.

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 48 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls
- Chemical-resistant gloves such as Barrier Laminate, Butyl Rubber, Neoprene Rubber, Natural Rubber, Polyvinyl Chloride (PVC), or Viton
- Shoes plus socks
- Protective eyewear

Non-Agricultural Use Requirements

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for Agricultural Pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Entry Restrictions for Non-WPS Uses: For applications on non-crop areas and wildlife openings, do not allow worker entry into areas until sprays have dried, unless applicator and other handler PPE is worn.

Storage and Disposal

Do not contaminate water, food, fertilizer, or feed by storage or disposal. Open dumping is prohibited.

Storage: Keep container tightly closed when not in use. If exposed to subfreezing temperatures, the product should be warmed to at least 40°F and mixed thoroughly before using.

Pesticide Disposal: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate, is a violation of Federal law and may contaminate groundwater. If these cannot be used according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Metal Container Disposal: Do not reuse container. Triple rinse (or equivalent). Puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Plastic Container Disposal: Do not reuse container. Triple rinse (or equivalent). Puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Consult federal, state, or local disposal authorities for approved alternative procedures.

Sprayer Clean-Out: To avoid injury to desirable plants, equipment used to apply Tordon 101 Mixture should be thoroughly cleaned before reusing to apply any other chemicals.

1. Rinse and flush application equipment thoroughly after use. Dispose of rinse water in non-cropland area away from water supplies.
2. Rinse a second time, adding 1 qt of household ammonia for every 25 gallons of water. Circulate the solution through the entire system so that all internal surfaces are contacted (15 to 20 minutes). Let the solution stand for several hours, preferably overnight.
3. Flush the solution out of the spray tank through the boom.
4. Rinse the system twice with clean water, recirculating and draining each time.
5. Nozzles and screens should be removed and cleaned separately.

General Information

Tordon 101 Mixture weed and brush herbicide is recommended for control of unwanted annual and perennial broadleaf weeds and woody plants and vines on forest planting sites and non-crop areas including industrial manufacturing and storage sites, rights-of-way, such as electrical power lines, communication lines, pipelines, highways, railroads, and wildlife openings in forest and non-crop areas.

Use Tordon 101 Mixture weed and brush herbicide at rates of 1/2 to 2 gallons per acre to control broadleaf weeds and at rates of 1 to 2 gallons per acre to control woody plants and vines. Tordon 101 Mixture may be tank mixed with Garlon* 4 or Garlon 3A herbicides, or 4 lb/gal 2,4-D low-volatile esters registered for sites listed on this label to control mixed woody plant and vine species. When tank mixing, observe all precautions, directions, and limitations on both products' labeling. In all cases use the amounts specified in enough water to give thorough and uniform coverage of the plants to be controlled.

Note: Tordon 101 Mixture does not mix readily with oil. Use of a non-ionic agricultural surfactant, such as Ortho X-77, Triton AG-98, or Tronic, is recommended for all applications. When using surfactants, follow the use directions and precautions listed on the surfactant manufacturer's label. Use the higher recommended concentrations of surfactant in the spray mixture when applying lower spray volumes per acre.

Precautions and Restrictions

Use this product only as specified on this label. Observe any special use and application restrictions and limitations, including method of application and permissible areas of use as promulgated by state authorities.

Maximum Use Rates: Total use of Tordon 101 Mixture must not exceed 8 quarts per acre per annual growing season on rights-of-way and other non-crop areas. No more than 8 quarts per acre may be applied within a period of 2 annual growing seasons on forest sites.

Chemigation: Do not apply this product through any type of irrigation system.

Be sure that use of this product conforms to all applicable regulations.

Do not make application when circumstances favor movement from treatment site.

Do not rotate food or feed crops on treated land if they are not registered for use with picloram until an adequately sensitive bioassay or chemical test shows that no detectable picloram is present in the soil.

Do not move treated soil to other areas or use it to grow plants if they are not registered for use with picloram until an adequate sensitive bioassay or chemical test shows that no detectable picloram is present in the soil.

Do not spray if the loss of legumes cannot be tolerated. Tordon 101 Mixture may injure or kill legumes. New legume seedlings may not grow within 2 years following application of this herbicide.

Do not transfer livestock from treated grazing areas onto sensitive broadleaf crop areas without first allowing 7 days of grazing on an untreated grass pasture. Otherwise, urine may contain enough picloram to cause injury to sensitive broadleaf plants.

Do not use manure from animals grazing treated areas on land used for growing broadleaf crops, ornamentals, orchards, or other susceptible, desirable plants. Manure may contain enough picloram to cause injury to susceptible plants.

Do not use plant material from treated areas for composting or mulching of susceptible broadleaf plants.

Do not contaminate water intended for irrigation or domestic purposes. To avoid injury to crops or other desirable plants, do not treat or allow spray drift or run-off to fall onto banks or bottoms of irrigation ditches, either dry or containing water, or other channels that carry water that may be used for irrigation or domestic purposes. Do not apply to snow or frozen ground.

Do not apply or otherwise permit Tordon 101 Mixture or sprays containing Tordon 101 Mixture to contact crops or other desirable broadleaf plants including, but not limited to alfalfa, beans, cotton, grapes, melons, peas, potatoes, safflower, soybeans, sugar beets, sunflower, tobacco, tomatoes, and other vegetable crops, flowers, fruit plants, ornamentals, or shade trees.

Tordon 101 Mixture should not be applied on residential or commercial lawns or near ornamental trees and shrubs. Untreated trees can occasionally be affected by root uptake of herbicide through movement into the top soil or by excretion of the product from the roots of nearby treated trees. Do not apply Tordon 101 Mixture within the root zone of desirable trees unless such injury can be tolerated.

Avoid injury to newly planted conifers. Conifer planting intervals vary. Pines planted sooner than 6 months after treatment with Tordon 101 Mixture may be injured in the south or west of the Cascade Mountains. Other conifers, west of the Cascade Mountains, may be injured if planted sooner than 8 to 9 months after treatment. For all conifers, the waiting period treatment and planting should be 11 to 12 months in the area between the Cascade and Rocky Mountains and 8 to 9 months in the lake States and the Northeastern U.S.

Avoiding Injurious Spray Drift

Applications should be made only when there is little or no hazard from spray drift. Very small quantities of spray, which may not be visible, may seriously injure susceptible crops or ornamental plants near enough to be injured. It is suggested that a continuous smoke column at or near the spray site or a smoke generator on the spray equipment be used to detect air movement, lapse conditions, or temperature inversions (stable air). If the smoke layers or indicates a potential of hazardous spray drift, do not spray.

Aerial Application: Avoid spray drift at the application site. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. Users are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops:

1. The distance of the outer most operating nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they should be observed.

The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory, below.

For aerial application on rights-of-way or other areas near susceptible crops, use Nalco-Trol drift control additive as recommended by the manufacturer or apply the Microfoil or Thru-Valve boom or use an equivalent drift control system. Thickened sprays prepared by using high viscosity invert systems, or other drift control additives or systems, may be utilized if drift control is comparable to that obtained with Nalco-Trol or the Microfoil or Thru-Valve boom. If a spray thickening agent is used, follow all use recommendations and precautions on the product label. Do not use a thickening agent with the Microfoil boom, or other systems that cannot accommodate thick sprays.

With aircraft, drift can be lessened by applying a coarse spray; by using spray pressures no greater than are required to obtain adequate plant coverage; by using straight stream nozzles directed straight back; by spraying only when wind velocities are low; or by using an approved drift control system.

Ground Equipment: To aid in reducing spray drift, Tordon 101 Mixture should be used in thickened (high viscosity) spray mixtures using Nalco-Trol drift control additive or equivalent as directed by the manufacturer. With ground equipment, spray drift can be reduced by keeping the spray boom as low as possible; by applying 20 gallons or more of spray per acre; by using spray pressures no greater than are required to obtain adequate plant coverage; and by spraying when wind velocity is low. Do not apply with hollow cone-type insecticide or other nozzles that produce a fine droplet spray.

High Volume Leaf-Stem Treatment: Spray drift may be minimized by using spray pressures no greater than are required to obtain adequate plant coverage and spraying no higher than brush tops. Avoid excessive pressures which result in formation of fine spray mists. Nalco-Trol thickening agent or equivalent may be used to reduce spray drift. Do not apply this product through a mist blower.

Aerial Drift Reduction Advisory

Information On Droplet Size
The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see Wind, Temperature and Humidity, and Temperature Inversions).

Controlling Droplet Size

- **Volume** - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** - Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- **Number of Nozzles** - Use the minimum number of nozzles that provide uniform coverage.
- **Nozzle Orientation** - Orienting nozzles so that the spray is released parallel to the air stream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- **Nozzle Type** - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

Boom Length: For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.

Application Height: Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

Swath Adjustment: When applications are made with a crosswind, the swath will be displaced downward. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.)

Wind: Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

Temperature And Humidity: When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

Temperature Inversions: Applications should not occur during a local, low-level temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of the smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

Sensitive Areas: The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive areas).

Plants Controlled by Tordon 101 Mixture

Annual and Perennial Broadleaf Weeds Controlled by Tordon 101 Mixture

bindweed, field	goldenrod	rush skeleton weed
bouncingbet	horsenettle	sowthistle
carrot, wild	knapweed	spurge, leafy
chicory	milkweed	starthistle, yellow
clover	plantain	thistles
dandelion	prickly lettuce	toadflax
dock	ragweed	vetch
fleabane	ragwort, tansy	

Woody Plants and Vines Controlled by Tordon 101 Mixture

ailanthus	fir, balsam	persimmon
alder	gorse	pine
aspen	gum	poison oak
birch	hemlock	sassafras
blackberry	hickory	sourwood
bracken fern	honeysuckle	spruce
buttonbush	kudzu	sumac
cherry	locust	tulip poplar
Douglas fir	maple	wild rose
elm	oak	willow

Specific Use Directions

High Volume Leaf-Stem Treatment

Use Tordon 101 Mixture at the rate of 1 gallon in water to make 100 gallons of spray to control broadleaf weeds, vines, and other woody plants. To control a wider range of plant species, mix 1/4 to 1/2 gallon of Tordon 101 Mixture with 1 to 3 quarts of Garlon 4 herbicide or 1 to 4 quarts of Garlon 3A Herbicide or 4 lb/gal 2,4-D low-volatile ester and dilute to make 100 gallons of spray. Apply after the foliage is well developed and in a manner to give thorough spray coverage. For woody plants, apply the spray mixture in a manner which thoroughly wets all leaves, stems, and root collars. For hard-to-kill species, such as ash and oak, also wet the soil around the root collar. The amount of spray mixture applied per acre will vary with plant size and density; however, total use of Tordon 101 Mixture must not exceed 8 quarts per acre.

Note: Do not allow the spray, even as minute amounts of spray drift, to contact desirable broadleaf plants, and do not wet the soil over roots of such plants.

Broadcast Ground or Aerial Foliage Treatment

To obtain adequate plant coverage, it is recommended that ground applications of Tordon 101 Mixture be made in 15 or more gallons of total spray mixture per acre. For aerial applications, use of 5 to 20 gallons per acre of spray mixture is recommended. Use higher spray volumes where plants are tall, where the vegetation to be treated is dense, or where difficult to control species are present.

Broadleaf Annual and Perennial Weed and Woody Vine Control
Use Tordon 101 Mixture weed and brush herbicide at rates of 2 quarts to 2 gallons per acre in a water spray mixture. Apply to problem weeds and vines any time after growth begins in the spring and late in summer or fall.

For seasonal control of vigorously growing stands of field bindweed, Canada thistle, or mixtures of these with susceptible annual weeds such as ragweed, dandelion, plantain, clovers, and dock use 2 to 3 quarts of Tordon 101 Mixture per acre in water spray.

In arid areas and for control of more resistant perennial weeds use 1 to 2 gallons of Tordon 101 Mixture per acre. Use 1 to 1 1/2 gallons per acre to control species such as Canada thistle, field bindweed, and milkweed. The higher rates should be used under drought stress conditions and for the more resistant species such as bouncingbet, leafy spurge, toadflax, and woody vines. The spectrum of activity can be improved by tank mixing 1/2 to 1 gallon of Tordon 101 Mixture with 1/3 to 1 gallon of Garlon 3A or 1 to 3 quarts of Garlon 4 per acre.

Woody Plant Control
Use Tordon 101 Mixture at the rate of 1 to 2 gallons per acre in a water spray mixture.

For susceptible seedling stages of species such as aspen, cherry, and sumac use 1 to 1 1/2 gallons of Tordon 101 Mixture per acre in a water spray mixture.

For more mature and/or less susceptible species such as Poison oak, blackberries, Douglas fir, willow, buttonbush, black locust, sassafras, sumac, tulip poplar, and cherry use 2 gallons of Tordon 101 Mixture per acre in a water spray mixture.

For more resistant brush, such as maple, pine, sourwood, blackgum, cedar, and oak, and to improve the spectrum of species controlled, 1 to 2 gallons of Tordon 101 Mixture per acre can be tank mixed with 1/2 to 2 gallons per acre of Garlon 3A, Garlon 4, or 4 lb/gal 2,4-D low-volatile ester.

Note: For best results under conditions of drought stress, use the higher rates recommended. Even these rates under such conditions may not be as effective as the lower rates under good growing conditions.

Broadcast Treatments for Forest Site Preparation
(not for conifer release)

For broadcast applications apply the recommended rate of Tordon 101 Mixture in a total spray volume of 5 to 25 gallons per acre by air or 10 to 100 gallons per acre by ground. Use spray volumes sufficient to provide thorough coverage of treated foliage. Use application systems designed to prevent spray drift to off-target sites. Nozzles or additives that produce larger droplets may require higher spray volumes to provide adequate coverage. **Note:** This use is not intended for conifer release (see precautions).

Southern States Including Alabama, Arkansas, Delaware, Georgia, Louisiana, Maryland, Mississippi, North Carolina, Tennessee, Texas, and Virginia
To control susceptible woody plants and broadleaf weeds, apply Tordon 101 Mixture at a rate of 6 to 8 quarts per acre. To broaden the spectrum of woody plants and broadleaf weeds controlled, apply 6 to 8 quarts per acre of Tordon 101 Mixture in tank mix combination with 2 to 4 quarts per acre of Garlon 4 herbicide. Where grass control is also desired, Tordon 101 Mixture, alone or in combination with Garlon 4, may be tank mixed with 1 to 4 quarts per acre of Accord or Roundup herbicide, or 8 to 16 fluid ounces per acre of Arsenal Applicator's Concentrate herbicide. Susceptible woody plants, broadleaf weeds, and grasses may also be controlled using a tank mix of 6 to 8 quarts per acre of Tordon 101 Mixture and 3 to 5 quarts of Accord or Roundup herbicide, or 16 to 24 fluid ounces of Arsenal Applicator's Concentrate. **When applying tank mixes, follow use directions and precautions on each product label.**

In Western, Northeastern, North Central, and Lake States (States not listed above as Southern States)
To control susceptible woody plants and broadleaf weeds, apply Tordon 101 Mixture at a rate of 4 to 8 quarts per acre. To broaden the spectrum of woody plants and broadleaf weeds controlled, apply 4 to 8 quarts per acre of Tordon 101 Mixture in tank mix combination with 1 1/2 to 3 quarts of Garlon 4. Where grass control is also desired, Tordon 101 Mixture alone or in tank mix combination with Garlon 4, may be applied with 1 to 3 quarts per acre of Accord or Roundup, 2 to 4 fluid ounces of Oust, a combination of Accord (or Roundup) plus Oust at the rates listed, or 8 to 16 fluid ounces of Arsenal Applicator's Concentrate. **When applying tank mixes, follow the use directions and precautions on each product label.**

Conifer Strip Thinning in the Northeastern United States

To thin stands of naturally regenerated spruce and fir by applying herbicide in treated bands or strips which alternate with untreated bands or strips, apply Tordon 101 Mixture such that the application rate in the treated bands or strips is 2 gallons of herbicide per acre in a total spray mixture volume of 12 to 20 gallons. For best results, apply during the period of active conifer growth. To obtain the precise placement of spray mixture in the treated bands that is required for this technique, aerial applications should be made using a helicopter equipped with a Microfoil or Thru-Valve boom. Multiple treated bands may be obtained within a single spray swath by establishing alternating series of flowing and blocked spray nozzles.

Note: Injury or death of desired residual conifers may result if spray mixture is permitted to contact their foliage as a result of inaccurate flight guidance during aerial application or as a result of spray drift from treated into untreated strips.

Cut Surface Treatments

In forest and other non-crop areas to kill unwanted trees such as elm, maple, oak, and pine apply Tordon 101 Mixture, either undiluted or diluted in a 1:1 ratio with water, as directed below.

With Tree Injector Method
Application should be made by injecting 1/2 milliliter of undiluted Tordon 101 Mixture or 1 milliliter of the diluted solution through the bark at intervals of 3 inches between edges of the injector wound. The injections should completely surround the tree at any convenient height.

Note: No Worker Protection Standard worker entry restrictions or worker notification requirements apply when this product is directly injected into agricultural plants.

With Frill or Girdle Method
Make a single girdle through the bark completely around the tree at a convenient height. Wet the cut surface with the diluted solution.

Stump Treatment
Spray or paint to wet the cut surfaces of freshly cut stumps or stubs with Tordon 101 Mixture undiluted or diluted 1:1 in water. All of the cambium area next to the bark is the most vital area to wet.

The above methods may be used successfully at any season except during periods of heavy sap flow of certain species, such as maples, or during drouthy periods. Untreated trees within a few feet of the treated trees or stumps may be injured or killed.

Broadcast Cut Stubble Treatment

To prevent resprouting of susceptible woody species, after mowing or hand-cutting on non-crop areas and rights-of-way, use Tordon 101 Mixture at the rate of 2 gallons per acre in 25 or more gallons of a water spray mixture. Best results may be obtained when applications are made before or during periods of active root growth. Applications should not be made when the soil surface is frozen or covered by snow or standing water. It is recommended that applications be made soon after cutting, before sprouting of woody species has occurred.

Terms and Conditions of Use

If terms of the following Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies are not acceptable, return unopened package at once to the seller for a full refund of purchase price paid. Otherwise, use by the buyer or any other user constitutes acceptance of the terms under Warranty Disclaimer, Inherent Risks of Use and Limitations of Remedies.

Warranty Disclaimer

Dow AgroSciences warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. Dow AgroSciences MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

Inherent Risks of Use

It is impossible to eliminate all risks associated with use of this product. Plant injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperature, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of Dow AgroSciences or the seller. All such risks shall be assumed by buyer.

Limitation of Remedies

The exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability, or other legal theories), shall be limited to, at Dow AgroSciences' election, one of the following:

1. Refund of purchase price paid by buyer or user for product bought, or
2. Replacement of amount of product used

Dow AgroSciences shall not be liable for losses or damages resulting from handling or use of this product unless Dow AgroSciences is promptly notified of such loss or damage in writing. In no case shall Dow AgroSciences be liable for consequential or incidental damages or losses.

The terms of the "Warranty Disclaimer" above and this "Limitation of Remedies" cannot be varied by any written or verbal statements or agreements. No employee or sales agent of Dow AgroSciences or the seller is authorized to vary or exceed the terms of the "Warranty Disclaimer" or this "Limitation of Remedies" in any manner.

*Trademark of Dow AgroSciences
Dow AgroSciences LLC • Indianapolis, IN 46268 U.S.A.

EPA accepted date: 03-07-2003

Label Code: D02-110-024
Replaces Label: D02-110-023
LOES Number: 010-00093

Revisions:

Label changes to comply with the Reregistration Eligibility Decision (RED) for picloram. The following categories were revised: Precautionary Statements, First Aid, Environmental Hazards, Non Agricultural Use Requirements box, Aerial Application, and Aerial Drift Reduction Advisory.

MATERIAL SAFETY DATA SHEET

Dow AgroSciences

Emergency Phone: 800-992-5994
Dow AgroSciences LLC
Indianapolis, IN 46268

TORDON* 101M MIXTURE HERBICIDE

Effective Date: 19-Sept-05
Product Code: 87247
MSDS: 000381

1. PRODUCT AND COMPANY IDENTIFICATION:

PRODUCT: Tordon* 101M Mixture Herbicide

COMPANY IDENTIFICATION:
Dow AgroSciences LLC
9330 Zionsville Road
Indianapolis, IN 46268-1189

2. HAZARDOUS IDENTIFICATIONS:

EMERGENCY OVERVIEW
Amber liquid with rubbing alcohol-like odor. May cause eye and skin irritation even a burn or allergic reaction. Toxic to aquatic organisms.
EMERGENCY PHONE NUMBER: 800-992-5994

3. COMPOSITION/INFORMATION ON INGREDIENTS:

Picloram TIPA	CAS# 006753-47-5	10.2%
2,4-Dichlorophenoxyacetic acid, TIPA	CAS# 018584-79-7	39.6%
Balance, Total, Including:		50.2%
Isopropanol	CAS# 000067-63-0	
Triisopropanolamine	CAS# 000122-20-3	

4. FIRST AID:

EYES: Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. Call a poison control center or doctor for treatment advice.

SKIN: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison Control center or doctor for treatment advice.

INGESTION: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Never give anything by mouth to an unconscious person.

INHALATION: Move to fresh air; if effects occur, consult a physician.

NOTE TO PHYSICIAN: If burn is present, treat as any thermal burn after decontamination. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

5. FIRE FIGHTING MEASURES:

FLASH POINT: 114.8°F (46°C)
METHOD USED: Setaflash

FLAMMABLE LIMITS
LFL: Not determined
UFL: Not determined

EXTINGUISHING MEDIA: Water fog, alcohol foam, CO_2, dry chemical.

FIRE & EXPLOSION HAZARDS: Toxic, irritating vapors may be formed if product is involved in a fire. Contain water from fire fighting to prevent entry to surface and ground water.

FIRE-FIGHTING EQUIPMENT: Wear positive-pressure, self-contained breathing apparatus and full protective clothing.

6. ACCIDENTAL RELEASE MEASURES:

ACTION TO TAKE FOR SPILLS/LEAKS: Absorb small spills with inert material such as clay, Zorball, or kitty litter. Dike the area and report large spills to Dow AgroSciences at 800-992-5994.

7. HANDLING AND STORAGE:

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Keep out of reach of children. Harmful if swallowed, inhaled, or absorbed through skin. Causes eye irritation. May cause allergic skin reactions in some individuals. Avoid contact with eyes, skin, and clothing. Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Store in original container.

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MATERIAL SAFETY DATA SHEET

Dow AgroSciences

Emergency Phone: 800-992-5994
Dow AgroSciences LLC
Indianapolis, IN 46268

TORDON* 101M MIXTURE HERBICIDE

Effective Date: 19-Sept-05
Product Code: 87247
MSDS: 000381

8. EXPOSURE CONTROLS/PERSONAL PROTECTION:

These precautions are suggested for conditions where the potential for exposure exists. Emergency conditions may require additional precautions.

EXPOSURE GUIDELINE(S):
2,4-D triisopropanolamine salt: none established; ACGIH TLV and OSHA PEL are 10 mg/M^3 for the acid.
Picloram triisopropanolamine salt: none established. For the acid, ACGIH TLV is 10 mg/M^3 and OSHA PEL is 10 mg/M^3 total, 5 mg/M^3 respirable.
Triisopropanolamine: Dow AgroSciences Industrial Hygiene Guide is 10 mg/M^3.
Isopropyl alcohol (isopropanol): ACGIH TLV is 200 ppm TWA, 400 ppm STEL, A4. OSHA PEL is 400 ppm.
Contains a proprietary ingredient for which the ACGIH TLV and OSHA PEL are 400 ppm TWA, 500 ppm STEL.
Contains a proprietary ingredient for which the Dow AgroSciences Industrial Hygiene Guide is 2 mg/M^3.

ENGINEERING CONTROLS: Provide general and/or local exhaust ventilation to control airborne levels below the exposure guideline.

RECOMMENDATOINS FOR MANUFACTURING, COMMERCIAL BLENDING AND PACKAGING WORKERS:

RESPIRATORY PROTECTION: Atmospheric levels should be maintained below the exposure guidelines.

SKIN PROTECTION: When prolonged or frequently repeated contact could occur, use chemically protective clothing resistant to this material. Selection of specific items such as faceshield, boots, gloves, apron, or full-body suit will depend on operation.

EYE/FACE PROTECTION: Use chemical goggles.

APPLICATORS AND ALL OTHER HANDLERS: Refer to the product label for personal protective clothing and equipment recommendations.

9. PHYSICAL AND CHEMICAL PROPERTIES:

BOILING POINT: >180°F (82°C)
VAPOR PRESSURE: Approximately 32 mmHg @ 20°C
DENSITY: 1.1492 g/mL (0.01841 lb/ft^3) @ 20°C
SOLUBILITY IN WATER: Miscible
SPECIFIC GRAVITY: 1.143 68/68°F, 20°C
APPEARANCE: Amber liquid
ODOR: Rubbing alcohol
VISCOSITY: 37.3 cP @ 25.3°C
pH: 6.44 (10% sol in deionized water) @ 24°C

10. STABILITY AND REACTIVITY:

STABILITY: (CONDITIONS TO AVOID) Combustible. Keep away from heat, open flames and sparks.

INCOMPATIBILITY: (SPECIFIC MATERIALS TO AVOID) None under normal use conditions. Under abnormal conditions, avoid oxidizing materials and strong acids.

HAZARDOUS DECOMPOSITION PRODUCTS: Hydrogen chloride and nitrogen oxides may be formed if product is involved in fire.

HAZARDOUS POLYMERIZATION: Not known to occur.

11. TOXICOLOGICAL INFORMATION:

POTENTIAL HEALTH EFFECTS: This section includes possible adverse effects, which could occur if this material is not handled in the recommended manner.

EYE: May cause moderate eye irritation, which may be slow to heal. May cause slight corneal injury.

SKIN: Prolonged or repeated exposure may cause skin irritation, even a burn. Skin contact may cause allergic skin reaction. Prolonged skin contact is unlikely to result in absorption of harmful amounts. The LD_{50} for skin absorption in rabbits is >2000 mg/kg.

INGESTION: Low toxicity if swallowed. The LD_{50} for rats is 2598 mg/kg. Small amounts swallowed incidental to normal handling operations are not likely to cause injury; however, swallowing amounts larger than that may cause injury.

INHALATION: Prolonged exposure is not likely to cause adverse effects.

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SYSTEMIC (OTHER TARGET ORGAN) EFFECTS: In animals, effects have been reported on the following organs: central nervous system, gastrointestinal tract, kidney, liver and muscular effects. Observations in animals include gastrointestinal effects and vomiting.

CANCER INFORMATION: Various animal cancer tests have shown no reliably positive association between 2,4-D exposure and cancer. Epidemiology studies on herbicide use have been both positive and negative with the majority being negative. Picloram acid did not cause cancer in laboratory animals.

TERATOLOGY (BIRTH DEFECTS): 2,4-Dichlorophenoxyacetic acid, triisopropanolamine salt has caused birth defects in laboratory animals only at doses toxic to the mother (severe maternal toxicity). Picloram, triisopropanolamine salt did not cause birth defects or any other fetal effects in laboratory animals, even at exposure levels having an adverse effect on the mother. Isopropanol has been toxic to the fetus in laboratory animals at doses toxic to the mother.

REPRODUCTIVE EFFECTS: Picloram acid did not interfere with reproduction in animal studies. Excessive dietary levels of 2,4-Dichlorophenoxyacetic acid have caused decreased weight and survival in offspring in a rat reproduction study.

MUTAGENICITY: For 2,4-D acid, in-vitro and animal genetic toxicity studies were predominantly negative. The preponderance of data shows picloram to be non-mutagenic in 'in-vitro' (test tube) tests and in animal test systems.

12. ECOLOGICAL INFORMATION:

ENVIRONMENTAL DATA:

MOVEMENT & PARTITIONING:

Based on information for picloram.

Bioconcentration potential is moderate (BCF between 100 and 3000 or Log Pow between 3 and 5).

Potential for mobility in soil is very high (Koc between 0 and 50).

Based on information for triisopropanolamine.

No bioconcentration is expected because of the relatively high water solubility.

DEGRADATION & PERSISTENCE:

Based on information for picloram.

The atmospheric half-life is 12.21 days.

The photolysis half-life in water is 2.3-9.58 days.

Under aerobic soil conditions the half-life is 167-513 days.

Based on information for triisopropanolamine.

Biodegradation under aerobic static laboratory conditions is high (BOD20 or BOD28/ThOD is > 40%).

Under aerobic aquatic conditions the half-life is 14.3 days.

Under aerobic soil conditions the half-life is 2 days.

ECOTOXICOLOGY:

Material is slightly toxic to aquatic organisms on an acute basis (LC_{50} between 10 and 100 mg/L in most sensitive species).

Acute LC_{50} for tidewater silverside *(Menidia beryllina)* is 57.2 mg/L.

Acute EC_{50} for shell deposition inhibition in eastern oyster *(Crassostrea virginica)* is 10-18 mg/L.

Acute LC_{50} for pink shrimp *(Penaeus duorarum)* is 306 mg/L.

Material is practically non-toxic to birds on a dietary basis (LC_{50} is >5000 ppm).

Dietary LC_{50} for bobwhite *(Colinus virginianus)* is >10000 ppm.

Dietary LC_{50} for mallard *(Anas platyrhynchos)* is >10000 ppm.

Growth inhibition EC_{50} in duckweed *(Lemna sp)* is 163 mg/L.

Growth inhibition EC_{50} for blue-green alga *(Anabaena flos-aquae)* is 740 mg/L.

Growth inhibition EC_{50} for marine diatom *(Skeletonema costatum)* is 22 mg/L.

Growth inhibition EC_{50} for diatom *(Navicula sp)* is 400 mg/L.

13. DISPOSAL CONSIDERATIONS:

DISPOSAL METHOD: If wastes and/or containers cannot be disposed of according to the product label directions, disposal of this material must be in accordance with your local or area regulatory authorities. This information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. If the material as supplied becomes a waste, follow all applicable regional, national and local laws and regulations.

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14. TRANSPORT INFORMATION:

U.S. DEPARTMENT OF TRANSPORTATION (DOT) INFORMATION:

For containers less than 26 gallons:

LAND: NOT REGULATED

AIR: FLAMMABLE LIQUIDS, N.O.S. (CONTAINS ISOPROPANOL)/3/UN1993/PGIII

MARINE: FLAMMABLE LIQUIDS, N.O.S. CONTAINS ISOPROPANOL)/3/UN1993/PGIII/MARINE POLLUTANT (2,4-D SALT)

For containers greater than or equal to 26 gallons:

LAND: FLAMMABLE LIQUIDS, N.O.S. (CONTAINS ISOPROPANOL)/3/UN1993/ PGIII/RQ (2,4-D SALT)

MARINE: FLAMMABLE LIQUIDS, N.O.S. (CONTAINS ISOPROPANOL)/3/UN1993/PGIII/RQ (2,4-D SALT)/MARINE POLLUTANT

15. REGULATORY INFORMATION:

NOTICE: The information herein is presented in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ from one location to another; it is the buyer's responsibility to ensure that its activities comply with federal, state or provincial, and local laws. The following specific information is made for the purpose of complying with numerous federal, state or provincial, and local laws and regulations.

U.S. REGULATIONS

SARA 313 INFORMATION: This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

CHEMICAL NAME	CAS NUMBER	CONCENTRATION
Isopropyl Alcohol	000067-63-0	5%

SARA HAZARD CATEGORY: This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

An immediate health hazard
A delayed health hazard
A fire hazard

TOXIC SUBSTANCES CONTROL ACT (TSCA): All ingredients are on the TSCA inventory or are not required to be listed on the TSCA inventory.

STATE RIGHT-TO-KNOW: The following product components are cited on certain state lists as mentioned. Non-listed components may be shown in the composition section of the MSDS.

CHEMICAL NAME	CAS NUMBER	LIST
Isopropyl Alcohol	000067-63-0	NJ2, NJ3, PA1,PA3
2-Propanol, 1,1',1"-Nitrilotris	000122-20-3	PA1

NJ1=New Jersey Special Health Hazard Substance (present at > or = to 0.1%).
NJ2=New Jersey Environmental Hazardous Substance (present at > or = to 1.0%).
NJ3=New Jersey Workplace Hazardous Substance (present at > or = to 1.0%).
PA1=Pennsylvania Hazardous Substance (present at > or = to 1.0%).
PA3=Pennsylvania Environmental Hazardous Substance (present at > or = to 1.0%).

OSHA HAZARD COMMUNICATION STANDARD: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) RATINGS:

Category	Rating
Health	2
Flammability	2
Reactivity	0

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COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT (CERCLA, or SUPERFUND): To the best of our knowledge, this product contains no chemical subject to reporting under CERCLA.

16. OTHER INFORMATION:

MSDS STATUS: Revised Sections: 2, 3, & 14
Reference: DR-0100-2400
Replaces MSDS dated: 4/15/04
Document Code: D03-110-008
Replaces Document Code: D03-110-007

The Information Herein Is Given In Good Faith, But No Warranty, Express or Implied, Is Made. Consult Dow AgroSciences for Further Information.

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TARGET® 6 Plus

MSMA Plus Surfactant for Postemergence Weed Control in Cotton, Golf Courses, Sod Farms and Highway Rights of Way

ACTIVE INGREDIENT:	
Monosodium acid methanearsonate* (MSMA)	**48.30%**
OTHER INGREDIENTS:	**51.70%**
TOTAL:	**100.00%**

Total arsenic (as elemental) all in water soluble form 22.30%
***Product contains 6.0 lbs MSMA per gallon**

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID

IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-424-9300 for emergency medical information.

SEE PRODUCT LABEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS

FOR CHEMICAL SPILL, LEAK, FIRE OR EXPOSURE CALL TOLL FREE: **1-800-424-9300**
AGRICULTURAL CHEMICAL DO NOT SHIP OR STORE WITH FOODS, FEEDS, DRUGS, OR CLOTHING

EPA Reg. No.: 42519-3
EPA Est. No.: 42519-ISR-1

Net contents: 2.5 Gallons

Manufactured for:
LUXEMBOURG-PAMOL, INC.
3647 Willowbend Boulevard, Suite 810
Houston, TX 77054, U.S.A.,Tel. 877-343-4239

MADE IN ISRAEL

5003-4/130206_1/11

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation. Do not apply this product through any type of irrigation system. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. In addition, do not apply this product in a manner that results in spray (or dust) drift that could cause an adverse effect to people or any other non-target organism or site. Only protected handlers may be in the area during application.

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard. Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is:

- coveralls
- chemical-resistant gloves Category A, such as butyl rubber ≥ 14 mils, or natural rubber ≥ 14 mils, or neoprene rubber ≥ 14 mils, or nitrile rubber ≥ 14 mils
- shoes and socks
- protective eyewear
- chemical-resistant headgear for overhead exposure

Non-Agricultural Use Requirements

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The Worker Protection Standard applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses. Keep children and domestic animals off treated areas until this material has been washed into the soil. The area being treated must be vacated by unprotected persons.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

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Pesticide Storage: Open dumping is prohibited. Do not store this product near fertilizers, seeds, insecticides, or fungicides. Do not store near heat or open flame. Freezing point of this product is approximately -5°F. If stored below freezing point, warm to 50°F and agitate thoroughly before using. Containers should not be stacked more than six (6) high. Reclose all partially used containers by thoroughly tightening screw cap. Opened, partially used pesticides should be stored in original labeled containers when possible. When transfer to another container is necessary because of leakage or damage, carefully mark, and identify contents of the new container. Absorb any spills with a suitable clay absorbent and dispose of as indicated under "Pesticide Disposal." For safety and prevention of unauthorized use, all pesticides should be stored in locked facilities.

Pesticide Disposal: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Disposal: Nonrefillable Container: Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying.

Container size: for 5 gallons or less, triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

CAUTION

Harmful if swallowed. Avoid breathing spray mist. Avoid contact with skin, eyes, and clothing. In cases of contact, immediately flush eyes or skin with plenty of water. Get medical attention if irritation occurs.

Personal Protective Equipment

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for Category A on an EPA chemical-resistance category selection chart.

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All mixers, loaders, applicators and other handlers must wear:

- long sleeved shirt and long pants
- chemical-resistant gloves Category A, such as butyl rubber ≥ 14 mils, or natural rubber ≥ 14 mils, or neoprene rubber ≥ 14 mils, or nitrile rubber ≥ 14 mils
- shoes and socks
- protective eyewear
- chemical-resistant apron when cleaning equipment, mixing or loading

Follow the manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.
See engineering controls statement for further instructions.

Engineering Controls Statement:
Pilots must use an enclosed cockpit that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(60)].

User Safety Recommendations
User should:

- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters or rinsate. Do not apply when weather conditions favor drift from target area.

PRODUCT INFORMATION

Target® 6 Plus is a postemergence herbicide for use in cotton, golf courses, sod farms and highway rights of way. Target® 6 Plus contains a surfactant (wetting agent) in proper ratio for best results. It is not necessary to add additional surfactant to the spray tank. Local conditions and recommendations vary; consult an agricultural experiment station or extension service weed specialist for recommendations in your area.
A partial list of weeds controlled with Target® 6 Plus includes: barnyardgrass, brachiaria *spp.*, chickweed, cocklebur, crabgrass, dallisgrass, goosegrass, johnsongrass, nutsedge, pigweed, puncture vine, sandbur.

Note to Users: Do not apply this product in Florida except on cotton in the counties listed in the cotton use section of the label. Aerial application is prohibited, except when applying to cotton.

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MIXING INSTRUCTIONS

Fill the spray tank with half the required amount of water and with pump or agitator operating, add the specified amount of Target® 6 Plus, continue filling the tank with the balance of water and mix thoroughly.

Do not store spray solution in tank overnight. Clean application equipment thoroughly after use by flushing with water in a safe place.

SPRAY DRIFT MANAGEMENT

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

1) The distance of the outer most nozzles on the boom must not exceed three-fourth the length of the wingspan or rotor.
2) Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they shall be observed.

The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory Information.

Information on droplet size

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see Wind, Temperature and Humidity, and Temperature Inversions).

Controlling droplet size

- Volume – Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- Pressure – Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- Number of nozzles – Use the minimum number of nozzles that provide uniform coverage.
- Nozzle orientation – Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- Nozzle type – Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

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Boom length

For some use patterns, reducing the effective boom length to less than three-fourths of the wingspan or rotor length may further reduce drift without reducing swath width.

Application height

Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

Swath adjustment

When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.).

Wind

Drift potential is lowest between speeds of 2 to 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential.

Note: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

Temperature and humidity

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

Temperature inversions

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

Sensitive areas

This pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive area).

APPLICATION METHODS

Target® 6 Plus should be applied with a low-pressure, properly calibrated sprayer having satisfactory pumping and bypass action. ADJUST NOZZLES TO KEEP SPRAY OFF COTTON FOLIAGE AND IN A MANNER TO ALLOW MAXIMUM COVERAGE OF WEEDS. Adequate coverage is very important for effective weed control. Apply during warm weather and when weeds are in an active stage of growth.

COTTON (Postemergent Use Only)

Target® 6 Plus is useful as a directed postemergence spray for control of the weeds listed above. Mix Target® 6 Plus at the rate of 2⅔ pints in 40 gallons of water for application as a DIRECTED broadcast spray to one acre when weeds are small. For band application in 40-inch rows, apply 1 gallon of above diluted spray solution per inch of band width per acre of cotton. Only 1 application at 2 lbs a.i./acre is allowed per season, except when a salvage operation is needed. Keep spray off cotton foliage.

If a salvage operation is needed (i.e., if pigweed escapes the first application), then a second or repeat application at 2 lbs a.i./acre is allowed. A second or repeat application, if needed, should be timed about 1 to 3 weeks after the first application. Apply only as a salvage operation when cotton is 3 inches high, but no later than 6 inches high or early square, whichever occurs first. Preference should be given to directed spray. In order to minimize injury, the second application should be made as a directed spray when possible.

Slight burning and a reddish discoloration of cotton foliage may occasionally be seen following the treatment; however cotton plants will develop normally and yield will not be affected.

DO NOT apply within 50 feet of permanent water bodies or aquatic habitat, including, but not limited to, lakes, reservoirs, rivers, streams, marshes, ponds, and estuaries.

DO NOT feed treated foliage to livestock or graze treated areas.

DO NOT make more than two (2) applications per season.

DO NOT apply more than a total of 4 Lbs a.i./acre per season.

DO NOT apply pre-plant to Cotton.

DO NOT apply in Florida except on cotton grown in the following counties: Calhoun, Columbia, Escambria, Hamilton, Holmes, Jackson, Jefferson, Okaloosa, Santa Rosa, Suwannee, Walton, and Washington counties.

NON-CROP

Target® 6 Plus is effective in controlling the above listed weeds and many similar weeds on golf courses, sod farms and highways. Not for use in Florida.

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GOLF COURSES

Target® 6 Plus can be used for selective control of bahiagrass, barnyardgrass, chickweed, smooth and large crabgrass, dallisgrass, nutsedge, sandbur and wood sorrel with little or no injury to well-established, actively-growing turf grasses. Mow turf grass to height of 1 to 1½ inches before treatment.

For newly constructed golf courses only one broadcast application is allowed. For all other applications to golf courses, only spot treatments (100 square feet maximum per spot) are allowed. A spot treatment must not exceed 25% of total golf course acreage per year.

Mix 1 fluid ounce (2 tablespoons) of Target® 6 Plus in 1 to 2½ gallons of water for application to an area of 1,000 square feet (100 square feet per spot). Established bermudagrass and zoysiagrass, mix 1 to 2 fluid ounces (2 to 4 tablespoons) of Target® 6 Plus in 1 to 2½ gallons of water for application to an area of 1,000 square feet (100 square feet per spot). Application should be uniform and thorough to adequately wet all undesirable plants.

Make applications during warm weather when temperature is between 80 and 90°F. **DO NOT** water turf for at least 24 hours after application. Turf grasses may be temporarily discolored. Bermudagrass, bluegrasses and zoysiagrass have shown tolerance to properly applied Target® 6 Plus. Injury may result if applied to bent grasses and fescues. **DO NOT** apply to St. Augustinegrass, carpetgrass, centipede grass or to dichondra. **DO NOT** reseed until 2 weeks after last application.

DO NOT treat on golf courses in Florida.

SOD FARMS

Target® 6 Plus can be used for selective control of bahiagrass, barnyardgrass, chickweed, smooth and large crabgrass, dallisgrass, nutsedge, sandbur and wood sorrel with little or no injury to well-established, actively-growing turf grasses. Mow turf grass to height of 1 to 1½ inches before treatment. Mix 1 fluid ounce (2 tablespoons) of Target® 6 Plus in 1 to 2½ gallons of water for application to an area of 1,000 square feet. Established bermudagrass and zoysiagrass, mix 1 to 2 fluid ounces (2 to 4 tablespoons) of Target® 6 Plus in 1 to 2½ gallons of water for application to an area of 1,000 square feet. Application should be uniform and thorough to adequately wet all undesirable plants. A second application may be made, if necessary. Only 2 broadcast applications are allowed per season.

Make applications during warm weather when temperature is between 80 and 90°F. **DO NOT** water turf for at least 24 hours after application. Turf grasses may be temporarily discolored. Bermudagrass, bluegrasses and zoysiagrass have shown tolerance to properly applied Target® 6 Plus. Injury may result if applied to bent grasses and fescues. **DO NOT** apply to St. Augustinegrass, carpetgrass, centipede grass or to dichondra. **DO NOT** reseed until 2 weeks after last application.

5003-4/130206_8/11

DO NOT apply within 25 feet of permanent water bodies or aquatic habitat, including, but not limited to, lakes, reservoirs, rivers, streams, marshes, ponds, and estuaries.
DO NOT treat sod farms in Florida.

HIGHWAY RIGHTS OF WAY

Only 2 broadcast applications are allowed per season. Do not apply within 100 feet of permanent water bodies or aquatic habitat, including, but not limited to, lakes, reservoirs, rivers, streams, marshes, ponds, and estuaries.

Application should be made when weeds are small and conditions are favorable for good weed growth. Mix this product at a rate of 2½ to 6 pints per 40 to 50 gallons of water per acre. For 1,000 square feet use 1 to 2 fluid ounces in 5 gallons of water. Spray undesirable vegetation thoroughly to point of run-off. Adequate coverage and complete wetting of foliage is important for effective control. One additional application may be necessary if regrowth occurs.

DO NOT apply the second treatment prior to 10 days after the first treatment.
DO NOT apply with hose-end applicators.
DO NOT use on highway rights of way in Florida.

5003-4/130206_9/11

WARRANTY - CONDITION OF SALE

OUR INSTRUCTIONS FOR USE of this product are based upon field use and tests believed reliable. Follow directions carefully. Timing and method of application, weather and crop conditions, mixtures with other chemicals not specifically recommended, and other influencing factors in the use of this product are beyond the control of the Seller. To the extent consistent with applicable law, buyer assumes all risks of use, storage and handling of this material not in strict accordance with directions given herewith.

To the extent consistent with applicable law, in no case shall Luxembourg-Pamol, Inc. or the Seller be liable for consequential, special, or indirect damages resulting from the use of this product when such use and/or handling is not in strict accordance with directions given herewith. To the extent consistent with applicable law, the foregoing is a condition of sale by Luxembourg-Pamol, Inc. and is accepted as such by the Buyer.

Target® is a registered trademark of Luxembourg

Manufactured by Luxembourg Industries Ltd.
Made in Israel

5003-4/130206_10/11

TARGET® 6 Plus

MSMA Plus Surfactant for Postemergence Weed Control in Cotton, Golf Courses, Sod Farms and Highway Rights of Way

ACTIVE INGREDIENT:	
Monosodium acid methanearsonate* (MSMA)	48.30%
OTHER INGREDIENTS:	51.70%
TOTAL:	100.00%

Total arsenic (as elemental) all in water soluble form 22.30%
***Product contains 6.0 lbs MSMA per gallon**

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID

IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-424-9300 for emergency medical information.

SEE PRODUCT LABEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS

FOR CHEMICAL SPILL, LEAK, FIRE OR EXPOSURE CALL TOLL FREE: **1-800-424-9300**
AGRICULTURAL CHEMICAL DO NOT SHIP OR STORE WITH FOODS, FEEDS, DRUGS, OR CLOTHING

EPA Reg. No.: 42519-3
EPA Est. No.: 42519-ISR-1

Net contents: 2.5 Gallons

Manufactured for:
LUXEMBOURG-PAMOL, INC.
3647 Willowbend Boulevard, Suite 810
Houston, TX 77054, U.S.A., Tel. 877-343-4239

MADE IN ISRAEL

5003-4/130206_11/11

LUXEMBOURG

LUXEMBOURG-PAMOL, INC.
5100 Poplar Avenue, Suite 2700, PMB 111
Memphis, Tennessee 38137

General Information No. **713-661-8800**
In case of Emergency **1-800-424-9300**

MATERIAL SAFETY DATA SHEET

1. PRODUCT IDENTIFICATION

Product Name : **Target® 6 Plus**
Pesticide Class : Herbicide, arsenical
General Use : Herbicide
EPA Registration : 42519-3
Synonyms : Monosodium methanearsonate (MSMA)

2. COMPOSITION / INFORMATION ON INGREDIENTS

ACTIVE INGREDIENT
Chemical Name : Monosodium methanearsonate
Chemical Family: Organo-arsenic compounds
Formula : CH_4AsO_3Na
Molecular Weight : 161.94

Component	wt%	CAS Registry
Monosodium methanearsonate	48.3	2163-80-6

3. PHYSICAL DATA

Appearance	: Clear liquid; colorless to Light yellow/green/brown
Odor	: None
Density	: 1.49 g/ml
Melting Point	: Not Applicable
Boiling Point	: 107-120 °C
Freezing Point	: -25 - -15 °C
Solubility in Water (% by Wt.)	: 58.3% w/w at 25°C
pH	: 5.5 - 6.0
Vapor Pressure	: Not Available
Vapor Density (Air=1)	: 0.6
Evaporation Rate (n-BuAc = 1)	: Ca. 0.7

4. FIRE AND EXPLOSION DATA

Flashpoint and Method : Not Combustible
Flammable Limits : Not Applicable
Autoignition Temperature : Not Combustible
Extinguishing Media: Dry chemical or Carbon Dioxide (CO_2) . Do not use water or foam, as this may spread product.
Special Fire Fighting Procedures: Fire fighting personnel must wear pressure-demand, self contained breathing apparatus (SCBA) for all indoor fires and significant outdoor fires.
Unusual Fire and Explosion Hazard: Toxic fumes may be generated in fire situations.

5. HEALTH HAZARD INFORMATION

Acute Toxicological Data:

Oral Toxicity (LD_{50})	: 2833 mg/kg (rat)
Dermal Toxicity (LD_{50})	: >2000 mg/kg (rabbit)
Inhalation (4-hour LC_{50})	: 2.20 mg/L (rat)
Eye Irritation	: Not a primary irritant
Skin Irritation	: Not a primary irritant
Dermal Sensitization	: Not a contact sensitizer

Potential Health Effects:

Inhalation: May be irritating to the respiratory tract and mucous membranes.
Skin: Mildly irritating with repeated or prolonged contact. Not readily absorbed through unbroken skin.
Eyes: May cause slight irritation, and conjunctivitis (inflammation if the inner surface of the eye lids), which may persist for several days unless eyes are promptly flushed with water.
Ingestion: Slightly toxic. Breath may have garlic odor. Toxic doses may cause burning of the throat, stomach pain, headache, dizziness, stupor, vomiting, diarrhea, convulsions, paralysis and/or death.
Chronic Effects: Persistent irritation, salty taste in mouth, burning sensation in throat, stomach pains.

Emergency First Aid Procedures: *Call a physician immediately in all cases of suspected poisoning.*

Inhalation: Remove victim from exposure by moving to an area of fresh air. If breathing is difficult or absent, send for immediate medical attention. If breathing has stopped, artificial respiration should be started by qualified personnel. Oxygen may be administered by qualified personnel.
Ingestion: If conscious, ensure airway is clear, then have victim drink several glasses of water and induce vomiting by sticking fingers in back of throat. Never give anything by mouth to an unconscious person. Obtain immediate medical attention.
Eyes: Immediately flush with water for at least 15 minutes, hold eyelids open to ensure adequate flushing of the entire eye. If irritation or discomfort develops, seek medical attention.
Skin: Wash affected area with soap and water. If irritation or discomfort develops, seek medical attention.

Notes to Physician:

If ingested, gastric lavage may be indicated. Literature recommendations for arsenic poisoning calls for chelation therapy with BAL or d-penicillamine. Persons with a sensitivity to penicillins may suffer an allergic reaction. BAL is recommended for persons allergic to penicillin

6. REACTIVITY DATA

Stability: Stable under normal conditions.

Incompatibility: Heavy metal salts may cause precipitation. Mildly corrosive to steel. May react with reducing agents such as aluminum, zinc, sodium borohydride, sulfur dioxide.

Hazardous Decomposition Products: Reducing agents may release arsine gas.

Hazardous Polymerization: Will not occur.

7. SPILL OR LEAK PROCEDURE

Steps to be Taken if Material is Released or spilled: Stop leak if possible. Contain spilled product with an inert diking material, such as sand. Cover the spill area with a 1:1 mixture of vermiculite and solid calcium oxide (the amount of the mixture should be at least double the size of the spill). Place reclaimed product in a closed and properly labeled waste drum. Store drum in separate area until proper disposal. Flush residue with water.

Waste Disposal Method: Dispose in accordance with local, state, and federal regulations.

8. SPECIAL PROTECTION INFORMATION

Ventilation: Work up wind during outside batch operations. If product is used inside, ensure local exhaust ventilation sufficient to maintain arsenic air concentrations below regulatory requirements.

Respiratory Protection: To minimize exposures, wear a NIOSH/MSHA approved dust or mist respirator. Implement a respiratory protection plan in accordance with OSHA 29CFR1910.134.

Eye Protection: Chemical splash goggle and/or faceshield.

Gloves: Rubber or neoprene of appropriate thickness for the task to be performed.

Other Protective Equipment: Long sleeve shirt, long pants, boots, and appropriate gloves should be worn when handling or applying this product. In addition, Mixer-loaders should wear an apron and faceshield. Others working near application sites should also wear appropriate personal protective clothing and equipment. Personnel involved in ground spray operations should wear an approved respirator. An emergency shower and eyes wash station should be provided in areas of product formulation.

9. SPECIAL PRECAUTIONS

Precautionary Labeling: Keep out of reach of children.

Storage and Disposal: Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited. Wastes resulting from the use of this product must be disposed of in accordance with local, state, or federal regulations. Do not reuse empty container. If container is offered for recycling or reconditioning it must be triple rinsed or cleaned with an equal process. If offered for sanitary landfill, triple rinse and puncture container or by other procedures approved by local, state, or federal authorities.

10. ADDITIONAL INFORMATION

SARA TITLE III

313 Inventory Ingredients: arsenic compounds (22.6%)
312 Hazards Classification: Not Applicable
(The toxicity of the organic arsenical used in this product is lower than that of inorganic arsenic compounds)

EPA HANDLER REQUIREMENTS

Worker Protection Standard 40 CFR 170

OSHA HAZARDOUS COMPONENTS (29CFR1910.1200)

	Exposure Limits (8 hour TWA)	
	OSHA - PEL	ACGIH - TLV
Target® 6 Plus Arsenic, Inorganic	Not Established 0.5 mg/M^3	Not Established 0.2 mg/M^3

LISTED AS A CARCINOGEN BY:

IARC = No
NTP = No
OSHA = No
California (Prop 65) = No

TRANSPORTATION INFORMATION

Transportation classification

IATA (air):	Not-Regulated
IMO (Water):	Not-Regulated
DOT (Land):	Not-Regulated

DOT Shipping Name: Not Applicable
Freight Classification: Herbicide, n.o.i., Liquid

ENVIRONMENTAL HAZARDS

Keep children and domestic animals off treated areas until the product has been washed into the soil. Do not apply directly to water. Do not contaminate water by cleaning of equipment or disposal of waste. Do not contaminate waters used for domestic purposes, or by wildlife, including aquatic life, or for irrigation. Do not feed treated foliage to livestock or allow grazing of treated areas. Do not spray or allow to drift onto vegetables, ornaments or other desirable plants. Do not apply when conditions may cause product to drift from application area.

The information contained herein is applicable solely to the indicated product, and does not relate to any other use of this product as described. Its use is intended by persons having technical skill and at their own discretion and risk. The information has been developed from sources reliable. This information is furnished without warranty, expressed or implied, including the warranties of merchantability and fitness for a particular purpose is made with respect to the information contained herein.

Crop Production Services
TIMBERLAND DIVISION

A.J. Thibodeaux
Territory Manager

Warehouse: (281)987-9400
Fax: (281)987-8969
Mobile: (713)705-9800
Fax: (936)890-1817

13622 E. Hardy Road
Houston, TX 77039

aubrey.thibodeaux@cpsagu.com
www.cpsagu.com

334

13622 E. Hardy Rd
Houston, TX 77039

FROM:
WILL SMITH (936) 539-9339
MAILBOXES "N" MORE
2257 N LOOP 336 W Suite #140
CONROE TX 77304
US

SHIP DATE: 27FEB17
ACTWGT: 1.82 LB
CAD: 110438180/WSXI3200
DIMMED: 12 X 9 X 1 IN
BILL SENDER

TO
JEFFERSON COUNTY PURCHASING DEPT
1149 PEARL ST
1ST FLOOR
BEAUMONT TX 77701 (US)
(555) 000-0000
INV: PKG ID: 124618
PO:
REF: CROP PRODUCTION SERVICES
DEPT:

FedEx Ground

TRK# 7857 4322 1004

77701

9622 0019 0 (000 000 0000) 0 00 7857 4322 1004

SEE NOTICE ON REVERSE regarding UPS Terms, and notice of limitations of liability. Where allowed by law, shipper authorizes UPS to act as forwarding agent for export control and customs purposes. If requested by the U.S. Shipper certifies that the commodities, technology or software were exported from the US in accordance with the Export Administration Regulations. Diversion contrary to law is prohibited.

RECEIVED 12:03 PM FEB 28 2017

Jefferson County Purchasing Dept.
1149 Pearl Street, 1st Floor
Beaumont, TX 77701

UPS
JLH LITSON COUNTY PURCHASI
1149 PEARL ST
FL 1
BEAUMONT TX
77701-3638-99
181-3068
ETP:3
795743221004
PD:SP:100:Y

Bid Name RFB 17-006/YS
Due march 14TH 11:00 AM

JEFFERSON COUNTY PURCHASING DEPARTMENT
Deborah L. Clark, Purchasing Agent

1149 Pearl Street, 1st Floor, Beaumont, TX 77701 409-835-8593 Fax 409-835-8456

LEGAL NOTICE
Advertisement for Invitation for Bids

February 13, 2017

Notice is hereby given that sealed bids will be accepted by the Jefferson County Purchasing Department for IFB 17-006/YS, Term Contract for Insecticides, Herbicides, Spray Adjuvants, and Adulticides for Jefferson County Mosquito Control District. **Specifications for this project may be obtained from the Jefferson County website, http://www.co.jefferson.tx.us/Purchasing/main.htm or by calling 409-835-8593.**

Bids are to be sealed and addressed to the Purchasing Agent with the bid number and name marked on the outside of the envelope. Bidders shall forward an original and two (2) copies of their bid to the address shown below. Jefferson County does not accept bids submitted electronically. Late bids will be rejected as non-responsive. Bids will be publicly opened and read aloud in the Jefferson County Commissioners' Courtroom at the time and date below. Bidders are invited to attend the sealed bid opening.

BID NAME: **IFB 17-006/YS**

BID NO: **Term Contract for Insecticides, Herbicides, Spray Adjuvants, and Adulticides for Jefferson County Mosquito Control District**

DUE DATE/TIME: **11:00 AM CDT, Tuesday, March 14, 2017**

MAIL OR DELIVER TO: **Jefferson County Purchasing Department**
1149 Pearl Street, 1st Floor
Beaumont, Texas 77701

Any questions relating to these requirements should be directed to Yea-Mei Sauer, Contract Specialist, at 409-835-8593 or ysauer@co.jefferson.tx.us.

Jefferson County encourages Disadvantaged Business Enterprises to participate in the bidding process. Jefferson County does not discriminate on the basis of race, color, national origin, sex, religion, age or disability in employment or the provisions of services. Individuals requiring special accommodations are requested to contact our office at 409-835-8593 to make arrangements no later than seven (7) calendar days prior to the submittal deadline. Jefferson County reserves the right to accept or reject any or all proposals, to waive technicalities and to take whatever action is in the best interest of Jefferson County.

All interested firms are invited to submit a bid in accordance with the terms and conditions stated in this bid.

RESPONDENTS ARE STRONGLY ENCOURAGED TO CAREFULLY READ THE ENTIRE INVITATION.

Deborah Clark

Deborah L. Clark, Purchasing Agent
Jefferson County, Texas
Publish: Beaumont Enterprise & Port Arthur News – February 15, 2017 & February 22, 2017

IFB 17-006/YS
Term Contract for Insecticides, Herbicides, Spray Adjuvants, and Adulticides for Jefferson County Mosquito Control District
Bids due: 11:00 AM CDT, Tuesday, March 14, 2017

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Bid Submissions:

Bidder is responsible for submitting one (1) *original* bid copy to include a completed copy of this specifications packet in its entirety; and two (2) numbered bid *hard copies* to include at a minimum all pages requiring completion and/or marked with instructions to be returned with bid submission and any other documentation requested within these specifications.

Additionally, Bidder must monitor the Jefferson County Purchasing Department Website (below) to see if addenda or additional instructions have been posted. Failure to return all required forms could result in a response being declared as non-responsive.

http://www.co.jefferson.tx.us/purchasing/main.htm

Instructions to Bidders

1. Bid Submission

Bids must be submitted in complete original form by mail or messenger to the following address:

Jefferson County Purchasing Department
1149 Pearl Street, 3rd Floor
Beaumont, TX 77701

Bids will be accepted at the above address until the time and date specified herein, and immediately after will be publicly opened and read aloud.

Bidder shall submit bid in a tightly sealed opaque envelope or box, plainly marked "SEALED BID." The outside of the envelope of box shall also include the Bid Number, Bid Name, Bid Due Date, and the Bidder's Name and Address; and shall be addressed to the Purchasing Agent.

Late bids will not be accepted and will be returned unopened to the bidder.

All bids submitted in response to this invitation shall become the property of Jefferson County and will be a matter of public record available for review.

2. Bid Submissions During Time of Inclement Weather, Disaster, or Emergency

In case of inclement weather or any other unforeseen event causing the County to close for business on the date of a bid/proposal/statement of qualifications submission deadline, the closing will automatically be postponed until the next business day that County offices are open to the public. Should inclement weather conditions or any other unforeseen event cause delays in courier service operations, the County may issue an addendum to all known vendors interested in the project to extend the deadline. It will be the responsibility of the vendor to notify the county of their interest in the project should these conditions impact their ability to submit a bid/proposal/statement of qualifications submission before the stated deadline. The County reserves the right to make the final judgement call to extend any deadline.

Should an emergency or unanticipated event interrupt normal County processes, and bid/proposal/statement of qualifications submissions cannot be received by the Jefferson County Purchasing Department's office by the exact time specified in the IFB and urgent County requirements preclude amendment to the IFB, the time specified for receipt of bids will be deemed to be extended to the same time of day specified in the solicitation on the first business day on which normal County processes resume.

3. Courthouse Security

Bidders are advised that all visitors to the Courthouse must pass through Security. **Bidders planning to hand deliver bids must allow time to get through Security, as a delay in entering the Courthouse will not be accepted as an excuse for late submittal.** Mondays and Tuesdays are particularly heavy days. Bidders are strongly urged to plan accordingly.

4. Preparation of Bids

The bid shall be legibly printed in ink or typed.

If a unit price or extension already entered is to be altered, it shall be crossed out and initialed in ink by the bidder.

The bid shall be legally signed and shall include the complete address of the bidder.

Jefferson County is exempt from Federal and State Sales Taxes, and such taxes shall not be included in bid prices.

5. Signatures

All bids, notifications, claims, and statements must be signed by an individual authorized to bind the bidder. The individual signing certifies, under penalty of perjury, that he or she has the legal authorization to bind the bidder.

6. County Holidays – 2017:

January 16	Monday	Martin Luther King, Jr. Day
February 20	Monday	President's Day
April 14	Friday	Good Friday
May 29	Monday	Memorial Day
July 4	Tuesday	Independence Day
September 4	Monday	Labor Day
November 10	Friday	Veteran's Day
November 23 & 24	Thursday & Friday	Thanksgiving
December 25 & 26	Monday & Tuesday	Christmas
January 1, 2018	Monday	New Year's

7. Rejection or Withdrawal

Submission of additional terms, conditions or agreements with the bid document are grounds for deeming a bid non-responsive and may result in bid rejection. Jefferson County reserves the right to reject any and all bids and to waive any informalities and minor irregularities or defects in bids. Bids may be withdrawn in person by a bidder or authorized representative, provided their identity is made known and a receipt is signed for the bid, but only if the withdrawal is made prior to the time set for receipt of bids. Bids are an irrevocable offer and may not be withdrawn within 90 days after opening date.

8. Emergency/Declared Disaster Requirements

In the event of an emergency or if Jefferson County is declared a disaster area, by the County, State, or Federal Government, this Acceptance of Offer may be subjected to unusual usage. Contractor shall service the county during such an emergency or declared disaster under the same terms and conditions that apply during non-emergency/disaster conditions. The pricing as specified in this Acceptance of Offer shall apply to serving the County's needs regardless of the circumstances. If Contractor is unable to supply the services under the terms of the Acceptance of Offer, then Contractor shall provide proof of such disruption and a copy of the invoice from Contractor's supplier(s). Additional profit margin as a result of supplying services during an emergency or declared disaster shall not be permitted. In the event that additional equipment, supplies, and materials are required during the declared disaster, additional shipping, handling and drayage fees may apply.

9. Award

The bid will be awarded to the responsible, responsive bidder(s) whose bid, conforming to the solicitation, will be most advantageous to Jefferson County – price and other factors considered. Unless otherwise specified in this IFB, Jefferson County reserves the right to accept a bid in whole or in part, and to award by item or by group, whichever is deemed to be in the best interest of Jefferson County. Any bidder who is in default to Jefferson County at the time of submittal of the bid shall have that bid rejected. Jefferson County reserves the right to clarify any contractual terms with the concurrence of the Contractor; however, any substantial nonconformity in the offer, as determined by Jefferson County, shall be deemed non-responsive and the offer rejected.

In evaluating bids, Jefferson County shall consider the qualifications of the bidders, and, where applicable, operating costs, delivery time, maintenance requirements, performance data, and guarantees of materials and equipment. In addition, Jefferson County may conduct such investigation as it deems necessary to assist in the evaluation of a bid and to establish the responsibility, qualifications, and financial ability of the bidders to fulfill the contract.

Jefferson County reserves the right to award this contract on the basis of **lowest and best bid** in accordance with the laws of the State of Texas, to waive any formality or irregularity, to make awards to more than one offeror, and/or to reject any or all bids. In the event the lowest dollar offeror meeting specifications is not a awarded a contract, Offeror may appear before the Commissioners' Court and present evidence concerning Offeror responsibility after officially notifying the Office of the Purchasing Agent of Offeror's intent to appear.

10. Contract

A response to an IFB is an offer to contract with Jefferson County based upon the terms, conditions, and specifications contained in the IFB. Bids do not become contracts unless and until they are executed by Jefferson County, eliminating a formal signing of a separate contract. For that reason, all of the terms and conditions of the contract are contained in the IFB, unless any of the terms and conditions is modified by an IFB Amendment, a Contract Amendment, or by mutually agreed terms and conditions in the contract documents.

11. Waiver of Subrogation

Bidder and bidder's insurance carrier waive any and all rights whatsoever with regard to subrogation against Jefferson County as an indirect party to any suit arising out of personal or property damages resulting from bidder's performance under this agreement.

12. Fiscal Funding

A multi-year contract (if requested by the specifications) continuing as a result of an extension option must include fiscal funding out. If, for any reason, funds are not appropriated to continue the contract, said contract shall become null and void.

13. Bid Results

Bid results are not provided in response to telephone inquiries. A preliminary tabulation of bids received will be posted on the Purchasing web page (http://co.jefferson.tx.us/ purchasing/main.htm) as soon as possible following bid opening. A final tabulation will be posted following bid award, and will also be available for review in the Purchasing Department.

14. Changes and Addenda to Bid Documents

Each change or addendum issued in relation to this IFB document will be on file in the Office of the Purchasing Agent, and will be posted on the Purchasing web site as soon as possible. It shall be the bidder's responsibility to make inquiry as to change or addenda issued, and to monitor the web site. All such changes or addenda shall become part of the contract and all bidders shall be bound by such addenda. Information on all changes or addenda issued will be available at the Office of the County Purchasing Agent.

15. Specifications

Unless otherwise stated by the bidder, the bid will be considered as being in accordance with Jefferson County's applicable standard specifications, and any special specifications outlined in the bid document. References to a particular trade name, manufacturer's catalogue, or model number are made for descriptive purposes to guide the bidder in interpreting the requirements of Jefferson County, and should not be construed as excluding bids on other types of materials, equipment, and supplies. However, the bidder, if awarded a contract, will be required to furnish the particular item referred to in the specifications or description unless departure or substitution is clearly noted and described in the bid. Jefferson County reserves the right to determine if equipment/ product being bid is an acceptable alternate. All goods shall be new unless otherwise so stated in the bid. Any

unsolicited alternate bid, or any changes, insertions, or omissions to the terms and conditions, specifications, or any other requirements of the bid, may be considered non-responsive.

16. Delivery

Bids shall include all charges for delivery, packing, crating, containers, etc. Unless otherwise stated by the bidder (in writing on the included Bid Form), prices bid will be considered as being based on F.O.B. destination/delivered freight included.

17. Interpretation of Bid and/or Contract Documents

All inquiries shall be made within a reasonable time prior to the date and time fixed for the bid opening, in order that a written response in the form of an addendum, if required, can be processed before the bids are opened. Inquiries received that are not made in a timely fashion may or may not be considered.

18. Currency

Prices calculated by the bidder shall be stated in U.S. dollars.

19. Pricing

Prices shall be stated in units of quantity specified in the bid documents. In case of discrepancy in computing the amount of the bid, the unit price shall govern.

20. Notice to Proceed/Purchase Order

The successful bidder may not commence work under this contract until authorized to do so by the Purchasing Agent.

21. Certification

By signing the offer section of the Offer and Acceptance page, bidder certifies:

- The submission of the offer did not involve collusion or other anti-competitive practices.
- The bidder has not given, offered to give, nor intends to give at any time hereafter, any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor, or service to any public servant in connection with the submitted offer.
- The bidder hereby certifies that the individual signing the bid is an authorized agent for the bidder and has the authority to bind the bidder to the contract.

22. Definitions

"County" – Jefferson County, Texas.

"Contractor" – The bidder whose proposal is accepted by Jefferson County.

23. Minority-Women Business Enterprise Participation

It is the desire of Jefferson County to increase the participation of Minority (MBE) and women-owned (WBE) businesses in its contracting and procurement programs. While the County does not have any preference or set aside programs in place, it is committed to a policy of equitable participation for these firms.

General Conditions of Bidding and Terms of Contract

By execution of this document, the vendor accepts all general and special conditions of the contract as outlined below and in the specifications and plans.

1. Bidding

1.1 Bids. All bids must be submitted on the bid form furnished in this package.

1.2 Authorized Signatures. The bid must be executed personally by the vendor, duly authorized partner of the partnership, or duly authorized officer of the corporation. If executed by an agent, a power of attorney or other evidence of authority to act on behalf of the vendor shall accompany the bid to become a valid bid.

1.3 Late Bids. Bids must be in the office of the Jefferson County Purchasing Agent before or at the specified time and date bids are due. Bids received after the submission deadline shall be rejected as non-responsive and returned unopened.

1.4 Withdrawal of Bids Prior to Bid Opening. A bid may be withdrawn before the opening date by submitting a written request to the Purchasing Agent. If time allows, the bidder may submit a new bid. Bidder assumes full responsibility for submitting a new bid before or at the specified time and date bids are due. Jefferson County reserves the right to withdraw a request for bids before the opening date.

1.5 Withdrawal of Bids after Bid Opening. Bidder agrees that its offer may not be withdrawn or cancelled by the vendor for a period of ninety (90) days following the date and time designated for the receipt of bids unless otherwise stated in the bid and/or specifications.

1.6 Bid Amounts. Bids shall show net prices, extensions where applicable and net total. In case of conflict between unit price and extension, the unit price will govern. Any ambiguity in the bid as a result of omission, error, unintelligible or illegible wording shall be interpreted in the favor of Jefferson County.

1.7 Exceptions and/or Substitutions. All bids meeting the intent of the specifications and plans will be considered for award. Vendors taking exception to the specifications and plans, or offering substitutions, shall state these exceptions in the section provided. If bid is made on an article other than the one specified, which a bidder considers comparable, the name and grade of said article must be specified in the bid and sufficient specifications and descriptive data must accompany same to permit thorough evaluation. The absence of stated exceptions and/or substitutions shall indicate that the vendor has not taken any exceptions to the specifications and shall be responsible to perform in strict accordance with the specifications. As a matter of practice, Jefferson County rejects exception(s) and /or substitutions as non-responsive but reserves the right to accept any and/or all of the exception(s) and/or substitution(s) deemed to be in the best interest of Jefferson County.

1.8 Alternates. The Invitation for Bid and/or specifications may expressly allow bidder to submit an alternate bid. Presence of such an offer shall not be considered an indication of non-responsiveness.

1.9 Descriptions. Unless otherwise specified, any reference to make, manufacturer and/or model used in the bid specifications is merely descriptive and not restrictive, and is used only to indicate type, style, or quality of material desired.

1.10 Bid Alterations. Bids cannot be altered or amended after submission deadline. Any interlineations, alterations, or erasures made before opening time must be initialed by the signer of the bid, guaranteeing authenticity.

1.11 Tax Exempt Status. Jefferson County is exempt from federal excise tax and state sales tax. Unless the bid form or specifications specifically indicate otherwise, the bid price must be net, exclusive of above-mentioned taxes and will be so construed. Therefore, the bid price shall not include taxes.

1.12 Quantities. Quantities indicated are estimated quantities only and are not a commitment to buy. Approximate usage does not constitute an order, but only implies the probable quantity that will be used. Commodities will be ordered on an as-needed basis. Bidder is responsible for accurate final counts.

1.13 Bid Award. Award of contract shall be made to the most responsible, responsive bidder, whose offer is determined to be the best value, taking into consideration the relative importance of price. Jefferson County reserves the right to be the sole judge as to whether items bid will serve the purpose intended. Jefferson County reserves the right to accept or reject in part or in whole any bid submitted, and to waive any technicalities or informalities for the best interest of the County. Jefferson County reserves the right to award based upon individual line items, sections or total bid.

1.14 Silence of Specifications for Complete Units. All materials, equipment and/or parts that will become a portion of the completed work, including items not specifically stated herein but, necessary to render the service(s) complete and operational per the specifications, are to be included in the bid price. Vendor may be required to furnish evidence that the service, as bid, will meet or exceed these requirements.

1.15 Addenda. Any interpretations, corrections or changes to the specifications and plans will be made by addenda no later than forty-eight (48) hours prior to the bid opening. Addenda will be posted on the Purchasing web site. Vendors are responsible for monitoring the web site in order to remain informed on addenda. Vendors shall acknowledge receipt of all addenda with submission of bid.

1.16 General Bid Bond/Surety Requirements. Failure to furnish bid bond/surety, if requested, will result in bid being declared non-responsive. Non-responsive bids will not be considered for award.

1.17 General Insurance Requirements. Failure to furnish Affidavit of Insurance, if required in these specifications, will result in bid being declared non-responsive. Non-responsive bids will not be considered for award.

1.18 Responsiveness. A responsive bid shall substantially conform to the requirements of this Invitation to Bid and/or specifications contained herein. Bidders who substitute any other terms, conditions, specifications and/or requirements or who qualify their bids in such a manner as to nullify or limit their liability to the contracting entity shall have their bids deemed non-responsive. Also, bids containing any clause that would limit contracting authority shall be considered non-responsive. Examples of non-responsive bids include but shall not be limited to: a) bids that fail to conform to required delivery schedules as set forth in the bid request; b) bids with prices qualified in such a manner that the bid price cannot be determined, such as with vague wording that may include "price in effect at the time of delivery," and c) bids made contingent upon award of other bids currently under consideration.

1.19 Responsible Standing of Bidder. To be considered for award, bidder must at least: have the ability to obtain adequate financial resources, be able to comply with required or proposed delivery/completion schedule, have a satisfactory record of performance; have a satisfactory record of integrity and ethics, and be otherwise qualified and eligible to receive award.

1.20 Proprietary Data. Bidder may, by written request, indicate as confidential any portion(s) of a bid that contain proprietary information, including manufacturing and/or design processes exclusive to the vendor. Jefferson County will protect from public disclosure such portions of a bid, unless directed otherwise by legal authority, including existing Open Records Acts.

1.21 Public Bid Opening. Bidders are invited to be present at the opening of bids. After the official opening of bids, a period of not less than one week is necessary to evaluate bids. The amount of time necessary for bid evaluation may vary and is determined solely by the County. Following the bid evaluation, all bids submitted are available for public review.

2. Performance

2.1 Design, Strength, and Quality. Design, strength, and quality of materials and workmanship must conform to the highest standards of manufacturing and engineering practices. The apparent silence of specifications and/or plans as to any detailed description concerning any point shall be regarded as meaning that only the best commercial practices are to prevail. All interpretations of these specifications and/or plans shall be made on the basis of this statement.

2.2 Age and Manufacture. All tangible goods being bid must be new and unused, unless otherwise specified, in first-class condition, of current manufacture, and furnished ready to use. All items not specifically mentioned that are required for a complete unit shall be furnished.

2.3 Delivery Location. All deliveries will be made to the address(es) specified on the purchase order during normal working hours of 8:00 a.m. to 4:00 p.m., Monday through Friday, unless otherwise authorized by the Purchasing Agent or designee.

2.4 Delivery Schedule. Delivery time may be an important consideration in the evaluation of best value. The maximum number of days necessary for delivery ARO shall be stated in the space, if provided, on the bid form.

2.5 Delivery Charges. All delivery and freight charges, F.O.B. destination shown on Jefferson County purchase order, as necessary to perform contract are to be included in the bid price.

2.6 Installation Charges. All charges for assembly, installation and set-up shall be included in the bid price. Unless otherwise stated, assembly, installation and set-up will be required.

2.7 Operating Instructions and Training. Clear and concise operating instructions and descriptive literature will be provided in English, if requested. On-site detailed training in the safe and efficient use and general maintenance of item(s) purchased shall be provided as needed at the request of Jefferson County. Instructions and training shall be at no additional cost to the County.

2.8 Storage. Bidder agrees to provide storage of custom ordered materials, if requested, for up to thirty (30) calendar days.

2.9 Compliance with Federal, State, County, and Local Laws. Bids must comply with all federal, state, county and local laws, including, but not limited to, all applicable standard safety, emission, and noise control requirements. Any vehicles or equipment shall contain all standard safety, emission, and noise control requirements required for the types and sizes of equipment at the time of their manufacture. The contractor agrees, during the performance of work or service, to comply with all applicable codes and ordinances of Jefferson County or the State of Texas as they may apply, as these laws may now read, or as they may hereafter be changed or amended.

2.10 OSHA. The bidder will certify all equipment complies with all regulations and conditions stipulated under the Williams-Steiger Occupational Safety and Health Act of 1971, as amended. The successful bidder will further certify that all items furnished under this project will conform and comply with federal and State of Texas OSHA standards. The successful bidder will agree to indemnify and hold harmless Jefferson County for any and all damages that may be assessed against the County.

2.11 Patents and Copyrights. The successful vendor agrees to protect the County from claims involving infringements of patents and/or copyrights.

2.12 Samples, Demonstrations and Testing. At Jefferson County's request and direction, bidder shall provide product samples and/or testing of items bid to ensure compliance with specifications. Samples, demonstrations and/or testing may be requested at any point prior to or following bid award. Samples, demonstrations and/or testing may be requested upon delivery and/or any point during the term of resulting contract. All samples (including return thereof), demonstrations, and/or testing shall be at the expense of the bidder/vendor.

2.13 Acceptability. All articles enumerated in the bid shall be subject to inspection by an officer designated for that purpose by Jefferson County. If found inferior to the quality called for, or not equal in value to the specifications, deficient in workmanship or otherwise, this fact shall be certified to the Purchasing Agent, who shall have the right to reject the whole or any part of the same. Items

and/or work determined to be contrary to specifications must be replaced at the vendor's expense. Inferior items not retrieved by the vendor within thirty (30) calendar days, or an otherwise agreed upon time, shall become the property of the County. If disposal of such items warrants an expense, an amount equal to the disposal expense will be deducted from amounts payable to the vendor.

2.14 Maintenance. Maintenance required for equipment bid should be available in Jefferson County by a manufacturer authorized maintenance facility. Cost for this service shall be shown on the bid sheet as requested or on a separate sheet, as required. If Jefferson County opts to include maintenance, it shall be so stated in the purchase order and said cost will be included. Service will commence only upon expiration of applicable warranties and should be priced accordingly.

2.15 Material Safety Data Sheets. Under the "Hazardous Communications Act," common known as the "Texas Right to Know Act," a bidder must provide the user department, with each delivery, material safety data sheets which are applicable to hazardous substances defined in the Act. Failure of the bidder to furnish this documentation, will be cause to reject any bid applying thereto.

2.16 Evaluation. Evaluation shall be used as a determinant as to which services are the most efficient and/or most economical for the County. It shall be based on all factors having a bearing on price and performance of the items in the user environment. All bids are subject to tabulation by the Jefferson County Purchasing Department and recommendation to Jefferson County Commissioners' Court. Compliance with all bid requirements and needs of the using department are considered in evaluating bids. Pricing is not the only criteria for making a recommendation. The Jefferson County Purchasing Department reserves to right to contact any bidder, at any time, to clarify, verify or requirement information with regard to this bid.

3. Purchase Orders and Payment

3.1 Purchase Orders. A purchase order(s) shall be generated by the Jefferson County Purchasing Agent to the successful vendor. The purchase order number must appear on all itemized invoices and packing slips. The County will not be held responsible for any work orders placed and/or performed without a valid current purchase order number. Payment will be made for all services rendered and accepted by the contract administrator for which a valid invoice has been received.

3.2 Invoices. All invoices shall reference the Purchase Order number. Invoices shall reference the bid item number or a detailed description for each item invoiced. If an item purchased and itemized on the invoice does not correspond to an item in any of the categories awarded to the vendor, invoice shall reference the item as "N/C" to indicate that it is a non-contract item. This requirement is to assist the County in verifying contract pricing on all invoices. Payment will be made under terms of net thirty (30) days unless otherwise agreed upon by seller and the purchasing department.

3.3 Prompt Payment. In accordance with the State of Texas Prompt Payment Act, Article 601f V.T.C.S., payment will be made after receive and acceptance by the County of the merchandise ordered and of a valid invoice. Successful bidder(s) is required to pay subcontractors within ten (10) days after the successful bidder receives payment from the County.

3.4 Funding. Jefferson County is operated and funded on an October 1 to September 30 basis; accordingly, the County reserves the right to terminate, without liability to the County, any contract for which funding is not available.

4. Contract

4.1 Contract Definition. The General Conditions of Bidding and Terms of Contract, Specifications, Plans, Bidding Forms, Addenda, and any other documents made a part of this bid shall constitute the complete bid. This bid, when duly accepted by Jefferson County, shall constitute a contract equally binding between the successful bidder and Jefferson County.

4.2 Contract Agreement. Once a contract is awarded, the unit prices offered by the successful bidder shall remain firm for the term of the contract. Contract shall commence on date of award and,

upon agreement between vendor(s) and Jefferson County, may be renewed annually for up to four (4) additional years. **(OMIT if N/A or EDIT if Needed)**

4.3 Change Order. No different or additional terms will become part of this contract with the exception of a change order. No oral statement of any person shall modify or otherwise change, or affect the terms, conditions or specifications stated in the resulting contract. All change orders to the contract will be made in writing and at the discretion and approval of Jefferson County. No change order will be binding unless signed by an authorized representative of the County and the vendor.

4.4 Price Re-determination. A price re-determination may be requested at the time of annual renewal. All requests for price re-determination shall be in written form. Cause for such request, i.e., manufacturer's direct cost, postage rates, Railroad Commission rates, Federal/State minimum wage law, Federal/State unemployment taxes, F.I.C.A, Insurance Coverage Rates, etc., shall be substantiated in writing by the source of the cost increase. The bidder's past experience of honoring contracts at the bid price will be an important consideration in the evaluation of the lowest and best bid. Jefferson County reserves the right to accept or reject any/all requests for price re-determination as it deems to be in the best interest of the County.

4.5 Termination. Jefferson County reserves the right to terminate the contract for default if the bidder breached any of the terms therein, including warranties of bidder or if the bidder becomes insolvent or commits acts of bankruptcy. Such right of termination is in addition to and not in lieu of any other remedies which Jefferson County may have in law or equity. Default may be construed as, but not limited to, failure to deliver the proper goods and/or service within the proper amount of time, and/or to properly perform any and all services required to Jefferson County's satisfaction and/or to meet all other obligations and requirements. Contracts may be terminated without cause upon thirty (30) days' written notice to either party unless otherwise specified. Jefferson County reserves the right to award canceled contract to the next lowest bidder. Bidder, in submitting this bid, agrees that Jefferson County shall not be liable to prosecution for damages in the event that the County declares the bidder in default.

4.6 Conflict of Interest. Employees of the County are not permitted to maintain financial interest in, or receive payment, directly or indirectly, borrow from, lend to, invest in, or engage in any substantial financial transaction with any individual, organization, supplier, or subcontractor who does business with the County without disclosure. When conflict of interest is discovered, it shall be grounds for termination of contract.

4.7 Injuries or Damages Resulting from Negligence. Successful vendor shall defend, indemnify and save harmless Jefferson County and all its officers, agents and employees from all suits, actions, or other claims of any character, name and description brought for or on account of any injuries or damages received or sustained by any person, persons, or property on account of any negligent act or fault of the successful vendor, or of any agent, employee, subcontractor or supplier in the execution of, or performance under, any contract which may result from bid award. Successful vendor shall pay any judgment with cost which may be obtained against Jefferson County growing out of such injury or damages.

4.8 Interest by Public Officials. No public official shall have interest in this contract, in accordance with Texas Local Government Code.

4.9 Warranty. The successful vendor shall warrant that all materials utilized in the performance of this contract shall conform to the proposed specifications and/or all warranties as stated in the Uniform Commercial Code and be free from all defects in material, workmanship and title.

4.10 Uniform Commercial Code. The successful vendor and Jefferson County agree that both parties have all rights, duties, and remedies available as stated in the Uniform Commercial Code.

4.11 Venue. This agreement will be governed and construed according to the laws of the State of Texas. This agreement is performable in the County of Jefferson, Texas.

4.12 Sale, Assignment, or Transfer of Contract. The successful vendor shall not sell, assign, transfer or convey this contract, in whole or in part, without the prior written consent of Jefferson County.

4.13 Silence of Specifications. The apparent silence of these specifications as to any detailed description concerning any point, shall be regarded as meaning that only the best commercial practices are to prevail. All interpretations of these specifications shall be made on the basis of this statement.

Special Requirements/Instructions

The following requirements and instructions supersede General Requirements where applicable.

1. Bid Requirement

Each bidder shall ensure that required parts of the bid are completed with accuracy and submitted as per the requirements within this specifications packet, including any addenda.

Bidder is responsible for submitting one (1) *original* bid copy to include a completed copy of this specifications packet in its entirety; and two (2) **numbered bid *hard copies* to include at a minimum all pages requiring completion and/or marked with instructions to be returned with bid submission and any other documentation requested within these specifications.**

All bids shall be tightly sealed in an opaque envelope or box and plainly marked "SEALED BID." The outside of the envelope or box shall also include: Bid Number, Bid Name, Bid Due Date, Bidder's Name and Address; and shall be addressed to the Purchasing Agent.

Jefferson County shall not be responsible for any effort or cost expended in the preparation of a response to this IFB. All protests should be coordinated through the Purchasing Office prior to award recommendation to Commissioners' Court.

2. Vendor Registration: SAM (System for Award Management).

Vendors doing business with Jefferson County are **required** to be registered with The System for Award Management (SAM), with an "active" status. The System for Award Management (SAM) is the Official U.S. Government system that consolidated the capabilities of CCR/FedReg, ORCA, and EPLS. There is NO fee to register for this site. Entities may register at no cost directly from the SAM website at: https://www.sam.gov

Bid Respondents are strongly encouraged to review their firm's SAM (System for Award Management) status prior to Bid Submission.

3. Awarded Vendor(s): Submission of FORM 1295 (Texas Ethics Commission)

As of January 1, 2016, per House Bill 1295, the Texas Ethics Commission (TEC) requires **all awarded vendors** to complete a Certificate of Interested Parties (FORM 1295) at time of notification of award. **Awarded Vendors** must visit the TEC website link below, enter the required information on Form 1295, and print a copy of the completed form. The form will include a certification of filing that will contain a unique certification number.

At the time of award, the Jefferson County Purchasing Department will submit a request to the Awarded Vendor to both:

1. Submit FORM 1295 online via the Texas Ethics Commission website link below.

2. Submit a printed copy of FORM 1295, signed by an Authorized Agent of the Awarded Vendor and notarized to the Jefferson County Purchasing Department.

FORM 1295, Completion Instructions, and Login Instructions are available via the Texas Ethics Commission Website at: https://www.ethics.state.tx.us/whatsnew/elf_info_form1295.htm

4. Multiple Vendor Award

Jefferson County reserves the right to award this contract to more than one vendor at the County's discretion.

5. Delivery

If delivery is required, all items must be packaged so as to be protected from damage during shipping and handling. Any item(s) damaged in shipping must be replaced in kind, or repaired, by the contractor, at the discretion of, and at no additional charge to, Jefferson County.

6. Payment

Jefferson County will pay original invoices that clearly itemize the goods and/or services provided as to quantity, part number, description, price, applicable discount (if any), labor charges showing time differential, if applicable and if previously agreed to, and delivery, installation, and set-up costs, if applicable and if previously agreed to. Only charges as stated on the Bid Form(s) submitted as a part of the bid will be considered.

Invoices must indicate Jefferson County as applicable, the address to which the product(s) and/or service(s) were delivered, and the applicable purchase order number. Invoices will be matched to delivery tickets prior to payment; therefore, all delivery tickets should have an accurate description of the product(s) and/or service(s).

Invoices shall be submitted to: Jefferson County Auditing Department, Attention: Accounts Payable, 1149 Pearl Street, 7th floor, Beaumont, TX 77701.

7. Usage Reports

Jefferson County reserves the right to request, and receive at no additional cost, up to two (2) times during the contract period, a usage report detailing the products and/or services furnished to date under a contract resulting from this IFB. The reports must be furnished no later than five (5) working days after written request and itemize all purchases to date by Jefferson County department, description of each item purchased, including manufacturer, quantity of each item purchased, per unit and extended price of each item purchased, and total amount and price of all items purchased.

8. Insurance

The contractor (including any and all subcontractors as defined in Section 9.1.3 below) shall, at all times during the term of this contract, maintain insurance coverages with not less than the type and requirements shown below. Such insurance is to be provided at the sole cost of the contractor. These requirements do not establish limits of the contractor's liability.

All policies of insurance shall waive all rights of subrogation against the County, its officers, employees and agents; a copy of the policy wording or endorsement is required.

Contractor shall furnish Jefferson County with Certificate of Insurance naming Jefferson County as additional insured and will provide the actual policy wording or endorsement showing as such.

All insurance must be written by an insurer licensed to conduct business in the State of Texas.

Minimum Insurance Requirements

Public Liability, including Products & Completed Operations	$1,000,000
Excess Liability	$1,000,000

Property Insurance (policy below that is applicable to this project):
- Improvements & Betterments Policy: Improvements/Remodeling (for Lease Tenants)
- Builder's Risk Policy: Structural Coverage for Construction Projects
- Installation Floater Policy: Improvements/Alterations to Existing Structure

Workers' Compensation	Statutory Coverage (see attached)

9. Workers' Compensation Insurance

9.1 Definitions:

9.1.1 **Certificate of coverage ("Certificate")** – A copy of a certificate of insurance, a certificate of authority to self-insure issued by the commission, or a coverage agreement, DWC-81, DWC-82, DWC-83, or DWC-84 showing statutory workers' compensation insurance coverage for the person's or entity's employees providing services on a project, for the duration of the project.

9.1.2 **Duration of the project** – Includes the time from the beginning of the work on the project until the contractor's/person's work on the project has been completed and accepted by the governmental entity.

9.1.3 **Persons providing services on the project ("subcontractor") in article 406.096** – Includes all persons or entities performing all or part of the services under the contractor has undertaken to perform on the project, regardless of whether that person contracted directly

with the contractor and regardless of whether that person has employees. This includes, without limitation, independent contractors, subcontractor, leasing companies, motor carriers, owner-operators, employees of any such entity, or employees of any entity which furnishes persons to provide services on the project. "Services" includes, without limitation, providing, hauling or delivering equipment or materials, or providing labor, transportation, or other service related to a project. "Services" does not include activities unrelated to the project, such as food/beverage vendors, office supply deliveries, and delivery of portable toilets.

9.2 The Contractor shall provide coverage, based on proper reporting of classification code and payroll amounts and filing any coverage agreements, which meets the statutory requirements of Texas Labor Code, Section 401.011(44) for all employees of the contractor providing services on the project, for the duration of the project.

9.3 The Contractor must provide a certificate of coverage to the governmental entity prior to being awarded the contract – refer to Section 8 above.

9.4 If the coverage period shown on the Contractor's current certificate of coverage ends during the duration of the project, the Contractor must, prior to the end of the coverage period, file a new certificate of coverage with the governmental entity showing that coverage has been extended.

9.5 The Contractor shall obtain from each person providing services on a project, and provide to the governmental entity:

9.5.1 A certificate of coverage, prior to that person beginning work on the project, so the governmental entity will have on file certificates of coverage showing coverage for all persons providing services on the project; and

9.5.2 No later than seven (7) days after receipt by the Contractor, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate ends during the duration of the project.

9.6 The Contractor shall retain all required certificates of coverage for the duration of the project and for one (1) year thereafter.

9.7 The Contractor shall notify the governmental entity in writing by certified mail or personal delivery, within ten (10) days after the contractor knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project.

9.8 The Contractor shall post on each project site a notice, in the text, form and manner prescribed by the Texas Department of Workers' Compensation, informing all persons providing services on the project that they are required to be covered, and stating how a person may verify coverage and report lack of coverage.

9.9 The Contractor shall contractually require each person with whom it contracts to provide services on a project to:

9.9.1 Provide coverage, based on reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of Texas Labor Code, Section 401.011(44) for all its employees providing services on the project, for the duration of the project.

9.9.2 Provide to the Contractor, prior to that person beginning work on the project a certificate of coverage showing that coverage is being provided for all employees of the person providing services on the project, for the duration of the project.

9.9.3 Provide the Contractor, prior to the end of coverage period, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the project.

9.9.4 Obtain from each person with whom it contracts, and provide to the Contractor:

9.9.4.1 A certificate of coverage, prior to the other person beginning work on the project; and

9.9.4.2 the coverage period, if the coverage period shown on the current certificate of a new certificate of coverage showing extension of coverage, prior to the end of coverage ends during the duration of the project.

9.9.5 Retain all required certificates of coverage on file for the duration of the project and for one (1) year thereafter.

9.9.6 Notify the governmental entity in writing by certified mail or personal delivery, within ten (10) days after the person knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project; and

9.9.7 Contractually require each person with whom it contracts to perform as required by paragraphs 9.1. – 9.7., with the certificates of coverage to be provided to the person for whom they are providing services.

9.10 By signing this contract or providing or causing to be provided a certificate of coverage, the Contractor is representing to the governmental entity that all employees of the contractor who will provide services of the project will be covered by workers' compensation coverage for the duration of the project, that the coverage will be based on proper reporting of classification codes and payroll amounts, and that all coverage agreements will be filed with the appropriate insurance carrier or, in the case of a self-insured, with the commission's Division of Self-Insurance Regulation. Providing false or misleading information may subject the contractor to administrative penalties, criminal penalties, civil penalties, or other civil actions.

9.11 The Contractor's failure to comply with any of these provisions is a breach of contract by the Contractor which entitles the governmental entity to declare the contract void if the Contractor does not remedy the breach within ten (10) days after receipt of notice of breach from the governmental entity.

Minimum Specifications

The following requirements and specifications supersede General Requirements where applicable. Contact Yea-Mei Sauer, Contract Specialist (e-mail: ysauer@co.jefferson.tx.us; phone: 409-835-8593), regarding any questions or comments. Please reference bid number IFB 17-006/YS.

Scope

Vendor shall provide Insecticides, Herbicides, Spray Adjuvants, and Adulticides for the Jefferson County Mosquito Control District subject to the terms and conditions stated for an initial period **beginning on or about date of award.**

Bidders shall attach to bid form, a current material safety data sheet and current labels for each chemical. Failure to do so may result in rejection of bid.

Prices quoted shall be F.O.B. Jefferson County Mosquito Control District, Jefferson County Airport, 1st Street, Nederland, TX. Bidder bears freight charges. All prices must be written in ink or typewritten.

Quote unit prices extended to lump sum prices. The basis of the award will be the unit prices quoted. The County reserves the right to increase or decrease the quantity purchased based on weather conditions and availability of funds.

The County reserves the right to make the award to one (1) successful bidder or per line item.

Purchase orders for insecticides, herbicides, adjuvants, and adulticides will be released to the successful bidder(s) **on an as-needed basis. MINIMUM ORDERS ARE NOT ACCEPTABLE.**

Refer questions of a commercial nature to Jamey West, Contract Specialist at 409-835-8593; and questions of a technical nature to Kevin Sexton, Jefferson County Mosquito Control, at 409-719-5940.

A price re-determination may be considered by Jefferson County only at the twelve (12) month and twenty-four (24) month anniversary dates of the contract. All requests for price re-determination shall be in written form. Cause for such request, i.e., manufacturer's direct cost, postage rates, Railroad Commission rates, Federal/State minimum wage law, Federal/State unemployment taxes, F.I.C.A, Insurance Coverage Rates, etc., shall be substantiated in writing by the source of the cost increase. The bidder's past experience of honoring contracts at the bid price will be an important consideration in the evaluation of the lowest and best bid. Jefferson County reserves the right to accept or reject any/all requests for price re-determination as it deems to be in the best interest of the County.

Approximate Annual Usage

Items listed on the Bid Form indicate our approximate annual usage. No promise is made or implied that these quantities will be purchased. Orders will be placed on an **as-needed basis** for the duration of the contract. Purchase Orders will be released to the successful bidder(s) as required. **MINIMUM ORDERS ARE NOT ACCEPTABLE.**

Contract

This bid, when properly accepted by Jefferson County Commissioners' Court, shall constitute a contract equally binding between the successful bidder and Jefferson County. No different or additional terms will become a part of this contract.

The brand name references are for description only, and are not intended to exclude other herbicides or adjuvants of equal quality. Bidders desiring to substitute items may do so provided brand name is **indicated on Bid Form**. Change of container size may disqualify bid. Dilution ratio will be a factor in award of chemicals.

Bidders shall attach to bid form a current material safety data sheet and current labels for each chemical. Failure to do so may result in rejection of bid.

Item	Description
1	**MSMA herbicide** – to contain 6.00 lb. MSMA (Mono-sodium Acid Methanearsonate) plus surfactant per gallon
2	**Tordon 101** – to contain 10.2% 4-amino3,5,6-trichloropicolinic acid (picloram), tri-isopropanolomine salt 39.6% 2,4-Dichlorophenoxyacetric acid, tri-isopropanolomiane salt.
3	**Roundup herbicide or equivalent** – to contain 41.0% by weight Isopropylamine Salt of Glyphosate
4	**Rodeo herbicide or equivalent** – to contain 53.5% by weight Isopropylamine Salt of Glyphosate
5	**Nalco Trol II or equivalent** – water soluble spray drift control agent
6	**Aqua-King or equivalent** – product must be a non-ionic aquatic surfactant approved for use in the State of Texas, contain 90% active ingredient (excluding alcohols, fatty acids, oils ethylene glycol or diethylene glycol), a minimum of 80% surfactant load, possess an HLB (hydrophilic to lipophilic balance) ratio of 12 to 17, a maximum of 10% isopropyl alcohol, have a flash point greater than 200 degrees F., and contain an anti-foaming agent that will provide instantaneous foam breakdown when agitation ceases.
7	**Malathion insecticide** – concentrate to contain a minimum of 9.9 lb. of malathion per gallon (96.5% by weight active ingredient). Product offered must have current approval in Texas for both aerial and ground ULV application against adult mosquitoes. Bulk shipments only.
8	**Scourge insecticide** – concentrate to contain 1.51 lb. Resmethrin (18% by weight active ingredient) and 4.51 lb. Piperonyl Butoxide Technical (54% by weight active ingredient) per gallon. Product offered must have current approval in Texas for ground ULV application against adult mosquitoes.
9	**Envion 30/30 insecticide or equivalent** - water compatible concentrate in 2.52 lb. Permethrin (30.0% by weight) and 2.52 lb. Piperonyl Butoxide (30.0% by weight) per gallon. Product offered must have current approval in Texas for aerial and ground ULV application against adult mosquitoes.
10	**Duet Adulticide or equivalent** – 1.00% Prallethrin: = 0.085 lbs. of Technical Prallethrin per gallon. Chemical name = (RS) – 2 methyl-4-oxo-3-(2-propynl) cyclopent-2-enyl- (1RS)-cis, trans-chyrsanthemate. 5.00 % Sumethrin: = 0.370 lbs. of Technical Sumethrin per gallon. Chemical name = 3-Phenoxbenzyl- (1RS, 3 RS; 1RS, 3SR) -2,-2dimethyl-3-(2-methylprop-1-enyl) cyclopropanecarboxlate. 5.00% PBO = 0.370 lbs. Technical Pepronyl Butoxide per gallon. Chemical name = Pyperonyl Butoxide. Returnable 275 gallon stainless steel totes with 2.5 inch quick connect hose attachment. Successful bidder will deliver full containers and pick up empty containers at no additional charge

Bidder Information Form

Instructions: Complete the form below. Please provide legible, accurate, and complete contact information. PLEASE PRINT.

Bid Name & Number: IFB 17-006/YS, Term Contract for Insecticides, Herbicides, Spray Adjuvants, and Adulticides for Jefferson County Mosquito Control District

Bidder's Company/Business Name: ORIGINAL FOOD CO., LLC

Bidder's TAX ID Number: 27-5528925

Contact Person: Jose H. Reyes **Title:** President

Phone Number (with area code): (956) 949-0726

Alternate Phone Number if available (with area code): (956) 608-3441

Fax Number (with area code): (956) 608-3441

Email Address: jose.reyes@getoriginalfoods.com

Mailing Address (Please provide a physical address for bid bond return, if applicable):

122 Azinger Dr.
Address

Laredo, Texas 78045
City, State, Zip Code

OFFER AND ACCEPTANCE FORM

OFFER TO CONTRACT

To Jefferson County:

We hereby offer and agree to furnish the materials or service in compliance with all terms, conditions, specifications, and amendments in the Invitation for Bid and any written exceptions in the offer. We understand that the items in this Invitation for Bid, including, but not limited to, all required certificates are fully incorporated herein as a material and necessary part of the contract.

The undersigned hereby states, under penalty of perjury, that all information provided is true, accurate, and complete, and states that he/she has the authority to submit this bid, which will result in a binding contract if accepted by Jefferson County.

We acknowledge receipt of the following amendment(s): _____, _____, _____, _____.

I certify, under penalty of perjury, that I have the legal authorization to bind the firm hereunder:

ORIGINAL FOOD CO./, LLC
Company Name

122 Azinger Dr.
Address

Laredo.....Tx.....78045
City State Zip

Signature of Person Authorized to Sign

Jose H. Reyes
Printed Name

President
Title

For clarification of this offer, contact:

Jose H. Reyes
Name

(956) 949-0726 Fax (956) 608-3441
Phone Fax

jose.reyes@getoriginalfoods.com
E-mail

Bidder Shall Return Completed Form with Offer.

Acceptance of Offer

The Offer is hereby accepted for the following items: Term Contract for Insecticides, Herbicides, Spray Adjuvants, and Adulticides for Jefferson County Mosquito Control District. Contract Term: One (1) year from date of award with an option to renew for four (4) additional years.

The Contractor is now bound to sell the materials or services listed by the attached contract and based upon the Invitation for Bid, including all terms, conditions, specifications, amendments, etc., and the Contractor's Offer as accepted by Jefferson County.

This contract shall henceforth be referred to as Contract No. 17-006/YS, Term Contract for Insecticides, Herbicides, Spray Adjuvants, and Adulticides for Jefferson County Mosquito Control District. The Contractor has not been authorized to commence any billable work or to provide any material or service under this contract until Contractor receives a purchase order and/or a notice to proceed from the Jefferson County Purchasing Agent.

Countersigned:

Jeff R. Branick
County Judge

Date

Attest:

Carolyn L. Guidry
County Clerk

Bidder Shall Return Completed Form with Offer.

Bid Form

Item	Est Qty. (Gal.)	Description	Brand bid	MSDS Labels Attached	Price per Gallon	Total Price
1	700	MSMA Herbicide – 2.5 gal. container	DREXEL	YES	$ 25.45	$ 17,815.00
2	700	Tordon 101 Herbicide or equivalent – 2.5 gal. container	DOW	YES	$ 29.99	$ 20993.00
3	700	Roundup Herbicide or equivalent – 2.5 gal. container	INVICTIS	YES	$ 17.05	$ 11,935.00
4	100	Rodeo Herbicide or equivalent – 2.5 gal. container			$	$
5	100	Nalco Trol II or equivalent – 2.5 gal. (or smaller) container			$	$
6	400	Aqua-King Surfactant or equivalent – 2.5 gal. (or smaller) container			$	$
7	20,000	Malathion Insecticide – **bulk shipment only**	FMC	YES	$ 36.99	$739,800.00
8	250	Scourge Insecticide – 5 gal. containers			$	$
9	600	Envion 30/30 insecticide – 2.5 gal. containers			$	$
10	1,375	Duet Adulticide 275 gal. steel containers	CLARKE	YES	$ 34.99	$ 48,111.25

Bidders shall attach to bid form a current material safety data sheet and current labels for each chemical. Failure to do so may result in rejection of bid.

Acknowledgment of Addenda (if any):

Addendum 1 _____ Date Received_____

Addendum 2 _____ Date Received_____

Addendum 3 _____ Date Received_____

Bidder Shall Return Completed Form with Offer.

Vendor References

Please list at least three (3) companies or governmental agencies (preferably a municipality) where the same or similar products and/or services as contained in this specification package were recently provided.

THIS FORM MUST BE RETURNED WITH YOUR BID.

REFERENCE ONE

Government/Company Name: USDA,APHIS, PPQ

Address: ASD Procurement Branch

Contact Person and Title: Patricia M. Simon

Phone: (612) 336-3460 Fax:

Contract Period: Nov,2015 to Oct 2020 Scope of Work: To supply teen months out of the year Spinosade Fruit Fly bait to control Mexican Fruit Fly in South Tx.

REFERENCE TWO

Government/Company Name: TEXAS A&M University Kingsville

Address: MSC 212 Room 121 Colleg Hall

Contact Person and Title: Holly Ewing, CTP

Phone: (361) 593-3814 Fax: (361) 593-2719

Contract Period: January 2017 to January 2018 Scope of Work: To Supply Insecticide,Herbicide,Fertilizer to the Cit Research Center

REFERENCE THREE

Government/Company Name: USDA ARS NPA USMARC US MEAT ANIMAL RESERACH

Address: ~~STATE SPUR 18D BLDG 51 CLAY CENTER NE,~~ 68933

Contact Person and Title: Donita Furman Contract Specialist

Phone: (402) 762-4145 Fax: (402) 762-4148

Contract Period: 02/ 16/2017 Scope of Work: Supply Additive AMS 4080 Lbs.

Bidder Shall Return Completed Form with Offer.

Signature Page

As permitted under Article 4413 (32c) V.A.C.S., other governmental entities may wish to participate under the same terms and conditions contained in this contract (i.e., piggyback). In the event any other entity participates, all purchase orders will be issued directly from and shipped directly to the entity requiring supplies/services. Jefferson County shall not be held responsible for any orders placed, deliveries made or payment for supplies/services ordered by another entity. Each entity reserves the right to determine their participation in this contract.

Would bidder be willing to allow other governmental entities to piggyback off this contract, if awarded, under the same terms and conditions? ..... **Yes** [X] **No** [ ]

This bid shall remain in effect for ninety (90) days from bid opening and shall be exclusive of federal excise and state and local sales tax (exempt).

The undersigned agrees, if this bid is accepted, to furnish any and all items upon which prices are offered, at the price and upon the terms and conditions contained in the Invitation for Bid, Conditions of Bidding, Terms of Contract, and Specifications and all other items made a part of the accepted contract.

The undersigned affirms that they are duly authorized to execute the contract, that this company, corporation, firm, partnership or individual has not prepared this bid in collusion with any other bidder, and that the contents of this bid as to prices, terms or conditions of said bid have not been communicated by the undersigned nor by any employee or agent to any other bidder or to any other person(s) engaged in this type of business prior to the official opening of this bid. And further, that neither the bidder nor their employees nor agents have been for the past six (6) months directly nor indirectly concerned in any pool or agreement or combination to control the price of goods or services on, nor to influence any person to bid or not to bid thereon.

OIRIGINAL FOOD CO., LLC	
Bidder (Entity Name)	Signature
122 Azinger Dr	Jose H. Reyes
Street & Mailing Address	Print Name
Laredo, Texas 78045	03/13/2017
City, State & Zip	Date Signed
(956) 949-0726	(956) 608-3441
Telephone Number	Fax Number
jose.reyes@getoriginalfoods.com	
E-mail Address	

Bidder Shall Return Completed Form with Offer.

Conflict of Interest Questionnaire

CONFLICT OF INTEREST QUESTIONNAIRE — FORM CIQ

For vendor doing business with local governmental entity

This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session.

This questionnaire is being filed in accordance with Chapter 176, Local Government Code, by a vendor who has a business relationship as defined by Section 176.001(1-a) with a local governmental entity and the vendor meets requirements under Section 176.006(a).

By law this questionnaire must be filed with the records administrator of the local governmental entity not later than the 7th business day after the date the vendor becomes aware of facts that require the statement to be filed. *See* Section 176.006(a-1), Local Government Code.

A vendor commits an offense if the vendor knowingly violates Section 176.006, Local Government Code. An offense under this section is a misdemeanor.

OFFICE USE ONLY
Date Received

1 **Name of vendor who has a business relationship with local governmental entity.**

NONE

2 ☐ **Check this box if you are filing an update to a previously filed questionnaire.**

(The law requires that you file an updated completed questionnaire with the appropriate filing authority not later than the 7th business day after the date on which you became aware that the originally filed questionnaire was incomplete or inaccurate.)

3 **Name of local government officer about whom the information in this section is being disclosed.**

N/A

Name of Officer

This section (Item 3 including subparts A, B, C, & D) must be completed for each officer with whom the vendor has an employment or other business relationship as defined by Section 176.001(1-a), Local Government Code. Attach additional pages to this Form CIQ as necessary.

A. Is the local government officer named in this section receiving or likely to receive taxable income, other than investment income, from the vendor?

☐ Yes ☒ No

B. Is the vendor receiving or likely to receive taxable income, other than investment income, from or at the direction of the local government officer named in this section AND the taxable income is not received from the local governmental entity?

☐ Yes ☒ No

C. Is the filer of this questionnaire employed by a corporation or other business entity with respect to which the local government officer serves as an officer or director, or holds an ownership interest of one percent or more?

☐ Yes ☒ No

D. Describe each employment or business and family relationship with the local government officer named in this section.

4

Signature of vendor doing business with the governmental entity

03/13/2017

Date

Adopted 8/7/2015

Bidder Shall Return Completed Form with Offer.

Local Government Officer

Conflicts Disclosure Statement - OFFICE USE ONLY

LOCAL GOVERNMENT OFFICER CONFLICTS DISCLOSURE STATEMENT — **FORM CIS**

This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session.

This is the notice to the appropriate local governmental entity that the following local government officer has become aware of facts that require the officer to file this statement in accordance with Chapter 176, Local Government Code.

OFFICE USE ONLY

Date Received

1 **Name of Local Government Officer**

2 **Office Held**

3 **Name of vendor described by Sections 176.001(7) and 176.003(a), Local Government Code**

4 **Description of the nature and extent of employment or other business relationship with vendor named in item 3**

5 **List gifts accepted by the local government officer and any family member, if aggregate value of the gifts accepted from vendor named in item 3 exceeds $100 during the 12-month period described by Section 176.003(a)(2)(B).**

Date Gift Accepted _____ Description of Gift _____

Date Gift Accepted _____ Description of Gift _____

Date Gift Accepted _____ Description of Gift _____

(attach additional forms as necessary)

6 **AFFIDAVIT**

I swear under penalty of perjury that the above statement is true and correct. I acknowledge that the disclosure applies to each family member (as defined by Section 176.001(2), Local Government Code) of this local government officer. I also acknowledge that this statement covers the 12-month period described by Section 176.003(a)(2)(B), Local Government Code.

_____
Signature of Local Government Officer

AFFIX NOTARY STAMP / SEAL ABOVE

Sworn to and subscribed before me, by the said _____, this the _____ day of _____, 20 _____, to certify which, witness my hand and seal of office.

_____ _____ _____
Signature of officer administering oath | Printed name of officer administering oath | Title of officer administering oath

Adopted 8/7/2015

Good Faith Effort (GFE) Determination Checklist

This information must be submitted with your bid.

Bidder intends to utilize subcontractors/subconsultants in the fulfillment of this contract (if awarded).
☐ Yes ☒ No

Instructions: In order to determine if a "Good Faith Effort" was made in soliciting HUBs for subcontracting opportunities, the following checklist and supporting documentation shall be completed by the Prime Contractor/Consultant, and returned with the Prime Contractor/ Consultant's bid. This list contains the **minimum** efforts that should be put forth by the Prime Contractor/Consultant when attempting to achieve or exceed the goals of HUB Subcontractor participation. The Prime Contractor/Consultant may extend his/her efforts in soliciting HUB Subcontractor participation beyond what is listed below.

Did the Prime Contractor/Consultant . . .

☐ Yes	☒ No	1. To the extent practical, and consistent with standard and prudent industry standards, divide the contract work into the smallest feasible portions, to allow for maximum HUB Subcontractor participation?
☐ Yes	☒ No	2. **Notify** in writing a reasonable number of HUBs, allowing sufficient time for effective participation of the planned work to be subcontracted?
☐ Yes	☒ No	3. **Provide** HUBs that were genuinely interested in bidding on a subcontractor, adequate information regarding the project (i.e., plans, specifications, scope of work, bonding and insurance requirements, and a point of contract within the Prime Contractor/Consultant's organization)?
☒ Yes	☐ No	4. **Negotiate** in good faith with interested HUBs, and not reject bids from HUBs that qualify as lowest and responsive bidders?
☐ Yes	☒ No	5. **Document** reasons HUBs were rejected? Was a written rejection notice, including the reason for rejection, provided to the rejected HUBs?
☒ Yes	☐ No	6. If Prime Contractor/Consultant has zero (0) HUB participation, **please explain the reasons why.** This is a Sale product I do not need any subcontract

If "No" was selected, please explain and include any pertinent documentation with your bid.
If necessary, please use a separate sheet to answer the above questions.

Jose H. Reyes
Printed Name of Authorized Representative

Signature

President
Title

03/13/2017
Date

Bidder Shall Return Completed Form with Offer.

Notice of Intent (NOI) to Subcontract with Historically Underutilized Business (HUB)

This information must be submitted with your bid.

Bidder intends to utilize subcontractors/subconsultants in the fulfillment of this contract (if awarded).
☐ Yes ☒ No

Instructions for Prime Contractor/Consultant: Bidder shall submit this form with the bid; however, the information below may be submitted after contract award, but prior to beginning performance on the contract. Please submit one form for each HUB Subcontractor/Subconsultant with proper signatures, per the terms and conditions of your contract.

Contractor Name: _____ HUB: p Yes p No

Address: _____
Street City State Zip

Phone (with area code): _____ Fax (with area code): _____

Project Title & No.: _____

Prime Contract Amount: $ _____

HUB Subcontractor Name: _____

HUB Status (Gender & Ethnicity): _____

Certifying Agency: ☐ Tx. Bldg & Procurement Comm. ☐ Jefferson County ☐ Tx Unified Certification Prog.

Address: _____
Street City State Zip

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

_____

Printed Name of Contractor Representative	Signature of Representative	Date
Printed Name of HUB	Signature of Representative	Date

NOTE: NOTHING ON THIS NOTICE OF INTENT FORM IS INTENDED TO CONFER ANY RIGHTS, EXPRESSED OR IMPLIED, TO ANY THIRD PARTIES.

Pre-Approval for Subcontractor Substitutions must be obtained from the Jefferson County Purchasing Agent's Representative. The "HUB Subcontractor/Subconsultant Change Form" must be completed and faxed to 409-835-8456.

Bidder Shall Return Completed Form with Offer.

Historically Underutilized Business (HUB) Subcontracting Participation Declaration Form

This information must be submitted with your bid.

Bidder intends to utilize subcontractors/subconsultants in the fulfillment of this contract (if awarded).
☐ Yes ☒ No

Prime Contractor: ORIGINAL FOOD CO., LLC HUB: ☒ Yes ☐ No

HUB Status (Gender & Ethnicity): MALE, LATIN

Address: 122 Azinger Dr. (Street) Laredo (City) Tx (State) 78045 (Zip)

Phone (with area code): (956) 949-0726 Fax (with area code): (956) 608-3441

Project Title & No.: Insecticids,Hervicides,spry adjuventos IFB/RFP No.: IFB 17-006/YS

Total Contract: $ Total HUB Subcontract(s): $

Construction HUB Goals: 12.8% MBE:: % 12.6% WBE: %

Sub-goals: 1.7 African-American, 9.7% Hispanic, 0.7% Native American, 0.8% Asian American.
Use these goals as a guide to diversify.

FOR HUB OFFICE USE ONLY:

Verification date HUB Program Office reviewed and verified HUB Sub information Date: Initials:

PART I. HUB SUCONTRACTOR DISCLOSURE

HUB Subcontractor Name:

HUB Status (Gender & Ethnicity):

Certifying Agency: ☐ Texas Bldg & Procurement Comm. ☐ Texas Unified Certification Prog.

Address: (Street) (City) (State) (Zip)

Contact person: Title:

Phone (with area code): Fax (with area code):

Proposed Subcontract Amount: $ Percentage of Prime Contract: %

Description of Subcontract Work to be Performed:

Bidder Shall Return Completed Form with Offer.

Historically Underutilized Business (HUB) Subcontracting Participation Declaration Form

HUB SUBCONTRACTOR DISCLOSURE

PART I: Continuation Sheet **(Duplicate as Needed)**

HUB Subcontractor Name: _____

HUB Status (Gender & Ethnicity): _____

Certifying Agency: ☐ Tx. Bldg & Procurement Comm. ☐ Jefferson County ☐ Tx Unified Certification Prog.

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

_____

HUB Subcontractor Name: _____

HUB Status (Gender & Ethnicity): _____

Certifying Agency: ☐ Tx. Bldg & Procurement Comm. ☐ Jefferson County ☐ Tx Unified Certification Prog.

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

_____

All HUB Subcontractor Participation may be verified with the HUB Subcontractor(s) listed on Part I.

Bidder Shall Return Completed Form with Offer.

Historically Underutilized Business (HUB) Subcontracting Participation Declaration Form

PART II: STATEMENT OF NON-COMPLIANCE FOR NOT MEETING HUB SUBCONTRACTING GOALS

Please complete Good Faith Effort (GFE) Checklist and attach any supporting documentation.

Our firm was unable to meet the HUB goals for this project for the following reasons:

- ☐ All subcontractors to be utilized are "Non-HUBs." *(Complete Part III)*
- ☐ HUBs were solicited but did not respond.
- ☐ HUBs solicited were not competitive.
- ☐ HUBs were unavailable for the following trade(s):
- ☒ Other: ORIGINAL FOOD CO., LLC IS HUB CERTIFIED.

Was the Jefferson County HUB Office contacted for assistance in locating HUBs? ☐ Yes ☐ No

PART III: DISCLOSURE OF OTHER "NON-HUB" SUBCONTRACTS

The bidder shall use this area to provide a listing of all "Non-HUB" Subcontractors, including suppliers, that will perform under this project. A list of those "Non-HUB" Subcontractors the bidder selects, after bid submission, shall be provided to the Purchasing Office not later than five (5) calendar days after being notified that bidder is the apparent low bidder. A list of those "Non-HUB" Subcontractors that are selected after contract award must be provided **immediately** after their selection.

Subcontractor Name: _____

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $_____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

Subcontractor Name: _____

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $_____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

Bidder Shall Return Completed Form with Offer.

Historically Underutilized Business (HUB)
Subcontracting Participation Declaration Form

Subcontractor Name: _____

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

Subcontractor Name: _____

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

I hereby certify that I have read the *HUB Program Instructions and Information*, truthfully completed all applicable parts of this form, and **attached any necessary support documentation as required**. I fully understand that intentionally falsifying information on this document may result in my not receiving a contract award or termination of any resulting contract.

Name (print or type): Jose H. Reyes

Title: PRESIDENT

Signature: _____

Date: 03/13/2017

E-mail address: jose.reyes@getoriginalfoods.com

Contact person that will be in charge of invoicing for this project:

Name (print or type): Jose H. Reyes

Title: President

Date: 03/13/2017

E-mail address: ose.reyes@getoriginalfoods.com

Bidder Shall Return Completed Form with Offer.

Residence Certification/Tax Form

Pursuant to Texas Government Code §2252.001 *et seq.*, as amended, Jefferson County requests Resident Certification. §2252.001 *et seq.* of the Government Code provides some restrictions on the awarding of governmental contracts; pertinent provisions of §2252.001 are stated below:

(3) "Nonresident bidder" refers to a person who is not a resident.

(4) "Resident bidder" refers to a person whose principal place of business is in this state, including a contractor whose ultimate parent company or majority owner has its principal place of business in this state.

☐ I certify that ORIGINAL FOOD CO., LLC [company name] is a Resident Bidder of Texas as defined in Government Code §2252.001.

☐ I certify that _____ [company name] is a Nonresident Bidder as defined in Government Code §2252.001 and our principal place of business is _____ _____ (city and state).

Taxpayer Identification Number (T.I.N.):	27-5528925
Company Name submitting bid/proposal:	ORIGINAL FOO CO., LLC
Mailing address:	122 Azinger Dr. Laredo, Texas 78045
If you are an individual, list the names and addresses of any partnership of which you are a general partner: N/A	

Property: List all taxable property owned by you or above partnerships in Jefferson County.

Jefferson County Tax Acct. No.*	Property address or location**
	N/A

* This is the property amount identification number assigned by the Jefferson County Appraisal District.

** For real property, specify the property address or legal description. For business property, specify the address where the property is located. For example, office equipment will normally be at your office, but inventory may be stored as a warehouse or other location.

Bidder Shall Return Completed Form with Offer.

Bid Affidavit

The undersigned certifies that the bid prices contained in this bid have been carefully reviewed and are submitted as correct and final. Bidder further certifies and agrees to furnish any and/or all commodities upon which prices are extended at the price offered, and upon the conditions contained in the specifications and the Notice to Bidders.

STATE OF TEXAS COUNTY OF Webb

BEFORE ME, the undersigned authority, a Notary Public in and for the State of Texas,

on this day personally appeared Jose H. Reyes (name), who

after being by me duly sworn, did depose and say:

"I, Jose H. Reyes (name) am a duly authorized officer of/agent

for Original Food Co. LLC. (name of firm) and have been duly authorized to execute the

foregoing on behalf of the said Original Food Co. LLC. (name of firm).

I hereby certify that the foregoing bid has not been prepared in collusion with any other bidder or other person or persons engaged in the same line of business prior to the official opening of this bid. Further, I certify that the bidder is not now, nor has been for the past six (6) months, directly or indirectly concerned in any pool or agreement or combination, to control the price of services/commodities bid on, or to influence any person or persons to bid or not to bid thereon."

Name and address of bidder: Jose H. Reyes

122 Alinger Dr., Laredo, Tx. 78045

Fax: (956) 608-3441 Telephone# (956) 949-0726

by: Jose H. Reyes (print name) Title: Owner

Signature: [signature]

SUBSCRIBED AND SWORN to before me by the above-named Jose H. Reyes on

this the 13th day of March, 2017.

ROSEMARY GONZALEZ
Notary Public, State of Texas
My Commission Expires
October 06, 2019

[signature]
Notary Public in and for
the State of Texas

Bidder Shall Return Completed Form with Offer.

ACORD

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 2/28/2017

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER
CUBRIEL INSURANCE AGENCY LLC
6010 McPherson Rd Unit D2
Laredo, TX 78041

CONTACT NAME: NOE CUBRIEL, CIC
PHONE (A/C, No, Ext): (956) 568-5290 FAX (A/C, No): (956) 568-5294
E-MAIL ADDRESS: noe@cubrielinsurance.com

INSURER(S) AFFORDING COVERAGE	NAIC#
INSURER A : HUDSON SPECIALTY INSURANCE CO	
INSURER B : INTEGON NATIONAL INSURANCE CO	
INSURER C : ROCKHILL INSURANCE CO	
INSURER D : TEXAS MUTUAL INSURANCE CO	
INSURER E :	
INSURER F :	

INSURED
ORIGINAL FOOD CO., LLC
122 AZINGER DRIVE
LAREDO, TX 78045

COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	[X] COMMERCIAL GENERAL LIABILITY [ ] CLAIMS-MADE [X] OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: [X] POLICY [ ] PRO-JECT [ ] LOC [ ] OTHER:			10085739-1	03/01/17	03/01/18	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 1,000,000 $ 100,000 $ 5,000 $ 1,000,000 $ 2,000,000 $ INCLUDED
B	AUTOMOBILE LIABILITY [ ] ANY AUTO [ ] OWNED AUTOS ONLY [ ] HIRED AUTOS ONLY [X] SCHEDULED AUTOS [ ] NON-OWNED AUTOS ONLY			18626761	03/01/17	03/01/2018	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ 1,000,000 $ $ $
C	[ ] UMBRELLA LIAB [X] OCCUR [X] EXCESS LIAB [ ] CLAIMS-MADE [ ] DED [ ] RETENTION $			30682	03/01/17	03/01/18	EACH OCCURRENCE AGGREGATE	$ 1,000,000 $ 1,000,000
D	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y/N [Y] If yes, describe under DESCRIPTION OF OPERATIONS below	N/A		0001320821	03/01/17	03/01/18	[X] PER STATUTE [ ] OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	 $ 1,000,000 $ 1,000,000 $ 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER

FOR VERIFICATION OF INSURANCE PURPOSES ONLY. FOR CERTIFICATES PLEASE CALL AGENT LISTED ABOVE.

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

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ACORD

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 2/28/2017

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER
CUBRIEL INSURANCE AGENCY LLC
6010 McPherson Rd Unit D2
Laredo, TX 78041

CONTACT NAME: NOE CUBRIEL, CIC
PHONE (A/C, No, Ext): (956) 568-5290 FAX (A/C, No): (956) 568-5294
E-MAIL ADDRESS: noe@cubrielinsurance.com

INSURER(S) AFFORDING COVERAGE	NAIC#
INSURER A: HUDSON SPECIALTY INSURANCE CO	
INSURER B: INTEGON NATIONAL INSURANCE CO	
INSURER C: ROCKHILL INSURANCE CO	
INSURER D: TEXAS MUTUAL INSURANCE CO	
INSURER E:	
INSURER F:	

INSURED
ORIGINAL FOOD CO., LLC
122 AZINGER DRIVE
LAREDO, TX 78045

COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	[X] COMMERCIAL GENERAL LIABILITY [ ] CLAIMS-MADE [X] OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: [X] POLICY [ ] PRO-JECT [ ] LOC OTHER:			10085739-1	03/01/17	03/01/18	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 1,000,000 $ 100,000 $ 5,000 $ 1,000,000 $ 2,000,000 $ INCLUDED
B	AUTOMOBILE LIABILITY ANY AUTO OWNED AUTOS ONLY [X] SCHEDULED AUTOS HIRED AUTOS ONLY NON-OWNED AUTOS ONLY			18626761	03/01/17	03/01/2018	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ 1,000,000 $ $ $
C	[ ] UMBRELLA LIAB [X] OCCUR [X] EXCESS LIAB [ ] CLAIMS-MADE DED RETENTION $			30682	03/01/17	03/01/18	EACH OCCURRENCE AGGREGATE	$ 1,000,000 $ 1,000,000
D	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y/N [Y] If yes, describe under DESCRIPTION OF OPERATIONS below	N/A		0001320821	03/01/17	03/01/18	[X] PER STATUTE [ ] OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	 $ 1,000,000 $ 1,000,000 $ 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER

FEDERAL AVIATION ADMINISTRATION
ATTN: PATRICIA DINGLER
CONTRACTING OFFICER, AAQ-520
10101 HILLWOOD PARKWAY
FORT WORTH, TEXAS 76177

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

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ACORD

AGENCY CUSTOMER ID: _____

LOC #: _____

ADDITIONAL REMARKS SCHEDULE

AGENCY	NAMED INSURED
CUBRIEL INSURANCE AGENCY LLC	ORIGINAL FOOD CO., LLC 122 AZINGER DRIVE LAREDO, TX 78045
POLICY NUMBER SEVERAL	
CARRIER / NAIC CODE	EFFECTIVE DATE: 03/01/2017

ADDITIONAL REMARKS

THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,

FORM NUMBER: 25 FORM TITLE: CERTIFICATE OF LIABILITY INSURANCE

POLICIES WILL NOT BE CANCELLED UNTIL A 30 DAYS PRIOR WRITTEN NOTICE IS PROVIDED TO THE CONTRACTING OFFICER AT THE FOLLOWING ADDRESS: FEDERAL AVIATION ADMINISTRATION, ATTN: PATRICIA DINGLER CONTRACTING OFFICER, AAQ-520, 10101 HILLWOOD PARKWAT, FORT WORTH, TEXAS 76177

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Original Food Company, LLC

CAPABILITIES STATEMENT

Jose H. Reyes

Original Food Company, LLC is an Emerging, Hispanic-American, Minority, Small Business offering services nationwide.

Federally and State certified:
ESBE, HABE, MBE, SBE, HUB
State Certify

DUNS# 078278267
CAGE #6UWMA

0111 Wheat Farming
0115 Corn Farming
0116 Soybeans Farming
0131 Cotton Farming
0132 Tobacco Farming
0133 Sugarcane and Sugar Beets Farming
0139 All Other Grain Farming
0139 Potato Farming
0139 Melon Farming
0139 Hay Farming
0139 Peanut Farming
0139 Aquaculture
0181 Tree Production
0181 Floriculture Production
0182 Food Crops Grown Under Cover
0191 All Other Miscellaneous Crop Farming
0711 Soil Preparation, Planting, Cultivating
0831 Forest Nurseries and Gathering of Forest Products
1389 Oil and Gas Field Services Site Preparation

CAPABILITIES

Understanding how nature works allows our company to provide a multi-service in agricultural engineering.

- Agricultural contracting and engineering
- Import/Export agricultural products
- Biomass production
- Hydroponic production
- Greenhouse, net house designs and installations
- Pest control
- Soil conservation
- Plant nutrition
- Horticulture
- Agroforestry
- Landscape design, service, grass mowing

DIFFERENTIATORS

Our company offers expertise in the agricultural field, with expedited service. We have cost-efficient solutions to a customer's agricultural needs because we understand operational efficiency. Original Food Company offers customization to individual customer needs and projects unparalleled customer service.

ACCOMPLISHMENTS

With over 20 years of agricultural experience in agronomy and knowledge of varying techniques, we pride in the following accomplishments.

- Mexico-Farm management
- Texas border-Methyl bromide fumigation tarpaulin (vegetables and greenery)
- California-Aerial fumigations (avocados and citrus)
- Japan-Methyl bromide fumigation (apples)
- Italy/Greece-Cold treatment on vessels

Office **(956) 728-8623** Cell **(956) 949-0726**
Email: **jose.reyes@getoriginalfoods.com**
www.greenoriginalfoods.com

Entity Dashboard

Original Food Company Llc
DUNS: 078278267 CAGE Code: 6UWM4
Status: Submitted

Expiration Date: Not Yet A
Purpose of Registration: All

- Entity Overview
- Entity Registration
  - Core Data
  - Assertions
  - Reps & Certs
  - POCs
- Reports
  - Service Contract Report
  - BioPreferred Report
- Exclusions
  - Active Exclusions
  - Inactive Exclusions
  - Excluded Family Members

BACK TO USER DASHBOARD

Entity Overvie

Entity Registration Summary

DUNS: 078278267
Name: Original Food Company Llc
Business Type: Business or Organization
Last Updated By: Jose Reyes
Registration Status: Submitted
Registration is pending CAGE validation.
Registration passed IRS Consent validation.

Exclusion Summary

Active Exclusion Records? No

SAM | System for Award Management 1.0

IBM v1.P.48.20160624-1124

WWW2

FAPIIS

Note to all Users: This is a Federal Government computer system. Use of this system constitutes consent to monitoring at all times.

ORIGINAL FOOD CO.

FROM: JOSE H. REYES

TO: PURCHASING DEPARTMENT BEAUMONT, TX

NAME .....ORIGINAL FOOD CO., LLC

ADDTRESS .....122 AZINGER DR.
.....LAREDO, TEXAS 78045
POINT OF CONTACT.....JOSE H. REYE
TELEPHONE NUMBER.....(956) 949-0726
Email.....jose.reyes@getoriginalfoods.com
BUSINESS SIZE.....SMALL BUSINESS
SOCIO ECONOMIC STATUS.... SMALL DISADVANTAGED BUSINESS (SDB)
DUNS NUMBER.....078278267

PAGS.....3

Sincerely

Jose H Reyes
Original Food Co., LLC
Telephone (956) 949-0726
Fax number (956) 729-0476
Email address jose.reyes@getoriginalfoods.com Web Site
www.greenoriginalfoods.com

CERTIFICATE OF INTERESTED PARTIES

FORM 1295

1 of 1

Complete Nos. 1 - 4 and 6 if there are interested parties.
Complete Nos. 1, 2, 3, 5, and 6 if there are no interested parties.

OFFICE USE ONLY
CERTIFICATION OF FILING

1 Name of business entity filing form, and the city, state and country of the business entity's place of business.

ORIGINAL FOOD CO., LLC
Laredo, TX United States

2 Name of governmental entity or state agency that is a party to the contract for which the form is being filed.

JEFFERSON COUNTY PURCHASING DEPARTMENT

DRAFT

3 Provide the identification number used by the governmental entity or state agency to track or identify the contract, and provide a description of the services, goods, or other property to be provided under the contract.

$800,000.00
Agriculture,Horticulture,Landscape Forest and Soil Conservation

4 Name of Interested Party	City, State, Country (place of business)	Nature of interest (check applicable)	
		Controlling	Intermediary

5 Check only if there is NO Interested Party. [X]

6 AFFIDAVIT

I swear, or affirm, under penalty of perjury, that the above disclosure is true and correct.

NOTARY PUBLIC STATE OF TEXAS
M MONSIVAIS
My Commission Expires
July 25, 2018

Signature of authorized agent of contracting business entity

AFFIX NOTARY STAMP / SEAL ABOVE

Sworn to and subscribed before me, by the said Jose H. Reyes, this the 12th day of March, 20 17, to certify which, witness my hand and seal of office.

M. Monsivais — Signature of officer administering oath
M. MONSIVAIS — Printed name of officer administering oath
NOTARY PUBLIC — Title of officer administering oath

Form **W-9**
(Rev. August 2013)
Department of the Treasury
Internal Revenue Service

Request for Taxpayer Identification Number and Certification

Give Form to the requester. Do not send to the IRS.

Print or type
See Specific Instructions on page 2.

Name (as shown on your income tax return)
ORIGINAL FOOD CO., LLC

Business name/disregarded entity name, if different from above

Check appropriate box for federal tax classification:
☐ Individual/sole proprietor ☐ C Corporation ☐ S Corporation ☐ Partnership ☐ Trust/estate

☑ Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=partnership) ▶ S

☐ Other (see instructions) ▶

Exemptions (see instructions):
Exempt payee code (if any)
Exemption from FATCA reporting code (if any)

Address (number, street, and apt. or suite no.)
122 AZINGER DRIVE

Requester's name and address (optional)

City, state, and ZIP code
LAREDO, TEXAS, 78045

List account number(s) here (optional)

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on the "Name" line to avoid backup withholding. For individuals, this is your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN* on page 3.

Note. If the account is in more than one name, see the chart on page 4 for guidelines on whose number to enter.

Social security number
			–			–				

Employer identification number
2	7	–	5	5	2	8	9	2	5

Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me), and
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding, and
3. I am a U.S. citizen or other U.S. person (defined below), and
4. The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions on page 3.

Sign Here Signature of U.S. person ▶ [signature] Date ▶ 02-16-2017

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. The IRS has created a page on IRS.gov for information about Form W-9, at *www.irs.gov/w9*. Information about any future developments affecting Form W-9 (such as legislation enacted after we release it) will be posted on that page.

Purpose of Form

A person who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) to report, for example, income paid to you, payments made to you in settlement of payment card and third party network transactions, real estate transactions, mortgage interest you paid, acquisition or abandonment of secured property, cancellation of debt, or contributions you made to an IRA.

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN to the person requesting it (the requester) and, when applicable, to:

1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),
2. Certify that you are not subject to backup withholding, or
3. Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income, and
4. Certify that FATCA code(s) entered on this form (if any) indicating that you are exempt from the FATCA reporting, is correct.

Note. If you are a U.S. person and a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

Definition of a U.S. person. For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien,
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States,
- An estate (other than a foreign estate), or
- A domestic trust (as defined in Regulations section 301.7701-7).

Special rules for partnerships. Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax under section 1446 on any foreign partners' share of effectively connected taxable income from such business. Further, in certain cases where a Form W-9 has not been received, the rules under section 1446 require a partnership to presume that a partner is a foreign person, and pay the section 1446 withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid section 1446 withholding on your share of partnership income.

South Central Texas Regional Certification Agenc

Your unified certification source
www.sctrca.org

July 15, 2015

Jose Reyes
Original Food Co., LLC
122 Azinger Dr.
Laredo, TX 78045

Dear Jose Reyes:

We are pleased to inform you that your application for certification in our Small, Minority, Woman, African American, Vetera and Disabled Individual Business Enterprise (S/M/W/AA/V/DI) Program has been approved. Your firm met the requirements SCTRCA Standards and is currently certified as a:

***ESBE HABE MBE SBE**

Certification Number: **215079006**
Certification Renewal: **July 31, 2017**
Certification Expiration: **July 31, 2017**

Providing the following products or services:
NAICS-541690: AGRICULTURAL CONSULTING SERVICES

On the two year anniversary date of your certification, you are required to provide a renewal application affirming that no changes have occured affecting your certification status. The SCTRCA will send you a Certification Renewal reminder **sixty (60) days** prior to your expiration date. The SCTRCA will no longer include a certificate upon certification renewals. **Your expiration date is July 31, 2017.**

Please notify this office within **thirty (30) days** of any changes affecting the size, ownership, control requirements, or any material change in the information provided in the submission of the certification application. Thank you in advance.

Sincerely,

For

Blaine R. Mitchell
Executive Director

South Central Texas Regional Certification Agency

of Bexar County, Texas hereby duly affirms that:

Original Food Co., LLC

has successfully met the established requirements of SCTRCA's Business Enterprise Certification Program to be certified as a

*ESBE HABE MBE SBE

Certified NAICS Codes:

NAICS-541690: AGRICULTURAL CONSULTING SERVICES

Certification Number: 213069006
Effective Date: June 18, 2013
Expiration Date: June 30, 2015

Blaine R. Mitchell
Executive Director

Note: This certificate is the property of the South Central Texas Regional Certification Agency and may be revoked should the above named firm graduate from or fails to comply with SCTRCA's Business Enterprise Program. A Certification Renewal Application is required every two years.

SUSAN COMBS

TEXAS COMPTROLLER of PUBLIC ACCOUNTS

P.O. BOX 13186 • AUSTIN, TX 78711-3186

The Texas Comptroller of Public Accounts (CPA) administers the Statewide Historically Underutilized Business (HUB) Program for the State of Texas, which includes certifying minority and woman-owned businesses as HUBs and is designed to facilitate the participation of minority and woman-owned businesses in state agency procurement opportunities.

We are pleased to inform you that your application for certification/re-certification as a HUB has been approved. Your company's profile is listed in the State of Texas HUB Directory and may be viewed online at http://www.window.state.tx.us/procurement//cmbl/hubonly.html. Provided that your company continues to meet HUB eligibility requirements, the enclosed HUB certificate is valid for four years.

You must notify the HUB Program in writing of any changes affecting your company's compliance with the HUB eligibility requirements, including changes in ownership, day-to-day management, control and/or principal place of business. *Note: Any changes made to your company's information may require the HUB Program to re-evaluate your company's eligibility.*

Please reference the enclosed pamphlet for additional resources, such as the state's Centralized Master Bidders List (CMBL), that can increase your chance of doing business with the state.

Thank you for your participation in the HUB Program! If you have any questions, you may contact a HUB Program representative at 512-463-5872 or toll-free in Texas at 1-888-863-5881.

Texas Historically Underutilized Business (HUB) Certificate

HUB

Statewide Historically Underutilized Business Program

Certificate/VID Number:	**1275528925800**
File/Vendor Number:	**485339**
Approval Date:	**21-MAY-2014**
Scheduled Expiration Date:	**21-MAY-2018**

The Texas Comptroller of Public Accounts (CPA), hereby certifies that

ORIGINAL FOOD CO., LLC

has successfully met the established requirements of the State of Texas Historically Underutilized Business (HUB) Program to be recognized as a HUB. This certificate printed 23-MAY-2014, supersedes any registration and certificate previously issued by the HUB Program. If there are any changes regarding the information (i.e., business structure, ownership, day-to-day management, operational control, business location) provided in the submission of the business' application for registration/certification as a HUB, you must immediately (within 30 days of such changes) notify the HUB Program in writing. The CPA reserves the right to conduct a compliance review at any time to confirm HUB eligibility. HUB certification may be suspended or revoked upon findings of ineligibility.

Paul A. Gibson

Paul Gibson, Statewide HUB Program Manager
Texas Procurement and Support Services

Note: In order for State agencies and institutions of higher education (universities) to be credited for utilizing this business as a HUB, they must award payment under the Certificate/VID Number identified above. Agencies and universities are encouraged to validate HUB certification prior to issuing a notice of award by accessing the Internet (**http://www.window.state.tx.us/procurement/cmbl/cmblhub.html**) or by contacting the HUB Program at **1-888-863-5881** or **512-463-5872**.

Rev. 09/12

Drexel®

MSMA 6 Plus

MSMA Liquid Plus Surfactant

For selective post-emergent weed control in Cotton, Highway Rights-of-Way, Golf courses, and Sod farms.

ACTIVE INGREDIENT:

Monosodium acid methanearsonate*	47.6%
OTHER INGREDIENTS:	52.4%
TOTAL:	100.0%

*This product contains 6 pounds of MSMA per gallon.
*Total Arsenic (as elemental), all in water-soluble form, is 22.0%.

KEEP OUT OF REACH OF CHILDREN

CAUTION

See FIRST AID Below

EPA Reg. No. 19713-42
EPA Est. No. 19713-XX-XXX **Net Content:_____**

FIRST AID

IF SWALLOWED:
- Call a poison control center or doctor immediately for treatment advice.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to do so by a poison control center or doctor.
- Do not give anything by mouth to an unconscious or convulsing person.

IF IN EYES:
- Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.
- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
- Call a poison control center or doctor for treatment advice.

IF ON SKIN OR CLOTHING:
- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15 to 20 minutes.
- Call a poison control center or doctor for treatment advice.

IF INHALED:
- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferaby mouth-to-mouth, if possible.
- Call a poison control center or doctor for further treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For information on this pesticide product (including health concerns, medical emergencies, or pesticide incidents), call the National Pesticide Information Center at 1-800-858-7378.

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

CAUTION: Harmful if swallowed. May cause irritation of eyes, nose, throat and skin. Avoid contact with eyes, skin and clothing. Avoid breathing spray mist.

(Continued)

PRECAUTIONARY STATEMENTS (Cont.)

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are polyethylene or polyvinyl chloride. If you want more options, follow the instructions for category A on an EPA chemical-resistance category selection chart.

All mixers, loaders, applicators and other handlers must wear: Long-sleeved shirt and long pants, chemical-resistant gloves, and shoes plus socks.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

When handlers use aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

Pilots must use an enclosed cockpit that meets the requirements listed in the WPS for agricultural pesticides [40 CFR 170.240 (d)(6)].

USER SAFETY RECOMMENDATIONS

Users should: 1) Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. 2) Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. 3) Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters or rinsate.

USE INFORMATION

MSMA 6 PLUS is a herbicide useful for controlling weeds in Cotton, Highway Rights-of-Way, Golf courses, and Sod farms. It is a combination of herbicide and surfactant. It is unnecessary to add any surfactant to the spray solution. Best results are obtained on young, actively growing weeds at air temperatures above 70°F.

Weeds controlled by this product include:

Bahlagrass *(Paspalum sp.)*
Barnyardgrass *(Echinochloa crus-galli)*
Beggartick, hairy *(Biden pilosa)*
Brachiaria spp.
Broomsedge
Chickweed *(Stellaria media)*
Cocklebur *(Xanthium spinosum)*
Crabgrass, large *(Digitaria sp.)*
Crabgrass, smooth *(Digitaria sp.)*
Dallisgrass *(Paspalum dilatatum)*
Dandelion *(Taraxacum officinale)*
Dayflower *(Commelina sp.)*
Fiddleneck *(Amsinckia sp.)*
Florida Beggarweed *(Desmodium tortuosum)*
Foxtail *(Setaria sp.)*
Goosegrass *(Eleusine indica)*
Guineagrass *(Panicum sp.)*
Jimsonweed *(Datura stramonium)*
Johnsongrass *(Sorghum halipense)*
Morningglory *(Ipomoea spp.)*
Mustard, wild
Nutsedge *(Cyperus sp.)*
Oats, wild *(Avena fatua)*
Pigweed *(Amaranthus sp.)*
Puncturevine *(Tribulus terrestris)*
Purslane, common
Ragweed *(Ambrosia spp.)*
Sandbur *(Cenchrus sp.)*
Sicklepod *(Cassia obtusifolia)*
Sorrel, Wood *(Oxalis sp.)*
Spurge *(Euphorbia sp.)*
Witchgrass *(Panicum capillare)*

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product through any type of irrigation system. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard (WPS), 40 CFR Part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, greenhouses and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted entry interval (REI). The requirements in this box only apply to uses of this product that are covered by the WPS.

Do not enter or allow worker entry into treated areas during the REI of 12 hours.

PPE required for early entry to treated areas that is permitted under the WPS and that involves contact with anything that has been treated, such as plants, soil or water is: Coveralls, chemical-resistant gloves such as polyethylene or polyvinyl chloride and shoes plus socks.

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are not within the scope of the WPS for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses. Keep children and pets out of the treated area until sprays have dried.

APPLICATION RESTRICTIONS

- Do not apply this product in Florida except on Cotton in the counties listed in the Cotton use section of this label.
- Aerial application is prohibited, except when applying to Cotton.

MIXING INSTRUCTIONS

This product is completely water-soluble. Fill the spray equipment reservoir about half full with water and add the required amount of herbicide with agitation. Finish filling the tank with water and apply.

After use, clean equipment thoroughly by flushing with water. Do not store spray solution in tank for a prolonged period. Although this product is only moderately corrosive, do not use in galvanized or aluminum equipment.

SPRAY DRIFT MANAGEMENT

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

1) The distance of the outer most nozzles on the boom must not exceed three-fourth the length of the wingspan or rotor.
2) Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they shall be observed. The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory Information section below.

AERIAL DRIFT REDUCTION ADVISORY INFORMATION

Information on Droplet Size

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see Wind, Temperature and Humidity, and Temperature Inversions).

Controlling Droplet Size

- Volume – Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- Pressure – Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- Number of nozzles – Use the minimum number of nozzles that provide uniform coverage.
- Nozzle Orientation – Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- Nozzle Type – Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

Boom Length

For some use patterns, reducing the effective boom length to less than three-fourths of the wingspan or rotor length may further reduce drift without reducing swath width.

Application Height

Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

Swath Adjustment

When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.)

Wind

Drift potential is lowest between speeds of 2 to 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential.

Note: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

Temperature and Humidity

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

Temperature Inversions

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

Sensitive Areas

This pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive area).

COTTON

This product is useful for the control of weeds listed under *"USE INFORMATION"* section and many similar weeds.

Applications can be made:1) Postemergent, over the top, when Cotton is 3 to 6 inches high or up to early first square stage, whichever occurs first using ground or aircraft equipment. 2) Postemergent as a directed spray with ground equipment when Cotton is 3 inches high to first bloom.

Slight burning and a reddish discoloration of the Cotton leaf may occasionally occur following application, but the Cotton plant will develop normally.

USE RESTRICTIONS

- Do not apply in Florida except on Cotton grown in the following counties: Calhoun, Columbia, Escambia, Gadsden, Hamilton, Holmes, Jackson, Jefferson, Okaloosa, Santa Rosa, Suwannee, Walton, and Washington.
  Note: Applications to Cotton in Florida should be confined to band treatments.
- Only one application at 2 lbs. a.i. (2.66 pts. of this product) per acre is allowed per season, except when a salvage operation is needed.
- If a salvage operation is needed (i.e., if pigweed escapes the first application), then a second or repeat application at 2 lbs. a.i. (2.66 pts. of this product) per acre is allowed.
- A second or repeat application, if needed, should be timed 1 to 3 weeks after the first application. Apply only as a salvage operation. Apply only to healthy rapidly growing Cotton 3 inches high, but no later than 6 inches high or early square, whichever occurs first. Preference should be given to directed spray. In order to minimize injury, the second application should be made as a directed spray when possible.
- Do not make more than two applications per season.
- Do not apply more than a total of 4 lbs. a.i. per acre per season.
- Do not apply preplant to Cotton.
- Do not apply within 50 feet of permanent water bodies or aquatic habitat, including, but not limited to lakes, reservoirs, rivers, streams, marshes, ponds, and estuaries.
- Do not allow spray or spray drift to contact adjacent crops or injury will result.
- Apply only on still days when weather conditions do not favor drift from areas being treated. Aircraft applications of this product should only be made by applicators experienced in use of herbicides, and application should be made in accordance with State and Federal regulations.

Post-Emergent Applications Using Ground or Aircraft Equipment as an Over-the-Top Broadcast Spray when Cotton is 3 inches high until early first square stage as a salvage operation. **One application:** Apply 2.5 pints in 40 gallons of water for ground application, or in 5 to 10 gallons of water for aircraft application per acre. DO NOT repeat this treatment. **Two applications:** Mix at the rate of 1 to 1.25 pints of this product in 40 gallons of water for ground equipment or in 5 to 10 gallons of water for aircraft application per acre of Cotton. If needed, a second or repeat application should be made 1 to 3 weeks after the first application. Apply only as a salvage operation. Apply only to healthy, rapidly growing Cotton, 3 inches high, but no later than 6 inches high or early square, whichever occurs first. Preference should be given to directed sprays. In order to minimize injury, the second application should be made as a directed spray when possible. DO NOT make more than two applications per season. Do not feed foliage to livestock or graze treated areas.

Postemergent Directed Spray Applications: Mix this product at the rate of 2.66 pints in 40 gallons of water per acre for application as directed broadcast spray when weeds are small. For band applications, mix 2.66 pints in 40 gallons of water per acre, then apply 1 gallon of the diluted spray for each 1-inch band width to be treated of Cotton grown on 40 inch row spacing. Direct the spray solution to the base of the Cotton plant. Nozzles should be placed so as to avoid spraying the Cotton foliage, but to give good coverage of the weeds. If regrowth occurs, make a second application about 1 to 3 weeks after the first. Make directed applications only when Cotton is 3 inches high to first bloom. Do not apply after first bloom. Do not feed foliage to livestock or graze treated areas.

HIGHWAY RIGHTS-OF-WAY

This product is useful for controlling weeds listed under *"USE INFORMATION"* section and similar other weeds on rights-of-way. Mix this product at a rate of 2.5 to 6 pints per 40 to 50 gallons of water per acre. Use higher rates and spray volume for dense weed growth. For small areas, use 1 to 2 fluid ounces in 5 gallons per 1,000 square feet. Spray undesirable vegetation thoroughly to point of runoff. Adequate coverage and complete wetting of foliage is important for effective control. If regrowth occurs, reapply as required.

USE RESTRICTIONS

- Do not apply more than two broadcast applications per year.
- Do not apply within 100 feet of permanent water bodies or aquatic habitat, including, but not limited to lakes, reservoirs, rivers, streams, marshes, ponds, and estuaries.
- Use of this product on highway rights-of-way after December 31, 2013 is prohibited.

GOLF COURSES AND SOD FARMS

Mow turfgrass to a height of 1 to 1.5 inches before treatment. Mix 1 fluid ounce (2 tablespoonsful) of this product in 1 to 2.5 gallons of water for application to a total area of 1,000 square feet.
For established Bermudagrass and Zoysiagrass, mix 1 to 2 fluid ounces (2 to 4 tablespoonsful) of this product in 1 to 2.5 gallons of water for application to a total area of 1,000 square feet.
Apply during warm weather when temperature is between 80°F and 90°F. Do not water turf for at least 24 hours after application. Turfgrass may be temporarily discolored. Bermudagrass, Bluegrass, and Zoysiagrass have shown tolerance if this product is properly applied. Injury may result if applied to Bentgrass, Fescue, and St. Augustinegrass. **DO NOT apply to St. Augustinegrass except for commercial sod production.** DO NOT apply to Carpetgrass, Centipedegrass, or to Dichondra. DO NOT reseed until two weeks after last application.
For application to St. Augustinegrass in sod farms, last application can be made 4 to 5 weeks prior to lifting the sod for harvest to allow full recovery before lifting. St. Augustinegrass sod will be temporarily discolored following application. DO NOT apply to freshly mowed St. Augustinegrass sod.

USE RESTRICTIONS

- For newly constructed golf courses, ONLY one broadcast application is permitted.
- For all other applications to golf courses, this product can ONLY be used for spot treatments (100 sq. ft. per spot), not to exceed 25% of the total golf course acreage per year.
- In sod farms, ONLY two broadcast applications are allowed. Do not apply within 25 feet of permanent water bodies or aquatic habitat, including, but not limited to lakes, reservoirs, rivers, streams, marshes, ponds, and estuaries.
- Use of this product on golf courses and sod farms after December 31, 2013 is prohibited.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage and disposal.
PESTICIDE STORAGE: Storage should be under lock and key and secure from access by unauthorized persons and children. Storage should be in a cool, dry area away from any heat or ignition source. High heat may form volatile arsenic compounds. Do not stack over 2 pallets high. Move containers by handles or in cases. Do not move containers from one area to another unless they are securely sealed. Keep container tightly sealed when not in use. Keep away from any puncture source. Avoid storage near water supplies, food, feed, seed, fungicides, insecticides and fertilizers to avoid contamination. Store in original containers only. If the contents are leaking or material is spilled, follow these steps while wearing protective clothing:

1. Contain spill. Absorb with an inert material such as sand or sawdust.
2. Collect and place in suitable containers for disposal.
3. Wash area with soap and water to remove remaining pesticide.
4. Follow washing with clean water rinse.
5. Place a leaking container in a plastic tub and transfer content as soon as possible, to an empty, original container.
6. Do not allow runoff to enter sewer or contaminate water supplies.
7. Dispose of waste as indicated below.

PESTICIDE DISPOSAL: Pesticide wastes are toxic. If these wastes cannot be disposed of by use according to label instructions, contact your state pesticide or environmental control agency or the hazardous waste representative at the nearest EPA regional office for guidance.
CONTAINER DISPOSAL:
Nonrefillable Container (rigid material; less than 5 gallons): Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container one-fourth full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

(Continued)

STORAGE AND DISPOSAL (Continued)

Nonrefillable Container (rigid material; 5 gallons or greater): Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container one-fourth full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

Refillable Containers: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this procedure two more times.

WARRANTY—CONDITIONS OF SALE

OUR DIRECTIONS FOR USE of this product are based upon tests believed reliable. Follow directions carefully. Timing and method of application, weather and crop conditions, mixtures with other chemicals not specifically recommended and other influencing factors in the use of this product are beyond the control of the Seller. To the extent consistent with applicable law, Buyer assumes all risks of use, storage and handling of this material not in strict accordance with directions given herewith.

To the extent consistent with applicable law, in no case shall the Manufacturer or the Seller be liable for consequential, special or indirect damages resulting from the use or handling of this product when such use and/or handling is not in strict accordance with directions given herewith. The foregoing is a condition of sale by the Seller and is accepted as such by the Buyer.

Manufactured By:
Drexel Chemical Company
P.O. BOX 13327, MEMPHIS, TN 38113-0327
SINCE 1972

clarke

DUET®

Dual-Action Adulticide

For use only by federal, state, tribal, or local government officials responsible for public health or vector control, or by persons certified in the appropriate category or otherwise authorized by the state or tribal lead pesticide regulatory agency to perform adult mosquito control applications, or by persons under their direct supervision.

A Quick Knockdown, Oil Soluble Synergized Synthetic Pyrethroid for Effective Control of Adult Mosquitoes, Gnats, Biting and Non-Biting Midges, and Blackflies in Outdoor Residential and Recreational Areas.

ACTIVE INGREDIENTS:	
Prallethrin: (RS)-2-methyl-4-oxo-3-(2-propynyl) cyclopent-2-enyl-(1RS)-cis, trans-chrysanthemate	1.00%
Sumithrin®: 3-Phenoxybenzyl-(1RS, 3RS, 1RS, 3SR)-2,2-dimethyl-3-(2-methylprop-1-enyl) cyclopropanecarboxylate	5.00%
* Piperonyl Butoxide	5.00%
** OTHER INGREDIENTS	89.00%
	100.00%

Contains 0.0717 pounds of Prallethrin/Gallon, 0.359 pounds of Sumithrin®/Gallon and 0.359 pounds of Piperonyl Butoxide (PBO)/Gallon
*(butylcarbityl)(6-propylpiperonyl) ether and related compounds
**Contains petroleum distillate

KEEP OUT OF REACH OF CHILDREN

CAUTION

PRECAUCION AL USUARIO: Si usted no lee ingles, no use este producto hasta que la etiqueta haya sido explicado ampliamente

FIRST AID	
IF SWALLOWED:	• Immediately call a poison control center or doctor. • Do not induce vomiting unless told to do so by a poison control center or a doctor. • Do not give any liquid to the person. • Do not give anything by mouth to an unconscious person.
NOTE TO PHYSICIAN: Contains petroleum distillates - vomiting may cause aspiration pneumonia.	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For information regarding medical emergencies or pesticide incidents, call 1-888-740-8712.	

SAMPLE

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Harmful if swallowed. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

PERSONAL PROTECTIVE EQUIPMENT (PPE) Mixers, loaders, applicators, and other handlers must wear the following: long-sleeved shirt, long pants, shoes and socks. See engineering controls for additional requirements.

USER SAFETY REQUIREMENTS Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent material that have been drenched or heavily contaminated with the product's concentrate. Do not reuse them.

USER SAFETY RECOMMENDATIONS Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Users should remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

ENGINEERING CONTROLS Pilots must use an enclosed cockpit that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(6)]. Human flagging is prohibited. Flagging to support aerial applications is limited to the use of the Global Positioning System (GPS) or mechanical flaggers.

ENVIRONMENTAL HAZARDS

This pesticide is highly toxic to aquatic organisms, including fish and aquatic invertebrates. Runoff from treated areas or deposition of spray droplets into a body of water may be hazardous to fish and aquatic invertebrates. Before making the first application in a season, it is advisable to consult with the state or tribal agency with primary responsibility for pesticide regulation to determine if other regulatory requirements exist. Do not apply over bodies of water (lakes, rivers, permanent streams, natural ponds, commercial fish ponds, swamps, marshes or estuaries), except when necessary to target areas where adult mosquitoes are present, and weather conditions will facilitate movement of applied material away from the water in order to minimize incidental deposition into the water body. Do not contaminate bodies of water when disposing of equipment rinsate or washwaters.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply to or allow drift onto blooming crops or weeds when bees are foraging in the treatment area, except when applications are made to prevent or control a threat to public and/or animal health determined by a state, tribal or local health or vector control agency on the basis of documented evidence of disease causing agents in vector mosquitoes or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort.

PHYSICAL OR CHEMICAL HAZARDS

Do not use or store near heat or open flame.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

USE RESTRICTIONS

For use only by federal, state, tribal, or local government officials responsible for public health or vector control, or by persons certified in the appropriate category or otherwise authorized by the state or tribal lead pesticide regulatory agency to perform adult mosquito control applications, or by persons under their direct supervision.

IN CALIFORNIA: This product is to be applied by County Health Department, State Department of Health Services, Mosquito and Vector Control or Mosquito Abatement District personnel only.

IN FLORIDA: Aerial applications of this product require trained personnel to perform industry accepted assays to monitor resistance formation in targeted mosquitoes.

Do not treat a site with more than 0.0036 lb. of each a.i., Sumithrin and piperonyl butoxide and 0.00072 lbs. prallethrin per acre in a single application or in any 24-hour period. Do not apply more than 0.0108 lb. each of Sumithrin and piperonyl butoxide and 0.0022 lb. prallethrin to the same treatment area in a 7 day period. Do not apply more than 0.0216 lb. each of Sumithrin and piperonyl butoxide and 0.0043 lb. prallethrin to the same treatment area in 1 month. Do not exceed 0.1 lb. of Sumithrin or piperonyl butoxide or 0.02 lb. prallethrin per acre in any site in one year. More frequent applications may be made to prevent or control a threat to public and/or animal health determined by a state, tribal, or local health or vector control agency on the basis of documented evidence of disease causing agents in vector mosquitoes or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort.

NOTE: When rotating products with other insecticides containing piperonyl butoxide, do not exceed 2 lbs. PBO per acre per year.

Not for use in outdoor residential misting systems. Not for use in metered release systems.

DUET cannot be diluted in water. Dilute this product with light mineral oil if dilution is preferred.

USE INFORMATION

DUET is approved for application as a thermal aerosol and as an Ultra Low Volume (ULV) nonthermal aerosol (cold fog) in mosquito adulticiding programs involving outdoor residential, urban, industrial, and recreational areas where adult mosquitoes are present in annoying numbers, and in vegetation surrounding parks, woodlands, swamps, marshes, overgrown areas and golf courses.

DUET may be applied over crops or to areas favoring drift over crops, including row, tree, fruit, citrus, pasture and other areas where agricultural enterprises take place.

SPRAY DROPLET SIZE DETERMINATION

Ground-based, wide area mosquito abatement application: Spray equipment must be adjusted so that the volume median diameter (VMD) is less than 30 microns (Dv 0.5 < 30 um) and that 90% of the spray is contained in droplets smaller than 50 microns (Dv 0.9 < 50 um). Directions from the equipment manufacturer or vendor, pesticide registrant, or a test facility using a laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra. Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rate(s) are properly calibrated.

Aerial Equipment, wide area mosquito abatement application: Spray equipment must be adjusted so that the volume median diameter produced is less than 60 microns (Dv 0.5 < 60 um) and that 90% of the spray is contained in droplets smaller than 115 microns (Dv 0.9 < 115 um). The effects of flight speed and, for non-rotary atomizers, nozzle angle on the droplet size spectrum must be considered. Directions from the equipment manufacturer or vendor, pesticide registrant, or a test facility using a wind tunnel and laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra. Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rate(s) are properly calibrated.

GROUND ULV APPLICATION

To control Mosquitoes and other listed insects, apply DUET at a flow rate of 2.6 to 7.8 fluid ounces per minute at an average vehicle speed of 10 mph using a swath width of 300 feet for acreage calculations (see chart below). For best results, apply when mosquitoes are most active and meteorological conditions are conducive to keeping the spray cloud close to the ground. Certain mosquito species such as *Aedes aegypti* and *Aedes albopictus*, are most active during the day. Application in calm air conditions is to be avoided. Apply only when ground wind speed is greater than or equal to 1 mph. All types of applications should be conducted at temperatures above 50 °F. Under normal residential conditions a flow rate of 4.8 fluid ounces per minute at an average vehicle speed of 10 mph is recommended. If a different vehicle speed is used, adjust rate accordingly. These rates are equivalent to 0.00024 to 0.00072 pounds of Prallethrin and 0.0012 to 0.0036 pounds of Sumithrin® and Piperonyl Butoxide per acre. Vary flow rate according to vegetation density and mosquito population. Use higher flow rate

in heavy vegetation or when populations are high. DUET may also be diluted with a suitable solvent such as mineral oil and applied by GROUND ULV equipment so long as 1.28 fluid ounces per acre of DUET is not exceeded. Refer to the dilution tables on this label for flow rate calculations for diluted end-use formulations of DUET. Use the following tables to calculate application rates:

Pounds a.i./Acre			DUET	Flow Rates in fluid oz./minute at truck speeds of:			
Prallethrin	Sumithrin®	PBO	Fl.oz./Acre	5 MPH	10 MPH	15 MPH	20 MPH
0.00072	0.0036	0.0036	1.28	3.9	7.8	11.7	15.6
0.00044	0.0022	0.0022	0.79	2.4	4.8	7.1	9.5
0.00036	0.0018	0.0018	0.64	1.9	3.9	5.8	7.8
0.00024	0.0012	0.0012	0.43	1.3	2.6	3.9	5.2

DUET may be applied through truck mounted thermal fogging equipment. Do not exceed the maximum rates listed above. May be applied at speeds of 5 to 20 mph. To reduce oil requirement and sludge buildup in equipment, use a 60-100-second viscosity mineral "fog" oil or other fuel-type oil. Use a clean, well-maintained and properly calibrated fogger. Do not wet foliage since oil base formulations may be phytotoxic.

Urban ULV Mosquito Control: DUET may be applied for control of resting or flying adult mosquitoes in urban and industrial areas such as utility tunnels, pipe chases, underground basements, underground passages, parking decks, open parking garages, abandoned warehouses, crawl spaces, uninhabited buildings, rail yards, waste yards, junkyards, tire dumps, and other areas where adult mosquitoes may be found. Apply using mechanical-foggers, or truck-mounted ULV equipment, or other spray equipment suitable for this application. Apply at rates up to but not exceeding 0.0036 lb of each a.i., Sumithrin and piperonyl butoxide and 0.00072 lbs. prallethrin per acre in a single application or in any 24-hour period.

AERIAL APPLICATION

DUET may be applied at rates of 0.43 to 1.28 fluid ounces of DUET per acre by fixed wing or rotary aircraft equipped with suitable ULV application equipment. Appropriate spray systems include rotary atomizers, flat fan, high pressure, and high pressure impaction nozzles characterized and oriented to achieve the droplet characteristics specified in this label. DUET may also be diluted with a suitable solvent such as mineral oil and applied by aerial ULV equipment so long as 1.28 fluid ounces per acre of DUET is not exceeded. Refer to the dilution tables on this label for flow rate calculations for diluted end-use formulations of DUET. Do not apply by fixed wing aircraft at a height less than 100 feet above the ground or canopy, or by helicopter at a height less than 75 feet above the ground or canopy unless specifically approved by the state or tribe based on public health needs. When making aerial application at an altitude of less than 100 feet, apply only when wind speed at altitude is greater than or equal to 5 mph. When making application at an altitude of 100 feet or greater, apply only when wind speed at altitude is greater than or equal to 3 mph.

DILUTION CALCULATIONS

For a 4% Sumithrin product, dilute 1 gallon DUET with 0.25 gallon oil. Finished spray contains 0.29 lbs Sumithrin & PBO and 0.06 pounds Prallethrin per gallon.

Dosage Description	Pounds a.i./Acre			Fluid oz. Finished spray/Acre	Flow Rates in fluid oz./minute at truck speeds of:			
	Prallethrin	Sumithrin	PBO		5 MPH	10 MPH	15 MPH	20 MPH
High Population	0.00072	0.0036	0.0036	1.61	4.9	9.7	14.6	19.5
Recommended	0.00044	0.0022	0.0022	0.98	3.0	5.9	8.9	11.9
Light Population	0.00036	0.0018	0.0018	0.80	2.4	4.9	7.3	9.7
	0.00024	0.0012	0.0012	0.54	1.6	3.2	4.9	6.5

For a 2.5% Sumithrin product, dilute 1 gallon DUET with 1 gallon oil. Finished spray contains 0.179 lbs Sumithrin & PBO and 0.036 pounds Prallethrin per gallon.

Dosage Description	Pounds a.i./Acre			Fluid oz. Finished spray/Acre	Flow Rates in fluid oz./minute at truck speeds of:			
	Prallethrin	Sumithrin	PBO		5 MPH	10 MPH	15 MPH	20 MPH
High Population	0.00072	0.0036	0.0036	2.57	7.8	15.6	23.4	31.1
Recommended	0.00044	0.0022	0.0022	1.57	4.8	9.6	14.3	19.0
Light Population	0.00036	0.0018	0.0018	1.28	3.9	7.8	11.7	15.6
	0.00024	0.0012	0.0012	0.86	2.6	5.2	7.8	10.4

For a 2% Sumithrin product, dilute 1 gallon DUET with 1.5 gallons oil. Finished spray contains 0.143 lbs Sumithrin & PBO and 0.029 pounds Prallethrin per gallon.

Dosage Description	Pounds a.i./Acre			Fluid oz. Finished spray/Acre	Flow Rates in fluid oz./minute at truck speeds of:			
	Prallethrin	Sumithrin	PBO		5 MPH	10 MPH	15 MPH	20 MPH
High Population	0.00072	0.0036	0.0036	3.21	9.7	19.5	29.2	38.9
Recommended	0.00044	0.0022	0.0022	1.96	5.9	11.9	17.8	23.8
Light Population	0.00036	0.0018	0.0018	1.61	4.9	9.7	14.6	19.5
	0.00024	0.0012	0.0012	1.07	3.2	6.5	9.7	13.0

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

PESTICIDE STORAGE: Store in a cool, dry place. Keep container closed.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL:

[For 2.5-gallon Jugs]: Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with mineral oil and recap. Shake for 10 seconds. Pour rinsate into application equipment or a rinse tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

[For refillable drums & totes]: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into rinsate collection system. Repeat this rinsing procedure two more times. Offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

FOR MORE INFORMATION CALL 1-800-323-5727

NOTICE: To the extent provided by law, Seller makes no warranty, expressed or implied, concerning the use of this product other than as indicated on the label. Buyer assumes all risk of use and/or handling of this material when use and/or handling is contrary to label instructions.

Sumithrin® - Registered Trademark of Sumitomo Chemical Company, Ltd.

Duet® - Registered Trademark of Clarke Mosquito Control Products, Inc.

MANUFACTURED FOR:
CLARKE MOSQUITO CONTROL PRODUCTS, INC.
159 N. GARDEN AVENUE
ROSELLE, ILLINOIS 60172

AVAILABLE PACKAGING: 2.5 GAL, 30 GAL, 55 GAL, 275 GAL TOTE

LOT NO.: Marked on Container Label

EPA REG. NO.: 1021-1795-8329

EPA EST. NO.: _____
AL0477

ENVY™

HERBICIDE

AVOID CONTACT OF HERBICIDE WITH FOLIAGE, GREEN STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS (EXCEPT AS SPECIFIED FOR INDIVIDUAL ROUNDUP READY® CROPS) DESIRABLE PLANTS AND TREES, BECAUSE SEVERE INJURY OR DESTRUCTION MAY RESULT.

Not all products specified on this label are registered for use in California. Check the registration status of each product in California before using.

ACTIVE INGREDIENT:	
*Glyphosate, N-(phosphonomethyl)glycine, in the form of its isopropylamine salt	41.00%
OTHER INGREDIENTS:	59.00%
TOTAL:	**100.00%**

***Contains 480 grams per liter or 4 pounds per U.S. gallon of the active ingredient glyphosate, in the form of its isopropylamine salt. Equivalent to 356 grams per liter or 3 pounds per U.S. gallon of the acid, glyphosate.**

KEEP OUT OF REACH OF CHILDREN

CAUTION

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you **DO NOT** understand the label, find someone to explain it to you in detail.)

Read the entire label before using this product. Use only according to label instructions.

Read the " CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY " statement at the end of the label before buying or using. If terms are not acceptable, return at once unopened.

See Label Booklet For Additional Precautionary Statements and Directions for Use.

EPA Reg. No.: 89168-17-89391



Distributed By:
INNVICTIS CROP CARE, LLC
4850 Hahns Peak Drive, Suite 200
Loveland, CO 80538

121012RD010815

SPECIMEN

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PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION

Harmful if inhaled. Causes moderate eye irritation. Avoid breathing spray mist. Avoid contact with eyes or clothing.

FIRST AID	
IF IN EYES:	• Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. • Remove contact lenses if present after the first 5 minutes then continue rinsing eye. • Call a Poison Control Center or doctor for treatment advice.
IF INHALED:	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. • Call a Poison Control Center or doctor for further treatment advice.
IF SWALLOWED:	• Call a Poison Control Center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • **DO NOT** induce vomiting unless told to by a Poison Control Center or doctor. • **DO NOT** give anything to an unconscious person.
IF ON SKIN OR CLOTHING:	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a Poison Control Center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. This product is identified as *ENVY*™, EPA Registration No. 89168-17-89391. You may also contact **1-800-222-1222,** day or night, for emergency medical treatment information.

SAMPLE

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear: long-sleeved shirt and long pants, shoes plus socks, and protective eyewear. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

USER SAFETY RECOMMENDATIONS

Users Should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets **inside**. Then wash thoroughly and put on clean clothing. If pesticide gets on skin, wash immediately with soap and water.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Domestic Animals: This product is considered to be relatively non-toxic to dogs and other domestic animals; however, ingestion of this product or large amounts of freshly sprayed vegetation may result in temporary gastrointestinal irritation (vomiting, diarrhea, colic, etc.). If such symptoms are observed, provide the animal with plenty of fluids to prevent dehydration. Call a veterinarian if symptoms persist for more than 24 hours.

Environmental Hazards

DO NOT apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. **DO NOT** contaminate water when cleaning equipment or disposing of equipment washwaters.

Physical or Chemical Hazards

Spray solutions of this product should be mixed, stored and applied using only stainless steel, aluminum, fiberglass, plastic or plastic-lined steel containers.

DO NOT MIX, STORE OR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS. This product or spray solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling. This product can only be used in accordance with the Directions for Use on this label or in separately published Supplemental Labeling.

ENDANGERED SPECIES PROTECTION REQUIREMENTS: This product may have effects on federally listed threatened or endangered species or their critical habitat in some locations. When using this product, you must follow the measures contained in the Endangered Species Protection Bulletin for the county or parish in which you are applying the pesticide. To determine whether your county or parish has a Bulletin, and to obtain that Bulletin, consult http://www.epa.gov/espp/ or call **1-800-447-3813** no more than 6 months before using this product. Applicators must use Bulletins that are in effect in the month in which the pesticide will be applied. New Bulletins will generally be available from the above sources 6 months prior to their effective dates.

DO NOT apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulations.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labelling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

DO NOT enter or allow worker entry into treated areas during the restricted entry interval (REI) of 4 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is: coveralls, chemical resistant gloves greater than 14 mils in thickness composed of materials such as butyl rubber, natural rubber, neoprene rubber, or nitrile rubber, shoes plus socks and protective eyewear.

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses.

Keep people and pets off treated areas until spray solution has dried.

STORAGE AND DISPOSAL

DO NOT contaminate water, foodstuffs, feed or seed by storage or disposal.

PESTICIDE STORAGE: Keep container closed to prevent spills and contamination.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, state, or local procedures. Emptied container retains vapor and product residue. Observe all labeled safeguards until container is cleaned, reconditioned, or destroyed.

CONTAINER DISPOSAL: Non-refillable containers. **DO NOT** reuse or refill this container. Offer for recycling, if available. Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

Non-refillable container less than or equal to 5 gallons: Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Non-refillable container greater than 5 gallons: Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

Pressure rinse as follows (all sizes): Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Refillable container (250 gallon & bulk): Refill this container with pesticide only. **DO NOT** reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

To clean the container before final disposal, empty the remaining contents from the container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing process two more times.

SAMPLE

USE INFORMATION

This product is a postemergence, systemic herbicide with no soil residual activity. It is generally non-selective and gives broad-spectrum control of many annual weeds, perennial weeds, woody brush and trees. It is formulated as a water-soluble liquid. It may be applied through most standard industrial or field sprayers after dilution and thorough mixing with water or other carriers according to label instructions.

Time to Symptoms
This product moves through the plant from the point of foliage contact to and into the root system. Visible effects are a gradual wilting and yellowing of the plant, which advances to complete browning of above ground growth and deterioration of underground plant parts. Effects are visible on most annual weeds within 2 to 4 days, but on most perennial weeds effects may not be visible for 7 days or more. Extremely cool or cloudy weather following treatment may slow activity of this product and delay development of visual symptoms.

Stage of Weeds
Annual weeds are easiest to control when they are small. Best control of most perennial weeds is obtained when treatment is made at late growth stages approaching maturity. Refer to the "ANNUAL WEEDS", "PERENNIAL WEEDS" and "WOODY BRUSH AND TREES RATE SECTIONS" for specific weed directions.
Always use the higher product application rate within the specified range when weed growth is heavy or dense or when weeds are growing in an undisturbed (non-cultivated) area.
Reduced weed control may result from treating weeds with disease or insect damage, weeds heavily covered with dust, or weeds under poor growing conditions.

Cultural Considerations
Reduced control may result when applications are made to annual or perennial weeds that have been mowed, grazed, or cut, and have not been allowed to regrow to the specified stage for treatment.

Rainfastness
Heavy rainfall soon after application may wash this product off of the foliage and a repeat application may be required for adequate control.

Spray Coverage
For best results, spray coverage should be uniform and complete. **DO NOT** spray foliage to the point of runoff.

Mode of Action
The active ingredient in this product inhibits an enzyme found only in plants and microorganisms that is essential to the formation of specific amino acids.

No Soil Activity
Weeds must be emerged at the time of application to be controlled by this product. Weeds germinating from seed after application will not be controlled. Unemerged plants arising from unattached underground rhizomes or root stocks of perennials will not be affected by this herbicide and will continue to grow.

Biological Degradation
Degradation of this product is primarily a biological process carried out by soil microbes.

Annual Maximum Application Rates
The maximum application or use rates stated throughout this product's labeling are given in units of volume (fluid ounces, pints, or quarts) of this product per acre. However, the maximum allowed application rates apply to this product combined with the use of any and all other herbicides containing the active ingredient glyphosate, whether applied separately or as text mixtures, on a basis of total pounds of glyphosate (acid equivalents) per acre. If more than one glyphosate-containing product is applied to the same site within the same year, you must ensure that the total use of glyphosate does not exceed the maximum allowed. See the "INGREDIENTS" section of this label for necessary product information.
Except as otherwise specified in a crop section of this label, the combined total of all treatments must not exceed 8 quarts of this product (6 pounds of glyphosate acid) per acre per year. For applications in non-crop sites or in tree, vine, or shrub crops, the combined total of all treatments must not exceed 10.6 quarts of this product (8 pounds of glyphosate acid) per acre per year.

ATTENTION

AVOID CONTACT OF HERBICIDE WITH FOLIAGE, GREEN STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES, BECAUSE SEVERE INJURY OR DESTRUCTION MAY RESULT.

AVOID DRIFT. EXTREME CARE MUST BE USED WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS.

DO NOT allow the herbicide solution to mist, drip, drift or splash onto desirable vegetation since minute quantities of this product can cause severe damage or destruction to the crop, plants or other areas on which treatment was not intended. The likelihood of injury occurring from the use of this product increases when winds are gusty, as wind velocity increases, when wind direction is constantly changing or when there are other meteorological conditions that favor spray drift. When spraying, avoid combinations of pressure and nozzle type that will result in splatter or fine particles (mist) that are likely to drift. AVOID APPLYING AT EXCESSIVE SPEED OR PRESSURE.

NOTE: Use of this product in any manner not consistent with this label may result in injury to persons, animals or crops, or have other unintended consequences.

WEED RESISTANCE MANAGEMENT

Glyphosate, the active ingredient in this product, is a Group 9 herbicide based on the mode of action classification system of the Weed Science Society of America. Any weed population may contain plants naturally resistant to Group 9 herbicides. Weed species resistant to Group 9 herbicides may be effectively managed utilizing another herbicide from a different Group or by using other cultural or mechanical practices.

Weed Management Directions
To minimize the occurrence of glyphosate-resistant biotypes observe the following weed management directions:
- Scout your fields before and after herbicide applications.
- Start with a clean field, using either a burndown herbicide application or tillage.
- Control weeds early when they are relatively small.
- Add other herbicides (e.g. a selective and/or a residual herbicide) and cultural practices (e.g. tillage or crop rotation) where appropriate.
- One method for adding other herbicides into a continuous Roundup Ready system is to rotate to other Roundup Ready crops.
- Utilize the specified label rate for the most difficult to control weed in your field. Avoid tank- mixtures with other herbicides that reduce this product's efficacy (through antagonism), or tank mixtures that encourage application rates of this product below the label directions.
- Control weed escapes and prevent weeds from setting seeds.
- Clean equipment before moving from field to field to minimize the spread of weed seed or plant parts.
- Use new commercial seed that is as free of weed seed as possible.
- Report any incidence of repeated non-performance of this product on a particular weed to your county extension agent.

Management Directions For Glyphosate Resistant Biotypes
NOTE: Appropriate testing is critical in order to determine if a weed is resistant to glyphosate. Contact your local county extension agent or visit the following websites www.weedresistancemanagement.com or www.weedscience.org. For more information see the "ANNUAL WEEDS" and "PERENNIAL WEEDS RATE SECTION" of this label.
Since the occurrence of new glyphosate resistant weeds cannot be determined until after product use and scientific confirmation, Innvictis Crop Care, LLC is not responsible for any losses that may result from the failure of this product to control glyphosate resistant weeds biotypes.
The following good agronomic practices are specified to reduce the spread of confirmed glyphosate resistant biotypes:
- If a naturally occurring resistant biotype is present in your field, this product should be tank-mixed or applied sequentially with an appropriately labeled herbicide with a different mode of action to achieve control.
- Cultural and mechanical control practices (e.g. crop rotation or tillage) may also be used as appropriate.
- One method for adding other herbicides into a continuous Roundup Ready system is to rotate to other Roundup Ready crops.
- Scout treated fields after herbicide applications and control escaping weeds including resistant biotypes before they set seed.
- Thoroughly clean equipment before leaving fields known to contain resistant biotypes.

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MIXING

Spray solutions of this product should be mixed, stored and applied using only clean stainless steel, aluminum, fiberglass, plastic or plastic-lined steel containers.

DO NOT MIX, STORE OR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS.

Eliminate any risk of siphoning the contents of the tank back into the carrier source while mixing. Use approved anti-back-siphoning devices where required by State or local regulations.

Clean sprayer parts immediately after using this product by thoroughly flushing with water.

NOTE: PRODUCT PERFORMANCE MAY BE SIGNIFICANTLY REDUCED IF WATER CONTAINING SOIL SEDIMENT IS USED AS CARRIER. **DO NOT** MIX THIS PRODUCT WITH WATER FROM PONDS AND DITCHES THAT IS VISIBLY MUDDY OR MURKY.

Mixing with Water

This product mixes readily with water. Mix spray solutions of this product as follows: Begin filling the mixing tank or spray tank with clean water. Add the specified amount of this product near the end of the filling process and mix gently. Use caution to avoid siphoning back into the carrier source. During mixing, foaming of the spray solution may occur. To prevent or minimize foaming, mix gently, terminate by-pass and return lines at the bottom of the tank and, if necessary, use an anti-foam or defoaming agent.

Tank Mixtures

This product does not provide residual weed control. This product may be tank-mixed with other herbicides to provide residual weed control, a broader weed control spectrum or an alternate mode of action. Read and follow all label directions of all products in the tank mixture.

To the extent consistent with applicable law, buyer and all users are responsible for all loss or damage in connection with the use or handling of mixtures of this product with herbicides or other materials that are not expressly specified in this labeling, or in separate supplemental labeling for this product.

Tank mixtures with other herbicides, insecticides, fungicides, micronutrients or foliar fertilizers may result in reduced weed control or crop injury and are **NOT** specified for applications of this product unless otherwise noted in this product label, or in separate supplemental labeling.

When a tank mixture with a generic active ingredient, such as diuron, atrazine, 2,4-D or dicamba, is specified in this label, the user is responsible for ensuring that the specific application being made is included on the label of the specific product being used in the tank mixture.

Refer to all individual product labels, supplemental labeling and fact sheets for all products in the tank mixture, and observe all precautions and limitations on the label, including application timing restrictions, soil restrictions, minimum re-cropping interval and rotational guidelines. Use according to the most restrictive label requirements.

Always predetermine the compatibility of all tank-mix products together in the carrier by mixing small proportional quantities in advance. For best results, it is specified that tank mixtures with this product be applied at a minimum spray volume rate of 10 gallons per acre.

Tank Mixing Procedure

Prepare tank mixtures of this product as follows:

1. Place a 20- to 35-mesh screen or wetting basket over the filling port of the tank.
2. Through the screen, fill the tank one-half full with water and start gentle agitation.
3. If ammonium sulfate is to be used, add it slowly through the screen into the tank, and continue adding water into the tank through the screen. If dry ammonium sulfate is being used, ensure that it is completely dissolved in the tank before adding other products.
4. If a wettable powder is used, make a slurry with the water, and add it SLOWLY through the screen into the tank while continuing gentle agitation.
5. If a flowable formulation is used, premix one part flowable with one part water, and add the diluted mixture SLOWLY through the screen into the tank while continuing gentle agitation.
6. If an emulsifiable concentrate formulation is used, premix one part emulsifiable concentrate with two parts water, and add the diluted mixture slowly through the screen into the tank while continuing gentle agitation.
7. Continue filling the tank with water through the screen and add the required amount of this product near the end of the filling process.
8. If a nonionic surfactant is used, add it to the tank before completing the filling process.
9. Add individual formulations to the spray tank as follows: wettable powder, flowable, emulsifiable concentrate, drift control additive, water-soluble liquids (this product) followed by surfactant.

Maintain gentle agitation at all times until the contents of the tank are sprayed out. If the spray mixture is allowed to settle, thorough agitation is required to resuspend the mixture before spraying.

Keep by-pass and return lines on or near the bottom of the tank to minimize foaming. Screen size in nozzle or line strainers should be no finer than 50 mesh.

Mixing for Hand-Held Sprayers

Prepare the desired spray volume by mixing the amount of this product as indicated in the following table in water:

SPRAY SOLUTION	AMOUNT OF *ENVY*™					
DESIRED VOLUME	**0.5%**	**1%**	**1.5%**	**2%**	**5%**	**10%**
1 gal	0.7 oz	1.3 oz	2 oz	2.7 oz	6.5 oz	13 oz
25 gal	1 pt	1 qt	1.5 qt	2qt	5qt	10 qt
100 gal	2 qt	1 gal	1.5 gal	2 gal	5 gal	10 gal
2 tablespoons = 1 fluid ounce						

For use in backpack sprayers, it is specified that the appropriate amount of this product be mixed with water in a larger container and then fill the sprayer with the mixed solution.

Surfactants

Nonionic surfactants (NIS) or wetting agents that have at least 70 percent active ingredient and are labeled for use with herbicides may be added to the spray solution, unless otherwise directed. **DO NOT** reduce rates of this herbicide when adding surfactants. Read and carefully observe cautionary statements and other information appearing on the additives label.

Ammonium Sulfate

The addition of 1 to 2 percent dry ammonium sulfate by weight or 8.5 to 17 pounds per 100 gallons of water may increase the performance of this product on annual and perennial weeds, particularly under hard water conditions, drought conditions or when tank mixed with certain residual herbicides. The equivalent rate of ammonium sulfate in a liquid formulation may also be used. Ensure that dry ammonium sulfate is completely dissolved in the spray tank before adding herbicides. Thoroughly rinse the spray system with clean water after use to reduce corrosion.

NOTE: When using ammonium sulfate, apply this product at rates specified in this label. Lower rates will result in reduced performance.

Colorants or Dyes

Colorants or marking dyes may be added to spray solutions of this product; however, they can reduce performance. Use colorants or dyes according to the manufacturer's recommendations.

Drift Reduction Additives

Drift reduction additives may be used with all equipment types, except wiper applicators, sponge bars and Controlled Droplet Applicator (CDA) equipment. When a drift reduction additive is used, read and carefully observe the precautions, limitations, and all other information appearing on the additive label. Use of drift reduction additives can affect spray coverage, which can reduce product performance.

APPLICATION EQUIPMENT AND TECHNIQUES

DO NOT apply this product through any type of irrigation system. This product may be applied with the following application equipment:

Aerial--Fixed wing and helicopter.

Ground Broadcast Spray--Boom or boomless systems, pull-type sprayers, floaters, pick-up sprayers, spray coupes and other ground broadcast equipment.

PROOF

Hand-Held or Backpack Spray Equipment--Backpack sprayers, pump-up pressure sprayers, handguns, handwands, mistblowers*, lances and other hand-held and motorized spray equipment used to direct the spray onto weed foliage.

*This product is not registered in California or Arizona for use in mistblowers.

Selective Equipment-- Shielded and hooded sprayers, wiper applicators and sponge bars.

Injection Systems--Aerial or ground injection sprayers.

Controlled Droplet Applicator (CDA)--Hand-held or boom-mounted applicators that produce a spray consisting of a narrow range of droplet sizes.
APPLY THESE SPRAY SOLUTIONS IN PROPERLY MAINTAINED AND CALIBRATED EQUIPMENT CAPABLE OF DELIVERING THE DESIRED VOLUMES.

AERIAL EQUIPMENT

DO NOT APPLY THIS PRODUCT USING AERIAL SPRAY EQUIPMENT EXCEPT UNDER CONDITIONS SPECIFIED IN THIS LABEL.

All labeled treatments may be made by aerial equipment where appropriate, provided that the applicator complies with the precautions and restrictions specified on this product's labeling. Use the specified rates of this herbicide in 3 to 15 gallons of water per acre unless otherwise specified on this label. Unless otherwise specified, **DO NOT** exceed 2 quart per acre. Refer to the individual use area sections of this label for further instructions.

This product, when tank mixed with dicamba, may not be applied by air in California. When tank-mixing this product with 2,4-D, only 2,4-D amine formulations may be used for aerial application in California. Tank mixtures with 2,4-D amine formulations may be applied by air in California for fallow and reduced tillage systems, and for alfalfa and pasture renovation applications only.

Ensure uniform application - to avoid streaked, uneven or overlapped application, use appropriate marking devices.

Aircraft Maintenance
Thoroughly wash aircraft, especially landing gear, after each day of spraying to remove residues of this product accumulated during spraying or from spills. PROLONGED EXPOSURE OF THIS PRODUCT TO UNCOATED STEEL SURFACES MAY RESULT IN CORROSION AND POSSIBLE FAILURE OF THE PART. LANDING GEAR IS MOST SUSCEPTIBLE. Maintaining an organic coating (paint) that meets aerospace specification MIL-C-38413 may help prevent corrosion.

Aerial Spray Drift Management
The following drift management requirements must be followed to avoid off-target movement during aerial applications to agricultural field crops.

1. The distance of the outermost nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
2. Nozzles must always point backward, parallel with the air stream and never be pointed downwards more than 45 degrees. Comply with all State regulations where applicable.

Importance of Droplet Size
The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (read the following sections on "Wind", "Temperature and Humidity", and "Temperature Inversions").

Controlling Droplet Size

- **Volume:** Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with the higher rated flows produce larger droplets.
- **Pressure:** Use the lower spray pressures specified for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. When higher flow rates are needed, use higher flow rate nozzles instead of increasing spray pressure.
- **Number of nozzles:** Use the minimum number of nozzles that will provide uniform coverage.
- **Nozzle orientation:** Orienting nozzles so that the spray is released backwards, parallel to the airstream, will produce larger droplets than other orientations. Significant deflection from the horizontal will reduce droplet size and increase drift potential.
- **Nozzle type:** Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce larger droplets than other nozzle types.
- **Boom length:** For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.
- **Application height:** Applications must not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces the exposure of the droplets to evaporation and wind.

Swath Adjustment
When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind speed, smaller droplets, etc.).

Wind
Drift potential is lowest between wind speeds of 2 to 10 mph. However, many factors, including droplet size and equipment type, determine drift potential at any given wind speed. Application must be avoided when wind speeds are below 2 mph due to variable wind direction and high inversion potential.
NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect drift.

Temperature and Humidity
When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

Temperature Inversions
Applications must not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, the movement of smoke produced by a ground source or an aircraft smoke generator can also identify temperature inversions. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

Sensitive Areas
Apply this product only when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive areas).
Avoid direct application to any body of water.

PROPOSED

FOR AERIAL APPLICATION IN CALIFORNIA ONLY

Extreme care must be exercised to avoid contact of spray with foliage, green stems, or fruit of desirable crops, plants, trees, or other desirable vegetation since severe damage or destruction may result.

NONCROP SITES

When applied as directed and under the conditions described in the "Weeds Controlled" section of this label booklet for this product, this herbicide will control or partially control the labeled weeds growing in the following industrial, recreational and public areas, including airports, ditch banks, dry ditches, dry canals, fencerows, golf courses, highways, industrial plant sites, lumber yards, manufacturing sites, office complexes, parking areas, parks, petroleum tank farms and pumping installations, pipelines, power and telephone rights-of-way, railroads, roadsides (guardrails, shoulders), schools, storage areas, utility substances, warehouse areas and other public sites.

AVOID DRIFT – **DO NOT** APPLY WHEN WINDS ARE GUSTY OR UNDER ANY OTHER CONDITION WHICH WILL ALLOW DRIFT. DRIFT MAY CAUSE DAMAGE TO ANY VEGETATION CONTACTED TO WHICH TREATMENT IS NOT INTENDED. TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, APPROPRIATE BUFFER ZONES MUST BE MAINTAINED. Use the following guidelines when aerial applications are made near crops or desirable perennial vegetation after bud break and before total leaf drop, and/or near other desirable vegetation or annual crops.

1. **DO NOT** apply within 100 feet of all desirable vegetation or crop(s).
2. If wind up to 5 miles per hour is blowing toward desirable vegetation or crop(s), **DO NOT** apply within 500 feet of the desirable vegetation or crop(s).
3. Winds blowing from 5 to 10 miles per hour toward desirable vegetation or crop(s) may require buffer zones in excess of 500 feet.
4. **DO NOT** apply when winds are in excess of 10 miles per hour or when inversion conditions exist.
5. Apply by air only to nonresidential areas.

When applied as specified under the conditions described, this product controls annual and perennial weeds as listed in the label booklet.

When tank mixing this product with 2,4-D, only 2,4-D amine formulations may be used for aerial applications in California. Tank mixtures with 2,4-D amine formulations may be applied by air in California for fallow and reduced tillage systems, and alfalfa and pasture renovation applications only. This product, when tank mixed with dicamba, may not be applied by air in California.

Coarse sprays are less likely to drift; therefore, **DO NOT** use nozzles or nozzle configurations which dispense spray as fine droplets. **DO NOT** angle nozzles forward into the airstream and **DO NOT** increase spray volume by increasing nozzle pressure above the manufacturer's recommendation.

Drift control additives may be used. When a drift control additive is used, read and carefully observe the cautionary statements and all other information appearing on the additive label.
Ensure uniform application --to avoid streaking and uneven or overlapped application, use appropriate marking devices.
Thoroughly wash aircraft, especially landing gear, after each day of spraying to remove resides of this product accumulated during spraying or from spills. PROLONGED EXPOSURE OF THIS PRODUCT TO UNCOATED STEEL SURFACES MAY RESULT IN CORROSION AND POSSIBLE FAILURE OF THE PART. LANDING GEAR IS MOST SUSCEPTIBLE. Maintaining an organic coating (paint) that meets aerospace specification MIL-C-38413 may prevent corrosion.

For Aerial Application in Fresno County, California Only

From February 15 through March 31 only. For aerial application outside of these dates, refer to the "FOR AERIAL APPLICATION IN CALIFORNIA ONLY" section printed above.

Applicable Area

This supplement only applies to the area contained inside the following boundaries within Fresno County, California.

NORTH: Fresno County line	**SOUTH:** Fresno County line
EAST: State Highway 99	**WEST:** Fresno County line

USE INFORMATION

Always read and follow the label directions and precautionary statements for all products used in the aerial application.

Observe the following directions to minimize off-site movement during aerial application of this herbicide. Minimization of off-site movement is the responsibility of the grower, Pest Control Advisor, and aerial applicator.

Written Recommendations

A written recommendation MUST be submitted by or on behalf of the applicator to the Fresno County Agricultural Commissioner 24 hours prior to the application. This written recommendation MUST state the proximity of surrounding crops, and that conditions of each manufacturer's applicable product label(s) and this label have been satisfied.

Aerial Applicator Training and Equipment

Aerial application of this herbicide is limited to pilots who have successfully completed a Fresno County Agricultural Commissioner and California Department of Pesticide Regulation approved training program for aerial application of herbicides. All aircraft must be inspected, critiqued in flight, and certified at a Fresno County Agricultural Commissioner approved fly-in. Test and calibrate spray equipment at intervals sufficient to insure that proper rates of herbicides and adjuvants are being applied during commercial use. Applicator must document such calibrations and testing. Demonstration of performance at Fresno County Agricultural Commissioner approved fly-in constitutes such documentation. Other written records showing calculations and measurements of flight and spray parameters acceptable to the Fresno County Agricultural Commissioner.

Application at night - **DO NOT** apply this product by air earlier than 30 minutes prior to sunrise and/or later than 30 minutes after sunset without prior permission from the Fresno County Agricultural Commissioner.

Read the "CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY" section in the label booklet before using this product.

FOR AERIAL APPLICATION IN ARKANSAS ONLY
DIRECTIONS FOR USE

AVOID DRIFT. **DO NOT** APPLY INTO STILL AIR WHERE THERE IS A TEMPERATURE INVERSION LAYER LOW ENOUGH FOR FINE SPRAY PARTICLES TO BECOME SUSPENDED AND MOVE OUTSIDE THE TARGET AREA WHEN THE INVERSION LAYER MOVES. **DO NOT** APPLY WHEN WINDS ARE GUSTY OR UNDER ANY OTHER CONDITION THAT FAVORS DRIFT. DRIFT IS LIKELY TO CAUSE DAMAGE TO ANY VEGETATION CONTACTED. TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, APPROPRIATE BUFFER ZONES MUST BE MAINTAINED.

Use the specified rate of this product in 3 to 15 gallons of water per acre.
Use sufficient carrier volume and appropriate equipment set-up to form droplets large enough to avoid drift potential. Coarse droplets in the 300 to 500 (VMD) micron range are specified. Applications should typically be made with the nozzle release point at 8 to 15 feet above the top of the target plants unless a greater height is required for aircraft safety.

The distance of the outermost nozzles on the boom must not exceed 75 percent of the length of the wingspan or rotor. In many cases, reducing this distance to 65 percent of the length of the wingspan or rotor will improve drift control without affecting the swath width.

Nozzles must always discharge backward parallel with the air stream and never discharge downwards more than 45 degrees on fixed wing aircraft or forward of the prevailing airflow on rotary winged aircraft. Avoid the use of nozzles with wide-angle discharge.
DO NOT apply this product when winds are in excess of 10 mph.
DO NOT apply when there is a low-level inversion where fine spray particles could be suspended in still air and move outside the target area when the inversion layer moves. These conditions may occur when wind speeds are less than 2 mph.

SPECIMEN

Use the following guidelines when applications are made near crops or other desirable vegetation:

1. **DO NOT** apply within 100 feet of any desirable vegetation or crops.
2. If wind up to 5 mph is blowing toward desirable vegetation or crops, **DO NOT** apply within 500 feet upwind of the desirable vegetation or crops.
3. Winds blowing from 5 to 10 mph toward desirable vegetation or crops will likely require buffer zones in excess of 500 feet.

Ground Broadcast Equipment

Apply the product rates specified in this label in 3 to 40 gallons of water per acre as a broadcast spray unless otherwise specified. As density of weeds increases, spray volume should be increased within the specified range to ensure complete coverage. Carefully select proper nozzles to avoid generating a fine mist. For best results with ground application equipment, use flat spray nozzles. Check spray pattern for uniform distribution.

Hand-Held or Backpack Equipment

Apply to foliage of vegetation to be controlled on a spray-to-wet basis; **DO NOT** spray to the point of run-off. Spray coverage should be uniform and complete. Use coarse sprays only. For specific rates and timing, refer to the "ANNUAL WEEDS -- HAND-HELD OR BACKPACK EQUIPMENT" section of this product label.

For low-volume directed spray applications, spray coverage should be uniform with at least 50 percent of the foliage contacted. Coverage of the top one-half of the plant is important for best results. To ensure adequate spray coverage, spray both sides of large or tall woody brush and trees, when foliage is thick and dense, or where there are multiple sprouts.

Selective Equipment

This product may be diluted in water and applied through shielded sprayers, hooded sprayers, wiper applicators or sponge bars to weeds growing in any non-crop site specified on this label.

In cropping systems, hooded sprayers, shielded sprayers, and wipers may be used in row middles (in between rows of crop plants), and wipers may be used over-the-top of crops only when specified in this product's labeling. Such equipment must be capable of preventing all crop contact with the herbicide solutions and operated without leakage of spray mists or dripping onto crop.

AVOID CONTACT OF HERBICIDE WITH DESIRABLE VEGETATION

Contact of this product with desirable vegetation may result in unwanted plant damage or destruction. Crop injury may occur when the foliage of treated weeds comes into contact with leaves of the crop. **DO NOT** apply this product when crop leaves are growing in direct contact with weeds to be treated. Droplets, mist, foam or splatter of the herbicide solution settling onto desirable vegetation may result in discoloration, stunting or destruction.

Better results may be obtained when more of the weed is exposed to the herbicide solution. Weeds not contacted by the herbicide solution will not be affected. This may occur in dense clumps, severe infestations or when the height of the weeds varies so that not all weeds are contacted. In these instances, repeat treatment may be necessary.

Shielded and Hooded Sprayers

When applied as directed under conditions described for shielded applicators, this product will control those weeds listed in the "ANNUAL WEEDS RATE SECTION" and "PERENNIAL WEEDS RATE SECTION" of this label. Use the following equation to convert from a broadcast rate per acre to a band rate per acre.

$$\frac{\text{Band width in inches}}{\text{Row width in inches}} \times \text{Herbicide Broadcast RATE per acre} = \text{Herbicide Band RATE per acre}$$

$$\frac{\text{Band width in inches}}{\text{Row width in inches}} \times \text{Broadcast VOLUME of solution per acre} = \text{Band VOLUME of solution per acre}$$

A hooded sprayer is a type of shielded applicator where the spray pattern is fully enclosed including top, sides, front and back, thereby shielding the crop from the spray solution. Adjust the shields on these sprayers to protect desirable vegetation.

When applying to crops grown on raised beds, ensure that the hood is capable of completely enclosing the spray pattern. If necessary, extend the front and rear flaps of the hooded applicator downward to reach the ground in deep furrows.

EXTREME CARE MUST BE TAKEN TO AVOID CONTACT OF HERBICIDE WITH DESIRABLE VEGETATION.

This equipment must be configured and operated in a manner that minimizes bouncing and avoids raising the hoods up off the ground at any time. If the hood is raised, spray particles may escape and come into contact with the crop, causing damage or destruction of the crop. Avoid operating this equipment on rough or sloping terrain where the spray hoods might be raised up off the ground surface.

Use hoods designed to minimize excessive dripping or run-off down the insides of the hoods. A single, low pressure low-drift flat-fan nozzle with an 80 to 95 degree spray angle positioned at the top center of the hood is specified. Spray volume should be 20-30 gallons per acre.

These procedures will reduce the potential for crop injury:

- Spray hoods must be operated on the ground or skimming across the ground surface.
- Leave at least an 8-inch untreated strip over the drill row. (For example, if the crop row width is 38 inches, the maximum width of the spray hood should be 30 inches.)
- Operate at ground speeds of no greater than 5 miles per hour to avoid bouncing of the spray hoods.
- Apply when wind speeds are 10 miles per hour or less.
- Use low-drift nozzles that provide uniform coverage within the treated area.

Crop injury may occur when foliage of treated weeds comes into direct contact with leaves of the crop. **DO NOT** apply this product when leaves of the crop are growing in direct contact with weeds to be treated. Droplets, mist, foam or splatter of the herbicide solution settling onto desirable vegetation may result in discoloration, stunting or destruction.

Wiper Applicators

Wiper applicators are devices that physically wipe appropriate amounts of this product directly onto the weed. Equipment must be designed, maintained and operated to prevent the herbicide solution from contacting desirable vegetation.

Application equipment used over the top of desirable vegetation should be adjusted so that the wiper contact point is at least 2 inches above the desirable vegetation. Better results may be obtained when more of the weed is exposed to the herbicide solution. Weeds should be a minimum of 6 inches above the desirable vegetation. Adjust height of applicator to ensure adequate contact with weeds. Weeds not contacted by the herbicide solution will not be affected. Poor contact may occur when weeds are growing in dense clumps, in severe weed infestations or when weed height varies dramatically. In these instances, repeat treatments may be necessary.

Operate this equipment at ground speeds no greater than 5 miles per hour. Performance may be improved by reducing speed in areas of heavy weed infestations to provide adequate wiper saturation with the herbicide solution. Better results may be obtained when two applications are made in opposite directions.

Droplets, mist, foam or splatter of the herbicide solution settling onto desirable vegetation may result in discoloration, stunting or destruction. Avoid leakage or dripping onto desirable vegetation. Keep wiping surfaces clean. Be aware that on sloping ground the herbicide solution may migrate, causing dripping on the lower end and drying of the wicks on the upper end of the wiper applicator.

DO NOT use wiper equipment when weeds are wet.

Mix only the amount of this product to be used during a 1-day period, as reduced product performance may result from use of solutions held in storage. Clean wiper parts immediately after using this product by thoroughly flushing with water.

DO NOT add surfactant to the herbicide solution.

For Rope or Sponge Wick Applicators: Use solutions ranging from 33 to 75 percent of this product in water.

For Panel Applicators: Use solutions ranging from 33 to 100 percent of this product in water.

Injection Systems
This product may be used in aerial or ground injection spray systems. It may be used as a liquid concentrate or diluted prior to injecting into the spray stream. **DO NOT** mix this product with the concentrate of other products for use in injection systems.

CDA Equipment
The rate of this product applied per acre by vehicle-mounted controlled droplet applicator (CDA) equipment must not be less than the amount specified in this label when applied by conventional broadcast equipment. For vehicle-mounted CDA equipment, apply in 2 to 15 gallons of water per acre.

For control of annual weeds with hand-held CDA units, apply a 20 percent solution of this product at a flow rate of 2 fluid ounces per minute and a walking speed of 1.5 mph (1 quart per acre). For the control of perennial weeds, apply a 20 to 40 percent solution of this product at a flow rate of 2 fluid ounces per minute and a walking speed of 0.75 mph (2 to 4 quarts per acre).

Controlled droplet applicators produce a spray pattern that is not easily visible. Extreme care must be taken to avoid spray or drift onto the foliage or any other green tissue of desirable vegetation, as damage or destruction of the plant may result.

ANNUAL AND PERENNIAL CROPS (ALPHABETICAL)

NOTE: THIS SECTION GIVES DIRECTIONS THAT APPLY TO ALL CROPS LISTED ALPHABETICALLY IN THE SECTIONS THAT FOLLOW. SEE THE INDIVIDUAL CROP SECTIONS FOR SPECIFIC INSTRUCTIONS, PREHARVEST INTERVALS, AND ADDITIONAL PRECAUTIONS AND RESTRICTIONS.

See the "ROUNDUP READY CROPS" section of this label or separately published Supplemental Labeling for this product for instructions on treating Roundup Ready crops.

TYPES OF APPLICATIONS

Chemical Fallow, Preplant Fallow Beds, Preplant, At-Planting, Preemergence, Hooded Sprayers in Row-Middles, Shielded Sprayers in Row-Middles, Wiper Application in Row-Middles, Post-Harvest.

USE INSTRUCTIONS

Apply this product during fallow intervals preceding planting, prior to planting or transplanting, at-planting, or preemergence to annual and perennial crops listed in this label, except where specifically limited. For any crop not listed in this label, applications must be made at least 30 days prior to planting. Unless otherwise specified, weed control applications may be made according to the rates listed in the "ANNUAL WEEDS", "PERENNIAL WEEDS" AND WOODY BRUSH AND TREES RATE SECTIONS" in this label. Specific rates of this product that are emphasized in this product's labeling to control rough weeds take precedence over the listed rates in the "ANNUAL WEEDS" and "PERENNIAL WEEDS RATE SECTIONS". Repeat applications may be made up to a maximum of 8 quarts of this product per acre per year.

Post-directed hooded sprayers and wiper applicators capable of preventing all crop contact with herbicide solutions may be used in mulched or unmulched row middles after crop establishment. Where specifically noted in the individual Crop sections that follow, wipers may also be used above certain crops to control tall weeds. Refer to the "SELECTIVE EQUIPMENT" section of this label for essential precautions regarding crop injury. Crop injury is possible with these applications and shall be the sole responsibility of the applicator.

All labeled treatments may be made by aerial equipment where appropriate, provided that the applicator complies with the precautions and restrictions specified in this product's labeling. Refer to the "AERIAL EQUIPMENT" section of this label for additional information.

PRECAUTIONS

Avoid contact of this herbicide with foliage, green shoots or stems, bark, exposed roots (including those emerging from plastic mulch), or fruit of crops as severe crop injury or destruction may result. When making at-planting and preemergence applications, applications must be made before crop emergence to avoid severe crop injury. Broadcast applications made at emergence will result in injury or death of emerged seedlings. Apply before seed germination in coarse sandy soils to further minimize the risk of injury.

RESTRICTIONS

Unless otherwise specified in this product's labeling, treatments with selective equipment including wipers and hooded sprayers must be made at least 14 days prior to harvest. Post-harvest or fallow applications must be made at least 30 days prior to planting any crops not listed on this label. See "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for additional information.
In crops where spot treatments are allowed, **DO NOT** treat more than 10 percent of the total field to be harvested. Crop sprayed in treated area will be killed. Take care not to spray or allow spray to drift outside the target area in order to avoid unwanted crop destruction.

For broadcast postemergence treatments, **DO NOT** harvest or feed treated vegetation for 8 weeks following application, unless otherwise specified.

CEREAL AND GRAIN CROPS

LABELED CROPS: Barley, Buckwheat, Millet (pearl, proso), Oats, Rice, Rye, Quinoa, Teff, Teosinte, Triticale, Wheat (all types) and Wild rice.

DO NOT treat rice fields or levees when flooded.

TYPES OF APPLICATIONS: Those listed in "ANNUAL AND PERRENIAL CROPS" section of this label plus the following: Red Rice Control Prior to Planting Rice, Spot Treatment (Except Rice), Over-The-Top Wiper Application (Feed Barley and Wheat only), Preharvest (Wheat And Feed Barley Only).

FOR CONTROLLING BARNYARDGRASS (ECHINOCHLOA CRUS-GALLI) IN RICE USING RENOVATION TREATMENTS IN CALIFORNIA ONLY

Renovation Treatment
USE INSTRUCTIONS: This product may be applied as a renovation treatment in rice crops to control barnyardgrass infestations using ground broadcast spray or hand-held equipment. Renovation is defined as herbicide treatment that will produce crop and weed destruction in an entire field or contiguous area treated within a field. Follow the application methods and specified treatment rates in the label booklet for *ENVY* herbicide.
Crop sprayed in treated area will be killed. Take care not to spray or allow spray to drift outside the target area in order to avoid unwanted crop destruction. The rice straw and stubble from the treated area, including a 25-foot buffer zone on all sides, shall not be used for grazing, animal bedding or any feed purposes.
Aerial applications are not permitted for rice renovation.

Preplant, Preemergence, At-Planting
USE INSTRUCTIONS: This product may be applied before, during or after planting of cereal crops. Applications must be made prior to crop emergence.
TANK MIXTURES: In wheat, a tank mix with Aim may be used.

Red Rice Control Prior to Planting Rice
USE INSTRUCTIONS: Apply 1.5 quarts of this product in 5 to 10 gallons of water per acre. Flush fields prior to application to obtain uniform germination and stand of red rice. Make application when the majority of the red rice plants are at the 2-leaf stage and no more than 4 inches tall. Red rice plants with less than 2 true leaves may be only partially controlled.

Avoid spraying during conditions of low humidity, as reduced control may result. **DO NOT** treat rice fields or levees when the fields contain floodwater. **DO NOT** flood treated fields for 8 days following application.

Spot Treatment (Except Rice)
USE INSTRUCTIONS: This product may be applied as a spot treatment in cereal crops. Apply this product before heading in small grains.
DO NOT treat more than 10 percent of the total field area to be harvested. Crop sprayed in treated area will be killed. Take care not to spray or to allow spray to drift outside target area to avoid unwanted crop destruction.

Over-the-Top Wiper Application (Feed Barley and Wheat only)
USE INSTRUCTIONS: Wiper applications may be used in wheat and feed barley. To control common rye or cereal rye, apply after the weeds have headed and achieved maximum growth.

Allow at least 35 days between application and harvest. **DO NOT** use roller applicators. Droplets, mist, foam or splatter of the herbicide solution settling onto desirable vegetation may result in discoloration, stunting or destruction.

Preharvest (Feed Barley And Wheat Only)
USE INSTRUCTIONS: This product provides weed control when applied prior to harvest of feed barley or wheat. For wheat, apply after the hard-dough stage of grain (30 percent or less grain moisture). For feed barley, apply after the hard-dough stage and when the grain contains 20 percent moisture or less. Stubble may be grazed immediately after harvest.
For ground applications, apply this product in 10 to 20 gallons of water per acre. For aerial applications, apply this product in 3 to 10 gallons of water per acre.

DO NOT apply more than 1 quart of this product per acre. Allow 7 days between application and harvest or grazing. Preharvest application is not specified for barley or wheat grown for seed, as a reduction in germination or vigor may occur.

Post-Harvest
USE INSTRUCTIONS: This product may be applied after harvest of cereal crops. Higher rates maybe required for control of large weeds that were growing in the crop at the time of harvest. Tank mixtures with 2,4-D or dicamba may be used.

For any crop not listed on this label, applications must be made at least 30 days prior to planting the next crop. Allow a minimum of 7 days between treatment and harvest or feeding of treated vegetation.

FOR DISTRIBUTION AND USE ONLY WITHIN SOUTH DAKOTA. FOR NON-SELECTIVE CONTROL OF LISTED ANNUAL WEEDS IN SMALL GRAIN CROPPING SYSTEMS

Refer to the *ENVY* label for rate directions and weeds controlled.

For ground applications, use 3 to 5 gallons of water per acre. For aerial applications, use 2 to 3 gallons of water per acre.

CORN

TYPES OF CORN: Field corn, Seed corn, Silage corn, Sweet corn and Popcorn.

TYPES OF APPLICATIONS: Those listed in "ANNUAL AND PERENNIAL CROPS" section of this label plus the following: Spot Treatment, Preharvest.
Use directions for corn containing the Roundup Ready gene are in the "ROUNDUP READY CROPS" section of this label.

FOR CONTROL AND MANAGEMENT OF GLYPHOSATE RESISTANT HORSEWEED (MARESTAIL, Conyza canadensis)
For ground applications, use 10 to 20 gallons of water per acre. For aerial applications, use 3 to 15 gallons of water per acre.
For tank-mixes, read and carefully observe the cautionary statements and all other information appearing on the product labels, supplemental labeling or fact sheets published separately for all herbicides used.

Preplant, At-Planting, Preemergence:
Apply a tank mixture of this product (32 fluid ounces per acre) plus 2,4-D (0.5 pounds a.i. of per acre) before horseweed exceeds 6 inches in height. See the 2,4-D product label for time intervals that are required between application and planting.
Dicamba may be included in the tank-mixture with this product. Refer to the dicamba product label for the time intervals that are required between application and planting and other geographic use restrictions.
Atrazine (1 to 2 pounds active ingredient per acre) may be included in the tank-mixture to provide residual control. Refer to the atrazine product label for specific use instructions.

Preplant, At-Planting, Preemergence:
USE INSTRUCTIONS: This product may be applied alone or in a tank-mixture before, during or after planting corn. Applications must be made prior to crop emergence.

TANK MIXTURES: This product may be tank-mixed with the following products to provide residual weed control, a broader weed control spectrum or an alternate mode of action. Ensure that the specific product is registered for application prior to planting corn. Apply these tank mixtures in 10 to 20 gallons of water or 10 to 60 gallons of nitrogen solution per acre.

2,4-D	Dual Magnum™	Leadoff™
Aim®	Dual II Magnum	Alachlor
Atrazine	Epic™	Linex™/Lorox™
Axiom ™	Frontier™/Outlook™	Keystone LA
Balance™ / Balance PRO	Fultime™	Marksman
Banvel™/Clarity™	Guardsman™/	Micro-Tech®
Bicep Magnum	Guardsman MAX	Prowl™
Bicep II Magnum	Harness®	Python™
Bullet®	Harness Xtra	Resource®
Degree®	Harness Xtra 6.61	Simazine
Degree Xtra®	Hornet	Surpass
Distinct™	Lariat®	Topnotch™

For tough-to-control annual weeds such as fall panicum, barnyardgrass, crabgrass, shattercane and broadleaf signalgrass up to 2 inches tall, and Pennsylvania smartweed up to 6 inches tall, apply this product at 2 pints per acre in these tank mixtures. For other labeled annual weeds, apply 1.5 to 2 pints of this product per acre when weeds are less than 6 inches tall, and 2 to 3 pints per acre when weeds are over 6 inches tall. When using nitrogen solutions as the carrier, use rate may need to be increased for acceptable weed control.

Applications of 2,4-D or dicamba must be made at least 7 days prior to planting corn. For more information see the "TANK MIXTURES" and "TANK MIXING PROCEDURES" sections of this label.

For Southern states, **DO NOT** apply in nitrogen solutions to tough-to-control grasses such as barnyardgrass, fall panicum, broadleaf signalgrass, annual ryegrass and any perennial weeds. The area covered by this includes Illinois and Indiana south of Route 50, and the following states: Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, New Jersey, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia and West Virginia.

Hooded Sprayers
USE INSTRUCTIONS: This product may be applied with hooded sprayers for weed control between rows of corn. Only hooded sprayers that completely enclose the spray pattern may be used. See additional instructions for the use of hooded sprayers in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

Corn must be at least 12 inches tall, measured without extending leaves. Contact of this product in any manner to any vegetation to which treatment is not intended may cause damage. Such damage shall be the sole responsibility of the applicator. **DO NOT** apply more than 1 quart of this product per acre for each application and no more than 3 quarts per acre per year for hooded sprayer applications.

Spot Treatment
USE INSTRUCTIONS: This product may be applied as a spot treatment prior to silking of corn.
DO NOT treat more than 10 percent of the total field area to be harvested. Crop sprayed in the treated area will be killed. Take care not to spray or to allow spray to drift outside target area to avoid unwanted crop destruction.

Preharvest
USE INSTRUCTIONS: Make applications at 35 percent grain moisture or less. Ensure that maximum kernel fill is complete and the corn is physiologically mature (black layer formed). For ground applications, apply up to 3 quarts of this product per acre. For aerial applications, apply up to 2 quarts of this product per acre.
Allow a minimum of 7 days between application and harvest Preharvest application is not allowed for corn grown for seed, as a reduction in germination or vigor may occur.

SPECIMEN

Post-Harvest
USE INSTRUCTIONS: This product may be applied after harvest of corn. Higher rates may be required for control of large weeds that were growing in the crop at the time of harvest. Tank mixtures with 2,4-D or dicamba may be used.

Allow a minimum of 7 days between treatment and harvest or feeding of treated vegetation.

COTTON

TYPES OF APPLICATIONS: Those listed in "ANNUAL AND PERRENIAL CROPS" section of this label plus the following: Selective equipment, Spot treatment, Preharvest.

Use directions for cotton containing the Roundup Ready gene are in the "ROUNDUP READY CROPS" section of this label.

FOR CONTROL AND MANAGEMENT OF GLYPHOSATE RESISTANT HORSEWEED (MARESTAIL, Conyza canadensis)
For ground applications, use 10 to 20 gallons of water per acre. For aerial applications, use 3 to 15 gallons of water per acre.
For tank-mixes, read and carefully observe the cautionary statements and all other information appearing on the product labels, supplemental labeling or fact sheets published separately for all herbicides used.
Preplant: For control of horseweed, apply this product (32 fluid ounces per acre) in a tank-mix with Clarity® (8 fluid ounces per acre). This application must be made 21 to 35 days before planting and before horseweed reaches 6 inches in height. In order to avoid crop injury, a minimum interval of 21 days during which there is at least 1 inch of cumulative rainfall must be observed between Clarity application and planting of cotton.
2,4-D may be included in the tank-mixture with this product. Refer to the 2,4-D product label for the time intervals that are required between application and planting and other geographic use restrictions.

Preplant, At-Planting, Preemergence
USE INSTRUCTIONS: This product may be applied before, during or after planting cotton. Applications must be made prior to crop emergence.

TANK MIXTURES: This product may be tank-mixed with the following products provided that the specific product being used is registered for application prior to planting cotton. Apply these tank mixtures in 10 to 20 gallons of water per acre.

Caparol®	Direx	Prowl
ClarityTM	Dual MagnumTM	Prowl H2O
Command	Dual II Magnum	Staple®
Cotoran®	Karmex	Stalwart
Cotton PRO®	Meturon®	Zorial®

For more information see the "TANK MIXTURES" and "TANK MIXING PROCEDURES" sections of this label.

Selective Equipment
USE INSTRUCTIONS: This product may be applied through hooded sprayers, shielded sprayers or wiper applicators in cotton. Additional instructions on the use of selective equipment are found in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

Allow at least 7 days between application and harvest.

Spot Treatment
USE INSTRUCTIONS: This product may be applied as a spot treatment in cotton prior to boll opening.

DO NOT treat more than 10 percent of the total field area to be harvested. Crop sprayed in the treated area will be killed. Take care not to spray or to allow spray to drift outside target area to avoid unwanted crop destruction.

Preharvest
USE INSTRUCTIONS: This product provides weed control and cotton regrowth inhibition when applied prior to harvest of cotton. For weed control, apply at rates given in the "ANNUAL WEEDS", and "PERENNIAL WEEDS RATE SECTIONS" of this label. For cotton regrowth inhibition, apply 1 pint to 2 quarts of this product per acre.

Up to 2 quarts of this product may be applied after sufficient bolls have developed to produce the desired yield of cotton. Applications made prior to this time could affect maximum yield potential.

TANK MIXTURES: This product may be tank-mixed with DEFT™ 6, FolexTM, Ginstar, or PrepTM to provide additional enhancement of cotton leaf drop.

Allow a minimum of 7 days between application and harvest of cotton. Preharvest application is not allowed for cotton grown for seed, as a reduction in germination or vigor may occur. THE USE OF ADDITIVES FOR PREHARVEST APPLICATION OF THIS PRODUCT TO COTTON IS PROHIBITED. For more information, see the "TANK MIXTURES" and "TANK MIXING PROCEDURES" sections of this label.

FALLOW SYSTEMS

LABELED CROPS: This product may be applied during the fallow period prior to planting or emergence of any crop listed on this label; for non-listed crops, applications must be made at least 30 days prior to planting.

TYPES OF APPLICATIONS: Chemical Fallow, Preplant Fallow Beds, Aid-to-Tillage.

Chemical Fallow
USE INSTRUCTIONS: This product may be used as a substitute for tillage to control annual weeds in fallow fields. Also, broadcast or spot treatments will control or suppress many perennial weeds in fallow fields. Tank mixtures of this product with 2,4-D and dicamba may be used for a broader, weed control spectrum. Applications up to 2 quarts per acre may be made by aerial application onto fallow sites where there is sufficient buffer to prevent injury due to drift onto adjacent crops.

DO NOT apply dicamba tank mixtures by air in California. Refer to the specific product labels for crop rotation restrictions and cautionary statements of all products used in tank mixtures. Some crop injury may occur if dicamba is applied within 45 days of planting.

Preplant Fallow Beds
USE INSTRUCTIONS: This product will control weeds listed in the "ANNUAL WEEDS", "PERENNIAL WEEDS" and "WOODY BRUSH AND TREES RATE SECTIONS" of this label prior to planting.
TANK MIXTURES: Use 12 fluid ounces of this product, plus 2 to 3 fluid ounces of Goal™ 2XL, per acre to control the following weeds up to the maximum height, diameter or length indicated: 3" -- common cheeseweed, chickweed, groundsel; 6" -- London rocket, shepherd's-purse.
Use 16 fluid ounces of this product, plus 2 to 3 fluid ounces of Goal 2XL, per acre to control the following weeds up to the maximum height, diameter or length indicated: 6" -- common cheeseweed, groundsel, marestail (Conyza canadensis), 12" -- chickweed, London rocket, shepherdspurse

Aid-to-Tillage
USE INSTRUCTIONS: This product may be used in conjunction with tillage practices in fallow systems or preplant to labeled crops to control downy brome, cheat, volunteer wheat, tansy mustard and foxtail. Apply 12 fluid ounces of this product in 3 to 10 gallons of water per acre before weeds are 6 inches in height. Application must be followed by conventional tillage practices no later than 15 days after treatment and before regrowth occurs. Allow at least 1 day after application before tillage.

Tank mixtures with residual herbicides may result in reduced product performance.

PROPOSED

GRAIN SORGHUM (MILO)

TYPES OF APPLICATIONS: Those listed in "ANNUAL AND PERRENIAL CROPS" section of this label plus the following: Spot Treatment, Over-the-Top Wiper Application, Preharvest.

Preplant, At-Planting, Preemergence
USE INSTRUCTIONS: This product may be applied alone or in tank-mixture before, during or after planting grain sorghum. Applications must be made prior to crop emergence.

TANK MIXTURES: Apply these tank mixtures in 10 to 20 gallons of water or 10 to 60 gallons of nitrogen solution per acre, provided that the specific product being used is labeled for application prior to planting grain sorghum.

Atrazine	Bullet
IntRRo	Micro-Tech
Bicep II Magnum	Dual II Magnum
Lariat	

For tough-to-control annual weeds such as fall panicum, barnyardgrass, crabgrass, shattercane and broadleaf signalgrass up to 2 inches tall, and Pennsylvania smartweed up to 6 inches tall, apply a tank mixture of this product at 2 pints per acre plus the products listed above. For more information see the "TANK MIXTURES" and "TANK MIXING PROCEDURES" sections of this label.

For other labeled annual weeds, apply 1.5 to 2 pints of this product per acre when weeds are less than 6 inches tall, and 2 to 3 pints per acre when weeds are over 6 inches tall. When using nitrogen solutions as the carrier, the use rate may need to be increased for acceptable weed control.

Spot Treatment, Over-the-Top Wiper Application
USE INSTRUCTIONS: This product may be applied as a spot treatment in grain sorghum before heading. This product may be applied with wiper applicators to control or suppress tall weeds. For additional instructions, see "Wiper Applicators" in the "SELECTIVE EQUIPMENT" section of this label.

For spot treatment, **DO NOT** treat more than 10 percent of the total field area to be harvested. Crop sprayed in treated area will be killed. Take care not to spray or to allow spray to drift outside target area to avoid unwanted crop destruction. Allow at least 40 days between wiper application and harvest. **DO NOT** use roller applicators. **DO NOT** feed or graze treated milo fodder. **DO NOT** ensile treated vegetation.

Hooded Sprayers
USE INSTRUCTIONS: This product may be applied with hooded sprayers for weed control between the rows of milo. Only hooded sprayers that completely enclose the spray pattern may be used. See additional instruction for the use of hooded sprayers in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

Milo must be at least 12 inches tall, measured without extending leaves. Treat before milo sends tillers between the drill rows. If tillers are sprayed, the main plant may be damaged or destroyed. Contact of this product in any manner to any vegetation to which treatment is not intended may cause damage, which shall be the sole responsibility of the applicator. **DO NOT** graze or feed milo forage or fodder following hooded sprayer applications. **DO NOT** apply more than 1 quart of this product per acre per application and no more than 3 quarts per acre per year for hooded sprayer applications.

Preharvest
USE INSTRUCTIONS: This product may be applied for weed control prior to harvest after sorghum grain has reached 30 percent grain moisture or less.

DO NOT apply more than 2 quarts of this product per acre. As with other herbicides that cause sudden plant death, avoid preharvest applications of this product to milo infected with charcoal rot as lodging can occur. Allow a minimum of 7 days between application and harvest of grain sorghum. Preharvest application is not specified for sorghum grown for seed, as a reduction in germination or vigor may occur. The use of this product for preharvest grain sorghum (milo) is not registered in California.

Post-Harvest
USE INSTRUCTIONS: This product maybe applied after harvest of grain sorghum. Higher rates may be required to control large weeds that were growing in the crop at the time of harvest. Tank mixtures with 2,4-D or dicamba may be used.
This product may be applied to grain sorghum (milo) stubble following harvest to suppress or control regrowth. Apply 1 quart of this product per acre for control, or 1.5 pints of this product per acre for suppression.

Allow a minimum of 7 days between treatment and harvest or feeding of treated vegetation.

HERBS AND SPICES

LABELED CROPS: Allspice, Angelica, Star anise, Annatto (seed), Balm, Basil, Borage, Burnet, Camomile, Caper buds, Caraway, Black caraway, Cardamom, Cassia bark, Cassia buds, Catnip, Celery seed, Chervil (dried), Chive, Chinese chive, Cinnamon, Clary, Clove buds, Coriander leaf (cilantro or Chinese parsley), Coriander seed (cilantro), Costmary, Culantro (leaf), Culantro (seed), Cumin, Curry (leaf), Dill (dillweed), Dill (seed), Epazote, Fennel seed (common and Florence), Fenugreek, White ginger flower, Grains of paradise, Horehound, Hyssop, Juniper berry, Lavender, Lemongrass, Lovage (leaf and seed), Mace, Marigold, Marjoram (including oregano), Mexican oregano, Mioga flower, Mustard (seed), Nasturtium, Nutmeg, Parsley (dried), Pennyroyal, Pepper (black and white), Pepper leaves, Peppermint, Perilla, Poppy (seed), Rosemary, Rue, Saffron, Sage, Savory (summer and winter), Spearmint, Stevia leaves, Sweet bay, Tansy, Tarragon, Thyme, Vanilla, Wintergreen, Woodruff, Wormwood.

TYPES OF APPLICATIONS: Those listed in "ANNUAL AND PERRENIAL CROPS" section of this label plus the following: Over-the-Top Wiper Application (Peppermint and Spearmint Only), Spot Treatment (Peppermint and Spearmint Only).

This product could cause crop injury. When applying this product prior to transplanting or direct seeding crops into plastic mulch, care must be taken to remove product residues from the plastic prior to planting. Residual product can be removed by a single 0.5-inch application of water, either by natural rainfall or by irrigation. Care should be taken to ensure that the washwater flushes off the plastic mulch and does not enter transplant holes. Applications made at emergence will result in injury or death to emerged seedlings.

Over-the-Top Wiper Application, Spot Treatment (Peppermint and Spearmint only)
USE INSTRUCTIONS: This product may be applied as a spot treatment or over the top of peppermint or spearmint with wiper applicators in spearmint and peppermint. Apply spot treatments on a spray-to-wet basis with hand-held equipment, such as backpack sprayers, pump-up pressure sprayers, hand-guns, hand-wands or any other hand-held or motorized spray equipment used to direct the spray solution to a limited area.

Allow at least 7 days between application and harvest. Further applications may be made in the same area at 30-day intervals. In spot treatment applications, no more than 10 percent of the total field area to be harvested should be treated at one time. Crop sprayed in treated area will be killed. Take care not to spray or allow spray to drift outside the target area to avoid unwanted crop destruction. For wiper applications, contact of the herbicide solution with the crop may result in discoloration, stunting, or destruction.

OIL SEED CROPS

LABELED CROPS: Borage, Buffalo gourd (seed), Canola, Crambe, Flax, Jojoba, Lesquerella, Meadowfoam, Mustard (seed), Rape, Safflower, Sesame, Sunflower.
Use directions for canola containing the Roundup Ready gene, are in the "ROUNDUP READY CROPS" section of this label.
TYPES OF APPLICATIONS: Those listed in "ANNUAL AND PERRENIAL CROPS" section of this label.

USE INSTRUCTIONS: This product may be applied before, during or after planting oil seed crops listed in this section. Broadcast applications must be made prior to crop emergence. Wiper applicators or hooded sprayers may be used between the rows once the crop is established. See additional instructions of the use of selective equipment in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

TANK MIXTURES: For sunflowers, a tank mixture with Prowl may be applied before, during or after planting into conventionally tilled soil, a cover crop, established sod or previous crop residue.

SECTION

For use with canola, **DO NOT** apply more than 2 quarts of this product per acre. For use with sunflowers, **DO NOT** apply more than 1 quart of this product per acre as a single preplant or preemergence application per year. **DO NOT** feed or graze sunflower forage following application of this product.

SOYBEANS

TYPES OF APPLICATIONS: Those listed in "ANNUAL AND PERRENIAL CROPS" section of this label plus the following: Spot Treatment,

FOR CONTROL AND MANAGEMENT OF GLYPHOSATE RESISTANT HORSEWEED (MARESTAIL, Conyza canadensis)
For ground applications, use 10 to 20 gallons of water per acre. For aerial applications, use 3 to 15 gallons of water per acre.
For tank-mixes, read and carefully observe the cautionary statements and all other information appearing on the product labels, supplemental labeling or fact sheets published separately for all herbicides used.
Preplant: It is strongly encouraged that horseweed be controlled prior to planting. Apply a tank mixture of this product (32 fluid ounces per acre) with 2,4-D (0.5 pounds a.i. per acre) before horseweed exceeds 6 inches in height. See the 2,4-D product label for time intervals that are required between application and planting.

Preharvest, Selective Equipment
Use directions for soybeans containing the Roundup Ready gene are in the "ROUNDUP READY CROPS" section of this label.

Preplant, At-Planting, Preemergence
USE INSTRUCTIONS: This product may be applied alone or in a tank-mixture before, during or after planting soybeans. Applications must be made prior to crop emergence.

TANK MIXTURES: This product may be tank-mixed with the following products to provide residual weed control, a broader spectrum, or an alternate mode of action. Ensure that the specific product being used in the tank mixture is registered for application prior to planting soybean, and follow all label directions of all products in the tank mixture. Apply these tank mixtures in 10 to 20 gallons of water per acre.

2,4-D	Dual Magnum	Micro-Tech™
Aim™	Dual II Magnum	Prowl
Assure II™	Firstrate™	Pursuit™
Authority™	Flexstar™	Pursuit Plus
Axiom	Frontier™/Outlook™	Python
Blanket	Fusion™	Reflex™
Boundary ™	Gauntlet™	Resource™
Canopy™	Gangster	Sceptor™
Canopy EX™	IntRRo	Sencor™/Lexone™
Classic	Lorox/Linuron	Squadron™
Command™	Lorox DF	Valor™
Command Xtra™	Steel ™	
Domain™	Lorox Plus™	

For tough-to-control annual weeds such as fall panicum, barnyardgrass, crabgrass, shattercane and broadleaf signalgrass up to 2 inches tall, and Pennsylvania smartweed up to 6 inches tall, apply this product at 2 pints per acre in these tank mixtures. For other labeled annual weeds, apply 1.5 to 2 pints of this product per acre when weeds are less than 6 inches tall, and 2 to 3 pints per acre when weeds are over 6 inches tall. For more information, see the "TANK MIXTURES" and "TANK MIXING PROCEDURES" sections of this label.

Spot Treatment
USE INSTRUCTIONS: This product may be applied as a spot treatment prior to initial pod set in soybeans.

DO NOT treat more than 10 percent of the total field area to be harvested. Crop sprayed in treated area will be killed. Take care not to spray or allow spray to drift outside the target area to avoid unwanted crop destruction.

Preharvest
USE INSTRUCTIONS: This product may be applied for weed control prior to harvest of soybeans after pods have set and lost all green color. Apply at rates given in the "ANNUAL WEEDSRATE SECTION" and "PERENNIAL WEEDSRATE SECTION". Care should be taken to avoid excessive seed shatter loss due to ground application equipment.
DO NOT apply more than 5 quarts of this product per acre for preharvest applications. **DO NOT** apply more than 2 quarts of this product per acre by air. Allow a minimum of 7 days between application and harvest of soybeans. **DO NOT** graze or harvest treated hay or fodder for livestock feed within 25 days of last preharvest application. (If the application rate is 1 quart per acre or lower, the grazing restriction is reduced to 14 days after last preharvest application.) Preharvest application is not specified for soybeans grown for seed, as a reduction in germination or vigor may occur.

Selective Equipment
USE INSTRUCTIONS: This product may be applied through shielded or hooded sprayers, wiper applicators or sponge bars in soybeans. Additional instructions on the use of selective equipment are found in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.
Allow at least 7 days between application and harvest.

SUGARCANE

TYPES OF APPLICATIONS: Those listed in "ANNUAL AND PERRENIAL CROPS" section of this label plus Spot Treatment, Sugarcane Ripening, Preplant, At-Planting, Preemergence
Preplant, At-Planting, Preemergence
USE INSTRUCTIONS: This product may be applied in or around sugarcane fields, or in fields prior to the emergence of plant cane.

DO NOT apply to vegetation in or around ditches, canals or ponds containing water to be used for irrigation.

Spot Treatment
USE INSTRUCTIONS: This product may be applied as a spot treatment in sugarcane. For control of volunteer or diseased sugarcane, apply a 1-percent solution of this product in water using a spray-to-wet technique. Volunteer or diseased sugarcane should have at least 7 new leaves.

Avoid spray contact with healthy sugarcane plants since severe damage or destruction may result. **DO NOT** feed or graze treated sugarcane foliage following application.

Fallow Treatments
USE INSTRUCTIONS: This product may be used as a replacement for tillage in fields that are lying fallow between sugarcane crops. This product may also be used to remove the last stubble of ratoon cane. For removal of last stubble of ratoon cane, apply 4 to 5 quarts of this product in 10 to 40 gallons of water per acre to new growth having at least 7 new leaves. Allow 7 or more days after application before tillage. Applications up to 3 quarts per acre may be made by aerial application in fallow sites where there is sufficient buffer to prevent drift onto adjacent crops. Tank mixtures with 2,4-D and dicamba may be used.

Hooded Sprayers
USE INSTRUCTIONS: This product may be applied using hooded sprayers for weed control between the rows of sugarcane. See the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for additional use instructions.

Crop injury may occur when the foliage of treated weeds contact the crop. **DO NOT** apply this product when crop leaves are growing in direct contact with weeds to be treated. Droplets, mist, foam or splatter of the herbicide solution settling on the crop may result in discoloration, stunting or destruction. Such damage shall be the sole responsibility of the applicator.

SAMPLE

Sugarcane Ripening
USE INSTRUCTIONS: This product may be applied to foliage as a plant growth regulator to hasten ripening and increase the level of sucrose in sugarcane. It is effective in both low and high-tonnage sugarcane.
When applied as directed under the conditions described, this product will hasten ripening and extend the period of high sucrose level in sugarcane.
As a result of leaf desiccation, improved trash burn can be expected.
Most of the sucrose increase is concentrated in the top nodes of the treated sugarcane stalk. In order to maximize sugar where topping is practiced during harvest, top at the base of the fourth leaf.

Applications Rates
Use the following application rates and timing instructions according to the State in which the sugarcane is grown.

NOTE: Use the higher rate within the specified range when treating sugarcane under adverse ripening conditions or when less responsive varieties are to be treated.

FLORIDA - Apply 7 to 16 fluid ounces of this product per acre 3 to 5 weeks before harvest of LAST RATOON CANE ONLY.
HAWAII - Apply 12 to 28 fluid ounces of this product per acre 4 to 10 weeks before harvest.
LOUISIANA - Apply 5 to 16 fluid ounces of this product per acre 3 to 7 weeks before harvest of RATOON CANE ONLY.
PUERTO RICO - Apply 7 fluid ounces of this product per acre 3 to 5 weeks before harvest of RATOON CANE ONLY.
TEXAS - Apply 7 to 16 fluid ounces of this product per acre 3 to 5 weeks before harvest of RATOON CANE ONLY.

Prior to application, consult your state sugarcane authority regarding the degree of sucrose response anticipated from the variety of sugarcane to be treated.
Application of this product may initiate development of shooting eyes. This product may not increase the sucrose content of sugarcane under conditions of good natural ripening. Within 2 to 3 weeks after application, this product may produce a slight yellowing to pronounced browning and drying of leaves, and a shortening of upper internodes. Spindle death may occur.

Rainfall within 6 hours after application may reduce effectiveness.
Application is not specified for sugarcane grown for seed, as a reduction in germination or vigor may occur.

DO NOT feed or graze treated sugarcane forage following application. **DO NOT** plant subsequent crops in treated fields other than the following for 30 days after application: alfalfa or other forage legumes, beans (all types), corn (all types), cotton, melons (all types), pasture grasses, peanuts, potatoes (Irish or sweet), sorghum (milo), soybeans, squash (all types) or wheat.

DO NOT apply for enhanced ripening to any crops other than sugarcane.

VEGETABLE CROPS

NOTE: THIS "VEGETABLE CROPS" SECTION GIVES DIRECTIONS THAT APPLY TO ALL VEGETABLE CROPS LISTED ALPHABETICALLY IN THIS SECTIONS THAT FOLLOW. SEE THE INDIVIDUAL CROP CATEGORIES FOR SPECIFIC INSTRUCTIONS, PREHARVEST INTERVALS, PRECAUTIONS AND RESTRICTIONS.

TYPES OF APPLICATIONS: Chemical Fallow, Preplant Fallow Beds, Preplant, At-Planting, Preemergence, Prior to Transplanting Vegetables, Hooded Sprayers in Row-Middles, Shielded Sprayers in Row-Middles, Wiper Application in Row-Middles, Post-Harvest, Selective Equipment Applications (Nonbearing Ginseng), Over-the-Top Wiper Application (Rutabagas only), Spot Treatment or Preharvest (Dry Beans, Peas, Lentils, and Chickpeas only).

This product could cause crop injury. When applying this product prior to transplanting or direct-seeding crops into plastic mulch, care must be taken to remove product residues from the plastic prior to planting. Residual product can be removed by a single 0.5-inch application of water, either by natural rainfall or by irrigation. Care should be taken to ensure that the washwater flushes off the plastic mulch and does not enter transplant holes. Applications made at emergence will result in injury or death to emerged seedlings.
Avoid contact of herbicide with foliage, green shoots or stems, bark, exposed roots (including those emerging from plastic mulch), or fruit of crops because severe crop injury or destruction may result. When making preemergence and at planting applications, applications must be made before crop emergence to avoid severe crop injury. Apply before seed germination in coarse sandy soils to further minimize the risk of crop injury. In crops with vines, hooded sprayer, shielded sprayer and wiper applications to row middles should be made prior to vine development otherwise severe injury or destruction may result. Unless otherwise specified in this product's labeling, treatments with selective equipment including wipers and hooded sprayers must be made at least 14 days prior to harvest. Post-Harvest or fallow applications must be made at least 30 days prior to planting any non-labeled crop. See "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for additional information.

Brassica Vegetables
LABELED CROPS: Broccoli, Chinese broccoli (gai lon), Broccoli raab (rapini), Brussels sprouts, Cabbage, Chinese cabbage (bok choy), Chinese cabbage (napa), Chinese mustard cabbage (gai choy), Cauliflower, Cavalo broccolo, Collards, Kale, Kohlrabi, Mizuna, Mustard greens, Mustard spinach, Rape greens.

Bulb Vegetables
LABELED CROPS: Garlic, Great-headed garlic, Leek, Onion (dry bulb and green), Welsh onion, Shallot.

Cucurbit Vegetables and Fruits
LABELED CROPS: Chayote (fruit), Chinese waxgourd (Chinese preserving melon), Citron melon, Cucumber, Gherkin, Edible gourd (includes hyotan, cucuzza, hechima, Chinese okra), Melons (all), Momordica spp (includes balsam apple, balsam pear, bittermelon, Chinese cucumber), Muskmelon (includes cantaloupe, casaba, crenshaw melon, golden pershaw melon, honeydew melon, honey ball melon, mango melon, Persian melon, pineapple melon, Santa Claus melon, snake melon), Pumpkin, Summer squash (includes crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini), Winter squash (includes butternut squash, calabaza, hubbard squash, acorn squash, spaghetti squash), Watermelon.

For Cantaloupe, Casaba melon, Crenshaw melon, Cucumber, Gherkin, Gourds, Honeydew melon, Honey ball melon, Mango melon, Melons (all), Muskmelon, Persian melon, Pumpkin, Squash (summer, winter), and Watermelon, allow at least 3 days between application and planting.

Leafy Vegetables
LABELED CROPS: Amaranth (Chinese spinach), Arugula (roquette), Beet greens, Cardoon, Celery, Chinese celery, Celtuce, Chaya, Chervil, Edible-leaved chrysanthemum, Garland chrysanthemum, Corn salad, Cress (garden and upland), Dandelion, Dock (sorrel), Dokudami, Endive (escarole), Florence fennel, Gow kee, Lettuce (head and leaf), Orach, Parsley, Purslane (garden and winter), Radicchio (red chicory), Rhubarb, Spinach, New Zealand spinach, Vine spinach, Swiss chard, Watercress (upland), Water spinach.

For Watercress, avoid applications within 3 days prior to seeding and during the period between seeding and emergence to minimize the risk of crop injury.

Fruiting Vegetables
LABELED CROPS: Eggplant, Groundcherry (Physalis spp), Pepino, Pepper (includes bell pepper, chili pepper, cooking pepper, pimento, sweet pepper), Tomatillo, Tomato.

For Eggplant, Ground cherry, Pepper (all), and Tomatillo, allow at least 3 days between application and planting. For Tomato and tomatillos grown on sandy soil, **DO NOT** make hooded, shielded sprayer or wiper applications in row middles because of potential for crop injury.

CANCELLED

Legume Vegetables (Succulent or Dried)
LABELED CROPS: Bean (Lupines: includes grain lupin, sweet lupin, white lupin, and white sweet lupin), Bean (Phaseolus: includes field bean, kidney bean, lima bean, navy bean, pinto bean, runner bean, snap bean, tepary bean, wax bean), Bean (Vigna: includes adzuki bean, asparagus bean, blackeyed pea, catjang, Chinese longbean, cowpea, crowder pea, moth bean, mung bean, rice bean, southern pea, urd bean, yardlong bean), Broad bean (fava), Chickpea (garbanzo), Guar, Jackbean, Lablab bean, Lentil, Pea (Pisum: includes dwarf pea, edible-podded pea, English pea, field pea, garden pea, green pea, snowpea, sugar snap pea), Pigeon pea, Soybean (immature seed), Sword bean.

Spot Treatment, or Preharvest (Dry Beans, Peas, Lentils and Chickpeas only
USE INSTRUCTIONS: This product may be applied as an over-the-top broadcast spray or as a spot treatment to control labeled weeds in dry beans, peas, lentils or chick peas. For spot treatment, to control troublesome weeds such as Canada thistle, quackgrass, mayweed (dog fennel), and milkweed, apply in 10 to 20 gallons of water per acre through ground broadcast spray equipment or use a 2 percent solution in a hand-held sprayer. For preharvest treatments, apply in 3 to 20 gallons of water per acre at the hard dough stage of the legume seed (30 percent in moisture or less).

Follow the limitations listed in the table below. Only one application per year may be made; **DO NOT** combine a preharvest spray with a spot treatment on the same crop area. Employ at least a 30-day plant-back interval between treatment and replanting for any crop not specified for treatment in this label. **DO NOT** feed treated vines and hay from these crops to livestock. **DO NOT** treat cowpeas or field (feed) peas, since these crop are considered to be grown as livestock feed. Preharvest application is not specified for dry legumes grown for seed, as a reduction in germination or vigor may occur.

CROP	MAXIMUM RATE (FLUID OUNCES PER ACRE)	MINIMUM PRE-HARVEST INTERVAL (DAYS)	ALLOWED IN
Dry Beans	32	7	All States
Dry Peas, Lentils, and Chickpeas	26	14	Idaho, Minnesota, Montana, Nebraska, North Dakota, Oregon, South Dakota, and Washington

Root and Tuber Vegetables
LABELED CROPS: Arracacha, Arrowroot, Chinese artichoke, Jerusalem artichoke, Beet (garden), Burdock, Canna, Carrot, Cassava (bitter and sweet), Celeriac, Chayote (root), Chervil (turnip-rooted), Chicory, Chufa, Dasheen (taro), Galangal, Ginger, Ginseng, Horseradish, Leren, Kava (turnip-rooted), Parsley (turnip rooted), Parsnip, Potato, Radish, Oriental radish, Rutabaga, Salsify, Black salsify, Spanish salsify, Skirret, Sweet potato, Tanier, Turmeric, Turnip, Wasabi, Yacon, Yam bean, True yam.

Selective Equipment Applications (Non-Bearing Ginseng only)
USE INSTRUCTIONS: This product may be applied for weed control in established non-bearing ginseng. Applications may be made with boom equipment, CDA, shielded sprayers, hand-held and backpack wands, lances, and orchard guns or with wiper application equipment. See additional instructions under "Selective Equipment" in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

Conduct applications so that there is no contact of this product with the ginseng plant. Droplets, mist, foam or splatter of the herbicide solution settling onto desirable vegetation may result in discoloration, stunting or destruction. Applications must be made at least one year prior to harvest.

Over-the-Top Wiper Application (Rutabagas only)
USE INSTRUCTIONS: Wiper applicators maybe used over the top of rutabagas for the control of taller weeds. See additional instructions under "Selective Equipment" in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

Allow at least 14 days between application and harvest of rutabagas. Droplets, mist, foam or splatter of the herbicide solution settling onto desirable vegetation may result in discoloration, stunting or destruction.

MISCELLANEOUS CROPS
LABELED CROPS: Aloe Vera, Asparagus, Bamboo shoots, Globe artichoke, Okra, Peanut (ground nut), Pineapple, Strawberry, Sugar beet.

TYPES OF APPLICATIONS: Those listed in "ANNUAL AND PERRENIAL CROPS" section of this label plus the following: Weed Control, Site Preparation, Spot Treatment (Asparagus).

Use directions for sugar beets containing the Roundup Ready gene are in the "ROUNDUP READY CROPS" section of this label.

Avoid contact of this product with foliage, green shoots or stems, bark, exposed roots (including those emerging from plastic mulch) or fruit of crops because severe crop injury or destruction may result. When making preemergence and at planting applications, applications must be made before crop emergence to avoid severe crop injury. Apply before seed germination in coarse sandy soils to further minimize the risk of crop injury. In crops with vines, hooded sprayer, shielded sprayer and wiper applications to row middles should be made prior to vine development otherwise severe injury or destruction may result. Unless otherwise specified in this product's labeling, treatments with selective equipment including wipers and hooded sprayers must be made at least 14 days prior to harvest. Post-Harvest or fallow applications must be made at least 30 days prior to planting any crop not listed on this label. See additional information in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

Weed Control, Site Preparation
USE INSTRUCTIONS: This product may be applied for weed control or for site preparation prior to planting of transplanting crops listed in this section.

This product could cause crop injury when applied prior to transplanting or direct-seeding crops into plastic mulch. Care must be taken to remove residues of this product from the plastic prior to planting. Residual product can be removed by a single 0.5-inch application of water, either by natural rainfall or by irrigation. Care should be taken to ensure that the wash water flushes off the plastic mulch and does not enter transplant holes. Allow at least 21 days between residue removal and transplanting. Applications made at emergence will result in injury or death to emerged seedlings. **DO NOT** apply within a week before the first asparagus spears emerge. **DO NOT** feed or graze treated pineapple forage following application.

Spot Treatment (Asparagus)
USE INSTRUCTIONS: This product may be applied immediately after cutting, but prior to the emergence of new spears.

DO NOT treat more than 10 percent of the total field area to be harvested. **DO NOT** harvest within 5 days of treatment.

Post-Harvest (Asparagus)
USE INSTRUCTIONS: This product may be applied after the last harvest and all spears have been removed. If spears are allowed to regrow, delay application until ferns have developed. Delayed treatments should be applied as a directed or shielded spray in order to avoid contact of the spray with ferns, stems or spears. See additional instructions under "Selective Equipment" in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

Direct contact of the spray with asparagus may result in serious crop injury.

TREE, VINE, AND SHRUB CROPS (Alphabetical)
NOTE: THIS SECTION GIVES DIRECTIONS THAT APPLY TO ALL TREE, VINE, AND SHRUB CROPS LISTED ALPHABETICALLY IN THE SECTIONS THAT FOLLOW. SEE THE INDIVIDUAL CROP CATEGORIES FOR SPECIFIC INSTRUCTIONS, PREHARVEST INTERVALS, PRECAUTIONS AND RESTRICTIONS.

TYPES OF APPLICATIONS: Preplant (site preparation) Broadcast Sprays, Weed Control, Middles (between rows of trees, vines or bushes), Strips (within rows of trees, vines or bushes), Selective Equipment (shielded sprayers, wiper treatments), Directed Spray, Spot Treatment, Perennial Grass Suppression, Cut Stump.

This product may be applied with boom equipment, CDA equipment, shielded sprayers, hand-held and backpack wands, lances, orchard guns or with wiper applicator equipment, unless prohibited in the specific crop sections that follow.

USE INSTRUCTIONS: This product may be applied in middles (between rows of trees or vines), strips (within rows of trees or vines), and for weed control or perennial grass suppression in established tree fruit and nut groves, orchards, berries, and vineyards. It may also be used for site preparation prior to planting or transplanting these crops. Apply 1 pint to 5 quarts per acre according to the "ANNUAL WEEDS" and "PERENNIAL WEEDS RATE SECTIONS" of this label. Use the higher rates in the specified range when weeds are stressed, growing in dense populations or are greater than 12 inches tall. Repeat applications may be made up to a maximum of 10.6 quarts per acre per year. See the "USE INFORMATION" section of this label for more information on Maximum Annual Use Rates.
Use extreme care to avoid contact of this herbicide solution, spray, drift or mist with foliage or green bark of trunk, branches, suckers, fruit or other parts of trees, canes and vines. Avoid applications when recent pruning wounds or other mechanical injury has occurred. Contact of this product with other than matured brown bark can result in serious crop damage or destruction. Only shielded or directed sprayers may be used in crops with potential for crop contact, and then only where there is sufficient clearance. For applications in strips (within rows of trees), only selective equipment (directed sprays, hooded sprayers, shielded applicators, or wipers) should be used in order to minimize the potential for overspray or drift of this product onto the crop. For berry crops, hooded or shielded sprayers must be fully enclosed including top, sides, front and back. Only wipers or shielded applicators capable of preventing all contact with the crop may be used. See additional instructions and precautions in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

Allow a minimum of 3 days between application and transplanting.

FOR CONTROL AND MANAGEMENT OF GLYPHOSATE RESISTANT HORSEWEED (MARESTAIL, Conyza canadensis)

For ground applications, use 10 to 20 gallons of water per acre. For aerial applications, use 3 to 15 gallons of water per acre.
For tank-mixes, read and carefully observe the cautionary statements and all other information appearing on the product labels, supplemental labeling or fact sheets published separately for all herbicides used.

Orchards (Pome Fruit, Stone Fruit and Tree Nuts)
Apply 2 quarts of this product plus 2,4-D (18 fluid ounces per acre Dri-Clean® or 2 pints per acre Orchard Master® CA) before marestall exceeds 6 inches in height. A carrier volume of 15 gallons per acre is specified. Follow labeling for the 2,4-D product with regard to directions for use, precautionary statements and applicable schedules. Further local restrictions may apply.
Vine crops (grapes only).
Apply 2 quarts of this product per acre plus 2,4-D (18 fluid ounces per acre Dri-Clean®) before marestail exceeds 6 inches in height. A carrier volume of 15 gallons per acre is specified. Follow Dri-Clean® labeling in regard to directions for use, precautionary statements and applicable schedules. Further local restrictions may apply. Also, residual herbicides such as diuron may provide additional preemergence control.

Middles (between rows)
USE INSTRUCTIONS: This product will control or suppress annual and perennial weeds and ground covers growing between rows of tree and vine crops listed on this label. If weeds are under drought stress, irrigate prior to application. Reduced weed control may result if weeds have been recently mowed at the time of application.

TANK MIXTURES: A tank mixture of this product plus Goal 2XL may be applied for annual weed control between rows (middles) of citrus crops, tree fruits, tree nuts and vine crops. This mixture is specified when weeds are stressed or growing in dense populations. Application of 16 to 32 fluid ounces of this product per acre plus 3 to 12 fluid ounces of Goal 2XL per acre will control annual weeds with a maximum height, length or diameter of 6 inches, including crabgrass, common groundsel, junglerice, common lambsquarters, redroot pigweed, London rocket, common ryegrass, shepherd's-purse, annual sowthistle, filaree (suppression), horseweed/marestail (Conyza canadensis), stinging nettle and common purslane (suppression). This tank mixture will also control common cheeseweed (malva) or hairy fleabane (Conyza bonariensis) with a maximum height, length or diameter of 3 inches. Read and follow all labels and directions for use of all products being used in the tank mixture.

Strips (In Rows)
TANK MIXTURES: This product may be applied within rows of tree or vine crops in tank mixtures with the following products, provided that the label of the specific product used permits the desired use:

Devrinol™ 50 DF	Prowl	Sollcam™ DF
Direx™ 4L	Princep Caliber™ 90	Surflan™ AS
Goal 2XL	Simazine 4L	Surflan 75W
Karmex DF	Simazine 80W	
Krovar I	Sim-Trol™ 4L	

DO NOT apply these tank mixtures in Puerto Rico.

Refer to the individual product labels for information about specific crops, rates, geographic restrictions and precautionary statements. For more information see the "TANK MIXTURES" and "TANK MIXING PROCEDURES" sections of this label.

Perennial Grass Suppression
This product will suppress perennial grasses such as bahiagrass, Bermudagrass, tall fescue, orchardgrass, Kentucky bluegrass, and quackgrass that are grown as ground covers in tree and vine crops.
For suppression of tall fescue, fine fescue, orchardgrass and quackgrass, apply 8 fluid ounces of this product in 10 to 20 gallons of water per acre.
For suppression of Kentucky bluegrass covers, apply 6 fluid ounces of this product per acre.
DO NOT add ammonium sulfate.

For best results, mow cool season grass covers in the spring to even their height and apply this product 3 to 4 days after mowing.

For suppression of vegetative growth and seedhead inhibition of bahiagrass for approximately 45 days, apply 6 fluid ounces of this product in 10 to 25 gallons of water per acre. Apply 1 to 2 weeks after full green-up or after mowing to a uniform height of 3 to 4 inches. This application must be made prior to seedhead emergence.

For suppression up to 120 days, apply 4 fluid ounces of this product per acre, followed by an application of 2 to 4 fluid ounces per acre about 45 days later. Make no more than 2 applications per year.

For burndown of Bermudagrass, apply 1 to 2 quarts of this product in 3 to 20 gallons of water per acre. Use this treatment only if reduction of the Bermudagrass stand can be tolerated. When burndown is required prior to harvest, allow at least 21 days to ensure sufficient time for burndown to occur.

For suppression of Bermudagrass, apply 6 to 16 fluid ounces of this product per acre east of the Rocky Mountains and 16 fluid ounces of this product per acre west of the Rocky Mountains. Apply in a total spray volume of 3 to 20 gallons per acre, no sooner than 1 to 2 weeks after full green-up. If the Bermudagrass is mowed prior to application, maintain a minimum of 3 inches in height. Sequential applications may be made when regrowth occurs and Bermudagrass injury and stand reduction can be tolerated. East of the Rocky Mountains, rates of 6 to 10 fluid ounces of this product per acre should be used in shaded conditions or where a lesser degree of suppression is desired.

Cut Stump (tree crops)
USE INSTRUCTIONS: Cut stump applications of this product may be made during site preparation or site renovation, prior to transplanting tree crops. This product will control regrowth of cut stumps and resprouts of many types of tree species, some of which are listed below.

Citrus Trees: Calamondin, Chironja, Citron, Citrus hybrids, Grapefruit, Kumquat, Lemon, Lime, Mandarin (Tangerine), Orange (all), Pummelo, Tangelo (Ugli), Tangor.
Fruit Trees: Apple, Apricot, Cherry (sweet, sour), Crabapple, Loquat, Mayhaw, Nectarine, Olive, Peach, Pear, Plum/Prune (all), Quince.
Nut Trees: Almond, Beechnut, Brazil nut, Butternut, Cashew, Chestnut, Chinquapin, Filbert (hazelnut), Hickory Nut, Macadamia, Pecan, Pistachio, Walnut (black, English).

PROPRIETARY

Apply this product using suitable equipment to ensure coverage of the entire cambium. Cut trees or resprouts close to the soil surface. Apply a 50 to 100 percent solution of this product to the freshly cut surface immediately after cutting. Delays in application may result in reduced performance. For best results, applications should be made during periods of active growth and full leaf expansion.

DO NOT MAKE CUT STUMP APPLICATIONS WHEN THE ROOTS OF ADJACENT DESIRABLE TREES MAY BE GRAFTED TO THE ROOTS OF THE CUT STUMP. INJURY RESULTING FROM ROOT GRAFTING MAY OCCUR IN ADJACENT TREES. Some sprouts, stems, or trees may share the same root system. Adjacent trees having a similar age, height and spacing may signal shared roots. Whether grafted or shared, injury is likely to occur to non-treated stems/trees when one or more trees sharing common roots are treated.

Berry Crops
LABELED CROPS: Blackberry (including bingleberry, black satin be, boysenberry, Cherokee blackberry, chesterberry, Cheyenne blackberry, coryberry, darrowberry, dewberry, Dirksen thornless berry, Himalayaberry, hullberry, juneberry, lavacaberry, lowberry, lucretiaberry, marionberry, nectarberry, olallieberry, Oregon evergreen berry, phenomenalberry, rangeberry, ravenberry, rossberry, Shawnee blackberry, and youngberry), Blueberry, Cranberry, Currant, Elderberry, Gooseberry, Huckleberry, Loganberry, Salal [Optional Crop: Raspberry (black, red)].

TYPES OF APPLICATIONS: Those listed in "TREES, VINE AND SHRUB CROPS" section of this label, plus Spot Treatment in Cranberry Production and Post-Harvest Treatment in Cranberry Production.

To avoid damage, herbicide spray must not be allowed to contact desirable vegetation, including green shoots, canes, or foliage. Allow a minimum of 30 days between last application and harvest of cranberries. Allow a minimum of 14 days between last application and harvest of other berry crops.

Spot Treatment in Cranberry Production
USE INSTRUCTIONS: Spot treatments may be used to control weeds growing in dry ditches (interior and perimeter) of cranberry production areas. Hand-held sprayers or other appropriate application equipment listed under "APPLICATION EQUIPMENT AND TECHNIQUES" in this label may be used. Drop water level to remove standing water in ditches prior to application. With hand-held sprayers, use 1- to 2-percent solution of this product. Spray adequately to wet the vegetation only; **DO NOT** spray to the point of run-off.

To achieve maximum weed control in treatments of dry ditches after water draw down, allow 2 or more days after treatment before reintroduction of water. Apply this product within 1 day after draw down to ensure application to actively growing weeds. Allow a minimum of 30 days between last application and harvest of cranberries. **DO NOT** make applications by air. **DO NOT** apply directly to water. Use nozzles that emit medium- to large-sized droplets in order to minimize spray drift and avoid crop injury.

Post-Harvest Treatments in Cranberry Production
USE INSTRUCTIONS: Application of this product may be made after the harvest of cranberries to control weeds growing in the field. Apply this product to vines that appear dormant (after they have turned red). Hand-held sprayers, wipers, or other appropriate application equipment listed in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label may be used. If using hand-held sprayers, use a 0.5-to 1-percent solution of this product. Spray adequately to wet the vegetation only; **DO NOT** spray to the point of run-off. If using hand-held boom sprayers, apply 2 to 4 quarts of this product per acre.

Make applications only after cranberries have been harvested. **DO NOT** treat more than 10 percent of the total bog. Allow a minimum of 6 months after last application and next harvest of cranberries. **DO NOT** make applications by air. **DO NOT** apply directly to water. Even though vines appear dormant, contact of the herbicide solution with desirable vegetation may result in damage or severe plant injury. Cranberry plants that are directly sprayed may be killed.

CITRUS
LABELED CROPS: Calamondin, Chironja, Citron, Citrus Hybrids, Grapefruit, Kumquat, Lemon, Lime, Mandarin (tangerine), Orange (all), Pummelo, Satsuma Mandarin, Tangelo (ugli), Tangor.

TYPES OF APPLICATIONS: Those listed in "TREES, VINE AND SHRUB CROPS" section of this label.

Allow a minimum of 1 day between last application and harvest in citrus crops. For citron groves, apply as directed sprays only.

USE INSTRUCTIONS: The following use instructions pertain to applications in Florida and Texas only: For burndown or control of the weeds listed below, apply the specified rates of this product in 3 to 30 gallons of water per acre. Where weed foliage is dense, use 10 to 30 gallons of water per acre.

For goatweed, apply 2 to 3 quarts of this product in 20 to 30 gallons of water per acre when plants are actively growing. Use 2 quarts per acre when plants are less than 8 inches tall, and 3 quarts per acre when plants are greater than 8 inches tall. If goatweed is greater than 8 inches tall, use of this product in a tank mixture with KrovarTM I or KarmexTM may improve weed control. Refer to the individual product labels for treatment information on specific crops, rates, geographic restrictions and precautionary statement.

PERENNIAL WEEDS
S= SUPPRESSION; PC = PARTIAL CONTROL; B = BURNDOWN; C = CONTROL

WEED SPECIES	ENVY RATE PER ACRE			
	1QT	2QT	3QT	4QT
Bermudagrass	B	-	PC	C
Guineagrass	-	-	-	-
Texas and Florida Ridge	B	C	C	C
Florida Flatwoods	-	B	C	C
Paragrass	B	C	C	C
Torpedograss	S	-	PC	C

MISCELLANEOUS TREE FOOD CROPS
LABELED CROPS: Cactus (fruit and pads), Palm (heart, leaves), Palm (oil).

TYPES OF APPLICATIONS: Those listed in "TREES, VINE AND SHRUB CROPS" section of this label.

NON-FOOD TREE CROPS
LABELED CROPS: Pine, Poplar, Eucalyptus, Christmas trees, and all other non-food tree crops.

TYPES OF APPLICATIONS: Those listed in "TREES, VINE AND SHRUB CROPS" section of this label.

NOTE: unless otherwise directed, this product is not specified for use as an over-the-top broadcast spray in plantations or other labeled tree crops.

Directed Spray, Spot treatment, Wiper Application
USE INSTRUCTIONS: This product may be used as a post-directed spray and spot treatment around established poplar, eucalyptus, Christmas trees and other non-food tree crops.

Avoid contact of spray, drift or mist of this product with foliage or green bark of established Christmas trees and other pine trees. Desirable plants may be protected from the spray solution by using shields or coverings made of cardboard or other impermeable material.

Site preparation
USE INSTRUCTIONS: This product may be used for weed control prior to planting non-food tree crops.
Precautions should be taken to protect non-target plants during site preparation applications.

Broadcast Applications in Christmas Tree Plantations
NOTE: IF IMPROPERLY APPLIED, THIS PRODUCT HAS THE POTENTIAL TO CAUSE SEVERE CHRISTMAS TREE INJURY. FOLLOW ALL LABEL DIRECTIONS.
This product may be applied as a broadcast spray over established Christmas trees. (Except in California) Ensure that adequate buffers are maintained to prevent drift onto nearby desirable crops or vegetation. Read the entire "APPLICATION EQUIPMENT AND TECHNIQUES" section of the *ENVY* label booklet for additional application precautions.

SAMPLE

This application is approved for the following Christmas tree species:
Douglas fir (Pseudotsuga menziesii)
Fir species (Abies spp.)
Spruce species (Picea spp.)

Applications may be made only after trees have completed at least a full growing season since planting or transplanting. Applications should not be made within I full year prior to tree harvest.

Applications may only be made in the fall after the formation of final conifer resting buds. Final resting buds must be fully hardened and in the dormant stage. Applications made at any other time may result in unacceptable Christmas tree injury.
Avoid spray pattern overlap, as injury may occur.
Apply 1 quart of this product per acre in 5 to 30 gallons of water per acre.
NOTE: DO NOT ADD SURFACTANTS, ADDITIVES CONTAINING SURFACTANTS, OR ANY OTHER ADDITIVES TO THIS PRODUCT AS SEVERE CHRISTMAS TREE INJURY MAY RESULT.
This product may be used at rates from 1 to 2 quarts per acre in some areas. Consult your local representative or supplier for specific directions if you require rates greater than 1 quart per acre.
Drift control additives may increase Christmas tree injury and their use is not specified.
The use of other herbicides tank mixed with this product is not specified since severe Christmas tree injury may result.

POME FRUIT

LABELED CROPS: Apple, Crabapple, Loquat, Mayhaw, Pear (including oriental pear), Quince.

TYPES OF APPLICATIONS: Those listed in "TREES, VINE AND SHRUB CROPS" section of this label.

Allow a minimum of 1 day between last application and harvest in pome crops.

STONE FRUIT

LABELED CROPS: Apricot, Cherry (sweet, tart), Nectarine, Olive, Peach, Plum/Prune (all types), Plumcot.

TYPES OF APPLICATIONS: Those listed in "TREES, VINE AND SHRUB CROPS" section of this label. For olive groves, apply only as a directed spray.

Allow a minimum of 17 days between last application and harvest in stone fruit crops.

Remove suckers and low-hanging limbs at least 10 days prior to application. Avoid applications near trees with recent pruning wounds or other mechanical injury. Apply only near trees that have been planted in the orchard for 2 or more years. USE EXTREME CARE TO ENSURE THAT NO PART OF THE PEACH TREE IS CONTACTED WITH OVERSPRAY OR DRIFT OF THIS PRODUCT.

TREE NUTS

LABELED CROPS: Almond, Beechnut, Betelnut, Brazil nut, Butternut, Cashew, Chestnut, Chinquapin, Coconut, Filbert (hazelnut), Hickory nut, Macadamia, Pecan, Pine nut, Pistachio, Walnut (black, English)

TYPES OF APPLICATIONS: Those listed in "TREES, VINE AND SHRUB CROPS" section of this label.

Allow a minimum of 3 days between last application and harvest of tree nuts, except coconut. Allow 14 days between application and harvest in coconut.

TROPICAL AND SUBTROPICAL TREES AND FRUITS

LABELED CROPS: Ambarella, Atemoya, Avocado, Banana, Barbados cherry (acerola), Biriba, Blimbe, Breadfruit, Cacao (cocoa) bean, Canistel, Carambola (starfruit), Cherimoya, Coffee, Custard apple, Dates, Durian, Feijoa, Figs, Governor's plum, Guava, Ilama, Imbe, Imbu, Jaboticaba, Jackfruit, Longan, Lychee, Mamey apple, Mango, Mangosteen, Marmaladebox (genip), Mountain papaya, Papaya, Pawpaw, Plantain, Persimmon, Pomegranate, Pulasan, Rambutan, Rose apple, Sapodilla, Sapote (black, mamey, white), Spanish lime, Soursop, Star apple, Sugar apple, Surinam cherry, Tamarind, Tea, Ti (roots and leaves), Wax jambu.

TYPES OF APPLICATIONS: Those listed in "TREES, VINE AND SHRUB CROPS" section of this label, and as described below as a Bananacide (Bananas Only).

Allow a minimum of 1 day between last application and harvest in banana, guava, papaya, and plantain crops. Allow a minimum of 14 days between last application and harvest for any other tropical or subtropical tree fruit listed. Allow a minimum of 28 days between last application and harvest in coffee crops. In coffee and banana, delay applications 3 months after transplanting to allow the new coffee or banana plant to become established.

Bananacide (Banana Only)
USE INSTRUCTIONS: This product may be used to destroy banana plants infected with the Banana Bunchy Top Virus, as well as non-infected banana plants in order to establish disease free buffers around plantations. Remove all fruit from the plants within the treatment area prior to treatment. Inject 1/25 fluid ounce (1 mL) of this product's concentrate per 2 to 3 inches of pseudostem diameter. Make the injection at least one foot above the ground, except for very small plants, which should be injected vertically into the top. Any subsequent regrowth must also be destroyed. All plants and mats (or units) within a 4-foot radius around a treated mat should be mechanically destroyed.
For control of the Banana Bunchy Top Virus, it is critical that the grower follow a strict control program involving monitoring for diseased plants, spraying to control the aphid vector, and destruction of all infected mats (or units). An infected plant may not show symptoms of the banana bunchy top virus for up to 125 days, therefore it is critical that the entire mat (or unit) containing the diseased plant be destroyed immediately.

DO NOT apply more than 1/2 fluid ounce (15 mL) of this product per mat (or unit). Remove all fruit from plants and mats (or units) prior to treatment. **DO NOT** harvest any fruit or plant materials from treated mats (or units) following injection. **DO NOT** allow livestock to consume treated plant materials. Following transplant of new banana plants into treated areas, allow plants to become established for 3 months before applying this product for weed control.

VINE CROPS

LABELED CROPS: Grapes (raisin, table, wine) Hops, Kiwi, Passion fruit.

TYPES OF APPLICATIONS: Those listed in "TREES, VINE AND SHRUB CROPS" section of this label.

Apply this product for weed control only when green shoots, canes or foliage are not in the spray zone.

In the northeast and Great Lakes regions, apply this production grape vineyards prior to the end of the bloom stage of grapes in order to avoid crop injury, or apply using shielded sprayers or wiper equipment.

Allow a minimum of 14 days between last application and harvest of vine crops. **DO NOT** use selective equipment in kiwi.

PASTURE GRASSES, FORAGE LEGUMES AND RANGELANDS

USE INSTRUCTIONS: Refer to the "ANNUAL WEEDS" and "PERRNNIAL WEEDS RATE SECTIONS" of this label for rates for specific weeds. When applied as directed, this product will control these annual and perennial grasses and broadleaf weeds. Specified rates of this product specified on this label for the control of tough weeds, or those specified on separate supplemental labeling for this product, supersede rates specified in the "ANNUAL WEEDS", "PERENNIAL WEEDS" and "WOODY BRUSH AND TREES RATE SECTIONS" of this label.

All labeled treatments may be made by aerial equipment where appropriate, provided that the applicator complies with the precautions and restrictions specified on this product's labeling.

ALFALFA, CLOVER, AND OTHER FORAGE LEGUMES

LABELED CROPS: Alfalfa, Clover, Kenaf, Kudzu, Lespedeza, Leucaena, Lupin, Sainfoin, Trefoil, Velvet bean, Vetch (all types).

TYPES OF APPLICATIONS: Preplant, At-Planting, Preemergence, Preharvest (except Kenaf and Leucanea), Spot Treatment, Over-the-Top Wiper Application, Renovation, Stand Removal. Use directions for alfalfa with the Roundup Ready gene are in the "ROUNDUP READY CROPS" section of this label.

STRICTLY

Preplant, At-Planting, Preemergence
USE INSTRUCTIONS: This product may be applied before, during or after planting crops listed in this section. Applications must be made prior to crop emergence.

Remove domestic livestock before application. The crop may be fed or grazed as soon as it reaches sufficient maturity.
Preharvest (Except Kenaf and Leucanea)

USE INSTRUCTIONS: This product may be used in declining alfalfa stands or any stand of alfalfa where crop destruction is acceptable. This product will control annual or perennial weeds, including quackgrass, when applied prior to crop harvest. Applications may be made at any time of the year. For control of quackgrass, apply in the spring, late summer or fall when quackgrass is actively growing. Treatments for quackgrass must be followed by deep tillage for complete control.

Make only one application to an existing stand of crop per year. The treated crop and weeds can be harvested and fed to livestock according to the application rates and intervals defined below.

CROP	MAXIMUM SINGLE APPLICATION RATE (PER ACRE)	MINIMUM INTERVAL BETWEEN APPLICATION AND HARVEST OR LIVESTOCK GRAZING
Alfalfa	2 quarts	36 hours
All other legumes listed	3 pints	3 days

This application may destroy the alfalfa stand and may severely injure or destroy other labeled crops such as clover. Preharvest application is not specified for alfalfa grown for seed, as a reduction in germination or vigor may result.

Spot Treatment, Over-the-Top Wiper Application
USE INSTRUCTIONS: This product may be applied as a spot treatment or over the top of crops listed in this section with wiper applicators. For wipers, see "Wiper Applicators" in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label. Applications may be made in the same area at 30-day intervals.

For spot treatment and wiper applications, apply in areas where the movement of domestic livestock can be controlled. No more than 10 percent of the total field area should be treated at one time. Remove domestic livestock before application and wait 3 days after application before grazing livestock or harvesting.

Renovation, Stand Removal
USE INSTRUCTIONS: This product may be applied as a broadcast spray to remove established stands of alfalfa, clover, and other forage legumes listed on this label. If the crop is to be grazed or harvested for feed, use up to a maximum of 2 quarts per acre in alfalfa and up to 3 pints per acre in other labeled legumes. For complete removal of established stands of clover, it may be necessary to use treatment rates greater than this, as listed in the "PERENNIAL WEEDS RATE SECTION" of this label.

For applications up to 2 quarts per acre for alfalfa or 3 pints per acre for all other forage legumes, remove domestic livestock before application, follow the minimum harvest or grazing intervals in the table above under Preharvest in this section.. For treatment rates above these levels, **DO NOT** graze or harvest treated foliage for livestock feed or allow grazing. Crops listed in this label may be planted into the treated area at any time; for all other crops, wait 30 days or more between application and planting.

For Use In Dormant Alfalfa
This product will control or suppress many weeds, including quackgrass, downy brome and cheatgrass in dormant alfalfa.
Apply 8 to 12 fluid ounces per acre of this product. Apply in the spring to alfalfa that is dormant.
Applications should be made after spring temperatures have warmed enough to encourage resumption of weed growth, but prior to initiation of trifoliate leaf expansion of the alfalfa.

Applications made after expansion of the first trifoliate leaf of the alfalfa will cause growth reduction and reduced crop yield.

DO NOT use ammonium sulfate when spraying dormant alfalfa with **ENVY.**

DO NOT use this product where a slight yield reduction in the first cutting of alfalfa cannot be tolerated. **DO NOT** make more than one application per year.

Allow 36 hours after application before grazing livestock or harvesting.

Slight discoloration of the alfalfa may occur, but the alfalfa will regreen and regrow under moist soil conditions as effects of this product wear off.

Application of this product is limited to persons who have attended a training program. Application of this product can cause crop injury. Any crop injury is the sole responsibility of the applicator.

For The Control Of Annual Weeds In Coastal Bermudagrass Pastures Prior To Spring Growth Or Immediately After First Cutting

This product maybe applied at 16 fluid ounces per acre to control the weeds listed below and most other winter annual grass and broadleaf weeds in established coastal Bermudagrass pastures.

Annual bluegrass	Johnsongrass, seedling	Sandbur, field
Cheat	Little barley	Sunflower
Crabgrass	Oats	Wheat
Henbit	Ryegrass, Italian	Wild mustard

TIMING OF APPLICATION
Applications prior to spring growth: Apply this product in either late winter or early spring, but before new coastal Bermudagrass growth begins in the spring. Applications to new growth can damage the Bermudagrass.
Remove domestic livestock from the pasture before making the application. Wait 60 days after making this application before grazing or harvesting the treated area.

Applications, following the first cutting: Apply this product after the first Bermudagrass cutting when the Bermudagrass has not yet begun to regrow. Applications made after regrowth has begun can damage the Bermudagrass.
Remove domestic livestock from the pasture before making the application. Wait 28 days after making this application before grazing or harvesting the treated area.

NOTE: ONLY ONE APPLICATION PER YEAR MAY BE MADE TO ANY ONE FIELD. A SPRING APPLICATION PRIOR TO GROWTH AND AN APPLICATION FOLLOWING THE FIRST CUTTING MAY NOT BE MADE ON THE FIELD DURING THE SAME YEAR.

CONSERVATION RESERVE PROGRAM (CRP)
TYPES OF APPLICATIONS: Renovation (Rotating Out Of CRP), Site Preparation, Postemergence Weed Control in Dormant CRP Grasses, Over-the-Top Wiper Application.

Renovation (Rotating Out of CRP), Site Preparation
USE INSTRUCTIONS: This product may be used to prepare CRP land for crop production. Refer to Federal, state or local use guides for CRP renovation directions.

Crops listed on this label may be planted into the treated area at any time; for any other crop, wait at least 30 days between application and planting.

Postemergence Weed Control in Dormant CRP Grasses, Over-the-Top Wiper Application
USE INSTRUCTIONS: Apply this product to suppress competitive growth and seed production of undesirable vegetation on CRP land. Applications may be made using wiper applicators to control tall weeds or as a broadcast or spot treatment to dormant CRP grasses..

For selective applications with broadcast spray equipment, apply 12 to 16 fluid ounces of this product per acre in early spring before desirable CRP grasses, such as crested and tall wheatgrass, break dormancy and initiate green growth. Late fall applications can be made after desirable perennial grasses have reached dormancy.

Some stunting of CRP perennial grasses will occur if broadcast applications are made when plants are not dormant. No waiting period is required between application and grazing or harvesting for feed. **DO NOT** apply more than 3 quarts per acre per year onto CRP land.

GRASS SEED OR SOD PRODUCTION

LABELED CROPS: Any grass (Gramineae family) except Corn, Sorghum, Sugarcane and those listed in the "CEREAL AND GRAIN CROPS" section of this label.

TYPES OF APPLICATIONS: Preplant, At-Planting, Preemergence, Renovation, Removal of Established Stands, Site Preparation, Shielded Sprayers, Over-the-Top Wiper Application, Spot Treatment, Creating Rows in Annual Ryegrass.

Preplant, At-Planting, Preemergence, Renovation, Removal of Established Stands, Site Preparation

USE INSTRUCTIONS: This product controls most existing vegetation prior to renovating turf or forage grass seed areas or establishing turf grass grown for sod. It may be used to destroy undesirable grass vegetation when production fields are converted to alternate species or crops. Make applications before, during, or after planting or for renovation. For maximum control of existing vegetation, delay planting to determine if any regrowth from escaped underground plant parts occurs. Where existing vegetation is growing under mowed turf management, apply this product after omitting at least one regular mowing to allow sufficient growth for good interception of the herbicide spray. Where repeat treatments are necessary, sufficient regrowth must be attained prior to application. For warm-season grasses, such as Bermudagrass, summer or fall applications provide best control. Broadcast equipment may be used to control sod remnants or other unwanted vegetation after sod is harvested. Application rates of up to 5 quarts per acre may be used to totally remove established stands of tough to kill grass species.

DO NOT disturb soil or underground plant parts before treatment. Tillage or renovation techniques such as vertical mowing, coring or slicing should be delayed for 7 days after application to allow proper translocation into underground plant parts. If application rates total 3 quarts per acre or less, no waiting period between treatment and feeding or livestock grazing is required. If the rate is greater than 3 quarts per acre, remove domestic livestock before application and wait 8 weeks after application before grazing or harvesting. For any crop not listed for treatment in this label, applications must be made at least 30 days prior to planting.. Applications must be made prior to the crop emergence in order to avoid crop injury.

Shielded Sprayers

USE INSTRUCTIONS: Apply 1 to 3 quarts of this product as a broadcast spray in 10 to 20 gallons of water per acre to control weeds between grass seed rows. Uniform planting in straight rows aid in shielded sprayer applications. Best results are obtained when the grass seed crop is small enough to easily pass by or through the protective shields. See additional instructions on the use of shielded sprayers in the "APPLICATION EQUIPMENT AND TECHNIQUES" section.

Droplets, mist, foam or splatter of the herbicide solution settling onto desirable vegetation may result in discoloration, stunting or destruction. Such damage shall be the sole responsibility of the applicator.

Over-the-Top Wiper Application

USE INSTRUCTIONS: This product may be applied over the top of desirable grasses using wiper applicators for the control of tall weeds. See additional instructions on the use of wiper applicators in the "APPLICATION EQUIPMENT AND TECHNIQUES" section.

Droplets, mist, foam or splatter of the herbicide solution settling onto desirable vegetation may result in discoloration, stunting or destruction. Such damage shall be the sole responsibility of the applicator.

Spot Treatment

USE INSTRUCTIONS: Apply a 1- to 1.5-percent solution of this product using hand-held spray equipment to control weeds within established vegetation prior to heading of grasses grown for seed. Hand-held equipment may also be used to control sod remnants or other unwanted vegetation after sod is harvested.

Apply this product prior to heading of grasses. **DO NOT** treat more than 10 percent of the total field area. Crop sprayed in treated area will be killed. Take care not to spray or allow spray to drift outside the target area to avoid unwanted crop destruction. Hand-held equipment may be used to control sod remnants or other unwanted vegetation after sod is harvested.

Creating Rows in Annual Ryegrass

USE INSTRUCTIONS: Apply 16 to 32 fluid ounces of this product per acre. Best results are obtained when applications are made before ryegrass reaches 6 inches in height. Use the higher rate when the ryegrass is greater than 6 inches in height. Set nozzle heights to allow the establishment of the desired row spacing. Use of low pressure nozzles, or drop nozzles designed to target the application over a narrow band are specified.

Take care not to spray or allow droplets, spray lines or drift to settle outside the treatment area to avoid unwanted crop destruction.

To the extent consistent with applicable law, grower assumes all responsibility for crop losses from misapplication.

PASTURES

LABELED CROPS: Any grass (Gramineae family) except Corn, Sorghum, Sugarcane and those listed in the "CEREAL AND GRAIN CROPS" section of this label, including Bahiagrass, Bermudagrass, Bluegrass, Bromegrass, Fescue, Guineagrass, Kikuya grass, Orchardgrass, Pangola grass, Ryegrass, Timothy, Wheatgrass.

TYPES OF APPLICATIONS: Preplant, Preemergence, Pasture Renovation, Spot Treatment, Over-the-Top Wiper Application, Postemergence Weed Control (Broadcast Treatments).

Preplant, Preemergence, Pasture Renovation

USE INSTRUCTIONS: This product may be applied for weed control prior to planting or emergence of forage grasses. This product may also be used to control perennial pasture species listed on this label prior to re-planting.

If application rates total 3 quarts per acre or less, no waiting period between treatment and feeding or livestock grazing is required. If the rate is greater than 3 quarts per acre, remove domestic livestock before application and wait 8 weeks after application before grazing or harvesting. For any crop not listed on this label, applications must be made at least 30 days prior to planting.

Spot Treatment, Over-the-Top Wiper Application

USE INSTRUCTIONS: This product may be applied in pastures as a spot treatment or over the top of desired grasses using wiper applicators to control tall weeds. Applications may be repeated in the same area at 30-day intervals. See additional instructions on the use of wiper applicators in the "APPLICATION EQUIPMENT AND TECHNIQUES" section.

For spot treatment and wiper application methods using rates of 3 quarts of this product per acre or less, the entire field or any portion of it may be treated. When spot treatments or wiper applications are made using rates above 3 quarts of this product per acre, no more than 10 percent of the field may be treated at any one time. To achieve maximum performance, remove domestic livestock before application and wait 7 days after application before grazing or harvesting for feed.

Postemergence Weed Control (Broadcast Treatments)

USE INSTRUCTIONS: This product may be applied to pastures to suppress competitive growth and seed production of annual weeds and undesirable vegetation. For selective applications with broadcast spray equipment, apply 12 to 16 fluid ounces of this product per acre in early spring before desirable perennial grasses break dormancy and initiate green growth. Late fall applications can be made after perennial grasses have reached dormancy.

SPECIMEN

Some stunting of perennial grasses will occur if broadcast applications are made when plants are not dormant. Use of higher application rates will cause stand reductions. No waiting period is required between application and grazing or harvesting for feed. **DO NOT** apply more than 3 quarts per acre per year onto pasture grasses except for renovation use described above in this section. If replanting is needed due to severe stand reduction, wait at least 30 days after treatment prior to planting any crop not listed on this label.

RANGELANDS

TYPES OF APPLICATIONS: Postemergence.

USE INSTRUCTIONS: This product will control or suppress many annual weeds growing in perennial cool and warm-season grass rangelands. Preventing viable seed production is key to the successful control and invasion of annual grassy weeds in rangelands. Follow-up applications in sequential years should eliminate most of the viable seeds. Grazing of treated areas should be delayed to encourage growth of desirable perennials. Allowing desirable perennials to flower and reseed in the treated area will encourage successful transition.

Apply 12 to 16 fluid ounces of this product to control or suppress many weeds, including downy brome, cheatgrass, cereal rye and jointed goatgrass in rangelands. Apply when most mature brome plants are in early flower and before the plants, including seedheads, turn color. Allowing for secondary weed flushes to occur in the spring following rain events further depletes the seed reserve and encourages perennial grass conversion on weedy sites. Fall applications are specified where spring moisture is usually limited and fall germination allows for good weed growth.

For medusahead, apply 16 fluid ounces of this product at the 3-leaf stage. Delaying applications beyond this stage will result in reduced or unacceptable control. Fire may be useful in eliminating the thatch layer produced by slow decaying culms prior to application. Allow new growth to occur before spraying after a burn. Repeat applications in subsequent years may be necessary to eliminate the seedbank before reestablishing desirable perennial grasses in medusahead-dominated rangelands.

Slight discoloration of the desirable grasses may occur, but they will regreen and regrow under moist soil conditions as effects of this product wear off. **DO NOT** use ammonium sulfate when spraying rangeland grasses with this product. No waiting period between treatment and feeding or livestock grazing is required. **DO NOT** apply more than 3 quarts of this product per acre per year.

ROUNDUP READY CROPS

The following instructions or those published separately on supplemental labelling for this product include all applications of this product that can be made onto the specified Roundup Ready crops during the complete cropping season. **DO NOT** combine these treatment instructions with those for crops in the "ANNUAL AND PERENNIAL CROPS (ALPHABETICAL)" section of this label that **DO NOT** contain the Roundup Ready gene, unless otherwise directed in this product's labelling.

INNVICTIS CROP CARE, LLC™ INTENDS USE OF THIS PRODUCT FOR POSTEMERGENCE (IN-CROP) APPLICATION ONLY ON CROPS DESIGNATED AS CONTAINING THE ROUNDUP READY GENE. Applying this product to crops that are not designated as Roundup Ready will result in severe crop injury and yield loss. Avoid contact with foliage, green stems, or fruit of crops, or any desirable plants that **DO NOT** contain the Roundup Ready gene, since severe plant injury or destruction will result.

The Roundup Ready designation indicates that the crop contains a patented gene that provides tolerance to this product. Information on Roundup Ready crops may be obtained from your seed supplier. Roundup Ready crops must be purchased from an authorized licensed seed supplier.

Sprayer Preparation: It is important that sprayer and mixing equipment be clean and free of pesticide residue before making applications of this product. Follow the cleaning procedures specified on the label of the product(s) previously used. THOROUGHLY CLEAN THE SPRAY TANK AND ALL LINES AND FILTERS TO ELIMINATE POTENTIAL CONTAMINATION FROM OTHER HERBICIDES PRIOR TO MIXING AND APPLYING THIS PRODUCT.

For ground broadcast applications: Apply this product in 5 to 20 gallons of spray solution per acre. Carefully select proper nozzle and spray pressure to avoid spraying a fine mist. For best results with ground application equipment, use flat spray nozzles. Check for even distribution of spray droplets.

For aerial applications: All labeled treatments may be made by aerial equipment where appropriate, provided that the applicator complies with the precautions and restrictions specified on this product's labeling, in particular in the "Aerial Equipment" section. Apply this product in 3 to 15 gallons of water per acre. See the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for procedures to avoid spray drift that may cause injury to any vegetation not intended for treatment. Use of appropriate buffer zones will help prevent injury to adjacent vegetation.

ATTENTION: AVOID DRIFT. EXTREME CARE MUST BE USED WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS WHICH **DO NOT** CONTAIN THE ROUNDUP READY GENE.

TANK MIXTURE: Tank mixtures with other herbicides, insecticides, fungicides, micronutrients or foliar fertilizers may result in reduced weed control or crop injury and are **NOT** specified for applications of this product over the top of Roundup Ready crops unless otherwise noted in this product label, or in separate supplemental labeling.

Unless otherwise directed, nonionic surfactant maybe added to the spray solution for applications to Roundup Ready crops. The addition of certain surfactants to this product may result in some crop response including leaf necrosis, leaf chlorosis or leaf speckling due to the surfactant added to the spray mixture. Read and carefully observe cautionary statements and other information appearing on the surfactant label.

Ammonium sulfate may be mixed with this product for applications to Roundup Ready crops. Refer to the "MIXING" section for instructions on the use of ammonium sulfate. Ensure that ammonium sulfate is completely dissolved in the spray tank before adding herbicides. Thoroughly rinse the spray system with clean water after use to reduce corrosion

NOTE: The following instructions are based on a clean start at planting by using a burndown application or tillage to control existing weeds before crop emergence. In no-till and stale seedbed systems, a preplant burn-down treatment of this product is specified to control existing weeds prior to crop emergence. Some weeds, such as black nightshade, broadleaf signalgrass, sicklepod, Texas panicum, sandbur, annual morningglory, woolly cupgrass, shattercane, wild proso millet, burcumber, and giant ragweed with multiple germination times, or suppressed (stunted) weeds may require a second application of this product for complete control. The second application should be made after some regrowth has occurred and at least 10 days after a previous application of this product.

Rates of this product specified in the following sections, or in separate supplemental labeling for this product on the control of tough weeds, supersede the rates specified in the "ANNUAL WEEDS RATE SECTION" and the "PERENNIAL WEEDS RATE SECTION" of this label.

ROUNDUP READY ALFALFA

TYPES OF APPLICATIONS: Preplant, At-planting, Preemergence, Postemergence (In-crop).

USE INSTRUCTIONS: Refer to the following table for the maximum application rates of this product.

ANNUAL MAXIMUM APPLICATION RATES	
Combined total per year for **all** applications, including preplant during year of establishment	8 quarts per acre
Combined total per year for in-crop applications for newly established and established stands	6 quarts per acre

See the "ROUNDUP READY CROPS" section of this label for precautionary instructions for use of this product in Roundup Ready crops. See the "USE INFORMATION" section of this label for more information on "Annual Maximum Application Rates." Refer to individual tank mixture product label for restrictions and precautions, use according to the most restrictive precautionary statements for each product in the tank mixture.

SPECIMEN

Preplant, At-Planting, Preemergence
USE INSTRUCTIONS: This product may be applied before, during or after planting alfalfa with a Roundup Ready gene, up to a maximum of 2 quarts per acre.

Postemergence (In-crop)
USE INSTRUCTIONS: Applications of this product may be made over the top of Roundup Ready alfalfa (in-crop) from emergence to 5 days prior to harvest. To maximize crop yield and quality potential, applications of this product should be made after weeds have emerged but before alfalfa growth or re-growth interferes with spray coverage of the target weeds.

Refer to the "ANNUAL WEEDS RATE SECTION" and "PERRENIAL WEEDS RATE SECTION" in this label for rates for specific weeds. When applied as directed, this product will control these annual and perennial grasses and broadleaf weeds. In addition to those weeds listed in these sections, this product will suppress the parasitic weed Dodder (Cuscuta spp) in Roundup Ready alfalfa. Repeat applications may be necessary for complete control.

Stand Establishment-Due to the biology and breeding constraints of alfalfa, up to 10% of the seedlings may not contain a Roundup Ready gene and will not survive after the first application of this product. To eliminate the undesirable effects of stand gaps created by this loss of plants, a single application of this product per acre should be applied at or before the 4-trifoliate growth stage. Refer to the following tables for maximum in-crop application rates during stand establishment (seeding year).

STAND ESTABLISHMENT (Seeding Year) Application Rates	
Prior to First Cutting	
From emergence up to 4 trifoliate leaves	1 to 2 quarts per acre
From 5 trifoliate leaves up to 5 days before first cutting	Up to 2 quarts per acre
After First Cutting	
In-crop application, per cutting, up to 5 days before cutting	Up to 2 quarts per acre

Established Stands----Refer to the following table for directions and maximum application rates for in-crop applications to established stands of alfalfa (non-seeding year).

ESTABLISHED STANDS Application Rates	
In-crop applications, per cutting, up to 5 days before cutting	Up to 2 quarts per acre

Where Roundup Ready alfalfa is grown with a companion or cover crop, or is overseeded with a second species, in-crop (over-the-top) applications of this product will eliminate the non-glyphosate tolerant species. Any single in-crop application of this product should not exceed 2 quarts per acre. Sequential applications of this product should be at least 7 days apart. The combined total per year for all in-crop applications in both newly established (seeding year) and established stands (non-seeding year) must not exceed 6 quarts per acre. Remove domestic livestock before application. Wait a minimum of 5 days after application before grazing, cutting and feeding of forage and hay.

TANK MIXTURES: This product may be tank mixed with the products listed below. Ensure that the specific product used is labeled for alfalfa application.

Newly Seeded Stands and Stand Establishment: For control of emerged annual grasses and broadleaf weeds, this product may be applied at up to 2 quarts per acre in a tank mixture with the following herbicides. Application should be made after weeds have emerged but before the alfalfa growth or regrowth would interfere with spray coverage of the target weeds.

Arrow, Buctril, Butoxone, Butyrac, Poast, Pursuit, Raptor, Select.
Buctril can only be used in newly seeded stands.

Dormant Application and Winter Treatment: For control of emerged annual grasses and broadleaf weeds, up to 2 quarts per acre of this product may be applied in a tank mixture with the following herbicides. Tank mixtures should be applied when the temperature for the day remains above freezing.

Dormant Application
Kerb 50-W, Lexone, Raptor, Sencor, Sinbar, Velpar AlfaMax.

Winter Treatment
Butoxone, Diuron, Velpar AlfaMax.

Tank mixtures of this product with other herbicides, insecticides, or fungicides may result in crop injury or reduced weed control. Applications should not be made to frozen or snow covered ground.

FOR WEED CONTROL APPLICATIONS IN SEED PRODUCTION OF ROUNDUP READY® ALFALFA

This product will control many troublesome emerged weeds with over-the-top applications in Roundup Ready alfalfa grown for seed. Over-the-top applications may be made from emergence through the late vegetative stage, and spot treatments may be made from early bud stage through seed harvest.

For ground applications with broadcast equipment, apply this product in 3 to 40 gallons of spray solution per acre. Carefully select proper nozzle and spray pressure to avoid spraying a fine mist. For best results with ground application equipment, use flat fan nozzles. Check for even distribution of spray droplets.

For aerial application: Use the specified rates of this product in 3 to 15 gallons of spray solution per acre.

DO NOT EXCEED 2 QUARTS OF THIS PRODUCT PER ACRE WHEN MAKING APPLICATIONS BY AIR. FOR AERIAL APPLICATION IN CALIFORNIA, REFER TO THE FEDERAL SUPPLEMENTAL LABEL FOR AERIAL APPLICATION IN THAT STATE. AVOID DRIFT. EXTREME CARE MUST BE USED WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS WHICH **DO NOT** CONTAIN THE ROUNDUP READY GENE.
DO NOT apply during low-level inversion conditions, when winds are gusty or under any other conditions that favor drift. Drift may cause damage to any vegetation contacted to which treatment is not intended. To prevent injury to adjacent desirable vegetation, appropriate buffer zones must be maintained.

See the "APPLICATION EQUIPMENT AND TECHNIQUES" section of the label booklet for procedures to avoid spray drift that may cause injury to any vegetation not intended for treatment.

Sprayer Preparation: It is important that sprayer and mixing equipment be clean and free of pesticide residue before making applications of this product to Roundup Ready alfalfa. Follow the cleaning procedures specified on the label of the product(s) used. Alfalfa can be very sensitive to many herbicides at extremely low concentrations and care should be taken to thoroughly clean all equipment prior to use.

TYPES OF APPLICATIONS: Preplant, At-planting, Preemergence, Postemergence and Post-harvest of seed.

MAXIMUM APPLICATION RATES	
Combined total per year for all applications	8 quarts per acre
Total of Preplant, At-planting and Preemergence applications	2 quarts per acre
Total In-crop application rate from emergence through the late Vegetative stage	6 quarts per acre
Spot-treatment during early bud stage through seed harvest (See the "Spot Treatment after late vegetative stage" section of this label for complete instructions)	Apply spray-to-wet; **DO NOT** apply to the point of runoff

There are no rotational crop restrictions following applications of this product. For any crop NOT listed in the label booklet, applications must be at least 30 days prior to planting.

Over-the-top applications: Broadcast applications of this product may be made using ground or aerial application equipment over the top of Roundup Ready alfalfa from emergence through the late vegetative stage. **DO NOT** make broadcast applications of this product between the initiation of alfalfa budding and the harvest of seed. Any single over-the-top broadcast application of this product must not exceed 2 quarts per acre. Sequential applications of this product should be at least 7 days apart.
Due to the biology and breeding constraints of alfalfa, up to 10% of the seedlings are susceptible and will not survive or thrive after the first application of this product. A single application of at least 1 quart per acre of this product should be applied at or before the 3 to 4 trifoliate growth stage to eliminate the effects of stand gaps created by the loss of non-Roundup Ready plants.

Spot Treatment after late vegetative stage: For late emerging weeds, this product may be applied as a spot treatment in Roundup Ready alfalfa grown for seed, during the early bud stage through seed harvest. Applications made during this stage may result in reduced seed yield and quality and are the responsibility of the grower. Make applications on a spray-to-wet basis. **DO NOT** spray to the point of runoff. If a spot treatment is made after the late vegetative stage, harvested seed must not be used for alfalfa sprout production.

Post-harvest applications: Following harvest of Roundup Ready alfalfa seed, the stand may be managed for forage and hay production. Refer to the Roundup Ready alfalfa section of the label booklet *ENVY* for rates and timing of applications for forage and hay production.
Weeds **controlled:** For specific rates of application and instructions for control of various annual and perennial weeds, refer to the "ANNUAL WEEDS RATE SECTION" and the "PERENNIAL WEEDS RATE SECTION" in the *ENVY* label booklet. Some weeds with multiple germination times or suppressed (stunted) weeds may require a second application of this product for complete control. The second application should be made after some re-growth of weeds has occurred.
In addition to those weeds listed in the *ENVY* label booklet, this product will suppress or control the parasitic weed, Dodder (Cuscuta spp) in Roundup Ready alfalfa seed production. Repeat applications may be necessary for complete control.

Tank mixtures with other herbicides, insecticides, or fungicides may result in crop injury or reduced weed control and are NOT specified for over-the-top applications of this product.
DO NOT make over-the-top broadcast applications of this product between the initiation of alfalfa budding and the harvest of Roundup Ready alfalfa seed. The use of harvested Roundup Ready alfalfa seed is not suitable for, and is not specified for production of alfalfa sprouts.

Read the "CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY" in the label booklet before using. For (in-crop) over-the-top uses on Roundup Ready crop varieties, crop safety and weed control performance are not warranted by INNVICTIS CROP CARE LLC when this product is used in conjunction with "brown bag" or "bin run" seed saved from previous year's production and replanted. These terms apply to this supplemental labeling and if these terms are not acceptable, return the product unopened at once.

ROUNDUP READY CANOLA (SPRING)

Roundup Ready spring canola is defined as those Roundup Ready canola varieties that are seeded in the spring and harvested in the fall and **DO NOT** enter a winter dormancy period.

TYPES OF APPLICATIONS: Preplant, At-Planting, Preemergence, Postemergence (In-crop).

DO NOT USE THIS PRODUCT ON CANOLA WITH THE ROUNDUP READY GENE PLANTED IN THE FOLLOWING STATES: ALABAMA, DELAWARE, FLORIDA, GEORGIA, KENTUCKY, MARYLAND, NEW JERSEY, NORTH CAROLINA, SOUTH CAROLINA, TENNESSEE, VIRGINIA AND WEST VIRGINIA, EXCEPT FOR USES IN WILDLIFE FOOD PLOTS THAT WILL NOT BE HARVESTED FOR HUMAN OR LIVESTOCK FOOD.

ANNUAL MAXIMUM APPLICATION RATES	
Total of Preplant, At-planting, Preemergence applications	2 quarts per acre
Total In-crop application from emergence to 6-leaf stage	1 quart per acre

Higher-Rate Postemergence Use Directions For Weed Control In Roundup Ready Canola

TYPES OF APPLICATIONS: Preplant, At-planting, Preemergence, Postemergence (In-crop).

DO NOT USE THIS PRODUCT ON CANOLA WITH A ROUNDUP READY GENE PLANTED IN THE FOLLOWING STATES: ALABAMA, DELAWARE, FLORIDA, GEORGIA, KENTUCKY, MARYLAND, NEW JERSEY, NORTH CAROLINA, SOUTH CAROLINA, TENNESSEE, VIRGINIA AND WEST VIRGINIA.

MAXIMUM ALLOWABLE COMBINED APPLICATION QUANTITIES PER SEASON	
Total of Preplant, At-planting, Preemergence applications	2 quarts per acre
Total in-crop application from emergence to 6-leaf stage	2 quarts per acre

Preplant, At-planting Preemergence
USE INSTRUCTIONS: This product may be applied before, during or after planting.
Higher Rate Postemergence Use Directions For Weed Control in Roundup Ready Canola

Postemergence (In-crop)
USE INSTRUCTIONS: This product may be applied postemergence to Roundup Ready canola from emergence through the 6-leaf stage of development. Applications made during bolting or flowering may result in crop injury and yield loss. To maximize yield potential, make applications early to eliminate competing weeds.
Weeds Controlled: For specific rates of application and instructions, refer to the "ANNUAL WEEDS" and "PERENNIAL WEEDS RATE SECTIONS" in this label.

Single Application - Apply 16 to 32 fluid ounces per acre no later than the 6-leaf stage for the control of annual weeds. Avoid overlapping applications that may result in temporary yellowing, delayed flowering, and or growth reduction. Similar injury may result when applications of more than 16 fluid ounces per acre are applied after the 4-leaf stage.
Sequential Application - Apply 32 fluid ounces per acre to 1- to 3-leaf canola followed by a sequential application at a minimum interval of 10 days, but no later than the 6-leaf stage. Sequential applications are specified for early emerging annual weeds and perennial weeds such as Canada thistle and quackgrass or when controlling weeds with multiple application times.

No more than two over-the-top broadcast applications may be made from crop emergence through the 6-leaf stage of development and the total In-crop application should not exceed 64 fluid ounces per acre. Allow a minimum of 60 days between last application and canola harvest.

See the "ROUNDUP READY CROPS" section of this label for instructions for use of this product in Roundup Ready crops. See the "USE INFORMATION" section of this label for more information on "Annual Maximum Application Rates."

Preplant, At-planting, Preemergence
USE INSTRUCTIONS: This product may be applied before, during or after planting, up to a maximum of 2 quarts per acre.

Postemergence (In-crop)
USE INSTRUCTIONS: This product may be applied postemergence to Roundup Ready spring canola from emergence through the 6-leaf stage of development. Applications made during bolting or flowering may result in crop injury and yield loss. To maximize yield potential, make applications early to eliminate competing weeds. .

Single Application - Apply 16 to 24 fluid ounces per acre no later than the 6-leaf stage for the control of annual weeds. Avoid overlapping applications that may result in temporary yellowing, delayed flowering, and or growth reduction. Similar crop injury may result when applications of more than 16 fluid ounces per acre are applied after the 4-leaf stage.

SPECIMEN

Sequential Application - Apply 16 fluid ounces per acre to 1 - to 3-leaf canola followed by a sequential application at a minimum interval of 10 days, but no later than the 6-leaf stage. Sequential applications are specified for early emerging annual weeds and perennial weeds such as Canada thistle and quackgrass, or when multiple application times are needed for adequate weed control.

No more than two in-crop broadcast applications may be made from crop emergence through the 6-leaf stage of development and the total in-crop application should not exceed 32 fluid ounces per acre. Allow a minimum of 60 days between last application and canola harvest.

ROUNDUP READY CANOLA (WINTER)

Roundup Ready Winter Canola is defined as those Roundup Ready canola varieties that are seeded in early fall and harvested the following spring or summer. Winter canola varieties are intended to enter a cold period dormancy in the winter.

MAXIMUM ALLOWABLE COMBINED APPLICATION QUANTITIES PER SEASON	
Total of Preplant, At-planting, Preemergence applications	2 quarts per acre
Total in-crop application from emergence to 6-leaf stage	1 quart per acre

DO NOT USE THIS PRODUCT ON WINTER CANOLA WITH THE ROUNDUP READY GENE PLANTED IN THE FOLLOWING STATES: ALABAMA, DELAWARE, FLORIDA, GEORGIA, KENTUCKY, MARYLAND, NEW JERSEY, NORTH CAROLINA, SOUTH CAROLINA, TENNESSEE, VIRGINIA AND WEST VIRGINIA, EXCEPT FOR USES IN WILDLIFE FOOD PLOTS THAT WILL NOT BE HARVESTED FOR HUMAN OR LIVESTOCK FOOD.

TYPES OF APPLICATIONS: Preplant, At-Planting, Preemergence, Postemergence (In-crop).

Higher Rate Postemergence Use Directions For Weed Control in Roundup Ready Canola

Postemergence (In-crop)

USE INSTRUCTIONS: This product may be applied postemergence to Roundup Ready canola from emergence through the 6-leaf stage of development. Applications made during bolting or flowering may result in crop injury and yield loss. To maximize yield potential, make applications early to eliminate competing weeds.

Weeds Controlled: For specific rates of application and instructions, refer to the "ANNUAL WEEDS" and "PERENNIAL WEEDS RATE SECTIONS" in this label.

Single Application - Apply 16 to 32 fluid ounces per acre no later than the 6-leaf stage for the control of annual weeds. Avoid overlapping applications that may result in temporary yellowing, delayed flowering, and or growth reduction. Similar injury may result when applications of more than 16 fluid ounces per acre are applied after the 4-leaf stage.

Sequential Application - Apply 32 fluid ounces per acre to 1- to 3-leaf canola followed by a sequential application at a minimum interval of 10 days, but no later than the 6-leaf stage. Sequential applications are specified for early emerging annual weeds and perennial weeds such as Canada thistle and quackgrass or when controlling weeds with multiple application times.

No more than two over-the-top broadcast applications may be made from crop emergence through the 6-leaf stage of development and the total in-crop application should not exceed 64 fluid ounces per acre. Allow a minimum of 60 days between last application and canola harvest.

USE INSTRUCTIONS: See the "ROUNDUP READY CROPS" section of this label for precautionary instructions for use of this product in Roundup Ready crops. See the "USE INFORMATION" section of this label for more information on "Annual Maximum Application Rate."

Preplant, At-Planting, Preemergence

USE INSTRUCTIONS: This product may be applied before, during or after planting, up to a maximum of 2 quarts per acre.

Postemergence (In-crop)

USE INSTRUCTIONS: This product may be applied to Roundup Ready winter canola varieties from emergence to canopy closure in the fall and prior to bolting in the spring.

Applications made during or after bolting may result in crop injury and yield loss. To maximize yield potential, make applications early to eliminate competing weeds.

Some weeds with multiple germination times, or suppressed (stunted) weeds, or weeds that have overwintered may require sequential applications of this product for control. The second application should be made after some regrowth has occurred and at least 60 days after a previous application of this product.

Single Application - Apply 24 to 32 fluid ounces of this product per acre in the fall. Applications in the fall should be made when weeds are small and actively growing. Use the higher rate in the specified range when weed densities are high, when weeds have overwintered or when weeds become large and well established. Applications of greater than 16 fluid ounces per acre prior to the 6-leaf stage may result in reduced crop growth in the fall. Avoid spray overlaps. Spray overlaps may result in temporary yellowing and/or growth reduction.

Sequential Applications - Apply 16 to 32 fluid ounces of this product per acre to 2-leaf or larger canola in the fall, followed by a sequential application at the same rate and at a minimum interval of 60 days, but before bolting in the spring. Sequential applications are specified for early emerging annual weeds and winter emerging weeds such as downy brome, jointed goatgrass and ryegrass, and for weeds that have overwintered. This product will control or suppress most perennial weeds. For some perennial weeds, sequential applications may be required to reduce competition with the crop.

No more than two over-the-top broadcast applications may be made from crop emergence up to the onset of bolting, and the total in-crop application must not exceed 64 fluid ounces of this product per acre. Applications of greater than 24 fluid ounces per acre prior to the 6-leaf stage may result in reduced crop growth in the fall. Allow a minimum of 60 days between last application and harvest of canola grain. No waiting period is required between application and open grazing of livestock.

ROUNDUP READY CORN 2

TYPES OF APPLICATIONS: Preplant, At-Planting, Preemergence, Postemergence (In-crop), Spot treatment, Preharvest, Post-harvest.

ANNUAL MAXIMUM APPLICATION RATES	
Combined total per year for all applications	8 quarts per acre
Total of Preplant, At-Planting, Preemergence applications	5 quarts per acre
Total in-crop applications from emergence through 48 inches	3 quarts per acre
Maximum preharvest application	1 quarts per acre

See the "ROUNDUP READY CROPS" section of this label for precautionary instructions for use of this product in Roundup Ready crops. See the "USE INFORMATION" section of this label for more information on "Annual Maximum Application Rates." Refer to individual tank mixture product label for restrictions and precautions, use according to the most restrictive precautionary statements for each product in the tank mixture.

FOR CONTROL AND MANAGEMENT OF GLYPHOSATE RESISTANT HORSEWEED (MARESTAIL, Conyza canadensis)

For ground applications, use 10 to 20 gallons of water per acre. For aerial applications, use 3 to 15 gallons of water per acre.

For tank-mixes, read and carefully observe the cautionary statements and all other information appearing on the product labels, supplemental labeling or fact sheets published separately for all herbicides used.

In-crop (Roundup Ready Corn hybrids only):

Apply a tank-mixture of this product (32 fluid ounces per acre) plus Clarity (8 to 16 fluid ounces per acre) or 2,4-D (0.5 to 1.0 pounds active ingredient per acre) between corn emergence and the 5-leaf stage of growth (approximately 8 inches tall).

Dicamba may be included in the tank-mixture with this product. Refer to the dicamba product label for the time intervals that are required between application and planting and other geographic use restrictions.

SPECIMEN

Preplant, At-planting, Preemergence
USE INSTRUCTIONS: This product may be applied alone or in a tank-mixture before, during or after planting.

TANK MIXTURES: This product may be tank mixed with the products listed below. Ensure that the specific product used is labeled for alfalfa application. Read and follow label directions for all products in the tank mixture. Apply these tank mixtures in 10 to 20 gallons of water or 10 to 60 gallons of nitrogen solution per acre.
Alm, Axiom, Balance, Balance PRO, Banvel, Bicep MAGNUM, Bicep II MAGNUM, Bicep Lite II MAGNUM, Bullet, Cinch, Cinch ATZ, Clarity, Define, Degree, Degree Xtra, Distinct, Dual II MAGNUM, Epic, Frontier, FullTime, Guardsman MAX, Harness, Harness Xtra, Harness Xtra 5.6L, Home', Keystone, Keystone LA, Lariat, Linex, Lorox, Marksman, Me-Too-Lachlor II, Micro-Tech, Prowl, Python, Python II, Radius, Resolve, Resource, Stalwart, Stalwart Xtra, Surpass, TopNotch]
NOTE: For maximum weed control, a postemergence (in-crop) application of this product should be applied following the use of less than labeled rates of the preemergence residual products listed above.

Postemergence (In-crop)
USE INSTRUCTIONS: This product may be applied alone or in tank mixtures postemergence (in-crop) to corn hybrids designated as Roundup Ready Corn 2. When applied as directed, this product controls annual grass and broadleaf weeds listed on this label. Many perennial grasses and broadleaf weeds will be controlled or suppressed with one or more application of this product. A postemergence application of this product should be made before the weeds reach a height of 4 inches or before they become competitive with the crop. If new flushes of weeds occur, a sequential application of this product at 24 to 32 fluid ounces per acre should be made before the weeds reach a height of 4 inches.
This product may be broadcast over-the-top or applied with drop nozzles to Roundup Ready Corn 2 from emergence through the V8 stage (8 leaves with collars) or until corn height reaches 30 inches (free standing), whichever comes first. Drop nozzles are specified for optimum spray coverage and weed control when corn height is 24 to 30 inches. For corn heights 30 to 48 inches (free standing), apply this product only by ground application using drop nozzles aligned to avoid spraying into the whorls of the corn plants.

TANK MIXTURES: This product may be tank-mixed with the following products. Ensure that the specific product being used in the tank mixture is registered for application postemergence (in-crop) to corn. Read and follow label directions of all products in the tank mixture.
Banvel, Basis, Basis Gold, Bullet, Callisto, Clarity, Degree, Degree Xtra, Distinct, Equip, Harness, Harness Xtra, Harness Xtra 5.6L, Hornet, Marksman, Micro-Tech, Option, Resolve, Resource, YUKON.

TANK MIX PARTNER	MAXIMUM HEIGHT OF CORN FOR APPLICATION
Degree	11 inches
Degree Xtra	
Harness	
Harness Xtra	
Harness Xtra 5.6L	
Bullet*	5 inches
Micro-Tech*	
Atrazine	12 inches

*Bullet and Micro-Tech are not registered for use as a postemergence application in Texas.

The addition of 1 to 2 percent dry ammonium sulfate by weight or 8.5 to 17 pounds per 100 gallons of water may increase the performance of this product under hard water conditions, drought conditions or when tank mixed with Bullet® or Micro-Tech® herbicides.

Single in-crop applications of this product should not exceed 3 pints per acre. Sequential in-crop applications of this product from emergence through 48 inches in height must not exceed a total of 3 quarts per acre per growing season. Allow a minimum of 10 days between in-crop applications of this product. Allow a minimum of 50 days between application of this product in-crop and harvest of corn forage or grain. (For applications at preharvest timing, see Preharvest section of this label), The use of additional surfactants and other additives, including fertilizers and micro-nutrients, in the spray solution are not specified with this product and may result in increased potential for crop injury or reduced yield, and is not specified for over-the-top applications, unless otherwise directed in supplemental labeling.

Preharvest
USE INSTRUCTIONS: A single preharvest application of up to 32 fluid ounces per acre of this product may be applied for annual and perennial weed control prior to crop harvest. Make application at 35 percent grain moisture or less. Ensure that maximum kernel fill is complete and the corn is physiologically mature (black layer formed).
DO NOT make a preharvest application of this product if more than a combined total of 64 fluid ounces of this product has been previously applied in over-the-top or drop nozzle applications. Allow a minimum of 7 days between a preharvest application and harvest or feeding of corn stover or grain.

Postharvest
USE INSTRUCTIONS: This product may be applied for weed control after corn harvest. Higher rates may be required for control of large weeds that were growing in the crop at the time of harvest. Tank mixtures with 2,4-D or dicamba may be used.
Allow a minimum of 7 days between treatment and harvest or feeding of treated vegetation.

ROUNDUP READY COTTON
TYPES OF APPLICATIONS: Preplant, Preemergence, At-Planting, Postemergence (In-crop), Selective Equipment (In-Crop), Preharvest.

ANNUAL MAXIMUM APPLICATION RATES	
Combined total per year for all applications	8 quarts per acre
Total of Preplant, At-Planting, Preemergence applications	5 quarts per acre
Total in-crop applications from ground cracking to layby	4 quarts per acre
Maximum preharvest application rate	2 quarts per acre
Combined total in-crop application from emergence through harvest	6 quarts per acre

See the "ROUNDUP READY CROPS" section of this label for precautionary instructions for use of this product in Roundup Ready crops. See the "USE INFORMATION" section of this label for more information on "Annual Maximum Application Rates." ALLOW A MINIMUM OF 7 DAYS BETWEEN APPLICATION AND HARVEST.

FOR CONTROL AND MANAGEMENT OF GLYPHOSATE RESISTANT HORSEWEED (MARESTAIL, Conyza canadensis)
For ground applications, use 10 to 20 gallons of water per acre. For aerial applications, use 3 to 15 gallons of water per acre.
For tank-mixes, read and carefully observe the cautionary statements and all other information appearing on the product labels, supplemental labeling or fact sheets published separately for all herbicides used.

Post-directed (Roundup Ready® Cotton varieties only):
Management of early season weed competition and the development of a crop height differential between cotton and horseweed is often achieved by a combination of preplant burndown and post emergence over-the-top and/or directed applications of this product. These measures enhance the development of a height differential that is necessary to successfully make post-directed treatments. In-crop post-directed applications of MSMA (2 pounds active ingredient per acre) tank-mixed with diuron (0.5 to 0.75 pounds active ingredient per acre) should be made when the temperature is 80 °F or higher.

Preplant, At-Planting, Preemergence
USE INSTRUCTIONS: This product may be applied before, during or after planting. Tank mixtures with other herbicides listed in this label may be used.

SPECIMEN

TANK MIXTURES: This product may be tank-mixed with 2,4-D and Clarity and applied prior to planting only. This product may be tank-mixed with the following products and applied prior to crop emergence. Ensure that the specific product being used in the tank mixture is registered for application prior to the emergence of cotton. Read and follow label directions of all products in the tank mixture.
Caparol, Cotoran, Direx, Dual MAGNUM, Prowl, Prowl H2O, Stalwart, Staple

The maximum quantity of this product that may be applied for all preplant, at-planting and preemergence applications combined is 5 quarts per acre per season.

Postemergence (In-crop)
USE INSTRUCTIONS: This product may be applied over the top Roundup Ready cotton at rates up to 1 quart per acre per application from the ground cracking stage until the 4-leaf (node) stage of development (until the fifth true leaf reaches the size of a quarter). Applications made after the 4-leaf (node) stage of development may result in boll loss, delayed maturity and/or yield loss.

TANK MIXTURES: This product may be tank-mixed with the following products and applied over the top of Roundup Ready cotton: Ensure that the specific product being used in the tank mixture is registered for application postemergence (in-crop) to cotton. Read and follow label directions of all products in the tank mixture.
Assure II, Dual MAGNUM, Fusilade, Poast Plus, Select, Stalwart, Staple
Staple may cause leaf yellowing and/or leaf crinkling when applied postemergence (in-crop).
Dual Magnum and Stalwart applied over the top of Roundup Ready cotton may cause leaf injury in the form of necrotic spotting to exposed cotton leaves.

The maximum quantity of this product that may be applied for all in-crop applications from ground-cracking to layby combined is 4 quarts per acre per season. No more than two over¬-the-top broadcast applications may be made from crop emergence through the 4-leaf (node) stage of development. No more than two applications should be made from the 5-leaf stage through layby. Sequential over-the-top or post-directed applications of this product in-crop must be at least 10 days apart and cotton must have at least two nodes of incremental growth between applications. **DO NOT** add additional surfactant or additives containing surfactant to this product (other than those contained in any tank-mix product) for over¬-the-top applications to roundup ready cotton.

Salvage Treatment: This treatment may be used after the 4-leaf stage of development and should only be used where weeds threaten to cause the loss of the crop. One quart per acre may be applied either as an over-the-top application or as a post-directed treatment sprayed higher on the cotton plants and over the weeds. **NOTE:** SALVAGE TREATMENTS WILL RESULT IN SIGNIFICANT BOLL LOSS, DELAYED MATURITY AND/OR YIELD LOSS. NO MORE THAN ONE SALVAGE TREATMENT SHOULD BE USED PER GROWING SEASON.

Selective Equipment (In-crop)
USE INSTRUCTIONS: This product may be applied using precision post-directed or hooded sprayers at rates up to 1 quart per acre per application to Roundup Ready cotton through layby. At this stage, use post-directed equipment to direct the spray to the base of the cotton plants. Avoid contact of the herbicide spray with the cotton leaves to the maximum extent possible. To minimize spray contact, maintain low spray pressure (less than 30 pounds per square inch) and place nozzles in a low position, directing a horizontal spray pattern under the cotton leaves and onto weeds in the row. For best results, make applications while weeds are small (less than 3 inches). See additional instructions on the use of selective equipment in the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label.

TANK MIXTURES: This product can be tank-mixed with the following products for in-crop application using precision post-directed or hooded sprayers. Ensure that the specific product being used in the tank mixture is registered for application postemergence (in-crop) to cotton. Read and follow label directions of all products in the tank mixture.
Alm, Caparol, Chateau, Cotoran, Direx, Layby-Pro, Prowl H2O, Staple, Valor
Staple may cause leaf yellowing and/or leaf crinkling when applied postemergence (in-crop)

The maximum quantity of this product that may be applied for all in-crop applications from ground-cracking to layby combined is 4 quarts per acre per season. Sequential over-the-top or post-directed applications of this product in-crop must be at least 10 days apart and cotton must have at least two nodes of incremental growth between applications.

Preharvest
USE INSTRUCTIONS: This product may be applied for annual and perennial weed control as a broadcast treatment prior to crop harvest after 20 percent boll crack. Apply up to 2 quarts of this product per acre. **NOTE:** This product will not enhance the performance of harvest aids when applied to Roundup Ready cotton.
Allow a minimum of 7 days between application and harvest of cotton. Preharvest application is not specified for cotton grown for seed, as a reduction in germination or vigor may occur.

ATTENTION: Use of this product in accordance with label directions is expected to result in normal growth of Roundup Ready Cotton, however, due to the sensitivity of cotton fruiting to various environmental conditions, agronomic practices and other factors it is impossible to eliminate all risks associated with this product, even when applications are made in conformance with the label specifications. In some cases, these factors can result in boll loss, delayed maturity and/or yield loss.

ROUNDUP READY FLEX COTTON
The use of the over-the-top applications described in this section on other than Roundup Ready Flex cotton will cause crop injury and reduced yields. Drift of this product from applications made to Roundup Ready Flex cotton onto adjacent fields of post 4-leaf (node) Roundup Ready cotton may cause extensive injury including boll loss, delayed maturity and/or yield loss.

NOTE: The instructions provided in this section are specific to, and should only be used with, varieties designated as Roundup Ready Flex cotton. **DO NOT** combine the instructions in this section, with those in the "Roundup Ready Cotton" section (12.5) of this label, or with any other Roundup Ready cotton or Roundup Ready Flex cotton instructions on labeling for this or other glyphosate-containing product.

TYPES OF APPLICATIONS: Preplant, At-Planting, Preemergence, Postemergence' (In-crop), Preharvest.

ANNUAL MAXIMUM APPLICATION RATES	
Combined total per year for all applications	8 quarts per acre
Total of Preplant, At-planting, Preemergence applications	5 quarts per acre
Total in-crop applications from ground cracking to 60 percent open bolls	6 quarts per acre
Maximum allowed from 60 percent bolls open to 7 days prior to harvest	2 quarts per acre
Combined total in-crop application from emergence through harvest	6 quarts per acre

See the "ROUNDUP READY CROPS" section of this label for precautionary instructions for use in Roundup Ready crops. See the "USE INFORMATION" section of this label for more information on "Annual Maximum
Application Rates." Refer to individual tank mixture product label for restrictions and precautions, use according to the most restrictive precautionary statements for each product in the tank mixture.

FOR CONTROL AND MANAGEMENT OF GLYPHOSATE RESISTANT HORSEWEED (MARESTAIL, Conyza canadensis)
For ground applications, use 10 to 20 gallons of water per acre. For aerial applications, use 3 to 15 gallons of water per acre.
For tank-mixes, read and carefully observe the cautionary statements and all other information appearing on the product labels, supplemental labeling or fact sheets published separately for all herbicides used.

Post-directed (Roundup Ready Flex cotton® varieties only):
Management of early season weed competition and the development of a crop height differential between cotton and horseweed is often achieved by a combination of preplant burndown and post emergence over-¬the-top and/or directed applications of this product. These measures enhance the development of a height differential that is necessary to successfully make post-directed treatments. In-crop post-directed applications of MSMA (2 pounds active ingredient per acre) tank-mixed with diuron (0.5 to 0.75 pounds active ingredient per acre) should be made when the temperature is 80 °F or higher.

Preplant, At-Planting, Preemergence
USE INSTRUCTIONS: This product may be applied before, during or after planting.

TANK MIXTURES: This product may be tank-mixed with 2,4-D or Clarity and applied prior to planting only This product may be tank-mixed with the following products and applied prior to crop emergence. Ensure that the specific product being used in the tank mixture is registered for
application prior to emergence of cotton. Read and follow label directions of all products in the tank mixture.
Caparol, Cotoran, Direx, Dual MAGNUM, Prowl, Prowl H2O, Stalwart, Staple

Postemergence (In-crop)
USE INSTRUCTIONS: This product may be applied to control annual grasses and broadleaf weeds listed on this label in Roundup Ready Flex cotton. To maximize yield potential, spray cotton early to eliminate competing weeds. Many perennial weeds will be controlled or suppressed with one or more applications of this product. An initial application of 1 quart per acre on 1 to 3 inch tall annual grass and broadleaf weeds is specified. This product may be applied postemergence at rates up to 1.5 quarts per acre per application. In addition to broadcast applications, post-directed spray equipment may be used to achieve weed coverage.

TANK MIXTURES: This product may be tank-mixed with the following products and applied postemergence (in-crop) over the top of Roundup Ready Flex cotton. Ensure that the specific product being used in the tank mixture is registered for application postemergence (in-crop) to cotton. Read and follow label directions of all products in the tank mixture.
Assure II, Dual MAGNUM, Envoke, Fusilade, Poast Plus, Select, Stalwart, Staple
Staple may cause leaf yellowing and/or leaf crinkling when applied postemergence (in-crop). Dual Magnum and Stalwart applied over the top of Roundup Ready cotton may cause leaf injury in the form of necrotic spotting to exposed cotton leaves.

The maximum rate for any single in-crop application of this product is 1.5 quarts per acre made using ground application equipment. In-crop application rates above 1 quart per acre made alone or with the addition of other crop chemical products containing surfactant may cause a crop response including leaf speckling or leaf necrosis. **DO NOT** exceed a maximum rate of 1 quart per acre of this product when making applications by air. Between layby and 60 percent open bolls, the maximum combined total rate of this product that may be applied is 2 quarts per acre. The maximum combined total of all applications made from crop emergence to 60 percent open bolls must not exceed 6 quarts per acre. **DO NOT** add additional surfactant or additives containing surfactant to this product for over-the-top applications to Roundup Ready Flex cotton.

Preharvest
USE INSTRUCTIONS: Up to 2 quarts of this product may be applied for annual and perennial weed control as a broadcast treatment prior to harvest after 60 percent boll crack. **NOTE:** This product will not enhance the performance of harvest aids when applied to Roundup Ready Flex cotton.

Allow a minimum of 7 days between application and harvest. Preharvest application is not specified for cotton grown for seed as a reduction in germination or vigor may occur.

ATTENTION: use of this product in accordance with label directions is expected to result in normal growth of Roundup Ready Flex cotton, however, due to the sensitivity of cotton fruiting to various environmental conditions, agronomic practices and other factors it is impossible to eliminate all risks associated with this product, even when applications are made in conformance with the label specifications. In some cases, these factors can result in boll loss, delayed maturity and/or yield loss.

FOR APPLICATIONS TO ROUNDUP READY FLEX COTTON IN THE STATE OF ARIZONA ONLY

USE INFORMATION
The use of the over-the-top applications described in this label on other than Roundup Ready Flex cotton will cause crop injury and reduced yields. Drift of this product from applications made to Roundup Ready Flex cotton onto adjacent fields of post 4-leaf (node) Roundup Ready cotton may cause extensive injury including boll loss, delayed maturity and/or yield loss.

NOTE: The instructions provided in this supplemental label are specific to, and should only be used with varieties designated as Roundup Ready Flex cotton. **DO NOT** combine the instructions in this supplemental label with those in the "Roundup Ready Cotton" or "Roundup Ready Flex Cotton" sections found in the label booklet for [INSERT BRAND NAME), or with any other Roundup Ready cotton or Roundup Ready Flex cotton instructions on labelling for this or other glyphosate-containing product. See "Maximum Use Rate" in the "USE INFORMATION" section of the label booklet for *ENVY* for additional information.
ROUNDUP READY FLEX COTTON VARIETIES MUST BE PURCHASED FROM AN AUTHORIZED LICENSED SEED SUPPLIER. THE DESIGNATION, "ROUNDUP READY", INDICATES THE COTTON VARIETY CONTAINS A PATENTED PROPRIETARY TRAIT.

TYPES OF APPLICATIONS: Preplant, At-Planting, Preemergence, Postemergence (In-crop), Preharvest

MAXIMUM ALLOWABLE COMBINED APPLICATION QUANTITIES PER SEASON	
Combined total per year for all applications	8 quarts per acre
Calculate the combined rate to be used for all preplant, in-crop and preharvest applications, to ensure that the total does not exceed the maximum allowed rate per acre per year shown above.	
Preplant, At-Planting, Preemergence applications	5 quarts per acre
Total in-crop applications from ground cracking to 60% percent open bolls	6 quarts per acre
Maximum allowed from 60 percent bolls open to 7 days prior to harvest	2 fluid ounces per acre

See the "ROUNDUP READY CROPS" section of the *ENVY* label booklet for precautionary instructions for use in Roundup Ready crops.

Preplant, At-Planting, Preemergence
USE INSTRUCTIONS: This product may be applied before, during or after planting Roundup Ready Flex cotton.
Postemergence (In-Crop)
USE INSTRUCTIONS: When applied in accordance with this label, *ENVY* will control labeled annual grasses and broadleaf weeds in Roundup Ready Flex cotton. To maximize yield potential, spray cotton early to eliminate competing weeds. Many perennial weeds will be controlled or suppressed with one or more applications of this product. An initial application of 1 quart per acre on 1 to 3 inch tall annual grass and broadleaf weeds is specified. This product may be applied by ground application equipment at rates up to 2 quarts per acre per application postemergence to Roundup Ready Flex cotton. In addition to, broadcast applications, post-directed equipment may be used to achieve weed coverage.
NOTE: For specific rates of application and instructions, refer to the "ANNUAL" and "PERENNIAL WEEDS RATE TABLES" in the label booklet for *ENVY*.
The maximum rate for any single in-crop application of this product is 2 quarts per acre made using ground application equipment. **In-crop application rates above 1 quart per acre made alone, or with the addition of other crop chemical products containing surfactant, may cause a crop response, including leaf speckling or leaf necrosis.** **DO NOT** exceed a maximum rate of 3 pints per acre of this product when making applications by air. Between layby and 60 percent open bolls, the maximum combined total rate of this product that may be applied is 2 quarts per acre. The maximum combined total of all applications made from crop emergence to 60 percent open bolls must not exceed 6 quarts per acre.

Preharvest
USE INSTRUCTIONS: This product may be applied for preharvest annual and perennial weed control as a broadcast treatment to Roundup Ready Flex cotton after 60 percent boll crack. Up to 2 quarts of this product may be applied using either aerial or ground spray equipment.
NOTE: This product will not enhance the performance of harvest aids when applied to Roundup Ready Flex cotton.
Allow a minimum of 7 days between application and harvest of Roundup Ready Flex cotton. **DO NOT** apply this product over-the-top beyond first bloom to cotton grown for seed.

ATTENTION: USE OF THIS PRODUCT IN ACCORDANCE WITH LABEL DIRECTIONS IS EXPECTED TO RESULT IN NORMAL GROWTH OF ROUNDUP READY FLEX COTTON, HOWEVER, DUE TO THE SENSITIVITY OF COTTON FRUITING TO VARIOUS ENVIRONMENTAL CONDITIONS, AGRONOMIC PRACTICES AND OTHER FACTORS, IT IS IMPOSSIBLE TO ELIMINATE ALL RISKS ASSOCIATED WITH THIS PRODUCT, EVEN WHEN APPLICATIONS ARE MADE IN CONFORMANCE WITH THE LABEL SPECIFICATIONS. IN SOME CASES, THESE FACTORS CAN RESULT IN BOLL LOSS, DELAYED MATURITY AND/OR YIELD LOSS.

ROUNDUP READY SOYBEANS

TYPES OF APPLICATIONS: Preplant, Preemergence, At-Planting, Postemergence (In-crop), Preharvest, Post-Harvest.

ANNUAL MAXIMUM APPLICATION RATES	
Combined total per year for all applications	8 quarts per acre

See the "ROUNDUP READY CROPS" section of this label for precautionary instructions for use in Roundup Ready crops. See the "USE INFORMATION" section of this label for more information on "Annual Maximum Application Rates." Refer to individual tank mixture product label for restrictions and precautions, use according to the most restrictive precautionary statements for each product in the tank mixture.

Preplant, At-Planting, Preemergence
USE INSTRUCTIONS: This product may be applied before, during or after planting.

TANK MIXTURES: This product may be tank-mixed with 2,4-D, Banvel or Clarity and applied prior to planting only This product may be tank-mixed with the following products and applied prior to crop emergence. Ensure that the specific product being used in the tank mixture is registered for application prior to emergence of soybeans. Read and follow label directions of all products in the tank mixture.
Aim, Amplify, Assure II, Axiom, Authority, Blanket, Boundary, Canopy, Canopy EX, Classic, Cobra, Command, Command Xtra, Domain, Dual MAGNUM, Dual II MAGNUM, FirstRate, Flexstar, Frontier, Fusion, Gangster, Gauntlet, INTRRO, Lexone, Linex, Linuron, Lorox, Lorox Plus, Me-Too-Lachlor, Micro-Tech, Outlook, Pendimax, Prowl, Prowl H20, Pursuit, Pursuit Plus, Python, Reflex, Resource, Scepter, Select, Select MAX, Sencor, Spartan, Squadron, Steel, Valor

Postemergence (In-crop)
USE INSTRUCTIONS: This product may be used to control annual grasses and broadleaf weeds listed on this label in Roundup Ready soybeans. Applications of this product can be made in from emergence (cracking) through flowering (R2 stage soybeans). R2 stage soybeans ends when a pod reaches. 5 millimeters (0.2 inches) in length at one of the four uppermost nodes on the main stem with a fully developed leaf. Refer to the "ANNUAL WEEDS RATE SECTION" in this label for rates for specific annual weeds. An initial application of 1 quart per acre on 2- to 8-inch tall weeds is specified. Weeds will generally be 2 to 8 inches tall, 2 to 5 weeks after planting. If the initial application is delayed and weeds are larger, apply a higher rate of this product. This product may be used up to 2 quarts per acre in any single in-crop application for control of annual weeds and where dense weed populations exist.

A 1 to 2-quarts per acre rate (single or multiple applications) of this product will control or suppress perennial weeds such as Bermudagrass, Canada thistle, common milkweed, field bindweed, hemp dogbane, horsenettle, marestail (horseweed), nutsedge, quackgrass, rhizome johnsongrass, redvine, trumpetcreeper, swamp smartweed and wirestem muhly. For best results, allow perennial weed species to achieve at least 6 inches of growth before spraying with this product.

Under adverse growing conditions such as drought, hail, wind damage or a poor soybean stand that slows or delays canopy closure, a sequential application of this may be necessary to control late flushes of weeds. IN THE SOUTHERN STATES, A SEQUENTIAL APPLICATION OF THIS PRODUCT WILL BE REQUIRED TO CONTROL NEW FLUSHES OF WEEDS IN THE ROUNDUP READY SOYBEAN CROP. To control giant ragweed, it is specified that 1 quart per acre of this product be applied when the weed is 8 to 12 inches tall to increase control and possibly avoid the need for a sequential application.

TANK MIXTURES: This product may be tank-mixed with the following products and applied postemergence (In-crop) over the top of Roundup Ready soybeans. Ensure that the specific product being used in the tank mixture is registered for application postemergence (in-crop) to soybeans. Read and follow label directions of all products in the tank mixture.
Arrow, Assure II, Basagran, Classic, Cobra, Extreme, FirstRate, Flexstar, Fusilade DX, Fusion, Harmony GT XP, Poast, Poast Plus, Pursuit, Pursuit Plus, Raptor, Reflex, Select, Select MAX, Synchrony STS, Targa, Ultra Blazer.

The combined total application from crop emergence through harvest must not exceed 3 quarts per acre. The maximum rate for any single in-crop application is 2 quarts per acre. The maximum combined total of this product that can be applied during flowering is 2 quarts per acre.

Preharvest
USE INSTRUCTIONS: This product may be applied for weed control prior to harvest of soybeans after pods have set and lost all green color. Up to 1 quart per acre of this product can be applied by aerial or ground application.

Care should be taken to avoid excessive seed shatter loss due to ground application equipment. Allow a minimum of 14 days between final application and harvest of soybean grain or feeding of soybean grain, forage or hay.

Post-Harvest
USE INSTRUCTIONS: This product may be applied after harvest of Roundup Ready soybeans. Higher rates may be required for control of large weeds that were growing in the crop at the time of harvest. Tank mixtures with 2,4-D or dicamba may be used.

FOR CONTROL AND MANAGEMENT OF GLYPHOSATE RESISTANT HORSEWEED (MARESTAIL, Conyza canadensis)
For ground applications, use 10 to 20 gallons of water per acre. For aerial applications, use 3 to 15 gallons of water per acre.
For tank-mixes, read and carefully observe the cautionary statements and all other information appearing on the product labels, supplemental labeling or fact sheets published separately for all herbicides used.
In-crop (Roundup Ready Soybean varieties only):
This treatment should be used as a salvage treatment only for a horseweed infestation that was not controlled prior to planting. At the time of treatment, horseweed should not exceed 6 inches in height. Apply a tank mixture of this product (32 fluid ounces per acre) with FirstRate® (0.3 ounces per acre). Application should be made between full emergence of the first trifoliate leaf and 50% flowering stage of soybeans.

ROUNDUP READY SUGAR BEET

TYPES OF APPLICATIONS: Preplant, At-Planting, Preemergence, Postemergence (In-crop).

MAXIMUM ANNUAL APPLICATION RATES	
Combined total per year for all applications	8 quarts per acre
Total of Preplant, At-planting, Preemergence applications	5 quarts per acre
Emergence to 8-leaf stage	2.5 quarts per acre
Between 8-leaf stage and canopy closure	2 quarts per acre

See the "ROUNDUP READY CROPS" section of this label for precautionary instructions for use in Roundup Ready crops. See the "USE INFORMATION" section of this label for more information on "Annual Maximum Application Rates." Refer to individual tank mixture product label for restrictions and precautions, use according to the most restrictive precautionary statements for each product in the tank mixture.

Preplant, At-Planting, Preemergence
USE INSTRUCTIONS: This product may be applied before, during or after planting.
TANK MIXTURES: This product may be tank-mixed with the following products and applied prior to crop emergence. Ensure that the specific product being used in the tank mixture is registered for application prior to emergence of sugar beet. Read and follow label directions of all products in the tank mixture.
Dual MAGNUM, Frontier.

SAMPLE

Postemergence (In-Crop)
USE INSTRUCTIONS: This product may be applied over-the-top of Roundup Ready sugar beets for control of annual grasses and broadleaf weeds from emergence to 30 days prior to harvest. To maximize yield potential spray sugar beets early to eliminate competing weeds. Up to 4 sequential applications of this product may be made with at least 10 days between applications. Refer to the "ANNUAL WEEDS RATE SECTION" in this label for rates for specific annual weeds. This product will control or suppress most perennial weeds. For some perennial weeds, repeat applications may be required to eliminate crop competition throughout the growing season.

TANK MIXTURES: This product may be tank-mixed with the following products and applied postemergence (in-crop) over the top of Roundup Ready sugar beet. Ensure that the specific product being used in the tank mixture is registered for application postemergence (in-crop) to sugar beet. Read and follow label directions of all products in the tank mixture
Assure II, Betamix, Betanex, Norton SC, Poast, Progress, Select, Stinger, Upbeet]

The combined total application from crop emergence through harvest must not exceed 4.5 quarts per acre. The maximum rate for any single application from crop emergence until the 8-leaf stage is 1.5 quarts per acre. The maximum rate for any single application between the 8-leaf stage and canopy closure is 1 quart per acre. Allow a minimum of 30 days between last application and sugar beet harvest.

NON-CROP USES AROUND THE FARMSTEAD

TYPES OF APPLICATIONS: Weed Control, Trim-and-Edge, Greenhouse/Shadehouse, Chemical Mowing, Cut Stump, Habitat Management.

FOR CONTROL AND MANAGEMENT OF GLYPHOSATE RESISTANT HORSEWEED (MARESTAIL, Conyza canadensis)
For ground applications, use 10 to 20 gallons of water per acre. For aerial applications, use 3 to 15 gallons of water per acre.
For tank-mixes, read and carefully observe the cautionary statements and all other information appearing on the product labels, supplemental labeling or fact sheets published separately for all herbicides used.

Apply a tank mixture of this product (1 quart per acre) before horseweed exceeds 6 inches in height. Control may be enhanced by making applications when horseweed in still in the rosette stage of growth. This product may be tank-mixed with the following products provided that the specific product is registered for use on the target site. Refer to these product labels for approved sites and application rates. Read and carefully observe the cautionary statements and all other information appearing on the labels for all herbicides used. Use according to the most restrictive precautionary statements for each product in the mixture.

2,4-D	Landmark™ II MP	Transline
Crossbow™ L	Landmark™ MP	Vanquish®
dicamba	Milestone™	Velpar DF
Gallery™ 75 DF	Overdrive	
Krovar® I DF	Telar™ DF	

WEED CONTROL, TRIM-AND-EDGE

USE INSTRUCTIONS: This product may be used to control annual weeds, perennial weeds and woody brush found in any part of the farmstead, including around building foundations and equipment storage areas, along and in fences, in dry ditches and canals, along ditchbanks, farm roads, rangeland, rights-of-way, shelterbelts, and prior to planting landscape ornamentals. Refer to the "ANNUAL WEEDS" and "PERENNIAL WEEDS" and "WOODY BRUSH AND TREES RATE SECTIONS" in this label for treatment rates. For application through backpack sprayers, handguns or other high-volume spray-to-wet applications, see the "Annual Weeds -- Hand-Held or Backpack Equipment" section of this label for further instructions.

TANK MIXTURES: This product may be tank mixed with the following products, provided that the specific product used is registered for treatment of these non-crop sites. Refer to the individual product labels for approved farmstead sites and application rates. For more information, see the "TANK MIXTURES" and "TANK MIXING PROCEDURES" sections of this label.

Arsenal	Goal 2XL	Pendulum WDG
Barricade 65WG	Karmex DF	Plateau
Crossbow L	Krovar I DF	Princep DF
Diuron	Outrider	Princep 4L
Dicamba	Oust	Ronstar 50 WP
Endurance	Pendimethalin	Vanquish
Escort	Surflan WDG	Velpar DF
Sahara	Telar	Velpar L
Simazine	Transline	2,4-D
Surflan AS	Pendulum 3.3 EC	

This product plus dicamba tank mixtures may not be applied by air in California.

GREENHOUSE/SHADEHOUSE

USE INSTRUCTIONS: This product may be used to control weeds in and around greenhouses and shade houses.
Desirable vegetation must not be present during application. Air circulation fans must be turned off. **DO NOT** use in residential greenhouses.

CHEMICAL MOWING

USE INSTRUCTIONS: This product will suppress perennial grasses listed in this section to serve as a substitute for mowing. Use 6 fluid ounces of this product per acre when treating Kentucky bluegrass. Use 8 fluid ounces of this product per acre when treating tall fescue, fine fescue, orchardgrass, bahiagrass or quackgrass covers. Use 16 fluid ounces of this product per acre when treating Bermudagrass. Use 64 fluid ounces of this product per acre when treating tufted grass or paragrass. Apply treatments in 10 to 20 gallons of spray solution per acre. Chemical mowing applications may be made along farm ditches and other parts of farmsteads.

Use only in areas where some temporary injury or discoloration of perennial grasses can be tolerated.

CUT STUMP

TYPES OF APPLICATIONS: Treating cut stumps in any non-crop site listed on this label.

USE INSTRUCTIONS: This product will control regrowth of cut stumps and resprouts of many types of woody brush and tree species, some of which are listed below. Apply this product using suitable equipment to ensure coverage of the entire cambium. Cut trees or resprouts close to the soil surface. Apply a 50 to 100 percent solution of this product to the freshly cut surface immediately after cutting. Delays in application may result in reduced performance. For best results, applications should be made during periods of active growth and full leaf expansion.

Alder	Reed, giant	Sweetgum
Eucalyptus	Pepper, brazilian	Tan oak
Madrone	Pine, Austrian	Willow
Oak	Salt-cedar	

DO NOT make cut stump applications when the roots of desirable woody brush or trees may be grafted to the roots of the cut stump. Some sprouts, stems, or trees may share the same root system. Adjacent trees having a similar age, height and spacing may signal shared roots. Whether grafted or shared, injury is likely to occur to non-treated stems/trees when one or more trees sharing common roots are treated.

HABITAT MANAGEMENT

TYPES OF APPLICATIONS: Habitat Restoration and Maintenance, Wildlife Food Plots.

Habitat Restoration and Maintenance

USE INSTRUCTIONS: This product may be used to control exotic and other undesirable vegetation in habitat management areas. Applications can be made to allow recovery of native plant species, prior to planting desirable native species, and for similar broad-spectrum vegetation control requirements in habitat management areas. Spot treatments can be made to selectively remove unwanted plants for habitat maintenance and enhancement.

Wildlife Food Plots

USE INSTRUCTIONS: This product may be used as a site preparation treatment to control annual and perennial weeds prior to planting wildlife food plots. Any wildlife food species, including Roundup ready canola, may be planted after applying this product, or native species may be allowed to repopulate the area. If tillage is needed to prepare a seedbed, wait 7 days after application before tillage. For specific product instructions for Roundup Ready canola wildlife food plots, see the "ROUNDUP READY CANOLA" section of this label.

DO NOT process treated Roundup ready canola seeds from Roundup ready canola wildlife food plots for food. **DO NOT** graze or feed treated Roundup Ready canola from wildlife food plots to livestock. There are no rotational restrictions for planting any wildlife food species or for allowing native species to repopulate the area following applications of this product.

ANNUAL WEEDS RATE SECTION

When water carrier volumes are between 16 and 40 gallons per acre for ground applications and between 6 and 15 gallons per acre for aerial applications, the following use rates will control the annual weeds listed in the table below:

- 1 quart per acre - grass and broadleaf annual weeds less than 6 inches in height or circumference and vines less than 3 inches in length.
- 3 pints per acre - grass and broadleaf annual weeds 6 to 12 inches in height or circumference and vines 3 to 6 inches in length.
- 2 quarts per acre - grass and broadleaf annual weeds greater than 12 inches in height or circumference and vines greater than 6 inches in length.

WHEN WATER CARRIER VOLUMES ARE BETWEEN 3 AND 15 GALLONS PER ACRE FOR GROUND APPLICATIONS AND BETWEEN 3 AND 5 GALLONS PER ACRE FOR AERIAL APPLICATIONS, USE THE RATES SPECIFIED FOR INDIVIDUAL WEEDS AS FOLLOW IN THE "ANNUAL WEEDS RATE TABLE (Alphabetically by Species)".

Apply to actively growing annual weeds. Annual weeds are generally easiest to control when they are small.

Older, mature (hardened) annual weed species may require higher rates even if they meet the size requirements.

Maximum size refers to the maximum plant height, length of runners for vines, or circumference of rosette plants in inches.

DO NOT tank mix with soil residual herbicides when using these rates unless otherwise specified.

For weeds that have been mowed, grazed or cut, allow regrowth to occur prior to treatment. This product may be used up to 64 fluid ounces per acre where heavy weed densities exist.

ANNUAL WEEDS RATE TABLE (Alphabetically by Species)

WEED SPECIES	RATE (fluid ounces per acre)				
	16	24	32	40	48
	Maximum size (in inches)				
Ammannia, purple	3	6	12	-	18
Anoda, spurred	-	2	3	5	8
Barley	18	18+	-	-	-

ANNUAL WEEDS RATE TABLE (Alphabetically by Species)

WEED SPECIES	RATE (fluid ounces per acre)				
	16	24	32	40	48
	Maximum size (in inches)				
Barnyardgrass	-	3	6	7	9
Bassia, fivehook	-	-	6	-	-
Beggarweed, Florida	-	5	8	-	-
Bittercress	12	20	-	-	-
Bluegrass, annual	10	-	-	-	-
Bluegrass, bulbous	6	-	-	-	-
Brome, downy [1,2]	6	12	-	-	-
Brome, Japanese	6	12	24	-	-
Browntop panicum	6	8	12	-	24
Buckwheat, wild3	-	1	2	-	-
Burcucumber	-	6	12	-	18
Buttercup	12	20	-	-	-
Carolina geranium	-	-	4	-	9
Carpetweed	-	6	12	-	-
Cheat	6	20	-	-	-
Chervil	20	-	-	-	-
Chickweed	-	12	18	-	-
Cocklebur	12	18	24	-	36
Copperleaf, hophornbean	-	2	4	-	6
Copperleaf, Virginia	-	2	4	-	6
Coreopsis, plains	-	6	12		18
Corn, volunteer	6	12	20	-	-
Corn speedwell	12	-		-	-
Crabgrass	3	6	12	-	-
Crowfootgrass	-	-	6	-	12
Cutleaf evening primrose	-	-	3	-	6
Devilsclaw (unicorn plant)	-	3	6	-	-
Dwarfdandelion	12	-	-	-	-
Eastern mannagrass	8	12	-	-	-
Eclipta	-	4	8	12	-
Fall panicum	4	-	6	-	12
Falsedandelion	-	20	-	-	-
Falseflax, smallseed	12	-	-	-	-
Fiddleneck	-	6	12	-	-
Field pennycress	6	12	-	-	-
Filaree	-	-	6	-	12
Fleabane, annual	6	20	-	-	-
Fleabane, hairy (*Conyza bonariensis*)	-	-	6	-	10
Fleabane, rough	3	6	12	-	-
Florida pusley	-	-	4	-	6

SPECIMEN

ANNUAL WEEDS RATE TABLE (Alphabetically by Species)					
WEED SPECIES	RATE (fluid ounces per acre)				
	16	24	32	40	48
	Maximum size (in inches)				
Foxtail, giant, bristly, yellow	6	12	20		
Foxtail, Carolina	10	-	-	-	-
Foxtail, green	12	-	-	-	-
Goatgrass, jointed	6	12	-	-	-
Goosegrass	-	3	6	-	12
Grain sorghum (milo)	6	12	20	-	-
Groundcherry	-	3	6	-	9
Groundsel, common	-	6	10	-	-
Hemp sesbania	-	2	4	6	8
Henbit	-	-	6	-	12
Horseweed/Marestail (Conyza Canadensis)*	-	6	12	-	18
Itchgrass	6	8	12	-	18
Jimsonweed	-	-	12	-	18
Johnsongrass, seedling	6	12	18	-	24
Junglerice	-	3	6	7	9
Knotweed	-	-	6	-	12
Kochia[4]	-	3 to 6	12	-	-
Lambsquarters *	-	6	12	-	20
Little barley	6	12	-		
London rocket	6	-	24	-	-
Mayweed	-	2	6	12	18
Morningglory, annual (*Ipomoea* spp)	-	-	3	-	6
Mustard, blue	6	12	18	-	-
Mustard, tansy	6	12	18	-	-
Mustard, tumble	6	12	18	-	-
Mustard, wild	6	12	18	-	-
Nightshade, black	-	4	6	-	12
Nightshade, hairy	-	4	6	-	12
Oats	3	6	18	-	-
Pigweed, Palmer *	-	12	18	24	-
Pigweed species *	-	12	18	24	-
Prickly lettuce	-	6	12	-	-
Purslane	-	-	3	-	6
Ragweed, common *	-	6	12	-	18
Ragweed, giant *	-	6	12	-	18
Red rice	-	-	4	-	-
Rye, volunteer/cereal [2]	6	18	18+	-	-
Ryegrass species *	-	-	6	-	12
Sandbur, field	6	12	-	-	-
Sandbur, longspine	6	12	-	-	-

ANNUAL WEEDS RATE TABLE (Alphabetically by Species)					
WEED SPECIES	RATE (fluid ounces per acre)				
	16	24	32	40	48
	Maximum size (in inches)				
Shattercane	6	12	20	-	-
Shepherd's-purse	6	12	-	-	-
Sicklepod	-	2	4	-	8
Signalgrass, broadleaf	-	3	6	7	9
Smartweed, ladysthumb	-	-	6	-	9
Smartweed, Pennsylvania	-	-	6	-	9
Sowthistle, annual	-	-	6	-	12
Spanishneedles	-	-	6	-	12
Speedwell, purslane	12	-	-	-	-
Sprangletop	6	12	20	-	-
Spurge, prostrate	-	6	12	-	-
Spurge, spotted	-	6	12	-	-
Spurry, umbrella	6	-	-	-	-
Stinkgrass	-	12	-	-	-
Sunflower	12	18	-	-	-
Swinecress	-	5	12	-	-
Teaweed/Prickly sida	-	2	4	-	6
Texas panicum	6	8	12	-	24
Thistle, Russians	-	6	12	-	-
Velvetleaf	-	-	6	-	12
Virginia pepperweed	-	18	-	-	-
Waterhemp *	-	-	6	-	12
Wheat [2]	6	12	18	-	-
Wheat, (overwintered)	-	6	12	-	18
Wild oats	3	6	18	-	-
Wild proso millet	-	6	12	-	18
Witchgrass	-	12	-	-	-
Woolly cupgrass	-	6	12	-	-
Yellow rocket	-	12	20	-	-

[1] For control of downy brome in no-till systems, use 24 fluid ounces per acre.
[2] Performance is better if application is made before this weed reaches the boot stage of growth.
[3] Use 24 fluid ounces per acre of this product to control wild buckwheat in the cotyledon to 2-leaf stage. Use 32 fluid ounces per acre to control 2- to 4-leaf wild buckwheat. For improved control of wild buckwheat over 2 inches in size, use sequential treatments of 32 fluid ounces followed by 32 fluid ounces of this product per acre.
[4] **DO NOT** treat kochia in the button stage.
[5] Control of Russian thistle may vary based on environmental conditions and spray coverage. Whenever possible, a tank mixture with 2,4-D as described below may improve control.
*A glyphosate resistant biotype has been confirmed. For additional information, refer to the "WEED RESISTANCE MANAGEMENT" section of this label. You may also visit www.weedscience.org or www.weedresistancemanagement.com for more information.

SAMPLE

ANNUAL WEEDS - TANK MIXTURES WITH 2,4-D OR DICAMBA OR TORDON 22K

Better control of certain tough weeds can be achieved by tank mixing this product with 0.25 pound of dicamba, 0.5 pound of 2,4-D or 1 to 2 fluid ounces of Tordon 22K per acre. These other herbicides, combined with the rates of this product specified in the "ANNUAL WEEDS RATE TABLE" above, will control the following weeds up to the maximum height or length indicated: 6" -- prickly lettuce, marestail/horseweed, morning glory, kochia (dicamba only) wild buckwheat (Tordon 22K only); 12" -- cocklebur, lambsquarters, pigweed, Russian thistle (2,4-D only).

For better control of common ragweed, giant ragweed, Pennsylvania smartweed, or velvetleaf with a maximum height of 6-inches, tank mix this product with 0.5 pound of 2,4-D per acre. Ensure that the specific product is registered for application at the desired site. Follow all precautions and limitations on the tank mix product's label, including application timing restrictions, soil restrictions, minimum re-cropping interval and rotational guidelines. Some crop injury may occur if dicamba or Tordon 22K is applied within 45 days of planting.

DO NOT APPLY DICAMBA TANK MIXTURES BY AIR IN CALIFORNIA.

ANNUAL WEEDS - HAND-HELD OR BACKPACK EQUIPMENT

For control of weeds listed in the "ANNUAL WEEDS RATE TABLE" above, apply a 0.5-percent solution of this product to weeds less than 6 inches in height or runner length. Apply prior to seedhead formation in grass or bud formation in broadleaf weeds. For annual weeds over 6 inches tall, or unless otherwise specified, use a 1 -percent solution.

For best results, use a 2-percent solution on harder-to-control perennials, such as Bermudagrass, dock, field bindweed, hemp dogbane, milkweed and Canada thistle.

When using application methods that result in less than complete coverage, use a 5-percent solution for annual and perennial weeds and a 5- to 10-percent solution for woody brush and trees.

14.3 Annual Weeds - Tank Mixtures with Atrazine for Fallow and Reduced Tillage Systems

For use only in Colorado, Kansas, Nebraska, Oklahoma, Oregon, South Dakota, and Washington. In Oregon and Washington, **DO NOT** exceed 1 pound of atrazine per acre.

Applications of 24 to 28 fluid ounces of this product plus 1 to 2 pounds of atrazine per acre will control the following weeds: Barnyardgrass (requires 28 ounces for control), Downy brome, Green foxtail, Lambsquarters, Prickly lettuce, Tansy mustard, Pigweed, Field sandbur, Stinkgrass, Russian thistle, Volunteer wheat, Witchgrass and Kochia (add 0.12 pound of dicamba for control).

Ensure that the specific product is registered for application at the desired site. Follow all precautions and limitations on the tank mix product's label, including application timing restrictions, soil restrictions, minimum re-cropping interval and rotational guidelines.

PERENNIAL WEEDS RATE SECTION

Apply to actively growing perennial weeds.

NOTE: If weeds have been mowed or tilled, **DO NOT** treat until plants have resumed active growth and have reached the specified stages.

Repeat treatments may be necessary to control weeds regenerating from underground parts or seed.

Repeat treatments must be made prior to crop emergence.

Unless otherwise stated, allow 7 or more days after application before tillage. Best results are obtained when soil moisture is adequate for active weed growth.

PERENNIAL WEEDS RATE SECTION				
WEED SPECIES	**RATE (Q/A)**	**WATER VOLUME**	**HAND-HELD %SOLUTION**	**COMMENTS**
Alfalfa	**1**	**3-10**	**2%**	Make applications after the last hay cutting in the fall. Allow alfalfa to regrow to a height of 6 to 8 inches or more prior to treatment. Applications should be followed with deep tillage at least 7 days after treatment, but before soil freeze-up.
Alligatorweed	**4**	**3-20**	**1.5%**	For partial control, apply when most of the plants are in bloom. Repeat applications will be required to achieve control.
Anise (fennel)	-		**1-2%**	Apply as a spray-to-wet treatment.
Bahiagrass	**3-5**	**3-20**	**2%**	
Bentgrass	**3-5**	**10-20**	**2%**	For suppression in grass seed production areas. For ground applications only. Ensure entire crown area has resumed growth prior to a fall application. Bentgrass should have at least 3 inches of growth. Tillage prior to treatment should be avoided. Tillage 7 to 10 days after application is specified for best results.
Bermudagrass	**3-5**	**3-20**	**2%**	For control, apply 5 quarts of this product per acre. For partial control, apply 3 quarts per acre. Treat when Bermudagrass is actively growing and seedheads are present. Retreatment may be necessary to achieve control.
Bermudagrass, water (knotgrass)	**1-1.5**	**5-10**	**2%**	Apply 3 pints of this product in 5 to 10 gallons of water per acre. Apply when water Bermudagrass is 12 to 18 inches in length. Allow 7 or more days before tilling, flushing or flooding the field. Fall applications only: Apply 1 quart this product in 5 to 10 gallons of water per acre. Fallow fields should be tilled prior to application. Apply prior to frost on water Bermudagrass that is 12 to 18 inches in length. This product is not registered in California for use on water Bermudagrass.

SPECIMEN

PERENNIAL WEEDS RATE SECTION *cont'd*				
WEED SPECIES	**RATE (Q/A)**	**WATER VOLUME**	**HAND-HELD %SOLUTION**	**COMMENTS**
Bindweed, field	**0.5-5**	**3-20**	**2%**	**DO NOT** treat when weeds are under drought stress as good soil moisture is necessary for active growth. For control, apply 4 to 5 quarts of this product per acre west of the Mississippi River and 3 to 4 quarts per acre east of the Mississippi River. Apply when the weeds are at or beyond full bloom. For best results, apply in late summer or fall. Fall treatments must be applied before a killing frost. Also for control, apply 2 quarts of this product plus 0.5 pound of dicamba in 10 to 20 gallons of water per acre. **DO NOT** apply by air. For suppression on irrigated agricultural land, apply 1 to 2 quarts of this product plus 1 pound of 2,4-D in 10 to 20 gallons of water per acre with ground equipment only. Applications should be made following harvest or in fall fallow ground when the bindweed is actively growing and the majority of runners are 12 inches or more in length. Irrigate at least once to promote active bindweed growth. For suppression, apply 1 pints of this product plus 0.5 pound of 2,4-D, in 3 to 10 gallons of water per acre for ground applications, and 3 to 5 gallons of water per acre for aerial applications. Apply by air in fallow and reduced tillage systems only. Applications should be delayed until maximum emergence has occurred and when vines are between 6 to 18 inches in length. In California only, apply 1 to 5 quarts of this product per acre. Actual rate needed for suppression or control will vary within this range depending on local conditions. For suppression on irrigated land where annual tillage is performed, apply 1 quart of this product in 3 to10 gallons of water per acre. Apply to bindweed that has reached a length of 12 inches or greater. Allow maximum weed emergence and runner growth. Allow 3 or more days after application before tillage.

WEED SPECIES	RATE (Q/A)	WATER VOLUME	HAND-HELD %SOLUTION	COMMENTS
Bluegrass, Kentucky	**1-2**	**3-40**	**2%**	Apply 2 quarts of this product in 10 to 40 gallons of water per acre when most plants have reached boot-to-early seedhead stage of development. For partial control in pasture or hay crop renovation, apply 1 to 1.5 quarts of this product in 3 to 10 gallons of water per acre. Apply to actively growing plants when most have reached 4 to 12 inches in height.
Blueweed, Texas	**3-5**	**3-40**	**2%**	Apply 4 to 5 quarts of this product per acre west of the Mississippi River and 3 to 4 quarts per acre east of the Mississippi River. Apply when plants are at or beyond full bloom. New leaf development indicates active growth. For best results, apply in late summer or fall. Fall treatments must be applied before a killing frost.
Brackenfern	**3-4**	**3-40**	**1-1.5%**	Apply to fully expanded fronds that are at least 18 inches long.
Bromegrass, smooth	**1-2**	**3-40**	**2%**	Apply 2 quarts of this product in 10 to 40 gallons of water per acre when most plants have reached boot-to-early seedhead stage of development. For partial control in pasture or hay crop renovation, apply 1 to 1.5 quarts of this product in 3 to 10 gallons of water per acre. Apply to actively growing plants when most have reached 4 to 12 inches in height.
Bursage, woolly-leaf	**-**	**3-20**	**2%**	For control, apply 2 quarts of this product plus 0.5 pound of dicamba per acre. For partial control, apply 1 quart of this product plus 1/2 pound of dicamba per acre. Apply when plants are producing new active growth which has been initiated by moisture for at least 2 weeks and when plants are at or beyond flowering.
Canarygrass, reed[2]	**2-3**	**3-40**	**2%**	
Cattail[2]	**3-5**	**3-40**	**2%**	
Clover; red or white[1]	**3-5**	**3-20**	**2%**	Also for control, apply 16 to 32 fluid ounces of this product plus 0.5 to 1 pound of 2,4-D, in 3 to 10 gallons of water per acre.

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PERENNIAL WEEDS RATE SECTION *cont'd*				
WEED SPECIES	**RATE (Q/A)**	**WATER VOLUME**	**HAND-HELD %SOLUTION**	**COMMENTS**
Congongrass	3-5	10-40	2%	Apply when cogongrass is at least 18 inches tall in late summer or fall. Due to uneven stages of growth and the dense nature of vegetation preventing good spray coverage, repeat treatments may be necessary to achieve control.
Dallisgrass[2]	3-5	3-20	2%	
Dandelion[1]	3-5	3-20	2%	Also for control, apply 1 pint of this product plus 0.5 pound of 2,4-D, in 3 to 10 gallons of water per acre.
Dock, curly[1]	3-5	3-40	2%	Also for control, apply 1 to 2 pints of this product plus 0.5 to 1 pound of 2,4-D, in 3 to 10 gallons of water per acre.
Dogbane, hemp	4	3-40	2%	Apply when most plants have reached the late bud to flower stage of growth. Following crop harvest or mowing, allow weeds to regrow to a mature stage prior to treatment. For best results, apply in late summer or fall. For suppression, apply 1 pint of this product plus 0.5 pound of 2,4-D, in 3 to 10 gallons of water per acre for ground applications, and 3 to 5 gallons of water per acre for aerial applications. Delay applications until maximum emergence of dogbane has occurred.
Fescue, tall	1-3	3-40	2%	Apply 3 quarts of this product per acre when most plants have reached boot-to-early seedhead stage of development. Fall applications only: Apply 1 quart of this product in 3 to 10 gallons of water per acre. Apply to fescue in the fall when plants have 6 to 12 inches of new growth. A sequential application of 1 pint per acre of this product will improve long-term control and control seedlings germinating after fall treatments or the following spring.
Guineagrass	2-3	3-40	1%	Apply when most plants have reached at least the 7-leaf stage of growth. Ensure thorough coverage when using hand-held equipment. In Texas and ridge of Florida, use 2 quarts of this product per acre for control. In the flatwoods region of Florida, 3 quarts of this product per acre are required for control.

WEED SPECIES	RATE (Q/A)	WATER VOLUME	HAND-HELD %SOLUTION	COMMENTS
Horsenettle	3-5	3-20	2%	
Horseradish	4	3-40	2%	Apply when most plants have reached the late bud to flower stage of growth. For best results, apply in late summer or fall.
Iceplant[1]	-	-	1.5-2%	Thorough coverage is necessary for best control.
Jerusalem artichoke[1]	3-5	3-20	2%	
Johnsongrass	0.5-3	3-40	1%	In annual cropping systems, apply 1 to 2 quarts of this product per acre. Apply 1 quart of this product in 3 to 10 gallons of water per acre. Use 2 quarts of this product when applying 10 to 40 gallons of water per acre. In non-crop areas, or areas where annual tillage (no-till) is not practiced, apply 2 to 3 quarts of this product in 10 to 40 gallons of water per acre. For best results, apply when most plants have reached the boot-to-head stage of growth or in the fall prior to frost. Allow 7 or more days after application before tillage. **DO NOT** tank mix with residual herbicides when using 1 quart of this product per acre. For burndown of Johnsongrass, apply 1 pint of this product in 3 to 10 gallons of water per acre before the plants reach a height of 12 inches. For this use, allow at least 3 days after treatment before tillage. Spot treatment (partial control or suppression)--Apply a 1-percent solution of this product when Johnsongrass is 12 to 18 inches in height. Coverage should be uniform and complete.
Kikuygrass	2-3	3-40	2%	Spray when most kikuygrass is at least 8 inches in height (3- or 4-leaf stage of growth). Allow 3 or more days after application before tillage.
Knapweed	4	3-40	2%	Apply when most plants have reached the late bud to flower stage of growth. For best results, apply in late summer or fall.
Lantana	-	-	1-1.25%	Apply at or beyond the bloom stage of growth. Use the higher application rate for plants that have reached the woody stage of growth.

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PERENNIAL WEEDS RATE SECTION *cont'd*				
WEED SPECIES	**RATE (Q/A)**	**WATER VOLUME**	**HAND-HELD %SOLUTION**	**COMMENTS**
Lespedeza[1]	3-5	3-20	2%	
Milkweed, common	3	3-40	2%	Apply when most plants have reached the late bud to flower stage of growth.
Muhly, wirestem	1-2	3-40	2%	Use 1 quart of this product in 3 to 10 gallons of water per acre. Use 2 quarts of this product when applying 10 to 40 gallons of water per acre or in pasture, sod, or non-crop areas. Spray when the wirestem muhly is 8 inches or more in height. **DO NOT** till between harvest and fall applications, or in the fall or spring prior to spring applications. Allow 3 or more days after application before tillage.
Mullein, common	3-5	3-20	2%	
Napiergrass[2]	3-5	3-20	2%	
Nightshade, silverleaf	2	3-10	2%	Applications should be made when at least 60 percent of the plants have berries. Fall treatments must be applied before a killing frost.
Nutsedge, purple or yellow	0.5-3	3-40	1-2%	Apply 3 quarts of this product per acre or apply a 1 to 2 percent solution for control of nutsedge plants and immature nutlets attached to treated plants. Treat when plants are in flower or when new nutlets can be found at rhizome tips. Nutlets that have not germinated will not be controlled and may germinate following treatment. Repeat treatments will be required for long-term control of ungerminated tubers. Sequential applications: 1 to 2 quarts of this product in 3 to 10 gallons of water per acre will also provide control. Make applications when a majority of the plants are in the 3- to 5-leaf stage (less than 6 inches tall). Repeat this application, as necessary, when newly emerging plants reach the 3- to 5-leaf stage. Subsequent applications will be necessary for long-term control. For partial control of existing plants, apply 1 pint to 2 quarts of this product in 3 to 40 gallons of water per acre. Treat when plants have 3 to 5 leaves and most are less than 6 inches tall. Repeat treatments will be required to control subsequent emerging plants or regrowth of existing plants.
Orchardgrass	1-2	3-40	2%	Apply 2 quarts of this product in 10 to 40 gallons of water per acre when most plants have reached boot-to-early seedhead stage of development. For partial control in pasture or hay crop renovation, apply 1 to 1.5 quarts of this product in 3 to 10 gallons of water per acre. Apply to actively growing plants when most have reached 4 to 12 inches in height. Orchardgrass sods going to no-till corn: Apply 1 to 1.5 quarts of this product in 3 to 10 gallons of water per acre. Apply to orchardgrass that is a minimum of 12 inches tall for spring applications, and 6 inches tall for fall applications. Allow at least 3 days following application before planting. A sequential application of atrazine will be necessary for optimum results.
Pampasgrass	-	-	1.5-2%	Pampasgrass should be at or beyond the boot stage of growth. Thorough coverage is necessary for best control.
Paragrass[2]	3-5	3-20	2%	
Phragmites	3-5	10-40	1-2%	For partial control and best results, treat during late summer or fall when plants are actively growing and in full bloom. Treatment before or after this stage may result in reduced control. Due to the dense nature of this vegetation that may prevent good spray coverage or uneven stages of growth, repeat treatments may be necessary to achieve control. Visual control symptoms will be slow to develop.
Poison hemlock	-	-	1-2%	For hand-held, apply as a spray-to-wet treatment. Optimum results are obtained when plants are treated at the bud to full-bloom stage of growth. Thorough coverage is necessary for best control.
Pokeweed, common	1	3-40	2%	Apply to actively growing plants up to 24 inches tall.
Quackgrass	1-3	3-40	2%	In annual cropping systems, or in pastures and sods followed by deep tillage: Apply 1 quart of this product in 3 to 10 gallons of water per acre. For 10 to 40 gallons of water per acre, apply 2 quarts of this product.

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PERENNIAL WEEDS RATE SECTION *cont'd*				
WEED SPECIES	**RATE (Q/A)**	**WATER VOLUME**	**HAND-HELD %SOLUTION**	**COMMENTS**
Quackgrass *cont'd*	1-3	3-40	2%	**DO NOT** tank mix with residual herbicides when using the 1-quart rate. Spray when quackgrass is 6 to 8 inches in height. **DO NOT** till between harvest and fall applications or in fall or spring prior to spring application. Allow 3 or more days after application before tillage. In pastures or sods, use a moldboard plow for best results. In pastures, sods or non-crop areas where deep tillage does not follow application: Apply 2 to 3 quarts of this product in 10 to 40 gallons of water per acre when the quackgrass is greater than 8 inches tall.
Redvine	0.75-2	5-10	2%	For suppression, apply 1.5 pints of this product per acre at each of two applications 7 to 14 days apart or a single application of 2 quarts per acre. Apply specified rates in 5 to 10 gallons of water per acre. Apply in late September or early October to plants that are at least 18 inches tall and have been growing 45 to 60 days since the last tillage operation. Make applications at least 1 week before a killing frost.
Reed, giant	-	-	2%	Best results are obtained when applications are made in late summer to fall.
Ryegrass, perennial	1-3	3-40	1%	In annual cropping systems, apply 1 to 2 quarts of this product per acre. Apply 1 quart of this product in 3 to 10 gallons of water per acre. Use 2 quarts of this product when applying 10 to 40 gallons of water per acre. In non-crop areas, or areas where annual tillage (no-till) is not practiced, apply 2 to 3 quarts of this product in 10 to 40 gallons of water per acre. For best results, apply when most plants have reached the boot-to-head stage of growth or in the fall prior to frost. **DO NOT** tank-mix with residual herbicides when using 1 quart of this product per acre.
Smartgrass, swamp	3-5	3-40	2%	Also for control, apply 1 pint of this product plus 0.5 pound of 2,4-D, in 3 to 10 gallons of water per acre in the late summer or fall.
Sowthistle, perennial	2-3	3-40	2%	Apply when most plants are at or beyond the bud stage of growth. After harvest, mowing or tillage in the late summer or fall, allow at least 4 weeks for initiation of active growth and rosette development prior to the application of this product. Fall treatments must be applied before a killing frost. Allow 3 or more days after application before tillage.
Spurge, leafy	-	3-10	2%	For suppression, apply 1 pint of this product plus 0.5 pound of 2,4-D in 3 to 10 gallons of water per acre in the late summer or fall. If mowing has occurred prior to treatment, apply when most plants are 12 inches tall.
Starthistle, yellow	2	10-40	2%	Best results are obtained when applications are made during the rosette, bolting and early flower stages.
Sweet potato, wild	-	-	2%	For partial control, apply to plants that are at or beyond the bloom stage of growth. Repeat applications may be required.
Thistle, artichoke	-	-	2%	For partial control, apply to plants that are at or beyond the bloom stage of growth. Repeat applications may be required.
Thistle, Canada	2-3	3-40	2%	Apply when most plants are at or beyond the bud stage of growth. After harvest, mowing or tillage in the late summer or fall, allow at least 4 weeks for initiation of active growth and rosette development prior to the application of this product. Fall treatments must be applied before a killing frost. Allow 3 or more days after application before tillage. For suppression in the spring, apply 1 quart of this product, or 1 pint of this product plus 0.5 pound of 2,4-D, in 3 to 10 gallons of water per acre. Allow rosette regrowth to a minimum of 6 inches in diameter before treating. Applications can be made as long as leaves are still green and plants are actively growing at the time of application. Allow 3 or more days after application before tillage.
Timothy[2]	2-3	3-40	2%	

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PERENNIAL WEEDS RATE SECTION *cont'd*				
WEED SPECIES	**RATE (Q/A)**	**WATER VOLUME**	**HAND-HELD %SOLUTION**	**COMMENTS**
Torpedograss	**4-5**	**3-40**	**2%**	For partial control, apply when most plants are at or beyond the seedhead stage of growth. Repeat applications will be required to achieve control. Fall treatments must be applied before frost.
Trumpet-creeper	**2**	**5-10**	**2%**	For partial control, apply in late September or October, to plants that are at least 18 inches tall and have been growing 45 to 60 days since the last tillage operation. Make applications at least 1 week before a killing frost.
Vaseygrass[2]	**3-5**	**3-20**	**2%**	
Velvetgrass[2]	**3-5**	**3-20**	**2%**	
Wheatgrass, western[2]	**2-3**	**3-40**	**2%**	

[1] Apply when most plants have reached the early bud stage of growth.
[2] Apply when most plants have reached the early heading stage of growth.

WOODY BRUSH AND TREES RATE SECTION

Apply this product after full leaf expansion, unless otherwise directed. Use the higher rate for larger plants and/or dense areas of growth. On vines, use the higher rate for plants that have reached the woody stage of growth. Best results are obtained when application is made in late summer or fall after fruit formation.

In arid areas, best results are obtained when applications are made in the spring to early summer when brush species are at high moisture content and are flowering.

Unless otherwise directed, apply broadcast treatments in 3 to 40 gallons of water per acre. Ensure thorough coverage when using hand-held equipment. Symptoms may not appear prior to frost or senescence with fall treatments.

Allow 7 or more days after application before tillage, mowing or removal. Repeat treatments may be necessary to control plants regenerating from underground parts or seed. Some autumn colors on undesirable deciduous species are acceptable provided no major leaf drop has occurred. Reduced performance may result if fall treatments are made following a frost.

	WOODY BRUSH AND TREES RATE TABLE (Alphabetically by species)		
Weed Species	**Rate (QT/A)**	**Water Volume (GPA)**	**Hand-Held % Solution**
Alder	3-4	3-40	1-1.5%
Ash[1]	2-5	3-40	1-2%
Aspen, quaking	2-3	3-40	1-1.5%
Bearmat (Bear-clover) [1]	2-5	3-40	1-2%
Beech[1]	2-5	3-40	1-2%
Birch	2-3	3-40	1-1.5%
Blackberry	3-4	10-40	1-1.5%

	WOODY BRUSH AND TREES RATE TABLE (Alphabetically by species)		
Weed Species	**Rate (QT/A)**	**Water Volume (GPA)**	**Hand-Held % Solution**
Make applications after plants have reached full leaf maturity. Best results are obtained when applications are made in late summer or fall. Applications may also be made after leaf drop and until a killing frost or as long as steins are green. After berries have set or dropped in late fall, blackberry can be controlled by applying a 0.75 percent solution of this product. For control of blackberries after leaf drop and until killing frost or as long as stems are green, apply 3 to 4 quarts of this product in 10 to 40 gallons of water per acre.			
Blackgum	2-5	3-40	1-2%
Bracken	2-5	3-40	1-2%
Broom; French, Scotch			1.5-2%
Buckwheat, California[1,2]	--	--	1-2%
Cascara1	2-5	3-40	1-2%
Catsclawl		--	1-1.5%
Ceanothus[1]	2-5	3-40	1-2%
Chamise[2]		--	1%
Cherry, bitter, black, pin	2-3	3-40	1-1.5%
Coyote brush	--	--	1.5-2%
Apply when at least 50 percent of the new leaves are fully developed.			
Dogwood[1]	2-5	3-40	1-2%
Elderberry	2-3	3-40	1-1.5%
Elm[1]	2-5	3-40	1-2%
Eucalyptus	--	--	2%
For control of eucalyptus resprouts, apply when resprouts are 6 to 12 feet tall. Ensure complete coverage. Avoid application to drought-stressed plants.			
Florida holly (Brazilian Peppertree)[1]	2 - 5	3 -40	1-2%
Gorse[1]	2-5	3-40	1-2%
Hasardia[1,2]	--	--	1-2%
Hawthorn	2-3	3-40	1-1.5%
Hazel	2-3	3-40	1-1.5%
Hickory[1]	2-5	3-40	1-2%
Honeysuckle	3-4	3-40	1-1.5%
Hornbeam, American[1]	2-5	3-40	1-2%
Kudzu	4-5	3-40	2%
Repeat applications may be required to achieve control.			
Locust, black[1]	2-4	3-40	1-2%
Madrone resprouts[1]	--	--	2%

Weed Species	WOODY BRUSH AND TREES RATE TABLE (Alphabetically by species) Rate (QT/A)	Water Volume (GPA)	Hand-Held % Solution
Apply to resprouts that are 3 to 6 feet tall. Best results are obtained with spring/early summer treatments.			
Manzanita[1]	2-5	3-40	1-2%
Maple, red	2-4	3-40	1-1.5%
Apply a 1- to 1.5-percent solution when at least 50 percent of the new leaves are fully developed. For partial control, apply 2 to 4 quarts of this product per acre.			
Maple, sugar	--	--	1-1.5%
Apply when at least 50 percent of the new leaves are fully developed.			
Monkey flower[1,2]	--	--	1 - 2%
Oak, black,white[1]	2-4	3-40	1 -2%
Oak, post	3-4	3-40	1-1.5%
Oak, northern			1-1.5%
Apply when at least 50 percent of the new pin leaves are fully developed.			
Oak; southern red	2-3	3-40	1-1.5%
Persimmon[1]	2-5	3-40	1-2%
Pine	2-5	3-40	1-2%
Poison ivy/Poison oak	4-5	3-40	2%
Repeat applications may be required to achieve control. Fall treatments must be applied before leaves lose green color.			
Poplar, yellow[1]	2- 5	3-40	1-2%
Redbud, eastern	2- 5	3-40	1-2%
Rose, multiflora	2	3-40	1%
Treatments should be made prior to leaf deterioration by leaf-eating insects.			
Russian olive[1]	2 - 5	3-40	1-2%
Sage, black[1,2]	-	-	1%
Sage, white[1]	2-5	3-40	1-2%
Sage brush, California[2]	-		1%
Salmonberry	2-5	3-40	1-1.5%
Salt-cedar	2-5	3-40	1-2%
Sassafras[1]	2-5	3-40	1-2%
Sourwood[1]	2-5	3-40	1-2%
Sumac; poison, smooth, winged[1]	2-4	3-40	1-2%
Sweetgum	2-3	3-40	1-1.5%
Swordfern[1]	2-5	3-40	1 -2%
Tallowtree, Chinese[2]	-	-	1%
Tan oak resprouts[1]	-	-	2%

Weed Species	WOODY BRUSH AND TREES RATE TABLE (Alphabetically by species) Rate (QT/A)	Water Volume (GPA)	Hand-Held % Solution
Apply to resprouts that are less than 3 to 6 feet tall. Best results are obtained with fall applications.			
Thimbleberry	2 - 3	3- 40	1-1.5%
Tobacco, tree[1]	-	-	1-2%
Trumpetcreeper	2-3	3- 40	1-1.5%
Vine maple[1]	2-5	3-40	1-2%
Virginia creeper	2-5	3-40	1- 2%
Waxmyrtle, Southern[1]	2-5	3- 40	1- 2%
Willow	3-4	3- 40	1-1.5%

[1] Partial Control
[2] Thorough coverage of foliage is necessary for best results.

INDUSTRIAL TURF AND ORNAMENTALS

WEEDS CONTROLLED

Always use the higher rate of this product per acre within the specified range when weed growth is heavy or dense or weeds are growing in an undisturbed (non-cultivated) area. Reduced results may occur when treating weeds heavily covered with dust. For weeds that have been mowed, grazed or cut, allow regrowth to occur prior to treatment.

Refer to the following label sections for specified rates for the control of annual and perennial weeds and woody brush and trees. For difficult to control perennial weeds and woody brush and trees, where plants are growing under stressed conditions, or where infestations are dense, this product may be used at 5 to 10 quarts per acre for enhanced results.

ANNUAL WEEDS

Use 1 quart per acre if weeds are less than 6 inches in height or runner length and 1.5 quarts to 4 quarts per acre if weeds are over 6 inches in height or runner length or when weeds are growing under stressed conditions. Use the higher rate for tough-to-control species regardless of the weed size at application. Treat tough-to-control weeds early when they are relatively small. This product may be tank mixed provided the tank-mix product is registered for use on the target site. Refer to the individual product labels for approved sites and application rates. For spray-to-wet applications, apply a 0.5-percent solution of this product to weeds less than 6 inches in height or runner length. For annual weeds over 6 inches tall, or for smaller weeds growing under stressed conditions, use a 1- to 2-percent solution. Use the higher rate for tough-to-control species or for weeds over 24 inches tall. Apply prior to seedhead formation in grass or bud formation in broadleaf weeds.

For low volume directed spray applications, use a 4- to 7-percent solution of this product. Spray coverage should be uniform with at least 50 percent of the foliage contacted. Coverage of the top one half of the plant is important for best results. To ensure adequate spray coverage, spray both sides of large or tall weeds when foliage is thick and dense or where there are multiple spouts.

WEED SPECIES	
Anoda, spurred	Carolina foxtail*
Barley*	Carolina geranium
Barnyardgrass*	Castor bean
Bittercress*	Cheatgrass*
Bassia, fivehook	Cheeseweed (Malva parviflora)
Black nightshade*	Chervil*
Bluegrass, annual*	Chickweed*

SAMPLE

WEED SPECIES *cont'd*	
Bluegrass, bulbous*	Cocklebur*
Brome, downy*	Copperleaf, hophornbean
Brome, Japanese*	Corn*
Browntop panicum*	Corn speedwell*
Buttercup*	Crabgrass*
Dwarfdandelion*	Plains/Tickseed coreopsis*
Eastern mannagrass*	Prickly lettuce*
Eclipta*	Puncturevine
Fall panicum*	Purslane, common
Falsedandelion*	Ragweed, common*
Falseflax, smallseed*	Ragweed, giant
Fiddleneck	Red rice
Field pennycress*	Russian thistle
Filaree	Rye*
Fleabane, annual*	Ryegrass*
Fleabane, hairy (Conyza bonariensis)*	Sandbur, field*
Fleabane, rough*	Shattercane*
Florida pusley	Shepherd's-purse*
Foxtail*	Sicklepod
Goatgrass, jointed*	Signalgrass, broadleaf*
Goosegrass	Smartweed, ladysthumb*
Grain sorghum (milo)*	Smartweed, Pennsylvania*
Groundsel, common*	Sowthistle, annual
Hemp sesbania	Spanishneedles
Henbit	Speedwell, purslane*
Horseweed/Marestail (Conyza canadensis)	Sprangletop*
Itchgrass*	Spurge, annual*
Johnsongrass, seedling	Spurge, prostrate*
Junglerice	Spurge, spotted*
Knotweed	Spurry, umbrella*
Kochia	Starthistle, yellow
Lamb's-quarters*	Stinkgrass*
Little barley*	Sunflower*
London rocket*	Teaweed/ Prickly sida
Mayweed	Texas panicum*
Medusahead*	Velvetleaf
Morningglory (Ipomoea spp)	Virginia copperleaf
Mustard, blue*	Virginia pepperweed*
Mustard, tansy*	Wheat*
Mustard, tumble*	Wild oats*
Mustard, wild*	Witchgrass*
Oats	Woolly cupgrass*
Pigweed*	Yellow rocket

* When using field broadcast equipment (aerial applications or boom sprayers using flat-fan nozzles) these species will be controlled or partially controlled using 1 pint of this product per acre. Applications must be made using 3 to 10 gallons of carrier volume per acre. Use nozzles that ensure thorough coverage of foliage and treat when weeds are in an early growth stage.

Perennial Weeds

Best results are obtained when perennial weeds are treated after they reach the reproductive stage of growth (seedhead initiation in grasses and bud formation in broadleaves). For non-flowering plants, best results are obtained when the plants reach a mature stage of growth. In many situations, treatments are required prior to these growth stages. Under these conditions, use the higher application rate within the specified range.

Ensure thorough coverage when using spray-to-wet treatments with hand-held equipment. For best results, use a 1.5-percent solution on harder-to-control perennials such as Bermudagrass, dock, field bindweed, hemp dogbane, milkweed and Canada thistle.

For low volume directed spray applications, use a 5- to 10-percent solution of this product. Spray coverage should be uniform with at least 60 percent of the foliage contacted. Coverage of the top one half of the plant is important for best results. To ensure adequate spray coverage, spray both sides of larger or tall weeds when foliage is thick and dense or where there are multiple sprouts.

Allow 7 or more days after application before tillage.

WEED SPECIES	RATE (Q/A)	Hand-Held % Solution
Alfalfa	1	2
Alligatorweed	4	1.5
Anise (fennel)	2-4	1-2
Bahiagrass	3-5	2
Beachgrass, European (Ammophila arenas)	--	5
Bentgrass	1.5	2
Bermudagrass	5	2
Bermudagrass, water (knotgrass)	1.5	2
Bindweed, field	4-5	2
Bluegrass, Kentucky	2	2
Blueweed, Texas	4-5	2
Brackenfern	3 - 4	1-1.5
Bromegrass, smooth	2	2
Bursage, woolly-leaf	--	2
Canarygrass, reed	2-3	2
Cattail	3-5	2
Clover; red, white	3-5	2
Cogongrass	3 -5	2
Dallisgrass	3-5	2
Dandelion	3-5	2
Dock, curly	3-5	2
Dogbane, hemp	4	2
Fescue (except tall)	3-5	2
Fescue, tall	1-3	2
German Ivy	2-4	1-2

WEED SPECIES	RATE (Q/A)	Hand-Held % Solution
Guineagrass	3	1
Horsenettle	3-5	2
Horseradish	4	2
Iceplant	2	1.5 - 2
Jerusalem artichoke	3-5	2
Johnsongrass	2-3	1
Kikuyugrass	2-3	2
Knapweed	4	2
Lantana	--	1- 1.25
Lespedeza	3-5	2
Milkweed, common	3	2
Muhly, wirestem	2	2
Mullein, common	3-5	2
Napiergrass	3-5	2
Nightshade, silverleaf	2	2
Nutsedge; purple, yellow	3	1-2
Orchardgrass	2	2
Pampasgrass	3-5	1.5-2
Paragrass	3-5	2
Pepperweed, perennial	4	2
Phragmites*	3-5	1-2
Poison hemlock	2-4	1-2
Quackgrass	2-3	2
Redvine*	2	2
Reed, giant	4-6	2
Ryegrass, perennial	2-3	1
Smartweed, swamp	1.5-2	2
Spurge, leafy*	-	2
Sweet potato, wild*	-	2
Thistle, artichoke	2-3	1-2
Thistle, Canada	2-3	2
Timothy	2-3	2
Torpedograss*	4-5	2
Trumpetcreeper*	2-3	2
Vaseygrass	3-5	2
Velvetgrass	3-5	2
Wheatgrass, western	2-3	2
*Partial control		

WOODY BRUSH AND TREES

Apply this product after full leaf expansion, unless otherwise directed. Use the higher rate for larger plants and/or dense areas of growth. On vines, use the higher rate for plants that have reached the woody stage of growth. Best results are obtained when application is made in late summer or fall after fruit formation.

In arid areas, best results are obtained when applications are made in the spring to early summer when brush species are at high moisture content and are flowering.

For best results when using hand-held equipment, use a 1.5-percent solution on harder-to-control woody brush and trees. For low volume directed-spray applications, apply a 5- to 10-percent solution of this product. Spray coverage should be uniform with at least 50-percent of the foliage contacted. Coverage of the top one-half of the plant is important for best results. To ensure adequate spray coverage, spray both sides of large or tall woody brush and trees, when foliage is thick and dense or where there are multiple spouts.

Symptoms may not appear prior to frost or senescence with fall treatments.
Allow 7 or more days after application before tillage, mowing or removal. Repeat treatments may be necessary to control plants regenerating from underground parts or seed. Some autumn colors on undesirable deciduous species are acceptable provided no major leaf drop has occurred. Reduced performance may result if fall treatments are made following a frost.

WEED SPECIES	Broadcast RATE (Q/A)	Hand-Held Spray-to-Wet % Solution
Alder	3-4	1-1.5
Ash	2-5	1-2
Aspen, quaking	2-3	1 - 1.5
Bearclover (Bearmat)*	2-5	1-2
Beech*	2-5	1-2
Birch*	2	1
Blackberry	3-4	1-1.5
Blackgum	2-5	1-2
Bracken	2-5	1-2
Broom; French, Scotch	2-5	1.5-2
Buckwheat, California*	2-4	1-2
Cascara*	2-5	1-2
Catsclaw*	-	1 - 1.5
Ceanothus*	2-5	1-2
Chamise*	2-5	1
Cherry; bitter, black, pin	2-3	1-1.5
Coyote brush	3 - 4	1.5-2
Deerweed	2-5	1
Dogwood*	2-5	1-2
Elderberry	2	1
Elm*	2-5	1-2
Eucalyptus	-	2
Gorse*	2-5	1-2
Hasardia*	2-4	1-2
Hawthorn	2-3	1 - 1.5

SPECIMEN

WEED SPECIES	Broadcast RATE (Q/A)	Hand-Held Spray-to-Wet % Solution
Hazel	2	1
Hickory*	2-5	1-2
Honeysuckle	3-4	1-1.5
Hornbeam, American*	2-5	1-2
Kudzu	4	2
Locust, black*	2-4	1-2
Madrone resprouts*	-	2
Manzanita*	2-5	1-2
Maple, red	2-4	1-1.5
Maple, sugar	--	1 - 1.5
Monkey flower*	2-4	1-2
Oak; black, white*	2-4	1-2
Oak, post	3-4	1-1.5
Oak; northern, pin	2-4	1-1.5
Oak, Scrub*	2-4	1-1.5
Oak; southern red	2-3	1-1.5
Peppertree, Brazilian (Florida holly)*	2-5	1-2
Persimmon *	2-5	1-2
Pine	2-5	1-2
Poison ivy	4-5	2
Poison oak	4-5	2
Poplar, yellow*	2-5	1-2
Redbud, eastern	2-5	1-2
Rose, multiflora	2	1
Russian olive*	2-5	1-2
Sage, black	2-4	1
Sage, white*	2-4	1-2
Sage brush, California	2-4	1
Salmonberry	2	1
Saltcedar*	2-5	1-2
Sassafras*	2-5	1-2
Sourwood*	2-5	1-2
Sumac; laurel, poison, smooth, sugarbush, winged*	2-4	1-2
Sweetgum	2-3	1-1.5
Swordfern*	2-5	1-2
Tallowtree, Chinese	-	1
Tan oak resprouts*	-	2
Thimbleberry	2	1

WEED SPECIES	Broadcast RATE (Q/A)	Hand-Held Spray-to-Wet % Solution
Tobacco, tree*	2-4	1-2
Toyon*	-	2
Trumpetcreeper	2-3	1-1.5
Vine maple*	2-5	1-2
Virginia creeper	2-5	1-2
Waxmyrtle, southern*	2-5	1-2
Willow	3	1
Yerbasenta*	3	2
*Partial control		

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather, presence of other materials, or other influencing factors in the use of the product, which are beyond the control of INNVICTIS CROP CARE LLC or Seller, TO THE EXTENT CONSISTENT WITH APPLICABLE LAW All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold INNVICTIS CROP CARE LLC and Seller harmless for any claims relating to such factors.

INNVICTIS CROP CARE LLC warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or INNVICTIS CROP CARE LLC, and TO THE EXTENT CONSISTENT WITH APPLICABLE LAW Buyer and User assume the risk of any such use. INNVICTIS CROP CARE LLC MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

To the extent consistent with applicable law, neither INNVICTIS CROP CARE LLC nor Seller shall be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF INNVICTIS CROP CARE LLC AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF INNVICTIS CROP CARE, LLC OR SELLER, THE REPLACEMENT OF THE PRODUCT.

INNVICTIS CROP CARE LLC and Seller offer this product, and Buyer and User accept it, subject to the foregoing conditions of Sale and Limitation of Warranty and Liability which may not be modified except by written agreement signed by a duly authorized representative of INNVICTIS CROP CARE LLC.

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CANCELLED

FYFANON® ULV AG
INSECTICIDE

ULTRA LOW VOLUME CONCENTRATE INSECTICIDE

ACTIVE INGREDIENT:	
*Malathion	96.5%
INERT INGREDIENTS:	3.5%
TOTAL	100.0%

*0,0-dimethyl phosphorodithioate of diethyl mercaptosuccinate
Contains 9.9 lbs. malathion per gallon

KEEP OUT OF REACH OF CHILDREN
CAUTION

IN CASE OF MEDICAL EMERGENCY INVOLVING THIS PRODUCT, CALL TOLL FREE, DAY OR NIGHT 1-866-303-6950

SEE ADDITIONAL PRECAUTIONARY STATEMENTS AND DIRECTIONS FOR USE IN BOOKLET.

EPA Reg. No. 67760-35

EPA Est. No. 39578-TX-1

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CHEMINOVA
HELPING YOU GROW

FMC

Product of Denmark
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PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Harmful if swallowed. Harmful if absorbed through skin. Harmful if inhaled. Avoid contact with eyes, skin, or clothing. Avoid breathing spray mist. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

FIRST AID This product is an organophosphate and is a cholinesterase inhibitor.	
IF SWALLOWED:	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything by mouth to an unconscious person.
IF INHALED:	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. • Call a poison control center or doctor for further treatment advice.
IF ON SKIN OR CLOTHING:	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
IF IN EYES:	• Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-866-303-6950 for emergency medical treatment information.	
NOTE TO PHYSICIAN: This product is a cholinesterase inhibitor. Treat symptomatically. Atropine is antidotal.	

PERSONAL PROTECTIVE EQUIPMENT

Some materials that are chemical-resistant to this product are barrier laminate, butyl rubber, nitrile rubber, and viton. If you want more options, follow the instructions for category F on an EPA chemical-resistance category selection chart.

All applicators, flaggers, and other handlers must wear:
- long sleeved shirt and long pants
- shoes plus socks
- chemical resistant gloves

For ULV formulations other than those intended for use as a Wide Area Mosquito Adulticide, applications must be made with closed systems – mixer and loaders must wear:
- long sleeved shirt and long pants
- shoes plus socks
- chemical resistant gloves
- chemical resistant apron

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of the product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI). The REI for each crop is listed in the directions for use associated with each crop. PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:
- Coveralls
- Chemical resistant gloves made out of any water proof material
- Shoes plus socks.

USER SAFETY RECOMMENDATIONS

User should:
- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENGINEERING CONTROLS STATEMENTS

Pilots must use an enclosed cockpit in a manner that is consistent with the WPS for Agricultural Pesticides [40 CFR 170.240(d)(6)]. Pilots must wear the PPE required on this labeling for applicators.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to aquatic organisms, including fish and invertebrates.

This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area.

This product may contaminate water through drift of spray in wind. This product has a high potential for runoff after application. Use care when applying in or to an area which is adjacent to any body of water, and do not apply when weather conditions favor drift from target area. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product. A level, well maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential for contamination of water from rainfall-runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate.

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

PHYSICAL OR CHEMICAL HAZARDS

Do not use or store near heat or open flame.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

PESTICIDE STORAGE: Fyfanon ULV AG should be stored in the original unopened container in a secure, dry place. Do not contaminate with other pesticides or fertilizers. Fyfanon ULV AG should never be heated above 55° C (131° F), and should not be stored for long periods of time at a temperature in excess of 25°C (77°F).

PESTICIDE DISPOSAL: To avoid wastes, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local government or by industry).

CONTAINER DISPOSAL:

Nonrefillable containers greater than 5 gallons:

Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse (or equivalent) promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank and store rinsate for later use or disposal. Repeat this procedure two more times.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. For any requirements specific to your State or tribe, consult the agency responsible for pesticide regulation.

PRECAUTIONS AND RESTRICTIONS

- All ULV aerial formulations other than those intended for use as a Wide Area Mosquito Adulticide must be packaged in closed mixing and loading systems.
- Do not use this product for any uses other than those specified on this label.
- Undiluted spray droplets of Fyfanon ULV AG will permanently damage automobile paint. Cars should not be sprayed. If accidental exposure does occur, the car should be washed immediately.

Buffer Zones for Ground-based Application: When making a ULV application with ground-based application equipment, a minimum buffer zone of 25 feet must be maintained along any water body.

Buffer Zones for Aerial Application: When making a ULV application with aerial application equipment, a minimum buffer zone of 50 feet must be maintained along any water body.

Spray Drift Requirements

Observe the following requirements when spraying in the vicinity of aquatic areas such as, but not limited to lakes; reservoirs; rivers; permanent streams; marshes or natural ponds; estuaries and commercial fish ponds.

Droplet Size

Use the largest droplet size consistent with acceptable efficacy. Formation of very small droplets may be minimized by appropriate nozzle selection, by orienting nozzles away from the air stream as much as possible, and by avoiding excessive spray boom pressure.

For Groundboom and Aerial Applications

Use only medium or coarse spray nozzles according to ASAE (S572) definition for standard nozzles, or a volume mean diameter (VMD) of 300 microns or greater for spinning atomizer nozzles. In conditions of low humidity and high temperatures, applicators should use a coarser droplet size.

Wind Direction and Speed

Make aerial or ground applications when the wind velocity favors on target product deposition (approximately 3 to 10 mph). Do not apply when wind velocity exceeds 15 mph. Avoid applications when wind gusts approach 15 mph. For all non-aerial applications, wind speed must be measured adjacent to the application site on the upwind side, immediately prior to application.

Temperature Inversion

Do not make aerial or ground applications into areas of temperature inversions. Inversions are characterized by stable air and increasing temperatures with increasing distance above the ground. Mist or fog may indicate the presence of an inversion in humid areas. Where permissible by local regulations, the applicator may detect the presence of an inversion by producing smoke and observing a smoke layer near the ground surface. In conditions of low humidity and high temperatures, applicators should use a coarser droplet size.

Additional Requirements for Ground Applications
Spray should be released at the lowest height consistent with pest control and flight safety. Applications more than 10 feet above the crop canopy should be avoided. For groundboom applications, apply with nozzle height no more than 4 feet above the ground or crop canopy. For airblast applications, turn off outward pointing nozzles at row ends and when spraying the outer two rows. To minimize spray loss over the top in orchard applications, spray must be directed into the canopy.

Additional Requirements for Aerial Applications
For aerial applications, the spray boom should be mounted on the aircraft as to minimize drift caused by wingtip or rotor vortices. The minimum practical boom length should be used and must not exceed 75% of wing span or 90% rotor diameter. Aerial applicators must consider flight speed and nozzle orientation in determining droplet size. When applications are made with a cross-wind, the swath will be displaced downwind. The applicator must compensate for this displacement at the downwind edge of the application area by adjusting the path of the aircraft upwind. Before beginning treatment, notify all registered apiarists in or near the treatment area of the date and approximate time of treatment.
Do not use this product for any uses other than those specified on this label.

Agricultural Uses
Fyfanon ULV AG is used undiluted in any specially designed aircraft or ground equipment that has been adapted and calibrated for ultra low volume spraying. Apply only when weather conditions are favorable. Wind and rising air currents may cause undesirable spray drift and reduce insect control.

Mist blowers and boom sprayers utilizing a controlled air flow to facilitate particle size and spray deposition are to be used at a vehicle speeds of 4 to 10 mph.

Use mist blowers with a pump capable of producing 40 psi and blower speeds of 2600 rpm. Use flat fan nozzles, 8001 to 8002, placed 30° into air blast, or rotary atomizers placed into the air blast that produce an efficient spray particle with a mass median diameter of 100 microns (Dv 0.5 = 100 um) or greater. Other similar application equipment which has demonstrated the capability to deliver even distribution of the labeled rate over the desired area may be used. Apply only when weather conditions are favorable. Wind and rising air currents may cause undesirable spray drift and reduce insect control.

Use boom sprayers with a filtered rotary air compressor, either PTO or gas engine driven or an air pump capable of producing at least 12 psi. Use air pressure on chemical tanks and an accurate metering valve to assure a calibrated flow of the pesticide. Air should be regulated with a relief valve and gauge for proper air and liquid mixture. Pneumatic-type spray nozzles, as suggested by equipment manufacturer, should be used for spray particles with mass median diameter 100 microns (Dv 0.5 = 100 um). Apply only when weather conditions are favorable. Wind and rising air currents may cause undesirable spray drift and reduce insect control.

IMPORTANT: Undiluted spray droplets of Fyfanon ULV AG will permanently damage automobile paint. Cars should not be sprayed. If accidental exposure does occur, the car should be washed immediately. Consult your State Experiment Station or State Extension Service for proper timing of sprays.

CROP TABLE

Use higher rate when foliage is heavy or infestation is severe.

Crop	Pests Controlled	FL. OZ./ Acre	Max. Single App. Rate (lb ai/A)	Max. # of App. per year	Min. App. Interval (days)	Min. Pre-Harvest Interval (days)	Restricted Entry Interval (days)
Alfalfa	Alfalfa caterpillars*; Western yellow striped armyworm; Alfalfa weevil larvae**; Beet armyworms*; Grasshoppers	8	0.61	2 per cutting	14	0	12 hrs
	Alfalfa Blotch Leafminer (ABL), Alfalfa Seed Chalcid	6-8	0.61	2 per cutting	14	0	12 hrs
• Do not apply to alfalfa in bloom. • Do not apply to seed alfalfa. *Apply when larvae are small. **Apply when day temperature is expected to be above 65°F and when 50-70% of leaves show damage.							
Barley	Cereal leaf beetles Grasshoppers	4-8 8	0.61	2	7	7	12 hrs
	Grass Sawfly; Barley Midge or Hessian Fly	6-8	0.61	2	7	7	12 hrs
Beans (dry; snap; Lima)	Mexican bean beetles; aphids; thrips; spider mites; asparagus beetles; pea weevils; leafhoppers; green clover worms; Japanese beetles; lygus bugs	8	0.61	2	7	1	12 hrs
	Bean Seed Fly (seed corn maggot adults); Whitefly[1]	6-8	0.61	2	7	1	12 hrs
• Do not graze or feed foliage vines/forage, straw/hay. [1]Some insects are known to develop resistance to products used repeatedly for control. Because the development of resistance cannot be predicted, the use of this product should conform to resistance management strategies established for the use area. Consult your local or State agricultural authorities for details.							
Blueberry (high bush and low bush)	Blueberry Fruit Fly or Blueberry maggot; Blueberry Gall Midge	10	0.77	3	10	1	12 hrs
Cherries (sweet)	Apple maggot (adult); Cherry fruit flies; Pear sawfly or Cherry slug; Spotted Winged Drosphila	12-16	1.22	4	7	1	12 hrs
Cherries (tart)				6	7	1	12 hrs
• Apply by aircraft only. • Use higher rate when foliage is heavy or infestation is severe. • Make first application as soon as flies appear.							
Clover	Grasshoppers	8	0.61	2 per cutting	14	0	12 hrs
	Clover seed chalcid adults; Clover seed midge adults; Landino clover seed midge	6-8	0.61	2 per cutting	14	0	12 hrs
• Do not apply to clover in bloom.							

(continued)

CROP TABLE (continued)

Crop	Pests Controlled	FL. OZ./ Acre	Max. Single App. Rate (lb ai/A)	Max. # of App. per year	Min. App. Interval (days)	Min. Pre-Harvest Interval (days)	Restricted Entry Interval (days)
Corn (field)	Cereal leaf beetles adult corn rootworms grasshoppers	4-8 4 8	0.61	2	7	7	3 days for detassling; 12 hrs for all other activities
Corn (sweet and pop)				2	5	5	3 days for detassling; 12 hrs for all other activities
	Seed Corn Maggot adults; Corn Silk Fly	6-8	0.61	2	5	5	12 hrs
Cotton	Early season insects; thrips; fleahoppers; leafhoppers grasshoppers lygus bugs*	4-8 8 8-16	1.22	3	7	7	2 days
	Boll Weevils[1]	8-16	1.22	3	7	7	2 days
	Whitefly[2]	8-16	1.22	3	7	7	2 days
*Use highest rate for very heavy migrating population. [1] For use on cotton: Fyfanon ULV can be used alone as a Fyfanon ULV concentrate spray or diluted in once-refined cottonseed or vegetable oil sufficient to make at least one quart of finished spray per acre. [2] Some insects are known to develop resistance to products used repeatedly for control. Because the development of resistance cannot be predicted, the use of this product should conform to resistance management strategies established for the use area. Consult your local or State agricultural authorities for details.							
Grasses, Bermuda	Grasshoppers	12	0.92	1 per cutting	N/A	0	12 hrs
	Crane Fly adult; Frit Fly	6-8	0.61	1 per cutting	N/A	0	12 hrs
Oats	Cereal leaf beetles; Grasshoppers	4-8 8	0.61	2	7	7	12 hrs
	Frit Fly	6-8	0.61	2	7	7	12 hrs
Pasture and Rangeland	Grasshoppers	8-12	0.92	1 per cutting	7	0	12 hrs
	Biting gnats/midges; Black fly; Black blow fly; Blue blow fly; Bluestem midge; Crane Fly adult; Deer fly; Face fly; Green bottle fly; Heel fly; Horn fly; Horse fly; Screwworm, Secondary screwworm; Stable fly	6-8	0.61	1 per cutting	N/A	0	12 hrs
Rice Rice (wild)	Rice stink bugs	8	0.61	2	7	14	12 hrs
	Rice seed midge; Rice Leafminer; South American Leafminer	6-8	0.61	2	7	14	12 hrs
NOTE FOR AQUATIC USES (rice): Broadcast use only over intermittently flooded areas. Application may not be made around bodies of water where fish or shellfish are grown and/or harvested.							
Rye	Grasshoppers	8	0.61	1	N/A	7	12 hrs
	Hessian Fly	6-8	0.61	1	N/A	7	12 hrs
Sorghum	Grasshoppers	8	0.61	2	7	7	12 hrs
	Sorghum midge	6-8	0.61	2	7	7	12 hrs
• Do not graze or feed grain sorghum forage, fodder/stover, or hay.							
Wheat (Spring and Winter	Cereal leaf beetles; Grasshoppers	4-8 8	0.61	2	7	7	12 hrs
	Grass Sawfly; Hessian Fly; Wheat Midge or Orange Wheat Blossom Midge	6-8	0.61	2	7	7	12 hrs

On Rangeland, Pasture, and Other Uncultivated Non-Agricultural Areas (wastelands and roadsides) to control: Biting gnats/midges; Black fly; Black blow fly; Blue blow fly; Bluestem midge; Crane Fly adult; Deer fly; Face fly; Green bottle fly; Heel fly; Horn fly; Horse fly; Screwworm, Secondary Screwworm; Stable Fly

Precaution: Remove domestic livestock before application.

Apply Fyfanon ULV AG at the rate of 2 to 4 fluid ounces per acre for control of adult flies. Application may be made via ground or aerial equipment and may be repeated as necessary.

Fyfanon ULV AG can be mixed with a synergized pyrethrin emulsifiable concentrate (6% pyrethrin + 60% PBO) in accordance with the most restrictive of label limitations and precautions indicated on both this and the tank-mixed product. Label rates must not be exceeded. This product may not be mixed with any product bearing a label which specifically prohibits such mixing. Prior to tank mixing large quantities, mix a small amount in a glass jar to verify that the products are physically compatible.

A tank mix of these may be prepared as follows:

Component	Low to moderate density insect populations, low to moderate vegetation	Higher density insect populations, higher density vegetation
Fyfanon ULV AG	107 fl. oz.	117 fl. oz.
Synergized pyrethrin (6%/ 60%)	21 fl. oz.	11 fl. oz.

Depending upon your operational needs for knock-down, the amount of synergized pyrethrin can be reduced or adjusted. Application rates of Fyfanon ULV AG and droplet distribution requirements remain the same as for Fyfanon ULV AG used alone.

On Non Agricultural Use Sites to Control Beet Leafhopper
Not for use in residential areas

Non-Agricultural Use Sites	Pests Controlled	FL. OZ./Acre	Max. Single App. Rate (lb ai/A)
Non-agricultural rights-of-ways/fencerows --and-- Non-agricultural uncultivated areas/soil	Beet leafhopper	8-12	0.61-0.928

USDA Rate Specification on Cotton for BWE Program For Use Only Under the US Boll Weevil Eradication Program

Use Directions

Crop	Pest	FL. OZ./A	Maximum number of Applications per year	Minimum Application Interval (days)	Minimum Pre-Harvest Interval (days)	Restricted Entry Interval (hours)	Comments
Cotton	Boll Weevils	8-16	25	3	0	24	Early to midseason
		16					Late season

PRECAUTIONS AND RESTRICTIONS FOR APPLICATION TO COTTON TO CONTROL BOLL WEEVIL

Treatment supervisors and applicators must be aware of all sensitive areas near cotton fields, including: schools, hospitals, nursing homes, churches, occupied dwellings, parks, recreation areas, bodies of water, and potential habitat for threatened and endangered species.

For aerial applications, spray equipment must be adjusted so that the volume median diameter is 100 microns (Dv 0.5 = 100um) or greater. The effects of flight speed, nozzle angle and type, and pump pressure on the droplet size spectrum must be considered.

For aerial applications, the spray boom should be mounted on the aircraft as to minimize drift caused by wingtip or rotor vortices. The minimum practical boom length should be used and outermost nozzles must not be placed beyond 75% of the wingspan or rotor diameter.

Spray should be released at the lowest height consistent with pest control and flight safety. Applications more than 10 feet above the crop canopy should be avoided.

Global positioning systems (GPS) should be used to guide pilots and to monitor each application.

Ground equipment should utilize a controlled air flow to facilitate particle size and spray deposition, and should be used at a vehicle speed of 4 to 10 mph. Spray equipment must be adjusted so that the volume median diameter is 100 microns (Dv 0.5 = 100um) or greater.

Ground equipment should be used to treat field edges when possible, covering areas that cannot be treated effectively with aircraft because of obstructions which may affect applicator safety, or where there is boll weevil over-wintering habitat adjacent to the treatment area, or if there are adjacent sensitive areas.

Do not apply when wind velocity exceeds 10 mph. Treatments should be applied when winds are calm, or moving away from adjacent sensitive areas.

When applications are made with a cross-wind, the swath will be displaced downwind. The applicator must compensate for his displacement at the downwind edge of the application area by adjusting the path of the aircraft upwind.

Do not make aerial or ground applications into temperature inversions. Inversions are characterized by stable air and increasing temperatures with height above the ground. Mist or fog may indicate the presence of an inversion in humid areas. The applicator may detect the presence of an inversion by producing smoke and observing a smoke layer near the ground surface.

Applications will not be made when people are in or near infested cotton fields or, to the degree possible, when people are present in or near adjacent sensitive areas.

Application will not be made when rainfall is imminent.

Cheminova does not recommend that application be made to wet foliage.

Before beginning treatment, program personnel shall notify all registered apiarists in or near the treatment area of the date and approximate time of treatment.

WARRANTY DISCLAIMER

Cheminova warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, CHEMINOVA MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

INHERENT RISKS OF USE
It is impossible to eliminate all risks associated with use of this product. Crop injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperatures, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of Cheminova or the Seller. All such risks shall be assumed by Buyer and User. Buyer and User agree to hold Cheminova and the Seller harmless for any claims related to such factors.

LIMITATION OF REMEDIES
To the extent consistent with applicable law, the exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability, or other legal theories), shall be limited to one of the following, at Cheminova's election:

(1) Refund of purchase price paid by buyer or user for product bought, or

(2) Replacement of amount of product used.

To the extent consistent with applicable law, Cheminova shall not be liable for consequential, incidental, or special damages or losses in any matter.

The terms of the Warranty Disclaimer above and this Limitation of Remedies cannot be varied by any written or verbal statements or agreements. No employee or sales agent of Cheminova or the Seller is authorized to vary or exceed the terms of the Warranty Disclaimer or this Limitation of Remedies in any manner.

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Specimen Label

RESTRICTED USE PESTICIDE
May Injure (Phytotoxic) Susceptible, Non-Target Plants. For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification. Commercial certified applicators must also ensure that all persons involved in these activities are informed of the precautionary statements.

Dow AgroSciences™

Grazon® P+D

Specialty Herbicide

®Trademark of Dow AgroSciences LLC

For the control of broadleaf annual and perennial weeds, and certain woody plants and vines on CRP, rangeland and permanent grass pastures

Active Ingredients:	
picloram: 4-amino-3,5,6-trichloro-2- pyridinecarboxylic acid triisopropanolamine salt	10.2%
2,4-D: (2,4-dichlorophenoxy) acetic acid, triisopropanolamine salt	39.6%
Other Ingredients	50.2%
Total	100.0%

Acid equivalents:
picloram: 4-amino-3,5,6-trichloro-2-pyridinecarboxylic acid - 5.7% - 0.54 lb/gal
(2,4-dichlorophenoxy) acetic acid - 21.2% - 2 lb/gal

EPA Reg. No. 62719-182

Keep Out of Reach of Children

DANGER PELIGRO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

Precautionary Statements

Hazards to Humans and Domestic Animals

Corrosive • Causes Irreversible Eye Damage • Harmful If Swallowed • Harmful if Absorbed through Skin • Harmful if Inhaled

Do not get in eyes or on clothing. Avoid contact with skin. Avoid breathing spray mist or vapor.

Personal Protective Equipment (PPE)

Some materials that are chemical-resistant to this product are barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyvinyl chloride, or viton. If you want more options, follow the instructions for category C on an EPA chemical resistance category selections chart.

Pilots must wear:
Long-sleeved shirt and long pants, and
Shoes plus socks

All mixers, loaders, flaggers and other applicators and other handlers must wear:
- Long-sleeved shirt and long pants
- Shoes plus socks
- Chemical-resistant gloves,
- Goggles or face shield, and
- Chemical-resistant apron when mixing or loading, cleaning up spills or equipment, or othrewise exposted to the concentrate

See Engineering Controls for additional requirements.

Follow manufacturer's instructions for cleaning/maintaining PPE.
If no such instructions for washables exist, use detergent and hot water.
Keep and wash PPE separately from other laundry.

Engineering Controls

When handlers use closed systems or enclosed cabs in a manner that meets the requirements listed in the WPS (40 CFR 170.240(d)(4-6), the handler PPE requirements may be reduced or modified as specified in the WPS.

Pilots must use an enclosed cockpit that meets the requirements listed in the Worker Protections Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)].

User Safety Recommendations:

Users should:
- Wash hands before eating, drinking, and chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

First Aid

If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
If swallowed: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.
If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.
If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

First Aid (Cont.)

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may contact 1-800-992-5994 for emergency medical treatment information.

Note to Physician: Probable mucosal damage may contraindicate the use of gastric lavage.

Environmental Hazards

This pesticide is toxic to some plants at very low concentrations. This pesticide may be toxic to fish and aquatic invertebrates. Non-target plants may be adversely affected if pesticide is allowed to drift from areas of application. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment washwaters or rinsate.

Picloram is known to leach through soil into ground water under certain conditions as a result of agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

Picloram can contaminate surface water through spray drift. Under some conditions, picloram may also have a high potential for runoff into surface water (primarily via dissolution in runoff water). These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas over-laying extremely shallow ground water, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas over-laying tile drainage systems that drain to surface water.

2,4-D has properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination. Application around a cistern or well may result in contamination of drinking water or groundwater.

Notice: Read the entire label. Use only according to label directions. **Before using this product, read Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies elsewhere on this label. If terms are unacceptable, return at once unopened.**

In case of emergency endangering health or the environment involving this product, call 1-800-992-5994.

Agricultural Chemical: Do not ship or store with food, feeds, drugs or clothing.

Directions for Use

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
Read all Directions for Use carefully before applying.

Do not apply this product through any type of irrigation system.

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 48 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls
- Chemical-resistant gloves made of any waterproof material
- Rubber, Polyvinyl Chloride (PVC), or Viton
- Shoes plus socks
- Protective eyewear

Non-Agricultural Use Requirements

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for Agricultural Pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Entry Restrictions for Non-WPS Uses: Do not enter or allow people (or pets) to enter the treated area until sprays have dried.

Storage and Disposal

Do not contaminate water, food or feed by storage or disposal.
Pesticide Storage: If exposed to subfreezing temperatures (below 32° F), the product should be warmed to at least 40° F and agitated thoroughly before using.
Pesticide Disposal: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law and may contaminate groundwater. If these wastes cannot be disposed of by use according to label instructions, contact your state pesticide or environmental control agency, or the hazardous waste representative at the nearest EPA regional office for guidance.

Nonrefillable containers 5 gallons or less:
Container Disposal: Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available.
Triple rinse or pressure rinse container (or equivalent) promptly after emptying. **Triple rinse** as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. **Pressure rinse** as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Storage and Disposal (Cont.)

Refillable containers larger than 5 gallons:
Container Disposal: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10% full with water and, if possible, spray all sides while adding water. If practical, agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

Nonrefillable containers larger than 5 gallons:
Container Disposal: Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available.
Triple rinse or pressure rinse container (or equivalent) promptly after emptying. **Triple rinse** as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.
Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

General Information

Grazon® P+D herbicide is a water-soluble liquid product containing picloram and 2,4-D. Use Grazon P+D in rangeland and permanent grass pastures, non-crop areas including industrial manufacturing and storage sites, rights-of-way, such as electrical power lines, communication lines, pipelines, highways, railroads, and wildlife openings in non-crop areas, to selectively control many annual, biennial, and perennial broadleaf weeds and woody species and vines listed on this label.

Use Grazon P+D at rates of 2 to 8 pints per acre to control broadleaf weeds and at rates of 1 to 2 gallons per acre to control woody plants and vines. Grazon P+D may be tank mixed with Remedy® Ultra herbicide, or 4 lb/gal 2,4-D low-volatile esters registered for sites listed on this label to control mixed woody plant and vine species. When tank mixing, observe all precautions, directions, and limitations on both products' labeling. In all cases use the amounts specified in enough water to give thorough and uniform coverage of the plants to be controlled.

Note: Grazon P+D does not mix readily with oil. Use of a non-ionic agricultural surfactant, such as Ortho X-77, Triton AG-98, or Tronic, is recommended for all applications. When using surfactants, follow the use directions and precautions listed on the surfactant manufacturer's label. Use the higher recommended concentrations of surfactant in the spray mixture when applying lower spray volumes per acre.

Herbicidal effects of Grazon P+D occur primarily from uptake by plant foliage and translocation throughout the plant, however, secondary herbicidal activity may occur from soil uptake of picloram. Very small amounts can kill or damage broadleaf plants. To prevent damage to crops and other desirable plants, carefully follow all directions and precautions.

General Use Precautions and Restrictions

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

Observe any special use and application restrictions and limitations, including method of application and permissible areas of use as required by state or local regulations. When used in tank mix combination with other products, follow all applicable use directions, precautions, restrictions, and limitations on the labels of each product used.

Use of this product in certain portions of California, Oregon, and Washington is subject to the January 22, 2004 Order for injunctive relief in Washington Toxics Coalition et al. v. EPA, C01-0132C, (W.D. W.A.). For further information, please refer to http://www.epa/gov/espp/wtc/

Application Rate Ranges: Use higher rates in areas with dense weed populations or for longer residual control. For best results, the lower rate should be used only when environmental conditions are favorable for plant growth and when the plants are in the recommended growth stage. Compared to results obtained with the higher rate, a lower rate may be slower to show activity, provide a lower level of control, and may require retreatment.

Total use of Grazon P+D must not exceed 8 quarts per acre per year on non-crop areas. See appropriate section under "Application Directions" for specific precautions and restrictions.

Chemigation: Do not apply this product through any type of irrigation system.

Do not rotate food or feed crops on treated land if they are not registered for use with picloram until an adequately sensitive bioassay or chemical test shows that no detectable picloram is present in the soil.

Grazing Restrictions:
- There are no grazing restrictions for non-lactating dairy animals or other livestock **including horses, sheep, goats, and other animals in the treatment area.**
- Do not allow lactating dairy animals to graze treated areas within 7 days after application.
- Do not harvest grass cut for hay from treated areas for 30 days after application.
- Meat animals must be withdrawn from treated forage at least 3 days before slaughter

Grazon P+D should not be applied in residential or commercial areas or near ornamental trees and shrubs. Untreated trees can be affected by root uptake of the herbicide through movement into the top soil or by excretion of the product from the roots of nearby treated trees. Do not apply Grazon P+D within the area occupied by roots of desirable trees, unless such injury can be tolerated.

On areas treated with this product, do not rotate to crops intended for food or feed use, other than range or pasture grasses, rye, forage sorghum, sudangrass, wheat, barley or oats not underseeded with a legume. **Do not move treated soil, or use treated soil for growing other plants** until soil residues of picloram are no longer detectable as indicated by an adequately sensitive bioassay or chemical test.

Do not spray pastures if the injury to existing forage legumes cannot be tolerated. Grazon P+D may injure or kill legume plants. Forage legumes may be less sensitive to the herbicide after the seed has set and plant growth is mature. Seeding of legumes may not be successful if made within one year of application.

Established grasses are tolerant to this product, but newly seeded grasses may be injured until well established as indicated by tillering, development of a secondary root system and vigorous growth (see Planting Grasses Section).

Grazon P+D may **suppress certain established grasses** such as smooth bromegrass, Willman's lovegrass and buffalograss. However, subsequent grass growth should be improved by release from weed competition. Smooth bromegrass and Willman's lovegrass grown for seed may be sensitive to this product if applied under adverse growing conditions (moisture stress).

Do not transfer livestock from treated grazing areas to broadleaf crop areas without first allowing 7 days of grazing on untreated grass pasture. Otherwise, urine may contain enough picloram to cause injury to sensitive broadleaf plants.

Do not use grass or hay or plant materials from treated areas or manure from animals being fed treated forage or hay for composting or mulching of desirable, susceptible broadleaf plants.

Do not use manure from animals grazing treated areas on land used for growing broadleaf crops, ornamentals, orchards or other susceptible, desirable plants. Manure may contain enough picloram to cause injury to susceptible plants.

Do not mix with dry fertilizer.

Do not contaminate water intended for irrigation or domestic purposes. To avoid injury to crops or other desirable plants, do not treat or allow spray drift or run-off to fall onto banks or bottoms of irrigation ditches, either dry or containing water, or other channels that carry water that may be used for irrigation or domestic purposes. Do not apply to snow or frozen ground.

Do not use on sub-irrigated land.

Do not apply or otherwise permit Grazon P+D or sprays containing Grazon P+D to contact crops or other desirable broadleaf plants, including but not limited to alfalfa, beans, cotton, grapes, melons, peas, potatoes, safflower, soybeans, sugar beets, sunflower, tobacco, tomatoes, and other vegetable crops, flowers, fruit plants, ornamentals and shade trees.

Do not make application when circumstances favor movement from treatment site.

Spray Drift Management

A variety of factors including weather conditions (e.g., wind direction, wind speed, temperature, relative humidity) and method of application (e.g., ground, aerial, airblast) can influence pesticide drift. The applicator must evaluate all factors and make appropriate adjustments when applying this product.

Droplet Size
When applying sprays that contain 2,4-D as the sole active ingredient, or when applying sprays that contain 2,4-D mixed with active ingredients that require a Coarse or coarser spray, apply only as a Coarse or coarser spray (ASAE standard 572) or a volume mean diameter of 385 microns or greater for spinning atomizer nozzles.

When applying sprays that contain 2,4-D mixed with other active ingredients that require a Medium or more fine spray, apply only as a Medium or coarser spray (ASAE standard 572) or a volume mean diameter of 300 microns or greater for spinning atomizer nozzles.

Wind Speed
Do not apply at wind speeds greater than 15 mph. Only apply this product if the wind direction favors on-target deposition and there are not sensitive areas (including, but not limited to, residential areas, bodies of water, known habitat for nontarget species, nontarget crops) within 250 feet downwind. If applying a Medium spray, leave one swath unsprayed at the downwind edge of the treated field.

Temperature Inversions
If applying at wind speeds less than 3 mph, the applicator must determine if: a) conditions of temperature inversion exist, or b) stable atmospheric conditions exist at or below nozzle height. Do not make applications into areas of temperature inversions or stable atmospheric conditions.

Susceptible Plants
Do not apply under circumstances where spray drift may occur to food, forage, or other plantings that might be damaged or crops thereof rendered unfit for sale, use or consumption. Susceptible crops include, but are not limited to, cotton, okra, flowers, fruit trees, grapes (in growing stage), fruit trees (foliage), soybeans (vegetative stage), ornamentals, sunflowers, tomatoes, beans, and other vegetables, or tobacco. Small amounts of spray drift that may not be visible may injure susceptible broadleaf plants.

Other State and Local Requirements
Applicators must follow all state and local pesticide drift requirements regarding application of 2,4-D herbicides. Where states have more stringent regulations, they must be observed.

Equipment
All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers or surrogates.

Aerial Application
The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter.

Release spray at the lowest height consistent with efficacy and flight safety. Do not release spray at a height greater than 10 feet above the crop canopy unless a greater height is required for aircraft safety. This requirement does not apply to forestry or rights-of-way applications.

When applications are made with a crosswind, the swath will be displaced downwind. The applicator must compensate for this by adjusting the path of the aircraft upwind.

Ground Boom Application
Do not apply with a nozzle height greater than 4 feet above the crop canopy.

Temperature And Humidity: When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

Application Directions

CRP, Rangeland and Permanent Grass Pastures

Broadcast Foliar Application (Ground or Aerial)
Unless otherwise specified, apply in water alone or in an oil-water emulsion in a total spray volume of 10 to 40 gallons per acre using ground equipment or 1 or more gallons per acre by aerial application. If aerially applied, results will be more consistent for spray volumes of 2 or more gallons per acre. Use of the lower total spray volume with ground equipment is recommended primarily where Grazon P+D is applied simultaneously with liquid fertilizer. Good coverage is essential. For aerial application, swath width should not exceed 1 1/4 times the wingspan of the aircraft.

To provide more complete wetting and coverage of the foliage, a non-ionic surfactant may be used at specified rates. The use of a drift control additive is recommended for drift reduction and improved deposition.

Restrictions
- **Preharvest Interval:** Do not cut forage for hay within 30 days of application. For program lands, such as CRP, consult program rules to determine whether grass or hay may be used. The more restrictive requirements of the program rules or this label must be followed.
- **Maximum seasonal rate:** Apply no more than 16 pints/acre per year
- Do not make more than two applications per year
- Do not apply within 30 days of previous application
- If grass is to be cut for hay, Agricultural Use Requirements for the Worker Protection Standard are applicable

Section I: Control of Broadleaf Weeds and Woody Plants in Rangeland and Permanent Grass Pastures in the Southwest, Southeast, and Mid-Atlantic States

1-2 Pints/Acre or 3-4 Pints/Acre: Apply at the rate indicated by stage of growth to control the following woody plants or broadleaf weeds:	
Weed Species	**Specific Use Directions**
annual broomweed, bitter sneezeweed, bitterweed, buffalo bur, bull thistle, bursage (bur ragweed), camphor weed, cocklebur, common ragweed, croton, horseweed, lambsquaters, pigweed, prickly lettuce, smartweed, sunflower, tasajillo, wild carrot	**Early Season: Apply at a rate of 1-2 pt/acre** in early to mid spring when weeds are less than 3 inches tall. Rates in the lower end of the rate range are effective only when weeds are less than 2 inches tall and conditions are favorable for plant growth. **Mid to Late Season: Apply at a rate of 3-4 pt/acre** in late spring to early summer when weeds are 3 inches tall to early flowering. Use higher rate when plants are in the bud to flowering stage or under stress from heat or drought.

2-4 Pints/Acre: Apply at the indicated stage of growth to control the following woody plants or broadleaf weeds:	
Weed or Brush Species	**Specific Use Directions**
aster, heath	Apply prior to bud stage when actively growing.
aster, spiny (Mexican devilweed)	Apply prior to bud stage when actively growing.
bee plant, Rocky Mountain	Apply prior to bud stage when actively growing.
bindweed, hedge	Apply prior to bud stage when actively growing.
blackberry	Tank-mix 2 pints per acre of Grazon P+D with 1 pint per acre of Remedy® Ultra herbicide plus surfactant. Apply in late May to early June during or after bloom (not before) when the foliage is dark green. Do not treat blackberries in the same year after mowing, shredding, or burning. Even one year after removal of top growth, blackberry stands will be more difficult to control than undisturbed stands and will require retreatment.
buckwheat, climbing false	Apply prior to seed development when actively growing.
buckwheat, wild	Apply prior to seed development when actively growing.
bullnettle, western	Apply in spring when plants begin to flower.
bundleflower, Illinois	Apply prior to bud stage when actively growing.
burdock, common	Apply prior to bud stage when actively growing.
buttercup	Apply in early spring prior to bud stage.
chickweed, mouseear	Apply prior to bud stage when actively growing.
chicory	Apply from rosette stage to early bud stage when actively growing.
coneflower, upright prairie	Apply when plants are to 6 inches tall, but before flowering.
common goldenweed, Drummond's goldenweed (*Isocoma* spp.)	Apply in the spring (April-June) when favorable growing conditions result in substantial canopy development. Thorough and uniform coverage is essential. Use higher spray volumes (20-25 gpa for ground and 4-5 gpa for aerial equipment). Use of a non-ionic surfactant or oil-water emulsion is recommended (see Mixing Instructions).
curly dock	**Early Season:** Apply 2 pints per acre prior to bolting stage of growth. **Mid-to-Late Season: Apply at a rate of 3-4 pt/acre** from bolting to bud stage.
devil's-claw	Apply prior to flowering when actively growing.
dogfennel (cypressweed)	Apply when plants are from 6 to 24 inches tall, but before flowering. Increase rate within the rate range as season progresses and plants become larger.
eriogonum, annual	Apply prior to bud stage when actively growing.
fleabane, rough	Apply prior to bud stage when actively growing.
gray goldaster narrowleaf goldaster	Apply in the spring during the bud stage (pre-bloom) using an oil-water emulsion spray. Thorough coverage is essential.

2-4 Pints/Acre: Apply at the indicated stage of growth to control the following woody plants or broadleaf weeds: (Cont.)	
Weed or Brush Species	**Specific Use Directions**
goldenrod, Missouri	Apply prior to bud stage when actively growing.
goldenweed, common, goldenweed, Drummond's (*Isocoma* spp.)	Apply in the spring (April-June) when favorable growing conditions result in substantial canopy development. Thorough and uniform coverage is essential. Use higher spray volumes (20-25 gpa for ground and 4-5 gpa for aerial equipment). Use of a non-ionic surfactant or oil-water emulsion is recommended (see Mixing Instructions).
hemlock, poison	Apply from rosette stage in spring or fall up to 36" tall.
hemlock, water (common)	Apply from rosette stage in spring or fall up to bud stage.
horsenettle, Carolina	Apply 2 pints per acre when plants are 4-6 inches tall. At 2 pints per acre retreatment may be necessary for acceptable control. Apply 3 to 4 pints per acre when flowering or for longer residual control of later emerging plants and greater stand reduction the following year.
horehound	Apply during active growth.
jimsonweed	Apply prior to bud stage when actively growing.
morningglory, ivyleaf	Apply prior to bud stage when actively growing.
mugwort	Apply prior to bud stage when actively growing.
nightshade, silverleaf	Apply 2 pints per acre when plants are 4-6 inches tall. Apply 3 to 4 pints per acre when flowering or for longer residual control of later emerging plants and greater stand reduction the following year. Retreatment is necessary for total control.
pennycress, field	Apply when plants are to 6 inches tall, but before flowering.
plantain, buckhorn	Apply prior to bud stage when actively growing.
pricklypoppy, annual	Apply prior to bud stage when actively growing.
puncturevine	Apply prior to flowering when actively growing.
ragweed, common, giant, lanceleaf and western	Use lower rates in rate range when weeds no more than 2 inches tall and conditions are favorable for plant growth. Use higher rates when weeds are from 3 inches tall to early flowering.
sagebrush, sand	Apply when new terminal growth reaches 6 - 12" and before average daytime temperature reaches 95 degrees F. Use low rate only in early season.
snow-on-the-mountain	Apply prior to bud stage when actively growing.
sowthistle, spiny (prickly)	Apply prior to bud stage when actively growing.
stickweed	Apply 2 - 3 pt/acre prebloom.
thistles, biennial: including bull, musk, plumeless or scotch	Apply 2 pt/acre at rosette stage. Apply 3 to 4 pt/acre in mid to late season from bolting to bud stage.
vervain, blue vervain, hoary	Apply when plants are 6 inches tall to early flowering. Increase rate within the rate range as season progresses and weeds mature.
vetch, hairy	Apply prior to bud stage when actively growing.
wingstem	Apply 2 - 3 pt/acre prebloom.
yankeeweed	Apply when plants are 8 to 10 inches tall.

3-4 Pints/Acre: Apply at the indicated stage of growth to control the following woody plants or broadleaf weeds:	
Weed or Brush Species	**Specific Use Directions**
marshelder (sumpweed)	Apply in early season when weeds are less than 4 inches tall. Older plants require higher rates. Thorough and uniform coverage is essential. Use higher spray volumes (20-25 gpa for ground and 5 or more gpa for aerial equipment
mesquite and oak sprouts (suppression of regrowth):	Delay applications of Grazon P+D for weed control until the foliage of regrowth brush in the treatment area is fully expanded and turned from light to dark green.
milkweed	Apply 4 pt/acre to actively growing milkweeds less than 4 inches tall. Add a surfactant at the manufacturer's rate to improve wetting of foliage.
mullein, common	Apply 4 pints per acre during the rosette stage in spring or fall prior to bolting. Add a surfactant at the manufacturer's rate to improve wetting of foliage.
poisonous plants such as: groundsel (*Senecio* spp.), garbancillo, (Wooton loco) and Woolly loco	Apply in fall or winter when moisture conditions are favorable. Because locoweeds are difficult to wet, use of a surfactant (0.25-0.5% vol/vol) or oil-water emulsion is recommended (see Mixing Instructions). **Herbicide treatment may increase palatability of poisonous plants. Treated areas should not be grazed until the foliage of poisonous plants is dried and will not be eaten by livestock.**
thistle, wavyleaf	Apply from rosette to late bolt stage.
tropical soda apple	Apply when plants are beginning to flower.

8 Pints/Acre: Apply at the indicated stage of growth to control the following woody plants or broadleaf weeds:	
Weed or Brush Species	**Specific Use Directions**
cactus, pricklypear or cholla	Make ground broadcast application in the spring or early summer to control a broad spectrum of broadleaf weeds in addition to pricklypear.
Chinese tallowtree	Apply in spring or fall when conditions are favorable for plant growth. Thorough and uniform spray coverage is required. Use higher spray volumes (20-25 gpa for ground and 5 or more gpa for aerial equipment). Use of a non-ionic surfactant or oil-water emulsion is recommended (see Mixing Instructions).
Macartney rose multiflora rose	Apply in spring or fall when conditions are favorable for plant growth. Thorough and uniform spray coverage is essential. Use higher spray volumes (20-25 gpa for ground and 5 or more gpa for aerial equipment). Use of a non-ionic surfactant or oil-water emulsion is recommended (see Mixing Instructions). Avoid application within 9-12 months after mowing or when plants have a high percentage of new growth. Poor control will result if plants are less than 3 ft tall.
locust (honey and black) wild plum	Apply in spring when leaves are fully expanded and mature. Use of a surfactant (0.25-0.5% vol/vol) is recommended.

Section II: Control of Broadleaf Weeds and Woody Plants in Rangeland and Permanent Grass Pastures in the North and Northwestern U.S. including Colorado, Idaho, Iowa, Kansas, Minnesota, Missouri, Montana, Nebraska, North Dakota, Oregon, South Dakota, Utah, Washington and Wyoming

For best results in terms of forage response, desirable forage grasses should be present in the area to be treated in sufficient density to provide competition to lessen weed re-establishment following treatment. Additionally, good grazing management practices are recommended, particularly in the year following treatment, to allow forage grass density to increase.

Application Rates: Use higher rates in areas with dense weed populations or for longer residual control. For best results, the lower rate should be used only when environmental conditions are favorable for plant growth and when the plants are in the recommended growth stage. Compared to results obtained with the higher rate, a lower rate may be slower to show activity, provide a lower level of control, and may require retreatment.

2 to 4 Pints/Acre: Apply at the indicated stage of growth to control the following broadleaf plant species. Increase rate within rate range as growing season progresses:	
Weed or Brush Species	**Specific Use Directions**
absinth wormwood annual broomweed	Apply when actively growing in spring or early summer.
biennial thistles, such as bull, musk, plumeless or scotch	Apply 2 pt/acre at rosette stage. Apply 3 to 4 pt/acre to bolted thistle, but apply before early bud stage.
broom snakeweed	Apply after full leaf development to early bloom stage when plants are actively growing.
curly dock	Apply 2 pt/acre early season prior to bolting. Apply 3 to 4 pt/acre in mid to late season from bolting to early flower.
curlycup gumweed	Apply when new growth and seedlings have fully emerged before bloom stage.
fringed sagebrush	Apply a minimum of 3 pt/acre after seed stalk elongation and early flowering (mid - late June) and throughout the summer under good growing conditions.
goldenrod	Apply prior to bud stage during active growth.
hemp (marijuana) hemlock, poison	Apply from rosette stage in spring or fall up to 36" tall.
hemlock, water (common)	Apply from rosette stage in spring or fall up to bud stage.
ironweed, western	Apply 2 to 3 pt/acre prior to bud stage during active growth. A surfactant is recommended.
locoweeds, such as silky crazyweed (white point loco) and lambert crazyweed	Apply from early bud to early bloom stage. Herbicide application may increase palatability of these poisonous plants. Therefore, treated areas should not be grazed until after the toxic plants have dried up. Higher rate range should be considered to provide greater reduction of poisonous plants.
phlox, hoods	Apply during active growth.
plains pricklypear	Apply when the majority of plants are in the flower stage. The lower rate will provide a partial stand reduction. More complete control may be obtained with the higher rate. Treatment response is very slow and may continue for 2 years or longer.
ragweed, common, giant, lanceleaf and western	Use the lower rate in early season when weeds are no more than 2 inches tall. Use the higher rate when weeds range from 3 inches tall to early flowering, when conditions are favorable for plant growth.
thistles, biennial: including bull, musk, plumeless or scotch	Apply 2 pt/acre at rosette stage. Apply 3 to 4 pt/acre in mid to late season from bolting to bud stage.
vervain, blue and hoary	Apply when plants are 6 inches tall to early flowering. Increase rate within the rate range as season progresses and plants mature.
wormwood, Louisiana and absinth	Apply during active growth prior to woody stem development.
yarrow	Apply 2 pt/acre prior to bud stage. A surfactant is recommended.

4 Pints/Acre: Apply at the indicated stage of growth to control the following broadleaf weed species:	
Weed or Brush Species	**Application Timing**
dense clubmoss	Apply in early summer with a surfactant at 0.25% v/v.
geyer larkspur	Apply from rosette to flower bud formation.
hairy goldenaster	Apply at bloom stage during active growth.
houndstongue	Apply to rosettes in late fall or early summer
larkspur, plains	Apply prior to bud stage when actively growing.
licorice, wild	Apply at bloom stage, but before bur formation.
loco, woolly	Apply from bolting to early bloom. Herbicide application may temporarily increase palatability of this poisonous plant. Therefore, treated areas should not be grazed until toxic plants have dried up.
milkweed, common	Apply at bud stage when actively growing.
mullein, common	Apply during rosette stage in spring or fall prior to bolting. Add a surfactant at the manufacturer's rate to improve wetting of foliage.
oxeye daisy	Apply 3-4 pt/acre when all plants have emerged to late flowering.
pussytoes	Apply prior to bud stage when actively growing. Use a surfactant at the manufacturer's rate to improve wetting of foliage.

8 Pints/Acre: Apply at the indicated stage of growth to control the following woody plants or broadleaf weeds:	
Weed or Brush Species	**Specific Use Directions**
Macartney rose multiflora rose	Apply in spring or fall when conditions are favorable for plant growth. Thorough and uniform spray coverage is essential. Use higher spray volumes (20-25 gpa for ground and 5 or more gpa for aerial equipment). Use of a non-ionic surfactant or oil-water emulsion is recommended (see Mixing Instructions). Avoid application within 9-12 months after mowing or when plants have a high percentage of new growth. Poor control will result if plants are less than 3 ft tall.
locust (honey and black) wild plum	Apply in spring when leaves are fully expanded and mature. Use of a surfactant (0.25-0.5% vol/vol) is recommended.

High-Volume Foliar Applications

Spray to thoroughly wet foliage and stems. The use of an approved agricultural surfactant is recommended. Do not use more than 1 gallon of Grazon P+D (0.54 lb of picloram) per acre. To minimize spray drift, use lowest possible pressure and coarse spray to achieve good coverage. Keep sprays no higher than brush tops. Use of an approved drift control agent is recommended to reduce the potential for spray drift.

8 Pints/Acre/100 Gallons of Spray: Apply at the indicated stage of growth to control the following woody plants or broadleaf weeds:	
Weed or Brush Species	**Specific Use Directions**
blackberry, elm, granjeno, locust ,maple, oaks, sweetgum, sumac	Tank mix rate of Grazon P+D with 1-2 qt/100 gallons of Remedy and apply in late spring to early summer when leaves are fully expanded and mature. Use of a surfactant (0.25-0.5% vol/vol) is recommended. Spray to thoroughly wet foliage. For best results on blackberry, treat during or after bloom.
annual broomweed, bitterweed, bitter sneezeweed, bullnettle, bursage (bur ragweed), bull thistle, buffalo bur, camphorweed, cocklebur, common ragweed, croton, gray goldaster, lanceleaf ragweed, marshelder (sumpweed), musk thistle, narrowleaf goldaster, prickly lettuce, smartweed, sunflower, wild carrot, silverleaf nightshade, tasajillo, upright prairie cone flower, western horsenettle, western ragweed, yankeeweed	Apply when target weeds are 2-3 inches tall until early flowering.
flameleaf sumac honeylocust,	Apply in spring when leaves are fully expanded and mature. Use of a surfactant (0.25-0.5% vol/vol) is recommended. Spray to thoroughly wet foliage.
Tropical soda apple	Apply when plant begin to flower.

8 Pints/100 Gallons of Spray: Apply at the indicated stage of growth to control the following woody plants or broadleaf weeds:	
Brush Species	**Specific Use Directions**
Marcartney rose multiflora rose	Apply in spring or fall when conditions are favorable for plant growth. High volume application is recommended for control of large undisturbed clumps or small regrowth.

8 Pints/100 Gallons of Spray: Apply at the indicated stage of growth to control the following woody plants or broadleaf weeds:	
Weed or Brush Species	**Specific Use Directions**
Chinese tallow tree	Apply in spring or fall when conditions are favorable for plant growth.
cactus, pricklypear or cholla	Applications may be made throughout the year. Spray to wet all pads to runoff. Use of a surfactant (0.25-0.5% vol/vol) is recommended. Water soluble dye may be added to the spray mixture to mark treated plants.
common goldenweed, Drummond's goldenweed	Apply in the spring (April-June) when favorable growing conditions result in substantial canopy development.
poisonous plants such as: groundsel (*Senecio* spp.), garbancillo (Wooton loco), and Woolly loco	Apply in fall or winter when moisture conditions are favorable. Herbicide treatment may increase palatability of poisonous plants. Treated areas should not be grazed until the toxic plants have dried up and lost their palatability.

Treatment After Planting Grasses, Including Conservation Reserve Program (CRP) Acres

Weed Control Prior to Seeding or Planting Grasses
Grazon P+D may be applied to control weeds prior to planting **cool season grasses.**
Apply Grazon P+D at 4 pints per acre or less depending on the target species. Grazon P+D may be tank-mixed with Glyphomax Plus (glyphosate) to control grasses prior to seeding.

- To optimize weed control, minimal disturbance of the treatment area with the seeding operation is suggested. The site should be left undisturbed for a minimum of **21 days prior to seedbed preparation or seeding.** To optimize weed control and reduce the potential for injury of seeded grasses, increase the interval between application of Grazon P+D and planting grass seed.
- Do not plant smooth bromegrass for 60 days after treatment.

Perennial Grasses
Applications of Grazon P+D to perennial grasses should be made only after perennial grasses are well established as indicated by vigorous growth and a well-developed secondary root system.

Sprigged Bermudagrass: Grazon P+D at 1.5 pints per acre or less can be used on sprigged bermudagrass once the runners (stolons) have reached 6 inches in length and growing conditions are favorable.

Overseeding: Grazon P+D at rates of 1.5 pints per acre or less can be applied to permanent pastures that have been over seeded with small grains (such as barley, forage sorghum, oats, rye, ryegrass, sudangrass or wheat) grown for pasture or hay only. Young seedling small grains or grasses are sensitive to Grazon P+D. Grazon P+D should not be applied until overseeded grasses are well established and at tillering stage of growth or later.

Precautions:
- Applications of Grazon P+D to established warm season grasses such as bermudagrass during initial greenup in early spring could delay or suppress emergence of new growth. If temporary suppression of new growth cannot be tolerated, application of Grazon P+D should be made prior to greenup or after vigorous vegetative growth has resumed.
- Do not use Grazon P+D if legumes are a desired cover during CRP.
- Conditions unfavorable to plant growth, such as drought, will increase potential for injury to grasses at all stages of growth.
- **Crop Rotation:** Do not rotate to grain sorghum (milo) if greater than 4 pints per acre of Grazon P+D has been applied. For rates below 4 pints per acre, do not plant grain sorghum for 8 months after application. This product is not intended for use on land planted to sweet sorghum. To avoid potential crop injury, planting of small grains should be delayed a minimum of 60 days of soil temperatures above 40°F following application, except in Idaho, North Dakota, Nebraska, Montana, Oregon, South Dakota, Washington and Wyoming, where the minimum interval should be 90 days.
- After CRP, do not plant broadleaf crops in treated acres until an adequately sensitive bioassay (described below) shows that no detectable picloram is present in the soil.

Field Bioassay Instructions: In fields previously treated with this product, plant short test rows of the intended rotational crop across the original direction of application. The test area should sample field conditions such as soil texture, soil pH, drainage, and any other variable that could affect the seed bed of the new crop. The field bioassay can be initiated at any time between harvest of the treated crop and the planting of the rotational crop. Observe the test crop for herbicidal activity, such as poor stand (effect on seed germination), chlorosis (yellowing), and necrosis (dead leaves or shoots), or stunting (reduced growth). If herbicidal symptoms do not occur, the test crop can be grown. If there is apparent herbicidal activity, do not plant the field to the test rotational crop; plant only a labeled crop such as pasture grasses, small grains (barley, oats, rye or wheat), or, after a rotational interval of 8 months, grain sorghum.

Mixing Instructions

Ground or Aerial Application – For Use With Water Alone
Start with about half the required amount of water in the spray tank. With agitation operating, add the required amount of Grazon P+D. If a surfactant is needed, it should be added as the remainder of the required water is added to complete the spray mix. When using a drift control additive, carefully follow the manufacturer's directions. Complete dispersion and uniform mixing is essential to proper performance of drift control additives. This can be aided by thorough circulation through a mixing pump with moderate to high shearing action.

Use With Oil/Water Emulsions
Ground Application: Add oil to the total spray mix at a rate of 5 to 10% of the total mix, up to a maximum of 1 gallon of oil per acre, using agricultural spray emulsifiers and mixing procedures given below.

Aerial Application: Use oil and water in the spray mixture in a 1:5 ratio (1 part oil to 5 parts water), up to a maximum of 1 gallon of oil per acre using mixing procedures given below.

Mixing Instructions for Oil/Water Emulsions (Batch Mixing)
With continuous, vigorous agitation:
1. Add to the spray tank half the amount of water to be used.
2. Add the amount of Grazon P+D required for the total volume of spray being mixed.
3. Premix the required amount of oil with an emulsifier such as Sponto 712 or Triton X-100, using the manufacturer's rate of emulsifier per gallon of oil. Add the oil-emulsifier premix to the spray tank.
4. Finally, add the remaining amount of water required to bring the spray batch to the desired total volume.
5. **Maintain agitation in the spray tank during application.**

Mixing with Liquid Fertilizer for Broadleaf Weed Control In Rangeland and Permanent Grass Pastures

Grazon P+D may be tank mixed with liquid fertilizers and used in foliar application for weed control and fertilization of rangelands and permanent grass pastures. Avoid using liquid fertilizers in applications to brush as efficacy may be reduced. Use liquid fertilizers at rates recommended by supplier or local Extension Service Specialist.

Compatibility with Liquid Fertilizer: Prior to large scale batch mixing, conduct a "jar test" for spray mixture compatibility by mixing each component in the required order and proportion in a clear glass jar. Close the jar and agitate the mixture until evenly dispersed. Use of a compatibility agent is indicated if components of the mixture do not disperse readily or do not remain dispersed after mixing. Use of a compatibility aid such as Unite or Compex is recommended to help obtain and maintain a uniform spray solution during mixing and application. **Compatibility is best with straight liquid nitrogen fertilizer solutions. Mixing with N-P-K fertilizer solutions or suspensions is more difficult and should not be attempted without first conducting a successful jar test. Agitation in the spray tank must be vigorous to compare with jar test agitation.**

Suggested Mixing and Application Procedure
With continuous vigorous agitation:

1. Add half the amount of liquid fertilizer to the spray tank.
2. Add compatibility aid such as Unite or Compex at 1 quart per 100 gallons of total spray mix.
3. First add the amount of Grazon P+D needed for the total spray mixture. Mixing with N-P-K fertilizer solutions may be improved by premixing Grazon P+D with water (1 part Grazon P+D to 25-30 parts water) before adding to the spray tank.
4. Add the remaining liquid fertilizer to produce the needed total spray volume.
5. Apply as soon as mixing is complete, maintaining continuous, vigorous agitation throughout mixing and application without interruption.

Application during very cold (near freezing) weather is not advisable. The likelihood of mixing or compatibility problems with liquid fertilizer increases under cold conditions.

Do not store the spray mixture.

Note: Do not use spray equipment for application of other products to land planted, or to be planted, to susceptible crops or desirable sensitive plants, **unless** it has been determined that all phytotoxic herbicide residue has been removed by thorough cleaning of the equipment. See "Cleaning Instructions for Sprayer Equipment" General Use Precautions section of this label.

Cleaning Instructions for Spray Equipment

To avoid injury to desirable plants, equipment used to apply Grazon P+D should be thoroughly cleaned before reusing to apply any other chemicals.

1. Rinse and flush application equipment thoroughly after use. Flush the entire system at least three times with water, and dispose of rinse water in non-cropland area away from water supplies.
2. During the second rinse, add 1 qt of household ammonia for every 25 gallons of water. Circulate the solution through the entire system so that all internal surfaces are contacted (15 to 20 min.). Let the solution stand for several hours, preferable overnight.
3. Flush the solution out the spray tank through the boom.
4. Rinse the system twice with clean water, recirculating and draining each time.
5. Nozzles and screens should be removed separately.

Terms and Conditions of Use

If terms of the following Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies are not acceptable, return unopened package at once to the seller for a full refund of purchase price paid. To the extent permitted by law, otherwise, use by the buyer or any other user constitutes acceptance of the terms under Warranty Disclaimer, Inherent Risks of Use and Limitations of Remedies.

Warranty Disclaimer

Dow AgroSciences warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. To the extent permitted by law, Dow AgroSciences MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

Inherent Risks of Use

It is impossible to eliminate all risks associated with use of this product. Plant injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperatures, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application or other factors, all of which are beyond the control of Dow AgroSciences or the seller. To the extent permitted by law, all such risks shall be assumed by buyer.

Limitation of Remedies

To the extent permitted by law, the exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability, or other legal theories), shall be limited to, at Dow AgroSciences' election, one of the following:

1. Refund of purchase price paid by buyer or user for product bought, or
2. Replacement of amount of product used.

To the extent permitted by law, Dow AgroSciences shall not be liable for losses or damages resulting from handling or use of this product unless Dow AgroSciences is promptly notified of such loss or damage in writing. To the extent permitted by law, in no case shall Dow AgroSciences be liable for consequential or incidental damages or losses.

The terms of the Warranty Disclaimer, Inherent Risks of Use and this Limitation of Remedies cannot be varied by any written or verbal statements or agreements. No employee or sales agent of Dow AgroSciences or the seller is authorized to vary or exceed the terms of the Warranty Disclaimer or this Limitation of Remedies in any manner

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Indianapolis, IN 46268

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EPA accepted 05/07/09

Revisions:

1. Throughout label, revise rates from 7.4 pt/acre to 8 pt/acre, 14.8 pt/acre to 16 pt/acre; 7.4 qt/acre to 8 qt/acre, and 1.85 gal/acre to 2 gal/acre.

Drexel®

MSMA 6 Plus

MSMA Liquid Plus Surfactant

For selective post-emergent weed control in Cotton, Highway Rights-of-Way, Golf courses, and Sod farms.

ACTIVE INGREDIENT:

Monosodium acid methanearsonate*	47.6%
OTHER INGREDIENTS:	52.4%
TOTAL:	100.0%

*This product contains 6 pounds of MSMA per gallon.
*Total Arsenic (as elemental), all in water-soluble form, is 22.0%.

KEEP OUT OF REACH OF CHILDREN

CAUTION

See FIRST AID Below

EPA Reg. No. 19713-42
EPA Est. No. 19713-XX-XXX **Net Content:_____**

FIRST AID

IF SWALLOWED:
- Call a poison control center or doctor immediately for treatment advice.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to do so by a poison control center or doctor.
- Do not give anything by mouth to an unconscious or convulsing person.

IF IN EYES:
- Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.
- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
- Call a poison control center or doctor for treatment advice.

IF ON SKIN OR CLOTHING:
- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15 to 20 minutes.
- Call a poison control center or doctor for treatment advice.

IF INHALED:
- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferaby mouth-to-mouth, if possible.
- Call a poison control center or doctor for further treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For information on this pesticide product (including health concerns, medical emergencies, or pesticide incidents), call the National Pesticide Information Center at 1-800-858-7378.

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

CAUTION: Harmful if swallowed. May cause irritation of eyes, nose, throat and skin. Avoid contact with eyes, skin and clothing. Avoid breathing spray mist.

(Continued)

PRECAUTIONARY STATEMENTS (Cont.)

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are polyethylene or polyvinyl chloride. If you want more options, follow the instructions for category A on an EPA chemical-resistance category selection chart.

All mixers, loaders, applicators and other handlers must wear: Long-sleeved shirt and long pants, chemical-resistant gloves, and shoes plus socks.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

When handlers use aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

Pilots must use an enclosed cockpit that meets the requirements listed in the WPS for agricultural pesticides [40 CFR 170.240 (d)(6)].

USER SAFETY RECOMMENDATIONS

Users should: 1) Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. 2) Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. 3) Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters or rinsate.

USE INFORMATION

MSMA 6 PLUS is a herbicide useful for controlling weeds in Cotton, Highway Rights-of-Way, Golf courses, and Sod farms. It is a combination of herbicide and surfactant. It is unnecessary to add any surfactant to the spray solution. Best results are obtained on young, actively growing weeds at air temperatures above 70°F.

Weeds controlled by this product include:

Bahiagrass *(Paspalum sp.)*
Barnyardgrass *(Echinochloa crus-galli)*
Beggartick, hairy *(Biden pilosa)*
Brachiaria spp.
Broomsedge
Chickweed *(Stellaria media)*
Cocklebur *(Xanthium spinosum)*
Crabgrass, large *(Digitaria sp.)*
Crabgrass, smooth *(Digitaria sp.)*
Dallisgrass *(Paspalum dilatatum)*
Dandelion *(Taraxacum officinale)*
Dayflower *(Commelina sp.)*
Fiddleneck *(Amsinckia sp.)*
Florida Beggarweed *(Desmodium tortuosum)*
Foxtail *(Setaria sp.)*
Goosegrass *(Eleusine indica)*
Guineagrass *(Panicum sp.)*
Jimsonweed *(Datura stramonium)*
Johnsongrass *(Sorghum halipense)*
Morningglory *(Ipomoea spp.)*
Mustard, wild
Nutsedge *(Cyperus sp.)*
Oats, wild *(Avena fatua)*
Pigweed *(Amaranthus sp.)*
Puncturevine *(Tribulus terrestris)*
Purslane, common
Ragweed *(Ambrosia spp.)*
Sandbur *(Cenchrus sp.)*
Sicklepod *(Cassia obtusifolia)*
Sorrel, Wood *(Oxalis sp.)*
Spurge *(Euphorbia sp.)*
Witchgrass *(Panicum capillare)*

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product through any type of irrigation system. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard (WPS), 40 CFR Part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, greenhouses and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted entry interval (REI). The requirements in this box only apply to uses of this product that are covered by the WPS.

Do not enter or allow worker entry into treated areas during the REI of 12 hours.

PPE required for early entry to treated areas that is permitted under the WPS and that involves contact with anything that has been treated, such as plants, soil or water is: Coveralls, chemical-resistant gloves such as polyethylene or polyvinyl chloride and shoes plus socks.

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are not within the scope of the WPS for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses. Keep children and pets out of the treated area until sprays have dried.

APPLICATION RESTRICTIONS

- Do not apply this product in Florida except on Cotton in the counties listed in the Cotton use section of this label.
- Aerial application is prohibited, except when applying to Cotton.

MIXING INSTRUCTIONS

This product is completely water-soluble. Fill the spray equipment reservoir about half full with water and add the required amount of herbicide with agitation. Finish filling the tank with water and apply.

After use, clean equipment thoroughly by flushing with water. Do not store spray solution in tank for a prolonged period. Although this product is only moderately corrosive, do not use in galvanized or aluminum equipment.

SPRAY DRIFT MANAGEMENT

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

1) The distance of the outer most nozzles on the boom must not exceed three-fourth the length of the wingspan or rotor.
2) Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they shall be observed. The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory Information section below.

AERIAL DRIFT REDUCTION ADVISORY INFORMATION

Information on Droplet Size

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see Wind, Temperature and Humidity, and Temperature Inversions).

Controlling Droplet Size

- Volume – Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- Pressure – Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- Number of nozzles – Use the minimum number of nozzles that provide uniform coverage.
- Nozzle Orientation – Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- Nozzle Type – Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

Boom Length

For some use patterns, reducing the effective boom length to less than three-fourths of the wingspan or rotor length may further reduce drift without reducing swath width.

Application Height

Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

Swath Adjustment

When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.)

Wind

Drift potential is lowest between speeds of 2 to 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential.

Note: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

Temperature and Humidity

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

Temperature Inversions

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

Sensitive Areas

This pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive area).

COTTON

This product is useful for the control of weeds listed under *"USE INFORMATION"* section and many similar weeds.

Applications can be made:1) Postemergent, over the top, when Cotton is 3 to 6 inches high or up to early first square stage, whichever occurs first using ground or aircraft equipment. 2) Postemergent as a directed spray with ground equipment when Cotton is 3 inches high to first bloom.

Slight burning and a reddish discoloration of the Cotton leaf may occasionally occur following application, but the Cotton plant will develop normally.

USE RESTRICTIONS

- Do not apply in Florida except on Cotton grown in the following counties: Calhoun, Columbia, Escambia, Gadsden, Hamilton, Holmes, Jackson, Jefferson, Okaloosa, Santa Rosa, Suwannee, Walton, and Washington.
  Note: Applications to Cotton in Florida should be confined to band treatments.
- Only one application at 2 lbs. a.i. (2.66 pts. of this product) per acre is allowed per season, except when a salvage operation is needed.
- If a salvage operation is needed (i.e., if pigweed escapes the first application), then a second or repeat application at 2 lbs. a.i. (2.66 pts. of this product) per acre is allowed.
- A second or repeat application, if needed, should be timed 1 to 3 weeks after the first application. Apply only as a salvage operation. Apply only to healthy rapidly growing Cotton 3 inches high, but no later than 6 inches high or early square, whichever occurs first. Preference should be given to directed spray. In order to minimize injury, the second application should be made as a directed spray when possible.
- Do not make more than two applications per season.
- Do not apply more than a total of 4 lbs. a.i. per acre per season.
- Do not apply preplant to Cotton.
- Do not apply within 50 feet of permanent water bodies or aquatic habitat, including, but not limited to lakes, reservoirs, rivers, streams, marshes, ponds, and estuaries.
- Do not allow spray or spray drift to contact adjacent crops or injury will result.
- Apply only on still days when weather conditions do not favor drift from areas being treated. Aircraft applications of this product should only be made by applicators experienced in use of herbicides, and application should be made in accordance with State and Federal regulations.

Post-Emergent Applications Using Ground or Aircraft Equipment as an Over-the-Top Broadcast Spray when Cotton is 3 inches high until early first square stage as a salvage operation. **One application:** Apply 2.5 pints in 40 gallons of water for ground application, or in 5 to 10 gallons of water for aircraft application per acre. DO NOT repeat this treatment. **Two applications:** Mix at the rate of 1 to 1.25 pints of this product in 40 gallons of water for ground equipment or in 5 to 10 gallons of water for aircraft application per acre of Cotton. If needed, a second or repeat application should be made 1 to 3 weeks after the first application. Apply only as a salvage operation. Apply only to healthy, rapidly growing Cotton, 3 inches high, but no later than 6 inches high or early square, whichever occurs first. Preference should be given to directed sprays. In order to minimize injury, the second application should be made as a directed spray when possible. DO NOT make more than two applications per season. Do not feed foliage to livestock or graze treated areas.

Postemergent Directed Spray Applications: Mix this product at the rate of 2.66 pints in 40 gallons of water per acre for application as directed broadcast spray when weeds are small. For band applications, mix 2.66 pints in 40 gallons of water per acre, then apply 1 gallon of the diluted spray for each 1-inch band width to be treated of Cotton grown on 40 inch row spacing. Direct the spray solution to the base of the Cotton plant. Nozzles should be placed so as to avoid spraying the Cotton foliage, but to give good coverage of the weeds. If regrowth occurs, make a second application about 1 to 3 weeks after the first. Make directed applications only when Cotton is 3 inches high to first bloom. Do not apply after first bloom. Do not feed foliage to livestock or graze treated areas.

HIGHWAY RIGHTS-OF-WAY

This product is useful for controlling weeds listed under *"USE INFORMATION"* section and similar other weeds on rights-of-way. Mix this product at a rate of 2.5 to 6 pints per 40 to 50 gallons of water per acre. Use higher rates and spray volume for dense weed growth. For small areas, use 1 to 2 fluid ounces in 5 gallons per 1,000 square feet. Spray undesirable vegetation thoroughly to point of runoff. Adequate coverage and complete wetting of foliage is important for effective control. If regrowth occurs, reapply as required.

USE RESTRICTIONS

- Do not apply more than two broadcast applications per year.
- Do not apply within 100 feet of permanent water bodies or aquatic habitat, including, but not limited to lakes, reservoirs, rivers, streams, marshes, ponds, and estuaries.
- Use of this product on highway rights-of-way after December 31, 2013 is prohibited.

GOLF COURSES AND SOD FARMS

Mow turfgrass to a height of 1 to 1.5 inches before treatment. Mix 1 fluid ounce (2 tablespoonsful) of this product in 1 to 2.5 gallons of water for application to a total area of 1,000 square feet.

For established Bermudagrass and Zoysiagrass, mix 1 to 2 fluid ounces (2 to 4 tablespoonsful) of this product in 1 to 2.5 gallons of water for application to a total area of 1,000 square feet.

Apply during warm weather when temperature is between 80°F and 90°F. Do not water turf for at least 24 hours after application. Turfgrass may be temporarily discolored. Bermudagrass, Bluegrass, and Zoysiagrass have shown tolerance if this product is properly applied. Injury may result if applied to Bentgrass, Fescue, and St. Augustinegrass. **DO NOT apply to St. Augustinegrass except for commercial sod production.** DO NOT apply to Carpetgrass, Centipedegrass, or to Dichondra. DO NOT reseed until two weeks after last application.

For application to St. Augustinegrass in sod farms, last application can be made 4 to 5 weeks prior to lifting the sod for harvest to allow full recovery before lifting. St. Augustinegrass sod will be temporarily discolored following application. DO NOT apply to freshly mowed St. Augustinegrass sod.

USE RESTRICTIONS

- For newly constructed golf courses, ONLY one broadcast application is permitted.
- For all other applications to golf courses, this product can ONLY be used for spot treatments (100 sq. ft. per spot), not to exceed 25% of the total golf course acreage per year.
- In sod farms, ONLY two broadcast applications are allowed. Do not apply within 25 feet of permanent water bodies or aquatic habitat, including, but not limited to lakes, reservoirs, rivers, streams, marshes, ponds, and estuaries.
- Use of this product on golf courses and sod farms after December 31, 2013 is prohibited.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage and disposal.

PESTICIDE STORAGE: Storage should be under lock and key and secure from access by unauthorized persons and children. Storage should be in a cool, dry area away from any heat or ignition source. High heat may form volatile arsenic compounds. Do not stack over 2 pallets high. Move containers by handles or in cases. Do not move containers from one area to another unless they are securely sealed. Keep container tightly sealed when not in use. Keep away from any puncture source. Avoid storage near water supplies, food, feed, seed, fungicides, insecticides and fertilizers to avoid contamination. Store in original containers only. If the contents are leaking or material is spilled, follow these steps while wearing protective clothing:

1. Contain spill. Absorb with an inert material such as sand or sawdust.
2. Collect and place in suitable containers for disposal.
3. Wash area with soap and water to remove remaining pesticide.
4. Follow washing with clean water rinse.
5. Place a leaking container in a plastic tub and transfer content as soon as possible, to an empty, original container.
6. Do not allow runoff to enter sewer or contaminate water supplies.
7. Dispose of waste as indicated below.

PESTICIDE DISPOSAL: Pesticide wastes are toxic. If these wastes cannot be disposed of by use according to label instructions, contact your state pesticide or environmental control agency or the hazardous waste representative at the nearest EPA regional office for guidance.

CONTAINER DISPOSAL:

Nonrefillable Container (rigid material; less than 5 gallons): Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container one-fourth full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

(Continued)

STORAGE AND DISPOSAL (Continued)

Nonrefillable Container (rigid material; 5 gallons or greater): Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container one-fourth full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

Refillable Containers: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this procedure two more times.

WARRANTY—CONDITIONS OF SALE

OUR DIRECTIONS FOR USE of this product are based upon tests believed reliable. Follow directions carefully. Timing and method of application, weather and crop conditions, mixtures with other chemicals not specifically recommended and other influencing factors in the use of this product are beyond the control of the Seller. To the extent consistent with applicable law, Buyer assumes all risks of use, storage and handling of this material not in strict accordance with directions given herewith.

To the extent consistent with applicable law, in no case shall the Manufacturer or the Seller be liable for consequential, special or indirect damages resulting from the use or handling of this product when such use and/or handling is not in strict accordance with directions given herewith. The foregoing is a condition of sale by the Seller and is accepted as such by the Buyer.

Manufactured By:
Drexel Chemical Company
P.O. BOX 13327, MEMPHIS, TN 38113-0327
SINCE 1972

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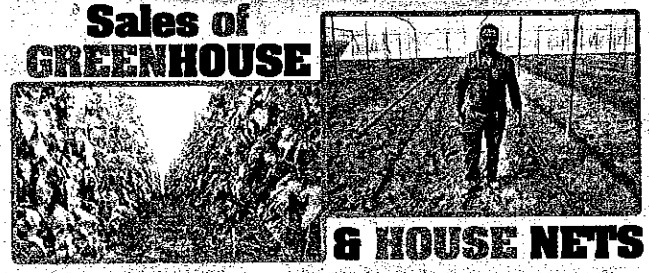

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www.greenoriginalfoods.com

449
Jose H Reyes
ORIGINAL FOOD CO., LLC
122 Azinger Dr.
Laredo TX 78045

RECEIVED 08:03 AM MAR 14 2017

TO:
Yea-Mei Sauer Contract Sp
Jefferson County Purchasing De
1149 Pearl Street, ~~3rd~~ Floor
Beaumont, TX 77701

Bid Number = IFB 17-006/YS
Bid Name = Term Contract for Insecticides, Herbicides, Spray Adjuvants, and Adulticides for Jefferson County Mosquito Control District

Bid Due Date: 11:00 a.m CDT, Tuesday, March 14, 2017

RECEIVED 08:03 AM MAR 14 2017

JEFFERSON COUNTY PURCHASING DEPARTMENT

Deborah L. Clark, Purchasing Agent

1149 Pearl Street, 1st Floor, Beaumont, TX 77701 409-835-8593 Fax 409-835-8456

LEGAL NOTICE
Advertisement for Invitation for Bids

February 13, 2017

Notice is hereby given that sealed bids will be accepted by the Jefferson County Purchasing Department for IFB 17-006/YS, Term Contract for Insecticides, Herbicides, Spray Adjuvants, and Adulticides for Jefferson County Mosquito Control District. **Specifications for this project may be obtained from the Jefferson County website, http://www.co.jefferson.tx.us/Purchasing/main.htm or by calling 409-835-8593.**

Bids are to be sealed and addressed to the Purchasing Agent with the bid number and name marked on the outside of the envelope. Bidders shall forward an original and two (2) copies of their bid to the address shown below. Jefferson County does not accept bids submitted electronically. Late bids will be rejected as non-responsive. Bids will be publicly opened and read aloud in the Jefferson County Commissioners' Courtroom at the time and date below. Bidders are invited to attend the sealed bid opening.

BID NAME: **IFB 17-006/YS**

BID NO: **Term Contract for Insecticides, Herbicides, Spray Adjuvants, and Adulticides for Jefferson County Mosquito Control District**

DUE DATE/TIME: **11:00 AM CDT, Tuesday, March 14, 2017**

MAIL OR DELIVER TO: **Jefferson County Purchasing Department**
1149 Pearl Street, 1st Floor
Beaumont, Texas 77701

Any questions relating to these requirements should be directed to Yea-Mei Sauer, Contract Specialist, at 409-835-8593 or ysauer@co.jefferson.tx.us.

Jefferson County encourages Disadvantaged Business Enterprises to participate in the bidding process. Jefferson County does not discriminate on the basis of race, color, national origin, sex, religion, age or disability in employment or the provisions of services. Individuals requiring special accommodations are requested to contact our office at 409-835-8593 to make arrangements no later than seven (7) calendar days prior to the submittal deadline. Jefferson County reserves the right to accept or reject any or all proposals, to waive technicalities and to take whatever action is in the best interest of Jefferson County.

All interested firms are invited to submit a bid in accordance with the terms and conditions stated in this bid.

RESPONDENTS ARE STRONGLY ENCOURAGED TO CAREFULLY READ THE ENTIRE INVITATION.

Deborah Clark

Deborah L. Clark, Purchasing Agent
Jefferson County, Texas
Publish: Beaumont Enterprise & Port Arthur News – February 15, 2017 & February 22, 2017

IFB 17-006/YS
Term Contract for Insecticides, Herbicides, Spray Adjuvants, and Adulticides for Jefferson County Mosquito Control District
Bids due: 11:00 AM CDT, Tuesday, March 14, 2017

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Bid Submissions:

Bidder is responsible for submitting one (1) *original* bid copy to include a completed copy of this specifications packet in its entirety; and two (2) numbered bid *hard copies* to include at a minimum all pages requiring completion and/or marked with instructions to be returned with bid submission and any other documentation requested within these specifications.

Additionally, Bidder must monitor the Jefferson County Purchasing Department Website (below) to see if addenda or additional instructions have been posted. Failure to return all required forms could result in a response being declared as non-responsive.

http://www.co.jefferson.tx.us/purchasing/main.htm

Instructions to Bidders

1. Bid Submission

Bids must be submitted in complete original form by mail or messenger to the following address:

Jefferson County Purchasing Department
1149 Pearl Street, 3rd Floor
Beaumont, TX 77701

Bids will be accepted at the above address until the time and date specified herein, and immediately after will be publicly opened and read aloud.

Bidder shall submit bid in a tightly sealed opaque envelope or box, plainly marked "SEALED BID." The outside of the envelope of box shall also include the Bid Number, Bid Name, Bid Due Date, and the Bidder's Name and Address; and shall be addressed to the Purchasing Agent.

Late bids will not be accepted and will be returned unopened to the bidder.

All bids submitted in response to this invitation shall become the property of Jefferson County and will be a matter of public record available for review.

2. Bid Submissions During Time of Inclement Weather, Disaster, or Emergency

In case of inclement weather or any other unforeseen event causing the County to close for business on the date of a bid/proposal/statement of qualifications submission deadline, the closing will automatically be postponed until the next business day that County offices are open to the public. Should inclement weather conditions or any other unforeseen event cause delays in courier service operations, the County may issue an addendum to all known vendors interested in the project to extend the deadline. It will be the responsibility of the vendor to notify the county of their interest in the project should these conditions impact their ability to submit a bid/proposal/statement of qualifications submission before the stated deadline. The County reserves the right to make the final judgement call to extend any deadline.

Should an emergency or unanticipated event interrupt normal County processes, and bid/proposal/statement of qualifications submissions cannot be received by the Jefferson County Purchasing Department's office by the exact time specified in the IFB and urgent County requirements preclude amendment to the IFB, the time specified for receipt of bids will be deemed to be extended to the same time of day specified in the solicitation on the first business day on which normal County processes resume.

3. Courthouse Security

Bidders are advised that all visitors to the Courthouse must pass through Security. **Bidders planning to hand deliver bids must allow time to get through Security, as a delay in entering the Courthouse will not be accepted as an excuse for late submittal.** Mondays and Tuesdays are particularly heavy days. Bidders are strongly urged to plan accordingly.

4. Preparation of Bids

The bid shall be legibly printed in ink or typed.

If a unit price or extension already entered is to be altered, it shall be crossed out and initialed in ink by the bidder.

The bid shall be legally signed and shall include the complete address of the bidder.

Jefferson County is exempt from Federal and State Sales Taxes, and such taxes shall not be included in bid prices.

5. Signatures

All bids, notifications, claims, and statements must be signed by an individual authorized to bind the bidder. The individual signing certifies, under penalty of perjury, that he or she has the legal authorization to bind the bidder.

6. County Holidays – 2017:

January 16	Monday	Martin Luther King, Jr. Day
February 20	Monday	President's Day
April 14	Friday	Good Friday
May 29	Monday	Memorial Day
July 4	Tuesday	Independence Day
September 4	Monday	Labor Day
November 10	Friday	Veteran's Day
November 23 & 24	Thursday & Friday	Thanksgiving
December 25 & 26	Monday & Tuesday	Christmas
January 1, 2018	Monday	New Year's

7. Rejection or Withdrawal

Submission of additional terms, conditions or agreements with the bid document are grounds for deeming a bid non-responsive and may result in bid rejection. Jefferson County reserves the right to reject any and all bids and to waive any informalities and minor irregularities or defects in bids. Bids may be withdrawn in person by a bidder or authorized representative, provided their identity is made known and a receipt is signed for the bid, but only if the withdrawal is made prior to the time set for receipt of bids. Bids are an irrevocable offer and may not be withdrawn within 90 days after opening date.

8. Emergency/Declared Disaster Requirements

In the event of an emergency or if Jefferson County is declared a disaster area, by the County, State, or Federal Government, this Acceptance of Offer may be subjected to unusual usage. Contractor shall service the county during such an emergency or declared disaster under the same terms and conditions that apply during non-emergency/disaster conditions. The pricing as specified in this Acceptance of Offer shall apply to serving the County's needs regardless of the circumstances. If Contractor is unable to supply the services under the terms of the Acceptance of Offer, then Contractor shall provide proof of such disruption and a copy of the invoice from Contractor's supplier(s). Additional profit margin as a result of supplying services during an emergency or declared disaster shall not be permitted. In the event that additional equipment, supplies, and materials are required during the declared disaster, additional shipping, handling and drayage fees may apply.

9. Award

The bid will be awarded to the responsible, responsive bidder(s) whose bid, conforming to the solicitation, will be most advantageous to Jefferson County – price and other factors considered. Unless otherwise specified in this IFB, Jefferson County reserves the right to accept a bid in whole or in part, and to award by item or by group, whichever is deemed to be in the best interest of Jefferson County. Any bidder who is in default to Jefferson County at the time of submittal of the bid shall have that bid rejected. Jefferson County reserves the right to clarify any contractual terms with the concurrence of the Contractor; however, any substantial nonconformity in the offer, as determined by Jefferson County, shall be deemed non-responsive and the offer rejected.

In evaluating bids, Jefferson County shall consider the qualifications of the bidders, and, where applicable, operating costs, delivery time, maintenance requirements, performance data, and guarantees of materials and equipment. In addition, Jefferson County may conduct such investigation as it deems necessary to assist in the evaluation of a bid and to establish the responsibility, qualifications, and financial ability of the bidders to fulfill the contract.

Jefferson County reserves the right to award this contract on the basis of **lowest and best bid** in accordance with the laws of the State of Texas, to waive any formality or irregularity, to make awards to more than one offeror, and/or to reject any or all bids. In the event the lowest dollar offeror meeting specifications is not a awarded a contract, Offeror may appear before the Commissioners' Court and present evidence concerning Offeror responsibility after officially notifying the Office of the Purchasing Agent of Offeror's intent to appear.

10. Contract

A response to an IFB is an offer to contract with Jefferson County based upon the terms, conditions, and specifications contained in the IFB. Bids do not become contracts unless and until they are executed by Jefferson County, eliminating a formal signing of a separate contract. For that reason, all of the terms and conditions of the contract are contained in the IFB, unless any of the terms and conditions is modified by an IFB Amendment, a Contract Amendment, or by mutually agreed terms and conditions in the contract documents.

11. Waiver of Subrogation

Bidder and bidder's insurance carrier waive any and all rights whatsoever with regard to subrogation against Jefferson County as an indirect party to any suit arising out of personal or property damages resulting from bidder's performance under this agreement.

12. Fiscal Funding

A multi-year contract (if requested by the specifications) continuing as a result of an extension option must include fiscal funding out. If, for any reason, funds are not appropriated to continue the contract, said contract shall become null and void.

13. Bid Results

Bid results are not provided in response to telephone inquiries. A preliminary tabulation of bids received will be posted on the Purchasing web page (http://co.jefferson.tx.us/ purchasing/main.htm) as soon as possible following bid opening. A final tabulation will be posted following bid award, and will also be available for review in the Purchasing Department.

14. Changes and Addenda to Bid Documents

Each change or addendum issued in relation to this IFB document will be on file in the Office of the Purchasing Agent, and will be posted on the Purchasing web site as soon as possible. It shall be the bidder's responsibility to make inquiry as to change or addenda issued, and to monitor the web site. All such changes or addenda shall become part of the contract and all bidders shall be bound by such addenda. Information on all changes or addenda issued will be available at the Office of the County Purchasing Agent.

15. Specifications

Unless otherwise stated by the bidder, the bid will be considered as being in accordance with Jefferson County's applicable standard specifications, and any special specifications outlined in the bid document. References to a particular trade name, manufacturer's catalogue, or model number are made for descriptive purposes to guide the bidder in interpreting the requirements of Jefferson County, and should not be construed as excluding bids on other types of materials, equipment, and supplies. However, the bidder, if awarded a contract, will be required to furnish the particular item referred to in the specifications or description unless departure or substitution is clearly noted and described in the bid. Jefferson County reserves the right to determine if equipment/ product being bid is an acceptable alternate. All goods shall be new unless otherwise so stated in the bid. Any

unsolicited alternate bid, or any changes, insertions, or omissions to the terms and conditions, specifications, or any other requirements of the bid, may be considered non-responsive.

16. Delivery

Bids shall include all charges for delivery, packing, crating, containers, etc. Unless otherwise stated by the bidder (in writing on the included Bid Form), prices bid will be considered as being based on F.O.B. destination/delivered freight included.

17. Interpretation of Bid and/or Contract Documents

All inquiries shall be made within a reasonable time prior to the date and time fixed for the bid opening, in order that a written response in the form of an addendum, if required, can be processed before the bids are opened. Inquiries received that are not made in a timely fashion may or may not be considered.

18. Currency

Prices calculated by the bidder shall be stated in U.S. dollars.

19. Pricing

Prices shall be stated in units of quantity specified in the bid documents. In case of discrepancy in computing the amount of the bid, the unit price shall govern.

20. Notice to Proceed/Purchase Order

The successful bidder may not commence work under this contract until authorized to do so by the Purchasing Agent.

21. Certification

By signing the offer section of the Offer and Acceptance page, bidder certifies:

- The submission of the offer did not involve collusion or other anti-competitive practices.
- The bidder has not given, offered to give, nor intends to give at any time hereafter, any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor, or service to any public servant in connection with the submitted offer.
- The bidder hereby certifies that the individual signing the bid is an authorized agent for the bidder and has the authority to bind the bidder to the contract.

22. Definitions

"County" – Jefferson County, Texas.

"Contractor" – The bidder whose proposal is accepted by Jefferson County.

23. Minority-Women Business Enterprise Participation

It is the desire of Jefferson County to increase the participation of Minority (MBE) and women-owned (WBE) businesses in its contracting and procurement programs. While the County does not have any preference or set aside programs in place, it is committed to a policy of equitable participation for these firms.

General Conditions of Bidding and Terms of Contract

By execution of this document, the vendor accepts all general and special conditions of the contract as outlined below and in the specifications and plans.

1. Bidding

1.1 Bids. All bids must be submitted on the bid form furnished in this package.

1.2 Authorized Signatures. The bid must be executed personally by the vendor, duly authorized partner of the partnership, or duly authorized officer of the corporation. If executed by an agent, a power of attorney or other evidence of authority to act on behalf of the vendor shall accompany the bid to become a valid bid.

1.3 Late Bids. Bids must be in the office of the Jefferson County Purchasing Agent before or at the specified time and date bids are due. Bids received after the submission deadline shall be rejected as non-responsive and returned unopened.

1.4 Withdrawal of Bids Prior to Bid Opening. A bid may be withdrawn before the opening date by submitting a written request to the Purchasing Agent. If time allows, the bidder may submit a new bid. Bidder assumes full responsibility for submitting a new bid before or at the specified time and date bids are due. Jefferson County reserves the right to withdraw a request for bids before the opening date.

1.5 Withdrawal of Bids after Bid Opening. Bidder agrees that its offer may not be withdrawn or cancelled by the vendor for a period of ninety (90) days following the date and time designated for the receipt of bids unless otherwise stated in the bid and/or specifications.

1.6 Bid Amounts. Bids shall show net prices, extensions where applicable and net total. In case of conflict between unit price and extension, the unit price will govern. Any ambiguity in the bid as a result of omission, error, unintelligible or illegible wording shall be interpreted in the favor of Jefferson County.

1.7 Exceptions and/or Substitutions. All bids meeting the intent of the specifications and plans will be considered for award. Vendors taking exception to the specifications and plans, or offering substitutions, shall state these exceptions in the section provided. If bid is made on an article other than the one specified, which a bidder considers comparable, the name and grade of said article must be specified in the bid and sufficient specifications and descriptive data must accompany same to permit thorough evaluation. The absence of stated exceptions and/or substitutions shall indicate that the vendor has not taken any exceptions to the specifications and shall be responsible to perform in strict accordance with the specifications. As a matter of practice, Jefferson County rejects exception(s) and /or substitutions as non-responsive but reserves the right to accept any and/or all of the exception(s) and/or substitution(s) deemed to be in the best interest of Jefferson County.

1.8 Alternates. The Invitation for Bid and/or specifications may expressly allow bidder to submit an alternate bid. Presence of such an offer shall not be considered an indication of non-responsiveness.

1.9 Descriptions. Unless otherwise specified, any reference to make, manufacturer and/or model used in the bid specifications is merely descriptive and not restrictive, and is used only to indicate type, style, or quality of material desired.

1.10 Bid Alterations. Bids cannot be altered or amended after submission deadline. Any interlineations, alterations, or erasures made before opening time must be initialed by the signer of the bid, guaranteeing authenticity.

1.11 Tax Exempt Status. Jefferson County is exempt from federal excise tax and state sales tax. Unless the bid form or specifications specifically indicate otherwise, the bid price must be net, exclusive of above-mentioned taxes and will be so construed. Therefore, the bid price shall not include taxes.

1.12 Quantities. Quantities indicated are estimated quantities only and are not a commitment to buy. Approximate usage does not constitute an order, but only implies the probable quantity that will be used. Commodities will be ordered on an as-needed basis. Bidder is responsible for accurate final counts.

1.13 Bid Award. Award of contract shall be made to the most responsible, responsive bidder, whose offer is determined to be the best value, taking into consideration the relative importance of price. Jefferson County reserves the right to be the sole judge as to whether items bid will serve the purpose intended. Jefferson County reserves the right to accept or reject in part or in whole any bid submitted, and to waive any technicalities or informalities for the best interest of the County. Jefferson County reserves the right to award based upon individual line items, sections or total bid.

1.14 Silence of Specifications for Complete Units. All materials, equipment and/or parts that will become a portion of the completed work, including items not specifically stated herein but, necessary to render the service(s) complete and operational per the specifications, are to be included in the bid price. Vendor may be required to furnish evidence that the service, as bid, will meet or exceed these requirements.

1.15 Addenda. Any interpretations, corrections or changes to the specifications and plans will be made by addenda no later than forty-eight (48) hours prior to the bid opening. Addenda will be posted on the Purchasing web site. Vendors are responsible for monitoring the web site in order to remain informed on addenda. Vendors shall acknowledge receipt of all addenda with submission of bid.

1.16 General Bid Bond/Surety Requirements. Failure to furnish bid bond/surety, if requested, will result in bid being declared non-responsive. Non-responsive bids will not be considered for award.

1.17 General Insurance Requirements. Failure to furnish Affidavit of Insurance, if required in these specifications, will result in bid being declared non-responsive. Non-responsive bids will not be considered for award.

1.18 Responsiveness. A responsive bid shall substantially conform to the requirements of this Invitation to Bid and/or specifications contained herein. Bidders who substitute any other terms, conditions, specifications and/or requirements or who qualify their bids in such a manner as to nullify or limit their liability to the contracting entity shall have their bids deemed non-responsive. Also, bids containing any clause that would limit contracting authority shall be considered non-responsive. Examples of non-responsive bids include but shall not be limited to: a) bids that fail to conform to required delivery schedules as set forth in the bid request; b) bids with prices qualified in such a manner that the bid price cannot be determined, such as with vague wording that may include "price in effect at the time of delivery," and c) bids made contingent upon award of other bids currently under consideration.

1.19 Responsible Standing of Bidder. To be considered for award, bidder must at least: have the ability to obtain adequate financial resources, be able to comply with required or proposed delivery/completion schedule, have a satisfactory record of performance; have a satisfactory record of integrity and ethics, and be otherwise qualified and eligible to receive award.

1.20 Proprietary Data. Bidder may, by written request, indicate as confidential any portion(s) of a bid that contain proprietary information, including manufacturing and/or design processes exclusive to the vendor. Jefferson County will protect from public disclosure such portions of a bid, unless directed otherwise by legal authority, including existing Open Records Acts.

1.21 Public Bid Opening. Bidders are invited to be present at the opening of bids. After the official opening of bids, a period of not less than one week is necessary to evaluate bids. The amount of time necessary for bid evaluation may vary and is determined solely by the County. Following the bid evaluation, all bids submitted are available for public review.

2. Performance

2.1 Design, Strength, and Quality. Design, strength, and quality of materials and workmanship must conform to the highest standards of manufacturing and engineering practices. The apparent silence of specifications and/or plans as to any detailed description concerning any point shall be regarded as meaning that only the best commercial practices are to prevail. All interpretations of these specifications and/or plans shall be made on the basis of this statement.

2.2 Age and Manufacture. All tangible goods being bid must be new and unused, unless otherwise specified, in first-class condition, of current manufacture, and furnished ready to use. All items not specifically mentioned that are required for a complete unit shall be furnished.

2.3 Delivery Location. All deliveries will be made to the address(es) specified on the purchase order during normal working hours of 8:00 a.m. to 4:00 p.m., Monday through Friday, unless otherwise authorized by the Purchasing Agent or designee.

2.4 Delivery Schedule. Delivery time may be an important consideration in the evaluation of best value. The maximum number of days necessary for delivery ARO shall be stated in the space, if provided, on the bid form.

2.5 Delivery Charges. All delivery and freight charges, F.O.B. destination shown on Jefferson County purchase order, as necessary to perform contract are to be included in the bid price.

2.6 Installation Charges. All charges for assembly, installation and set-up shall be included in the bid price. Unless otherwise stated, assembly, installation and set-up will be required.

2.7 Operating Instructions and Training. Clear and concise operating instructions and descriptive literature will be provided in English, if requested. On-site detailed training in the safe and efficient use and general maintenance of item(s) purchased shall be provided as needed at the request of Jefferson County. Instructions and training shall be at no additional cost to the County.

2.8 Storage. Bidder agrees to provide storage of custom ordered materials, if requested, for up to thirty (30) calendar days.

2.9 Compliance with Federal, State, County, and Local Laws. Bids must comply with all federal, state, county and local laws, including, but not limited to, all applicable standard safety, emission, and noise control requirements. Any vehicles or equipment shall contain all standard safety, emission, and noise control requirements required for the types and sizes of equipment at the time of their manufacture. The contractor agrees, during the performance of work or service, to comply with all applicable codes and ordinances of Jefferson County or the State of Texas as they may apply, as these laws may now read, or as they may hereafter be changed or amended.

2.10 OSHA. The bidder will certify all equipment complies with all regulations and conditions stipulated under the Williams-Steiger Occupational Safety and Health Act of 1971, as amended. The successful bidder will further certify that all items furnished under this project will conform and comply with federal and State of Texas OSHA standards. The successful bidder will agree to indemnify and hold harmless Jefferson County for any and all damages that may be assessed against the County.

2.11 Patents and Copyrights. The successful vendor agrees to protect the County from claims involving infringements of patents and/or copyrights.

2.12 Samples, Demonstrations and Testing. At Jefferson County's request and direction, bidder shall provide product samples and/or testing of items bid to ensure compliance with specifications. Samples, demonstrations and/or testing may be requested at any point prior to or following bid award. Samples, demonstrations and/or testing may be requested upon delivery and/or any point during the term of resulting contract. All samples (including return thereof), demonstrations, and/or testing shall be at the expense of the bidder/vendor.

2.13 Acceptability. All articles enumerated in the bid shall be subject to inspection by an officer designated for that purpose by Jefferson County. If found inferior to the quality called for, or not equal in value to the specifications, deficient in workmanship or otherwise, this fact shall be certified to the Purchasing Agent, who shall have the right to reject the whole or any part of the same. Items

and/or work determined to be contrary to specifications must be replaced at the vendor's expense. Inferior items not retrieved by the vendor within thirty (30) calendar days, or an otherwise agreed upon time, shall become the property of the County. If disposal of such items warrants an expense, an amount equal to the disposal expense will be deducted from amounts payable to the vendor.

2.14 Maintenance. Maintenance required for equipment bid should be available in Jefferson County by a manufacturer authorized maintenance facility. Cost for this service shall be shown on the bid sheet as requested or on a separate sheet, as required. If Jefferson County opts to include maintenance, it shall be so stated in the purchase order and said cost will be included. Service will commence only upon expiration of applicable warranties and should be priced accordingly.

2.15 Material Safety Data Sheets. Under the "Hazardous Communications Act," common known as the "Texas Right to Know Act," a bidder must provide the user department, with each delivery, material safety data sheets which are applicable to hazardous substances defined in the Act. Failure of the bidder to furnish this documentation, will be cause to reject any bid applying thereto.

2.16 Evaluation. Evaluation shall be used as a determinant as to which services are the most efficient and/or most economical for the County. It shall be based on all factors having a bearing on price and performance of the items in the user environment. All bids are subject to tabulation by the Jefferson County Purchasing Department and recommendation to Jefferson County Commissioners' Court. Compliance with all bid requirements and needs of the using department are considered in evaluating bids. Pricing is not the only criteria for making a recommendation. The Jefferson County Purchasing Department reserves to right to contact any bidder, at any time, to clarify, verify or requirement information with regard to this bid.

3. Purchase Orders and Payment

3.1 Purchase Orders. A purchase order(s) shall be generated by the Jefferson County Purchasing Agent to the successful vendor. The purchase order number must appear on all itemized invoices and packing slips. The County will not be held responsible for any work orders placed and/or performed without a valid current purchase order number. Payment will be made for all services rendered and accepted by the contract administrator for which a valid invoice has been received.

3.2 Invoices. All invoices shall reference the Purchase Order number. Invoices shall reference the bid item number or a detailed description for each item invoiced. If an item purchased and itemized on the invoice does not correspond to an item in any of the categories awarded to the vendor, invoice shall reference the item as "N/C" to indicate that it is a non-contract item. This requirement is to assist the County in verifying contract pricing on all invoices. Payment will be made under terms of net thirty (30) days unless otherwise agreed upon by seller and the purchasing department.

3.3 Prompt Payment. In accordance with the State of Texas Prompt Payment Act, Article 601f V.T.C.S., payment will be made after receive and acceptance by the County of the merchandise ordered and of a valid invoice. Successful bidder(s) is required to pay subcontractors within ten (10) days after the successful bidder receives payment from the County.

3.4 Funding. Jefferson County is operated and funded on an October 1 to September 30 basis; accordingly, the County reserves the right to terminate, without liability to the County, any contract for which funding is not available.

4. Contract

4.1 Contract Definition. The General Conditions of Bidding and Terms of Contract, Specifications, Plans, Bidding Forms, Addenda, and any other documents made a part of this bid shall constitute the complete bid. This bid, when duly accepted by Jefferson County, shall constitute a contract equally binding between the successful bidder and Jefferson County.

4.2 Contract Agreement. Once a contract is awarded, the unit prices offered by the successful bidder shall remain firm for the term of the contract. Contract shall commence on date of award and,

upon agreement between vendor(s) and Jefferson County, may be renewed annually for up to four (4) additional years. **(OMIT If N/A or EDIT if Needed)**

4.3 Change Order. No different or additional terms will become part of this contract with the exception of a change order. No oral statement of any person shall modify or otherwise change, or affect the terms, conditions or specifications stated in the resulting contract. All change orders to the contract will be made in writing and at the discretion and approval of Jefferson County. No change order will be binding unless signed by an authorized representative of the County and the vendor.

4.4 Price Re-determination. A price re-determination may be requested at the time of annual renewal. All requests for price re-determination shall be in written form. Cause for such request, i.e., manufacturer's direct cost, postage rates, Railroad Commission rates, Federal/State minimum wage law, Federal/State unemployment taxes, F.I.C.A, Insurance Coverage Rates, etc., shall be substantiated in writing by the source of the cost increase. The bidder's past experience of honoring contracts at the bid price will be an important consideration in the evaluation of the lowest and best bid. Jefferson County reserves the right to accept or reject any/all requests for price re-determination as it deems to be in the best interest of the County.

4.5 Termination. Jefferson County reserves the right to terminate the contract for default if the bidder breached any of the terms therein, including warranties of bidder or if the bidder becomes insolvent or commits acts of bankruptcy. Such right of termination is in addition to and not in lieu of any other remedies which Jefferson County may have in law or equity. Default may be construed as, but not limited to, failure to deliver the proper goods and/or service within the proper amount of time, and/or to properly perform any and all services required to Jefferson County's satisfaction and/or to meet all other obligations and requirements. Contracts may be terminated without cause upon thirty (30) days' written notice to either party unless otherwise specified. Jefferson County reserves the right to award canceled contract to the next lowest bidder. Bidder, in submitting this bid, agrees that Jefferson County shall not be liable to prosecution for damages in the event that the County declares the bidder in default.

4.6 Conflict of Interest. Employees of the County are not permitted to maintain financial interest in, or receive payment, directly or indirectly, borrow from, lend to, invest in, or engage in any substantial financial transaction with any individual, organization, supplier, or subcontractor who does business with the County without disclosure. When conflict of interest is discovered, it shall be grounds for termination of contract.

4.7 Injuries or Damages Resulting from Negligence. Successful vendor shall defend, indemnify and save harmless Jefferson County and all its officers, agents and employees from all suits, actions, or other claims of any character, name and description brought for or on account of any injuries or damages received or sustained by any person, persons, or property on account of any negligent act or fault of the successful vendor, or of any agent, employee, subcontractor or supplier in the execution of, or performance under, any contract which may result from bid award. Successful vendor shall pay any judgment with cost which may be obtained against Jefferson County growing out of such injury or damages.

4.8 Interest by Public Officials. No public official shall have interest in this contract, in accordance with Texas Local Government Code.

4.9 Warranty. The successful vendor shall warrant that all materials utilized in the performance of this contract shall conform to the proposed specifications and/or all warranties as stated in the Uniform Commercial Code and be free from all defects in material, workmanship and title.

4.10 Uniform Commercial Code. The successful vendor and Jefferson County agree that both parties have all rights, duties, and remedies available as stated in the Uniform Commercial Code.

4.11 Venue. This agreement will be governed and construed according to the laws of the State of Texas. This agreement is performable in the County of Jefferson, Texas.

4.12 Sale, Assignment, or Transfer of Contract. The successful vendor shall not sell, assign, transfer or convey this contract, in whole or in part, without the prior written consent of Jefferson County.

4.13 Silence of Specifications. The apparent silence of these specifications as to any detailed description concerning any point, shall be regarded as meaning that only the best commercial practices are to prevail. All interpretations of these specifications shall be made on the basis of this statement.

Special Requirements/Instructions

The following requirements and instructions supersede General Requirements where applicable.

1. Bid Requirement

Each bidder shall ensure that required parts of the bid are completed with accuracy and submitted as per the requirements within this specifications packet, including any addenda.

Bidder is responsible for submitting one (1) *original* bid copy to include a completed copy of this specifications packet in its entirety; and two (2) numbered bid *hard copies* to include at a minimum all pages requiring completion and/or marked with instructions to be returned with bid submission and any other documentation requested within these specifications.

All bids shall be tightly sealed in an opaque envelope or box and plainly marked "SEALED BID." The outside of the envelope or box shall also include: Bid Number, Bid Name, Bid Due Date, Bidder's Name and Address; and shall be addressed to the Purchasing Agent.

Jefferson County shall not be responsible for any effort or cost expended in the preparation of a response to this IFB. All protests should be coordinated through the Purchasing Office prior to award recommendation to Commissioners' Court.

2. Vendor Registration: SAM (System for Award Management).

Vendors doing business with Jefferson County are **required** to be registered with The System for Award Management (SAM), with an "active" status. The System for Award Management (SAM) is the Official U.S. Government system that consolidated the capabilities of CCR/FedReg, ORCA, and EPLS. There is NO fee to register for this site. Entities may register at no cost directly from the SAM website at: https://www.sam.gov

Bid Respondents are strongly encouraged to review their firm's SAM (System for Award Management) status prior to Bid Submission.

3. Awarded Vendor(s): Submission of FORM 1295 (Texas Ethics Commission)

As of January 1, 2016, per House Bill 1295, the Texas Ethics Commission (TEC) requires **all awarded vendors** to complete a Certificate of Interested Parties (FORM 1295) at time of notification of award. **Awarded Vendors** must visit the TEC website link below, enter the required information on Form 1295, and print a copy of the completed form. The form will include a certification of filing that will contain a unique certification number.

At the time of award, the Jefferson County Purchasing Department will submit a request to the Awarded Vendor to both:

1. Submit FORM 1295 online via the Texas Ethics Commission website link below.

2. Submit a printed copy of FORM 1295, signed by an Authorized Agent of the Awarded Vendor and notarized to the Jefferson County Purchasing Department.

FORM 1295, Completion Instructions, and Login Instructions are available via the Texas Ethics Commission Website at: https://www.ethics.state.tx.us/whatsnew/elf_info_form1295.htm

4. Multiple Vendor Award

Jefferson County reserves the right to award this contract to more than one vendor at the County's discretion.

5. Delivery

If delivery is required, all items must be packaged so as to be protected from damage during shipping and handling. Any item(s) damaged in shipping must be replaced in kind, or repaired, by the contractor, at the discretion of, and at no additional charge to, Jefferson County.

6. Payment

Jefferson County will pay original invoices that clearly itemize the goods and/or services provided as to quantity, part number, description, price, applicable discount (if any), labor charges showing time differential, if applicable and if previously agreed to, and delivery, installation, and set-up costs, if applicable and if previously agreed to. Only charges as stated on the Bid Form(s) submitted as a part of the bid will be considered.

Invoices must indicate Jefferson County as applicable, the address to which the product(s) and/or service(s) were delivered, and the applicable purchase order number. Invoices will be matched to delivery tickets prior to payment; therefore, all delivery tickets should have an accurate description of the product(s) and/or service(s).

Invoices shall be submitted to: Jefferson County Auditing Department, Attention: Accounts Payable, 1149 Pearl Street, 7th floor, Beaumont, TX 77701.

7. Usage Reports

Jefferson County reserves the right to request, and receive at no additional cost, up to two (2) times during the contract period, a usage report detailing the products and/or services furnished to date under a contract resulting from this IFB. The reports must be furnished no later than five (5) working days after written request and itemize all purchases to date by Jefferson County department, description of each item purchased, including manufacturer, quantity of each item purchased, per unit and extended price of each item purchased, and total amount and price of all items purchased.

8. Insurance

The contractor (including any and all subcontractors as defined in Section 9.1.3 below) shall, at all times during the term of this contract, maintain insurance coverages with not less than the type and requirements shown below. Such insurance is to be provided at the sole cost of the contractor. These requirements do not establish limits of the contractor's liability.

All policies of insurance shall waive all rights of subrogation against the County, its officers, employees and agents; a copy of the policy wording or endorsement is required.

Contractor shall furnish Jefferson County with Certificate of Insurance naming Jefferson County as additional insured and will provide the actual policy wording or endorsement showing as such.

All insurance must be written by an insurer licensed to conduct business in the State of Texas.

Minimum Insurance Requirements

Public Liability, including Products & Completed Operations	$1,000,000
Excess Liability	$1,000,000

Property Insurance (policy below that is applicable to this project):
- Improvements & Betterments Policy: Improvements/Remodeling (for Lease Tenants)
- Builder's Risk Policy: Structural Coverage for Construction Projects
- Installation Floater Policy: Improvements/Alterations to Existing Structure

Workers' Compensation	Statutory Coverage (see attached)

9. Workers' Compensation Insurance

9.1 Definitions:

9.1.1 **Certificate of coverage ("Certificate")** – A copy of a certificate of insurance, a certificate of authority to self-insure issued by the commission, or a coverage agreement, DWC-81, DWC-82, DWC-83, or DWC-84 showing statutory workers' compensation insurance coverage for the person's or entity's employees providing services on a project, for the duration of the project.

9.1.2 **Duration of the project** – Includes the time from the beginning of the work on the project until the contractor's/person's work on the project has been completed and accepted by the governmental entity.

9.1.3 **Persons providing services on the project ("subcontractor") in article 406.096** – Includes all persons or entities performing all or part of the services under the contractor has undertaken to perform on the project, regardless of whether that person contracted directly

with the contractor and regardless of whether that person has employees. This includes, without limitation, independent contractors, subcontractor, leasing companies, motor carriers, owner-operators, employees of any such entity, or employees of any entity which furnishes persons to provide services on the project. "Services" includes, without limitation, providing, hauling or delivering equipment or materials, or providing labor, transportation, or other service related to a project. "Services" does not include activities unrelated to the project, such as food/beverage vendors, office supply deliveries, and delivery of portable toilets.

9.2 The Contractor shall provide coverage, based on proper reporting of classification code and payroll amounts and filing any coverage agreements, which meets the statutory requirements of Texas Labor Code, Section 401.011(44) for all employees of the contractor providing services on the project, for the duration of the project.

9.3 The Contractor must provide a certificate of coverage to the governmental entity prior to being awarded the contract – refer to Section 8 above.

9.4 If the coverage period shown on the Contractor's current certificate of coverage ends during the duration of the project, the Contractor must, prior to the end of the coverage period, file a new certificate of coverage with the governmental entity showing that coverage has been extended.

9.5 The Contractor shall obtain from each person providing services on a project, and provide to the governmental entity:

9.5.1 A certificate of coverage, prior to that person beginning work on the project, so the governmental entity will have on file certificates of coverage showing coverage for all persons providing services on the project; and

9.5.2 No later than seven (7) days after receipt by the Contractor, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate ends during the duration of the project.

9.6 The Contractor shall retain all required certificates of coverage for the duration of the project and for one (1) year thereafter.

9.7 The Contractor shall notify the governmental entity in writing by certified mail or personal delivery, within ten (10) days after the contractor knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project.

9.8 The Contractor shall post on each project site a notice, in the text, form and manner prescribed by the Texas Department of Workers' Compensation, informing all persons providing services on the project that they are required to be covered, and stating how a person may verify coverage and report lack of coverage.

9.9 The Contractor shall contractually require each person with whom it contracts to provide services on a project to:

9.9.1 Provide coverage, based on reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of Texas Labor Code, Section 401.011(44) for all its employees providing services on the project, for the duration of the project.

9.9.2 Provide to the Contractor, prior to that person beginning work on the project a certificate of coverage showing that coverage is being provided for all employees of the person providing services on the project, for the duration of the project.

9.9.3 Provide the Contractor, prior to the end of coverage period, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the project.

9.9.4 Obtain from each person with whom it contracts, and provide to the Contractor:

9.9.4.1 A certificate of coverage, prior to the other person beginning work on the project; and

9.9.4.2 the coverage period, if the coverage period shown on the current certificate of a new certificate of coverage showing extension of coverage, prior to the end of coverage ends during the duration of the project.

9.9.5 Retain all required certificates of coverage on file for the duration of the project and for one (1) year thereafter.

9.9.6 Notify the governmental entity in writing by certified mail or personal delivery, within ten (10) days after the person knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project; and

9.9.7 Contractually require each person with whom it contracts to perform as required by paragraphs 9.1. – 9.7., with the certificates of coverage to be provided to the person for whom they are providing services.

9.10 By signing this contract or providing or causing to be provided a certificate of coverage, the Contractor is representing to the governmental entity that all employees of the contractor who will provide services of the project will be covered by workers' compensation coverage for the duration of the project, that the coverage will be based on proper reporting of classification codes and payroll amounts, and that all coverage agreements will be filed with the appropriate insurance carrier or, in the case of a self-insured, with the commission's Division of Self-Insurance Regulation. Providing false or misleading information may subject the contractor to administrative penalties, criminal penalties, civil penalties, or other civil actions.

9.11 The Contractor's failure to comply with any of these provisions is a breach of contract by the Contractor which entitles the governmental entity to declare the contract void if the Contractor does not remedy the breach within ten (10) days after receipt of notice of breach from the governmental entity.

Minimum Specifications

The following requirements and specifications supersede General Requirements where applicable. Contact Yea-Mei Sauer, Contract Specialist (e-mail: ysauer@co.jefferson.tx.us; phone: 409-835-8593), regarding any questions or comments. Please reference bid number IFB 17-006/YS.

Scope

Vendor shall provide Insecticides, Herbicides, Spray Adjuvants, and Adulticides for the Jefferson County Mosquito Control District subject to the terms and conditions stated for an initial period **beginning on or about date of award.**

Bidders shall attach to bid form, a current material safety data sheet and current labels for each chemical. Failure to do so may result in rejection of bid.

Prices quoted shall be F.O.B. Jefferson County Mosquito Control District, Jefferson County Airport, 1st Street, Nederland, TX. Bidder bears freight charges. All prices must be written in ink or typewritten.

Quote unit prices extended to lump sum prices. The basis of the award will be the unit prices quoted. The County reserves the right to increase or decrease the quantity purchased based on weather conditions and availability of funds.

The County reserves the right to make the award to one (1) successful bidder or per line item.

Purchase orders for insecticides, herbicides, adjuvants, and adulticides will be released to the successful bidder(s) **on an as-needed basis. MINIMUM ORDERS ARE NOT ACCEPTABLE.**

Refer questions of a commercial nature to Jamey West, Contract Specialist at 409-835-8593; and questions of a technical nature to Kevin Sexton, Jefferson County Mosquito Control, at 409-719-5940.

A price re-determination may be considered by Jefferson County only at the twelve (12) month and twenty-four (24) month anniversary dates of the contract. All requests for price re-determination shall be in written form. Cause for such request, i.e., manufacturer's direct cost, postage rates, Railroad Commission rates, Federal/State minimum wage law, Federal/State unemployment taxes, F.I.C.A, Insurance Coverage Rates, etc., shall be substantiated in writing by the source of the cost increase. The bidder's past experience of honoring contracts at the bid price will be an important consideration in the evaluation of the lowest and best bid. Jefferson County reserves the right to accept or reject any/all requests for price re-determination as it deems to be in the best interest of the County.

Approximate Annual Usage

Items listed on the Bid Form indicate our approximate annual usage. No promise is made or implied that these quantities will be purchased. Orders will be placed on an **as-needed basis** for the duration of the contract. Purchase Orders will be released to the successful bidder(s) as required. **MINIMUM ORDERS ARE NOT ACCEPTABLE.**

Contract

This bid, when properly accepted by Jefferson County Commissioners' Court, shall constitute a contract equally binding between the successful bidder and Jefferson County. No different or additional terms will become a part of this contract.

The brand name references are for description only, and are not intended to exclude other herbicides or adjuvants of equal quality. Bidders desiring to substitute items may do so provided brand name is **indicated on Bid Form**. Change of container size may disqualify bid. Dilution ratio will be a factor in award of chemicals.

Bidders shall attach to bid form a current material safety data sheet and current labels for each chemical. Failure to do so may result in rejection of bid.

Item	Description
1	**MSMA herbicide** – to contain 6.00 lb. MSMA (Mono-sodium Acid Methanearsonate) plus surfactant per gallon
2	**Tordon 101** – to contain 10.2% 4-amino3,5,6-trichloropicolinic acid (picloram), tri-isopropanolomine salt 39.6% 2,4-Dichlorophenoxyacetric acid, tri-isopropanolomiane salt.
3	**Roundup herbicide or equivalent** – to contain 41.0% by weight Isopropylamine Salt of Glyphosate
4	**Rodeo herbicide or equivalent** – to contain 53.5% by weight Isopropylamine Salt of Glyphosate
5	**Nalco Trol II or equivalent** – water soluble spray drift control agent
6	**Aqua-King or equivalent** – product must be a non-ionic aquatic surfactant approved for use in the State of Texas, contain 90% active ingredient (excluding alcohols, fatty acids, oils ethylene glycol or diethylene glycol), a minimum of 80% surfactant load, possess an HLB (hydrophilic to lipophilic balance) ratio of 12 to 17, a maximum of 10% isopropyl alcohol, have a flash point greater than 200 degrees F., and contain an anti-foaming agent that will provide instantaneous foam breakdown when agitation ceases.
7	**Malathion insecticide** – concentrate to contain a minimum of 9.9 lb. of malathion per gallon (96.5% by weight active ingredient). Product offered must have current approval in Texas for both aerial and ground ULV application against adult mosquitoes. Bulk shipments only.
8	**Scourge insecticide** – concentrate to contain 1.51 lb. Resmethrin (18% by weight active ingredient) and 4.51 lb. Piperonyl Butoxide Technical (54% by weight active ingredient) per gallon. Product offered must have current approval in Texas for ground ULV application against adult mosquitoes.
9	**Envion 30/30 insecticide or equivalent** - water compatible concentrate in 2.52 lb. Permethrin (30.0% by weight) and 2.52 lb. Piperonyl Butoxide (30.0% by weight) per gallon. Product offered must have current approval in Texas for aerial and ground ULV application against adult mosquitoes.
10	**Duet Adulticide or equivalent** – 1.00% Prallethrin: = 0.085 lbs. of Technical Prallethrin per gallon. Chemical name = (RS) – 2 methyl-4-oxo-3-(2-propynl) cyclopent-2-enyl- (1RS)-cis, trans-chyrsanthemate. 5.00 % Sumethrin: = 0.370 lbs. of Technical Sumethrin per gallon. Chemical name = 3-Phenoxbenzyl- (1RS, 3 RS; 1RS, 3SR) -2,-2dimethyl-3-(2-methylprop-1-enyl) cyclopropanecarboxlate. 5.00% PBO = 0.370 lbs. Technical Pepronyl Butoxide per gallon. Chemical name = Pyperonyl Butoxide. Returnable 275 gallon stainless steel totes with 2.5 inch quick connect hose attachment. Successful bidder will deliver full containers and pick up empty containers at no additional charge

Bidder Information Form

Instructions: Complete the form below. Please provide legible, accurate, and complete contact information. PLEASE PRINT.

Bid Name & Number: IFB 17-006/YS, Term Contract for Insecticides, Herbicides, Spray Adjuvants, and Adulticides for Jefferson County Mosquito Control District

Bidder's Company/Business Name: Pro Pest and Lawn Store

Bidder's TAX ID Number: EIN 20-4315917

Contact Person: Royal Tyler **Title:** President/Owner

Phone Number (with area code): 318-584-7217

Alternate Phone Number if available (with area code): 318-469-9963

Fax Number (with area code): none

Email Address: propestandlawn@gmail.com

Mailing Address (Please provide a physical address for bid bond return, if applicable):

4726 East Texas Suite 150
Address

Bossier City, LA 71111
City, State, Zip Code

OFFER AND ACCEPTANCE FORM

OFFER TO CONTRACT

To Jefferson County:

We hereby offer and agree to furnish the materials or service in compliance with all terms, conditions, specifications, and amendments in the Invitation for Bid and any written exceptions in the offer. We understand that the items in this Invitation for Bid, including, but not limited to, all required certificates are fully incorporated herein as a material and necessary part of the contract.

The undersigned hereby states, under penalty of perjury, that all information provided is true, accurate, and complete, and states that he/she has the authority to submit this bid, which will result in a binding contract if accepted by Jefferson County.

We acknowledge receipt of the following amendment(s): _____, _____, _____, _____.

I certify, under penalty of perjury, that I have the legal authorization to bind the firm hereunder:

Royal Hills, LLC DBA
Pro Pest and Lawn Store
Company Name

For clarification of this offer, contact:

4726 East Texas Suite 150
Address

Same
Name

Bossier City LA 71111
City State Zip

Phone Fax

Signature of Person Authorized to Sign

E-mail

Royal M. Tyler, JR.
Printed Name

President / Owner
Title

Bidder Shall Return Completed Form with Offer.

Acceptance of Offer

The Offer is hereby accepted for the following items: Term Contract for Insecticides, Herbicides, Spray Adjuvants, and Adulticides for Jefferson County Mosquito Control District. Contract Term: One (1) year from date of award with an option to renew for four (4) additional years.

The Contractor is now bound to sell the materials or services listed by the attached contract and based upon the Invitation for Bid, including all terms, conditions, specifications, amendments, etc., and the Contractor's Offer as accepted by Jefferson County.

This contract shall henceforth be referred to as Contract No. 17-006/YS, Term Contract for Insecticides, Herbicides, Spray Adjuvants, and Adulticides for Jefferson County Mosquito Control District. The Contractor has not been authorized to commence any billable work or to provide any material or service under this contract until Contractor receives a purchase order and/or a notice to proceed from the Jefferson County Purchasing Agent.

Countersigned:

Jeff R. Branick
County Judge

Date

Attest:

Carolyn L. Guidry
County Clerk

Bidder Shall Return Completed Form with Offer.

Bid Form

Item	Est Qty. (Gal.)	Description	Brand bid	MSDS Labels Attached	Price per Gallon	Total Price
1	700	MSMA Herbicide – 2.5 gal. container	MSMA 6 Plus		$ 27.40	$ 19,180.00
2	700	Tordon 101 Herbicide or equivalent – 2.5 gal. container	Picloram D		$ 29.70	$ 20,790.00
3	700	Roundup Herbicide or equivalent – 2.5 gal. container	Glyphosate 4+		$ 13.00	$ 9100.00
4	100	Rodeo Herbicide or equivalent – 2.5 gal. container	Glyphosate 5.4		$ 16.50	$ 1650.00
5	100	Nalco Trol II or equivalent – 2.5 gal. (or smaller) container			$	$
6	400	Aqua-King Surfactant or equivalent – 2.5 gal. (or smaller) container			$	$
7	20,000	Malathion Insecticide – **bulk shipment only**			$	$
8	250	Scourge Insecticide – 5 gal. containers			$	$
9	600	Envion 30/30 Insecticide – 2.5 gal. containers			$	$
10	1,375	Duet Adulticide 275 gal. steel containers			$	$

Bidders shall attach to bid form a current material safety data sheet and current labels for each chemical. Failure to do so may result in rejection of bid.

Acknowledgment of Addenda (if any):

Addendum 1 _____ Date Received_____

Addendum 2 _____ Date Received_____

Addendum 3 _____ Date Received_____

Bidder Shall Return Completed Form with Offer.

Vendor References

Please list at least three (3) companies or governmental agencies (preferably a municipality) where the same or similar products and/or services as contained in this specification package were recently provided.

THIS FORM MUST BE RETURNED WITH YOUR BID.

REFERENCE ONE

Government/Company Name: Barksdale AFB Pest Management

Address: NCOIC Pest Mgmt, Barksdale AFB, 2 Civil Engineer Squadron

Contact Person and Title: Sgt. Mark Bashaw

Phone: 318-456-1814 Fax:

Contract Period: item by item Scope of Work: pest control, animal control, turf care supplies

REFERENCE TWO

Government/Company Name: Growing Solutions

Address: 3829 Shed Road, Bossier City, LA 71111

Contact Person and Title: Randy Floyd Owner/Manager

Phone: 318-949-9337 Fax:

Contract Period: none Scope of Work: supplying lawn care products pesticides & fertilizers

REFERENCE THREE

Government/Company Name: Twin City Exterminating, PC

Address: P.O. Box 5209 Bossier City, LA 71171

Contact Person and Title: Darell Moseley

Phone: 318-747-1715 Fax:

Contract Period: Weekly, Scope of Work: supplying pest control products

Bidder Shall Return Completed Form with Offer.

Signature Page

As permitted under Article 4413 (32c) V.A.C.S., other governmental entities may wish to participate under the same terms and conditions contained in this contract (i.e., piggyback). In the event any other entity participates, all purchase orders will be issued directly from and shipped directly to the entity requiring supplies/services. Jefferson County shall not be held responsible for any orders placed, deliveries made or payment for supplies/services ordered by another entity. Each entity reserves the right to determine their participation in this contract.

Would bidder be willing to allow other governmental entities to piggyback off this contract, if awarded, under the same terms and conditions? ..... **Yes** ☑ **No** ☐

This bid shall remain in effect for ninety (90) days from bid opening and shall be exclusive of federal excise and state and local sales tax (exempt).

The undersigned agrees, if this bid is accepted, to furnish any and all items upon which prices are offered, at the price and upon the terms and conditions contained in the Invitation for Bid, Conditions of Bidding, Terms of Contract, and Specifications and all other items made a part of the accepted contract.

The undersigned affirms that they are duly authorized to execute the contract, that this company, corporation, firm, partnership or individual has not prepared this bid in collusion with any other bidder, and that the contents of this bid as to prices, terms or conditions of said bid have not been communicated by the undersigned nor by any employee or agent to any other bidder or to any other person(s) engaged in this type of business prior to the official opening of this bid. And further, that neither the bidder nor their employees nor agents have been for the past six (6) months directly nor indirectly concerned in any pool or agreement or combination to control the price of goods or services on, nor to influence any person to bid or not to bid thereon.

Pro Pest and Lawn Store
Bidder (Entity Name)

Royal M Tyler
Signature

4726 East Texas Suite 150
Street & Mailing Address

Royal M. Tyler, Jr.
Print Name

Bossier City, LA 71111
City, State & Zip

3-11-17
Date Signed

318-584-7217
Telephone Number

Fax Number

propestandlawn@gmail.com
E-mail Address

Bidder Shall Return Completed Form with Offer.

N/A

Conflict of Interest Questionnaire

CONFLICT OF INTEREST QUESTIONNAIRE — FORM CIQ

For vendor doing business with local governmental entity

	OFFICE USE ONLY
This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session. This questionnaire is being filed in accordance with Chapter 176, Local Government Code, by a vendor who has a business relationship as defined by Section 176.001(1-a) with a local governmental entity and the vendor meets requirements under Section 176.006(a). By law this questionnaire must be filed with the records administrator of the local governmental entity not later than the 7th business day after the date the vendor becomes aware of facts that require the statement to be filed. *See* Section 176.006(a-1), Local Government Code. A vendor commits an offense if the vendor knowingly violates Section 176.006, Local Government Code. An offense under this section is a misdemeanor.	Date Received

1 **Name of vendor who has a business relationship with local governmental entity.**

None

2 ☐ **Check this box if you are filing an update to a previously filed questionnaire.**

(The law requires that you file an updated completed questionnaire with the appropriate filing authority not later than the 7th business day after the date on which you became aware that the originally filed questionnaire was incomplete or inaccurate.)

3 **Name of local government officer about whom the information in this section is being disclosed.**

_____
Name of Officer

This section (item 3 including subparts A, B, C, & D) must be completed for each officer with whom the vendor has an employment or other business relationship as defined by Section 176.001(1-a), Local Government Code. Attach additional pages to this Form CIQ as necessary.

A. Is the local government officer named in this section receiving or likely to receive taxable income, other than investment income, from the vendor?

☐ Yes ☐ No

B. Is the vendor receiving or likely to receive taxable income, other than investment income, from or at the direction of the local government officer named in this section AND the taxable income is not received from the local governmental entity?

☐ Yes ☐ No

C. Is the filer of this questionnaire employed by a corporation or other business entity with respect to which the local government officer serves as an officer or director, or holds an ownership interest of one percent or more?

☐ Yes ☐ No

D. Describe each employment or business and family relationship with the local government officer named in this section.

N/A

4

_____
Signature of vendor doing business with the governmental entity

3-11-17
Date

Adopted 8/7/2015

Bidder Shall Return Completed Form with Offer.

Local Government Officer

Conflicts Disclosure Statement - OFFICE USE ONLY

LOCAL GOVERNMENT OFFICER CONFLICTS DISCLOSURE STATEMENT

FORM CIS

This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session.

This is the notice to the appropriate local governmental entity that the following local government officer has become aware of facts that require the officer to file this statement in accordance with Chapter 176, Local Government Code.

OFFICE USE ONLY

Date Received

1 **Name of Local Government Officer**

2 **Office Held**

3 **Name of vendor described by Sections 176.001(7) and 176.003(a), Local Government Code**

4 **Description of the nature and extent of employment or other business relationship with vendor named in item 3**

5 **List gifts accepted by the local government officer and any family member, if aggregate value of the gifts accepted from vendor named in item 3 exceeds $100 during the 12-month period described by Section 176.003(a)(2)(B).**

Date Gift Accepted _____ Description of Gift _____

Date Gift Accepted _____ Description of Gift _____

Date Gift Accepted _____ Description of Gift _____

(attach additional forms as necessary)

6 **AFFIDAVIT**

I swear under penalty of perjury that the above statement is true and correct. I acknowledge that the disclosure applies to each family member (as defined by Section 176.001(2), Local Government Code) of this local government officer. I also acknowledge that this statement covers the 12-month period described by Section 176.003(a)(2)(B), Local Government Code.

_____
Signature of Local Government Officer

AFFIX NOTARY STAMP / SEAL ABOVE

Sworn to and subscribed before me, by the said _____, this the _____ day of _____, 20 _____, to certify which, witness my hand and seal of office.

_____
Signature of officer administering oath | Printed name of officer administering oath | Title of officer administering oath

Adopted 8/7/2015

Good Faith Effort (GFE) Determination Checklist

This information must be submitted with your bid.

Bidder intends to utilize subcontractors/subconsultants in the fulfillment of this contract (if awarded).
☐ Yes ☑ No

Instructions: In order to determine if a "Good Faith Effort" was made in soliciting HUBs for subcontracting opportunities, the following checklist and supporting documentation shall be completed by the Prime Contractor/Consultant, and returned with the Prime Contractor/ Consultant's bid. This list contains the **minimum** efforts that should be put forth by the Prime Contractor/Consultant when attempting to achieve or exceed the goals of HUB Subcontractor participation. The Prime Contractor/Consultant may extend his/her efforts in soliciting HUB Subcontractor participation beyond what is listed below. We are a 50% Women Owned Small business

Did the Prime Contractor/Consultant . . .

☐ Yes ☐ No 1. To the extent practical, and consistent with standard and prudent industry standards, divide the contract work into the smallest feasible portions, to allow for maximum HUB Subcontractor participation?

☐ Yes ☐ No 2. **Notify** in writing a reasonable number of HUBs, allowing sufficient time for effective participation of the planned work to be subcontracted?

☐ Yes ☐ No 3. **Provide** HUBs that were genuinely interested in bidding on a subcontractor, adequate information regarding the project (i.e., plans, specifications, scope of work, bonding and insurance requirements, and a point of contract within the Prime Contractor/Consultant's organization)?

☐ Yes ☐ No 4. **Negotiate** in good faith with interested HUBs, and not reject bids from HUBs that qualify as lowest and responsive bidders?

☐ Yes ☐ No 5. **Document** reasons HUBs were rejected? Was a written rejection notice, including the reason for rejection, provided to the rejected HUBs?

☐ Yes ☐ No 6. If Prime Contractor/Consultant has zero (0) HUB participation, **please explain the reasons why.**

If "No" was selected, please explain and include any pertinent documentation with your bid.
If necessary, please use a separate sheet to answer the above questions.

Royal M. Tyler, Jr
Printed Name of Authorized Representative

Signature

Owner / President
Title

3-11-17
Date

Bidder Shall Return Completed Form with Offer.

Notice of Intent (NOI) to Subcontract with Historically Underutilized Business (HUB)

This information must be submitted with your bid.

Bidder intends to utilize subcontractors/subconsultants in the fulfillment of this contract (if awarded).
☐ Yes ☐ No

Instructions for Prime Contractor/Consultant: Bidder shall submit this form with the bid; however, the information below may be submitted after contract award, but prior to beginning performance on the contract. Please submit one form for each HUB Subcontractor/Subconsultant with proper signatures, per the terms and conditions of your contract.

Contractor Name: _____ HUB: p Yes p No

Address: _____
Street City State Zip

Phone (with area code): _____ Fax (with area code): _____

Project Title & No.: _____

Prime Contract Amount: $ _____

HUB Subcontractor Name: _____

HUB Status (Gender & Ethnicity): _____

Certifying Agency: ☐ Tx. Bldg & Procurement Comm. ☐ Jefferson County ☐ Tx Unified Certification Prog.

Address: _____
Street City State Zip

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

Printed Name of Contractor Representative	Signature of Representative	Date
Printed Name of HUB	Signature of Representative	Date

NOTE: NOTHING ON THIS NOTICE OF INTENT FORM IS INTENDED TO CONFER ANY RIGHTS, EXPRESSED OR IMPLIED, TO ANY THIRD PARTIES.

Pre-Approval for Subcontractor Substitutions must be obtained from the Jefferson County Purchasing Agent's Representative. The "HUB Subcontractor/Subconsultant Change Form" must be completed and faxed to 409-835-8456.

Bidder Shall Return Completed Form with Offer.

Historically Underutilized Business (HUB)
Subcontracting Participation Declaration Form

PAGE 1 OF 4

This information must be submitted with your bid.

Bidder intends to utilize subcontractors/subconsultants in the fulfillment of this contract (if awarded).
☐ Yes ☐ No

N/A

Prime Contractor: _____ HUB: ☐ Yes ☐ No

HUB Status (Gender & Ethnicity): _____

Address: _____
Street City State Zip

Phone (with area code): _____ Fax (with area code): _____

Project Title & No.: _____ IFB/RFP No.: _____

Total Contract: $ _____ Total HUB Subcontract(s): $ _____

Construction HUB Goals: 12.8% MBE:: _____ % 12.6% WBE: _____ %

Sub-goals: 1.7 African-American, 9.7% Hispanic, 0.7% Native American, 0.8% Asian American.
Use these goals as a guide to diversify.

FOR HUB OFFICE USE ONLY:

Verification date HUB Program Office reviewed and verified HUB Sub information Date: _____ Initials: _____

PART I. HUB SUCONTRACTOR DISCLOSURE

N/A

HUB Subcontractor Name: _____

HUB Status (Gender & Ethnicity): _____

Certifying Agency: ☐ Texas Bldg & Procurement Comm. ☐ Texas Unified Certification Prog.

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

Bidder Shall Return Completed Form with Offer.

Residence Certification/Tax Form

Pursuant to Texas Government Code §2252.001 *et seq.*, as amended, Jefferson County requests Resident Certification. §2252.001 *et seq.* of the Government Code provides some restrictions on the awarding of governmental contracts; pertinent provisions of §2252.001 are stated below:

(3) "Nonresident bidder" refers to a person who is not a resident.

(4) "Resident bidder" refers to a person whose principal place of business is in this state, including a contractor whose ultimate parent company or majority owner has its principal place of business in this state.

☐ I certify that _____ [company name] is a Resident Bidder of Texas as defined in Government Code §2252.001.

☑ I certify that Pro Pest and Lawn [company name] is a Nonresident Bidder as defined in Government Code §2252.001 and our principal place of business is Bossier City Louisiana (city and state).

Taxpayer Identification Number (T.I.N.):	20-4315917
Company Name submitting bid/proposal:	Royal Hills LLC DBA Pro Pest and Lawn Store
Mailing address:	4726 East Texas Suite 150, Bossier City, LA 71111
If you are an individual, list the names and addresses of any partnership of which you are a general partner:	

Property: List all taxable property owned by you or above partnerships in Jefferson County.

Jefferson County Tax Acct. No.*	Property address or location**

* This is the property amount identification number assigned by the Jefferson County Appraisal District.

** For real property, specify the property address or legal description. For business property, specify the address where the property is located. For example, office equipment will normally be at your office, but inventory may be stored as a warehouse or other location.

Bidder Shall Return Completed Form with Offer.

LED | LOUISIANA ECONOMIC DEVELOPMENT

Division of Small and Emerging Business Development

SEBD CERTIFICATION

Royal Hills, LLC DBA Pro Pest and Lawn Store

is hereby certified as a Small and Emerging Business Enterprise.

This certification is valid beginning 7/25/2016 and supersedes any registration or listing previously issued. At any time there is a change in ownership or control of the firm, notification must be made immediately to the Division of Small and Emerging Business Development.

Issued at Baton Rouge, Louisiana 7/25/2016

This certification expires on: 7/25/2026

Certification No. 14320

John W. Matthews, Jr.,
Executive Director, Entrepreneurial Services

Bid Affidavit

The undersigned certifies that the bid prices contained in this bid have been carefully reviewed and are submitted as correct and final. Bidder further certifies and agrees to furnish any and/or all commodities upon which prices are extended at the price offered, and upon the conditions contained in the specifications and the Notice to Bidders.

STATE OF Louisiana COUNTY OF Bossier

BEFORE ME, the undersigned authority, a Notary Public in and for the State of Louisiana,

on this day personally appeared Debbie Tyler (name), who

after being by me duly sworn, did depose and say:

"I, Debbie Tyler (name) am a duly authorized officer of/agent

for Pro Pest and Lawn Store (name of firm) and have been duly authorized to execute the

foregoing on behalf of the said Pro Pest and Lawn Store (name of firm).

I hereby certify that the foregoing bid has not been prepared in collusion with any other bidder or other person or persons engaged in the same line of business prior to the official opening of this bid. Further, I certify that the bidder is not now, nor has been for the past six (6) months, directly or indirectly concerned in any pool or agreement or combination, to control the price of services/commodities bid on, or to influence any person or persons to bid or not to bid thereon."

Name and address of bidder: Pro Pest and Lawn Store

4726 East Texas Suite 150 Bossier City LA 71111

Fax: _____ Telephone# 318-584-7217

by: Debbie Tyler (print name) Title: Owner

Signature: Debbie Tyler

SUBSCRIBED AND SWORN to before me by the above-named Debbie Tyler on

this the 11 day of MARCH 2017.

Janis Castine

Notary Public in and for the State of Louisiana

JANIS CASTINE
Notary Public
State of Louisiana
Notary ID # 2341
Bossier Parish

Bidder Shall Return Completed Form with Offer.

SAFETY DATA SHEET

EMERGENCY CALL: 1-800-424-9300 (CHEMTREC)

1. IDENTIFICATION

PRODUCT NAME: Glyphosate 5.4
DESCRIPTION: A liquid herbicide.
EPA Reg. No.: 81927-8

COMPANY IDENTIFICATION:
Alligare, LLC
13 N. 8th Street
Opelika, AL 36801

2. HAZARD IDENTIFICATION

WARNING
May be harmful if inhaled

Toxic to aquatic life

3. COMPOSITION / INFORMATION ON INGREDIENTS

Common Name	Chemical Name	CAS #	Composition
Glyphosate Isopropylamine Salt	N-(phosphonomethyl)glycine, in the form of its isopropylamine salt	38641-94-0	53.8%

4. FIRST AID MEASURES

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-800-424-9300 for emergency medical treatment information.

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a doctor or poison control center if you feel unwell.

5. FIREFIGHTING MEASURES

Flash point: Not applicable

Flammable Limits (LFL-UFL): N/A

Fire and Explosion Hazards: None known.

Means of Extinction: Use water spray, foam or dry chemical.

Fire Fighting Instructions: Evacuate area and fight fire from a safe distance. Approach from upwind to avoid hazardous vapors and decomposition products. A foam or dry chemical fire extinguishing system is preferred to prevent environmental damage from excessive water run off. If water is used, avoid heavy hose streams. If possible, dike and collect water used to fight fire to prevent/minimize run off.

Firefighting Equipment: Self-contained breathing apparatus with full face piece. Wear full firefighting turn-out gear (Bunker gear).

Hazardous Combustion Products: Carbon monoxide, nitrogen oxides, phosphorous oxides.

NFPA Ratings: Health: 1 / Flammability: 1 / Instability: 0

6. ACCIDENTAL RELEASE MEASURES

Clean up spills immediately. Isolate and post spill area. Wear protective clothing and personal protective equipment as prescribed in Section 8 "Exposure Controls/Personal Protection". Keep unprotected persons and animals out of area.

Small Spill: Absorb spill with inert material such as dry sand, vermiculite or fuller's earth, then place in a chemical waste container.

Large Spill: Dike large spills using absorbent or impervious material such as clay or sand. Recover and contain as much free liquid as possible for reuse. Allow absorbed material to solidify and scrape up for disposal. After removal, scrub the area with detergent and water and neutralize with dilute alkaline solutions of soda ash or lime.

7. HANDLING AND STORAGE

Handling: Keep out of reach of children and animals. Do not contaminate other pesticides, fertilizers, water, food or feed by storage or disposal. Avoid breathing spray mist. Remove and wash contaminated clothing before reuse.

Storage: Store above 10ºF (-12ºC) to keep product from crystallizing.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls: To keep exposure to airborne contaminants below exposure limits, proper ventilation is required when handling or using this product. Local mechanical exhaust ventilation may be required. Facilities storing or using this material should be equipped with an eyewash facility and a safety shower.

Protective Clothing: Handlers must wear long-sleeved shirt and long pants, and shoes plus socks. Safety goggles and waterproof gloves are recommended when mixing, loading or cleaning equipment.

General: Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Follow the manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Pale yellow, clear viscous liquid
Odor: Slight amine odor
pH: 4.6
Flashpoint (PMA-4): N/A
Specific Gravity: 1.2016 g/ml
Solubility in Water: Soluble

10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID: Avoid temperatures above 115°F (46°C) and below 25°F (-5°C)

CHEMICAL STABILITY: Stable under normal use and storage conditions. May decompose if heated.

HAZARDOUS DECOMPOSITION PRODUCTS: Heat and fire may result in thermal decomposition and the release of nitrogen oxides, phosphorous oxides and carbon monoxide.

INCOMPATIBILITY WITH OTHER MATERIALS: Strong oxidizers and bases, unlined and galvanized steel.

HAZARDOUS REACTIONS: This product is chemically stable and no hazardous reactions should occur if stored and handled as prescribed / indicated.

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

ORAL TOXICITY (rat LD_{50}): > 5,000 mg/kg

DERMAL TOXICITY (rat LD_{50}): > 5,000 mg/kg

INHALATION TOXICITY (rat LC_{50}): > 7.03 mg/L (4-hour)

EYE IRRITATION: None to slightly irritating

SKIN IRRITATION: None to slightly irritating

SKIN SENSITIZATION: Not a contact sensitizer

CARCINOGENICITY:

EPA: Not Listed
ACGIH: Not Listed **NTP:** Not Listed
IARC: Not Listed **OSHA:** Not Listed

MUTAGENIC TOXICITY: No evidence of mutagenic effects during *in vivo* and *in vitro* assays.

REPRODUCTIVE TOXICITY: No evidence in animal studies.

12. ECOLOGICAL INFORMATION

The following is for the active ingredient, Glyphosate Acid:

AQUATIC TOXICITY

Rainbow Trout (96-hr LC_{50}): 8.2 mg/L
Bluegill (96-hr LC_{50}): 5.8 mg/L

AVIAN TOXICITY

Bobwhite Quail (Oral LD_{50}): > 3,800 mg/kg

OTHER TOXICITY

Bee: Non-toxic.

13. DISPOSAL CONSIDERATIONS

Do not contaminate water, food or feed by storage or disposal.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, state or local procedures. Emptied container retains vapor and product residue. Observe all labeled safeguards until container is cleaned, reconditioned, or destroyed.

CONTAINER DISPOSAL: Nonrefillable container. Do not reuse or refill this container. Refer to the product label for specific container handling instructions.

14. TRANSPORT INFORMATION

US DOT:

Not regulated by DOT.

15. REGULATORY INFORMATION

FIFRA –
This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. The following is the hazard information as required on the pesticide label:

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Harmful if inhaled. Avoid breathing spray mist. Remove and wash contaminated clothing before reuse.

DOMESTIC ANIMALS: This product is considered to be relatively nontoxic to dogs and other domestic animals; however, ingestion of this product or large amounts of freshly sprayed vegetation may result in temporary gastrointestinal irritation (vomiting, diarrhea, colic, etc.). If such symptoms are observed, provide the animal with plenty of fluids to prevent dehydration. Call a veterinarian if symptoms persist for more than 24 hours.

See inside label booklet for additional Precautionary Statements and Directions for Use including Storage and Disposal Instructions.

ENVIRONMENTAL HAZARDS

For Aquatic Uses: Do not contaminate water when disposing of equipment washwaters. Treatment of aquatic weeds can result in oxygen depletion or loss due to decomposition of dead plants. This oxygen loss can cause fish suffocation.

For Terrestrial Uses: Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

PHYSICAL AND CHEMICAL HAZARDS

Spray solutions of this product should be mixed, stored and applied using only stainless steel, aluminum, fiberglass, plastic or plastic-lined steel containers.

DO NOT MIX, STORE OR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS. This product or spray solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source.

All pesticides are governed under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). The regulatory information presented below is pertinent only when this product is handled outside of the normal use and application as a pesticide. This product is excluded from listing requirements under EPA/TSCA.

SARA Title III – Section 302 Extremely Hazardous Substances
Not listed

SARA Title III – Section 311/312 Hazard Categories
Immediate

SARA Title III – Section 312 Threshold Planning Quantity
N/A

SARA Title III – Section 313 Reportable Ingredients
None

CERCLA –
Not listed

CALIFORNIA PROP 65 STATUS –
This product does not contain any chemicals known to the state of California to cause cancer or reproductive toxicity.

CANADA –
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

16. OTHER INFORMATION

THIS INFORMATION IN THIS SDS IS BASED ON DATA AVAILABLE AS OF THE REVISION DATE GIVEN HEREIN, AND BELIEVED TO BE CORRECT. CONTACT ALLIGARE, LLC TO CONFIRM IF YOU HAVE THE MOST CURRENT MSDS. JUDGMENTS AS TO THE SUITABILITY OF THE INFORMATION HEREIN FOR THE INDIVIDUAL'S OWN USE OR PURPOSES IS NECESSARILY THE INDIVIDUAL'S OWN RESPONSIBILITY. ALTHOUGH REASONABLE CARE HAS BEEN TAKEN IN THE PREPARATION OF SUCH INFORMATION, ALLIGARE, LLC EXTENDS NO WARRANTIES, MAKES NO REPRESENTATIONS, AND ASSUMES NO RESPONSIBILITY AS TO THE ACCURACY OR SUITABILITY OF SUCH INFORMATION FOR APPLICATION TO THE INDIVIDUAL'S PURPOSES OR THE CONSEQUENCES OF ITS USE.

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA APPROVED PRODUCT LABELING (attached to and accompanying the product container). This SDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course.

SDS Version: 2.1 (Updated Section 15) Effective Date: 09/02/2015

ALLIGARE

GROUP 9 HERBICIDE

GLYPHOSATE 5.4

Specimen Label

AVOID CONTACT OF HERBICIDE WITH FOLIAGE, GREEN STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES BECAUSE SEVERE INJURY OR DESTRUCTION MAY RESULT.

ACTIVE INGREDIENT:

Glyphosate*, N-(phosphonomethyl)glycine, in the form of its isopropylamine salt	53.8%
OTHER INGREDIENTS:	46.2%
TOTAL:	100.0%

*Contains 648 grams per litre or 5.4 pounds per U.S. gallon of the active ingredient glyphosate, in the form of its isopropylamine salt. Equivalent to 480 grams per litre or 4 pounds per U.S. gallon of the acid, glyphosate.

EPA Reg. No. 81927-8

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID	
IF INHALED:	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice.
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-424-9300 for emergency medical treatment information.	

Manufactured for: Alligare, LLC
13 N. 8th Street
Opelika, AL 36801

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Harmful if inhaled. Avoid breathing spray mist. Remove and wash contaminated clothing before reuse.

DOMESTIC ANIMALS: This product is considered to be relatively nontoxic to dogs and other domestic animals; however, ingestion of this product or large amounts of freshly sprayed vegetation may result in temporary gastrointestinal irritation (vomiting, diarrhea, colic, etc.). If such symptoms are observed, provide the animal with plenty of fluids to prevent dehydration. Call a veterinarian if symptoms persist for more than 24 hours.

PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants;
- Shoes plus socks

Follow manufacturer's instructions for cleaning/maintaining PPE (Personal Protective Equipment). If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

ENGINEERING CONTROL STATEMENT

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands thoroughly after handling, and before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

For Aquatic Uses: Do not contaminate water when disposing of equipment washwaters. Treatment of aquatic weeds can result in oxygen depletion or loss due to decomposition of dead plants. This oxygen loss can cause fish suffocation.

For Terrestrial Uses: Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

PHYSICAL OR CHEMICAL HAZARDS

Spray solutions of this product should be mixed, stored and applied using only stainless steel, aluminum, fiberglass, plastic or plastic-lined steel containers.

DO NOT MIX, STORE OR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS. This product or spray solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 4 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is: coveralls, waterproof gloves, shoes plus socks.

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses.

Keep people and pets off treated areas until spray solution has dried to prevent transfer of this product onto desirable vegetation.

STORAGE AND DISPOSAL

Do not contaminate water, foodstuffs, feed or seed by storage or disposal.

Pesticide Storage: Store above 10°F (-12°C) to keep product from crystallizing. Crystals will settle to the bottom. If allowed to crystallize, place in a warm room 68°F (20°C) for several days to redissolve and roll or shake container or recirculate in mini-bulk or bulk container to mix well before using.

Pesticide Disposal: Wastes resulting from the use of this product that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, state or local procedures. Emptied container retains vapor and product residue. Observe all labeled safeguards until container is cleaned, reconditioned, or destroyed.

Container Handling:

[NONREFILLABLE CONTAINERS]

Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying.

(Nonrefillable container ≤ 5 gallons): Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

(Nonrefillable > 5 gallons): Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

[REFILLABLE CONTAINERS]

Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

GLYPHOSATE 5.4

Specimen Label

Read the entire label before using this product.
Use only according to label instructions.
Not all products listed on this label are registered for use in California. Check the registration status of each product in California before using.
Read the "CONDITIONS OF SALE AND WARRANTY" statement at the end of the label before buying or using. If terms are not acceptable, return at once unopened.

RESISTANCE MANAGEMENT

Glyphosate 5.4 is a Group 9 herbicide. Any weed population may contain or develop plants naturally resistant to Glyphosate 5.4 and other Group 9 herbicides. Weed species with acquired resistance to Group 9 may eventually dominate the weed population if Group 9 herbicides are used repeatedly in the same field or in successive years as the primary method of control for targeted species. This may result in partial or total loss of control of those species by Glyphosate 5.4 or other Group 9 herbicides.

To delay herbicide resistance consider:

- Avoiding the consecutive use of Glyphosate 5.4 or other target site of action Group 9 herbicides that might have a similar target site of action, on the same weed species.
- Using tank mixtures or premixes with herbicides from different target site of action Groups as long as the involved products are all registered for the same use, have different sites of action and are both effective at the tank mix or premix rate on the weed(s) of concern.
- Basing herbicide use on a comprehensive Integrated Pest Management (IPM) program.
- Monitoring treated weed populations for loss of field efficacy.
- Contacting your local extension specialist, certified crop advisors and/or manufacturer for herbicide resistance management and /or integrated weed management recommendations for specific crops and resistant weed biotypes.

AQUATIC AND NON-CROP USES

USE INFORMATION

This product, a water-soluble liquid, mixes readily with water and nonionic surfactant to be applied as a foliar spray for the control or destruction of many herbaceous and woody plants.

This product moves through the plant from the point of foliage contact to and into the root system. Visible effects on most annual weeds occur within 2 to 4 days but on most perennial brush species may not occur for 7 days or more. Extremely cool or cloudy weather following treatment may slow the activity of this product and delay visual effects of control. Visible effects are a gradual wilting and yellowing of the plant which advances to complete browning of above-ground growth and deterioration of underground plant parts.

Unless otherwise directed on this label, delay application until vegetation has emerged and reached the stages described for control of such vegetation under the "Weeds Controlled" section of this label.

Unemerged plants arising from unattached underground rhizomes or root stocks of perennials or brush will not be affected by the spray and will continue to grow. For this reason best control of most perennial weeds or brush is obtained when treatment is made at late growth stages approaching maturity.

Always use the higher rate of this product per acre within the specified range when vegetation is heavy or dense.

Do not treat weeds or brush under poor growing conditions such as drought stress, disease or insect damage, as reduced control may result. Reduced results may also occur when treating weeds or brush heavily covered with dust.

Reduced control may result when applications are made to any weed or brush species that have been mowed, grazed or cut, and have not been allowed to regrow to the specified stage for treatment.

Rainfall or irrigation occurring within 6 hours after application may reduce effectiveness. Heavy rainfall or irrigation within 2 hours after application may wash the product off the foliage and a repeat treatment may be required.

When this product comes in contact with soil (on the soil surface or as suspended soil or sediment in water) it is bound to soil particles. Under specified use situations, once this product is bound to soil particles, it is not available for plant uptake and will not harm off-site vegetation where roots grow into the treatment area or if the soil is transported off-site. Under specified use conditions, the strong affinity of this product to soil particles prevents this product from leaching out of the soil profile and entering ground water. The affinity between this product and soil particles remains until this product is degraded, which is primarily a biological degradation process carried out under both aerobic and anaerobic conditions by soil microflora.

This product does not provide residual weed control. For subsequent residual weed control, follow a label-approved herbicide program. Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used.

The maximum use rates stated throughout this product's labeling apply to this product combined with the use of all other herbicides containing glyphosate or sulfosate as the active ingredient, whether applied as mixtures or separately. Calculate application rates and ensure that the total use of this and other glyphosate or sulfosate containing products does not exceed stated maximum use rate.

To the extent consistent with applicable law, buyer and all users are responsible for all loss or damage in connection with the use or handling or mixtures of this product or other materials that are not expressly listed in this label. Mixing this product with herbicides or other materials not specified in this label may result in reduced performance.

ATTENTION

AVOID DRIFT. EXTREME CARE MUST BE USED WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS.

Do not allow the herbicide solution to mist, drip, drift or splash onto desirable vegetation since minute quantities of this product can cause severe damage or destruction to the crop, plants or other areas on which treatment was not intended. The likelihood of injury occurring from the use of this product increases when winds are gusty, as wind velocity increases, when wind direction is constantly changing or when there are other meteorological conditions that favor spray drift. When spraying, avoid combinations of pressure and nozzle type that will result in splatter or fine particles (mist) which are likely to drift.

AVOID APPLYING AT EXCESSIVE SPEED OR PRESSURE.

NOTE: Use of this product in any manner not consistent with this label may result in injury to persons, animals or crops, or other unintended consequences. Keep container closed to prevent spills and contamination.

MIXING AND APPLICATION INSTRUCTIONS

APPLY THESE SPRAY SOLUTIONS IN PROPERLY MAINTAINED AND CALIBRATED EQUIPMENT CAPABLE OF DELIVERING DESIRED VOLUMES. HAND-GUN APPLICATIONS SHOULD BE PROPERLY DIRECTED TO AVOID SPRAYING DESIRABLE PLANTS. NOTE: REDUCED RESULTS MAY OCCUR IF WATER CONTAINING SOIL IS USED, SUCH AS WATER FROM PONDS AND UNLINED DITCHES.

Mixing

This product mixes readily with water. Mix spray solutions of this product as follows: fill the mixing or spray tank with the required amount of water while adding the required amount of this product (see the "Directions for Use" and "Weeds Controlled" sections of this label). Near the end of the filling process, add the required surfactant and mix well. Remove hose from tank immediately after filling to avoid siphoning back into the water source. During mixing and application, foaming of the spray solution may occur. To prevent or minimize foam, avoid the use of mechanical agitators, place the filling hose below the surface of the spray solution, terminate by-pass and return lines at the bottom of the tank and if needed use an approved anti-foam or defoaming agent.

Keep by-pass line on or near bottom of tank to minimize foaming. Screen size in nozzle or line strainers should be no finer than 50 mesh. Carefully select correct nozzle to avoid spraying a fine mist. For best results with conventional ground application equipment, use flat fan nozzles. Check for even distribution of spray droplets.

When using this product, mix 2 or more quarts of a nonionic surfactant per 100 gallons of spray solution. Use a nonionic surfactant labeled for use with herbicides. The surfactant must contain 50 percent or more active ingredient.

Always read and follow the manufacturer's surfactant label recommendations for best results.

These surfactants should not be used in excess of 1 quart per acre when making broadcast applications.

Colorants or marking dyes approved for use with herbicides may be added to spray mixtures of this product. Colorants or dyes used in spray solutions of this product may reduce performance, especially at lower rates or dilutions. Use colorants or dyes according to the manufacturer's label recommendations.

Clean sprayer and parts immediately after using this product by thoroughly flushing with water and dispose of rinsate according to labeled use or disposal instructions.

Carefully observe all cautionary statements and other information appearing in the surfactant label.

APPLICATION EQUIPMENT AND TECHNIQUES

Aerial Equipment

Use the specified rates of this product and surfactant in 3 to 20 gallons of water per acre as a broadcast spray, unless otherwise specified. See the "Weeds Controlled" section of this label for specific rates. Aerial applications of this product may only be made as specifically directed in this label.

AVOID DRIFT – DO NOT APPLY DURING INVERSION CONDITIONS, WHEN WINDS ARE GUSTY OR UNDER ANY OTHER CONDITION WHICH WILL ALLOW DRIFT. DRIFT MAY CAUSE DAMAGE TO ANY VEGETATION CONTACTED TO WHICH TREATMENT IS NOT INTENDED. TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, APPROPRIATE BUFFER ZONES MUST BE MAINTAINED.

Coarse sprays are less likely to drift; therefore, do not use nozzles or nozzle configurations which dispense spray as fine spray droplets. Do not angle nozzles forward into the airstream and do not increase spray volume by increasing nozzle pressure.

Drift control additives may be used. When a drift control additive is used, read and carefully observe the cautionary statements and all other information appearing in the additive label.

Ensure uniform application – To avoid streaked, uneven or overlapped application, use appropriate marking devices.

Thoroughly wash aircraft, especially landing gear, after each day of spraying to remove residues of this product accumulated during spraying or from spills. PROLONGED EXPOSURE OF THIS PRODUCT TO UNCOATED STEEL SURFACES MAY RESULT IN CORROSION AND POSSIBLE FAILURE OF THE PART. LANDING GEAR ARE MOST

GLYPHOSATE 5.4 Specimen Label

SUSCEPTIBLE. The maintenance of an organic coating (paint) which meets aerospace specification MIL-C 38413 may prevent corrosion.

AERIAL SPRAY DRIFT MANAGEMENT

SPRAY DRIFT MANAGEMENT
AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator is responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

1. The distance of the outer most nozzles on the boom must not exceed ¾ the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they should be observed.

The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory.

Aerial Drift Reduction Advisory
[This section is advisory in nature and does not supersede the mandatory label requirements.]

INFORMATION ON DROPLET SIZE
The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (See Wind, Temperature and Humidity, and Temperature Inversions).

CONTROLLING DROPLET SIZE
- Volume – Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- Pressure – Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- Number of nozzles – Use the minimum number of nozzles that provide uniform coverage.
- Nozzle Orientation – Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- Nozzle Type – Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

BOOM LENGTH
For some use patterns, reducing the effective boom length to less than ¾ of the wingspan or rotor length may further reduce drift without reducing swath width.

APPLICATION HEIGHT
Applications must not be made at a height greater than 10 feet above the top of the target plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

SWATH ADJUSTMENT
When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase with increasing drift potential (higher wind, smaller drops, etc.)

WIND
Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Do not apply below 2 mph due to variable wind direction and high inversion potential. NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

TEMPERATURE AND HUMIDITY
When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

TEMPERATURE INVERSIONS
Applications must not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

SENSITIVE AREAS
The pesticide must only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive areas).

For Aerial Application in California Only

Aquatic and Other Noncrop Sites:
When applied as directed and under the conditions described in the "Weeds Controlled" section of this label booklet, this product will control or partially control the labeled weeds growing in the following industrial, recreational and public areas or other similar sites.

Aquatic Sites – Including all bodies of fresh and brackish water which may be flowing, nonflowing, or transient. This includes lakes, rivers, streams, ponds, seeps, irrigation and drainage ditches, canals, reservoirs, estuaries, and similar sites.

If aquatic sites are present in the noncrop area and are part of the intended treatment, read and observe the following directions:

There is no restriction on the use of treated water for irrigation, recreation, or domestic purposes.

Consult local state fish and game agency and water control authorities before applying this product to public water. Permit may be required to treat such water.

NOTE: Do not apply this product within ½ mile upstream of an active potable water intake in flowing water (i.e., river, stream, etc.) or within ½ mile of an active potable water intake in a standing body of water such as lake, pond, or reservoir. To make aquatic applications around and within ½ mile of active potable water intakes, the water intake must be turned off for a minimum period of 48 hours after the application. The water intake may be turned on prior to 48 hours if the glyphosate level in the intake water is below 0.7 part per million as determined by laboratory analysis. These aquatic applications may be made ONLY in those cases where there are alternative water sources or holding ponds which would permit the turning off of an active potable water intake for a minimum period of 48 hours after the application.

This product does not control plants which are completely submerged or have a majority of their foliage under water.

Aerial Applications:
Aerial applications may be made with helicopters only.

Use the following guidelines when aerial applications are to be made near perennial crops after bud break and before total leaf drop and/or near emerged annual crops.
1. Do not apply within a minimum of 100 feet of all crops.
2. If wind up to 5 miles per hour is blowing toward the crop(s), do not apply within a minimum of 500 feet of the crop(s).
3. Winds blowing from 5 to 10 miles per hour toward the crops(s) may require buffer zones in excess of the 500 feet minimum.
4. Do not apply when winds are in excess of 10 miles per hour or when inversion conditions exist.

For Aerial Application in Fresno County, California Only From February 15 through March 31 Only

Applicable Area:
The area contained inside the following boundaries within Fresno County, California.

North:	Fresno County line
South:	Fresno County line
East:	State Highway 99
West:	Fresno County line

Use Information:
Always read and follow the label directions and precautionary statements for all products used in the aerial application.

Observe the following directions to minimize off-site movement during aerial application of this product. Minimization of off-site movement is the responsibility of the grower, Pest Control Advisor and aerial applicator.

Written Recommendations:
A written recommendation MUST be submitted by or on behalf of the applicator to the Fresno County Agricultural Commissioner 24 hours prior to the application. This written recommendation MUST state the proximity of surrounding crops, and that conditions of each manufacturer's applicable product label and this label have been satisfied.

Aerial Applicator Training and Equipment:
Aerial application of this product is limited to pilots who have successfully completed a Fresno County Agricultural Commissioner and California Department of Pesticide Regulation approved training program for aerial application of herbicides. All aircraft must be inspected, critiqued in flight and certified at a Fresno County Agricultural Commissioner approved fly-in. Test and calibrate spray equipment at intervals sufficient to ensure that proper rates of herbicides and adjuvants are being applied during commercial use. Applicator must document such calibrations and testing. Demonstration of performance at Fresno County Agricultural Commissioner approved "fly-ins" constitutes such documentation, or other written records showing calculations and measurements of flight and spray parameters acceptable to the Fresno County Agricultural Commissioner.

Applications at Night:
Do not apply this product by air earlier than 30 minutes prior to sunrise and/or later than 30 minutes after sunset without prior permission from the Fresno County Agricultural Commissioner.

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Note: For aerial application from April 1 through February 14, refer to the "For Aerial Application in California Only" section of this label.

Boom Equipment

For control of weed or brush species listed in this section using conventional boom equipment – Use the specified rates of this product and surfactant in 3 to 30 gallons of water per acre as a broadcast spray, unless otherwise specified. See the "Weeds Controlled" section of this label for specific rates. As density of vegetation increases, spray volume should be increased within the specified range to ensure complete coverage. Carefully select correct nozzle to avoid spraying a fine mist. For best results with ground application equipment, use flat fan nozzles. Check for even distribution of spray droplets.

Hand-Held and High-Volume Equipment

Use Coarse Sprays Only

For control of weeds listed in this section using knapsack sprayers or high-volume spraying equipment utilizing handguns or other suitable nozzle arrangements – Prepare a ¾ to 2 percent solution of this product in water, add a nonionic surfactant and apply to foliage of vegetation to be controlled. For specific rates of application and instructions for control of various annual and perennial weeds, see the "Weeds Controlled" section of this label.

Applications should be made on a spray-to-wet basis. Spray coverage should be uniform and complete. Do not spray to point of runoff.

This product may be used as a 5 to 8 percent solution for low-volume directed sprays for spot treatment of trees and brush. It is most effective in areas where there is a low density of undesirable trees or brush. If a straight stream nozzle is used, start the application at the top of the targeted vegetation and spray from top to bottom in a lateral zigzag motion. Ensure that at least 50 percent of the leaves are contacted by the spray solution. For flat fan and cone nozzles and with hand-directed mist blowers, mist the application over the foliage of the targeted vegetation. Small, open-branched trees need only be treated from one side. If the foliage is thick or there are multiple root sprouts, applications must be made from several sides to ensure adequate spray coverage.

Prepare the desired volume of spray solution by mixing the amount of this product in water, shown in the following table:

Spray Solution

Desired Volume	Amount of Glyphosate 5.4					
	3/4%	1%	1 1/4%	1 1/2%	5%	8%
1 Gal	1 oz	1 1/3 oz	1 2/3 oz	2 oz	6 1/2 oz	10 1/4 oz
25 Gal	1 1/2 pt	1 qt	1 1/4 qt	1 1/2 qt	5 qt	2 gal
100 Gal	3 qt	1 gal	1 1/4 gal	1 1/2 gal	5 gal	8 gal

2 tablespoons = 1 fluid ounce

For use in knapsack sprayers, it is suggested that the specified amount of this product be mixed with water in a larger container. Fill sprayer with the mixed solution and add the correct amount of surfactant.

WEEDS CONTROLLED

Annual Weeds

Apply to actively growing annual grasses and broadleaf weeds.

Allow at least 3 days after application before disturbing treated vegetation. After this period the weeds may be mowed, tilled or burned. See "Directions for Use," "Product Information" and "Mixing and Application Instructions" for labeled uses and specific application instructions.

Broadcast Application – Use 1 ½ pints of this product per acre plus 2 or more quarts of a nonionic surfactant per 100 gallons of spray solution if weeds are less than 6 inches tall. If weeds are greater than 6 inches tall, use 2 ½ pints of this product per acre plus 2 or more quarts of an approved nonionic surfactant per 100 gallons of spray solution.

Hand-Held, High-Volume Application – Use a ¾ percent solution of this product in water plus 2 or more quarts of a nonionic surfactant per 100 gallons of spray solution and apply to foliage of vegetation to be controlled.

When applied as directed under the conditions described in this label, this product plus nonionic surfactant WILL CONTROL the following ANNUAL WEEDS:

Balsamapple**
Momordica charantia
Barley
Hordeum vulgare
Barnyardgrass
Echinochloa crus-galli
Bassia, fivehook
Bassia hyssopifolia
Bluegrass, annual
Poa annua
Bluegrass, bulbous
Poa bulbosa
Brome
Bromus spp.
Buttercup
Ranunculus spp.
Cheat
Bromus secalinus
Chickweed, mouseear
Cerastium vulgatum
Foxtail, Carolina
Alopecurus carolinianus
Groundsel, common
Senecio vulgaris
Horseweed/Marestail
Conyza canadensis
Kochia
Kochia scoparia
Lambsquarters, common
Chenopodium album
Lettuce, prickly
Lactuca serriola
Morningglory
Ipomoea spp.
Mustard, blue
Chorispora tenella
Mustard, tansy
Descurainia pinnata
Mustard, tumble
Sisymbrium altissimum
Rye
Secale cereale
Ryegrass, Italian*
Lolium multiflorum
Sandbur, field
Cenchrus spp.
Shattercane
Sorghum bicolor
Shepherdspurse
Capsella bursa-pastoris
Signalgrass, broadleaf
Brachiaria platyphylla
Smartweed, Pennsylvania
Polygonum pensylvanicum
Sowthistle, annual
Sonchus oleraceus
Spanishneedles*
Bidens bipinnata
Stinkgrass
Eragrostis cilianensis
Sunflower
Helianthus annuus
Thistle, Russian
Salsola kali
Spurry, umbrella
Holosteum umbellatum
Velvetleaf
Abutilon theophrasti
Wheat
Triticum aestivum
Witchgrass
Panicum capillare
Cocklebur
Xanthium strumarium
Corn, volunteer
Zea mays
Crabgrass
Digitaria spp.
Dwarfdandelion
Krigia cespitosa
Falseflax, smallseed
Camelina microcarpa
Fiddleneck
Amsinckia spp.
Flaxleaf fleabane
Conyza bonariensis
Fleabane
Erigeron spp.
Foxtail
Setaria spp.
Mustard, wild
Sinapis arvensis
Oats, wild
Avena fatua
Panicum
Panicum spp.
Pennycress, field
Thlaspi arvense
Pigweed, redroot
Amaranthus retroflexus
Pigweed, smooth
Amaranthus hybridus
Ragweed, common
Ambrosia artemisiifolia
Ragweed, giant
Ambrosia trifida
Rocket, London
Sisymbrium irio

*Apply 3 pints of this product per acre.
**Apply with hand-held equipment only.

Annual weeds will generally continue to germinate from seed throughout the growing season. Repeat treatments will be necessary to control later germinating weeds.

Perennial Weeds

Apply this product as follows to control or destroy most vigorously growing perennial weeds. Unless otherwise directed, allow at least 7 days after application before disturbing vegetation.

Add 2 or more quarts of a nonionic surfactant per 100 gallons of spray solution to the rates of this product given in this list. See the "Product Information," "Directions for Use" and "Mixing and Application" sections in this label for specific uses and application instructions.

NOTE: If weeds have been mowed or tilled, do not treat until regrowth has reached the specified stages. Fall treatments must be applied before a killing frost.

Repeat treatments may be necessary to control weeds regenerating from underground parts or seed.

When applied as directed under the conditions described, this product plus surfactant WILL CONTROL the following PERENNIAL WEEDS:

Alfalfa
Medicago sativa
Alligatorweed*
Alternanthera philoxeroides
Anise/Fennel
Foeniculum vulgare
Artichoke, Jerusalem
Helianthus tuberosus
Bahiagrass
Paspalum notatum
Beachgrass, European***
Ammophila arenaria
Bermudagrass
Cynodon dactylon
Bindweed, field
Convolvulus arvensis
Bluegrass, Kentucky
Poa pratensis
Blueweed, Texas
Helianthus ciliaris
Brackenfern
Pteridium spp.
Bromegrass, smooth
Bromus inermis
Canarygrass, reed
Phalaris arundinacea
Cattail
Typha spp.
Clover, red
Trifolium pratense
Clover, white
Trifolium repens
Cogongrass
Imperata clylindrica
Quackgrass
Agropyron repens
Reed, giant
Arundo donax
Ryegrass, perennial
Lolium perenne
Smartweed, swamp
Polygonum coccineum
Spatterdock
Nuphar luteum
Starthistle, yellow
Centaurea solstitialis
Sweet potato, wild*
Ipomoea pandurata
Thistle, artichoke
Cynara cardunculus
Thistle, Canada
Cirsium arvense
Cordgrass
Spartina spp.
Cutgrass, giant*
Zizaniopsis miliacea
Dallisgrass
Paspalum dilatatum
Dandelion
Taraxacum officinale
Dock, curly
Rumex crispus
Dogbane, hemp
Apocynum cannabinum
Fescue
Festuca spp.
Fescue, tall
Festuca arundinacea
Guineagrass
Panicum maximum
Hemlock, poison
Conium maculatum
Horsenettle
Solanum carolinense
Horseradish
Armoracia rusticana
Ice Plant
Mesembryanthemum crystallinum
Johnsongrass
Sorghum halepense
Kikuyugrass
Pennisetum clandestinum
Knapweed
Centaurea repens
Lantana
Lantana camara
Timothy
Phleum pratense
Torpedograss*
Panicum repens
Tules, common
Scirpus acutus
Vaseygrass
Paspalum urvillei
Velvetgrass
Holcus spp.
Waterhyacinth
Eichornia crassipes
Waterlettuce
Pistia stratiotes
Waterprimrose
Ludwigia spp.
Wheatgrass, western
Agropyron smithii
Lespedeza: common, serices
Lespedeza striata
Lespedeza cuneata
Loosestrife, purple
Lythrum salicaria
Lotus, American
Nelumbo lutea
Maidencane
Panicum hematomon
Milkweed
Asclepias spp.
Muhly, wirestem
Muhlenbergia frondosa
Mullein, common
Verbascum thapsus
Napiergrass
Pennisetum purpureum
Nightshade, silverleaf
Solanum elaeagnifolium
Nutsedge: purple, yellow
Cyperus rotundus
Cyperus esculentus
Orchardgrass
Dactylis glomerata
Pampasgrass
Cortaderia jubata
Paragrass
Brachiaria mutica
Phragmites**
Phragmites spp.

*Partial control.
**Partial control in southeastern states. See specific directions below.
***Washington and Oregon only.

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Alligatorweed – Apply 6 pints of this product per acre as a broadcast spray or as a 1¼ percent solution with hand-held equipment to provide partial control of alligatorweed. Apply when most of the target plants are in bloom. Repeat applications will be required to maintain such control.

Beachgrass, European (Washington and Oregon only) – Best results are obtained when applications are made when European beachgrass is actively growing through the boot to the full heading stages of growth. Applications should be made prior to the loss of more than 50% green leaf color in the fall.

Applications made during any period of plant (drought) stress, or beyond the recommended active growth period in the fall, will likely result in reduced performance.

Repeat applications of Glyphosate 5.4 may be necessary to treat skips. Monitor treated acres prior to reseeding of desirable vegetation.

Spray-to-Wet Applications:
Apply an 8 percent solution of this product plus 0.5 to 1.5 percent nonionic surfactant on a spray-to-wet basis for control of European beachgrass.

Spray coverage should be uniform and complete but not to the point of runoff.

Wiper Applications:
For selective control of European beachgrass, apply a 33 1/3 percent solution of this product plus 1 to 2.5 percent nonionic surfactant during active growth. Avoid contact of herbicide solution with desirable vegetation. Wiping the plants in opposite directions may improve performance. Maximizing the amount of individual leaf tissue contacted with the wiping equipment will result in optimal performance.

Bermudagrass – Apply 7 ½ pints of this product per acre as a broadcast spray or as a 1½ percent solution with hand-held equipment. Apply when target plants are actively growing and when seed heads appear.

Bindweed, field/Silverleaf Nightshade/Texas Blueweed – Apply 6 to 7 ½ pints of this product per acre as a broadcast spray west of the Mississippi River and 4 ½ to 6 pints of this product per acre east of the Mississippi River. With hand-held equipment, use a 1 ½ percent solution. Apply when target plants are actively growing and are at or beyond full bloom. For silverleaf nightshade, best results can be obtained when application is made after berries are formed. Do not treat when weeds are under drought stress. New leaf development indicates active growth. For best results apply in late summer or fall.

Brackenfern – Apply 4 ½ to 6 pints of this product per acre as a broadcast spray or as a ¾ to 1 percent solution with hand-held equipment. Apply to fully expanded fronds which are at least 18 inches long.

Cattail – Apply 4 ½ to 6 pints of this product per acre as a broadcast spray or as a ¾ percent solution with hand-held equipment. Apply when target plants are actively growing and are at or beyond the early-to-full bloom stage of growth. Best results are achieved when application is made during the summer or fall months.

Cogongrass – Apply 4 ½ to 7 ½ pints of this product per acre as a broadcast spray. Apply when cogongrass is at least 18 inches tall and actively growing in late summer or fall. Allow 7 or more days after application before tillage or mowing. Due to uneven stages of growth and the dense nature of vegetation preventing good spray coverage, repeat treatments may be necessary to maintain control.

Cordgrass – Broadcast Applications (Air) – Apply 4 to 7 ½ pints of this product in 5-20 gallons of spray solution per acre. Add 1 to 2 quarts of nonionic surfactant per 100 gallons of spray solution.

Broadcast Applications (Ground) – Apply 4 to 7 ½ pints of this product in 10 to 60 gallons of spray solution per acre. For best results, ensure that complete coverage of cordgrass clumps is achieved. Add 1 to 2 quarts of a nonionic surfactant per 100 gallons of spray solution.

Hand-Held and High Volume Equipment - Apply a 2 to 8 percent solution of this product. Ensure that complete coverage of cordgrass clumps is achieved. Do not spray to the point of run-off. Add 1 to 2 quarts of a nonionic surfactant per 100 gallons of spray solution.

Wiper Applications - For wick or wiper applications, mix 1 gallon of this product with 2 gallons of clean water to make a 33 percent solution. Addition of a nonionic surfactant at a rate of 10 percent by volume of the total herbicide solution is recommended.

In heavy stands, a double application in opposite directions may improve results.

Application Conditions - Schedule applications in order to allow 6 hours before treated plants are covered by tidewater. Rainfall or immersion within 6 hours after application may reduce effectiveness.

The presence of debris and silt on the cordgrass plants will reduce performance of this product. It may be necessary to wash targeted plants prior to application to improve uptake of this product into the plant. Where cordgrass has been cut or mowed prior to application with Glyphosate 5.4, ensure adequate regrowth of cordgrass occurs to allow for interception or absorption of the herbicide solution.

Cutgrass, giant – Apply 6 pints of this product per acre as a broadcast spray or as a 1 percent solution with hand-held equipment to provide partial control of giant cutgrass. Repeat applications will be required to maintain such control, especially where vegetation is partially submerged in water. Allow for substantial regrowth to the 7 to 10-leaf stage prior to retreatment.

Dogbane, hemp/Knapweed/Horseradish – Apply 6 pints of this product per acre as a broadcast spray or as a 1-½ percent solution with hand-held equipment. Apply when target plants are actively growing and most have reached the late bud-to-flower stage of growth. For best results, apply in late summer or fall.

Fescue, tall – Apply 4 ½ pints of this product per acre as a broadcast spray or as a 1 percent solution with hand-held equipment. Apply when target plants are actively growing and most have reached the boot-to-head stage of growth. When applied prior to the boot stage, less desirable control may be obtained.

Guineagrass – Apply 4 ½ pints of this product per acre as a broadcast spray or as a ¾ percent solution with hand-held equipment. Apply when target plants are actively growing and when most have reached at least the 7-leaf stage of growth.

Johnsongrass/Bluegrass, Kentucky/Bromegrass, smooth/Canarygrass, reed/Orchardgrass/Ryegrass, perennial/Timothy/Wheatgrass, western – Apply 3 to 4 ½ pints of this product per acre as a broadcast spray or as a ¾ percent solution with hand-held equipment. Apply when target plants are actively growing and most have reached the boot-to-head stage of growth. When applied prior to the boot stage, less desirable control may be obtained. In the fall, apply before plants have turned brown.

Lantana – Apply this product as a ¾ to 1 percent solution with hand-held equipment. Apply to actively growing lantana at or beyond the bloom stage of growth. Use the higher application rate for plants that have reached the woody stage of growth.

Loosestrife, purple – Apply 4 pints of this product per acre as a broadcast spray or as a 1 to 1-½ percent solution using hand-held equipment. Treat when plants are actively growing at or beyond the bloom stage of growth. Best results are achieved when application is made during summer or fall months. Fall treatments must be applied before a killing frost.

Lotus, American – Apply 4 pints of this product per acre as a broadcast spray or as a ¾ percent solution with hand-held equipment. Treat when plants are actively growing at or beyond the bloom stage of growth. Best results are achieved when application is made during summer or fall months. Fall treatments must be applied before a killing frost. Repeat treatment may be necessary to control regrowth from underground parts and seeds.

Maidencane/Paragrass – Apply 6 pints of this product per acre as a broadcast spray or as a ¾ percent solution with hand-held equipment. Repeat treatments will be required, especially to vegetation partially submerged in water. Under these conditions, allow for regrowth to the 7 to 10-leaf stage prior to retreatment.

Milkweed, common – Apply 4 ½ pints of this product per acre as a broadcast spray or as a 1-½ percent solution with hand-held equipment. Apply when target plants are actively growing and most have reached the late bud-to-flower stage of growth.

Nutsedge: purple, yellow – Apply 4 ½ pints of this product per acre as a broadcast spray, or as a ¾ percent solution with hand-held equipment to control existing nutsedge plants and immature nutlets attached to treated plants. Apply when target plants are in flower or when new nutlets can be found at rhizome tips. Nutlets which have not germinated will not be controlled and may germinate following treatment. Repeat treatments will be required for long-term control.

Pampasgrass – Apply a 1-½ percent solution of this product with hand-held equipment when plants are actively growing.

Phragmites – For partial control of phragmites in Florida and the counties of other states bordering the Gulf of Mexico, apply 7 ½ pints per acre as a broadcast spray or apply a 1-½ percent solution with hand-held equipment. In other areas of the U.S., apply 4 to 6 pints per acre as a broadcast spray or apply a ¾ percent solution with hand-held equipment for partial control. For best results, treat during late summer or fall months when plants are actively growing and in full bloom. Due to the dense nature of the vegetation, which may prevent good spray coverage and uneven stages of growth, repeat treatments may be necessary to maintain control. Visual control symptoms will be slow to develop.

Quackgrass/Kikuyugrass/Muhly, wirestem – Apply 3 to 4 ½ pints of this product per acre as a broadcast spray or as a ¾ percent solution with hand-held equipment when most quackgrass or wirestem muhly is at least 8 inches in height (3 to 4-leaf stage of growth) and actively growing. Allow 3 or more days after application before tillage.

Reed, giant/Ice plant – For control of giant reed and ice plant, apply a 1-½ percent solution of this product with hand-held equipment when plants are actively growing. For giant reed, best results are obtained when applications are made in late summer or fall.

Spatterdock – Apply 6 pints of this product per acre as a broadcast spray or as a ¾ percent solution with hand-held equipment. Apply when most plants are in full bloom. For best results, apply during the summer or fall months.

Sweet potato, wild – Apply this product as a 1-½ percent solution using hand-held equipment. Apply to actively growing weeds that are at or beyond the bloom stage of growth. Repeat applications will be required. Allow the plant to reach the specified stage of growth before retreatment.

Thistle: Canada, artichoke – Apply 3 to 4 ½ pints of this product per acre as a broadcast spray or as a 1 ½ percent solution with hand-held equipment for Canada thistle. To control artichoke thistle, apply a 2 percent solution as a spray-to-wet application. Apply when target plants are actively growing and at or beyond the bud stage of growth.

Torpedograss – Apply 6 to 7 ½ pints of this product per acre as a broadcast spray or as a ¾ to 1 ½ percent solution with hand-held equipment to provide partial control of torpedograss. Use the lower rates under terrestrial conditions, and the higher rates under partially submerged or a floating mat condition. Repeat treatments will be required to maintain such control.

Tules, common – Apply this product as a 1-½ percent solution with hand-held equipment. Apply to actively growing plants at or beyond the seedhead stage of growth. After

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application, visual symptoms will be slow to appear and may not occur for 3 or more weeks.

Waterhyacinth – Apply 5 to 6 pints of this product per acre as a broadcast spray or apply a ¾ to 1 percent solution with hand-held equipment. Apply when target plants are actively growing and at or beyond the early bloom stage of growth. After application, visual symptoms may require 3 or more weeks to appear with complete necrosis and decomposition usually occurring within 60 to 90 days. Use the higher rates when more rapid visual effects are desired.

Waterlettuce – For control, apply a ¾ to 1 percent solution of this product with hand-held equipment to actively growing plants. Use higher rates where infestations are heavy. Best results are obtained from mid-summer through winter applications. Spring applications may require retreatment.

Waterprimrose – Apply this product as a ¾ percent solution using hand-held equipment. Apply to plants that are actively growing at or beyond the bloom stage of growth, but before fall color changes occur. Thorough coverage is necessary for best control.

Other perennials listed on this label – Apply 4 ½ to 7 ½ pints of this product per acre as a broadcast spray or as a ¾ to 1 ½ percent solution with hand-held equipment. Apply when target plants are actively growing and most have reached early head or early bud stage of growth.

WOODY BRUSH AND TREES

When applied as specified under the conditions described, this product plus surfactant CONTROLS or PARTIALLY CONTROLS the following woody brush plants and trees:

Alder
Alnus spp.

Ash*
Fraxinus spp.
Aspen, quaking
Populus tremuloides
Bearclover, Bearmat
Chamaebatia foliolosa
Birch
Betula spp.
Blackberry
Rubus spp.
Broom:
French
Cytisus monspessulanus
Cherry:
Bitter
Prunus emarginata
Black
Prunus serotina
Pin
Prunus pensylvanica
Coyote brush
Baccharis consanguinea
Creeper, Virginia*
Parthenocissus quinquefolia
Dewberry
Rubus trivialis
Dogwood
Cornus spp.
Elderberry
Sambucus spp.
Elm*
Ulmus spp.
Eucalyptus, bluegum
Eucalyptus globules
Hasardia*
Haplopappus squamosus
Hawthorn
Crataegus spp.
Hazel
Corylus spp.
Hickory
Carya spp.
Holly, Florida; Brazilian Peppertree
Schinus terebinthifolius
Honeysuckle
Lonicera spp.
Hornbeam, American
Carpinus caroliniana
Kudzu
Pueraria lobata
Locust, black*
Robinia pseudoacacia
Manzanita
Arctostaphylos spp.
Sage: black, white
Salvia spp.
Sagebrush, California
Artemisia californica
Salmonberry
Rubus spectabilis
Salt cedar*
Tamarix spp.

Broom:
Scotch
Cytisus scoparius
Buckwheat, California*
Eriogonum fasciculatum
Cascara*
Rhamnus purshiana
Catsclaw*
Acacia greggi
Ceanothus
Ceanothus spp.
Chamise
Adenostoma fasciculatum

Maple:
Red**
Acer rubrum
Sugar
Acer saccharum
Vine*
Acer circinatum
Monkey Flower*
Mimulus guttatus
Oak:
Black*
Quercus velutina
Northern pine
Quercus palustris
Post
Quercus stellata
Red
Quercus rubra
Southern red
Quercus falcata
White*
Quercus alba
Persimmon*
Diospyros spp.
Poison Ivy
Rhus radicans

Poison Oak
Rhus toxicodendron
Poplar, yellow*
Liriodendron tulipifera
Prunus
Prunus spp.
Raspberry
Rubus spp.
Redbud, eastern
Cercis canadensis
Rose, multiflora
Rosa multiflora
Russian-olive
Elaeagnus angustifolia
Sweet gum
Liquidambar styraciflua
Swordfern*
Polystichum munitum
Tallowtree, Chinese
Sapium sebiferum
Thimbleberry
Rubus parviflorus
Tobacco, tree*
Nicotiana glauca

Saltbush, Sea myrtle
Baccharis halimifolia
Sassafras
Sassafras albidum
Sourwood*
Oxydendrum arboreum
Sumac:
Poison*
Rhus vernix
Smooth*
Rhus glabra
Winged*
Rhus copallina

Trumpetcreeper
Campsis radicans
Waxmyrtle, southern*
Myrica cerifera
Willow
Salix spp.

*Partial Control
**See below for control or partial control instruction.

NOTE: If brush has been mowed or tilled or trees have been cut, do not treat until regrowth has reached the specified stage of growth.

Apply the specified rate of this product plus 2 or more quarts of a nonionic surfactant per 100 gallons of spray solution when plants are actively growing and, unless otherwise directed, after full-leaf expansion. Use the higher rate for larger plants and/or dense areas of growth. On vines, use the higher rate for plants that have reached the woody stage of growth. Best results are obtained when application is made in late summer or fall after fruit formation.

In arid areas, best results are obtained when application is made in the spring or early summer when brush species are at high moisture content and are flowering. Ensure thorough coverage when using hand-held equipment. Symptoms may not appear prior to frost or senescence with fall treatment.

Allow 7 or more days after application before tillage, mowing or removal. Repeat treatments may be necessary to control plants regenerating from underground parts or seed. Some autumn colors on undesirable deciduous species are acceptable provided no major leaf drop has occurred. Reduced performance may result if fall treatments are made following a frost.

See the "Directions for Use" and "Mixing and Application Instructions" sections in this label for labeled use and specific application instructions.

Applied as a 5 to 8 percent solution as a directed application as described in the "Hand-Held and High-Volume Equipment" section, this product will control or partially control all species listed in this section of this label. Use the higher rate of application for dense stands and larger woody brush and trees.

Apply the product as follows to control or partially control the following woody brush and trees.

Alder/Blackberry/Dewberry/Honeysuckle/Oak, Post/Raspberry – For control, apply 4 ½ to 8 pints per acre as a broadcast spray or as a ¾ to 1 ¼ percent solution with hand-held equipment.

Aspen, Quaking/Hawthorn/Trumpetcreeper – For control, apply 3 to 4 ¼ pints of this product per acre as a broadcast spray or as a ¾ to 1 ¼ percent solution with hand-held equipment.

Birch/Elderberry/Hazel/Salmonberry/Thimbleberry – For control, apply 3 pints per acre of this product as a broadcast spray or as a ¾ percent solution with hand-held equipment.

Broom: French, Scotch – For control, apply a 1 ¼ to 1 ½ percent solution with hand-held equipment.

Buckwheat, California/Hasardia/Monkey Flower/Tobacco, Tree – For partial control of these species, apply a ¾ to 1 ½ percent solution of this product as a foliar spray with hand-held equipment. Thorough coverage of foliage is necessary for best results.

Catsclaw – For partial control, apply a 1 ¼ to 1 ½ percent solution with hand-held equipment when at least 50 percent of the new leaves are fully developed.

Cherry: Bitter, Black, Pin/Oak, Southern Red/Sweet Gum/Prunus – For control, apply 3 to 7 ½ pints of this product per acre as a broadcast spray or as a 1 to 1 ½ percent solution with hand-held equipment.

Coyote brush – For control, apply a 1 ¼ to 1 ½ percent solution with hand-held equipment when at least 50 percent of the new leaves are fully developed.

Dogwood/Hickory/Salt cedar – For partial control, apply a 1 to 2 percent solution of this product with hand-held equipment or 6 to 7 ½ pints per acre as a broadcast spray.

Eucalyptus, bluegum – For control of eucalyptus resprouts, apply a 1-½ percent solution of this product with hand-held equipment when resprouts are 6 to 12-feet tall. Ensure complete coverage. Apply when plants are actively growing. Avoid application to drought-stressed plants.

Holly, Florida (Brazilian peppertree (*Schinus terebinthifolius*)) – For partial control, apply this product as a 1-½ percent solution with hand-held equipment.

Alternatively, when applied as directed, this product with QuikSorb™ Penetrant will control or partially control Brazilian peppertree in areas such as dry drainage ditches and canals, wildlife habitat restoration and management areas, roadsides, railroads, fence rows, and similar non-crop areas.

The recommended application technique is directed spot treatment of Brazilian peppertree

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using hand-held equipment only. Apply this product using backpack, hand-held, handgun or similar equipment. Use flat fan, cone, or similar nozzles that will provide effective spray coverage of target vegetation. Do not apply to Brazilian peppertree growing in water. The use of aerial, boom-type or other broadcast spray equipment is not recommended. These applications are more effective on small brush less than 15 feet in height or 3-inch stem diameter.

Basal and Selective Stem Application:
Apply a solution consisting of 25% v/v of this product and 75% v/v of QuikSorb™ penetrant. Completely cover the lower 18-24 inches of the brush stems or trunks. For larger stems over 3 inches in diameter, treat up to 48 inches or higher from the ground level. For better control of large trees, apply spray solution directly to upper foliage of plant canopy. Spray coverage should be uniform, covering at least 40 to 60% of the upper foliage and stems. Application is best when made to young, actively growing stems, branches and foliage. Spray-to-wet but not to the point of run-off.

Read and carefully observe the label claims, cautionary statements, and all information on the labels of all products used in this tank mixture.

Kudzu – For control, apply 6 pints of this product per acre as a broadcast spray or as a 1-½ percent solution with hand-held equipment. Repeat applications will be required to maintain control.

Maple, Red – For control, apply as a ¾ to 1 ¼ percent solution with hand-held equipment when leaves are fully developed. For partial control, apply 2 to 7 ½ pints of this product per acre as a broadcast spray.

Maple, Sugar/Oak: Northern Pin, Red – For control, apply as a ¾ to 1 ¼ percent solution with hand-held equipment when at least 50 percent of the new leaves are fully developed.

Poison Ivy/Poison Oak – For control, apply 6 to 7 ½ pints of this product per acre as a broadcast spray or as a 1-½ percent solution with hand-held equipment. Repeat applications may be required to maintain control. Fall treatments must be applied before leaves lose green color.

Rose, multiflora – For control, apply 3 pints of this product per acre as a broadcast spray or as a ¾ percent solution of this product as a foliar spray with hand-held equipment. Thorough coverage of foliage is necessary for best results.

Sage, black/Sagebrush, California/Chamise/Tallowtree, Chinese – For control of these species apply as a ¾ percent solution of this product as a foliar spray with hand-held equipment. Thorough coverage of foliage is necessary for best results.

Saltbush, Sea myrtle – For control, apply this product as a 1 percent solution with hand-held equipment.

Waxmyrtle, southern – For partial control, apply this product as a 1-½ percent solution with hand-held equipment.

Willow – For control, apply 4 ½ pints of this product per acre as a broadcast spray or as a ¾ percent solution with hand-held equipment.

Other woody brush and trees listed in this label – For partial control, apply 3 to 7 ½ pints of this product per acre as a broadcast spray or as a ¾ to 1 ½ percent solution with hand-held equipment.

INDUSTRIAL, RECREATIONAL, PUBLIC AREAS, AQUATIC AND TERRESTRIAL SITES

When applied as directed and under the conditions described in the "Weeds Controlled" section in this label, this product will control or partially control labeled weeds growing in the following industrial, recreational, public areas, aquatic and terrestrial sites.

NOTE: When applying this product to water, only use surfactants known to be non-toxic to aquatic species.

Aquatic Sites – This product may be applied to emerged weeds in all bodies of fresh and brackish water which may be flowing, nonflowing or transient. This includes lakes, rivers, streams, ponds, estuaries, rice levees, seeps, irrigation and drainage ditches, canals, reservoirs, wastewater treatment facilities, wildlife habitat restoration and management areas.

If aquatic sites are present in the noncrop area and are part of the intended treatment, read and observe the following directions:

This product does not control plants which are completely submerged or have a majority of their foliage under water.

There is no restriction on the use of treated water for irrigation, recreation or domestic purposes.

Consult local state fish and game agency and water control authorities before applying this product to public water. Permits may be required to treat such water.

NOTE: Do not apply this product directly to water within ½ mile up-stream of an active potable water intake in flowing water (i.e., river stream, etc.) or within ½ mile of an active potable water intake in a standing body of water such as lake, pond or reservoir. To make aquatic applications around and within ½ mile of active potable water intakes, the water intake must be turned off for a minimum period of 48 hours after application. The water intake may be turned on prior to 48 hours if the glyphosate level in the intake water is below 0.7 parts per million as determined by laboratory analysis. These aquatic applications may be made ONLY in those cases where there are alternative water sources or holding ponds which would permit the turning off of an active potable water intake for a minimum period of 48 hours after the applications. This restriction does not apply to intermittent inadvertent overspray of water in terrestrial use sites.

For treatments after drawdown of water or in dry ditches, allow 7 or more days after treatment before reintroduction of water to achieve maximum weed control. Apply this product within 1 day after drawdown to ensure application to actively growing weeds.

Floating mats of vegetation may require retreatment. Avoid wash-off of sprayed foliage by spray boat or recreational boat backwash or by rainfall within 6 hours of application. Do not re-treat within 24 hours following the initial treatment.

Applications made to moving bodies of water must be made while traveling upstream to prevent concentration of this herbicide in water. When making any bankside applications, do not overlap more than 1 foot into open water. Do not spray in bodies of water where weeds do not exist. The maximum application rate of 7 ½ pints per acre must not be exceeded in any single broadcast application that is being made over water.

When emerged infestations require treatment of the total surface area of impounded water, treating the area in strips may avoid oxygen depletion due to decaying vegetation. Oxygen depletion may result in fish kill.

Other Noncrop-Type Sites – This product may be used to control the listed weeds in terrestrial noncrop sites and/or in aquatic sites within these areas.
Airports
Golf Courses
Habitat Restoration & Management Areas
Highways & Roadsides
Industrial Plant Sites
Lumberyards
Parking Areas
Parks
Petroleum Tank Farms
Pipeline, Power, Telephone & Utility Rights-of-Way
Pumping Installations
Railroads
Schools
Storage Areas
Similar Sites

TANK MIXTURES

NOTE: Read and carefully observe the label directions, cautionary statements and all information on the labels of products used in these tank mixtures before proceeding with these directions. Additional precautionary statements are made in these labels. Use according to the most restrictive label directions for each product in these mixtures. When used in combination as recommended by Alligare, LLC, the liability of Alligare, LLC shall in no manner extend to any damage, loss or injury not directly caused by the inclusion of the Alligare product in such combination use.

GLYPHOSATE 5.4 plus GARLON® 4 or Alligare Triclopyr 4

For burndown and partial control or suppression of woody brush and weeds in industrial sites:

When applied as directed for "Noncrop Uses" under the conditions described, this product, and an approved surfactant plus Garlon® 4 or Alligare Triclopyr 4, provides burndown and partial control or suppression of woody brush and vegetation labeled for this product. Use this tank mixture on rights-of-way (utility, railroad, highway, pipeline), fencerows, roadsides, nonirrigation ditchbanks, wasteland and similar noncrop or industrial sites.

Hand-Held and High-Volume Applications:
Use 3 to 6 pints of Glyphosate 5.4 herbicide and 2 or more quarts of an approved surfactant, plus 1 to 2 quarts of Garlon® 4 or Alligare Triclopyr 4 per 100 gallons of spray solution and apply to foliage of actively growing woody brush and weeds. Applications should be made on a spray to wet basis. Spray coverage should be uniform and complete. Do not spray to point of runoff.

Broadcast Applications with Ground Equipment:
Use 3 to 6 pints of Glyphosate 5.4 plus ½ to 2 quarts of Garlon® 4 or Alligare Triclopyr 4 in sufficient water and make 20 to 100 gallons of total spray per acre. Use 2 to 4 quarts of an approved surfactant per 100 gallons of spray solution with this product.

Aerial Application (Helicopter Only):
Use 3 to 6 pints of Glyphosate 5.4 plus surfactant plus 1 to 2 quarts of Garlon® 4 or Alligare Triclopyr 4 and apply in a total spray volume of 10 to 20 gallons per acre. Aerial sprays should be applied using suitable drift control. Use 2 to 4 quarts of an approved surfactant per 100 gallons of spray solution with this product.

Apply when plants are actively growing and after full leaf expansion of woody brush. Use the higher rates of these products where vegetation is heavy or dense, or where hard-to-control brush species are prevalent. Repeat applications may be necessary to maintain control and to suppress areas where canopying of vegetation prevents good spray coverage and penetrations.

Drift control additives may be used. When a drift control additive is used, read and carefully observe the cautionary statements and all other information appearing on the additive label.

GLYPHOSATE 5.4 plus ARSENAL® 2 WSL

When applied as directed, this tank mixture will control or partially control labeled woody brush, trees and herbaceous weeds in noncrop areas. In addition to the weeds listed on this label, this tank mixture will control arrowweed, salt cedar and yaupon.

Hand-Held and High-Volume Applications:
Use 6 to 12 pints of Glyphosate 5.4 plus ½ to 4 pints Arsenal® 2 WSL per 100 gallons of spray solution. Add 2 to 4 quarts of nonionic surfactant per 100 gallons of spray solution. Apply to foliage of actively growing vegetation. Applications should be made on a spray-to-

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wet basis. Spray coverage should be uniform and complete. Do not spray to the point of runoff.

Broadcast Applications with Ground Equipment:
Use 3 to 7 ½ pints of Glyphosate 5.4 plus ½ to 4 pints Arsenal® 2 WSL in sufficient water to apply in a total spray volume of 10 to 20 gallons per acre. Add 2 to 4 quarts of nonionic surfactant per 100 gallons of spray solution. Apply to foliage of actively growing vegetation.

Apply to woody brush and trees after full leaf expansion until initiation of fall color.

Avoid direct applications to any body of water. Do not apply on ditches used to transport irrigation water.

GLYPHOSATE 5.4 plus 2,4-D AMINE

When applied as a tank mixture, this product will control the annual weeds listed in this label booklet. This tank mixture will control or partially control the listed perennial weeds, woody brush and trees.

Use 1 ½ to 2 ½ pints of this product plus 2 to 4 pints of 2,4-D amine (4 lb ai per gallon, labeled for aquatic sites) for control of annual weeds.

Use 3 to 7 ½ pints of this product plus 2 to 4 quarts of 2,4-D amine (4 lb ai per gallon, labeled for aquatic sites) for control or partial control of perennial weeds, woody brush and trees. The tank mixture may be used on alligatorweed, smartweed, waterprimrose, waxmyrtle and other labeled weeds.

When using this product, mix 2 or more quarts of a nonionic surfactant per 100 gallons of spray solution. Always read and follow the surfactant manufacturer's label recommendations.

Always predetermine the compatibility of the tank mixtures of this herbicide and 2,4-D amine by mixing small proportional quantities in advance.

Mix in the following sequence: Fill sprayer tank one-half full with water, add Glyphosate 5.4, then 2,4-D amine and finally surfactant. Fill sprayer tank to final volume with water.

NOTE: DO NOT MIX GLYPHOSATE 5.4 AMINE CONCENTRATES WITHOUT WATER CARRIER. DO NOT MIX GLYPHOSATE 5.4 AND 2,4-D AMINE IN BYPASS INJECTOR-TYPE SPRAY EQUIPMENT.

WETLAND SITES

This product may be used in and around water (aquatic areas) and wetlands found in forestry and in power, telephone and pipeline rights-of-way sites, including where these sites are adjacent to or surrounding domestic water supply reservoirs, supply streams, lakes and ponds. Read and observe the following before making applications in and around water.

Consult local public water control authorities before applying this product in and around public water.

Permits may be required to treat such areas.

There is no restriction on the use of treated water for irrigation, recreation or domestic purposes.

Restriction: Do not apply this product directly to water within ½ mile up-stream of an active potable water intake in flowing water (i.e., river, stream, etc.) or within ½ mile of an active potable water intake in a standing body of water such as lake, pond or reservoir. To make aquatic applications around and within ½ mile of active potable water intakes, the water intake must be turned off for a minimum period of 48 hours after the application. These aquatic applications may be made ONLY in those cases where there are alternative water sources or holding ponds which would permit the turning off of an active potable water intake for a minimum period of 48 hours after the applications. This restriction does not apply to intermittent inadvertent overspray of water in terrestrial use sites.

Do not spray open bodies of water where woody brush, trees and herbaceous weeds do not exist. The maximum application rate of 3.75 quarts per acre must not be exceeded in a single over-water broadcast application except as follows, where any labeled rate may be applied:

- Stream crossings in utility rights-of-way.
- Where applications will result in less than 20 percent of the total water area being treated.

WILDLIFE HABITAT RESTORATION AND MANAGEMENT AREAS

This product can be used for the restoration and/or maintenance of native habitat and in wildlife management areas.

Habitat Restoration and Maintenance – When applied as directed, exotic and other undesirable vegetation may be controlled in habitat management areas. Applications may be made to allow recovery of native plant species, to open up water to attract waterfowl, and for similar broad-spectrum vegetation control requirements in habitat management areas. Spot treatments may be made to selectively remove unwanted plants for habitat enhancement. For spot treatments, care should be exercised to keep spray off of desirable plants.

Wildlife Food Plots – This product may be used as a site preparation treatment prior to planting wildlife food plots. Apply as directed to control vegetation in the plot area. Any wildlife food species may be planted after applying this product, or native species may be allowed to reinfest the area. If tillage is needed to prepare a seedbed, wait 7 days after applying this product before tilling to allow for maximum effectiveness.

WIPER APPLICATIONS

For wick or wiper applications, mix 1 gallon of this product with 2 gallons of clean water to make a 33 percent solution. Addition of a nonionic surfactant at a rate of 10 percent by volume of total herbicide solution is recommended.

Wiper applications can be used to control or suppress annual and perennial weeds listed on this label. In heavy weed stands, a double application in opposite directions may improve results. See the "Weeds Controlled" section in this label for timing, growth stage and other instructions for achieving optimum results.

Bromegrass (smooth), Canarygrass (reed), Dock (curly), Mullein (common), Quackgrass and Canada thistle: This product may be applied through a wiper applicator after dilution with water and thorough mixing to these weeds growing in or along aquatic sites.

Wiper applicators, including wick devices, apply the herbicide solution by rubbing the weed with an absorbent material containing the herbicide solution.

Contact of the herbicide solution with desirable vegetation may result in damage or destruction. Applicators used above desired vegetation should be adjusted so that the lowest wiper contact point is at least two (2) inches above this vegetation. Application made above desirable vegetation should be made when the weeds are a minimum of six (6) inches above this vegetation.

Best results may be attained when more of the weed is exposed to the herbicide solution. Weeds not contacted (wiped) with the herbicide solution will not be affected. This may occur in dense clumps, severe infestations, or when the height of the weed varies so that not all weeds are contacted.

In severe infestations, reduce equipment ground speed to ensure that adequate amounts of this herbicide solution are wiped onto the weeds. When wiping moderate weed infestations an adequate flow rate should be 3 to 4 quarts of herbicide solution per mile of canal (wiping 4 foot band). For best results, do not allow wiper applicator to contact water.

Note:
- Maintain wiper equipment in good operating condition.
- Adjust height of wiper applicator to ensure adequate contact with weeds.
- Keep wiping surfaces clean.
- Keep wiper material at proper degree of saturation with herbicide solution.
- DO NOT use wiper equipment when weeds are wet or under conditions where wave action or other water immersions will wash the solution off the weed.
- DO NOT operate equipment at ground speeds of greater than 5 MPH. As weed density increases, reduce equipment ground speed to ensure good coverage of weeds.
- Be aware that on sloping ground, the herbicide solution may migrate, causing dripping on the lower end and drying on the upper end of the wiper applicator.
- Variation in equipment design may affect weed control. With wiper applicators, the wiping material and its orientation must allow delivery of sufficient quantities of the specified herbicide solution directly to the weeds.
- Mix only the amount of solution to be used during a one day period as reduced activity may result from use of leftover solutions.

Mixing Instructions:
Mix 2 ½ gallons of Glyphosate 5.4 herbicide with 7 ½ gallons of water to prepare a 25 percent solution. Add 1 quart of an approved surfactant per 10 gallons of herbicide solution (2 ½ percent surfactant by total volume). Apply this solution to weeds listed above.

CUT STUMP APPLICATION

Woody vegetation may be controlled by treating freshly cut stumps of trees and resprouts with this product. Apply this product using suitable equipment to ensure coverage of the entire cambium. Cut vegetation close to the soil surface. Apply a 50 to 100 percent solution of this product to freshly cut surface immediately after cutting. Delay in applying this product may result in reduced performance. For best results, trees should be cut during periods of active growth and full leaf expansion.

When used according to directions for cut stump application, this product will CONTROL, PARTIALLY CONTROL, or SUPPRESS most woody brush and tree species, some of which are listed below:

Alder
Alnus spp.
Coyote brush*
Baccharis consanguinea
Dogwood*
Cornus spp.
Eucalyptus
Eucalyptus spp.
Hickory*
Carya spp.
Madrone
Arbutus menziesii
Maple*
Acer spp.
Oak
Quercus spp.
Poplar*
Populus spp.
Reed, giant
Arundo donax
Salt cedar
Tamarix spp.
Sweet gum*
Liquidambar styraciflua
Sycamore*
Platanus occidentalis
Tan oak
Lithocarpus densiflorus
Willow
Salix spp.

*This product is not approved for this use on these species in the state of California.

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INJECTION AND FRILL APPLICATIONS

Woody vegetation may be controlled by injection or frill application of this product. Apply this product using suitable equipment which must penetrate into living tissue. Apply the equivalent of 1 mL of this product per 2 to 3 inches of trunk diameter. This is best achieved by applying 25 to 100 percent concentration of this product either to a continuous frill around the tree or as cuts evenly spaced around the tree below all branches. As tree diameter increases in size, better results are achieved by applying dilute material to a continuous frill or more closely spaced cuttings. Avoid application techniques that allow runoff to occur from frill or cut areas in species that exude sap freely after frills or cutting. In species such as these, make frill or cut at an oblique angle so as to produce a cupping effect and use undiluted material. For best results, applications should be made during periods of active growth and full leaf expansion.

This treatment WILL CONTROL the following woody species:
Oak
Quercus spp.
Poplar
Populus spp.
Sweet gum
Liquidambar styraciflua
Sycamore
Platanus occidentalis
This treatment WILL SUPPRESS the following woody species:
Black gum*
Nyssa sylvatica
Dogwood
Cornus spp.
Hickory
Carya spp.
Maple, red
Acer rubrum
*This product is not approved for this use on these species in the state of California.

INDUSTRIAL TURF

Apply 3 to 5 fluid ounces of this product per acre alone or in a recommended tank mixture. Use spray volumes of 10 to 40 gallons per acre.

When using this product, mix 2 quarts of a nonionic surfactant per 100 gallons of spray solution.

This product can be used for growth and seedhead suppression of:
Tall Fescue
Smooth Brome

For best results, apply this product in a recommended tank mixture to actively growing turfgrasses after greenup in the spring of the year. For suppression of seedheads, applications must be made before boot-to-seedhead stage of development. Applications made from seedhead emergence until maturity may result in turf discoloration or injury.

After mowing or removal of seedheads, this product in a recommended tank mixture may also be used to suppress the growth of certain turfgrasses. Allow turf to recover from stress caused by heat, drought or mowing before making applications. Applications made to turf under stress may increase the potential for discoloration or injury.

Annual Grasses

For growth suppression of some annual grasses such as annual ryegrass, wild barley and wild oats, apply 3 to 4 ounces of this product in 10 to 40 gallons of spray solution per acre. Applications should be made when annual grasses are actively growing and before the seedheads are in the boot stage of development. Treatments made after seedhead emergence may cause injury to the desired grasses.

TANK MIXTURES FOR INDUSTRIAL TURFGRASSES

For the following tank mixtures, consult each product label for weeds controlled and the proper stage of application. Do not treat turf under stress.

Tank Mixtures plus 2,4-D Amine

For additional weed control benefits, up to 1 quart per acre of 2,4-D amine may be added to the following tank mixtures.

TALL FESCUE

Glyphosate 5.4 plus Telar® or Alligare Chlorsulfuron 75

For suppression of tall fescue growth and seedheads, and control or partial control of some annual weeds, apply this tank mixture after greenup and prior to boot-to-seedhead stage of development. Use up to ½ ounce of Telar® or Alligare Chlorsulfuron 75 per acre.

This tank mixture can also be applied after mowing or removal of tall fescue seedheads for turf growth suppression and control or partial control of some annual weeds. Make only one of the above applications per growing season.

Glyphosate 5.4 plus Oust® or Alligare SFM 75

For suppression of tall fescue growth and seedheads, and control or partial control of some annual weeds, apply this tank mixture after greenup and prior to boot-to-seedhead stage of development. Use up to ¼ ounce of Oust® or Alligare SFM 75 per acre.

Glyphosate 5.4 plus Escort® or Alligare MSM 60

This tank mixture can be applied after mowing or removal of tall fescue seedheads for turf growth suppression and control or partial control of some annual weeds. Use up to 1/3 ounce of Escort® or Alligare MSM 60 per acre.

SMOOTH BROME

Glyphosate 5.4 plus Oust® or Alligare SFM 75

For suppression of smooth brome growth and seedheads and control or partial control of some annual weeds, apply this tank mixture after greenup and prior to boot-to-seedhead stage of development. Use up to ¼ ounce of Oust® or Alligare SFM 75 per acre.

RELEASE OF BERMUDAGRASS OR BAHIAGRASS ON NONCROP SITES

RELEASE OF DORMANT BERMUDAGRASS AND BAHIAGRASS

When applied as directed, this product will provide control or suppression of many winter annual weeds and tall fescue for effective release of dormant bermudagrass or bahiagrass. Make applications to dormant bermudagrass or bahiagrass.

For best results on winter annuals, treat when weeds are in an early growth stage (below 6 inches in height) after most have germinated. For best results on tall fescue, treat when fescue is in or beyond the 4 to 6-leaf stage.

WEEDS CONTROLLED

Rates for control or suppression of winter annuals and tall fescue are listed below. Apply the listed rates of this product in 10 to 25 gallons of water per acre plus 2 quarts nonionic surfactant per 100 gallons of total spray volume.

WEEDS CONTROLLED OR SUPPRESSED

NOTE: C = Control
S = Suppression

	Glyphosate 5.4 oz/acre					
WEED SPECIES	**6**	**9**	**12**	**18**	**24**	**48**
Barley, little *Hordeum pusillum*	S	C	C	C	C	C
Bedstraw, catchweed *Galium aparine*	S	C	C	C	C	C
Bluegrass, annual *Poa annua*	S	C	C	C	C	C
Chervil *Chaerophyllum tainturieri*	S	C	C	C	C	C
Chickweed, common *Stellaria media*	S	C	C	C	C	C
Clover, crimson *Trifolium incarnatum*	•	S	S	C	C	C
Clover, large hop *Trifolium campestre*	•	S	S	C	C	C
Speedwell, corn *Veronica arvensis*	S	C	C	C	C	C
Fescue, tall *Festuca arundinacea*	•	•	•	•	S	S
Geranium, Carolina *Geranium carolinianum*	•	•	S	S	C	C
Henbit *Lamium amplexicaule*	•	S	C	C	C	C
Ryegrass, Italian *Lolium multiflorum*	•	•	S	C	C	C
Vetch, common *Vicia sativa*	•	•	S	C	C	C

*These rates apply only to sites where an established competitive turf is present.

RELEASE OF ACTIVELY GROWING BERMUDAGRASS

NOTE: USE ONLY ON SITES WHERE BAHIAGRASS OR BERMUDAGRASS ARE DESIRED FOR GROUND COVER AND SOME TEMPORARY INJURY OR YELLOWING OF THE GRASSES CAN BE TOLERATED.

When applied as directed, this product will aid in the release of bermudagrass by providing control of annual species listed in the "Weeds Controlled" section in this label, and suppression or partial control of certain perennial weeds.

For control or suppression of those annual species listed in this label, use ¾ to 2 ¼ pints of this product as a broadcast spray in 10 to 25 gallons of spray solution per acre, plus 2 quarts of a nonionic surfactant per 100 gallons of total spray volume. Use the lower rate when treating annual weeds below 6 inches in height (or length of runner in annual vines). Use the higher rate as size of plants increases or as they approach flower or seedhead formation.

Use the higher rate for partial control or longer-term suppression of the following perennial species. Use lower rates for shorter-term suppression of growth.

Bahiagrass
Dallisgrass
Fescue (tall)
Johnsongrass**
Trumpetcreeper*
Vaseygrass
*Suppression at the higher rate only.
**Johnsongrass is controlled at the higher rate.

Use only on well-established bermudagrass. Bermudagrass injury may result from the treatment but regrowth will occur under moist conditions. Do not make repeat applications in the same season since severe injury may result.

BAHIAGRASS SEEDHEAD AND VEGETATIVE SUPPRESSION

When applied as directed in the "Noncrop Sites" section in this label, this product will provide significant inhibition of seedhead emergence and will suppress vegetative growth for a period of approximately 45 days with single applications and approximately 120 days with sequential applications.

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Apply this product 1 to 2 weeks after full green-up of bahiagrass or after the bahiagrass has been mowed to a uniform height of 3 to 4 inches. Applications must be made prior to seedhead emergence. Apply 5 fluid ounces per acre of this product, plus 2 quarts of an approved nonionic surfactant per 100 gallons of total spray volume in 10 to 25 gallons of water per acre.

Sequential applications of this product plus nonionic surfactant may be made at approximately 45-day intervals to extend the period of seedhead and vegetative growth suppression. For continued vegetative growth suppression, sequential applications must be made prior to seedhead emergence.

Apply no more than 2 sequential applications per year. As a first sequential application, apply 3 fluid ounces of this product per acre plus nonionic surfactant. A second sequential application of 2 to 3 fluid ounces per acre plus nonionic surfactant may be made approximately 45 days after the last application.

ANNUAL GRASS GROWTH SUPPRESSION

For growth suppression of some annual grasses, such as annual ryegrass, wild barley and wild oats growing in coarse turf on roadsides or other industrial areas, apply 3 to 4 ounces of this product in 10 to 40 gallons of spray solution per acre. Mix 2 quarts of a nonionic surfactant per 100 gallons of spray solution. Applications should be made when annual grasses are actively growing and before the seedheads are in the boot stage of development. Treatments made after seedhead emergence may cause injury to the desired grasses.

AGRICULTURAL USES

USE INFORMATION

Product Description: This product is a postemergent, systemic herbicide with no soil residual activity. It is generally non-selective and gives broad-spectrum control of many annual weeds, perennial weeds, woody brush and trees. It is formulated as a water-soluble liquid. It may be applied through most standard industrial or field-type sprayers after dilution and thorough mixing with water or other carriers according to label instructions.

Surfactant may be included in the tank mixture if desired and should only be done so based on field experience or further instructions from your local extension service, crop consultant or field representative.

Time to Symptoms: This product moves through the plant from the point of foliage contact to and into the root system. Visible effects on most annual weeds occur within 2 to 4 days, but on most perennial weeds may not occur for 7 days or more. Extremely cool or cloudy weather following treatment may slow activity of this product and delay development of visual symptoms. Visible effects are a gradual wilting and yellowing of the plant which advances to complete browning of aboveground growth and deterioration of underground plant parts.

Stage of Weeds: Annual weeds are easiest to control when they are small. Best control of most perennial weeds is obtained when treatment is made at late growth stages approaching maturity. Refer to the annual, perennial, woody brush and trees rate tables for recommendations for specific weeds.

Always use the higher rate of this product per acre within the specified range when weed growth is heavy or dense or weeds are growing in an undisturbed (non-cultivated) area.

Do not treat weeds under poor growing conditions such as drought stress, disease or insect damage, as reduced weed control may result. Reduced results may also occur when treating weeds heavily covered with dust.

Cultural Considerations: Reduced control may result when applications are made to annual or perennial weeds that have been mowed, grazed, or cut, and have not been allowed to regrow to the specified stage for treatment.

Rainfastness: Heavy rainfall soon after application may wash this product off of the foliage and a repeat application may be required for adequate control.

Spray Coverage: For best results, spray coverage should be uniform and complete. Do not spray weed foliage to the point of runoff.

Mode of Action: The active ingredient in this product inhibits an enzyme found only in plants that is essential to formation of specific amino acids.

No Soil Activity: Weeds must be emerged at the time of application to be controlled by this product. Weeds germinating from seed after application will not be controlled. Unemerged plants arising from unattached underground rhizomes or root stocks of perennials will not be affected by the herbicide and will continue to grow.

When this product comes in contact with soil it is bound to soil particles. Under specified use situations, once this product is bound to soil particles, it is not available for plant uptake and will not harm off-site vegetation where roots grow into the treated area or if the soil is transported off-site. The strong affinity of this product to soil particles prevents this product from leaching out of the soil profile and entering ground water.

Biological Degradation: Degradation of this product is primarily a biological process carried out by soil microbes.

Volatility: Glyphosate 5.4 is non-volatile. Therefore, it cannot move as a vapor after application to affect nearby vegetation.

Toxicology Testing: Exposure to workers and other applicators generally is expected to pose minimal risks based on results of short-term toxicity studies. Glyphosate has been thoroughly tested and determined not to cause cancer or other adverse long-term health effects.

Tank Mixing: This product does not provide residual weed control. For subsequent residual weed control, follow a label-approved herbicide program. Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used. Use according to the most restrictive label directions for each product in the mixture.

Buyer and all users are responsible for all loss or damage in connection with the use or handling of mixtures of this product with herbicides or other materials that are not expressly specified in this label. Mixing this product with herbicides or other materials not specified on this label may result in reduced performance.

Annual Maximum Use Rate: Except as otherwise specified in a crop section of this label, the combined total of all treatments must not exceed 6 quarts of this product per acre per year.

For non-agricultural uses, the combined total of all treatments must not exceed 8 quarts of this product per acre per year.

ATTENTION

AVOID CONTACT OF HERBICIDE WITH FOLIAGE, GREEN STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES, BECAUSE SEVERE INJURY OR DESTRUCTION MAY RESULT.

AVOID DRIFT. EXTREME CARE MUST BE USED WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS.

Do not allow the herbicide solution to mist, drip, drift or splash onto desirable vegetation since minute quantities of this product can cause severe damage or destruction to the crop, plants or other areas on which treatment was not intended. The likelihood of injury occurring from the use of this product increases when winds are gusty, as wind velocity increases, when wind direction is constantly changing or when there are other meteorological conditions that favor spray drift. When spraying, avoid combinations of pressure and nozzle type that will result in splatter or fine particles (mist) which are likely to drift. AVOID APPLYING AT EXCESSIVE SPEED OR PRESSURE.

NOTE: Use of this product in any manner not consistent with this label may result in injury to persons, animals or crops, or other unintended consequences. Keep container closed to prevent spills and contamination.

MIXING

Clean sprayer parts immediately after using this product by thoroughly flushing with water. NOTE: REDUCED RESULTS MAY OCCUR IF WATER CONTAINING SOIL IS USED, SUCH AS VISIBLY MUDDY WATER OR WATER FROM PONDS AND DITCHES THAT IS NOT CLEAR.

Mixing with Water

This product mixes readily with water. Mix spray solutions of this product as follows: Fill the mixing or spray tank with the required amount of water. Add the specified amount of this product near the end of the filling process and mix well. Use caution to avoid siphoning back into the carrier source. Use approved anti-back-siphoning devices where required by state or local regulations. During mixing and application, foaming of the spray solution may occur. To prevent or minimize foam, avoid the use of mechanical agitators, terminate by-pass and return lines at the bottom of the tank and, if needed, use an approved anti-foam or defoaming agent.

Surfactant

Surfactant may be included in the tank mixture if desired and should only be done so based on field experience or further recommendation of your local extension service, crop consultant or field representative.

Tank Mixing Procedure

Mix labeled tank mixtures of this product with water as follows:

1. Place a 20 to 35-mesh screen or wetting basket over filling port.
2. Through the screen, fill the spray tank one-half full with water and start agitation.
3. If a wettable powder is used, make a slurry with the water carrier, and add it SLOWLY through the screen into the tank. Continue agitation.
4. If a flowable formulation is used, premix one part flowable with one part water. Add diluted mixture SLOWLY through the screen into the tank. Continue agitation.
5. If an emulsifiable concentrate formulation is used, premix one part emulsifiable concentrate with two parts water. Add diluted mixture slowly through the screen into the tank. Continue agitation.
6. Continue filling the spray tank with water and add the required amount of this product near the end of the filling process.
7. When using nonionic surfactant add it to the spray tank before completing the filling process.
8. Add individual formulations to the spray tank as follows: wettable powder, flowable, emulsifiable concentrate, drift control additive and water soluble liquid followed by surfactant.

Maintain good agitation at all times until the contents of the tank are sprayed. If the spray mixture is allowed to settle, thorough agitation is required to resuspend the mixture before spraying is resumed.

Keep by-pass line on or near the bottom of the tank to minimize foaming. Screen size in nozzle or line strainers should be no finer than 50 mesh.

Always predetermine the compatibility of labeled tank mixtures of this product with water carrier by mixing small proportional quantities in advance.

Refer to the "Tank Mixing" section for additional precautions and directions.

GLYPHOSATE 5.4 Specimen Label

Mixing for Hand-held Sprayers

Prepare the desired volume of spray solution by mixing the amount of this product in water as shown in the following table:

Desired Volume	Amount of Glyphosate 5.4					
	3/4%	1%	1 1/2%	2%	5%	10%
1 Gal	1 fl oz	1 1/3 fl oz	2 fl oz	2 2/3 fl oz	6⅔ fl oz	13 fl oz
25 Gal	1 1/2 pts	1 qt	1½ qts	2 qts	5 qts	10 qts
100 Gal	3 qts	1 gal	1½ gals	2 gals	5 gals	10 gals

2 tablespoons = 1 fluid ounce

For use in knapsack sprayers, it is suggested that the specified amount of this product be mixed with water in a larger container. Fill sprayer with the mixed solution.

Ammonium Sulfate

The addition of 1 to 2 percent dry ammonium sulfate by weight or 8.5 to 17 pounds per 100 gallons of water may increase the performance of this product, particularly when tank mixed with certain residual herbicides on annual and perennial weeds. The equivalent rate of ammonium sulfate in a liquid formulation may also be used. Ensure that ammonium sulfate is completely dissolved in the spray tank before adding herbicides. Thoroughly rinse the spray system with clean water after use to reduce corrosion.

NOTE: When using ammonium sulfate, apply this product at rates listed in this label. Lower rates will result in reduced performance.

Colorants or Dyes

Agriculturally approved colorants or marking dyes may be added to this product. Colorants or dyes used in spray solutions of this product may reduce performance, especially at lower rates or dilutions. Use colorants or dyes according to the manufacturer's recommendations.

Drift Control Additives

Drift control additives may be used with all equipment types, except wiper applicators, sponge bars and CDA equipment. When a drift control additive is used, read and carefully observe the cautionary statements and all other information appearing on the additive label.

APPLICATION EQUIPMENT AND TECHNIQUES

Do not apply this product through any type of irrigation system.

This product may be applied with the following application equipment:

Aerial – Fixed Wing and Helicopter

Ground Broadcast Spray – Boom or boomless systems, pull-type sprayer, floaters, pick-up sprayers, spray coupes and other ground broadcast equipment.

Hand-Held and High-Volume Spray Equipment – Knapsack and backpack sprayers, pump-up pressure sprayers, handguns, handwands, mistblowers*, lances and other hand-held and motorized spray equipment used to direct the spray onto weed foliage.

*This product is not registered in California or Arizona for use in mistblowers.

Selective Equipment – Recirculating sprayers, shielded and hooded sprayers, wiper applicators and sponge bars.

Injection Systems – Aerial or ground injection sprayers.

Controlled Droplet Applicator (CDA) – Hand-held or boom-mounted applicators which produce a spray consisting of a narrow range of droplet sizes.

APPLY THESE SPRAY SOLUTIONS IN PROPERLY MAINTAINED AND CALIBRATED EQUIPMENT CAPABLE OF DELIVERING DESIRED VOLUMES.

AERIAL SPRAY DRIFT MANAGEMENT

SPRAY DRIFT MANAGEMENT

AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator is responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

1. The distance of the outer most nozzles on the boom must not exceed ¾ the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they must be observed.

The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory.

Aerial Drift Reduction Advisory

[This section is advisory in nature and does not supersede the mandatory label requirements.]

INFORMATION ON DROPLET SIZE

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (See Wind, Temperature and Humidity, and Temperature Inversions).

CONTROLLING DROPLET SIZE

- Volume – Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- Pressure – Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- Number of nozzles – Use the minimum number of nozzles that provide uniform coverage.
- Nozzle Orientation – Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- Nozzle Type – Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

BOOM LENGTH

For some use patterns, reducing the effective boom length to less than ¾ of the wingspan or rotor length may further reduce drift without reducing swath width.

APPLICATION HEIGHT

Applications must not be made at a height greater than 10 feet above the top of the target plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

SWATH ADJUSTMENT

When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase with increasing drift potential (higher wind, smaller drops, etc.)

WIND

Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Do not apply below 2 mph due to variable wind direction and high inversion potential. NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

TEMPERATURE AND HUMIDITY

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

TEMPERATURE INVERSIONS

Applications must not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

SENSITIVE AREAS

The pesticide must only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive areas).

Aerial Equipment

DO NOT APPLY THIS PRODUCT USING AERIAL SPRAY EQUIPMENT EXCEPT UNDER CONDITIONS AS SPECIFIED WITHIN THIS LABEL. This product plus dicamba tank mixtures may not be applied by air in California.

Use the specified rates of this herbicide in 3 to 15 gallons of water per acre unless otherwise specified on this label. Unless otherwise specified, do not exceed 1 quart per acre. Aerial applications of this product may be made in annual cropping conventional tillage systems, fallow and reduced tillage systems and preharvest applications. Refer to the individual use area sections of this label for specific volumes and application rates.

Avoid direct application to any body of water.

AVOID DRIFT – DO NOT APPLY DURING LOW-LEVEL INVERSION CONDITIONS, WHEN WINDS ARE GUSTY OR UNDER ANY OTHER CONDITION WHICH FAVORS DRIFT. DRIFT MAY CAUSE DAMAGE TO ANY VEGETATION CONTACTED TO WHICH TREATMENT IS NOT INTENDED. TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, APPROPRIATE BUFFER ZONES MUST BE MAINTAINED.

Coarse sprays are less likely to drift; therefore, do not use nozzles or nozzle configurations which dispense spray as fine spray droplets. Do not angle nozzles forward into the airstream and do not increase spray volume by increasing nozzle pressure.

Ensure uniform application – To avoid streaked, uneven or overlapped application, use appropriate marking devices.

GLYPHOSATE 5.4 Specimen Label

Thoroughly wash aircraft, especially landing gear, after each day of spraying to remove residues of this product accumulated during spraying or from spills. PROLONGED EXPOSURE OF THIS PRODUCT TO UNCOATED STEEL SURFACES MAY RESULT IN CORROSION AND POSSIBLE FAILURE OF THE PART. LANDING GEAR ARE MOST SUSCEPTIBLE. The maintenance of an organic coating (paint), which meets aerospace specification MIL-C-38413, may prevent corrosion.

For Aerial Application in California Only

Aerial applications of this product are allowed in the following situations:

1. In fallow and reduced tillage systems prior to the emergence or transplanting of labeled crops.
2. In alfalfa and pasture renovation applications.
3. Over-the-top applications in Roundup Ready® corn and cotton.
4. Preharvest in alfalfa, corn, cotton, wheat, Roundup Ready® corn and Roundup Ready® cotton.

Do not plant subsequent crops other than those listed in the label booklet for 30 days following application.

When tank mixing this product with 2,4-D for aerial applications, only 2,4-D amine formulations may be used. This tank mixture may be used for fallow and reduced tillage systems and alfalfa and pasture renovation applications only.

DO NOT EXCEED A MAXIMUM RATE OF 2 QUARTS PER ACRE OF THIS PRODUCT WHEN MAKING APPLICATIONS BY AIR IN FALLOW AND REDUCED TILLAGE SYSTEMS AND ALFALFA AND PASTURE RENOVATION APPLICATIONS.

DO NOT EXCEED A MAXIMUM RATE OF 1 QUART PER ACRE OF THIS PRODUCT WHEN MAKING APPLICATIONS BY AIR IN ALFALFA, CORN, COTTON, WHEAT, ROUNDUP READY® CORN AND ROUNDUP READY® COTTON PRIOR TO HARVEST. THIS RESTRICTION ALSO APPLIES TO OVER-THE-TOP APPLICATIONS IN ROUNDUP READY® CORN AND COTTON.

Aerial Equipment

Use the specified rates of this product in 3 to 15 gallons of water per acre.

Use the following guidelines when aerial applications are made near crops or desirable perennial vegetation after bud break and before total leaf drop, and/or near other desirable vegetation or annual crops.

1. Do not apply within 100 feet of all desirable vegetation or crop(s).
2. If wind up to 5 miles per hour is blowing toward desirable vegetation or crop(s), do not apply within 500 feet of the desirable vegetation or crop(s).
3. Winds blowing from 5 to 10 miles per hour toward desirable vegetation or crop(s) may require buffer zones in excess of 500 feet.
4. Do not apply when winds are in excess of 10 miles per hour or when inversion conditions exist.

For Aerial Application in Fresno County, California Only From February 15 through March 31 Only

Applicable Area:

The area contained inside the following boundaries within Fresno County, California.

North: Fresno County line
South: Fresno County line
East: State Highway 99
West: Fresno County line

Product Information:

Always read and follow the label directions and precautionary statements for all products used in the aerial application.

Observe the following directions to minimize off-site movement during aerial application of this product. Minimization of off-site movement is the responsibility of the grower, Pest Control Advisor and aerial applicator.

Written Directions:

Written directions MUST be submitted by or on behalf of the applicator to the Fresno County Agricultural Commissioner 24 hours prior to the application. These written directions MUST state the proximity of surrounding crops, and that conditions of each manufacturer's product label and this label have been satisfied.

Aerial Applicator Training and Equipment:

Aerial application of this product is limited to pilots who have successfully completed a Fresno County Agricultural Commissioner and California Department of Pesticide Regulation approved training program for aerial application of herbicides. All aircraft must be inspected, critiqued in flight and certified at a Fresno County Agricultural Commissioner approved fly-in. Test and calibrate spray equipment at intervals sufficient to insure that proper rates of herbicides and adjuvants are being applied during commercial use. Applicator must document such calibrations and testing. Demonstration of performance at Fresno County Agricultural Commissioner approved fly-ins constitutes such documentation, or other written records showing calculations and measurements of flight and spray parameters acceptable to the Fresno County Agricultural Commissioner.

Applications at Night:

Do not apply this product by air earlier than 30 minutes prior to sunrise and/or later than 30 minutes after sunset without prior permission from the Fresno County Agricultural Commissioner.

Note: For aerial application from April 1 through February 14, refer to the **"For Aerial Application in California Only"** section of this label.

FOR AERIAL APPLICATIONS IN MISSISSIPPI

Aerial Application Restrictions:

Aerial application is prohibited in Zone I, south of Highway 8 in the counties listed below, from March 15 through April 30, except by permit from an authorized employee of the Mississippi Department of Agriculture and Commerce, Bureau of Plant Industry (Ph. 1-888-257-1285).

Aerial application is prohibited in Zone II, north of Highway 8 in the counties listed below, from March 25 through April 30, except by permit from an authorized employee of the Mississippi Department of Agriculture and Commerce, Bureau of Plant Industry (Ph. 1-888-257-1285).

The Bureau of Plant Industry may at anytime, based on current planting and environmental conditions modify the above restrictions for either zone or county therein.

Zone I: South of Highway 8 in the counties of Bolivar, Sunflower, Leflore, and Grenada plus the entire counties of Carroll, Holmes, Humphreys, Washington, Sharkey, Issaquena, Yazoo and Warren.

Zone II: North of Highway 8 in the counties of Bolivar, Sunflower, Leflore, and Grenada plus the entire counties of Tallahatchie, Tate, Quitman, Coahoma, Tunica, Panola and Desoto.

FOR AERIAL APPLICATION IN ARKANSAS ONLY

AVOID DRIFT. DO NOT APPLY INTO STILL AIR WHERE THERE IS A TEMPERATURE INVERSION LAYER LOW ENOUGH FOR FINE SPRAY PARTICLES TO BECOME SUSPENDED AND MOVE OUTSIDE THE TARGET AREA WHEN THE INVERSION LAYER MOVES. DO NOT APPLY WHEN WINDS ARE GUSTY OR UNDER ANY OTHER CONDITION THAT FAVORS DRIFT. DRIFT IS LIKELY TO CAUSE DAMAGE TO ANY VEGETATION CONTACTED. TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, APPROPRIATE BUFFER ZONES MUST BE MAINTAINED.

Use the labeled rate of this product in 3 to 15 gallons of water per acre.

Use sufficient carrier volume and appropriate equipment set-up to form droplets large enough to avoid drift potential. Coarse droplets in the 300 to 500 (VMD) micron range are recommended.

Applications are typically to be made with the nozzle release point at 8 to 15 feet above the top of the target plants unless a greater height is required for aircraft safety.

The distance of the outermost nozzles on the boom must not exceed 75 percent of the length of the wingspan or rotor. In many cases, reducing this distance to 65 percent of the length of the wingspan or rotor will improve drift control without affecting the swath width.

Nozzles must always discharge backward parallel with the air stream and never discharge downwards more than 45 degrees on fixed wing aircraft or forward of the prevailing airflow on rotary winged aircraft. Avoid the use of nozzles with wide-angle discharge.

Do not apply this product when winds are in excess of 10 mph.

Do not apply when there is a low-level inversion where fine spray particles could be suspended in still air and move outside the target area when the inversion layer moves. These conditions may occur when wind speeds are less than 2 mph.

Use the following guidelines when applications are made near crops or other desirable vegetation:

1. Do not apply within 100 feet of any desirable vegetation or crops.
2. If wind up to 5 mph is blowing towards desirable vegetation or crops, do not apply within 500 feet upwind of the desirable vegetation or crops.

Winds blowing from 5 to 10 mph toward desirable vegetation or crops will likely require buffer zones in excess of 500 feet.

Ground Broadcast Equipment

Use the specified rates of this product in 3 to 40 gallons of water per acre as a broadcast spray unless otherwise specified. As density of weeds increases, spray volume should be increased within the specified range to ensure complete coverage. Carefully select proper nozzles to avoid spraying a fine mist. For best results with ground application equipment, use flat fan nozzles. Check for even distribution of spray droplets.

Hand-Held and High-Volume Equipment

Apply to foliage of vegetation to be controlled. For applications made on a spray-to-wet basis, spray coverage should be uniform and complete. Do not spray to the point of runoff. Use coarse sprays only.

For control of weeds listed in the annual weeds rate tables, apply a 0.5 percent solution of this product to weeds less than 6 inches in height or runner length. Apply prior to seedhead formation in grass or bud formation in broadleaf weeds. For annual weeds over 6 inches tall, or unless otherwise specified, use a 1 percent solution.

For best results, use a 1 ½ percent solution on harder-to-control perennials, such as bermudagrass, dock, field bindweed, hemp dogbane, milkweed and Canada thistle.

When using application methods which result in less than complete coverage, use a 3.75 percent solution for annual and perennial weeds and a 3.75 to 5 percent solution for woody brush and trees.

Selective Equipment

This product may be applied through recirculating spray systems, shielded applicators, hooded sprayers, wiper applicators or sponge bars after dilution and thorough mixing with water to listed weeds growing in any non-agricultural use site specified on this label and only when specifically listed in cropping systems.

GLYPHOSATE 5.4 Specimen Label

A recirculating spray system directs the spray solution onto weeds growing above desirable vegetation, while spray solution not intercepted by weeds is collected and returned to the spray tank for reuse.

A shielded or hooded applicator directs the herbicide solution onto weeds, while shielding desirable vegetation from the herbicide.

A wiper or sponge applicator applies the herbicide solution onto weeds by rubbing the weed with an absorbent material containing the herbicide solution.

AVOID CONTACT OF HERBICIDE WITH DESIRABLE VEGETATION.

Contact of the herbicide solution with desirable vegetation may result in damage or destruction. Applicators used above desirable vegetation should be adjusted so that the lowest spray stream or wiper contact point is at least 2 inches above the desirable vegetation. Droplets, mist, foam or splatter of the herbicide solution settling on desirable vegetation may result in discoloration, stunting or destruction.

Applications made above the crops should be made when the weeds are a minimum of 6 inches above the desirable vegetation. Better results may be obtained when more of the weed is exposed to the herbicide solution. Weeds not contacted by the herbicide solution will not be affected. This may occur in dense clumps, severe infestations or when the height of the weeds varies so that not all weeds are contacted. In these instances, repeat treatment may be necessary.

Shielded and hooded applicators
Use nozzles that provide uniform coverage within the treated area. Keep shields on these sprayers adjusted to protect desirable vegetation. EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF HERBICIDE WITH DESIRABLE VEGETATION.

Wiper applicators and sponge bars
Wiper applicators are devices that physically wipe appropriate amounts of this product directly onto the weed.

Equipment must be designed, maintained and operated to prevent the herbicide solution from contacting desirable vegetation. Operate this equipment at ground speeds no greater than 5 mph. Performance may be improved by reducing speed in areas of heavy weed infestations to ensure adequate wiper saturation. Better results may be obtained if 2 applications are made in opposite directions.

Avoid leakage or dripping onto desirable vegetation. Adjust height of applicator to ensure adequate contact with weeds. Keep wiping surfaces clean. Be aware that, on sloping ground, the herbicide solution may migrate, causing dripping on the lower end and drying of the wicks on the upper end of a wiper applicator.

Do not use wiper equipment when weeds are wet.

Mix only the amount of solution to be used during a 1-day period, as reduced activity may result from use of leftover solutions. Clean wiper parts immediately after using this product by thoroughly flushing with water.

Nonionic surfactant at a rate of 10 percent by volume of total herbicide solution is recommended with all wiper applications.

For Rope or Sponge Wick Applicators – Mix 3 quarts of this product in 2 gallons of water to prepare a 25 percent solution. Apply this solution to weeds listed in this section.

For Porous-Plastic Applicators – Solutions ranging from 25 to 100 percent of this product in water may be used in porous-plastic wiper applicators.

When applied as specified, this product CONTROLS the following weeds:

Corn, volunteer	Sicklepod
Panicum, Texas	Spanishneedles
Rye, common	Starbur, bristly
Shattercane	

When applied as specified, this product SUPPRESSES the following weeds:

Beggarweed, Florida	Ragweed, common
Bermudagrass	Ragweed, giant
Dogbane, hemp	Smutgrass
Dogfennel	Sunflower
Guineagrass	Thistle, Canada
Johnsongrass	Thistle, musk
Milkweed	Vaseygrass
Nightshade, silverleaf	Velvetleaf
Pigweed, redroot	

Injection Systems
This product may be used in aerial or ground injection spray systems. It may be used as a liquid concentrate or diluted prior to injecting into the spray stream. Do not mix this product with the concentrate of other products when using injection systems.

CDA Equipment
The rate of this product applied per acre by vehicle-mounted CDA equipment must not be less than the amount listed in this label when applied by conventional broadcast equipment. For vehicle-mounted CDA equipment, apply 3 to 15 gallons of water per acre.

For the control of annual weeds with hand-held CDA units, apply a 20 percent solution of this product at a flow rate of 2 fluid ounces per minute and a walking speed of 1.5 mph (1 ½ pints per acre). For the control of perennial weeds, apply a 20 to 40 percent solution of this product at a flow rate of 2 fluid ounces per minute and a walking speed of 0.75 mph (3 to 6 pints per acre).

Controlled droplet application equipment produces a spray pattern which is not easily visible. Extreme care must be exercised to avoid spray or drift contacting the foliage or any other green tissue of desirable vegetation, as damage or destruction may result.

CROPS (Alphabetical)

This section is organized alphabetically by crop category. There may be several labeled crops listed in a crop category.

Unless otherwise specified, applications may be made to control any weeds listed in the annual, perennial and woody brush tables. Also refer to the "SELECTIVE EQUIPMENT" section.

The maximum use rates stated throughout this products labeling apply to this product combined with the use of all other herbicides containing glyphosate or sulfosate as the active ingredient, whether applied as mixtures or separately. Calculate application rates and ensure that the total use of this and other glyphosate or sulfosate containing products does not exceed stated maximum use rate.

For any crop not listed in this "CROPS" section, applications must be made at least 30 days prior to planting.

For broadcast postemergent treatments, do not harvest or feed treated vegetation for 8 weeks following application, unless otherwise specified.

When applying this product prior to transplanting crops into plastic mulch, residues may be removed from the plastic by 0.5 inches of water via sprinkler irrigation or natural rainfall.

Alfalfa, Clover, and Other Forage Legumes

LABELED CROPS: Alfalfa, clover, kudzu, lespedeza, lupin, sainfoin, trefoil, velvet bean, vetch, crown vetch, milk vetch

TYPES OF APPLICATIONS: Preplant, preemergence, at-planting, spot treatment (alfalfa and clover only), wiper applicators (alfalfa and clover only), renovation, preharvest (alfalfa only)

Preplant, Preemergence and At-planting
USE INSTRUCTIONS: This product may be applied before, during or after planting alfalfa and clover. Applications must be made prior to emergence of the crop.

RESTRICTION: Remove domestic livestock before application and wait 8 weeks after application before grazing or harvesting.

Preharvest (Alfalfa only)
USE INSTRUCTIONS: This product may be used in declining alfalfa stands or any stand of alfalfa where crop destruction is acceptable. This application will severely injure or destroy the stand of alfalfa. This product will control annual and perennial weeds including quackgrass, when applied prior to the harvest of alfalfa. The treated crop and weeds can be harvested and fed to livestock after 36 hours. Allow a minimum of 36 hours between application and harvest. Use up to 1 quart of this product per acre. Applications may be made at any time of the year. Make only one application to an existing stand of alfalfa per year. For control of quackgrass, apply in the spring, late summer or fall when quackgrass is actively growing. Treatments for quackgrass must be followed by deep tillage for complete control.

RESTRICTIONS: Do not apply more than 1.5 pints of this product per acre as a preharvest treatment. Do not use for alfalfa grown for seed, as a reduction in germination or vigor may occur.

Spot treatment or Wiper applications (Alfalfa and Clover only)
USE INSTRUCTIONS: This product may be applied as a spot treatment in alfalfa or clover. This product may be applied with wiper applicators to control or suppress the weeds listed under "WIPER APPLICATORS" in the "SELECTIVE EQUIPMENT" section of this label. Applications may be made in the same area at 30-day intervals.

For spot treatment and wiper applications, apply in areas where the movement of domestic livestock can be controlled.

RESTRICTIONS: No more than one-tenth of any acre should be treated at one time. Remove domestic livestock before application and wait 14 days after application before grazing livestock or harvesting.

Renovation
USE INSTRUCTIONS: This product may be applied as a broadcast spray to existing stands of alfalfa, clover, and other labeled forage legumes. Labeled crops may be planted into the treated area.

RESTRICTION: Remove domestic livestock before application and wait 8 weeks after application before grazing or harvesting.

Asparagus

TYPES OF APPLICATIONS: Preplant, preemergence, spot treatment, postharvest

Preplant, Preemergence
USE INSTRUCTIONS: This product may be applied prior to emergence of asparagus.
RESTRICTION: Do not apply within a week before the first spears emerge.

Spot treatment
USE INSTRUCTIONS: This product may be applied immediately after cutting, but prior to the emergence of new spears.

GLYPHOSATE 5.4 Specimen Label

RESTRICTIONS: Do not treat more than 10 percent of the total field area to be harvested. Do not harvest within 5 days of treatment.

Postharvest
USE INSTRUCTIONS: This product may be applied after the last harvest and all spears have been removed. If spears are allowed to regrow, delay application until ferns have developed. Delayed treatments should be applied as a directed or shielded spray in order to avoid contact of the spray with ferns, stems or spears.

PRECAUTIONS: Direct contact of the spray with the asparagus may result in serious crop injury. Select and use specified types of spray equipment for postemergence postharvest applications. A directed spray is any application where the spray pattern is aligned in such a way as to avoid direct contact of the spray with the crop. A shielded spray is any application where a physical barrier is positioned and maintained between the spray and the crop to prevent contact of spray with the crop.

Canola

TYPES OF APPLICATIONS: Preplant, preemergence

USE INSTRUCTIONS: This product may be applied before, during or after planting canola. Applications must be made prior to emergence of the crop.

RESTRICTION: Do not apply more than 1.5 quarts of this product per acre by ground.

Cereal Crops

LABELED CROPS: Barley, Buckwheat, Millet (Pearl, Proso), Oats, Rice, Rye, Teosinte, Triticale, Wheat (All), Wild rice.

TYPES OF APPLICATIONS: Preplant, preemergence, at-planting, spot treatment (except rice), post-harvest, preharvest (wheat only), wiper applicators (wheat only)

Do not treat rice fields or levees when the field contains floodwater.

Preplant, Preemergence and At-planting
USE INSTRUCTIONS: This product may be applied before, during or after planting of cereal crops. Applications must be made prior to emergence of the crop.

Spot treatment (except rice)
USE INSTRUCTIONS: This product may be applied as a spot treatment in cereal crops. Apply this product before heading in small grains.

RESTRICTIONS: Do not treat more than 10 percent of the total field area to be harvested. The crop receiving spray in the treated area will be killed. Do not allow drift or spray outside target area for the same reason.

Postharvest
USE INSTRUCTIONS: This product may be applied after harvest of cereal crops. Higher rates may be required for control of large weeds which were growing in the crop at the time of harvest. Tank mixtures with 2,4-D or dicamba may be used.

RESTRICTIONS: For any crop not listed on this label, applications must be made at least 30 days prior to planting the next crop. Do not harvest or feed treated vegetation for 8 weeks following application.

Preharvest (wheat only)
USE INSTRUCTIONS: This product provides weed control when applied prior to harvest of wheat. Apply after the hard-dough stage of grain (30% or less grain moisture) and at least 7 days prior to harvest. Wheat stubble may be grazed immediately after harvest.

This product may be applied using either aerial or ground spray equipment. For ground applications, apply this product in 10 to 20 gallons of water per acre. For aerial applications, apply this product in 3 to 10 gallons of water per acre.

RESTRICTIONS: Do not apply more than 1.5 pints of this product per acre. Do not apply to wheat grown for seed, as a reduction in germination or vigor may occur.

Wiper applications (wheat only)
USE INSTRUCTIONS: Wiper applications may be used in wheat. To control common rye or cereal rye, apply after the weeds have headed and achieved maximum growth, when the rye is at least 6 inches above the wheat crop.

RESTRICTIONS: Allow at least 35 days between application and harvest. Do not use roller applicators.

For nonselective control of listed annual weeds in small grain cropping systems (South Dakota only)

USE INSTRUCTIONS: For ground applications, use 3 to 5 gallons of water per acre. For aerial applications, use 2 to 3 gallons of water per acre.

PRECAUTIONS: The likelihood of injury occurring from the use of this product is greatest when winds are gusty or in excess of 5 miles per hour or when other conditions, including lesser wind velocities, will allow spray drift to occur. Adjust boom height on ground equipment to prevent streaked, overlapped or uneven applications. Avoid spraying when weeds are subject to moisture stress, when dust is on foliage, or when straw canopy covers the weeds.

Red Rice Control Prior To Planting Rice
USE INSTRUCTIONS: Apply 1.5 pints of this product in 5 to 10 gallons of water per acre. Flush fields prior to application to obtain uniform germination and stand of red rice. Make application when the majority of the red rice plants are in the 2-leaf stage and no more than 4 inches tall. Red rice plants with less than 2 true leaves may only be partially controlled. PRECAUTION: Avoid spraying during low humidity conditions, as reduced control may result.

RESTRICTION: DO NOT TREAT RICE FIELDS OR LEVEES WHEN THE FIELDS CONTAIN FLOOD WATER. DO NOT RE-FLOOD TREATED FIELDS FOR 8 DAYS FOLLOWING APPLICATION.

Christmas Trees

TYPES OF APPLICATIONS: Post-directed, spot treatment, site preparation

Post-directed, Spot treatment

USE INSTRUCTIONS: This product may be used as a post-directed spray and spot treatment around established Christmas trees.

PRECAUTIONS: Desirable plants may be protected from the spray solution by using shields or coverings made of cardboard or other impermeable material. Care must be exercised to avoid contact of spray, drift or mist with foliage or green bark of established Christmas trees.

RESTRICTION: DO NOT USE THIS PRODUCT AS AN OVER-THE-TOP BROADCAST SPRAY IN CHRISTMAS TREES.

Site preparation
USE INSTRUCTIONS: This product may be used prior to planting Christmas trees.
PRECAUTION: Precautions should be taken to protect nontarget plants during site preparation applications.

Citrus Crops

LABELED CROPS: Calamondin, Chironja, Citron, Citrus Hybrids, Grapefruit, Kumquat, Lemon, Lime, Mandarin (tangerine), Orange (All), Pummelo, Tangelo, Tangor

TYPES OF APPLICATIONS: Weed control, middles (between rows of trees), strips (in row of trees), selective equipment

NOTE: FOR USE DIRECTIONS, SEE THE "TREE, NUT AND VINE (GENERAL)" SECTION. THE FOLLOWING DIRECTIONS ARE SPECIFIC TO CITRUS CROPS.

Florida and Texas only: For burndown or control of the weeds listed below, apply the specified rates of this product in 3 to 30 gallons of water per acre. Where weed foliage is dense, use 10 to 30 gallons of water per acre.

For goatweed, apply 3 to 4.5 pints of this product per acre. Apply in 20 to 30 gallons of water per acre when plants are actively growing. Use 3 pints per acre when plants are less than 8 inches tall and 4.5 pints per acre when plants are greater than 8 inches tall. If goatweed is greater than 8 inches tall, the addition of Krovar® II or Karmex® may improve control. Refer to the individual product labels for specific crops, rates, geographic restrictions and precautionary statements.

Perennial weeds:
S=Suppression B=Burndown
PC=Partial Control C=Control

Weed Species	Glyphosate 5.4 Rate Per Acre			
	1.5 PT	3 PT	4.5 PT	7.5 PT
Bermudagrass	B	-	PC	C
Guineagrass				
Texas and Florida Ridge	B	C	C	C
Florida Flatwoods	-	B	C	C
Paragrass	B	C	C	C
Torpedograss	S	-	PC	C

RESTRICTION: Allow a minimum of 1 day between last application and harvest.

Conservation Reserve Program (CRP)

TYPES OF APPLICATIONS: Renovation (rotating out of CRP), site preparation, dormant, wiper

Rotating out of CRP, Site preparation
USE INSTRUCTIONS: This product may be used to prepare CRP land for crop production.

Dormant, Wiper
USE INSTRUCTIONS: This product may be used to suppress competitive growth and seed production of undesirable vegetation in CRP acres. Such applications may be made with wiper application equipment or as a broadcast or spot treatment to dormant CRP grasses. For selective applications with broadcast spray equipment, apply 9 to 12 fluid ounces of this product per acre in early spring before desirable CRP grasses, such as crested and tall wheatgrass, break dormancy and initiate green growth. Late fall applications can be made after desirable perennial grasses have reached dormancy.

PRECAUTION: Some stunting of CRP perennial grasses will occur if broadcast applications are made when plants are not dormant.

Corn

TYPES OF CORN: Field corn, seed corn, sweet corn and popcorn

TYPES OF APPLICATIONS: Preplant, preemergence, at-planting, spot treatment, hooded sprayers, preharvest, post-harvest

GLYPHOSATE 5.4 Specimen Label

Preplant, Preemergence and At-planting
USE INSTRUCTIONS: This product may be applied before, during or after planting corn. Applications must be made prior to emergence of the crop.

The following tank mixtures may be applied before, during or after planting in conventional tillage systems, into a cover crop, established sod or in previous crop residue.

Apply these tank mixtures in 10 to 20 gallons of water or 10 to 60 gallons of nitrogen solution per acre. For Southern states, do not apply in nitrogen solutions to tough-to-control grasses such as barnyardgrass, fall panicum, broadleaf signalgrass, annual ryegrass and any perennial weeds. See the map in the Annual Weeds section of this label for areas included in this recommendation.

ATRAZINE	EXTRAZINE®	LOROX®
BANVEL®	FRONTIER®	MICRO-TECH®
BICEP®	GUARDSMAN®	PARTNER®
BICEP® II	HARNESS®	PROWL®
BROADSTRIKE®	HARNESS® XTRA	SIMAZINE
BULLET®	HARNESS® XTRA 5.6L	SURPASS®
DUAL®	LARIAT®	SURPASS® 100
DUAL® II	LASSO®/ALACHLOR	TOPNOTCH®
	LINEX®	

For improved burndown, this product may be tank mixed with 2,4-D or dicamba.

Annual weeds – For difficult-to-control weeds such as fall panicum, barnyardgrass, crabgrass, shattercane and broadleaf signalgrass up to 2 inches tall, and Pennsylvania smartweed up to 6 inches tall, apply this product at 1.5 pints per acre in these tank mixtures. For other labeled annual weeds, apply 12-18 fluid ounces of this product per acre when weeds are less than 6 inches tall, and 1.5 to 2.25 pints when weeds are over 6 inches tall.

RESTRICTIONS: Applications of 2,4-D or dicamba must be made at least 7 days prior to planting corn.

The tank mix recommendations in this section are not registered in California.

Spot treatment
USE INSTRUCTIONS: For spot treatments, apply this product prior to silking of corn.
RESTRICTIONS: Do not treat more than 10 percent of the total field area to be harvested. The crop receiving spray in the treated area will be killed. Do not allow drift or spray outside target area for the same reason.

Hooded Sprayers
USE INSTRUCTIONS: This product may be used through hooded sprayers for weed control between the rows of corn (all), including field corn, sweet corn and popcorn. Only hooded sprayers that completely enclose the spray pattern may be used.

When applying to corn that is grown on raised beds, ensure that the hood is designed to completely enclose the spray solution. If necessary, extend the front and rear flaps of the hoods to reach the ground in deep furrows.

Follow these requirements:
- The spray hoods must be operated on the ground or skimming across the ground.
- Do not apply more than 1.5 pints of this product per acre per application.
- Corn must be at least 12 inches tall, measured without extending leaves.
- Leave at least an 8 inch untreated strip over the drill row. For example, if the crop row width is 38 inches, the maximum width of the spray hood should be 30 inches.
- Maximum tractor speed: 5 mph.
- Maximum wind speed: 10 mph.
- Use low-drift nozzles.

Crop injury may occur when the foliage of treated weeds comes into direct contact with leaves of the crop. Do not apply this product when the leaves of the crop are growing in direct contact with weeds to be treated. Droplets, mist, foam or splatter of the herbicide solution may contact the crop and cause discoloration, stunting or destruction.

PRECAUTIONS: Contact of this product in any manner to any vegetation to which treatment is not intended may cause damage. Such damage shall be the sole responsibility of the applicator.

RESTRICTIONS: Do not graze or feed corn forage or fodder following applications of this product through hooded sprayers. Do not apply more than 4.5 pints of this product per acre per year for hooded sprayer applications.

Preharvest
USE INSTRUCTIONS: Make applications at 35 percent grain moisture or less. Ensure that maximum kernel fill is complete and the corn is physiologically mature (black layer formed). For ground applications, apply up to 4.5 pints of this product per acre. For aerial applications, apply up to 1.5 pints of this product per acre.

RESTRICTIONS: Do not treat corn grown for seed because a reduction in germination or vigor may occur. Allow a minimum of 7 days between application and harvest.

Post-harvest
USE INSTRUCTIONS: This product may be applied after harvest of corn. Higher rates may be required for control of large weeds which were growing in the crop at the time of harvest. Tank mixtures with 2,4-D or dicamba may be used.

RESTRICTION: Do not harvest or feed treated vegetation for 8 weeks following application.

Cotton

TYPES OF APPLICATIONS: Preplant, preemergence, at-planting, hooded sprayer, selective equipment, spot treatment, preharvest

Preplant, Preemergence, and At-planting
USE INSTRUCTIONS: This product may be applied before, during or after planting cotton. Applications must be made prior to emergence of the crop.

Hooded sprayer, Selective equipment
USE INSTRUCTIONS: This product may be applied through hooded sprayers, recirculating sprayers, shielded applicators or wiper applicators in cotton. Allow at least 7 days between application and harvest.

See the "SELECTIVE EQUIPMENT" part of the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for information on proper use and calibration of this equipment.

Spot treatment
USE INSTRUCTIONS: For spot treatments, apply this product prior to boll opening of cotton.

RESTRICTIONS: Do not treat more than 10 percent of the total field area to be harvested. The crop receiving spray in treated area will be killed. Do not allow drift or spray outside target area for the same reason.

Preharvest
USE INSTRUCTIONS: This product provides weed control and cotton regrowth inhibition when applied prior to harvest of cotton. For weed control, apply at rates given in the annual, perennial and woody brush tables. Apply 12 fluid ounces to 3 pints of this product per acre for cotton regrowth inhibition. Allow a minimum of 7 days between application and harvest of cotton.

This product may be applied using either aerial or ground spray equipment. For ground applications, apply this product in 10 to 20 gallons of water per acre. For aerial applications, apply this product in 3 to 10 gallons of water per acre.

Apply after sufficient bolls have developed to produce the desired yield of cotton. Applications made prior to this time could affect maximum yield potential.

This product may be tank mixed with DEF® 6, Folex®, or Prep™ to provide additional enhancement of cotton leaf drop.

RESTRICTIONS: Do not feed or graze treated cotton forage or hay following preharvest applications. DO NOT APPLY MORE THAN 1.5 PINTS OF THIS PRODUCT PER ACRE BY AIR. Do not apply more than 1.5 quarts of this product per acre by ground. Do not apply to cotton grown for seed, as a reduction in germination or vigor may occur.

Fallow Systems

TYPES OF APPLICATIONS: Chemical fallow, preplant fallow beds, aid-to-tillage.

Chemical fallow
USE INSTRUCTIONS: This product may be applied during the fallow period prior to planting or emergence of any crop listed on this label. For any crop not listed on this label, applications must be made at least 30 days prior to planting. This product may be used as a substitute for tillage to control annual weeds in fallow fields. Also, broadcast or spot treatments will control or suppress many perennial weeds in fallow fields. Ground or aerial application equipment may be used. Tank mixtures with 2,4-D and dicamba may be used.

RESTRICTION: DO NOT APPLY BANVEL® TANK MIXTURES BY AIR IN CALIFORNIA.

Refer to the specific product labels for crop rotation restrictions and cautionary statements of all products used in tank mixtures. Some crop injury may occur if Banvel® is applied within 45 days of planting.

Preplant fallow beds
USE INSTRUCTIONS: This product may be applied to fallow beds prior to planting or emergence of any crop listed on this label. For any crop not listed on this label, applications must be made at least 30 days prior to planting. This product will control weeds listed in the annual, perennial and woody brush tables.

In addition, 9 fluid ounces of this product plus 2 to 4 oz of Goal® 2XL per acre will control the following weeds with the maximum height or length indicated: 3" – common cheeseweed, chickweed, groundsel; 6" – London rocket, shepherdspurse.

12 fluid ounces of this product plus 2 to 4 oz of Goal® 2XL per acre will control the following weeds with the maximum height or length indicated: 6" – common cheeseweed, groundsel, marestail *(Conyza canadensis)*, 12" – chickweed, London rocket, shepherdspurse.

Aid-to-tillage
USE INSTRUCTIONS: This product may be used in conjunction with tillage practices in fallow systems or preplant to labeled crops to control downy brome, cheat, volunteer wheat, tansy mustard and foxtail. Apply 6 fluid ounces of this product in 3 to 10 gallons of water per acre. Make applications before weeds are 6 inches in height. Application must be followed by conventional tillage practices no later than 15 days after treatment and before regrowth occurs. Allow at least 1 day after application before tillage.

PRECAUTION: Tank mixtures with residual herbicides may result in reduced performance.

Grain Sorghum (Milo)

TYPES OF APPLICATIONS: Preplant, preemergence, at-planting, spot treatment, wiper applicators, preharvest, post-harvest

Preplant, Preemergence, At-planting
USE INSTRUCTIONS: This product may be applied before, during or after planting grain sorghum. Applications must be made prior to emergence of the crop.

GLYPHOSATE 5.4 Specimen Label

Spot treatment and Wiper applications
USE INSTRUCTIONS: This product may be applied as a spot treatment in grain sorghum. Make spot treatments before heading of milo. This product may be applied with wiper applicators to control or suppress the weeds listed under "WIPER APPLICATORS" in the "SELECTIVE EQUIPMENT" section of this label.

RESTRICTIONS: For spot treatment, do not treat more than 10 percent of the total field area to be harvested. The crop receiving spray in treated area will be killed. Do not allow drift or spray outside target area for the same reason.

For wiper applicators, allow at least 40 days between application and harvest. Do not use roller applicators. Do not feed or graze treated milo fodder. Do not ensile treated vegetation.

Hooded Sprayers
USE INSTRUCTIONS: This product may be used through hooded sprayers for weed control between the rows of milo. Only hooded sprayers that completely enclose the spray pattern may be used.

When applying to milo that is grown on raised beds, ensure that the hood is designed to completely enclose the spray solution. If necessary, extend the front and rear flaps of the hoods to reach the ground in deep furrows.

Follow these requirements:
- The spray hoods must be operated on the ground or skimming across the ground.
- Do not apply more than 1.5 pints of this product per acre per application.
- Milo must be at least 12 inches tall, measured without extending leaves. Treat before milo sends tillers between the drill rows. If such tillers are contacted with the spray solution, the main plant may be killed.
- Leave at least an 8 inch untreated strip over the drill row. For example, if the crop row width is 38 inches, the maximum width of the spray hood should be 30 inches.
- Maximum tractor speed: 5 mph.
- Maximum wind speed: 10 mph.
- Use low-drift nozzles.

Crop injury may occur when the foliage of treated weeds comes into direct contact with leaves of the crop. Do not apply this product when the leaves of the crop are growing in direct contact with weeds to be treated. Droplets, mist, foam or splatter of the herbicide solution may contact the crop and cause discoloration, stunting or destruction.

RESTRICTIONS: Contact of this product in any manner to any vegetation to which treatment is not intended may cause damage. Such damage shall be the sole responsibility of the applicator. Do not graze or feed milo forage or fodder following applications of this product through hooded sprayers. Do not apply more than 4.5 pints of this product per acre per year for hooded sprayer applications.

Preharvest
USE INSTRUCTIONS: Make applications at 30% grain moisture or less.

RESTRICTIONS: Do not apply more than 3 pints of this product per acre. Allow a minimum of 7 days between application and harvest of sorghum. Do not treat sorghum grown for seed as a reduction in germination or vigor may occur. The use of this product for preharvest grain sorghum (milo) is not registered in California.

Post-harvest
USE INSTRUCTIONS: This product may be applied after harvest of grain sorghum. Higher rates may be required for control of large weeds which were growing in the crop at the time of harvest. Tank mixtures with 2,4-D or dicamba may be used.

This product may be applied to grain sorghum (milo) stubble following harvest to suppress or control regrowth. Apply 1.5 pints of this product per acre for control, or 1.25 pints of this product per acre for suppression.

RESTRICTION: Do not harvest or feed treated vegetation for 8 weeks following application.

Grass Seed Production

TYPES OF APPLICATIONS: Preplant, preemergence, renovation, site preparation, shielded sprayers, wiper applicators, spot treatments, creating rows in annual ryegrass

USE INSTRUCTIONS: This product may be applied before, during, or after planting or renovation of turf or forage grass areas grown for seed production. Applications MUST be made prior to the emergence of the crop to avoid crop injury. For maximum control of existing vegetation, delay planting to determine if any regrowth from escaped underground plant parts occurs. Where repeat treatments are necessary, sufficient regrowth must be attained prior to application. For warm-season grasses, such as bermudagrass, summer or fall applications provide best control.

RESTRICTIONS: Do not disturb soil or underground plant parts before treatment. Tillage or renovation techniques such as vertical mowing, coring or slicing should be delayed for 7 days after application to allow proper translocation into underground plant parts. Do not feed or graze treated areas for 8 weeks following application.

Shielded Sprayers
USE INSTRUCTIONS: Apply 1.5 pints to 4.5 pints of this product as a broadcast spray in 10 to 20 gallons of water per acre to control weeds in the rows. Uniform planting in straight rows aids in shielded sprayer applications. Best results are obtained when the grass seed crop is small enough to easily pass by or through the protective shields.

PRECAUTION: Contact of this product in any manner to any vegetation to which treatment is not intended may cause damage. Such damage shall be the sole responsibility of the applicator.

Wiper Applications
PRECAUTIONS: Contact of the herbicide solution with desirable vegetation may result in damage or destruction. Applicators must be adjusted so that the wiper contact point is at least two (2) inches above the desirable vegetation. Weeds should be a minimum of six (6) inches above the desirable vegetation. Better results may be obtained when more of the weed is exposed to the herbicide solution. Weeds not contacted by the herbicide solution will not be affected. This may occur in dense clumps, severe infestations, or when height of weeds varies so that not all weeds are contacted. In these instances, repeat treatments may be necessary. Better results may be obtained if 2 applications are made in opposite directions.

Spot Treatments
USE INSTRUCTIONS: Use a 1 to 5 percent solution on a volume to volume basis with water. See the "SELECTIVE EQUIPMENT" section for additional application recommendations.

RESTRICTIONS: Apply this product prior to heading of grasses. Do not treat more than 10 percent of the total field to be harvested. The crop receiving the spray in the treated area will be killed. Do not allow drift or spray outside the target area for the same reason.

Creating Rows in Annual Ryegrass
USE INSTRUCTIONS: Use 12-24 fluid ounces of this product per acre mixed with water. Use the higher rate when the ryegrass is greater than 6 inches tall. Best results are obtained when applicators are made before the ryegrass reaches 6 inches in height.

Set nozzle heights to allow the establishment of the desired row spacing while preventing spray droplets, spray fines, or drift to contact the ryegrass plants not treated. Use low-pressure nozzles, or drop nozzles designed to target the application over a narrow band.

Grower assumes all responsibility for crop losses from misapplication.

Herbs

TYPES OF HERBS: Peppermint, spearmint

USE INSTRUCTIONS: This product may be used as a spot treatment in spearmint and peppermint. Apply spray-to-wet with hand-held equipment, such as backpack and knapsack sprayers, pump-up pressure sprayers, hand-guns, hand-wands or any other hand-held or motorized spray equipment used to direct the spray solution on to a limited area. Further applications may be made in the same area at 30-day intervals.

RESTRICTIONS: Allow at least 7 days between application and harvest. No more than one-tenth of any acre should be treated at one time. The crop receiving spray in the treated area will be killed. Do not allow drift or spray outside the target area for this reason.

Pastures

TYPES OF PASTURES: Bahiagrass, bermudagrass, bluegrass, brome, fescue, orchardgrass, ryegrass, timothy, wheatgrass, alfalfa and clover.

TYPES OF APPLICATIONS: Spot treatment, wiper application, preplant, preemergence, pasture renovation

Spot treatment and Wiper Application
USE INSTRUCTIONS: This product may be applied as a spot treatment or with wiper applicators in pastures. Applications may be made in the same area at 30-day intervals. For spot treatment and wiper applications, apply in areas where the movement of domestic livestock can be controlled.

RESTRICTIONS: No more than one-tenth of any acre should be treated at one time. Remove domestic livestock before application and wait 14 days after application before grazing livestock or harvesting.

Preplant, Preemergence and Pasture renovation
USE INSTRUCTIONS: This product may be applied prior to planting or emergence of forage grasses and legumes. In addition, this product may be used to control perennial pasture species listed on this label prior to re-planting.

RESTRICTION: Remove domestic livestock before application and wait 8 weeks after application before grazing or harvesting.

Peanuts

TYPES OF APPLICATIONS: Preplant, preemergence, at-planting

USE INSTRUCTIONS: This product may be applied before, during or after planting peanuts. Applications must be made prior to the emergence of the crop.

Small Fruits and Berries

LABELED CROPS: Blackberry, Blueberry, Boysenberry, Cranberry, Currant, Dewberry, Elderberry, Gooseberry, Huckleberry, Loganberry, Olallieberry, Raspberry (Black, Red), Youngberry

TYPES OF APPLICATIONS: Preplant, preemergence, directed spray (except cranberry), wiper application

USE INSTRUCTIONS: This product may be applied as a preplant or preemergence broadcast application or as a wiper application for crops listed in this section. Directed sprays may be applied to any crop except cranberries. For wick or wiper applicators, mix 3 quarts of this product in 4 gallons of water. In severe infestations, reduce equipment ground speed to ensure that adequate amounts of this product are wiped on the weeds. A second treatment in the opposite direction may be beneficial.

GLYPHOSATE 5.4 Specimen Label

RESTRICTIONS: Do not permit herbicide solution to contact desirable vegetation, including green shoots, canes or foliage. Allow a minimum of 30 days between last application and harvest of cranberries. For other small fruits and berries, allow a minimum of 14 days between last application and harvest.

Soybeans

TYPES OF APPLICATIONS: Preplant, preemergence, at-planting, spot treatment, preharvest, selective equipment, hooded sprayers

Preplant, Preemergence and At-planting
USE INSTRUCTIONS: This product may be applied before, during or after planting soybeans. Applications must be made prior to emergence of the crop.

The following tank mixtures may be applied before, during or after planting in conventional tillage systems, into a cover crop, established sod or in previous crop residue.

CANOPY®	LASSO®/ALACHLOR	PROWL®
COMMAND®	LINEX®	PURSUIT®
DUAL®	LOROX®/LINURON	PURSUIT® PLUS
DUAL® II	LOROX® PLUS	SCEPTER®
FRONTIER®	MICRO-TECH®	SENCOR®/LEXONE®
FUSION®	PARTNER®	SQUADRON®
GEMINI®	PREVIEW®	TURBO®

For improved burndown, this product may be tank-mixed with 2,4-D or 2,4-DB. See the 2,4-D label for intervals between application and planting.

Annual weeds: For difficult-to-control weeds such as fall panicum, barnyardgrass, crabgrass, shattercane and broadleaf signalgrass up to 2 inches tall, and Pennsylvania smartweed up to 6 inches tall, apply this product at 1.5 pints per acre in these tank mixtures. For other labeled annual weeds, apply 12 fluid ounces to 18 fluid ounces of this product per acre when weeds are less than 6 inches tall, and 1.5 to 2.25 pints when weeds are over 6 inches tall.

RESTRICTION: The tank mix recommendations in this section are not registered in California.

Spot treatment
USE INSTRUCTIONS: For spot treatments, apply this product prior to initial pod set in soybeans.

RESTRICTIONS: Do not treat more than 10 percent of the total field area to be harvested. The crop receiving spray in treated area will be killed. Do not allow or spray outside target area for the same reason.

Preharvest
USE INSTRUCTIONS: This product provides weed control when applied prior to harvest of soybeans.

Apply at rates given in the annual, perennial and woody brush tables. This product may be applied using either aerial or ground spray equipment. For ground applications, apply this product in 10 to 20 gallons of water per acre. For aerial applications, apply this product in 3 to 10 gallons of water per acre.

Apply after pods have set and lost all green color. Allow a minimum of 7 days between application and harvest of soybeans. Care should be taken to avoid excessive seed shatter loss due to ground application equipment.

RESTRICTIONS: Do not graze or harvest treated crop for livestock feed within 25 days of last preharvest application. DO NOT APPLY MORE THAN 4 QUARTS PER ACRE OF THIS PRODUCT FOR PREHARVEST APPLICATIONS. DO NOT APPLY MORE THAN 1.5 PINTS PER ACRE OF THIS PRODUCT BY AIR. Do not apply to soybeans grown for seed as a reduction in germination or vigor may occur.

Selective equipment
USE INSTRUCTIONS: This product may be applied through recirculating sprayers, shielded applicators, hooded sprayers, wiper applicators or sponge bars in soybeans. Allow at least 7 days between application and harvest.

See the "SELECTIVE EQUIPMENT" part of the "APPLICATION EQUIPMENT AND TECHNIQUES" section of this label for information on proper use and calibration of this equipment.

Sugarcane

TYPES OF APPLICATIONS: Preplant, preemergence, spot treatment, fallow, hooded sprayers

Preplant, Preemergence
USE INSTRUCTIONS: This product may be applied in or around sugarcane fields or in fields prior to the emergence of plant cane.

RESTRICTION: Do not apply to vegetation in or around ditches, canals or ponds containing water to be used for irrigation.

Spot Treatment
USE INSTRUCTIONS: This product may be applied as a spot treatment in sugarcane. For control of volunteer or diseased sugarcane, make a 3/4 percent solution of this product in water and spray to wet the foliage of vegetation to be controlled. Volunteer or diseased sugarcane should have at least 7 new leaves.

RESTRICTIONS: Avoid spray contact with healthy cane plants since severe damage or destruction may result. Do not feed or graze treated sugarcane foliage following application.

Fallow treatments
USE INSTRUCTIONS: This product may be used as a replacement for tillage in fields that are lying fallow between sugarcane crops. This product may also be used to remove the last stubble of ratoon cane. For removal of last stubble of ratoon cane, apply 3 to 3 ¾ quarts of this product in 10 to 40 gallons of water per acre to new growth having at least 7 new leaves. Allow 7 or more days after application before tillage.

Hooded sprayers
USE INSTRUCTIONS: This product may be used through hooded sprayers for weed control between the rows of sugarcane. A hooded sprayer is a type of shielded applicator. The spray pattern is completely enclosed on the top and all 4 sides by a hood, thereby shielding the crop from the spray solution.

Minimize the potential for spray particles to escape from under the hood by operating the sprayer at appropriate ground speeds, nozzle pressures and wind speeds. Operation on rough or sloping ground may result in spray particles escaping from the hood.

When applying to sugarcane that is grown on raised beds, ensure that the hood is designed to completely enclose the spray. If necessary, extend the front and rear flaps of the hoods to reach the ground in furrows between the rows.

Equipment must be designed, maintained and operated to prevent the herbicide solution from contacting the crop. Contact of this product in any manner to any vegetation to which treatment is not intended may cause damage. Such damage shall be the sole responsibility of the applicator.

PRECAUTION: Droplets, mist, foam or splatter of the herbicide solution settling on the crop may result in discoloration, stunting or destruction.

RESTRICTION: Do not allow treated weeds to come into contact with the crop.

Sunflowers

TYPES OF APPLICATIONS: Preplant, preemergence

USE INSTRUCTIONS: This product may be applied before, during or after planting sunflowers. Applications must be made prior to emergence of the crop.

A tank mixture with Prowl may be applied before, during or after planting in conventional tillage systems, into a cover crop, established sod or in previous crop residue.

RESTRICTIONS: Do not apply more than 24 fluid ounces (1.5 pints) of this product per acre for sunflowers. Make only one preplant or preemergent application per year. Do not feed or graze sunflower forage following application of this product.

Tree, Nut and Vine

TYPES OF APPLICATIONS: Weed control, middles (between rows of trees), strips (in row of trees), selective equipment (except kiwi), perennial grass suppression

NOTE: THIS SECTION GIVES DIRECTIONS THAT APPLY TO ALL CITRUS CROPS, TREE FRUITS, TREE NUTS AND VINE CROPS. SEE THE INDIVIDUAL CROP SECTIONS FOR INSTRUCTIONS, PREHARVEST INTERVALS, PRECAUTIONS AND RESTRICTIONS FOR SPECIFIC CROPS.

This product may be applied in middles, strips and for weed control in established citrus groves, tree fruit and tree nut orchards, and vineyards. Apply at rates given in the annual, perennial and woody brush tables. Repeat applications may be made up to a maximum of 8 quarts per acre per year. This product may also be used for site preparation prior to transplanting these crops. Allow a minimum of 3 days between application and transplanting. Applications may be made with boom equipment, CDA, shielded sprayers, hand-held and high-volume wands, lances, orchard guns or with wiper applicator equipment, except as directed.

Middles (between rows)
USE INSTRUCTIONS: This product will control or suppress annual and perennial weeds and ground covers growing between the rows of labeled tree and vine crops. If weeds are under drought stress, irrigate prior to application. Reduced control may result if weeds have been mowed prior to application.

A tank mixture of this product plus Goal® 2XL may be used for annual weeds in middles between rows of citrus crops, tree fruits, tree nuts and vine crops. Use this mixture when weeds are stressed or growing in dense populations. 12 to 24 oz/A of this product plus 3 to 12 oz/A of Goal® 2XL will control annual weeds with a maximum height or diameter of 6 inches, including crabgrass, hairy fleabane *(Conyza bonariensis)*, common groundsel, junglerice, common lambsquarters, redroot pigweed, London rocket, common ryegrass, shepherdspurse, annual sowthistle, common cheeseweed (malva), filaree (suppression), horseweed/marestail *(Conyza canadensis)*, stinging nettle and common purslane (suppression). 9 to 24 oz/A of this product plus 3 to 12 oz/A of Goal® 2XL will control common cheeseweed (malva) with a maximum height or diameter of 3 inches.

Strips (in rows)
USE INSTRUCTIONS: This product may be applied in rows of tree or vine crops and may also be tank mixed with the following products.

DEVRINOL® 50 DF	PRINCEP® CALIBER 90
DIREX® 4L	SIMAZINE 4L
GOAL® 2XL	SIMAZINE 80W
KARMEX® DF	SIM-TROL™ 4L
KROVAR® I	SOLICAM® DF
KROVAR® II	SULFLAN®AS
PROWL®	SURFLAN® 75W

Do not apply these tank mixtures in Puerto Rico.

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Refer to the individual product labels for specific crops, rates, geographic restrictions and precautionary statements.

Apply 12 fluid ounces to 7.5 pints of this product per acre in these tank mixtures. Use rates at the higher end of the specified rate range when weeds are stressed, growing in dense populations or are greater than 12 inches tall.

Perennial grass suppression
This product will suppress perennial grasses such as bahiagrass, bermudagrass, tall fescue, orchardgrass, Kentucky bluegrass, and quackgrass that are grown as ground covers in tree and vine crops.

For suppression of tall fescue, fine fescue, orchardgrass and quackgrass, apply 6 fluid ounces of this product in 10 to 20 gallons of water per acre.

For suppression of Kentucky bluegrass covers, apply 4.5 fluid ounces of this product per acre. Do not add ammonium sulfate.

For best results, mow cool season grass covers in the spring to even their height and apply this product 3 to 4 days after mowing.

For suppression of vegetative growth and seedhead inhibition of bahiagrass for approximately 45 days, apply 4.5 fluid ounces of this product in 10 to 25 gallons of water per acre. Apply 1 to 2 weeks after full green-up or after mowing to a uniform height of 3 to 4 inches. This application must be made prior to seedhead emergence.

For suppression up to 120 days, apply 3 fluid ounces of this product per acre, followed by an application of 1.5 to 3 fluid ounces per acre about 45 days later. Make no more than 2 applications per year.

For burndown of bermudagrass, apply 1.5 pints to 3 pints of this product in 3 to 20 gallons of water per acre. Use this treatment only if reduction of the bermudagrass stand can be tolerated. When burndown is required prior to harvest, allow at least 21 days to ensure sufficient time for burndown to occur.

For suppression of bermudagrass, apply 4.5 to 12 fluid ounces of this product per acre east of the Rocky Mountains and 12 fluid ounces of this product per acre west of the Rocky Mountains. Apply in a total spray volume of 3 to 20 gallons per acre, no sooner than 1 to 2 weeks after full green-up. If the bermudagrass is mowed prior to application, maintain a minimum of 3 inches in height. Sequential applications may be made when regrowth occurs and bermudagrass injury and stand reduction can be tolerated. East of the Rocky Mountains, rates of 4.5 to 7.5 fluid ounces per acre should be used in shaded conditions or where a lesser degree of suppression is desired.

Selective equipment
Shielded and wiper applicators may be used in tree crops and grapes. Refer to the individual crop sections for time interval between application and harvest.

RESTRICTIONS: For citron and olives, apply as a post-directed spray only.

EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF HERBICIDE SOLUTION, SPRAY, DRIFT OR MIST WITH FOLIAGE OR GREEN BARK OF TRUNK, BRANCHES, SUCKERS, FRUIT OR OTHER PARTS OF TREES AND VINES. CONTACT OF THIS PRODUCT WITH OTHER THAN MATURED BROWN BARK CAN RESULT IN SERIOUS CROP DAMAGE.

AVOID PAINTING CUT STUMPS WITH THIS PRODUCT AS INJURY RESULTING FROM ROOT GRAFTING MAY OCCUR IN ADJACENT TREES.

Tree Fruits

LABELED CROPS: Apple, Apricot, Cherry (Sweet, Sour), Crabapple, Loquat, Mayhaw, Nectarine, Olive, Peach, Pear, Plum/Prune (All), Quince

TYPES OF APPLICATIONS: Weed control, middles (between rows of trees), strips (in row of trees), selective equipment

NOTE: FOR USE DIRECTIONS, SEE THE "TREE, NUT AND VINE (GENERAL)" SECTION. THE FOLLOWING DIRECTIONS ARE SPECIFIC TO TREE FRUITS.

Restrictions on application equipment
For cherries, any application equipment listed in this section may be used in all states. For citron and olives, apply as a post-directed spray only.

Any application equipment listed in this section may be used in apricots, nectarines, peaches and plums/prunes growing in Arizona, California, Colorado, Idaho, Kansas, Kentucky, New Jersey, North Dakota, Oklahoma, Oregon, Texas, Utah and Washington, except for peaches grown in the states specified in the following paragraph. In all other states use wiper equipment only.

For PEACHES grown in Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina and Tennessee only, apply with a shielded boom sprayer or shielded wiper applicator, which prevents any contact of this product with the foliage or bark of trees. Apply no later than 90 days after first bloom. Applications made after this time may result in severe damage. Remove suckers and low-hanging limbs at least 10 days prior to application. Avoid applications near trees with recent pruning wounds or other mechanical injury. Apply only near trees which have been planted in the orchard for 2 or more years. EXTREME CARE MUST BE TAKEN TO ENSURE NO PART OF THE PEACH TREE IS CONTACTED.

RESTRICTION: Allow a minimum of 1 day between last application and harvest for apple, crabapple, loquat, mayhaw, pear, quince.

Allow a minimum of 17 days between last application and harvest for apricot, cherry, nectarine, olive, peach, plum/prune.

Tree Nuts

LABELED CROPS: Almond, Beechnut, Brazil nut, Butternut, Cashew, Chestnut, Chinquapin, Filbert (Hazelnut), Hickory nut, Macadamia, Pecan, Pistachio, Walnut (Black, English)

TYPES OF APPLICATIONS: Weed control, middles (between rows of trees), strips (in row of trees), selective equipment.

NOTE: FOR USE DIRECTIONS, SEE THE "TREE, NUT AND VINE (GENERAL)" SECTION. THE FOLLOWING DIRECTIONS ARE SPECIFIC TO TREE NUTS.

RESTRICTION: Allow a minimum of 3 days between last application and harvest of tree nuts.

Tropical Crops

LABELED CROPS: Atemoya, Avocado, Banana, Barbados Cherry (acerola), Breadfruit, Canistel, Carambola, Cherimoya, Cocoa beans, Coconuts, Coffee, Dates, Figs, Guava, Jaboticaba, Jackfruit, Longan, Lychee, Mango, Marmaladebox (genip), Papaya, Passion fruit, Persimmon, Pineapple, Plantain, Pomegranate, Sapodilla, Sapote (black, mamey, white), Soursop, Sugar apple, Tamarind, Tea.

USE INSTRUCTIONS: This product may be applied for weed control or for site preparation prior to transplanting crops listed in this section. In coffee and banana, delay applications 3 months after transplanting to allow the new coffee or banana plant to become established.

RESTRICTIONS: Allow a minimum of 14 days between last application and harvest of acerola, atemoya, avocado, breadfruit, canistel, carambola, cherimoya, cocoa beans, coconuts, dates, figs, genip, jaboticaba, jackfruit, longan, lychee, mango, mayhaw, passion fruit, persimmon, pomegranate, sapodilla, sapote, soursop, sugar apple, tamarind, and tea.

Allow a minimum of 28 days between last application and harvest of coffee.

Allow a minimum of 1 day between last application and harvest of banana, guava, and papaya and plantain.

Do not feed or graze treated pineapple forage following application.

Vegetable Crops

LABELED CROPS: Amaranth, Arrugula, Artichoke (Jerusalem), Beans (All), Beet greens, Garden beets, Broccoli (All), Brussels sprouts, Cabbage (All), Cabbage (Chinese), Cantaloupe, Cardoon, Cavalo Broccolo, Carrot, Cauliflower, Casaba melon, Celery, Celery (Chinese), Celeriac, Celtuce, Chard (Swiss), Chayote, Chervil, Chick peas, Chicory, Chrysanthemum, Collards, Corn salad, Crenshaw melon, Cress, Cucumber, Dandelion, Dock (sorrel), Eggplant, Endive, Fennel (Florence), Garlic, Gherkin, Ginseng, Gourds, Ground cherry, Guar, Honeydew melon, Honey ball melon, Horseradish, Kale, Kohlrabi, Leek, Lentils, Lettuce, Mango melon, Melons (All), Mizuna, Muskmelon, Mustard greens, Okra, Onion, Oriental radish, Parsley, Parsnips, Peas (All), Pepinos, Pepper (All), Persian melon, Potato (Irish), Pumpkin, Purslane, Radish, Rape greens, Rhubarb, Rutabaga, Salsify, Shallot, Spinach (All), Mustard Spinach, Squash (Summer, Winter), Sugar beets, Sweet potato, Tomatillo, Tomato, Turnip, Watercress, Watermelon, Yams.

USE INSTRUCTIONS: This product may be applied prior to the emergence of direct seeded vegetables or prior to transplanting vegetables.

PRECAUTIONS: When applying this product prior to transplanting crops into plastic mulch, care must be taken to remove residues of this product from the plastic prior to transplanting. Residues can be removed by 0.5 inch natural rainfall or by applying water via a sprinkler system.

For the following crops, apply only prior to planting. Allow at least 3 days between application and planting of cantaloupe, casaba melon, crenshaw melon, cucumber, eggplant, garlic, gherkin, gourds, ground cherry, honeydew melon, honey ball melon, mango melon, melons (all), muskmelon, pepper (all), persian melon, pumpkin, squash (summer, winter), tomatillo, tomato, watercress, and watermelon.

Nonbearing Ginseng: This product may be used for weed control in established non-bearing ginseng. Direct applications so that there is no contact of this product with the ginseng plant. Applications may be made with boom equipment, CDA, shielded sprayers, hand-held and high volume wands, lances, orchard guns or with wiper application equipment. Applications must be made at least one year prior to harvest. Extreme care must be exercised to avoid contact of herbicide solution, spray, drift or mist with foliage or green bark of trunk, branches, suckers, fruit or other parts of desirable plants. Contact of this product with other than matured brown bark can result in serious crop damage.

Wiper applicators may be used in rutabagas. Allow at least 14 days between application and harvest.

Vine Crops

LABELED CROPS: Grapes (raisin, table, wine), Kiwi fruit

TYPES OF APPLICATIONS: Weed control, middles (between rows), strips (in row), selective equipment

NOTE: FOR USE DIRECTIONS, SEE THE "TREE, NUT AND VINE (GENERAL)" SECTION.

THE FOLLOWING DIRECTIONS ARE SPECIFIC TO VINE CROPS.

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Applications should not be made when green shoots, canes or foliage are in the spray zone.

In the northeast and Great Lakes regions, applications must be made prior to the end of bloom stage of grapes to avoid injury, or make applications with shielded sprayers or wiper equipment.

RESTRICTION: Allow a minimum of 14 days between last application and harvest.

Roundup Ready® Crops

The following instructions include applications which can be made onto Roundup Ready crops during the complete cropping season. Do NOT combine these instructions with other recommendations made for crop varieties which do not contain the Roundup Ready gene, in the CROPS (ALPHABETICAL) section of this label.

USE THIS PRODUCT FOR POSTEMERGENCE APPLICATION ONLY ON CROP VARIETIES DESIGNATED AS CONTAINING THE ROUNDUP READY GENE.

Applying this product to crop varieties with are not designated as Roundup Ready will result in severe crop injury and yield loss. Avoid contact with foliage, green stems, or fruit of crops, or any desirable plants which do not contain the Roundup Ready gene, since severe injury or destruction will result. The Roundup Ready designation indicates that the crop variety contains a patented gene which provides tolerance to this product. Information on Roundup Ready crop varieties may be obtained from your seed supplier.

Spray Drift Management
AVOID DRIFT. EXTREME CARE MUST BE TAKEN WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS.

See the MIXING and APPLICATION EQUIPMENT AND TECHNIQUES sections of this labeling for additional directions and restrictions on the application of this product.

DO NOT exceed a maximum rate of 24 fluid ounces per acre of this product when making applications by air unless otherwise directed. For aerial application in California and Arkansas, refer to the "For Aerial Application in California Only" and "For Aerial Application in Arkansas Only" sections of this label.

Tank mixtures with other herbicides, insecticides, or fungicides may result in reduced weed control or crop injury and are NOT recommended for over-the-top applications of this product.

Sprayer Preparation: It is important that sprayer, lines, filters, and mixing equipment be clean and free of pesticide residue before making applications of this product to Roundup Ready crops. Follow the cleaning procedures specified on the label of the product(s) previously used. Many crops can be very sensitive to herbicides at extremely low concentrations and care must be taken to thoroughly clean all equipment prior to use.

NOTE: The following directions are based on a clean start at planting by using a burn down application or tillage to control existing weeds before crop emergence. In no-till and stale seedbed systems, a preplant burn-down treatment of 18 to 48 fluid ounces per acre of this product is required to control existing weeds prior to crop emergence.

There are no rotational crop restrictions following application of this product.

For over-the-top uses on Roundup Ready crop varieties, crop safety and weed control performance are not warranted by Alligare, LLC when this product is used in conjunction with "brown bag" or "bin run" seed saved from previous year's production and replanted.

CANOLA WITH THE ROUNUP READY GENE
TYPES OF APPLICATIONS: Preplant, preemergence, postemergence

USE INSTRUCTIONS:

Maximum Allowable Combined Application Quantities Per Season:

1. Preplant and preemergence applications:	48 fluid ounces per acre
2. Total in-crop application from emergence to 6-leaf:	24 fluid ounces per are

For ground applications with broadcast equipment, apply this product in 5 to 20 gallons of spray solution per acre. Carefully select proper nozzle and spray pressure to avoid spraying a fine mist. For best results with ground application equipment use flat fan nozzles. Check for even distribution of spray droplets.

For aerial applications apply this product in 3 to 15 gallons of water per acre.

Over-the-top applications: This product may be applied by aerial or ground application equipment postemergence to Roundup Ready canola from emergence through the six-leaf stage of development. To maximize yield potential spray canola early to eliminate competing weeds. Any single over-the-top broadcast application should not exceed 10 ounces per acre. No more than two over-the-top broadcast applications may be made from crop emergence through the six-leaf stage of development. Sequential over-the-top applications of this product must be at least 10 days apart.

Weeds controlled: For specific rates of application and instructions for control of various annual and perennial weeds, refer to the "ANNUAL" and "PERENNIAL" weed rate tables on this label.

Some weeds with multiple germination times or suppressed (stunted) weeds may require sequential applications of this product for control. The second application should be made after some regrowth has occurred and at least 10 days after a previous application of this product.

This product will control or suppress most perennial weeds. For some perennial weeds, repeat applications may be required to eliminate crop competition throughout the growing season.

Allow a minimum of 60 days between last application and canola harvest.

CORN WITH THE ROUNDUP READY GENE
TYPES OF APPLICATIONS: Preplant, preemergence, at-planting, postemergence, spot treatment, post-harvest

When applied as directed, this product controls labeled annual grass and broadleaf weeds in Roundup Ready corn. Many perennial grasses and broadleaf weeds will be controlled or suppressed with one or more applications of this product. Applications must be made to actively growing weeds before they reach the maximum size listed in the "ANNUAL" and "PERENNIAL" weed rate tables. Refer to the "MIXING" section of this labeling for the proper use instructions.

This product may be applied postemergence to Roundup Ready corn from emergence through the V8 stage (8 leaves with collars) or until corn height reaches 30 inches, whichever comes first. Single in-crop applications of this product are not to exceed 24 fluid ounces per acre. Sequential in-crop applications of this product from emergence through the V8 stage or 30 inches must not exceed 48 fluid ounces per acre per growing season.

Maximum Allowable Application Rates	
1. Combined total per year for all applications	6 quarts per acre
2. Preplant, Preemergence applications	3.755 quarts per acre
3. Total in-crop applications from emergence through the V8 stage or 30 inches	48 fluid ounces per acre
4. Maximum preharvest application rate after maximum kernel fill is complete and the crop is physiologically mature(black layer formation) until 7 days before harvest	24 fluid ounces per acre

The addition of 1 to 2 percent dry ammonium sulfate by weight or 8.5 to 17 pounds per 100 gallons of water may increase the performance of this product under hard water conditions, drought conditions or when tank mixed with Bullet®, Micro-Tech®, or Partner® Herbicides. Ensure that ammonium sulfate is completely dissolved in the spray tank before adding herbicides. Thoroughly rinse the spray system with clean water after use to reduce corrosion. The addition of other additives, including fertilizers and micronutrients are not recommended with this product since this may result in increased potential for crop injury.

For ground applications: Use the labeled rates of this product in 5 to 20 gallons of spray solution per acre as a broadcast spray. Carefully select correct nozzles and spray pressure to avoid spraying a fine mist. Check for even distribution of spray droplets.

For aerial applications: Use the labeled rates of this product in 3 to 15 gallons of spray solution per acre.

Allow a minimum of 50 days between application of this product and harvest of corn forage and 7 days between application and harvest of corn grain. Allow a minimum of 10 days between in-crop applications of this product.

Weed Control Directions
Apply 18 to 24 fluid ounces of this product per acre for control of labeled grasses and broadleaf weeds in conventional and no-till corn production systems. Refer to the "ANNUAL WEED RATE TABLE" of this label for specific annual weeds. This product, applied at up to 24 fluid ounces per acre will control or suppress the growth of perennial weeds such as: bermudagrass, Canada thistle, common milkweed, field bindweed, hemp dogbane, horsenettle, nutsedge, quackgrass, rhizome johnsongrass, redvine, trumpetcreeper, swamp smartweed, and wirestem muhly. For additional information on perennial weeds, see the "PERENNIAL WEED RATE TABLE" in this label.

Preemergence followed by Postemergence Weed Control Program: This product may be applied postemergence in-crop following any labeled preemergence herbicide application. The post application of this product should be made before the weeds reach a height and/or density that the weeds become competitive with the crop. A single in-crop application of this product at the specified rate will provide control of emerged weeds listed on the label. This product may be applied postemergence to Roundup Ready corn from emergence through the V8 stage (8 leaves with collars) or until corn height reaches 30 inches (free standing), whichever comes first.

Postemergence Only Weed Control Program: This product may be applied alone as a postemergence in-crop application to provide control of emerged weeds listed on this label. The postemergence application of this product must be made before the weeds reach a height and/or density that the weeds become competitive with the crop. If new flushes of weeds occur, a sequential application of 18 to 24 fluid ounces per acre will control labeled grasses and broadleaf weeds. This product may be applied postemergence to Roundup Ready corn from emergence through the V8 stage or until corn height reaches 30 inches (free standing), whichever comes first.

This product may be applied in tank mixture with a labeled rate of Bullet, Harness, Harness Xtra, Harness Xtra 5.6L, Micro-Tech, Partner, Permit or Atrazine. Refer to the specific product label and observe all precautions and limitations on the label for all products used in tank mixtures, including application timing restrictions, soil restrictions, minimum recropping interval and rotational guidelines - the more restrictive requirements apply.

Tank-mix Partner	Maximum Height Of Corn For Application
Harness Harness Xtra Harness Xtra 5.6	11 inches
Bullet* Micro-Tech* Partner*	5 inches
Permit	24 inches
atrazine	12 inches

*Bullet, Micro-Tech and Partner are not registered for use as a postemergence application in Texas.

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COTTON WITH THE ROUNDUP READY GENE

TYPES OF APPLICATIONS: Preplant, preemergence, at-planting, over-the-top, post-directed, hooded sprayer, preharvest

ATTENTION: This product is for use only over-the-top or directed onto improved cotton varieties that are designated as cotton with the Roundup Ready gene. SEVERE INJURY OR DEATH OF COTTON WILL RESULT IF ANY COTTON VARIETIES NOT PROPERLY DESIGNATED AS HAVING THE ROUNDUP READY GENE ARE SPRAYED WITH THIS PRODUCT. ROUNDUP READY COTTON VARIETIES MUST BE PURCHASED FROM AN AUTHORIZED LICENSED SEED SUPPLIER. THE DESIGNATION, "ROUNDUP READY," INDICATES THE COTTON VARIETY CONTAINS A PATENTED PROPRIETARY TRAIT.

USE INSTRUCTIONS:

Maximum Allowable Yearly Rates	
1. Combined total per year for all applications	6 quarts/A
2. Preplant, Preemergence applications	3.75 quarts/A
3. Total in-crop applications from cracking to layby	3 quarts/A
4. Maximum preharvest application rate	1.5 quarts/A

For ground applications with broadcast equipment, apply this product in 5 to 20 gallons of spray solution per acre. Carefully select proper nozzle and spray pressure to avoid spraying a fine mist. For best results with ground application equipment, use flat fan nozzles. Check for even distribution of spray droplets.

For aerial applications apply this product in 3 to 15 gallons of water per acre.

The combined total application from crop emergence until harvest must not exceed 4.5 quarts per acre.

Over-the-top applications: This product may be applied by aerial or ground application equipment postemergence to Roundup Ready cotton from the ground cracking stage until the four leaf (node) stage of development (until the fifth true leaf reaches the size of a quarter). Over-the-top applications made after the four leaf (node) stage of development may result in boll loss, delayed maturity and/or yield loss. Any single over-the-top broadcast application should not exceed 24 fluid ounces per acre. No more than two over-the-top broadcast applications may be made from crop emergence through the four leaf (node) stage of development. Sequential over-the-top applications of this product must be at least 10 days apart and cotton must have at least two nodes of incremental growth between applications.

Post-directed or hooded applications: This product may be applied using precision post-directed or hooded sprayers to Roundup Ready cotton through layby. At this stage, post-directed equipment should be used which directs the spray to the base of the cotton plants. Contact of the spray with cotton leaves must be avoided to the maximum extent possible. To minimize spray onto the leaves of the cotton plants, place nozzles in a low position directing a horizontal spray pattern under the cotton leaves to contact weeds in the row, and maintain low spray pressure (less than 30 PSI). For best results, make applications while weeds are small (less than 3 inches). Any single post-directed application must not exceed 24 fluid ounces per acre of this product. No more than two applications can be made from the fifth leaf through layby. Sequential in-crop applications of this product must be at least 10 days apart and cotton must have at least two nodes of incremental growth between applications.

ATTENTION: USE OF THIS PRODUCT IN ACCORDANCE WITH LABEL DIRECTIONS IS EXPECTED TO RESULT IN NORMAL GROWTH OF ROUNDUP READY COTTON, HOWEVER, VARIOUS ENVIRONMENTAL CONDITIONS, AGRONOMIC PRACTICES AND OTHER FACTORS MAKE IT IMPOSSIBLE TO ELIMINATE ALL RISKS ASSOCIATED WITH THIS PRODUCT, EVEN WHEN APPLICATIONS ARE MADE IN ACCORDANC WITH THE LABEL SPECIFICATIONS. IN SOME CASES, THESE FACTORS CAN RESULT IN BOLL LOSS, DELAYED MATURITY AND/OR YIELD LOSS.

Salvage Treatment: This treatment may be used after the four leaf stage of development and must only be used where weeds threaten to cause the loss of the crop. 24 fluid ounces per acre may be applied either as an over-the-top application or as a post-directed treatment sprayed higher on the cotton plants and over the weeds. NOTE: SALVAGE TREATMENTS WILL RESULT IN SIGNIFICANT BOLL LOSS, DELAYED MATURITY AND/OR YIELD LOSS. MAKE MORE THAN ONE SALVAGE TREATMENT PER GROWING SEASON.

Weeds controlled: For specific rates of application and instructions for control of various weed species, refer to the "ANNUAL" and "PERENNIAL" weed rate tables of this label. This product applied at 24 fluid ounces per acre will burndown or suppress the growth of the following perennial weeds and reduce crop competition: yellow and purple nutsedge, rhizome johnsongrass, common bermudagrass, silverleaf nightshade, trumpet creeper, and redvine. Fall preharvest applications may be required for control of these perennial weeds.

Some weeds with multiple germination times or suppressed (stunted) weeds may require sequential applications of this product for control.

Preharvest applications: This product may be applied for preharvest annual and perennial weed control as a broadcast treatment to Roundup Ready cotton after 20% boll crack. Allow a minimum of 7 days between application and harvest of cotton or feeding of cotton forage or hay.

NOTE: This product will not enhance the performance of harvest aids when applied to Roundup Ready cotton. DO NOT APPLY GLYPHOSATE 5.4 PREHARVEST TO CROPS GROWN FOR SEED.

ROUNDUP READY FLEX COTTON

The instructions provided in this section are specific to, and must only be used with, varieties designated as Roundup Ready Flex cotton. Applications described in this section over the top of cotton other than Roundup Ready Flex cotton will cause crop injury and reduce yields. DO NOT combine the instructions in this section with those in the "Roundup Ready Cotton" section of this label, or with any other Roundup Ready cotton or Roundup Ready Flex cotton instructions on labeling for this or other glyphosate-containing products. Drift of this product from applications made to Roundup Ready Flex cotton onto adjacent fields of post 4-leaf (node) Roundup Ready cotton may cause extensive crop injury, including boll loss, delayed maturity and/or yield loss.

TYPES OF APPLICATION: Preplant, At-Planting, Preemergence, Postemergence (In-crop), Preharvest

USE INSTRUCTIONS: Refer to the following table for maximum application rates of this product with Roundup Ready Flex cotton.

Maximum Application Rates	
Combined total per year for all applications	6 quarts per acre
Total of all Preplant, At-Planting, Preemergence applications	3.75 quarts per acre
Total of all In-crop applications from cracking to 60 percent open bolls	4.5 quarts per acre
Total of all In-crop applications between layby and 60 percent open bolls	1.5 quarts per acre
Total of all In-crop applications from 60 percent open bolls to 7 days prior to harvest	1.5 quarts per acre
Total of all In-crop applications from emergence through harvest	4.5 quarts per acre

See the **"ROUNDUP READY CROPS"** section of this label for precautionary instructions for use in Roundup Ready crops.

TYPES OF APPLICATIONS: Preplant, At-Planting, Preemergence

USE INSTRUCTIONS: This product may be applied before, during or after planting Roundup Ready Flex cotton.

TANK MIXTURES: This product may be tank-mixed with 2,4-D or Clarity and applied prior to planting only. This product may be tank-mixed with the following products and applied prior to crop emergence.

Ensure that the specific product being used is labeled for application prior to emergence of cotton. Read and follow label directions of all products in the tank mixture.

2,4-D,
clomazone (Aim),
dicamba,
diuron (Direx, Karmex),
flumioxan (Chateau, Valor),
fluometuron (Cotoran, Meturon),
fomesafen (Reflex),
metolachlor,
norflurazone (Solicam),
s-metolachlor (Dual Magnum, Dual II Magnum),
pendimethalin (Prowl, Prowl H2O),
prometyrn (Caparol, Cotton-Pro),
pyrithiobac-sodium (Staple)

Maximum quantity of this product that may be applied for all preplant, at-planting and preemergence applications combined is 3.75 quarts per acre per season. Refer to individual tank-mix product label for restrictions and precautions; use according to the most restrictive precautionary statements for each product in the tank mixture.

Postemergence (In-crop)
USE INSTRUCTIONS: This product may be applied to control annual grasses and broadleaf weeds listed on this label. To maximize yield potential, eliminate competing weeds early. Many perennial weeds will be controlled or suppressed with one or more applications of this product. Use an initial application of 25 fluid ounces per acre on 1 to 3 inch tall annual grass and broadleaf weeds. This product may be applied postemergence to Roundup Ready Flex cotton using ground application equipment at rates up to 36 fluid ounces per acre per application. In addition to broadcast application, post-directed spray equipment may be used to achieve more thorough weed coverage.

TANK MIXTURES: This product may be tank-mixed with the following products and applied postemergence (in-crop) over the top of Roundup Ready Flex cotton. Ensure that the specific product being used is labeled for application postemergence (In-crop) to cotton. Read and follow label directions of all products in the tank mixture.

clethodim,
fluazifop-P-butyl (Fusilade DX),
fomesafen (Reflex),
metolachlor (Stalwart),
s-metolachlor (Dual Magnum),
pyrithiobac-sodium (Staple),
quizalofop-p-ethyl (Assure II),
sethoxydim (Poast Plus),
trifloxysulfuron-sodium (Envoke)

Staple may cause leaf yellowing and/or leaf crinkling when applied postemergence (in-crop) in Roundup Ready Flex cotton. Dual MAGNUM and Stalwart applied over the top of Roundup Ready Flex cotton may cause leaf injury in the form of necrotic spotting.

This product can be tank-mixed with the following products for In-crop application using precision post-directed or hooded sprayers. Ensure that the specific product being used is labeled for postemergence (In-crop) application to cotton. Read and follow label directions of all products in the tank mixture.

Refer to the individual tank-mix product label for restrictions and precautions; use according to the most restrictive precautionary statements for each product in the tank mixture.

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carfentrazone-ethyl (Aim),
diuron (Direx),
flumioxazin (Chateau, Valor),
fluometuron (Cotoran),
linuron (Layby-Pro),
pendimethalin Prowl H2O,
prometyrn (Caparol),
pyrithiobac-sodium (Staple),
trifloxysulfuron-sodium (Envoke)

The maximum single, in-crop application rate of this product to Roundup Ready Flex cotton using ground application equipment is 36 fluid ounces per acre. In-crop application rates above 25 fluid ounces per acre made alone or with the addition of other crop chemical products containing surfactant may cause a crop response including leaf speckling or leaf necrosis. Do not exceed a maximum rate of 25 fluid ounces of this product per acre when making application by air. Between layby and 60 percent open bolls, the maximum combined total application rate of this product is 48 fluid ounces per acre. The maximum combined total of all application of this product made from crop emergence to 60 percent open bolls must not exceed 4.5 quarts per acre. **DO NOT ADD ADDITIONAL SURFACTANT OR ADDITIVES CONTAINING SURFACTANT TO THIS PRODUCT FOR OVER-THE-TOP APPLICATION TO ROUNDUP READY FLEX COTTON.**

Preharvest
USE INSTRUCTIONS: This product may be applied to Roundup Ready Flex cotton at up to 48 fluid ounces per acre for annual and perennial weed control prior to harvest after 60 percent boll crack.

This product will not enhance the performance of harvest aids when applied to Roundup Ready Flex cotton.

Allow a minimum of 7 days between application and harvest of Roundup Ready Flex cotton.

ATTENTION: USE OF THIS PRODUCT IN ACCORDANCE WITH LABEL DIRECTIONS IS EXPECTED TO RESULT IN NORMAL GROWTH OF ROUNDUP READY FLEX COTTON. HOWEVER, DUE TO THE SENSITIVITY OF COTTON FRUITING TO VARIOUS ENVIRONMENTAL CONDITIONS, AGRONOMIC PRACTICES AND OTHER FACTORS, IT IS IMPOSSIBLE TO ELIMINATE ALL RISKS ASSOCIATED WITH THIS PRODUCT, EVEN WHEN APPLICATIONS ARE MADE IN CONFORMANCE WITH THE LABEL SPECIFICATIONS. IN SOME CASES, THESE FACTORS CAN RESULT IN BOLL LOSS, DELAYED MATURITY AND/OR YIELD LOSS.

SOYBEANS WITH THE ROUNDUP READY GENE

TYPES OF APPLICATIONS: Preplant, preemergence, at-planting, postemergence, preharvest, post-harvest

USE INSTRUCTIONS: When applied as directed, this product will control labeled annual grasses and broadleaf weeds in Roundup Ready soybeans. Many perennial grasses and broadleaf weeds will be controlled or suppressed with one or more applications of this product.

Maximum Allowable Application Rates

1. Combined total per year for all applications	6 quarts per acre
2. Preplant, Preemergence applications	3.75 quarts per acre
3. Total in-crop applications from emergence throughout flowering	2.25 quarts per acre
4. Maximum preharvest application rate	24 fluid ounces per acre

RESTRICTIONS: The combined total application from crop emergence through harvest must not exceed 2.25 quarts per acre. The maximum rate for any single in-crop application is 48 fluid ounces per acre. The maximum combined total of this product which can be applied during flowering is 48 fluid ounces per acre. Allow a minimum of 14 days between final application and harvest or feeding of soybean grain, forage or hay.

The use of this product for in-crop applications over Roundup Ready soybeans is not registered in California.

Annual Weed Rate Tables
The following rates will provide control of labeled grasses and broadleaf weeds in conventional and no-till Roundup Ready soybean production systems. Refer to the "ANNUAL WEED RATE TABLES" of this label for rates for specific annual weeds.

Alligare, LLC will not warrant crop safety or weed control when Roundup Ready soybeans are treated with herbicides not specified on this label. Because of the potential for: 1) crop injury, 2) poor weed control from antagonism, and/or 3) rotational crop restrictions, herbicides not specified on this label should not be used, whether applied preemergence or applied postemergence as a tank mixture with this product.

This product may be used up to 48 fluid ounces per acre in any single in-crop application for control of annual weeds, where heavy weed densities exist.

Midwest/Mid-Atlantic Instructions
Narrow row or drilled soybeans: A single in-crop application of this product will provide effective control of labeled weeds. Use an initial application of 24 fluid ounces per acre, on 4-8" weeds. Weeds will generally be 4-8" tall 3 to 5 weeks after planting. If the initial application is delayed and weeds are 8-18" tall, use 36 fluid ounces per acre.

Under adverse growing conditions such as drought, hail, wind damage or a poor soybean stand that slows or delays canopy closure, a sequential application of this product at 18 to 24 fluid ounces per acre may be necessary to control late flushes of weeds.

Wide row soybeans: An in-crop application of this product will provide effective control of the initial stand of labeled weeds. Use an initial application of 24 fluid ounces per acre, on 4-8" weeds. Weeds will generally be 4-8" tall 3 to 5 weeks after planting. If new flushes of weeds occur, they can be controlled by sequential applications of this product.

Initial and Sequential (if needed) Applications

Weed Height (inches)	Rate (fl oz/A)
1-3	18
4-8	24
8-18	36

Giant ragweed: Apply 24 fluid ounces per acre when the weed is 8-12" tall to avoid the need for sequential application.

Black nightshade, Pennsylvania smartweed, ladysthumb smartweed, velvetleaf and waterhemp: Apply 24 fluid ounces per acre to weeds 3-6" tall and 36 fluid ounces per acre when weeds are up to 12 inches tall. For Morningglory species apply 24 fluid ounces per acre when weeds are up to 4 inches tall, and 36 fluid ounces per acre when weeds are up to 6 inches tall.

Some weeds, such as black nightshade, woolly cupgrass, shattercane, wild proso millet, burcumber, and giant ragweed, with multiple germination times may require a sequential application of this product. Suppressed or stunted weeds may also require sequential applications. Sequential applications should be made after some regrowth has occurred. Use a minimum of 18 fluid ounces of this product per acre for sequential applications.

Southeast Instructions
Narrow row, drilled, or wide-row soybeans: An in-crop application of this product will provide effective control of the initial stand of labeled weeds. Use an initial application of 24 fluid ounces per acre, on 3-6" weeds. Weeds will generally be 3-6" tall 2 to 3 weeks after planting.

Initial Treatment

Weed Height (inches)	Rate (fl oz/A)
3-6	24
6-12	36

Under adverse growing conditions such as drought, hail, wind damage or a poor soybean stand that slows or delays canopy closure, a sequential application of this product at 12 to 24 fluid ounces per acre may be necessary to control late flushes of weeds.

Sequential Application (if needed)

Weed Height (inches)	Rate (fl oz/A)
2-3	12
3-6	18
6-12	24

Florida pusley, hemp sesbania, and spurred anoda: Apply 24 fluid ounces per acre to weeds 2-4" for the initial application. Apply 24 fluid ounces per acre when these weeds are 3-6" tall if a sequential application is necessary.

Morningglory, black nightshade, groundcherry, and Pennsylvania smartweed: Apply 18 fluid ounces per acre on 1-3" weeds, 24 fluid ounces per acre on 3-6" weeds, or 36 fluid ounces per acre on 6-12" weeds for the initial application.

Some weeds, such as black nightshade, broadleaf signalgrass, Texas Panicum, burcumber, and sicklepod, with multiple germination times may require a sequential application of this product. Suppressed or stunted weeds may also require sequential applications. Sequential applications of this product should made after some regrowth has occurred. Use a minimum of 12 fluid ounces of this product per acre for sequential applications.

Delta/Mid-South Instructions
Narrow row, drilled or wide row soybeans: An in-crop application of this product will provide effective control of the initial stand of labeled weeds. A sequential application will be required to control new flushes of weeds. Use an initial application of 24 fluid ounces per acre, on 2-4" weeds. Weeds will generally be 2-4" tall 2 to 3 weeks after planting.

Initial Treatment

Weed Height (inches)	Rate (fl oz/A)
2-4	24
5-12	36

Sequential Application

Weed Height (inches)	Rate (fl oz/A)
2-3	12
3-6	18
6-12	24

Hemp sesbania and spurred anoda: Apply a sequential treatment of 24 fluid ounces per acre on 3-6" weeds if necessary.

Some weeds, such as black nightshade, broadleaf signalgrass, Texas Panicum, burcumber, and sicklepod, with multiple germination times may require a sequential application of this product. Suppressed or stunted weeds may also require sequential applications. Sequential applications should be made after some regrowth has occurred. Use a minimum of 12 fluid ounces of this product per acre for sequential applications.

Perennial Weeds Rate Instructions
A 24 to 48 fluid ounces per acre rate (single or multiple applications) of this product will control or suppress perennial weeds such as: bermudagrass, Canada thistle, common milkweed, field bindweed, hemp dogbane, Horsenettle, marestail (horseweed), nutsedge, quackgrass, rhizome johnsongrass, redvine, trumpetcreeper, swamp smartweed, and wirestem muhly.

Allow perennial weed species to achieve at least 6" of growth before spraying with this product.

ALFALFA WITH THE ROUNDUP READY GENE

AVOID CONTACT OF HERBICIDE WITH FOLIAGE, GREEN STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS (EXCEPT AS SPECIFIED FOR INDIVIDUAL ROUNDUP READY CROPS), DESIRABLE PLANTS AND TREES, BECAUSE SEVERE

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INJURY OR DESTRUCTION MAY RESULT.

See "USE INFORMATION" AND "MIXING" sections of this label for essential product performance information.

USE THIS PRODUCT ONLY FOR POSTEMERGENCE APPLICATION ON ALFALFA VARIETIES DESIGNATED AS CONTAINING A ROUNDUP READY GENE.

The Roundup Ready designation indicates that the alfalfa contains a patented gene, which provides tolerance to this product.

Information on Roundup Ready alfalfa varieties may be obtained from your seed supplier or Alligare, LLC representative. Roundup Ready crop varieties must be purchased from an authorized licensed seed supplier.

See the "ROUNDUP READY CROPS" section of this label for precautionary instructions for use in Roundup Ready crops. Do NOT combine these instructions with other directions made for crop varieties that do not contain a Roundup Ready gene listed in the "AGRICULTURAL USES" section of this label.

Application Instructions
This product will control many troublesome emerged weeds with over-the-top applications in Roundup Ready alfalfa. Allow a minimum of 5 days between the last application and grazing, or, cutting and feeding of alfalfa forage and hay.

For ground applications with broadcast equipment, apply this product in 3 to 40 gallons of spray solution per acre. Carefully select proper nozzle and spray pressure to avoid spraying a fine mist. For best results with ground application equipment, use flat fan nozzles. Check for even distribution of spray droplets.

For aerial application: Use the directed rates of this product in 3 to 15 gallons of spray solution per acre.

DO NOT EXCEED 1.5 QUARTS OF THIS PRODUCT PER ACRE WHEN MAKING APPLICATIONS BY AIR. AVOID DRIFT. EXTREME CARE MUST BE USED WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS WHICH DO NOT CONTAIN A ROUNDUP READY GENE. Do not apply during low-level inversion conditions, when winds are gusty or under any other conditions that favor drift. Drift may cause damage to any vegetation contacted to which treatment is not intended. To prevent injury to adjacent desirable vegetation, appropriate buffer zones must be maintained.

See the "APPLICATION EQUIPMENT AND TECHNIQUES" section of the label booklet for procedures to avoid spray drift that may cause injury to any vegetation not intended for treatment.

Sprayer Preparation: It is important that sprayer and mixing equipment be clean and free of pesticide residue before making applications of this product to Roundup Ready alfalfa. Follow the cleaning procedures specified on the label of the product(s) used. Alfalfa can be very sensitive to many herbicides at extremely low concentrations and care should be taken to thoroughly clean all equipment prior to use.

Types of applications: Preplant, At-planting, Preemergence and Postemergence.

MAXIMUM ALLOWABLE APPLICATION RATES

Combined total per year for all applications, including preplant during year of establishment	5.75 quarts per acre
Combined total per year for in-crop applications for newly established and established stands	4.5 quarts per acre (144 fl. oz. per acre)
Preplant, At-planting and Preemergence single applications	1.5 quarts per acre

A. New Stand Establishment (seeding year)
Prior to First Cutting During New Stand Establishment

From emergence up to 4 trifoliate leaves	1.5 quarts per acre
From 5 trifoliate leaves up to 5 days before first cutting	1.5 quarts per acre

After First Cutting in Newly Established Stands:

In-crop application, per cutting, up to 5 days before cutting.	1.5 quarts per acre

B. Established Stands (non-seeding year)

In-crop application, per cutting, up to 5 days before cutting.	1.5 quarts per acre

There are no rotational crop restrictions following applications of this product. For any crop NOT listed in the label booklet, applications must be made at least 30 days prior to planting.

Over-the-top applications: This product may be applied postemergence to Roundup Ready alfalfa from emergence until 5 days prior to cutting. Any single over-the-top application of this product should not exceed 1.5 quarts per acre. Sequential applications of this product should be at least 7 days apart.

Attention: Where Roundup Ready alfalfa is grown with a companion or cover crop, or is overseeded with a second species, over-the-top applications of this product will eliminate the non-Roundup Ready species.

During stand establishment, due to the biology and breeding constraints of alfalfa, up to 10 percent of the seedlings may not contain a Roundup Ready gene and will not survive after the first application of this product. To eliminate the undesirable effects of stand gaps created by the loss of plants not containing a Roundup Ready gene, a single application of at least 0.75 quart per acre of this product should be applied at or before the 3 to 4 trifoliate growth stage.

In both newly seeded and established stands, in order to maximize yield and quality potential of forage and hay, applications of this product should be made after weeds have emerged but before alfalfa growth or re-growth interferes with application spray coverage of the target weeds.

Weeds controlled: For specific rates of application and instructions for control of various annual and perennial weeds, refer to the "ANNUAL WEEDS RATE TABLE" and the "PERENNIAL WEEDS RATE TABLE" in this label. Some weeds with multiple germination times or suppressed (stunted) weeds may require a second application of this product for complete control. The second application should be made after some re-growth of weeds has occurred.

In addition to those weeds listed in this label booklet, this product will suppress or control the parasitic weed, Dodder (*Cuscuta* spp.) in Roundup Ready alfalfa. Repeat applications may be necessary for complete control.

RESTRICTIONS: Any single over-the-top application of this product must not exceed 1.5 quarts (48 fluid ounces) per acre. Sequential applications of this product should be at least 7 days apart. The combined total per year for all in-crop applications in newly established and established stands must not exceed 4.5 quarts (144 fluid ounces) per acre. Remove domestic livestock before application and wait a minimum of 5 days after last application before grazing, or cutting and feeding of Roundup Ready alfalfa forage and hay.

For over-the-top uses on Roundup Ready crop varieties, crop safety and weed control performance are not warranted by Alligare, LLC when this product is used in conjunction with "brown bag" or "big run" seed saved from previous year's production and replanted.

ROUNDUP READY SUGAR BEETS

TYPES OF APPLICATIONS: Preplant, Preemergence, At-Planting, Postemergence (In-Crop).

MAXIMUM ALLOWABLE APPLICATION RATES

Combined total per year for all applications	192 fluid ounces per acre
Preplant, Preemergence applications	120 fluid ounces per acre
Emergence to 8-leaf stage	60 fluid ounces per acre
Between 8-leaf stage and canopy closure	48 fluid ounces per acre

PRECAUTIONS: See the "ROUNDUP READY CROPS" section of this label for precautionary instructions for use in Roundup Ready crops.

Preplant, Preemergence, At-planting

USE INSTRUCTIONS: This product may be applied before, during or after planting of Roundup Ready sugar beets.

RESTRICTION: Maximum quantity of this product that may be applied for all preplant, at-planting and preemergence applications combined is 120 fluid ounces per acre per season.

Postemergence (In-crop)
USE INSTRUCTIONS: This product may be applied postemergent over-the-top to Roundup Ready sugar beets from emergence to 30 days prior to harvest. To maximize yield potential spray sugar beets early to eliminate competing weeds. Up to 4 sequential applications of this product may be made with at least 10 days between applications. Refer to the "ANNUAL WEEDS RATE TABLE" in this label for the labeled rates for specific annual weeds. This product will control or suppress most perennial weeds. For some perennial weeds, repeat applications may be required to eliminate crop competition throughout the growing season.

RESTRICTIONS: The combined total application from crop emergence through harvest must not exceed 108 fluid ounces per acre. The maximum rate for any single application between emergence to the 8 leaf stage is 36 fluid ounces per acre. The maximum rate for any single application between the 8 leaf stage and canopy closure is 24 fluid ounces per acre. Allow a minimum of 30 days between last application and sugar beet harvest. For any crop not listed in on this label, applications must be at least 30 days prior to planting.

FARMSTEADS

TYPES OF APPLICATIONS: Nonselective weed control, trim-and-edge, chemical mowing, cut stumps, habitat management.

Nonselective weed control, Trim-and-edge

USE INSTRUCTIONS: This product may be used to control annual weeds, perennial weeds and woody brush which are found in any part of the farmstead, including building foundations, along and in fences, in dry ditches and canals, along ditchbanks, farm roads, shelterbelts, prior to landscape plantings and equipment storage areas.

This product may be tank mixed with the following products. Refer to these product labels for approved farmstead sites and application rates. For annual weeds, use 1.5 pints per acre of this product when weeds are less than 6 inches tall and 2.25 pints per acre when weeds are greater than 6 inches tall. For perennial weds, apply 3 to 7.5 pints per acre in these tank mixes. For tank mixtures with these products through backpack sprayers, handguns or other high-volume spray-to-wet applications, see the "HAND-HELD AND HIGH VOLUME EQUIPMENT" section of this label for labeled rates.

Arsenal®	Plateau®
Banvel®	Princep® DF
Barricade® 65WG	Princep® Liquid
Diuron	Ronstar® 50 WP
Endurance®	Sahara®
Escort®	Simazine
Karmex® DF	Surflan®
Krovar® I DF	Telar®
Oust®	Vanquish®
Pendulum® 3.3 EC	2,4-D
Pendulum® WDG	

Banvel mixtures may not be applied by air in California.

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Greenhouse/Shadehouse
This product may be used to control weeds in and around greenhouses and shadehouses. Desirable vegetation must not be present during application and air circulation fans must be turned off.

Chemical Mowing
USE INSTRUCTIONS: This product will suppress perennial grasses listed in this section to serve as a substitute for mowing. Apply this product at a rate of 4.5 to 6 fluid ounces per acre. Use 6 fluid ounces of this product per acre when treating tall fescue, fine fescue, orchardgrass or quackgrass covers. Use 4.5 fluid ounces of this product per acre when treating Kentucky bluegrass. Apply treatments in 10 to 20 gallons of spray solution per acre. Chemical mowing applications may be made along farm ditches and other parts of farmsteads.

Use only in areas where some temporary injury or discoloration of perennial grasses can be tolerated.

Cut Stumps
TYPES OF APPLICATIONS: Treating cut stumps in any noncrop site listed on this label.
USE INSTRUCTIONS: This product will control regrowth of cut stumps and resprouts of many types of woody brush and tree species, some of which are listed below. Apply this product using suitable equipment to ensure coverage of the entire cambium. Cut trees or resprouts close to the soil surface.

Apply a 50 to 100 percent solution of this product to the freshly cut surface immediately after cutting. Delays in application may result in reduced performance. For best results, applications must be made during periods of active growth and full leaf expansion.

Alder	Salt-cedar
Eucalyptus	Sweetgum
Madrone	Tan oak
Oak	Willow
Reed, giant	

RESTRICTIONS: DO NOT MAKE CUT STUMP APPLICATIONS WHEN THE ROOTS OF DESIRABLE WOODY BRUSH OR TREES MAY BE GRAFTED TO THE ROOTS OF THE CUT STUMP. INJURY RESULTING FROM ROOT GRAFTING MAY OCCUR IN ADJACENT WOODY BRUSH OR TREES.

Habitat Management
TYPES OF USES: Habitat restoration and maintenance, wildlife food plots

Habitat restoration and maintenance

USE INSTRUCTIONS: This product may be used to control exotic and other undesirable vegetation in habitat management areas. Applications can be made to allow recovery of native plant species, prior to planting desirable native species, and for similar broadspectrum vegetation control requirements in habitat management areas. Spot treatments can be made to selectively remove unwanted plants for habitat maintenance and enhancement. The tank mixtures listed in this section of the label may be used for habitat restoration and maintenance.

Wildlife food plots
USE INSTRUCTIONS: This product may be used as a site preparation treatment to control annual and perennial weeds prior to planting wildlife food plots. Any wildlife food species may be planted after applying this product, or native species may be allowed to repopulate the area. If tillage is needed to prepare a seedbed, wait 7 days after application before tillage.

Rangelands
TYPES OF APPLICATIONS: Postemergence

USE INSTRUCTIONS: This product will control or suppress many annual weeds growing in perennial cool and warm season grass rangelands.

Preventing viable seed production is key to the successful control and invasion of annual grassy weeds in rangelands. Follow-up applications in sequential years should eliminate most of the viable seeds. Grazing of treated areas should be delayed to encourage growth of desirable perennials. Allowing desirable perennials to flower and reseed in the treated area will encourage successful transition.

RESTRICTIONS: Do not use ammonium sulfate when spraying rangeland grasses with this product. Do not make more than one application per year.

Postemergence

Apply 9-12 fluid ounces of this product to control or suppress many weeds, including downy brome, cheat grass, cereal rye and jointed goatgrass in rangelands. Apply when most mature brome plants are in early flower and before the plants including seedheads turn color. Allowing for secondary weed flushes to occur in the spring following rain events further depletes the seed reserve, and encourages perennial grass conversion on weedy sites. Fall applications are possible, and recommended where spring moisture is usually limited and fall germination allows for good weed growth.

Apply 12 fluid ounces when the medusahead has reached the 3-leaf stage. Delaying applications beyond this stage will result in reduced or unacceptable control. Fire may be useful in eliminating the thatch layer produced by slow decaying culms prior to application. Allow new growth to occur before spraying after a burn. Repeat applications in subsequent years may be necessary to eliminate the seedbank before reestablishing desirable perennial grasses in medusahead-dominated rangelands.

Slight, discoloration of the desirable grasses may occur, but they will regreen and regrow under moist soil conditions as effects of this product wear off.

SILVICULTURAL SITES AND UTILITY RIGHTS-OF-WAY

TYPES OF APPLICATIONS: This product is labeled for the control or partial control of woody brush, trees and herbaceous weeds. This product is labeled for use in forestry and utility sites. This product can also be used for use in preparing or establishing wildlife openings within these sites and maintaining logging roads, and for side trimming along utility rights-of-way.

In forestry, use this product for site preparation prior to planting any tree species, including Christmas trees and silvicultural nursery sites.

In utilities, this product can be used along electrical power, pipeline and telephone rights-of-way, and in other utility sites associated with these rights-of-way, such as substations.

APPLICATION RATES AND TIMING:

Application	Glyphosate 5.4	Spray Volume (Gal/A)
Broadcast		
Aerial	1.5 to 7.5 qts./A	5 to 30
Ground	1.5 to 7.5 qts./A	10 to 60
Spray-to-Wet		
Handgun, Backpack, Mistblower	0.6% to 2% by volume	spray-to-wet
Low Volume Directed Spray		
Handgun, Backpack, Mistblower	4% to 7.5% by volume	partial coverage*

*For low volume directed spray applications, coverage should be uniform with at least 50 percent of the foliage contacted. Coverage of the top one-half of the plant is important for best results.

In forestry site preparation and utility rights-of-way applications, this product requires use with a nonionic surfactant. Use a nonionic surfactant with greater than 80 percent active ingredient and labeled for use with herbicides. Use of this product without surfactant will result in reduced performance. Refer to the "MIXING" section of this label for more information.

Mix 2 or more quarts of the nonionic surfactant per 100 gallons of spray solution (0.5 percent or more by spray volume). Do not use surfactant concentrations greater than 1.5 percent by spray volume with handgun applications or 2.5 percent by spray volume with broadcast applications.

Use higher rates of this product within the specified range for control or partial control of woody brush, trees and hard-to-control perennial herbaceous weeds. For best results, apply to actively growing woody brush and trees after full leaf expansion and before fall color and leaf drop. Increase rates within the specified range for control of perennial herbaceous weeds any time after emergence and before seedheads, flowers or berries appear.

Use the lower rates of this product within the specified range for control of annual herbaceous weeds and actively growing perennial herbaceous weeds after seedheads, flowers or berries appear. Apply to the foliage of actively growing annual herbaceous weeds any time after emergence.

This product has no herbicidal or residual activity in the soil. Where repeat applications are necessary, do not exceed 8 quarts of this product per acre per year.

Tank Mixtures
Tank mixtures of this product may be used to increase the spectrum of vegetation controlled. When tank mixing, read and carefully observe the label claims, cautionary statements and all information on the labels of both products used. Use according to the most restrictive precautionary statements for each product in the mixture. Any listed rate of this product may be used in a tank mix.

NOTE: For forestry site preparation, make sure the tank-mix product is approved for use prior to planting the desired species. Observe planting interval restrictions. For side trimming treatments in utility rights-of-way, do not use tank mixtures with Arsenal® 2WSL. For side trimming treatments, use this product alone, or as a tank mixture with Garlon® 4 or Triclopyr 4 EC.

Product	Broadcast Rate	Use Sites
Arsenal® Applicators Concentrate or Imazapyr 4 SL**	2 to 16 fl. oz./A	Forestry site preparation
Chopper® or Rotary**	4 to 32 oz./A	Forestry site preparation
Escort®** or Metsulfuron Methyl DF**	½ to 3 ½ oz./A	Forestry site preparation
Oust® or SFM 75	1 to 4 oz./A	Forestry site preparation, Utility sites
Garlon® 3A*, Garlon® 4, Triclopyr 4 EC**, Triclopyr 3A**	1 to 4 qts.	Forestry site preparation, Utility sites
Arsenal® 2WSL**	4 to 32 fl. oz./A	Utility sites

Product	Spray-to-Wet Rates	Use Sites
Arsenal® Applicators Concentrate or Imazapyr 4 SL**	1/32 % to ½ % by volume	Forestry site preparation
Arsenal® 2WSL**	1/16 % to ½ % by volume	Utility sites

Product	Low Volume Directed Spray Rates	Use Sites
Arsenal® Applicators Concentrate or Imazapyr 4 SL**	1/8 % to ½ % by volume	Forestry site preparation
Arsenal® 2WSL**	1/8 % to ½ % by volume	Utility sites

*Ensure that Garlon® 3A (or Triclopyr 3A) are thoroughly mixed with water according to label directions before adding this product. Have spray mixture agitating at the time this product is

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added to avoid spray compatibility problems.
**Not registered in the state of California.

For control of herbaceous weeds, use the lower specified tank mixture rates. For control of dense stands or tough-to-control woody brush and trees, use the higher specified rates.

FORESTRY CONIFER AND HARDWOOD RELEASE

Directed Spray and Selective Equipment
This product may be applied as a directed spray or by using selective equipment in forestry conifer and hardwood sites, including Christmas tree plantations and silvicultural nurseries. Mix 2 to 6 quarts of a nonionic surfactant per 100 gallons of spray solution (0.5 to 1.5 percent by spray volume) for all spray applications. Use a surfactant with greater than 80 percent active ingredient.

In hardwood plantations, tank mixtures with Oust® (or SFM 75) may be used. In pine plantations, tank mixtures with Garlon® 4 (or Triclopyr 4 EC) or Arsenal® AC (or Imazapyr 4 SL) may be used. Comply with all site restrictions, forestry species limitations and precautions on the tank mix product label.

Avoid contact of spray, drift, mist or drips with foliage, green bark or non-woody surface roots of desirable species.

See all sections in the "APPLICATON EQUIPMENT AND TECHNIQUES" portion of this label for specific equipment and precautions.

For spray-to-wet applications, use a 1.5 percent spray solution for the control of undesirable woody brush and trees. To control herbaceous weeds, use a 0.75 to 1.5 percent solution. For low volume directed spray applications, use a 4 to 7.5 percent spray solution. Coverage should be uniform with at least 50 percent of the foliage contacted. Coverage of the top one-half of the unwanted vegetation is important.

For equipment calibrated for broadcast applications, use 1.5 to 7.5 quarts of this product per acre. Apply in 10 to 60 gallons of clean water per acre. Shielded application equipment may be used to avoid contact of the spray solution with desirable plants. Shields should be adjusted to prevent spray contact with the foliage or green bark of desirable vegetation.

Wiper application equipment may be used. Wiper applicators are devices that physically wipe appropriate amounts of this product directly onto the weed.

Equipment must be designed, maintained and operated to prevent the herbicide solution from contacting desirable vegetation. Operate this equipment at ground speeds no greater than 5 mph. Performance may be improved by reducing speed in areas of heavy weed infestations to ensure adequate wiper saturation. Better results may be obtained if 2 applications are made in opposite directions.

Avoid leakage or dripping onto desirable vegetation. Adjust height of applicator to ensure adequate contact with weeds. Keep wiping surfaces clean. Be aware that, on sloping ground, the herbicide solution may migrate, causing dripping on the lower end and drying of the wicks on the upper end of a wiper applicator.

Do not use wiper equipment when weeds are wet.

Mix only the amount of solution to be used during a 1-day period, as reduced activity may result from use of leftover solutions. Clean wiper parts immediately after using this product by thoroughly flushing with water.

Use a nonionic surfactant at a rate of 10 percent by volume of total herbicide solution with all wiper applications.

For Rope or Sponge Wick Applicators – Mix 3 quarts of this product in 2 gallons of water to prepare a 25 percent solution. Apply this solution to weeds listed in this section.

For Porous-Plastic Applicators – Solutions ranging from 25 to 100 percent of this product in water may be used in porous-plastic wiper applicators.

Broadcast Spray
Except where specified below, use only where conifers have been established for more than one year.

Application must be made after formation of final conifer resting buds in the fall or prior to initial bud swelling in the spring.

Injury may occur to conifers treated for release, especially where spray patterns overlap or the higher rates are applied. Damage can be accentuated if applications are made when conifers are actively growing, or are under stress from drought, flood water, improper planting, insects, animal damage or diseases.

This product may require use with a surfactant. Follow the instructions under the "MIXING AND APPLICATION INSTRUCTIONS" portion of this label.

For release of the following conifer species outside the Southeastern United States:

Douglas fir	**Pines***
Pseudotsuga menziesii	*Pinus spp.*
Fir	**Redwood, California****
Abies spp.	*Sequoia spp.*
Hemlock**	**Spruce**
Tsuga spp.	*Picea spp.*

*Includes all species except loblolly pine, longleaf pine, shortleaf pine or slash pine.
**Do not use a surfactant for release of hemlock species or California redwood. In mixed conifer stands, injury to these species may result if a surfactant is used.

Apply 0.75 to 1.5 quarts of this product per acre as a broadcast spray.

Note: For release of Douglas fir with this product or specified tank mixtures of this product, Entry™ II or a nonionic surfactant labeled for over-the-top foliar sprays may be used. To avoid possible conifer injury, Entry™ II rates should not exceed 20 fluid ounces per acre at elevations above 1500 feet, or 10 fluid ounces per acre in the coastal range or at elevations below 1500 feet in Washington and Oregon. Nonionic surfactants may be used at 2 fluid ounces per acre at elevations above 1500 feet, or 1 fluid ounce per acre in the coastal range or at elevations below 1500 feet. Use of surfactant rates exceeding those listed above may result in unacceptable conifer injury and are not recommended. Ensure that the nonionic surfactant has been adequately tested for Douglas fir safety before use.

In Maine, up to 2.25 quarts per acre of this product or a tank mix with 1 fl. oz./A of Arsenal® Applicators Concentrate (or Imazapyr 4 SL) may be used for the control of difficult species. To release Douglas fir, pine and spruce species at the end of the first growing season (except in California), apply 0.75 to 1.125 quarts of this product per acre. Ensure that the conifers are well hardened off.

Oust® (or SFM 75) Tank Mixtures – To release jack pine, white pine and white spruce, apply 0.75 to 1.5 quarts of this product with 1 to 3 fl. oz. (1 to 1.5 for white pine) of Oust® (or SFM 75) per acre. Make applications to actively growing weeds as a broadcast spray over the top of established conifers. Applications at these rates should be made after formation of conifer resting buds in the late summer or fall.

Arsenal® Applicators Concentrate (or Imazapyr 4 SL) Tank Mixtures – This product may be tank mixed with Arsenal® Applicators Concentrate (or Imazapyr 4 SL) for release of Douglas fir. Use 0.75 to 1.125 quarts of this product tank mixed with 2 to 6 fluid ounces of Arsenal® (or Imazapyr 4 SL) per acre. For release of balsam fir and red spruce, apply a mixture of 1.5 quarts of this product and 1 to 2.5 fluid ounces of Arsenal® Applicators Concentrate (or Imazapyr 4 SL) per acre.

For release of the following conifer species in the Southeastern United States:

Eastern white pine	**Shortleaf pine**
Pinus strobus	*Pinus echinata*
Loblolly pine	**Slash pine**
Pinus taeda	*Pinus elliottii*
Longleaf pine	**Virginia pine**
Pinus palustris	*Pinus virginiana*

Apply 1.125 to 1.875 quarts of this product per acre as a broadcast spray during late summer or early fall after the conifers have hardened off. For applications at the end of the first growing season, use 0.75 quart per acre of this product alone or in a recommended tank mixture.

Arsenal® Applicators Concentrate (or Imazapyr 4 SL) Tank Mixtures – Apply 0.75 to 1.5 quarts of this product with 2 to 16 fluid ounces of Arsenal® Applicators Concentrate (or Imazapyr 4 SL) per acre as a broadcast spray for conifer release. Use only on conifer species that are labeled for over-the-top sprays for both products. Use the higher specified rates for dense, tough-to-control woody brush and trees.

Read and carefully observe the label claims, cautionary statements and all information on the labels of each product used in these tank mixtures. Use according to the most restrictive precautionary statements for each product in the mixture.

HERBACEOUS RELEASE

When applied as directed, this product plus listed residual herbicides provides postemergence control of the annual weeds and control or suppression of the perennial weeds listed in this label, and residual control of the weeds listed in the residual herbicide label. Make applications to actively growing weeds as a broadcast spray over the top of labeled conifers.

Oust® (or SFM 75) Tank Mixtures – To release loblolly pines, apply 12 to 18 fluid ounces of this product, plus 2 to 4 ounces of Oust® (or SFM 75) per acre. To release slash pines, apply 9 to 12 fluid ounces of this product, plus 2 to 4 ounces of Oust® (or SFM 75) per acre.

Mix up to 3.2 fluid ounces per acre of Entry™ II with the specified rate of this product plus Oust® (or SFM 75). Applications can be made over newly planted pines after the emergence of herbaceous weeds in the spring or early summer. Best results are obtained from applications made in May and June.

Weed control may be reduced if water volumes exceed 25 gallons per acre for these treatments.

Atrazine Tank Mixtures – To release Douglas fir, apply 0.75 quart of this product, plus 4 pounds active ingredient of atrazine per acre. Apply only over Douglas fir that has been established for at least one full growing season. Apply in the early Spring, usually mid-March through early April. Injury will occur if applications are made after bud swell in the Spring. Do not add surfactant to this mix for this use.

Always read and follow the manufacturer's label recommendations for all herbicides and surfactants used.

GLYPHOSATE 5.4 Specimen Label

ANNUAL WEEDS RATE TABLES ALPHABETICALLY BY SPECIES

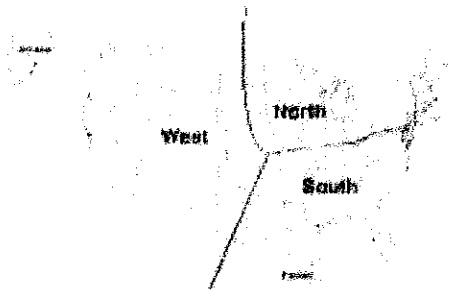
Use water carrier volumes of 3 to 10 gallons per acre for ground applications and 3 to 5 gallons per acre for aerial applications.

Apply to actively growing annual weeds.

Do not tank mix with soil residual herbicides when using these rates unless otherwise specified.

For weeds that have been mowed, grazed or cut, allow regrowth to occur prior to treatment. For those rates less than 36 fluid ounces per acre, this product may be used up to 36 fluid ounces per acre where heavy weed densities exist.

Refer to this map for location of the regions listed in the annual weed tables below.



ANNUAL WEEDS RATE TABLE, NORTH AND SOUTH REGIONS

WEED SPECIES	REGION	RATE (FLUID OUNCES PER ACRE) 9	12	18	24	30	36
		MAXIMUM HEIGHT/LENGTH					
Annoda, spurred		-	1"	2"	3"	5"	8"
Barley		-	18"	18"+	-	-	-
Barnyardgrass	South	-	3"	5"	7"	9"	12"
	North	-	-	6"	12"	-	-
Bassia, fivehook					6"		
Bittercress		-	12"	20"	-	-	-
Bluegrass, annual		-	10"	-	-	-	-
Brome, downy		6"	-	-	-	-	-
Brome, Japanese		-	6"	-	24"	-	-
Browntop panicum		-	6"	8"	12"	-	24"
Burcucumber		-	-	6"	12"	-	-
Buttercup		-	12"	20"	-	-	-
Carolina foxtail		-	20"	-	-	-	-
Carolina geranium		-	-	-	4"	-	9"
Carpetweed		-	-	6"	12"	-	-
Cheat		-	6"	20"	-	-	-
Chervil		-	20"	-	-	-	-
Chickweed		-	12"	18"	-	-	-
Cocklebur		-	12"	18"	24"	-	-
Copperleaf, hophornbeam		-	1"	2"	3"	4"	6"
Copperleaf, Virginia		-	1"	2"	3"	4"	6"
Corn		-	12"	20"	-	-	-
Corn speedwell		-	12"	-	-	-	-
Crabgrass		-	12"	18"	-	-	-
Cutleaf evening primrose		-	-	-	3"	3"	6"
Dwarfdandelion		-	20"	-	-	-	-
Eastern mannagrass		-	8"	12"	-	-	-
Eclipta		-	4"	8"	12"	-	-
Fall panicum	South	-	4"	6"	8"	12"	24"
	North	-	6"	12"	18"	-	-
Falsedandelion		-	20"	-	-	-	-
Falseflax, smallseed		-	12"	-	-	-	-
Fiddleneck		-	-	-	6"	6"	12"
Field pennycress		-	6"	12"	-	-	-
Filaree		-	-	-	-	-	12"
Fleabane, annual		-	6"	20"	-	-	-
Fleabane, hairy (*Conyza bonariensis*)		-	6"	-	-	-	-
Fleabane, rough		-	3"	6"	12"	-	-
Florida pusley		-	-	-	4"	4"	6"
Foxtail	South	-	8"	12"	20"	-	-
	North	18"	18"+	-	-	-	-
Goatgrass, jointed		-	6"	-	-	-	-
Goosegrass		-	3"	5"	8"	-	16"
Grain sorghum (milo)		-	6"	12"	20"	-	-
Groundsel, common		-	6"	-	-	-	-
Hemp sesbania		-	-	2"	4"	6"	8"
Henbit		-	-	-	6"	-	20"
Horseweed/Marestail (*Conyza canadensis*)	South	-	-	12"	30"	-	-
	North	-	6"	12"	18"	-	-
Itchgrass		-	6"	12"	18"	-	-
Johnsongrass, seedling	South	-	-	18"	-	-	-
	North	-	12"	18"	-	-	-
Junglerice		-	3"	5"	7"	9"	12"
Knotweed			-	3"	8"	12"	- 20"

WEED SPECIES	REGION	RATE (FLUID OUNCES PER ACRE) 9	12	18	24	30	36
		MAXIMUM HEIGHT/LENGTH					
Kochia[1]		-	3 to 6"	12"	-	-	-
Lambsquarters		-	6"	8"	12"	-	20"
Little barley		-	20"	-	-	-	-
London rocket		-	6"	-	-	-	-
Mayweed		-	-	2"	6"	12"	18"
Morningglory (*Ipomoea spp.*)		-	-	2"	4"	-	6"
Mustard, blue		6"	-	-	-	-	-
Mustard, tansy		6"	12"	20"	-	-	-
Mustard, tumble		6"	-	-	-	-	-
Mustard, wild		6"	12"	18"	-	-	-
Nightshade, black		-	6"	12"	-	-	-
Nightshade, hairy		-	6"	12"	-	-	-
Oats		-	-	6"	20"	-	-
Pigweed		-	12"	18"	24"	-	-
Prickly lettuce		-	6"	12"	20"	-	-
Purslane		-	-	-	6"	6"	12"
Ragweed, common	South	-	4"	6"	8"	-	11"
	North	-	6"	12"	18"	-	-
Ragweed, giant		-	-	4"	6"	-	11"
Red rice		-	-	-	4"	-	-
Russian thistle		-	-	-	6"	-	-
Rye	South	-	6"	20"	60"	-	-
	North	-	18"	18"+	-	-	-
Ryegrass		-	-	-	6"	-	7"+
Sandbur, field		12"	-	-	-	-	-
Shattercane		-	12"	18"	-	-	-
Shepherdspurse		-	6"	12"	-	-	-
Sicklepod		-	-	2"	4"	-	8"
Signalgrass, broadleaf		-	3"	5"	7"	9"	12"
Smartweed, ladysthumb		-	4"	6"	8"	-	12"
Smartweed, Pennsylvania		-	4"	6"	8"	-	12"
Sowthistle, annual		-	-	-	6"	-	12"
Spanishneedles		-	-	-	8"	-	18"
Speedwell, purslane		-	12"	-	-	-	-
Sprangletop		-	6"	12"	20"	-	-
Spurge, prostrate		-	6"	12"	20"	-	-
Spurge, spotted		-	6"	12"	20"	-	-
Spurry, umbrella		6"	-	-	-	-	-
Stinkgrass		12"	-	-	-	-	-
Sunflower		-	12"	18"	-	-	-
Teaweed/Prickly sida		-	1"	2"	3"	4"	6"
Texas panicum		-	6"	8"	12"	-	24"
Velvetleaf	South	-	2"	3"	4"	5"	8"
	North	-	3"	6"	12"	-	-
Virginia pepperweed		-	18"	-	-	-	-
Waterhemp		-	-	6"	12"	-	-
Wheat	South	-	6"	30"	-	-	-
	North	-	18"	18"+	-	-	-
Wheat (overwintered)		-	6"	18"	-	-	-
Wild Proso Millet		-	-	6"	12"	12"	18"
Witchgrass		-	12"	-	-	-	-
Woolly cupgrass		-	6"	12"	-	-	-
Yellow rocket		-	-	12"	20"	-	-

[1]Do not treat kochia in the button stage.

ANNUAL WEEDS RATE TABLE, WEST REGION

WEED SPECIES	RATE (FLUID OUNCES PER ACRE) 9	12	18	24	36
	MAXIMUM HEIGHT/LENGTH				
Barley	12"	-	-	-	-
Barnyardgrass	6"	-	-	-	-
Bluegrass, annual	6"	-	-	-	-
Bluegrass, bulbous	-	6"	-	-	-
Brome, downy[1]	6"	-	-	-	-
Buttercup	-	12"	-	-	-
Cheat	-	6"	-	-	-
Chickweed	-	6"	-	-	-
Cocklebur	-	12"	-	-	-
Corn	-	6"	-	-	-
Crabgrass	-	12"	-	-	-
Dwarfdandelion	-	12"	-	-	-
Fall panicum	-	12"	-	-	-
Falseflax, smallseed	-	12"	-	-	-
Field pennycress	-	6"	-	-	-
Filaree	-	-	-	-	12"
Fleabane, hairy (*Conyza bonariensis*)	-	6"	-	-	-
Florida pusley	-	-	-	12"	-
Foxtail	6 fl. oz. for up to 12"				
Goatgrass, jointed	-	6"	-	-	-
Groundsel, common	-	6"	-	-	-
Henbit	-	6"	-	-	-
Horseweed/Marestail (*Conyza canadensis*)	-	6"	-	-	-
Johnsongrass, seedling	-	12"	-	-	-
Lambsquarters	-	6"	-	-	-
London rocket	-	6"	-	-	-

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WEED SPECIES	RATE (FLUID OUNCES PER ACRE) 9	12	18	24	36
	MAXIMUM HEIGHT/LENGTH				
Morningglory *(Ipomoea spp.)*	-	2"	-	-	-
Mustard, blue	6"	-	-	-	-
Mustard, tansy	6"	-	-	-	-
Mustard, tumble	6"	-	-	-	-
Mustard, wild	6"	-	-	-	-
Pigweed	-	12"	-	-	-
Rye	12"	-	-	-	-
Ryegrass, Italian	-	6"	-	-	-
Sandbur, field	12"	-	-	-	-
Shattercane	12"	-	-	-	-
Shepherdspurse	-	6"	-	-	-
Sowthistle, annual	-	6"	-	-	-
Spurge, annual	-	6"	-	-	-
Stinkgrass	12"	-	-	-	-
Texas panicum	-	12"	-	-	-
Wheat	18"	-	-	-	-
Wild oats	-	12"	-	-	-
Witchgrass	-	12"	-	-	-

[1]For control of Downy brome in no-till systems, use 12 fluid ounces per acre.

Annual Weeds – Water Carrier Volumes of 10 to 40 Gallons Per Acre

Apply 1 ½ pints to 2 ¼ pints of this product per acre. Use 1 ½ pints per acre if weeds are less than 6 inches tall and 2 ¼ pints per acre if weeds are over 6 inches tall.

These rates will provide control of weeds listed in the annual weed control tables when water carrier volumes are 10 to 40 gallons per acre for ground applications.

Annual Weeds – Tank Mixtures with 2,4-D or Banvel®

9 to 12 fluid ounces of this product plus 0.25 pounds a.i. of Banvel® or 0.5 pounds a.i. of 2,4-D per acre will control the following weeds with the maximum height or length indicated: 6" – prickly lettuce, marestail/horseweed (*Conyza canadensis*), morningglory (*Ipomoea* spp.), kochia (Banvel® only); 12" – cocklebur, lambsquarters, pigweed, Russian thistle.

12 fluid ounces of this product plus 0.5 pounds a.i. of 2,4-D per acre will control the following weeds when they are a maximum height or length of 6 inches: common ragweed, giant ragweed, Pennsylvania smartweed, and velvetleaf.

9 fluid ounces of this product plus 0.25 pounds a.i. of Banvel® or 0.5 pounds a.i. of 2,4-D per acre will control foxtail up to 18".

Refer to the specific product labels for crop rotation restrictions and cautionary statements of all products used in tank mixtures. Some crop injury may occur if Banvel® is applied within 45 days of planting.

DO NOT APPLY BANVEL TANK MIXTURES BY AIR IN CALIFORNIA.

PERENNIAL WEEDS RATE TABLE ALPHABETICALLY BY SPECIES

Apply to actively growing perennial weeds.

NOTE: If weeds have been mowed or tilled, do not treat until plants have resumed active growth and have reached the specified stages.

Repeat treatments may be necessary to control weeds regenerating from underground parts or seed. Repeat treatments must be made prior to crop emergence.

Unless otherwise stated, allow 7 or more days after application before tillage.

Do not treat when weeds are under drought stress as good soil moisture is necessary for active growth.

Weed Species	Rate (PT/A)	Water Volume	Hand-Held % Solution	Comments
Alfalfa	1.5-3	3-10	1.5%	Make applications after the last hay cutting in the fall. Allow alfalfa to regrow to a height of 6 to 8 inches or more prior to treatment. Applications should be followed with deep tillage at least 7 days after treatment, but before soil freeze-up.
Alligatorweed	6	3-20	1.25%	Partial control. Apply when most of the plants are in bloom. Repeat applications will be required to maintain control.
Anise (fennel)	-	-	0.75-1.5%	Apply as a spray-to-wet treatment. Optimum results are obtained when plants are treated at the bud to full-bloom stage of growth.
Bahiagrass	4.5-7.5	3-20	1.5%	Apply when most plants have reached the early head stage.
Bentgrass	2.25	10-20	1.5%	For suppression in grass seed production areas. For ground applications only. Ensure entire crown area has resumed growth prior to a fall application. Bentgrass should have at least 3 inches of growth. Tillage prior to treatment should be avoided. Tillage 7 to 10 days after application produces the best results.
Bermudagrass	4.5-7.5	3-20	1.5%	For control, apply 7.5 pints of this product per acre. For partial control, apply 4.5 pints per acre. Treat when bermudagrass is actively growing and seedheads are present. Retreatment may be necessary to maintain control.
Bermudagrass, water (knotgrass)	1.5-2.25	5-10	1.5%	Apply 2.25 pints of this product in 5 to 10 gallons of water per acre. Apply when water bermudagrass is 12 to 18 inches in length. Allow 7 or more days before tilling, flushing or flooding the field. Fall applications only: Apply 1.5 pints of this product in 5 to 10 gallons of water per acre. Fallow fields should be tilled prior to application. Apply prior to frost on water bermudagrass that is 12 to 18 inches in length. This product is not registered in California for use on water bermudagrass.
Bindweed, field	0.75-7.5	3-20	1.5%	Do not treat when weeds are under drought stress as good soil moisture is necessary for active growth. For control, apply 6 to 7.5 pints of this product per acre west of the Mississippi River and 4.5 to 6 pints east of the Mississippi River. Apply when the weeds are at or beyond full bloom. For best results, apply in late summer or fall. Fall treatments must be applied before a killing frost. Also for control, apply 3 pints of this product plus 0.5 pounds a.i. of Banvel® in 10 to 20 gallons of water per acre. Do not apply by air. For suppression on irrigated agricultural land, apply 1.5 to 3 pints of this product plus 1 pound a.i. of 2,4-D in 10 to 20 gallons of water per acre with ground equipment only. Applications should be made following harvest or in fall fallow ground when the bindweed is actively growing and the majority of runners are 12 inches or more in length. The use of at least one irrigation will promote active bindweed growth. For suppression, apply 12 fluid ounces of this product plus 0.5 pound a.i. 2,4-D in 3 to 10 gallons of water per acre for ground applications and 3 to 5 gallons of water per acre for aerial applications. Apply by air in fallow and reduced tillage systems only. Applications should be delayed until maximum emergence has occurred and when vines are between 6 to 18 inches in length. In California only, apply 1.5 to 7.5 pints of this product per acre. Actual rate needed for suppression or control will vary within this range depending on local conditions. For suppression on irrigated land where annual tillage is performed, apply 1.5 pints of this product in 3 to 10 gallons of water per acre. Apply to bindweed that has reached a length of 12 inches or greater. Allow maximum weed emergence and runner growth. Allow 3 or more days after application before tillage.
Bluegrass, Kentucky	1.5-3	3-40	1.5%	Apply 3 pints of this product in 10 to 40 gallons of water per acre when most plants have reached boot-to-early seedhead stage of development. For partial control in pasture or hay crop renovation, apply 1.5 to 2.25 pints of this product in 3 to 10 gallons of water per acre. Apply to actively growing plants when most have reached 4 to 12 inches in height.
Blueweed, Texas	4.5-7.5	3-40	1.5%	Apply 6 to 7.5 pints of this product per acre west of the Mississippi River and 4.5 to 6 pints per acre east of the Mississippi River. Apply when plants are at or beyond full bloom. New leaf development indicates active growth. For best results, apply in late summer or fall. Fall treatments must be applied before a killing frost.
Brackenfern	4.5-6	3-40	0.75-1.5%	Apply to fully expanded fronds which are at least 18 inches long.
Bromegrass, smooth	1.5-3	3-40	1.5%	Apply 3 pints of this product in 10 to 40 gallons of water per acre when most plants have reached boot-to-early seedhead stage of development. For partial control in pasture or hay crop renovation, apply 1.5 to 2.25 pints of this product in 3 to 10 gallons of water per acre. Apply to actively growing plants when most have reached 4 to 12 inches in height.
Bursage, woolly-leaf	-	3-20	1.5%	For control, apply 3 pints of this product plus 1 pint of Banvel® per acre. For partial control, apply 1.5 pints of this product plus 1 pint of Banvel® per acre. Apply when plants are producing new active growth which has been initiated by moisture for at least 2 weeks and when plants are at or beyond flowering.

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Weed Species	Rate (PT/A)	Water Volume	Hand-Held % Solution	Comments
Canarygrass, reed	3-4.5	3-40	1.5%	For best results, apply when most plants have reached the boot-to-head stage of growth.
Cattail	4.5-7.5	3-40	1.5%	Apply when most plants have reached the early head stage.
Clover; red, white	4.5-7.5	3-20	1.5%	Apply when most plants have reached the early bud stage.
Cogongrass	4.5-7.5	10-40	1.5%	Apply when cogongrass is at least 18 inches tall in late summer or fall. Due to uneven stages of growth and the dense nature of vegetation preventing good spray coverage, repeat treatments may be necessary to maintain control.
Dallisgrass	4.5-7.5	3-20	1.5%	Apply when most plants have reached the early head stage.
Dandelion	4.5-7.5	3-40	1.5%	Apply when most plants have reached the early bud stage of growth. Also for control, apply 12 fluid ounces of this product plus 0.5 pound a.i. 2,4-D in 3 to 10 gallons of water per acre.
Dock, curly	4.5-7.5	3-40	1.5%	Apply when most plants have reached the early bud stage of growth. Also for control, apply 12 fluid ounces of this product plus 0.5 pound a.i. 2,4-D in 3 to 10 gallons of water per acre.
Dogbane, hemp	6	3-40	1.5%	Apply when most plants have reached the late bud to flower stage of growth. Following crop harvest or mowing, allow weeds to regrow to a mature stage prior to treatment. For best results, apply in late summer or fall. For suppression, apply 12 fluid ounces of this product plus 0.5 pound a.i. of 2,4-D in 3 to 10 gallons of water per acre for ground applications and 3 to 5 gallons of water per acre for aerial applications. Delay applications until maximum emergence of dogbane has occurred.
Fescue (except tall)	4.5-7.5	3-20	1.5%	Apply when most plants have reached the early head stage.
Fescue, tall	1.5-4.5	3-40	1.5%	Apply 4.5 pints of this product per acre when most plants have reached boot-to-early seedhead stage of development. Fall applications only: Apply 1.5 pints of this product in 3 to 10 gallons of water per acre. Apply to fescue in the fall when plants have 6 to 12 inches of new growth. A sequential application of 12 fluid ounces per acre of this product will improve long-term control and control seedlings germinating after fall treatments or the following spring.
Guineagrass	4.5	3-40	0.75%	Apply when most plants have reached at least the 7-leaf stage of growth. Ensure thorough coverage when using hand-held equipment.
Horsenettle	4.5-7.5	3-20	1.5%	Apply when most plants have reached the early bud stage.
Horseradish	6	3-40	1.5%	Apply when most plants have reached the late bud to flower stage of growth. For best results, apply in late summer or fall.
Iceplant	-	-	1.5%	Iceplant should be at or beyond the early bud stage of growth. Thorough coverage is necessary for best control.
Jerusalem artichoke	4.5-7.5	3-20	1.5%	Apply when most plants are in the early bud stage.
Johnsongrass	0.75-4.5	3-40	0.75%	In annual cropping systems apply 1.5 to 3 pints of this product per acre. Apply 1.5 pints of this product in 3 to 10 gallons of water per acre. Use 3 pints of this product when applying 10 to 40 gallons of water per acre. In non-agricultural, or areas where annual tillage (no-till) is not practiced, apply 3 to 4.5 pints of this product in 10 to 40 gallons of water per acre. For best results, apply when most plants have reached the boot-to-head stage of growth or in the fall prior to frost. Allow 7 or more days after application before tillage. Do not tank mix with residual herbicides when using the 1.5 pint per acre rate. For burndown of Johnsongrass, apply 12 fluid ounces of this product in 3 to 10 gallons of water per acre before the plants reach a height of 12 inches. For this use, allow at least 3 days after treatment before tillage. Spot treatment (partial control or suppression) – Apply a 3/4 percent solution of this product when Johnsongrass is 12 to 18 inches in height. Coverage should be uniform and complete.
Kikuyugrass	3-4.5	3-40	1.5%	Spray when most kikuyugrass is at least 8 inches in height (3 or 4-leaf stage of growth). Allow 3 or more days after application before tillage.
Knapweed	6	3-40	1.5%	Apply when most plants have reached the late bud to flower stage of growth. For best results, apply in late summer or fall.
Lantana	-	-	0.75-1.0%	Apply at or beyond the bloom stage of growth. Use the higher application rate for plants that have reached the woody stage of growth.
Lespedeza	4.5-7.5	3-20	1.5%	Apply when most plants have reached the early bud stage.
Milkweed, common	4.5	3-40	1.5%	Apply when most plants have reached the late bud to flower stage of growth.
Muhly, wirestem	1.5-3	3-40	1.5%	Use 1.5 pints of this product in 3 to 10 gallons of water per acre. Use 3 pints of this product when applying 10 to 40 gallons of water per acre or in pasture, sod, or non-agricultural areas. Spray when the wirestem muhly is 8 inches or more in height. Do not till between harvest and fall applications or in the fall or spring prior to spring applications. Allow 3 or more days after application before tillage.
Mullein, common	4.5-7.5	3-20	1.5%	Apply when most plants are in the early bud stage.
Naplergrass	4.5-7.5	3-20	1.5%	Apply when most plants are in the early head stage.
Nightshade, silverleaf	3	3-10	1.5%	Applications should be made when at least 60 percent of the plants have berries. Fall treatments must be applied before a killing frost.
Nutsedge; purple, yellow	0.75-4.5	3-40	0.75-1.5%	Apply 4.5 pints of this product per acre or apply a ¾ to 1 ½ percent solution for control of nutsedge plants and immature nutlets attached to treated plants. Treat when plants are in flower or when new nutlets can be found at rhizome tips. Nutlets which have not germinated will not be controlled and may germinate following treatment. Repeat treatments will be required for long-term control of ungerminated tubers. Sequential applications: 1.5 to 3 pints of this product in 3 to 10 gallons of water per acre will also provide control. Make applications when a majority of the plants are in the 3 to 5-leaf stage (less than 6 inches tall). Repeat this application, as necessary, when newly emerging plants reach the 3 to 5-leaf stage. Subsequent applications will be necessary for long-term control. For partial control of existing plants, apply 12 fluid ounces to 3 pints of this product in 3 to 40 gallons of water per acre. Treat when plants have 3 to 5 leaves and most are less than 6 inches tall. Repeat treatments will be required to control subsequent emerging plants or regrowth of existing plants.
Orchardgrass	1.5-3	3-40	1.5%	Apply 3 pints of this product in 10 to 40 gallons of water per acre when most plants have reached boot-to-early seedhead stage of development. For partial control in pasture or hay crop renovation, apply 1.5 to 2.25 pints of this product in 3 to 10 gallons of water per acre. Apply to actively growing plants when most have reached 4 to 12 inches in height. Orchardgrass sods going to no-till corn: Apply 1.5 to 2.25 pints of this product in 3 to 10 gallons of water per acre. Apply to orchardgrass that is a minimum of 12 inches tall for spring applications and 6 inches tall for fall applications. Allow at least 3 days following application before planting. A sequential application of atrazine will be necessary for optimum results.
Pampasgrass	-	-	1.5%	Pampasgrass should be at or beyond the boot stage of growth. Thorough coverage is necessary for best control.
Paragrass	4.5-7.5	3-20	1.5%	Apply when most plants are in the early head stage.
Phragmites	4.5-7.5	10-40	0.75-1.5%	For partial control. For best results, treat during late summer or fall months or when plants are actively growing and in full bloom. Treatment before or after this stage may lead to reduced control. Due to the dense nature of the vegetation, which may prevent good spray coverage or uneven stages of growth, repeat treatments may be necessary to maintain control. Visual control symptoms will be slow to develop.

GLYPHOSATE 5.4 Specimen Label

Weed Species	Rate (PT/A)	Water Volume	Hand-Held % Solution	Comments
Poison hemlock	-	-	0.75-1.5%	Apply as a spray-to-wet treatment. Optimum results are obtained when plants are treated at the bud to full-bloom stage of growth.
Pokeweed, common	1.5	3-40	1.5%	Apply to actively growing plants up to 24 inches tall.
Quackgrass	1.5-4.5	3-40	1.5%	In annual cropping systems, or in pastures and sods followed by deep tillage: Apply 1.5 pints of this product in 3 to 10 gallons of water per acre. For 10 to 40 gallons of water per acre, apply 3 pints of this product. Do not tank mix with residual herbicides when using the 1.5 pint rate. Spray when quackgrass is 6 to 8 inches in height. Do not till between harvest and fall applications or in fall or spring prior to spring application. Allow 3 or more days after application before tillage. In pastures or sods, use a moldboard plow for best results. In pastures, sods or non-agricultural areas where deep tillage does not follow application: Apply 3 to 4.5 pints of this product in 10 to 40 gallons of water per acre when the quackgrass is greater than 8 inches tall.
Redvine	1.25-3	5-10	1.5%	For suppression, apply 18 fluid ounces of this product per acre at each of two applications 7 to 14 days apart or a single application of 3 pints per acre. Apply specified rates in 5 to 10 gallons of water per acre. Apply in late September or early October to plants which are at least 18 inches tall and have been growing 45 to 60 days since the last tillage operation. Make applications at least 1 week before a killing frost.
Reed, giant	-	-	1.5%	Best results are obtained when applications are made in late summer to fall.
Ryegrass, perennial	1.5-4.5	3-40	0.75%	In annual cropping systems apply 1.5 to 3 pints of this product per acre. Apply 1.5 pints of this product in 3 to 10 gallons of water per acre. Use 3 pints of this product when applying 10 to 40 gallons of water per acre. In non-agricultural, or areas where annual tillage (no-till) is not practiced, apply 3 to 4.5 pints of this product in 10 to 40 gallons water per acre. For best results, apply when most plants have reached the boot-to-head stage of growth or in the fall prior to frost. Do not tank-mix with residual herbicides when using the 1.5 pint per acre rate.
Smartweed, swamp	4.5-7.5	3-40	1.5%	Apply when most plants have reached the early bud stage of growth. Also for control, apply 12 fluid ounces of this product plus 0.5 pound a.i. 2,4-D in 3 to 10 gallons of water per acre in the late summer or fall.
Sowthistle, perennial	3-4.5	3-40	1.5%	Apply when most plant are at or beyond the bud stage of growth. After harvest, mowing or tillage in the late summer or fall, allow at least 4 weeks for initiation of active growth and rosette development prior to the application of this product. Fall treatments must be applied before a killing frost. Allow 3 or more days after application before tillage.
Spurge, leafy	-	3-10	1.5%	For suppression, apply 12 fluid ounces of this product plus 0.5 pound a.i. 2,4-D in 3 to 10 gallons of water per acre in the late summer or fall. If mowing has occurred prior to treatment, apply when most of the plants are 12 inches tall.
Starthistle, yellow	3	10-40	1.5%	Best results are obtained when applications are made during the rosette, bolting and early flower stages.
Sweet potato, wild	-	-	1.5%	Partial control. Apply to plants that are at or beyond the bloom stage of growth. Repeat applications may be required.
Thistle, artichoke	-	-	1.5%	Partial control. Apply to plants that are at or beyond the bloom stage of growth. Repeat applications may be required.
Thistle, Canada	3-4.5	3-40	1.5%	Apply when most plants are at or beyond the bud stage of growth. After harvest, mowing or tillage in the late summer or fall, allow at least 4 weeks for initiation of active growth and rosette development prior to the application of this product. Fall treatments must be applied before a killing frost. Allow 3 or more days after application before tillage. For suppression, apply 1.5 pints of this product, or 12 fluid ounces of this product plus 0.5 pound a.i. 2,4-D, in 3 to 10 gallons of water per acre in the late summer or fall after harvest, mowing or tillage. Allow rosette regrowth to a minimum of 6 inches in diameter before treating. Applications can be made as long as leaves are still green and plants are actively growing at the time of application. Allow 3 or more days after application before tillage.
Timothy	3-4.5	3-40	1.5%	For best results, apply when most plants have reached the boot-to-head stage of growth.
Torpedograss	6-7.5	3-40	1.5%	For partial control. Apply when most plants are at or beyond the seedhead stage of growth. Repeat applications will be required to maintain control. Fall treatments must be applied before frost.
Trumpetcreeper	3	5-10	1.5%	Partial control. Apply in late September or October, to plants which are at least 18 inches tall and have been growing 45-60 days since the last tillage operation. Make applications at least 1 week before a killing frost.
Vaseygrass	4.5-7.5	3-20	1.5%	Apply when most plants are in the early head stage.
Velvetgrass	4.5-7.5	3-20	1.5%	Apply when most plants are in the early head stage.
Wheatgrass, western	3-4.5	3-40	1.5%	For best results, apply when most plants have reached the boot-to-head stage of growth.

WOODY BRUSH AND TREES RATE TABLE ALPHABETICALLY BY SPECIES

Apply this product after full leaf expansion, unless otherwise directed. Use the higher rate for larger plants and/or dense areas of growth. On vines, use the higher rate for plants that have reached the woody stage of growth. Best results are obtained when application is made in late summer or fall after fruit formation.

In arid areas, best results are obtained when applications are made in the spring to early summer when brush species are at high moisture content and are flowering.

Ensure thorough coverage when using hand-held equipment. Symptoms may not appear prior to frost or senescence with fall treatments.

Allow 7 or more days after application before tillage, mowing or removal. Repeat treatments may be necessary to control plants regenerating from underground parts or seed. Some autumn colors on undesirable deciduous species are acceptable provided no major leaf drop has occurred. Reduced performance may result if fall treatments are made following a frost.

Weed Species	Rate (PT/A)	Water Volume	Hand-Held % Solution	Comments
Alder	4.5-6	3-40	0.75-1.5%	For control
Ash	3-7.5	3-40	0.75-1.5%	Partial control
Aspen, quaking	3-4.5	3-40	0.75-1.5%	For control
Bearmat (Bearclover)	3-7.5	3-40	0.75-1.5%	Partial control
Beech	3-7.5	3-40	0.75-1.5%	Partial control
Birch	3	3-40	0.75%	For control
Blackberry	4.5-6	10-40	0.75-1.5%	For control. Make applications after plants have reached full leaf maturity. Best results are obtained when applications are made in late summer or fall. Applications may also be made after leaf drop and until a killing frost or as long as stems are green. After berries have set or dropped in late fall, blackberry can be controlled by applying a ¾ percent solution of this product. For control of blackberries after leaf drop and until a killing frost or as long as stems are green, apply 4.5 to 6 pints of this product in 10 to 40 gallons of water per acre.
Blackgum	3-7.5	3-40	0.75-1.5%	For control
Bracken	3-7.5	3-40	0.75-1.5%	For control
Broom; French, Scotch	-	-	1.5%	For control
Buckwheat, California	-	-	0.75-1.5%	For partial control. Thorough coverage of foliage is necessary for best results.
Cascara	3-7.5	3-40	0.75-1.5%	Partial control
Catsclaw	-	-	0.75-1.5%	Partial control
Ceanothus	3-7.5	3-40	0.75-1.5%	Partial control
Chamise	-	-	0.75%	For control. Thorough coverage of foliage is necessary for best results.

GLYPHOSATE 5.4 Specimen Label

Weed Species	Rate (PT/A)	Water Volume	Hand-Held % Solution	Comments
Cherry; bitter, black, pin	3-4.5	3-40	0.75-1.5%	For control
Coyote brush	-	-	1.5%	For control. Apply when at least 50 percent of the new leaves are fully developed.
Dogwood	3-7.5	3-40	0.75-1.5%	Partial control
Elderberry	3	3-40	0.75%	For control
Elm	3-7.5	3-40	0.75-1.5%	Partial control
Eucalyptus	-	-	1.5%	For control of eucalyptus resprouts, apply when resprouts are 6 to 12 feet tall. Ensure complete coverage. Avoid application to drought-stressed plants.
Florida holly (Brazilian Peppertree)	3-7.5	3-40	0.75-1.5%	Partial control
Gorse	3-7.5	3-40	0.75-1.5%	Partial control
Hasardia	-	-	0.75-1.5%	Partial control. Thorough coverage of foliage is necessary for best results.
Hawthorn	3-4.5	3-40	0.75-1.5%	For control
Hazel	3	3-40	0.75%	For control
Hickory	3-7.5	3-40	0.75-1.5%	Partial control
Honeysuckle	3-6	3-40	0.75-1.5%	For control
Hornbeam, American	3-7.5	3-40	0.75-1.5%	Partial control
Kudzu	6	3-40	1.5%	For control. Repeat applications may be required to maintain control.
Locust, black	3-6	3-40	0.75-1.5%	Partial control
Madrone resprouts	-	-	1.5%	Partial control. Apply to resprouts that are 3 to 6 feet tall. Best results are obtained with spring/early summer treatments.
Manzanita	3-7.5	3-40	0.75-1.5	Partial control
Maple, red	3-6	3-40	0.75-1.5	For control, apply a 0.75 to 1.5 percent solution when at least 50 percent of the new leaves are fully developed. For partial control, apply 3 to 6 pints of this product per acre.
Maple, sugar	-	-	0.75-1.5%	For control. Apply when at least 50 percent of the new leaves are fully developed.
Monkey flower	-	-	0.75-1.5%	Partial control. Thorough coverage of foliage is necessary for best results.
Oak; black, white	3-6	3-40	0.75-1.5%	Partial control
Oak, post	4.5-6	3-40	0.75-1.5%	For control
Oak; northern, pin	-	-	0.75-1.5%	For control. Apply when at least 50 percent of the new leaves are fully developed.
Oak, southern, red	3-4.5	3-40	0.75-1.5%	For control
Persimmon	3-7.5	3-40	0.75-1.5%	Partial control
Pine	3-7.5	3-40	0.75-1.5%	For control
Poison ivy/ Poison oak	4-6	3-40	2%	For control. Repeat applications may be required to maintain control. Fall treatments must be applied before leaves lose green color.
Poplar, yellow	3-7.5	3-40	0.75-1.5%	Partial control
Redbud, eastern	3-7.5	3-40	0.75-1.5%	For control
Rose, multiflora	3	3-40	0.75%	For control. Treatments should be made prior to leaf deterioration by leaf-eating insects.
Russian olive	3-7.5	3-40	0.75-1.5%	Partial control
Sage, black	-	-	0.75%	For control. Thorough coverage of foliage is necessary for best results.
Sage, white	3-7.5	3-40	0.75-1.5%	Partial control
Sage brush, California	-	-	0.75%	For control. Thorough coverage of foliage is necessary for best results.
Salmonberry	3	3-40	0.75%	For control
Salt-cedar	3-7.5	3-40	0.75-1.5%	For control
Sassafras	3-7.5	3-40	0.75-1.5%	Partial control
Sourwood	3-7.5	3-40	0.75-1.5%	Partial control
Sumac; poison, smooth, winged	3-6	3-40	0.75-1.5	Partial control
Sweetgum	3-4.5	3-40	0.75-1.5	For control
Swordfern	3-7.5	3-40	0.75-1.5%	Partial control
Tallowtree, Chinese	-	-	0.75%	For control. Thorough coverage of foliage is necessary for best results.
Tan oak resprouts	-	-	1.5%	For partial control. Apply to resprouts that are less than 3 to 6 feet tall. Best results are obtained with fall applications.
Thimbleberry	3	3-40	0.75%	For control
Tobacco, tree	-	-	0.75-1.5%	Partial control
Trumpetcreeper	3-4.5	3-40	0.75-1.5%	For control
Vine maple	3-7.5	3-40	0.75-1.5%	Partial control
Virginia creeper	3-7.5	3-40	0.75-1.5%	For control
Waxmyrtle, southern	3-7.5	3-40	0.75-1.5%	Partial control
Willow	4.5	3-40	0.75%	For control

CONDITION OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

To the extent consistent with applicable law, upon purchase or use of this product, purchaser and user agree to the following terms:

Warranty: Alligare, LLC (the Company) warrants that this product conforms to the chemical description on the label in all material respects and is reasonably fit for the purpose referred to in the directions for use, subject to the exceptions noted below, which are beyond the Company's control. To the extent consistent with applicable law, the Company makes no other representation or warranty, express or implied, concerning the product, including no implied warranty of merchantability or fitness for a particular purpose. No such warranty shall be implied by law, and no agent or representative is authorized to make any such warranty on the Company's behalf.

Terms of Sale: The Company's directions for use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, and the manner of use or application (including failure to adhere to label directions), all of which are beyond the Company's control. To the extent consistent with applicable law, all such risks are assumed by the user.

Limitation of Liability: To the extent consistent with applicable law, the exclusive remedy against the Company for any cause of action relating to the handling or use of this product is a claim for damages, and in no event shall damages or any other recovery of any kind exceed the price of the product which caused the alleged loss, damage, injury or other claim. To the extent consistent with applicable law, under no circumstances shall the Company be liable for any special, indirect, incidental or consequential damages of any kind, including loss of profits or income, and any such claims are hereby waived. Some states do not allow the exclusion or limitation of incidental or consequential damages.

The Company and the seller offer this product, and the purchaser and user accept this product, subject to the foregoing warranty, terms of sale and limitation of liability, which may be varied or modified only by an agreement in writing signed on behalf of the Company by an authorized representative.

Arsenal® and Chopper® are registered trademarks of BASF.
Garlon® is a registered trademark of Dow AgroSciences LLC.
Escort®, Oust®, and Telar® are registered trademarks of E.I. duPont de Nemours and Company.

EPA 20150619

Full label 99 pages long 516

ALLIGARE

GLYPHOSATE 4 PLUS

AVOID CONTACT OF HERBICIDE WITH FOLIAGE, GREEN STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES, BECAUSE SEVERE INJURY OR DESTRUCTION MAY RESULT.

Read the "CONDITIONS OF SALE AND WARRANTY" statement at the end of the label before buying or using this product. If terms are not acceptable, return at once unopened.

ACTIVE INGREDIENT:

*Glyphosate, N-(phosphonomethyl)glycine, in the form of its isopropylamine salt	41.0%
OTHER INGREDIENTS:	59.0%
TOTAL:	100.0%

*Contains 480 grams per litre or 4 pounds per U.S. gallon of the active ingredient, glyphosate, in the form of its isopropylamine salt. Equivalent to 356 grams per litre or 3 pounds per U.S. gallon of the acid, glyphosate.

EPA Reg. No. 81927-9

EPA Est. No. 81927-AL-001^{PM}
228-IL-001^{NF}; 70989-MO-001OS
42750-MO-001^{ALB}
Letter(s) in lot number correspond(s) to superscript in EPA Est. No.

KEEP OUT OF REACH OF CHILDREN

CAUTION

See label booklet for First Aid, Precautionary Statements and Directions for Use including Storage and Disposal instructions.

Manufactured for: Alligare, LLC
13 N. 8th Street
Opelika, AL 36801

EPA 20110207

SAFETY DATA SHEET

EMERGENCY CALL: 1-800-424-9300 (CHEMTREC)

1. IDENTIFICATION

PRODUCT NAME: Glyphosate 4 Plus
DESCRIPTION: A liquid herbicide.
EPA Reg. No.: 81927-9

COMPANY IDENTIFICATION:
Alligare, LLC
13 N. 8th Street
Opelika, AL 36801

2. HAZARD IDENTIFICATION



WARNING
Harmful if inhaled
Causes eye irritation

Toxic to aquatic life

3. COMPOSITION / INFORMATION ON INGREDIENTS

Common Name	Chemical Name	CAS #	Composition
Glyphosate Isopropylamine Salt	N-(phosphonomethyl)glycine, in the form of its isopropylamine salt	38641-94-0	41.0%

4. FIRST AID MEASURES

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-800-424-9300 for emergency medical treatment information.

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a doctor or poison control center if you feel unwell.

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. If eye irritation persists: Get medical advice/attention.

5. FIREFIGHTING MEASURES

Flash point: Will not flash

Flammable Limits (LFL-UFL): N/A

Fire and Explosion Hazards: During a fire, product may generating irritating or toxic gasses through thermal decomposition.

Means of Extinction: Use water spray, foam or dry chemical.

Fire Fighting Instructions: Evacuate area and fight fire from a safe distance. Approach from upwind to avoid hazardous vapors and decomposition products. A foam or dry chemical fire extinguishing system is preferred to prevent environmental damage from excessive water run off. If water is used, avoid heavy hose streams. If possible, dike and collect water used to fight fire to prevent/minimize run off.

Firefighting Equipment: Self-contained breathing apparatus with full face piece. Wear full firefighting turn-out gear (Bunker gear).

Hazardous Combustion Products: Carbon monoxide, nitrogen oxides, phosphorous oxides.

NFPA Ratings: Health: 1 / Flammability: 1 / Instability: 0

6. ACCIDENTAL RELEASE MEASURES

Clean up spills immediately. Isolate and post spill area. Wear protective clothing and personal protective equipment as prescribed in Section 8 "Exposure Controls/Personal Protection". Keep unprotected persons and animals out of area.

Small Spill: Absorb spill with inert material such as dry sand, vermiculite or fuller's earth, then place in a chemical waste container.

Large Spill: Dike large spills using absorbent or impervious material such as clay or sand. Recover and contain as much free liquid as possible for reuse. Allow absorbed material to solidify and scrape up for disposal. After removal, scrub the area with detergent and water and neutralize with dilute alkaline solutions of soda ash or lime.

7. HANDLING AND STORAGE

Handling: Keep out of reach of children and animals. Do not contaminate other pesticides, fertilizers, water, food or feed by storage or disposal. Avoid contact with eyes, skin, or clothing. Avoid breathing vapor or spray mist. Wash thoroughly with soap and water after handling.

Storage: Store above 10°F (-12°C) to keep product from crystallizing.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls: To keep exposure to airborne contaminants below exposure limits, proper ventilation is required when handling or using this product. Local mechanical exhaust ventilation may be required. Facilities storing or using this material should be equipped with an eyewash facility and a safety shower.

Protective Clothing: Handlers must wear long-sleeved shirt and long pants, and shoes plus socks. Safety goggles and waterproof gloves are recommended when mixing, loading or cleaning equipment.

General: Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Follow the manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear yellow to amber liquid
Odor: Slight amine odor
pH: 4.4
Flashpoint (PMA-4): N/A
Specific Gravity: 1.17 g/ml
Solubility in Water: Emulsifies

10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID: Avoid temperatures above 115°F (46°C) and below 25°F (-5°C)

CHEMICAL STABILITY: Stable under normal use and storage conditions. May decompose if heated.

HAZARDOUS DECOMPOSITION PRODUCTS: Heat and fire may result in thermal decomposition and the release of nitrogen oxides, phosphorous oxides and carbon monoxide.

INCOMPATIBILITY WITH OTHER MATERIALS: Strong oxidizers and bases, mild and galvanized steel.

HAZARDOUS REACTIONS: This product is chemically stable and no hazardous reactions should occur if stored and handled as prescribed / indicated.

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

ORAL TOXICITY (rat LD_{50}): > 5,000 mg/kg

DERMAL TOXICITY (rat LD_{50}): > 5,000 mg/kg

INHALATION TOXICITY (rat LC_{50}): > 2.5 mg/L (4-hour)

EYE IRRITATION: Rabbit – Moderately irritating

SKIN IRRITATION: Rabbit – Mildly irritating

SKIN SENSITIZATION: Not a contact sensitizer

CARCINOGENICITY:

EPA: Not Listed

ACGIH: Not Listed **NTP:** Not Listed

IARC: Not Listed **OSHA:** Not Listed

MUTAGENIC TOXICITY: No evidence of mutagenic effects during *in vivo* and *in vitro* assays.

REPRODUCTIVE TOXICITY: No evidence in animal studies.

12. ECOLOGICAL INFORMATION

This product is considered to be relatively nontoxic to dogs and other domestic animals; however, ingestion of this product or large amounts of freshly sprayed vegetation may result in temporary gastrointestinal irritation (vomiting, diarrhea, colic, etc.). If such symptoms are observed, provide the animal with plenty of fluids to prevent dehydration. Call a veterinarian if symptoms persist for more than 24 hours.

The following is for the active ingredient, Glyphosate Acid:

AQUATIC TOXICITY

Rainbow Trout (96-hr LC_{50}): 8.2 mg/L
Bluegill (96-hr LC_{50}): 5.8 mg/L

AVIAN TOXICITY

Bobwhite Quail (Oral LD_{50}): > 3,800 mg/kg

OTHER TOXICITY

Bee: Non-toxic.

13. DISPOSAL CONSIDERATIONS

Do not contaminate water, food or feed by storage or disposal.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, state or local procedures. Emptied container retains vapor and product residue. Observe all labeled safeguards until container is cleaned, reconditioned, or destroyed.

CONTAINER DISPOSAL: Nonrefillable container. Do not reuse or refill this container. Refer to the product label for specific container handling instructions.

14. TRANSPORT INFORMATION

US DOT:

Not regulated by DOT.

15. REGULATORY INFORMATION

FIFRA –
This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. The following is the hazard information as required on the pesticide label:

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Causes moderate eye irritation. Harmful if swallowed or inhaled. Avoid contact with eyes, skin, or clothing. Avoid breathing vapor or spray mist. Wash thoroughly with soap and water after handling.

See inside label booklet for additional Precautionary Statements and Directions for Use including Storage and Disposal instructions.

ENVIRONMENTAL HAZARDS

Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters or rinsate.

PHYSICAL AND CHEMICAL HAZARDS

Spray solutions of this product should be mixed, stored and applied using only stainless steel, aluminum, fiberglass, plastic or plastic-lined steel containers.

DO NOT MIX, STORE OR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS. This product or spray solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source.

All pesticides are governed under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). The regulatory information presented below is pertinent only when this product is handled outside of the normal use and application as a pesticide. This product is excluded from listing requirements under EPA/TSCA.

SARA Title III – Section 302 Extremely Hazardous Substances
Not listed

SARA Title III – Section 311/312 Hazard Categories
Immediate

SARA Title III – Section 312 Threshold Planning Quantity
N/A

SARA Title III – Section 313 Reportable Ingredients
None

CERCLA –
Not listed

CALIFORNIA PROP 65 STATUS –
This product does not contain any chemicals known to the state of California to cause cancer or reproductive toxicity.

CANADA –
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

16. OTHER INFORMATION

THIS INFORMATION IN THIS SDS IS BASED ON DATA AVAILABLE AS OF THE REVISION DATE GIVEN HEREIN, AND BELIEVED TO BE CORRECT. CONTACT ALLIGARE, LLC TO CONFIRM IF YOU HAVE THE MOST CURRENT MSDS. JUDGMENTS AS TO THE SUITABILITY OF THE INFORMATION HEREIN FOR THE INDIVIDUAL'S OWN USE OR PURPOSES IS NECESSARILY THE INDIVIDUAL'S OWN RESPONSIBILITY. ALTHOUGH REASONABLE CARE HAS BEEN TAKEN IN THE PREPARATION OF SUCH INFORMATION, ALLIGARE, LLC EXTENDS NO WARRANTIES, MAKES NO REPRESENTATIONS, AND ASSUMES NO RESPONSIBILITY AS TO THE ACCURACY OR SUITABILITY OF SUCH INFORMATION FOR APPLICATION TO THE INDIVIDUAL'S PURPOSES OR THE CONSEQUENCES OF ITS USE.

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA APPROVED PRODUCT LABELING (attached to and accompanying the product container). This SDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course.

SDS Version: 2.0 (Conversion from MSDS format) Effective Date: 02/20/2015

SAFETY DATA SHEET

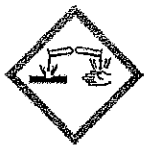
EMERGENCY CALL: 1-800-424-9300 (CHEMTREC)

1. IDENTIFICATION

PRODUCT NAME: Alligare Picloram+D
DESCRIPTION: A water soluble liquid herbicide.
EPA Reg. No.: 81927-16

COMPANY IDENTIFICATION:
Alligare, LLC
13 N. 8th Street
Opelika, AL 36801

2. HAZARD IDENTIFICATION



DANGER
Causes serious eye damage
May cause an allergic skin reaction
Causes mild skin irritation
May be harmful if swallowed
May be harmful in contact with skin
Toxic to aquatic life

3. COMPOSITION / INFORMATION ON INGREDIENTS

Common Name	Chemical Name	CAS #	Composition
Picloram	4-amino-3,5,6-trichloropicolinic acid	1918-02-1	10.2%
2,4-D Triisopropanolamine (TIPA)	2,4-Dichlorophenoxyacetic acid, triisopropanolamine salt	32341-80-3	39.6%

4. FIRST AID MEASURES

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-424-9300 for emergency medical treatment information.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

IF SWALLOWED: Immediately call a doctor or poison control center. Do not give any liquid to the person. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. If skin irritation or rash occurs: Get medical attention/advice.

NOTE TO PHYSICIAN: Probably mucosal damage may contraindicate the use of gastric lavage.

5. FIREFIGHTING MEASURES

Flash Point (TCC): > 174°C (> 345°F)

Flammable Limits (LFL-UFL): Unknown

Fire and Explosion Hazards: May thermally decompose in fire releasing irritating and toxic gasses.

Extinguishing Medium: Foam, dry extinguishing media, CO_2, water spray.

Fire Fighting Instructions: Evacuate area of all unnecessary personnel and fight fire from a safe distance upwind. Contain contaminated water / firefighting water; do not allow to enter drains or waterways. Foam or dry chemical fire extinguishing systems are preferred to prevent environmental damage from excessive water runoff.

Fire Fighting Equipment: Firefighters should be equipped with self-contained positive pressure breathing apparatus and full bunker gear.

Hazardous Combustion Products: Thermal decomposition will produce nitrogen oxide, sulfur oxides, carbon oxides (CO, CO_2), and aniline.

NFPA Ratings: Health – 2 / Flammability – 1 / Reactivity - 1

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Isolate area and keep unnecessary and unprotected personnel from entering. Wear suitable personal protective clothing and equipment as described in Section 8 of this document.

Small Spills: Absorb using sand, vermiculite or other inert absorbent. Place contained material in appropriate container for disposal.

Large Spills: Dike spillage and recover and retain as much free liquid as possible for reuse. Pick up remainder with suitable absorbent material. Place into suitable containers for reuse or disposal in a licensed facility. After removal, thoroughly clean contaminated area with water. Collect wash water for approved disposal.

7. HANDLING AND STORAGE

Handling: Use only in a well-ventilated area. Wear suitable personal protective clothing and equipment (see Section 8 of this SDS). Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. As soon as possible, wash thoroughly and change into clean clothing. Keep away from food, drink and animal feed.

Storage: Keep in the original container in a cool, dry, well-ventilated place away from ignition sources, heat or flame. Protect containers from physical damage. Protect against contamination.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls: Proper ventilation is required when handling or using this product to keep exposure to airborne contaminants below the exposure limit. Local mechanical exhaust ventilation may be required. Facilities storing or utilizing this material should be equipped with an eyewash station and a safety shower.

For containers of 5 gallons or more: Do not open pour product from this container. A mechanical system (such as probe and pump or spigot) must be used for transferring the contents of this container. If the contents of a non-refillable pesticide container are emptied, the probe must be rinsed before removal. If the mechanical system is used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4)], the handler PPE requirements may be reduced or modified as specified in the WPS.

For Containers over 1 Gallon but Less Than 5 Gallons: Mixers and loaders who do not use a mechanical system (such as probe and pump) to transfer the contents of this container must wear coveralls or a chemical-resistant apron in addition to other required PPE.

Protective Clothing: Wear long-sleeved shirt and long pants, shoes, socks, chemical resistant gloves (such as barrier laminate, butyl, nitrile or neoprene rubber, polyvinyl or Viton), and protective eyewear. When handling in enclosed areas or areas with limited ventilation, use a respirator with either an organic vapor cartridge with a pre-filter approve for pesticides (MSHA/NIOSH TC-23C) or a canister approved for pesticides (MSH/NIOSH TC-14G).

General: Personal protective equipment should be decontaminated prior to reuse. Gloves must be inspected regularly and prior to each use; replace if necessary (e.g. pinhole leaks). Remove PPE immediately after handling this product; wash the outside of gloves before removing. Wash clothing and other absorbent materials that have been exposed to this product. Follow the manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Amber Liquid
Odor: Alcohol-like
pH: 6.5 – 7.0
Specific Gravity: 1.14 @ 20°C
Vapor Pressure: 32mmHg @ 20°C
Solubility: Miscible

10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID: Temperatures above 40°C (105°F) and below 6°C (40°F)

CHEMICAL STABILITY: Stable under normal use and storage conditions. May decompose if heated.

SUBSTANCES TO AVOID: Strong acids and oxidizing materials.

HAZARDOUS REACTIONS: This product is chemically stable. No hazardous reactions if stored and handled as prescribed/indicated.

HAZARDOUS DECOMPOSITION PRODUCTS: Hydrogen chloride and oxides of nitrogen.

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

ORAL TOXICITY (rat LD_{50}): > 2,000 mg/kg

DERMAL TOXICITY (rat LD_{50}): > 2,000 mg/kg

INHALATION TOXICITY (rat LC_{50}): Data not available

EYE IRRITATION: Moderately irritating, may cause corneal injury

SKIN IRRITATION: Moderately irritating

SKIN SENSITIZATION: Potential sensitizer.

CARCINOGENICITY:

EPA: Not Listed
ACGIH: Not Listed
IARC: Class 2B (chlorophenoxy herbicides)
NTP: Not Listed
OSHA: Not Listed

MUTAGENIC TOXICITY: Little evidence of mutagenic effects during *in vivo* or *in vitro* studies.

REPRODUCTIVE TOXICITY: No evidence in animal studies.

DEVELOPMENTAL TOXICITY / TERATOGENICITY: No evidence in animal studies.

12. ECOLOGICAL INFORMATION

This pesticide is toxic to fish and aquatic invertebrates. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. This pesticide is toxic to some plants at very low concentrations. Non-target plants may be adversely affected if pesticide is allowed to drift from areas of application.

Picloram is known to leach through soil into groundwater under certain conditions as a result of agricultural use. 2,4-D has properties and characteristics associated with chemicals detected in groundwater. Use of these chemicals in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

This product can contaminate surface water through spray drift. Under some conditions, picloram may also have a high potential for runoff into surface water (primarily via dissolution in runoff water). These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas over-laying extremely shallow groundwater, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetative filter strips, and areas over-laying tile drainage systems that drain to surface water.

13. DISPOSAL CONSIDERATIONS

Do not contaminate water, food or feed by disposal.

PESTICIDE DISPOSAL: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by the use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL: Nonrefillable container, do not reuse or refill this container. Refer to product label for specific container disposal instructions.

14. TRANSPORT INFORMATION

US DOT (shipped by land):
Containers < 50 Gallons (190 Liters):

Not regulated by DOT.

Containers ≥ 50 Gallons (190 Liters):

DOT Shipping Name:	UN3082, Environmental Hazardous Substance, Liquid, N.O.S. (2,4-D Acid), 9, PG III
DOT Emergency Response Guide:	171
Reportable Quantity:	100 lbs. (49.1 gallons of product)
Marine Pollutant:	Yes

IATA (Shipped by Air):
UN3082, Environmentally Hazardous Substance, Liquid, N.O.S. (2,4-D Acid), 9, PG III

IMO (Shipped by Water):
UN3082, Environmentally Hazardous Substance, Liquid, N.O.S. (2,4-D Acid), 9, PG III, Marine Pollutant

15. REGULATORY INFORMATION

FIFRA –
This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. The following is the hazard information as required on the pesticide label:

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER. Causes irreversible eye damage. Harmful if swallowed. Do not get in eyes or on clothing. Prolonged or frequent repeated skin contact may cause allergic reactions in some individuals.

See inside label booklet for additional Precautionary Statements and Directions for Use including Storage and Disposal instructions.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and aquatic invertebrates. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. This pesticide is toxic to some plants at very low concentrations. Non-target plants may be adversely affected if pesticide is allowed to drift from areas of application. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters or rinsate.

Picloram is known to leach through soil into groundwater under certain conditions as a result of agricultural use. 2,4-D has properties and characteristics associated with chemicals detected in groundwater. Use of these chemicals in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

This product can contaminate surface water through spray drift. Under some conditions, picloram may also have a high potential for runoff into surface water (primarily via dissolution in runoff water). These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas over-laying extremely shallow groundwater, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetative filter strips, and areas over-laying tile drainage systems that drain to surface water.

PHYSICAL OR CHEMICAL HAZARDS

Combustible. Do not use or store near heat or open flame.

15. REGULATORY INFORMATION (CONT.)

All pesticides are governed under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). The regulatory information presented below is pertinent only when this product is handled outside of the normal use and application as a pesticide. This product is excluded from listing requirements under EPA/TSCA.

SARA Title III – Section 302 Extremely Hazardous Substances
Not listed

SARA Title III – Section 311/312 Hazard Categories
Immediate, Delayed

SARA Title III – Section 312 Threshold Planning Quantity
N/A

SARA Title III – Section 313 Reportable Ingredients
Picloram (CAS #1918-02-1): 5.7%
2,4-D Acid (CAS #94-75-7): 21.2%

CERCLA –
2,4-D Acid (CAS #94-75-7): 100 lbs.

CALIFORNIA PROP 65 STATUS –
This product does not contain any chemical known to the state of California to cause cancer or reproductive toxicity.

CANADA –
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

16. OTHER INFORMATION

THIS INFORMATION IN THIS SDS IS BASED ON DATA AVAILABLE AS OF THE REVISION DATE GIVEN HEREIN, AND BELIEVED TO BE CORRECT. CONTACT ALLIGARE, LLC TO CONFIRM IF YOU HAVE THE MOST CURRENT MSDS. JUDGMENTS AS TO THE SUITABILITY OF THE INFORMATION HEREIN FOR THE INDIVIDUAL'S OWN USE OR PURPOSES IS NECESSARILY THE INDIVIDUAL'S OWN RESPONSIBILITY. ALTHOUGH REASONABLE CARE HAS BEEN TAKEN IN THE PREPARATION OF SUCH INFORMATION, ALLIGARE, LLC EXTENDS NO WARRANTIES, MAKES NO REPRESENTATIONS, AND ASSUMES NO RESPONSIBILITY AS TO THE ACCURACY OR SUITABILITY OF SUCH INFORMATION FOR APPLICATION TO THE INDIVIDUAL'S PURPOSES OR THE CONSEQUENCES OF ITS USE.

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA APPROVED PRODUCT LABELING (attached to and accompanying the product container). This SDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course.

SDS Version: 4.2 (Conversion from MSDS format) Effective Date: 05/27/2016

RESTRICTED USE PESTICIDE

May injure (phytotoxic) susceptible, non-target plants. For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification. Commercial certified applicators must also ensure that all persons involved in these activities are informed of the precautionary statements.

ALLIGARE

PICLORAM+D

Specimen Label

For the control of broadleaf annual and perennial weeds, and certain woody species on Conservation Reserve Program (CRP) acres, rangeland and permanent grass pastures. Alligare Picloram+D may also be used for control of unwanted annual and perennial broadleaf weeds, woody plants, and vines on forest planting sites and non-crop areas including industrial, manufacturing and storage sites; rights-of-way, such as railroads, electric power lines, communication lines, pipelines, highways; and wildlife openings in forest and non-crop areas.

Not for sale, use, or distribution in Nassau and Suffolk Counties in New York State.

ACTIVE INGREDIENTS:

Picloram: 4-amino-3,5,6-trichloropicolinic acid, trilsopropanolamine salt	10.2%
2,4-dichlorophenoxyacetic acid, trilsopropanolamine salt	39.6%
OTHER INGREDIENTS:	50.2%
TOTAL:	100.0%

Alligare Picloram+D contains the following acid equivalents:
picloram: 4-amino-3,5,6-trichloropicolinic acid – 5.7% (0.54 lb./gal.)
2,4-dichlorophenoxyacetic acid – 21.2% (2 lbs./gal.)

EPA Reg. No. 81927-16 EPA Est. No. 37429-GA-002[SO]; 5905-IA-001[RO] 42750-MO-001[AD]; 75640-COL-001[PO]; 81927-AL-001[PM]
Letter(s) in lot number correspond(s) to superscript in EPA Est. No.

KEEP OUT OF REACH OF CHILDREN

DANGER / PELIGRO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

FIRST AID	
If in eyes	• Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
If swallowed	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-424-9300 for emergency medical treatment information.	
NOTE TO PHYSICIAN	
Probable mucosal damage may contraindicate the use of gastric lavage.	

FOR CHEMICAL SPILL, LEAK, FIRE, OR EXPOSURE, CALL CHEMTREC (800) 424-9300

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER. Causes irreversible eye damage. Harmful if swallowed. Do not get in eyes or on clothing. Prolonged or frequent repeated skin contact may cause allergic reactions in some individuals.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for Category C on an EPA chemical-resistance category selection chart.

All mixers, loaders, applicators, flaggers, and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves Category C, such as barrier laminate ≥ 14 mils, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, polyvinyl chloride (PVC) ≥ 14 mils, or viton ≥ 14 mils
- Shoes plus socks
- Protective eyewear (goggles or faceshield)
- Chemical-resistant apron when mixing or loading, cleaning up spills or equipment, or otherwise exposed to the concentrate

See engineering controls for additional requirements.

USER SAFETY REQUIREMENTS

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this products concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. After each day of use, clothing or PPE must not be reused until it has been cleaned.

ENGINEERING CONTROL STATEMENTS

Pilots must use an enclosed cockpit that meets the requirements listed in the WPS for agricultural pesticides [40 CFR 170.240(d)(6)]. When handlers use enclosed systems, enclosed cabs, or aircraft in manner that meets the requirements listed in the WPS (40 CFR 170.240 (d)(4-6)), the handler PPE requirements may be reduced or modified as specified in the WPS.

User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and aquatic invertebrates. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. This pesticide is toxic to some plants at very low concentrations. Non-target plants may be adversely affected if pesticide is allowed to drift from areas of application. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters or rinsate.

Picloram is known to leach through soil into groundwater under certain conditions as a result of agricultural use. 2,4-D has properties and characteristics associated with chemicals detected in groundwater. Use of these chemicals in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

This chemical can contaminate surface water through spray drift. Under some conditions, picloram may also have a high potential for runoff into surface water (primarily via dissolution in runoff water), for several months post-application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas over-laying extremely shallow groundwater, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetative filter strips, and areas over-laying tile drainage systems that drain to surface water.

Most cases of groundwater contamination involving phenoxy herbicides such as 2,4-D have been associated with mixing/loading and disposal sites. Caution should be exercised when handling 2,4-D pesticides at such sites to prevent contamination of groundwater supplies. Use of closed systems for mixing and transferring this pesticide will reduce the probability of spills. Placement of the mixing/loading equipment on an impervious pad to contain spills will help prevent groundwater contamination.

PHYSICAL OR CHEMICAL HAZARDS

Combustible. Do not use or store near heat or open flame.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Do not apply this product through any type of irrigation system.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 48 hours.

PPE required for early entry to treated areas that is permitted under the WPS and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls,
- Chemical-resistant gloves made of any waterproof material,
- Shoes plus socks, and
- Protective eyewear

PICLORAM+D

Specimen Label

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for Agricultural Pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Entry Restrictions for Non-WPS Uses: Do not enter or allow people (or pets) to enter treated area until sprays have dried.

INFORMATION

Alligare Picloram+D is a water soluble liquid product containing picloram and 2,4-D. Use Alligare Picloram+D in permanent grass pastures and rangeland to selectively control many annual, biennial, and perennial broadleaf weeds and woody species listed on this label. Alligare Picloram+D may also be used for control of unwanted annual and perennial broadleaf weeds and woody plants and vines on forest planting sites and non-crop areas including industrial, manufacturing and storage sites; rights-of-way, such as railroads, electric power lines, communication lines, pipelines, highways; and wildlife openings in forest and non-crop areas.

Herbicidal effects of Alligare Picloram+D occur primarily from uptake by plant foliage and translocation throughout the plant, however, secondary herbicidal activity may occur from soil uptake of picloram. Broadleaf plants can be killed or damaged by very small amounts of Alligare Picloram+D. To prevent damage to crops and other desirable plants, carefully follow all directions and precautions.

PRECAUTIONS AND RESTRICTIONS

Observe any special use and application restrictions and limitations, including method of application and permissible areas of use as required by state or local regulations. When used in tank mix combination with other products, follow all applicable use directions, precautions, restrictions, and limitations on the labels of each product used.

Not for sale, use, or distribution in Nassau and Suffolk Counties in New York State.

Application Rate Ranges: Use higher rates in areas with dense weed populations or for longer residual weed control. For best results, the lower rate should be used only when environmental conditions are favorable for plant growth and when the plants are in the recommended growth stage. Compared to results obtained with the higher rate, a lower rate may be slower to show activity, provide a lower level of control, and may require retreatment.

Maximum Use Rates:

Pasture and Rangeland: See rate restrictions under the section Pasture, Rangeland and CRP Application Restrictions.

Rights-of-Way and other Non-crop Areas: Do not exceed 7.4 quarts (4.0 lb ae 2,4-D) per acre of this product per annual growing season.

Forest Sites: No more than 7.4 quarts (1.0 lb ae picloram) per acre may be applied within a period of 2 annual growing seasons.

Grazing Restrictions: There are no grazing restrictions for non-lactating dairy animals or other livestock including horses, sheep, goats, and other animals in the treatment area. Do not allow lactating dairy animals to graze treated areas within 7 days after application. Do not harvest grass cut for hay from treated areas for 30 days after application. Meat animals must be withdrawn from treated forage at least 3 days before slaughter.

Do not rotate to crops intended for food or feed use on areas treated with this product, other than range or pasture grasses, rye, forage sorghum, sudangrass, wheat, barley or oats not underseeded with a legume.

Do not move treated soil, or use treated soil for growing other plants until soil residues of picloram are no longer detectable as indicated by an adequately sensitive bioassay or chemical test.

Do not apply Alligare Picloram+D in residential areas or near ornamental trees and shrubs. Untreated trees can be affected by root uptake of the herbicide through movement into the top soil or by excretion of the product from the roots of nearby treated trees. Do not apply Alligare Picloram+D within the area occupied by roots of desirable trees, unless such injury can be tolerated.

Established grasses are tolerant to this product, but newly seeded grasses may be injured until well established as indicated by tillering, development of a secondary root system and vigorous growth (refer to the Planting Grasses Section of this label).

Alligare Picloram+D may suppress certain established grasses such as smooth bromegrass, Willman's lovegrass and buffalograss. However, subsequent grass growth should be improved by release from weed competition. Smooth bromegrass and Willman's lovegrass grown for seed may be sensitive to this product if applied under adverse growing conditions (moisture stress).

If injury to existing forage legumes cannot be tolerated, do not spray pastures. Alligare Picloram+D may injure or kill legume plants. Forage legumes may be less sensitive to the herbicide after the seed has set and plant growth is mature. Seeding of legumes may not be successful if made within one year of application.

Do not mix with dry fertilizer.

Do not transfer livestock from treated grazing areas to broadleaf crop areas without first allowing 7 days of grazing on untreated grass pasture. Otherwise, urine may contain enough picloram to cause injury to sensitive broadleaf plants.

Do not use manure from animals grazing treated areas on land used for growing broadleaf crops, ornamentals, orchards or other susceptible, desirable plants. Manure may contain enough picloram to cause injury to susceptible plants.

Do not use hay or grass from treated areas or manure from animals being fed treated forage or hay for composting or mulching of desirable, susceptible broadleaf plants.

Do not contaminate water intended for irrigation or domestic purposes. Do not treat or allow spray drift or run-off to fall onto banks or bottoms of irrigation ditches, either dry or containing water, or other channels that carry water that may be used for irrigation or domestic purposes. Do not apply to snow or frozen ground.

Do not apply or permit Alligare Picloram+D or sprays containing Alligare Picloram+D to contact crops or other desirable broadleaf plants, including but not limited to alfalfa, beans, cotton, grapes, melons, peas, potatoes, safflower, soybeans, sugar beets, sunflower, tobacco, tomatoes, and other vegetable crops, flowers, fruit plants, ornamentals and shade trees.

Do not use Alligare Picloram+D on sub-irrigated land.

Avoid injury to newly planted conifers. Conifer plantings vary. Pines planted sooner than 6 months after treatment with Alligare Picloram+D may be injured in the South or west of the Cascade Mountains. Other conifers, west of the Cascade Mountains, may be injured if planted sooner than 8 to 9 months after treatment. For all conifers, the waiting period between treatment and planting should be 11 to 12 months in the area between the Cascade and Rocky Mountains and 8 to 9 months in the Lake States and Northeastern U.S.

Pasture, Rangeland and CRP Application Restrictions

- Do not cut forage for hay within 30 days of application.
- Do not exceed 7.4 pints (0.5 lb ae picloram)/acre per broadcast application.
- Do not exceed 14.8 pints (1.0 lb ae picloram)/acre per year.
- For susceptible annual and biennial broadleaf weeds, use 4 pints (1.0 lb ae 2,4-D)/acre per application.
- For moderately susceptible biennial and perennial broadleaf weeds, use 4-7.4 pints (1.0-1.84 lb ae 2,4-D)/acre per application.
- For difficult to control weeds and woody plants, use 7.4 pints/acre per application.
- Spot Treatment: Do not exceed 7.4 pints (2 lb ae 2,4-D; 1.0 lb ae picloram)/acre, with no more than 50% of an acre being treated.
- Spot treatments and broadcast treatments can be applied during the same growing season only if the total amount applied does not exceed 14.8 pints (1.0 lb ae picloram)/acre per growing season.
- Minimum of 30 days between applications.
- Maximum of two applications per year.
- If grass is to be cut for hay, Agricultural Use Requirements for the Worker Protection Standard are applicable.
- For program lands, such as Conservation Reserve Program, consult program rules to determine whether grass or hay may be used. The more restrictive requirements of the program rules or this label must be followed.

SPRAY DRIFT MANAGEMENT

Spray Drift Management

AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator is responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

1. The distance of the outer most nozzles on the boom must not exceed ¾ the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they should be observed.

The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory.

Aerial Drift Reduction Advisory

[This section is advisory in nature and does not supersede the mandatory label requirements.]

Information on Droplet Size

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (See Wind, Temperature and Humidity, and Temperature Inversions).

Controlling Droplet Size

- Volume – Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- Pressure – Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- Number of nozzles – Use the minimum number of nozzles that provide uniform coverage.
- Nozzle Orientation – Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- Nozzle Type – Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

Boom Length

For some use patterns, reducing the effective boom length to less than ¾ of the wingspan

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or rotor length may further reduce drift without reducing swath width.

Application Height
Applications should not be made at a height greater than 10 feet above the top of the target plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

Swath Adjustment
When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase with increasing drift potential (higher wind, smaller drops, etc.)

Wind
Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

Temperature and Humidity
When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

Temperature Inversions
Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

Sensitive Areas
The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive areas).

Determine Air Movement and Direction Before Making Foliar Applications: Do not spray when wind is blowing toward susceptible crops or ornamental plants near enough to be injured. It is suggested that a continuous smoke column at or near the spray site or a smoke generator on the spray equipment be used to detect air movements, lapse conditions, or temperature inversions (stable air). If the smoke layers or otherwise indicates a potential for hazardous spray drift, do not spray.

Avoid Injurious Spray Drift
Do not allow spray to drift from the application site and contact people, structures people occupy at any time and the associated property, parks and recreation areas, nontarget crops, aquatic and wetland areas, woodlands, pastures, rangelands, or animals.

Make applications to avoid spray drift because very small quantities of the spray that may not be visible may severely injure susceptible crops during both growing and dormant periods. To minimize spray drift:
1. Use nozzle pressures no greater than are required to obtain a proper spray pattern for adequate coverage of target plants.
2. Apply as a coarse spray.
3. Use nozzles designed for herbicide application that do not produce a fine droplet spray.
4. Spray when wind velocity is low. Follow local state regulations. Avoid application under conditions which are conducive to air inversions or conditions of atmospheric temperature inversion.

For aerial applications on rights-of-way or other areas near susceptible crops, spray drift may be further lessened by using a drift control system such as Microfoil®, Thru-Valve® boom (or equivalent) or a drift control agent such as Nalco-Trol® (or equivalent). If a drift control additive is used, follow all use recommendations and precautions on the product label.

For ground boom applications, apply with nozzle height no more than 4 feet above the ground or crop canopy and when wind speed is 10 mph or less at the application site as measured by an anemometer. Use medium or coarser spray according to ASAE 572 definition for standard nozzles of VMD for spinning atomizer nozzles.

The applicator also must use all other measures necessary to control drift.

Ground Equipment: With ground equipment, spray drift may be lessened by keeping the spray boom as low as possible; by keeping the operating spray pressures at the manufacturers recommended minimum pressures for the specific nozzle types used (low pressure nozzles are available from spray equipment manufacturers). Do not apply this product with a mistblower. In hand-gun applications, spray drift may be minimized by selecting the minimum pressure that will provide adequate coverage (without forming a mist); by spraying no higher than brush tops.

High Volume Leaf-Stem Treatment: Spray drift may be minimized by using spray pressures no greater than are required to obtain adequate plant coverage and spraying no higher than brush tops. Avoid excessive pressures that result in formation of fine spray mists. Nalco-Trol® thickening agent or equivalent may be used to reduce spray drift. Do not apply this product through a mist blower.

Cleaning Instructions for Spray Equipment
To avoid injury to susceptible plants, equipment used to apply Alligare Picloram+D should be thoroughly cleaned before reusing to apply any other chemicals.
1. Rinse and flush application equipment thoroughly after use. Flush the entire system at least three times with water, and dispose of rinse water in non-cropland area away from water supplies.
3. During the second rinse, add 1 qt. of household ammonia for every 25 gallons of water. Circulate the solution through the entire system so that all internal surfaces are contacted (15 to 20 min.). Let the solution stand for several hours, preferably overnight.
3. Flush the solution out the spray tank through the boom.
4. Rinse the system twice with clean water, recirculating and draining each time.
5. Nozzles and screens should be removed separately.

MIXING INSTRUCTIONS

Ground or Aerial Application – For Use With Water Alone
Start with about half the required amount of water in the spray tank. With agitation operating, add the required amount of Alligare Picloram+D. If a surfactant is needed, it should be added as the remainder of the required water is added to complete the spray mix. When using a drift control additive, carefully follow the manufacturer's directions. Complete dispersion and uniform mixing is essential to proper performance of drift control additives. This can be aided by thorough circulation through a mixing pump with moderate to high shearing action.

Use with Oil/Water Emulsions

Ground Application: Add oil to the total spray mix at a rate of 5 to 10% of the total mix, up to a maximum of 1 gallon of oil per acre, using agricultural spray emulsifiers and mixing procedures given below.

Aerial Application: Use oil and water in the spray mixture in a 1:5 ratio (1 part oil to 5 parts water), up to a maximum of 1 gallon of oil per acre using mixing procedures given below:

Mixing Instructions for Oil/Water Emulsions (Batch Mixing)
1. With continuous, vigorous agitation:
2. Add half the amount of water to be used to the spray tank
3. Add the amount of Alligare Picloram+D required for the total volume of spray being mixed.
4. Premix the required amount of oil with an emulsifier such as Sponto 712 or Triton X-100, using the manufacturer's recommended rate of emulsifier per gallon of oil. Add the oil-emulsifier premix to the spray tank.
5. Finally, add the remaining amount of water required to bring the spray batch to the desired total volume.
6. Maintain agitation in the spray tank during application.

Mixing with Liquid Fertilizer for Broadcast Weed Control in Rangeland and Permanent Grass Pastures
Alligare Picloram+D may be tank mixed with liquid fertilizers and used in foliar application for weed control and fertilization of rangelands and permanent grass pastures. Avoid using liquid fertilizers in applications to brush as efficacy may be reduced. Use liquid fertilizers at rates recommended by supplier or local Extension Service Specialists.

Compatibility with Liquid Fertilizer: Prior to large scale batch mixing, conduct a "jar test" for spray mixture compatibility by mixing each component in the required order and proportion in a clear glass jar. Close the jar and agitate the mixture until evenly dispersed. Use of a compatibility agent is indicated if components of the mixture do not disperse readily or do not remain dispersed after mixing. Use of a compatibility aid such as Unite or Compex is recommended to help obtain and maintain a uniform spray solution during mixing and application. Compatibility is best with straight liquid nitrogen fertilizer solutions. Mixing with N-P-K fertilizer solutions or suspensions is more difficult and should not be attempted without first conducting a successful jar test. Agitation in the spray tank must be vigorous to compare with jar test agitation.

Suggested Mixing and Application Procedure
With continuous vigorous agitation:
1. Add half the amount of liquid fertilizer to the spray tank.
2. Add a compatibility aid such as Unite or Compex at 1 quart per 100 gallons of total spray mix.
3. First add the amount of Alligare Picloram+D needed for the total spray mixture. Mixing with N-P-K fertilizer solutions may be improved by premixing Alligare Picloram+D with water (1 part Alligare Picloram+D to 25-30 parts water) before adding to the spray tank.
4. Add the remaining liquid fertilizer to produce the needed total spray volume.
5. Apply as soon as mixing is complete, maintaining continuous, vigorous agitation throughout mixing and application without interruption.

Application during very cold (near freezing) weather is not advisable. The likelihood of mixing or compatibility problems with liquid fertilizer increases under cold conditions.

Do not store the spray mixture.

Note: Do not use spray equipment for application of other products to land planted, or to be planted, to susceptible crops or desirable sensitive plants, unless it has been determined that all phytotoxic herbicide residue has been removed by thorough cleaning of the equipment. See "Cleaning Instructions for Sprayer Equipment" and the PRECAUTIONS AND RESTRICTIONS sections of this label.

APPLICATION DIRECTIONS
RANGELAND, PERMANENT GRASS PASTURES and CONSERVATION RESERVE PROGRAM (CRP) ACRES

Broadcast Foliar Application (Ground or Aerial)
Unless otherwise specified, apply in water alone or in an oil-water emulsion in a total spray volume of 10 to 40 gallons per acre using ground equipment or 1 or more gallons per acre by aerial application. If aerially applied, results will be more consistent for spray volumes of 2 or more gallons per acre. Use of the lower total spray volume with ground equipment is recom-

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mended primarily where Alligare Picloram+D is applied simultaneously with liquid fertilizer. Good coverage is essential. For aerial application, swath width should not exceed 1 ¼ times the wingspan of the aircraft. Aerial applications may be made using aerial electrostatic charging systems.

To provide more complete wetting and coverage of the foliage, a non-ionic surfactant may be used at recommended rates. Use a drift control additive for drift reduction and improved deposition.

Section I. Control of Broadleaf Weeds and Woody Plants in Rangeland and Permanent Grass Pastures in the Southwest, Southeast, and Mid-Atlantic States

1-2 Pints/Acre or 3-4 Pints/Acre: Make applications at the rate indicated by stage of growth to control the following woody plants or broadleaf weeds:

Weed Species	Specific Use Directions
annual broomweed, bitter sneezeweed, bitterweed, buffalo bur, bull thistle, bursage (bur ragweed), camphor weed, cocklebur, common ragweed, croton, horseweed, lambsquarters, pigweed, prickly lettuce, smartweed, sunflower, tasajillo, wild carrot	**Early Season: Apply at a rate of 1-2 pts/acre** in early to mid spring when weeds are less than 3 inches tall. Rates in the lower end of the rate range are effective only when weeds are less than 2 inches tall and conditions are favorable for plant growth. **Mid to Late Season: Apply at a rate of 3-4 pts/acre** in late spring to early summer when weeds are 3 inches tall to early flowering.

2-4 Pints/Acre: Make applications at the indicated growth stage to control the following woody plants or broadleaf weeds:

Weed or Brush Species	Specific Use Directions
aster, heath	Apply prior to bud stage when actively growing.
aster, spiny (Mexican devilweed)	Apply prior to bud stage when actively growing.
bee plant, Rocky Mountain	Apply prior to bud stage when actively growing.
bindweed, hedge	Apply prior to bud stage when actively growing.
blackberry	Tank-mix 2 pints per acre of Alligare Picloram+D with 1 pint per acre of Remedy® (triclopyr) herbicide plus surfactant. Apply in late May to early June during or after bloom (not before) when foliage is dark green. Do not treat blackberries in the same year after mowing, shredding, or burning. Even one year after removal of top growth, blackberry stands will be more difficult to control than undisturbed stands and will require retreatment.
buckwheat, climbing false	Apply prior to seed development when actively growing.
buckwheat, wild	Apply prior to seed development when actively growing.
bullnettle, western	Apply in spring when plants begin to flower.
bundleflower, Illinois	Apply prior to bud stage when actively growing.
burdock, common	Apply prior to bud stage when actively growing.
buttercup	Apply in early spring prior to bud stage.
chickweed, mouseear	Apply prior to bud stage when actively growing.
chicory	Apply from rosette stage to early bud stage when actively growing.
coneflower, upright prairie	Apply when plants are to 6 inches tall, but before flowering.
common goldenweed, Drummond's goldenweed (*Isocoma* spp.)	Apply in the spring (April-June) when favorable growing conditions result in substantial canopy development. Thorough and uniform coverage is essential. Use higher spray volumes (20-25 gpa for ground and 4-5 gpa for aerial equipment). Use of a non-ionic surfactant or oil-water emulsion is recommended (refer to the Mixing Instructions section of this label).
curly dock	**Early Season:** Apply 2 pints per acre prior to bolting stage of growth. **Mid-to-Late Season: Apply at a rate of 3-4 pts/acre** from bolting to bud stage.
devil's-claw	Apply prior to flowering when actively growing.
dogfennel (cypressweed)	Apply when plants are from 6 to 24 inches tall, but before flowering. Increase rate within the rate range as season progresses and plants become larger.
eriogonum, annual	Apply prior to bud stage when actively growing.
fleabane, rough	Apply prior to bud stage when actively growing.
gray goldaster narrowleaf goldaster	Apply in the spring during the bud stage (pre-bloom) using an oil-water emulsion spray. Thorough coverage is essential.
goldenrod, Missouri	Apply prior to bud stage when actively growing.
hemlock, poison	Apply from rosette stage in spring or fall up to 36" tall.
hemlock, water (common)	Apply from rosette stage in spring or fall up to bud stage.
horsenettle, Carolina	Apply 2 pints per acre when plants are 4-6 inches tall. At 2 pints per acre, retreatment may be necessary for acceptable control. Apply 3 to 4 pints per acre when flowering or for longer residual control of later emerging plants and greater stand reduction the following year.
horehound	Apply during active growth.
jimsonweed	Apply prior to bud stage when actively growing.

2-4 Pints/Acre: Make applications at the indicated growth stage to control the following woody plants or broadleaf weeds:

Weed or Brush Species	Specific Use Directions
morningglory, ivyleaf	Apply prior to bud stage when actively growing.
mugwort	Apply prior to bud stage when actively growing.
nightshade, silverleaf	Apply 2 pints per acre when plants are 4-6 inches tall. Apply 3 to 4 pints per acre when flowering or for longer residual control of later emerging plants and greater stand reduction the following year. Retreatment is necessary for total control.
pennycress, field	Apply when plants are to 6 inches tall, but before flowering.
plantain, buckhorn	Apply prior to bud stage when actively growing.
prickypoppy, annual	Apply prior to bud stage when actively growing.
puncturevine	Apply prior to flowering when actively growing.
ragweed, common, giant, lanceleaf and western	Use lower rates in rate range when weeds are no more than 2 inches tall and conditions are favorable for plant growth. Use higher rates when weeds are from 3 inches tall to early flowering.
sagebrush, sand	Apply when new terminal growth reaches 6-12" and before average daytime temperature reaches 95°F. Use low rate only in early season.
snow-on-the-mountain	Apply prior to bud stage when actively growing.
sowthistle, spiny (prickly)	Apply prior to bud stage when actively growing.
stickweed	Apply 2-3 pts./acre prebloom.
thistles, biennial: including bull, musk, plumeless or scotch	Apply 2 pts./acre at rosette stage. Apply 3 to 4 pts./acre in mid to late season from bolting to bud stage.
vervain, blue vervain, hoary	Apply when plants are 6 inches tall to early flowering. Increase rate within the rate range as season progresses and weeds mature.
vetch, hairy	Apply prior to bud stage when actively growing.
wingstem	Apply 2-3 pts./acre prebloom.
yankeeweed	Apply when plants are 8 to 10 inches tall.

3-4 Pints/Acre: Make applications at the indicated growth stage to control the following woody plants or broadleaf weeds:

Weed or Brush Species	Specific Use Directions
marshelder (sumpweed)	Apply in early season when weeds are less than 4 inches tall. Use higher rates on older plants. Thorough and uniform coverage is essential. Use higher spray volumes (20-25 gpa for ground and 5 or more gpa for aerial equipment).
mesquite and oak sprouts (suppression of regrowth):	Delay applications of Alligare Picloram+D for weed control until the foliage of regrowth brush in the treatment area is fully expanded and turned from light to dark green.
milkweed	Apply 4 pts./acre to actively growing milkweeds less than 4 inches tall. Add a surfactant at the manufacturer's recommended rate to improve wetting of foliage.
mullein, common	Apply 4 pts./acre during the rosette stage in spring or fall prior to bolting. Add a surfactant at the manufacturer's recommended rate to improve wetting of foliage.
poisonous plants such as: groundsel (*Senecio* spp.), garbancillo (Wooton loco) and Woolly loco	Make applications in fall or winter when moisture conditions are favorable. Because locoweeds are difficult to wet, use of a surfactant (0.25-0.5% vol/vol) or oil-water emulsion is recommended (refer to the Mixing Instructions section of this label). **Herbicide treatment may increase palatability of poisonous plants. Do not graze treated areas until the toxic plants are no longer palatable.**
thistle, wavyleaf	Apply from rosette to late bolt stage.
tropical soda apple	Apply when plants are beginning to flower.

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7.4 Pints/Acre: Make applications at the indicated growth stage to control the following woody plants or broadleaf weeds:	
Weed or Brush Species	**Specific Use Directions**
cactus, pricklypear or cholla	Make a ground broadcast application in the spring or early summer to control a broad spectrum of broadleaf weeds in addition to pricklypear.
Chinese tallowtree	Make applications in the spring or fall when conditions are favorable for plant growth. Thorough and uniform spray coverage is required. Use higher spray volumes (20-25 gpa) for ground and 5 or more gpa for aerial equipment). Use of a non-ionic surfactant or oil-water emulsion is recommended (refer to the Mixing Instructions section of this label).
Macartney rose multiflora rose	Make applications in the spring or fall when conditions are favorable for plant growth. Thorough and uniform spray coverage is essential. Use higher spray volumes (20-25 gpa for ground and 5 or more gpa for aerial equipment). Use of a non-ionic surfactant or oil-water emulsion is recommended (refer to the Mixing Instructions section of this label). Do not make application within 9-12 months after mowing or when plants have a high percentage of new growth. Poor control will result if plants are less than 3 ft. tall.
locust (honey and black) wild plum	Make applications in the spring when leaves are fully expanded and mature. Use of a surfactant (0.25-0.5% vol/vol) is recommended.

Section II. Control of Broadleaf Weeds and Woody Plants in Rangeland and Permanent Grass Pastures in the North and Northwestern U.S. Including Colorado, Idaho, Iowa, Kansas, Minnesota, Missouri, Montana, Nebraska, North Dakota, Oregon, South Dakota, Utah, Washington and Wyoming

For best results in terms of forage response, desirable forage grasses should be present in the area to be treated in sufficient density to provide competition to lessen weed re-establishment following treatment.

Additionally, good grazing management practices are recommended, particularly in the year following treatment, to allow forage grass density to increase.

Application Rates: Use higher rates in areas with dense weed populations or for longer residual control. For best results, the lower rate should be used only when environmental conditions are favorable for plant growth and when the plants are in the recommended growth stage. Compared to results obtained with the higher rate, a lower rate may be slower to show activity, provide a lower level of control, and may require retreatment.

2 to 4 Pints/Acre: Make applications at the indicated growth stage to control the following broadleaf plant species. Increase rate within rate range as growing season progresses:	
Weed or Brush Species	**Specific Use Directions**
absinth wormwood annual broomweed	Apply when actively growing in spring or early summer.
biennial thistles, such as bull, musk, plumeless or scotch	Apply 2 pts./acre at rosette stage. Apply 3 to 4 pts./acre to bolted thistle, but apply before early bud stage.
broom snakeweed	Make application after full leaf development to early bloom stage when plants are actively growing.
curly dock	Apply 2 pts./acre early season prior to bolting. Apply 3 to 4 pts./acre in mid to late season from bolting to early flower.
curlycup gumweed	Apply when new growth and seedlings have fully emerged before bloom stage.
fringed sagebrush	Apply a minimum of 3 pts./acre after seed stalk elongation and early flowering (mid-late June) and throughout the summer under good growing conditions.
goldenrod	Apply prior to bud stage during active growth.
hemp (marijuana) hemlock, polson	Make application from rosette stage in spring or fall up to 36" tall.
hemlock, water (common)	Make application from rosette stage in spring or fall up to bud stage.
ironweed, western	Apply 2 to 3 pts./acre prior to bud stage during active growth. A surfactant is recommended.
locoweeds, such as silky crazyweed (white point loco) and lambert crazyweed	Apply from early bud to early bloom stage. Application of Alligare Picloram+D may increase palatability of these poisonous plants. Do not graze treated areas until after the toxic plants have dried up. Higher rate range should be considered to provide greater reduction of poisonous plants.
phlox, hoods	Make application during active growth.
plains pricklypear	Apply when the majority of plants are in the flower stage. The lower rate will provide a partial stand reduction. More complete control may be obtained with the higher rate. Treatment response is very slow and may continue for 2 years or longer.

2 to 4 Pints/Acre: Make applications at the indicated growth stage to control the following broadleaf plant species. Increase rate within rate range as growing season progresses:	
Weed or Brush Species	**Specific Use Directions**
ragweed, common, giant, lanceleaf and western	Use the lower rate in early season when weeds are no more than 2 inches tall. Use the higher rate when weeds range from 3 inches tall to early flowering, when conditions are favorable for plant growth.
thistles, biennial: including bull, musk, plumeless or scotch	Apply 2 pts./acre at rosette stage. Apply 3 to 4 pts./acre in mid to late season from bolting to bud stage.
vervain, blue and hoary	Apply when plants are 6 inches tall to early flowering. Increase rate within the rate range as season progresses and plants mature.
wormwood, Louisiana and absinth	Make application during active growth prior to woody stem development.
yarrow	Apply 2 pts./acre prior to bud stage. A surfactant is recommended.

4 Pints/Acre: Make applications at the indicated growth stage to control the following broadleaf weed species.	
Weed or Brush Species	**Specific Use Directions**
dense clubmoss	Apply in early summer with a surfactant at 0.25% v/v.
geyer larkspur	Apply from rosette to flower bud formation.
hairy goldenaster	Apply at bloom stage during active growth.
houndstongue	Apply to rosettes in late fall or early summer.
larkspur, plains	Apply prior to bud stage when actively growing.
licorice, wild	Apply at bloom stage, but before bur formation.
loco, woolly	Make application from bolting to early bloom. Application of Alligare Picloram+D may temporarily increase palatability of this poisonous plant. Do not graze treated areas until toxic plants have dried up.
milkweed, common	Apply at bud stage when actively growing.
mullein, common	Apply during rosette stage in spring or fall prior to bolting. Add a surfactant at the manufacturer's recommended rate to improve wetting of foliage.
oxeye daisy	Apply 3-4 pts./acre when all plants have emerged to late flowering.
pussytoes	Make application prior to bud stage when actively growing. Use a surfactant at the manufacturer's recommended rate to improve wetting of foliage.

7.4 Pints/Acre: Make applications at the indicated growth stage to control the following woody plants or broadleaf weeds:	
Weed or Brush Species	**Specific Use Directions**
Macartney rose multiflora rose	Make application in spring or fall when conditions are favorable for plant growth. Thorough and uniform spray coverage is essential. Use higher spray volumes (20-25 gpa for ground and 5 or more gpa for aerial equipment). Use of a non-ionic surfactant or oil-water emulsion is recommended (refer to the Mixing Instructions section of this label). Do not make application within 9-12 months after mowing or when plants have a high percentage of new growth. Poor control will result if plants are less than 3 ft. tall.
locust (honey and black) wild plum	Apply in spring when leaves are fully expanded and mature. Use of a surfactant (0.25-0.5% vol/vol) is recommended.

High-Volume Foliar Applications
Spray to thoroughly wet foliage and stems. The use of an approved agricultural surfactant is recommended. Do not use more than 7.4 pints of Alligare Picloram+D (0.5 lb. of picloram) per acre. Keep sprays no higher than brush tops.

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7.4 Pints/100 Gallons of Spray: Make applications at the indicated growth stage to control the following woody plants or broadleaf weeds:

Weed or Brush Species	Specific Use Directions
blackberry, elm, granjeno, locust, maple, oaks, sweetgum, sumac	Tank mix the recommended rate of Alligare Picloram+D with 1-2 qts./100 gallons of Remedy® (triclopyr) and apply in late spring to early summer when leaves are fully expanded and mature. Use of a surfactant (0.25-0.5% vol/vol) is recommended. Spray to thoroughly wet foliage. For best results on blackberry, treat during or after bloom.
annual broomweed, bitterweed, bitter sneezeweed, bullnettle, bursage (bur ragweed), bull thistle, buffalo bur, camphorweed, cocklebur, common ragweed, croton, gray goldaster, lanceleaf ragweed, marshelder (sumpweed), musk thistle, narrowleaf goldaster, prickly lettuce, smartweed, sunflower, wild carrot, silverleaf nightshade, tasajillo, upright prairie cone flower, western horsenettle, western ragweed, yankeeweed	Make application when target weeds are 2-3 inches tall until early flowering.
flameleaf sumac honeylocust	Apply in spring when leaves are fully expanded and mature. Use of a surfactant (0.25-0.5% vol/vol) is recommended. Spray to thoroughly wet foliage.
Tropical soda apple	Apply when plant begins to flower.

7.4 to 14.8 Pints/100 Gallons of Spray: Make applications at the indicated growth stage to control the following woody plants or broadleaf weeds:

Weed or Brush Species	Specific Use Directions
Macartney rose multiflora rose	Make application in spring or fall when conditions are favorable for plant growth. High volume application is recommended for control of large undisturbed clumps or small regrowth.

14.8 Pints/100 Gallons of Spray: Make applications at the indicated growth stage to control the following woody plants or broadleaf weeds:

Weed or Brush Species	Specific Use Directions
Chinese tallow tree	Make application in spring or fall when conditions are favorable for plant growth.
cactus, prickypear or cholla	Applications may be made throughout the year. Spray to wet all pads to runoff. Use of a surfactant (0.25-0.5% vol/vol) is recommended. Water soluble dye may be added to the spray mixture to mark treated plants.
common goldenweed, Drummond's goldenweed	Apply in the spring (April-June) when favorable growing conditions result in substantial canopy development.
Poisonous plants such as: groundsel (*Senecio* spp.), garbancillo (Wooton loco), and Woolly loco	Make application in fall or winter when moisture conditions are favorable. Application of Alligare Picloram+D may increase the palatability of poisonous plants. Do not graze treated areas until the toxic plants have dried up and lost their palatability.

Treatment After Planting Grasses, Including Conservation Reserve Program (CRP) Acres

Weed Control Prior to Seeding Planting Grasses
Alligare Picloram+D may be applied to control weeds prior to planting cool season grasses. Apply Alligare Picloram+D at 4 pints per acre or less depending on the target species. Alligare Picloram+D may be tank-mixed with Alligare Glyphosate 4 Plus (glyphosate) to control grasses prior to seeding.

- To optimize weed control, minimal disturbance of the treatment area with the seeding operation is suggested. The site should be left undisturbed for a minimum of 21 days prior to seedbed preparation or seeding. To optimize weed control and reduce the potential for injury of seeded grasses, increase the interval between application of Alligare Picloram+D and planting grass seed.
- Do not plant smooth bromegrass for 60 days after treatment.

Perennial Grasses
Make applications of Alligare Picloram+D to perennial grasses only after perennial grasses are well established as indicated by vigorous growth and a well-developed secondary root system.

Sprigged Bermudagrass: Alligare Picloram+D at 1.5 pints per acre or less can be used on sprigged bermudagrass once the runners (stolons) have reached 6 inches in length and growing conditions are favorable.

Overseeding: Alligare Picloram+D at rates of 1.5 pints per acre or less can be applied to permanent pastures that have been over seeded with small grains (such as barley, forage sorghum, oats, rye, ryegrass, sudangrass or wheat) grown for pasture or hay only. Young seedling small grains or grasses are sensitive to Alligare Picloram+D. Do not apply Alligare Picloram+D until overseeded grasses are well established and at tillering stage of growth or later.

Precautions:

- Applications of Alligare Picloram+D to established warm season grasses such as bermudagrass during initial greenup in early spring could delay or suppress emergence of new growth. If temporary suppression of new growth cannot be tolerated, application of Alligare Picloram+D should be made prior to greenup or after vigorous vegetative growth has resumed.
- Do not use Alligare Picloram+D if legumes are a desired cover during CRP.
- Conditions unfavorable to plant growth, such as drought, will increase potential for injury to grasses at all stages of growth.
- **Crop Rotation:** Do not rotate to grain sorghum (milo) if greater than 4 pints per acre of Alligare Picloram+D has been applied. For rates below 4 pints per acre, do not plant grain sorghum for 8 months after application. This product is not intended for use on land planted to sweet sorghum. To avoid potential crop injury, planting of small grains should be delayed a minimum of 60 days of soil temperatures above 40°F following application, except in Idaho, North Dakota, Nebraska, Montana, Oregon, South Dakota, Washington and Wyoming, where the minimum interval should be 90 days.
- After CRP, do not plant broadleaf crops in treated acres until an adequately sensitive bioassay (described below) shows that no detectable picloram is present in the soil.

Field Bioassay Instructions: In fields previously treated with this product, plant short test rows of the intended rotational crop across the original direction of application. The test area should sample field conditions such as soil texture, soil pH, drainage, and any other variable that could affect the seedbed of the new crop. The field bioassay can be initiated at any time between harvest of the treated crop and the planting of the rotational crop. Observe the test crop for herbicidal activity, such as poor stand (effect on seed germination), chlorosis (yellowing), and necrosis (dead leaves or shoots), or stunting (reduced growth). If herbicidal symptoms do not occur, the test crop can be grown. If there is apparent herbicidal activity, do not plant the field to the test rotational crop; plant only a labeled crop such as pasture grasses, small grains (barley, oats, rye or wheat), or, after a rotational interval of 8 months, grain sorghum.

APPLICATION DIRECTIONS
FOREST PLANTING SITES AND NON-CROP AREAS

To control broadleaf weeds, use Alligare Picloram+D at rates of 2 to 7.4 quarts (0.25-1.0 lb ae picloram; 1.0-4.0 lb ae 2,4-D) per acre and at rates of 4 to 7.4 quarts per acre to control woody plants and vines. Alligare Picloram+D may be tank mixed with Triclopyr 4E (or Alligare Triclopyr 4) or Triclopyr 3A (or Alligare Triclopyr 3), or 4 lbs./gal. 2,4-D low-volatile esters registered for sites listed on this label to control mixed woody plant and vine species. When tank mixing, observe all precautions, directions and limitations on both products' labeling. In all cases, use the amounts specified in enough water to give thorough and uniform coverage of the plants to be controlled.

Note: Alligare Picloram+D does not readily mix with oil. Use a non-ionic surfactant such as Ortho® X-77, Triton® AG-98 or Tronic® for all applications. Follow the use directions and precautions listed on the surfactant manufacturer's label. When applying lower spray volumes per acre, use the higher recommended concentrations of surfactant in the spray mixture.

Alligare Picloram+D controls the following annual and perennial broadleaf weeds, woody plants and vines.

Annual and Perennial Broadleaf Weeds

bindweed, field	goldenrod	rush skeleton weed
bouncingbet	horsenettle	sowthistle
carrot, wild	knapweed	spurge, leafy
chicory	milkweed	starthistle, yellow
clover	plantain	thistles
dandelion	prickly lettuce	toadflax
dock	ragweed	vetch
fleabane	ragwort, tansy	

Woody Plants and Vines

allanthus	fir, balsam	persimmon
alder	gorse	pine
aspen	gum	poison oak
birch	hemlock	sassafras
blackberry	hickory	sourwood
bracken fern	honeysuckle	spruce
buttonbush	kudzu	sumac
cherry	locust	Tulip, poplar
Douglas fir	maple	wild rose
elm	oak	willow

SPECIFIC USE DIRECTIONS

NON-CROPLAND
(Fencerows, Roadsides, Ditches, Rights-of-Way, Utility Power Lines, Railroads, Airports, and Industrial Sites)

High Volume Leaf-Stem Treatment
To control broadleaf weeds, vines and other woody plants, use 3.7 quarts of Alligare Picloram+D and dilute to make 100 gallons of spray. To control a wider range of plant species, mix 1 to 2 quarts of Alligare Picloram+D with 1-to-3 quarts of Triclopyr 4E herbicide (or Alligare Triclopyr 4) or 1-to-4 quarts of Triclopyr 3A herbicide (or Alligare Triclopyr 3) or 4 lbs./gal. 2,4-D low-volatile ester and dilute to make 100 gallons of spray. Provide thorough spray coverage after foliage is well developed. For woody plants, apply the spray mixture in a manner that thoroughly wets all leaves, stems, and root collars. For hard-to-kill species such as ash and oak, also wet the soil around the root collar. The amount of spray mixture applied per acre will vary with plant size and density; however, total use of Alligare Picloram+D must not exceed 7.4 quarts per acre.

Note: Do not allow the spray, even as minute amounts of spray drift, to contact desirable broadleaf plants, and do not wet the soil over roots of such plants.

Broadcast Ground or Aerial Foliage Treatment
For ground applications, make applications of Alligare Picloram+D in 15 or more gallons of total spray mixture per acre. For aerial applications, use 5 to 20 gallons of spray mixture per acre. Use higher spray volumes where plants are tall, where the vegetation to be treated is dense or where difficult to control species are present.

PICLORAM+D

Specimen Label

Broadleaf Annual and Perennial Weed and Woody Vine Control: Apply Alligare Picloram+D at rates of 2 to 3.7 quarts per acre in a water spray mixture. Apply to problem weeds and vines any time after growth begins in the spring and late in summer or fall.

Apply 2-to-3 quarts of Alligare Picloram+D per acre in water spray for season control of vigorously growing stands of field bindweed, Canada thistle or mixtures of these with susceptible annual weeds such as ragweed, dandelion, plantain, clovers and dock.

Use up to 3.7 quarts of Alligare Picloram+D per acre in arid areas and for control of more resistant perennial weeds. Use up to 3.7 quarts per acre to control species such as Canada thistle, field bindweed and milkweed. The higher rates should be used under drought stress conditions and for the more resistant species such as bouncingbet, leafy spurge, toadflax and woody vines. The spectrum of activity can be improved by tank mixing 2 to 3.7 quarts of Alligare Picloram+D with 1/3-to-1 gallon of Triclopyr 3A (or Alligare Triclopyr 3) or 1-to-3 quarts of Triclopyr 4E (Alligare Triclopyr 4) per acre.

Woody Plant Control: Use Alligare Picloram+D at the rate of 4 to 7.4 quarts per acre in a water spray mixture.

Use 4 to 6 quarts of Alligare Picloram+D per acre in a water spray mixture for susceptible seedling stages of species such as aspen, cherry and sumac.

For more mature and/or less susceptible species such as poison oak, blackberries, Douglas fir, willow, buttonbush, black locust, sassafras, sumac, tulip poplar and cherry, use 7.4 quarts of Alligare Picloram+D per acre in a water spray mixture.

For more resistant brush such as maple, pine, sourwood, blackgum, cedar and oak, and to improve the spectrum of species controlled, 4 to 7.4 quarts of Alligare Picloram+D per acre can be tank-mixed with 1 ½-to-2 gallons per acre of Triclopyr 3A (or Alligare Triclopyr 3), Triclopyr 4E (or Alligare Triclopyr 4) or 4 lbs./gal. 2,4-D low volatile ester.

Note: Use the higher rates for best results under conditions of drought stress. Even these rates under such conditions may not be as effective as the lower rates under good growing conditions.

BROADCAST CUT STUBBLE TREATMENT

Apply Alligare Picloram+D at the rate of 7.4 quarts per acre in 25 or more gallons of a water spray mixture to prevent resprouting of susceptible woody species after mowing or hand-cutting on non-crop areas and rights-of-way. For best results, make applications before or during periods of active root growth. Do not apply when the soil surface is frozen or covered by snow or standing water. Make applications soon after cutting, before sprouting of woody species has occurred.

NON-CROPLAND RESTRICTIONS:

- Postemergence (annual & perennial weeds): Do not make more than 2 applications per year.
- Postemergence (annual & perennial weeds): Do not apply more than 3.7 quarts (2.0 lbs ae 2,4-D) per acre per application.
- Postemergence (annual & perennial weeds): Minimum spray interval between applications is 30 days.
- Postemergence (woody plants): Do not make more than 1 application per year.
- Postemergence (woody plants): Do not apply more than 7.4 quarts (4.0 lbs ae 2,4-D) per acre per application.

Applications to non-cropland areas are not applicable to treatment of commercial timber or other plants being grown for sale or other commercial use, or for commercial seed production, or for research purposes.

Alligare Picloram+D contains 0.5 pounds a.e. of 2,4-D per quart. When tank mixing with products that contain 2,4-D, do not exceed a combined total of 4.0 pounds of 2,4-D a.e. per acre per year.

BROADCAST TREATMENTS FOR FOREST SITE PREPARATION
(Not for Conifer Release)

For broadcast applications, apply the recommended rate of Alligare Picloram+D in a total spray volume of 5-to-25 gallons per acre by air or 10-to-100 gallons per acre by ground. Use spray volumes sufficient to provide thorough coverage of treated foliage. **Note:** This use is not intended for conifer release (see General Use Precautions).

Southern states including Alabama, Arkansas, Delaware, Georgia, Louisiana, Maryland, Mississippi, North Carolina, Tennessee, Texas and Virginia: Apply Alligare Picloram+D at a rate of 6-to-7.4 quarts per acre to control susceptible woody plants and broadleaf weeds. Apply 6-to-7.4 quarts per acre of Alligare Picloram+D in tank-mix combination with 2-to-4 quarts per acre of Triclopyr 4E herbicide (or Alligare Triclopyr 4) to broaden the spectrum of woody plants and broadleaf weeds controlled. Where grass control is also desired, Alligare Picloram+D alone, or in combination with Triclopyr 4E (or Alligare Triclopyr 4), may be tank-mixed with 1-to-4 quarts per acre of Accord™, Gly Star™ Plus, Glyphosate 4 Plus or Roundup® herbicides, or 8-to-16 fluid ounces per acre of Arsenal® Applicator's Concentrate. Susceptible woody plants, broadleaf weeds and grasses may also be controlled using a tank-mix of 6-to-7.4 quarts per acre of Alligare Picloram+D and 3-to-5 quarts of Accord™, Gly Star™ Original, Alligare Glyphosate 4 or Roundup® herbicide, or 16-to-24 fluid ounces of Arsenal® Applicator's Concentrate. When applying tank mixes, follow the directions for use and precautions on each product label.

In Western, Northeastern, North Central and Lake States (States not listed above as Southern States): To control susceptible woody plants and broadleaf weeds, apply Alligare Picloram+D at a rate of 4-to-7.4 quarts per acre. Apply 4-to-7.4 quarts per acre of Alligare Picloram+D in tank-mix combination with 1 ½-to-3 quarts of Triclopyr 4E (or Alligare Triclopyr 4) to broaden the spectrum of woody plants and broadleaf weeds controlled. Where grass control is also desired, Alligare Picloram+D alone, or in combination with Triclopyr 4E (or Alligare Triclopyr 4), may be tank-mixed with 1-to-3 quarts per acre of Accord™, Gly Star™ Plus, Glyphosate 4 Plus or Roundup®, or 2-to-4 fluid ounces of Oust®, or a combination of Accord™, Gly Star™ Plus, Glyphosate 4 Plus or Roundup®, plus Oust® at the rates listed, or 8-to-16 fluid ounces of Arsenal® Applicator's Concentrate. When applying tank mixes, follow the directions for use and precautions on each product label.

Conifer Strip Thinning in the Northeastern United States

To thin stands of naturally regenerated spruce and fir by applying herbicide in treated bands or strips which alternate with untreated bands or strips, apply Alligare Picloram+D such that the application rate in the treated bands or strips is 7.4 quarts of herbicide per acre in a total spray mixture volume of 12 to 20 gallons. Make applications during the period of active conifer growth. To obtain the precise placement of spray mixture in the treated bands that is required for this technique, aerial applications should be made using a helicopter equipped with a Microfoil® or Thru-Valve® boom. Multiple treated bands may be obtained within a single spray swath by establishing alternating series of flowing and blocked spray nozzles.

Note: Injury or death of desired residual conifers may result if spray mixture is permitted to contact their foliage as a result of inaccurate flight guidance during aerial application or as a result of spray drift from treated into untreated strips.

FORESTRY RESTRICTIONS (Woody Plants):

- Do not make more than one broadcast application per year.
- Do not apply more than 7.4 quarts (4.0 lbs ae 2,4-D) per acre per broadcast application within a period of 2 annual growing seasons.

CUT SURFACE TREATMENTS

In forest and other non-crop areas to kill unwanted trees such as elm, maple, oak and pine, apply Alligare Picloram+D diluted with water as described below.

Tree Injector Method: Make applications by injecting ½ milliliter of undiluted Alligare Picloram+D or 1 milliliter of the diluted solution through the bark at intervals of 3 inches between edges of the injector wound. The injections should completely surround the tree at any convenient height.

Note: No Worker Protection Standard worker entry restrictions or worker notification requirements apply when this product is directly injected into agricultural plants.

Frill or Girdle Method: Make a single girdle through the bark completely around the tree at a convenient height. Wet the cut surface with the diluted solution.

Stump Treatment: Paint or spray to wet the cut surfaces of freshly cut stumps or stubs with Alligare Picloram+D undiluted or diluted 1:1 in water. All of the cambium area next to the bark is the most vital area to wet.

Dilution Ratio: Maximum of 16 quarts Alligare Picloram+D in 100 gallons of water.

The above methods may be used successfully in any season except during periods of heavy sap flow of certain species, such as maples, or during drought periods. Untreated trees within a few feet of the treated trees or stumps may be injured or killed.

CUT SURFACE & INJECTION RESTRICTIONS:

- Do not make more than one basal or cut surface application per year.
- Do not use more than 22 pints per 100 gallons of spray solution.
- Do not make more than one injection application per year.
- Do not apply more than 4 ml of formulation per injection site.

Use of this product in certain portions of California, Oregon and Washington is subject to the January 22, 2204 Order for Injunctive Relief in Washington Toxics Coalition et al v. EPA, C01-0132C (W.D.W.A.). For further information, please refer to http://www.epa.gov/espp.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

PESTICIDE STORAGE: Keep container tightly closed when not in use. If exposed to sub-freezing temperatures, the product should be warmed to at least 40°F and thoroughly mixed before using. Open dumping is prohibited.

PESTICIDE DISPOSAL: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by the use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL:

Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying.

(Nonrefillable container ≤ 5 gallons): Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

(Nonrefillable > 5 gallons): Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

CONDITION OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

To the extent consistent with applicable law, upon purchase or use of this product, purchaser and user agree to the following terms:

Warranty: Alligare, LLC (the Company) warrants that this product conforms to the chemical description on the label in all material respects and is reasonably fit for the purpose referred

PICLORAM+D

Specimen Label

to in the directions for use, subject to the exceptions noted below, which are beyond the Company's control. To the extent consistent with applicable law, the Company makes no other representation or warranty, express or implied, concerning the product, including no implied warranty of merchantability or fitness for a particular purpose. No such warranty shall be implied by law, and no agent or representative is authorized to make any such warranty on the Company's behalf.

Terms of Sale: The Company's directions for use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, and the manner of use or application (including failure to adhere to label directions), all of which are beyond the Company's control. To the extent consistent with applicable law, all such risks are assumed by the user.

Limitation of Liability: To the extent consistent with applicable law, the exclusive remedy against the Company for any cause of action relating to the handling or use of this product is a claim for damages, and in no event shall damages or any other recovery of any kind exceed the price of the product which caused the alleged loss, damage, injury or other claim. To the extent consistent with applicable law, under no circumstances shall the Company be liable for any special, indirect, incidental or consequential damages of any kind, including loss of profits or income, and any such claims are hereby waived. Some states do not allow the exclusion or limitation of incidental or consequential damages.

The Company and the seller offer this product, and the purchaser and user accept this product, subject to the foregoing warranty, terms of sale and limitation of liability, which may be varied or modified only by an agreement in writing signed on behalf of the Company by an authorized representative.

Gly Star™ is a trademark of Albaugh, Inc.
Arsenal® is a registered trademark of the BASF Corporation.
Accord™, Garlon™ and Remedy® are trademarks of Dow AgroSciences LLC.
Oust® is a registered trademark of E.I. duPont de Nemours & Co., Inc.
Roundup® is a registered trademark of the Monsanto Company.

EPA 20100125

SAFETY DATA SHEET

DREXEL MSMA 6 PLUS

Section 1: Material Identification

Product Name: Drexel MSMA 6 Plus

EPA Reg No.: 19713-42

CAS NO: 2163-80-6

Formula: CH_4AsO_3Na

Company: Drexel Chemical Company
1700 Channel Avenue
Memphis, TN 38106

Synonyms: Monosodium Acid Methanearsonate
MSMA

Identifiers:
EINECS: 218-495-9
RTECS: PA2625000
DOT information: **See Section 14 for Transportation Information**

Emergency Telephone Number:

CHEMTREC	Drexel Chemical Co.
Tel: 1-800-424-9300	901-774-4370

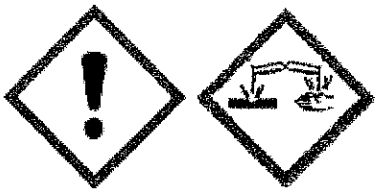
This product is an EPA FIFRA registered pesticide. Some of the classifications on this SDS are not the same as the FIFRA label. Certain sections of this SDS are superseded by federal law governed by EPA for a registered pesticide. Please see **Section 15: REGULATORY INFORMATION** for explanation.

Section 2: Hazard Identification
(As defined by the OSHA Hazard Communication Standard, 29)

GHS classification:

Health Hazards:	Acute inhalation	Category 4
	Skin corrosive/irritation	Category 2
	Aquatic toxicity - acute	Category 2
	Corrosive to metals	Category 1

GHS label elements:
Signal Word: Warning



Hazard Statements:

Harmful if inhaled.
Causes skin irritation.
Harmful to aquatic life.
May be corrosive to metals.

Precautionary Statements:

Prevention:

Avoid breathing vapors or mist. Use only outdoors or in a well-ventilated area. Wash exposed skin thoroughly after handling. Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Neoprene, Nitrile/butadiene rubber ("nitrile" or "NBR") or Polyvinyl chloride ("PVC" or "vinyl"). Prevent from entering into ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.
Keep only in original container.
May react with aluminum, zinc or steel.

Response:

If inhaled: Remove person to fresh air and keep comfortable for breathing. Call Poison Control Center of Doctor if you feel unwell.
If on skin: Wash with plenty of water while removing contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Destroy contaminated leather items such as shoes, belts, and watchbands. Absorb spillage to prevent material damage.

Storage:

Store in a cool, dry, well ventilated, and secure area designated specifically for pesticides and away from heat sources.
Keep in original containers and keep containers closed when not in use.
Do not store in excessive heat. Do not store near children, food, foodstuffs, drugs or potable water supplies. Store in corrosive resistant high density polyethylene container.

Disposal:

If wastes and/or containers cannot be disposed of according to the product label directions, disposal of this material must be in accordance with your local or area regulatory authorities.

Section 3: Composition Information

Components	CAS No.	% By Wt.	OSHA PEL	ACGIH TLV
Active Ingredient:				
Monosodium Acid Methanearsonate	2163-80-6	47.6%	N/Av	0.5 mg/m^3
Inert Ingredients:	N/A	52.4%	N/A	N/A

Section 4: First-Aid Measures

Eye Contact: Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes for at least 10 minutes. Obtain medical attention without delay, preferably from an ophthalmologist.

If Swallowed: Call a poison control center or doctor immediately for treatment advice. Rinse mouth with water and have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person. Have product label with you when calling a poison control center or doctor.

Skin Contact: Immediately flush skin with water while removing contaminated clothing and shoes. Wash exposed areas with soap and water. Get medical attention if symptoms occur. Wash clothing before reuse. Destroy contaminated leather items such as shoes, belts, and watchbands.

If Inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

Note to Physician: This product has low oral, dermal, and inhalation toxicity. If swallowed, gastric lavage using an endotracheal tube may be preferred to vomiting. Literature recommendations for arsenic poisoning call for chelation therapy with BAL or d-penicillin. Persons with sensitivity to penicillin may suffer an allergic reaction. BAL is recommended for persons allergic to penicillin.

Section 5: Fire Fighting Measures

Fire Hazards: Closed containers may rupture if exposed to excess heat or flame due to a build-up of internal pressure. Thermal decomposition during a fire can produce fumes and irritating gases.

Flammability classification (OSHA 29 CFR 1910.1200): Non-combustible
Flash point: Non-combustible (Aqueous Formulation)
Lower flammable limit (% by volume): N/A
Upper flammable limit (% by volume): N/A

Fire Fighting Procedures: Keep people away. Isolate fire and deny unnecessary entry. Evacuate the area and fight the fire from upwind from a safe distance to avoid hazardous vapors or decomposition products. Dike and collect fire-extinguishing water to prevent environmental damage and excessive waste runoff.

Firefighting media: Use dry chemical or carbon dioxide when fighting fires involving this product. Do not use water or foam, as this may spread material.

Special Protective Equipment for Firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective firefighting clothing (includes firefighting helmet, coat, trousers, boots, and gloves). Use full face shield and operate in positive pressure mode. Avoid contact with this material during firefighting operations. If contact is likely, change to full chemical resistant firefighting clothing with self-contained breathing apparatus. If this is not available, wear full chemical resistant clothing with self-contained breathing apparatus and fight fire from a remote location. For protective equipment in post-fire or non-fire clean-up situations, refer to the relevant sections. Avoid contact with aluminum equipment (i.e. ladders, etc.) as this will create arsine gas.

Hazardous Combustion Products: May generate toxic fumes and smoke.

NFPA):	Health:	Flammability:	Reactivity:
	3	0	0

(Rating: 4-Extreme, 3-High, 2-Moderate, 1-Slight, 0-Insignificant)

Section 6: Accidental Release Measures

Steps to be taken if Material is Released or Spilled:

- Contain spilled material if possible. Small spills: Absorb with suitable absorbent and sweep up. Collect in suitable and properly labeled containers. Large spills: Contact Drexel Chemical Co. for clean-up assistance. See Section 13, Disposal Considerations, for additional information.

Personal Precautions:

- Isolate area. Keep unnecessary and unprotected personnel from entering the area. Refer to Section 7, Handling, for additional precautionary measures. Spilled material may cause a slipping hazard. Ventilate area of leak or spill. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

Environmental Precautions: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

Section 7: Handling and Storage

KEEP OUT OF REACH OF CHILDREN

Handling: **General Handling:** Avoid contact with eyes, skin, and clothing. Wash thoroughly with soap and water after handling. Do not swallow. Avoid breathing vapor. Use with adequate ventilation. Wear chemical protective equipment when handling. Keep away from heat, sparks and flame. See Section 8, Exposure Controls and Personal Protection.

Storage: Store in a cool, dry, ventilated and secure area designated specifically for pesticides and away from heat sources. Keep in original containers and keep containers closed when not in use. Do not store in excessive heat. Do not store near children, food, foodstuffs, drugs or potable water supplies.

Section 8: Exposure Controls / Personal Protection

Exposure Limits: TLV MSMA 0.5 mg/m^3

Personal Protection:

Eye/Face Protection: Wear safety glasses with side shields or chemical splash goggles to prevent vapors or mists from entering the eyes. If using a full face shield, always sue safety glasses or goggles along with the face shield to ensure adequate protection of the eyes.

Skin Protection: Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task. Safety shower should be located in immediate work area. Remove contaminated clothing immediately, wash skin area with soap and water, and launder clothing before reuse or dispose of properly. Items which cannot be decontaminated, such as shoes, belts and watchbands, should be removed and disposed of properly.

Hand protection: Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Neoprene, Nitrile/butadiene rubber ("nitrile" or "NBR") or Polyvinyl chloride ("PVC" or "vinyl").

Respiratory Protection: Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. When handling in enclosed areas, when large quantities of mists are generated or prolonged exposure is possible in excess of the TLV, use a respirator with either an organic vapor-removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C) or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G).

Ingestion: Avoid ingestion of even very small amounts; do not consume or store food or tobacco in the work area; wash hands and face with soap and water before smoking or eating.

Engineering Controls:

Ventilation: When handling this product proper ventilation is required to maintain exposure below the TLV. Ventilate all transport vehicles prior to unloading. Facilities storing or utilizing this material should be equipped with and eyewash facility and safety shower.

Section 9: Physical and Chemical Properties

Physical State:	Liquid
Color:	Light green
Odor:	Slight garlic
Flash Point:	Non-combustible
Vapor Pressure (mmHg):	15 mmHg
Boiling Point:	220°F
Vapor Density (air = 1):	0.6
Bulk Density (H_2O = 1):	1.49 g/cc
Freezing Point:	N/Av
Solubility in water (wt % - weight):	Complete
pH:	5 - 7
Viscosity:	N/Av
% Volatiles:	0.6

Section 10: Stability and Reactivity

Stability/Instability: Thermally stable at typical use temperatures and in closed containers.

Conditions to Avoid: Avoid heat of open flame. Avoid high temperatures above 130°F (54.4°C).

Incompatible Materials: Avoid contact with: Reducing agents such as aluminum and zinc.

Hazardous Polymerization: Will not occur

Thermal Decomposition: Hazardous decomposition products can include and are not limited to: Arsine gas.

Section 11: Toxicological Information

Acute Toxicity:

Ingestion:

- **LD50, (rat):** 2,833 mg/kg

Dermal:

- **LD50, (rabbit):** >2,500 mg/kg

Inhalation:

- **LC50, (4h), (rat):** >2.2 mg/kg

Eye Irritation (rabbit):

- Not a primary irritant.

Skin Irritation (rabbit):

- Slight irritant.

Sensitization Skin:

- Non-sensitizer (guinea pigs).

Chronic Toxicity:
- Exposure below levels of concern.

Carcinogenicity:
- Not listed as carcinogenic in humans by IARC, NTP and OSHA.

Teratogenicity, mutagenicity, and other reproductive effects: None known

Section 12: Ecological Information

Information provided for Monosodium Acid Methanearsonate:

ENVIRONMENTAL FATE:
- Slightly toxic to fish, aquatic invertebrates, and aquatic plants. Practically non-toxic to bees. Moderately toxicto birds.

Persistence and Degradability:
- Immobilized by binding to soil particles and not easily leached to groundwater except in sandy soils.

Aquatic Toxicity:
- Rainbow Trout, 96 hour, LC50: >167 mg/L
- Bluegill, 96 hour, LC50: >51 mg/L
- Daphnia magna, 48 hour, EC50: 77.5 mg/L

Bees:
- LD50: 68 µg/bee

Bird Toxicity:
- Bobwhite Quail, LD50: 425 mg/kg

Section 13: Disposal Considerations

If wastes and/or containers cannot be disposed of according to the product label directions, disposal of this material must be in accordance with your local or area regulatory authorities. This information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. If the material as supplied becomes a waste, follow all applicable regional, national and local laws.

Section 14: Transport Information

DOT: Not regulated - See 49 CFR 173.132 (b) (3) & 1712.1-1 Appendix

IMDG: Not regulated

ICAO/IATA: Consult appropriate ICAO/IATA regulations for shipment requirements in the Air.

Freight Description: Agricultural Herbicide, liquid, n.o.s.

ERG Guide No.: 171

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

Section 15: Regulatory Information

OSHA Hazard Communication Standard:

- **Arsenic is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR1910.1200.**
- **EPA FIFRA INFORMATION:**
  This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemical. The hazard information required on the pesticide label is listed out below. The pesticide label also includes other important information, including directions for use.
- **EPA/CERCLA Reportable Quantity:** None known

SARA/TITLE III:

- **Sec. 302. Extremely Hazardous Substance Notification:** This material is not known to contain any Extremely Hazardous Substances.
- **Sec. 311/312. Hazard Categories:** Immediate health hazard
  Chronic health hazard
- **Sec. 313. Toxic Chemical(s):** Arsenic Compounds
- **RCRA Waste Code:** Not applicable

California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986):

- This product is not listed.

Toxic Substances Control Act (TSCA):

- All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.30

Section 16: Other Information

Drexel Chemical Company recommends that each customer or recipient of this SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown below. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific SDSs, we are not and cannot be responsible for SDSs obtained from any source other than ourselves. If you have obtained an SDS from another source or if you are not sure that the SDS you have is current, please contact us for the most current version.

Date Revised: August 4, 2016 **Supersedes: September 10, 2015**

GROUP 17 HERBICIDE

Drexel

MSMA 6 Plus

MSMA Liquid Plus Surfactant

For selective post-emergent weed control in Cotton, Golf courses and Sod farms, and Highway Rights-of-Way.

ACTIVE INGREDIENT:

Monosodium acid methanearsonate*.....	47.6%
OTHER INGREDIENTS:	52.4%
TOTAL:	100.0%

* This product contains 6 pounds of MSMA per gallon.

* Total Arsenic (as elemental), all in water-soluble form, is 22.0%.

KEEP OUT OF REACH OF CHILDREN

CAUTION

See FIRST AID Below

EPA Reg. No. 19713-42 **Net Content:**
EPA Est. No. 19713-MS-1 **2.5 Gals. (9.46 L)**

FIRST AID

IF SWALLOWED:
- Call a poison control center or doctor immediately for treatment advice.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to do so by a poison control center or doctor.
- Do not give anything by mouth to an unconscious or convulsing person.

IF IN EYES:
- Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.
- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
- Call a poison control center or doctor for treatment advice.

IF ON SKIN OR CLOTHING:
- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15 to 20 minutes.
- Call a poison control center or doctor for treatment advice.

IF INHALED:
- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.
- Call a poison control center or doctor for further treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also call CHEMTREC at 800-424-9300 for emergency.

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

CAUTION: Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with eyes, skin and clothing. Avoid breathing spray mist.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are polyethylene or polyvinyl chloride. If you want more options, follow the instructions for category A on an EPA chemical-resistance category selection chart. *(Continued)*

PRECAUTIONARY STATEMENTS *(Cont.)*

All mixers, loaders, applicators and other handlers must wear: Long-sleeved shirt and long pants, chemical-resistant gloves, and shoes plus socks.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

When handlers use aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for Agricultural Pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS. Pilots must use an enclosed cockpit that meets the requirements listed in the WPS for agricultural pesticides [40 CFR 170.240 (d)(6)].

USER SAFETY RECOMMENDATIONS

Users should: 1) Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. 2) Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. 3) Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters or rinsate.

USE INFORMATION

MSMA 6 PLUS is a herbicide useful for controlling weeds in Cotton, Golf courses and Sod farms, and Highway Rights-of-Way. It is a combination of herbicide and surfactant. It is unnecessary to add any surfactant to the spray solution. Best results are obtained on young, actively growing weeds at air temperatures above 70°F.

Weeds controlled by this product include:

Bahiagrass *(Paspalum* sp.)	Crabgrass, Large *(Digitaria* sp.)
Barnyardgrass *(Echinochloa crus-galli)*	Crabgrass, Smooth *(Digitaria* sp.)
Beggartick, Hairy *(Biden pilosa)*	Dallisgrass *(Paspalum dilatatum)*
Brachiaria spp.	Dandelion *(Taraxacum officinale)*
Broomsedge	Dayflower *(Commelina* sp.)
Chickweed *(Stellaria media)*	Fiddleneck *(Amsinckia* sp.)
Cocklebur *(Xanthium spinosum)*	

(Continued)

Manufactured By:
Drexel Chemical Company
P.O. BOX 13327, MEMPHIS, TN 38113-0327
SINCE 1972

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(Cont.)	
Florida Beggarweed (*Desmodium tortuosum*)	Oats, Wild (*Avena fatua*)
Foxtail (*Setaria* sp.)	Pigweed (*Amaranthus* sp.)
Goosegrass (*Eleusine indica*)	Puncturevine (*Tribulus terrestris*)
Guineagrass (*Panicum* sp.)	Purslane, common
Jimsonweed (*Datura stramonium*)	Ragweed (*Ambrosia* spp.)
Johnsongrass (*Sorghum halipense*)	Sandbur (*Cenchrus* sp.)
Morningglory (*Ipomoea* spp.)	Sicklepod (*Cassia obtusifolia*)
Mustard, Wild	Sorrel, Wood (*Oxalis* sp.)
Nutsedge (*Cyperus* sp.)	Spurge (*Euphorbia* sp.)
	Witchgrass (*Panicum capillare*)

RESISTANCE MANAGEMENT

GROUP 17 HERBICIDE

This product is a Group 17 herbicide. Any weed population may contain or develop plants naturally resistant to this product and other Group 17 herbicides. Weed species with acquired resistance to Group 17 may eventually dominate the weed population if Group 17 herbicides are used repeatedly in the same field or in successive years as primary method of control for targeted species. This may result in partial or total loss of control of those species by this product or other Group 17 herbicides.

To delay herbicide resistance, consider:

- Avoiding the consecutive use of this product or other target site of action Group 17 herbicides that have a similar target site of action on the same weed species.
- Using tank-mixtures or pre-mixes with herbicides from different target site of action Groups as long as the involved products are all registered for the same use, have different sites of action, and are both effective at the tank-mix or pre-pack rate on the weed(s) of concern.
- Basing herbicide use on a comprehensive IPM program.
- Monitoring treated weed populations for loss of field efficacy.
- Contacting your local extension specialist, certified crop advisors and/or manufacturer for herbicide resistance management and/or integrated weed management recommendations for specific crops and resistant weed biotypes.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product through any type of irrigation system. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard (WPS), 40 CFR Part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, greenhouses and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about Personal Protective Equipment (PPE) and Restricted Entry Interval (REI). The requirements in this box only apply to uses of this product that are covered by the WPS.

Do not enter or allow worker entry into treated areas during the REI of 12 hours.

PPE required for early entry to treated areas that is permitted under the WPS and that involves contact with anything that has been treated, such as plants, soil or water is: Coveralls, chemical-resistant gloves such as polyethylene or polyvinyl chloride and shoes plus socks.

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are not within the scope of the WPS for Agricultural Pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses.

Keep children and pets out of the treated area until sprays have dried.

APPLICATION RESTRICTIONS

- Do not apply this product in Florida except on Cotton in the counties listed in the Cotton use section of this label.
- Aerial application is prohibited, except when applying to Cotton.

MIXING INSTRUCTIONS

This product is completely water-soluble. Fill the spray equipment reservoir about half full with water and add the required amount of herbicide with agitation. Finish filling the tank with water and apply. After use, clean equipment thoroughly by flushing with water. Do not store spray solution in tank for a prolonged period. Although this product is only moderately corrosive, do not use in galvanized or aluminum equipment.

SPRAY DRIFT MANAGEMENT

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment and weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

1) The distance of the outer most nozzles on the boom must not exceed three-fourth the length of the wingspan or rotor.
2) Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they shall be observed. The applicator should be familiar with and take into account the information covered in the *"AERIAL DRIFT REDUCTION ADVISORY INFORMATION"* section below.

AERIAL DRIFT REDUCTION ADVISORY INFORMATION

Information on Droplet Size

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see *"Wind"*, *"Temperature and Humidity"*, and *"Temperature Inversions"*).

Controlling Droplet Size

- Volume – Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- Pressure – Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- Number of Nozzles – Use the minimum number of nozzles that provide uniform coverage.
- Nozzle Orientation – Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- Nozzle Type – Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce larger droplets than other nozzle types.

Boom Length

For some use patterns, reducing the effective boom length to less than three-fourths of the wingspan or rotor length may further reduce drift without reducing swath width.

Application Height

Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

Swath Adjustment

When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.)

Wind
Drift potential is lowest between speeds of 2 to 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential.
Note: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

Temperature and Humidity
When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

Temperature Inversions
Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog. However, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

Sensitive Areas
This pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive area).

COTTON
This product is useful for the control of weeds listed under *"USE INFORMATION"* section and many similar weeds. Applications can be made: 1) Post-emergent, over the top, when Cotton is 3 to 6 inches high or up to early first square stage, whichever occurs first using ground or aircraft equipment. 2) Post-emergent as a directed spray with ground equipment when Cotton is 3 inches high to first bloom. Slight burning and a reddish discoloration of the Cotton leaf may occasionally occur following application, but the Cotton plant will develop normally.

USE RESTRICTIONS
- Do not apply in Florida except on Cotton grown in the following counties: Calhoun, Columbia, Escambia, Gadsden, Hamilton, Holmes, Jackson, Jefferson, Okaloosa, Santa Rosa, Suwannee, Walton and Washington.
  Note: Applications to Cotton in Florida should be confined to band treatments.
- Only one application at 2 pounds a.i. (2.66 pts. of this product) per acre is allowed per season, except when a salvage operation is needed.
- If a salvage operation is needed (i.e., if Pigweed escapes the first application), then a second or repeat application at 2 pounds a.i. (2.66 pts. of this product) per acre is allowed.
- A second or repeat application, if needed, should be timed 1 to 3 weeks after the first application. Apply only as a salvage operation. Apply only to healthy rapidly growing Cotton 3 inches high, but no later than 6 inches high or early square, whichever occurs first. Preference should be given to directed spray. In order to minimize injury, the second application should be made as a directed spray when possible.
- Do not make more than two applications per season.
- Do not apply more than a total of 4 pounds a.i. per acre per season.
- Do not apply pre-plant to Cotton.
- Do not apply within 50 feet of permanent water bodies or aquatic habitat, including, but not limited to lakes, reservoirs, rivers, streams, marshes, ponds and estuaries.
- Do not allow spray or spray drift to contact adjacent crops or injury will result.
- Apply only on still days when weather conditions do not favor drift from areas being treated. Aircraft applications of this product should only be made by applicators experienced in use of herbicides, and application should be made in accordance with State and Federal regulations.
- Do not feed treated foliage to livestock or graze treated areas.

Post-Emergent Applications Using Ground or Aircraft Equipment as an Over-the-Top Broadcast Spray when Cotton is 3 inches high until early first square stage as a salvage operation. **One application:** Apply 2.5 pints in 40 gallons of water for ground application, or in 5 to 10 gallons of water for aircraft application per acre. DO NOT repeat this treatment. **Two applications:** Mix at the rate of 1 to 1.25 pints of this product in 40 gallons of water for ground equipment or in 5 to 10 gallons of water for aircraft application per acre of Cotton. If needed, a second or repeat application should be made 1 to 3 weeks after the first application. Apply only as a salvage operation. Apply only to healthy, rapidly growing Cotton, 3 inches high, but no later than 6 inches high or early square, whichever occurs first. Preference should be given to directed sprays. In order to minimize injury, the second application should be made as a directed spray when possible. DO NOT make more than two applications per season. Do not feed treated foliage to livestock or graze treated areas.

Post-emergent Directed Spray Applications: Mix this product at the rate of 2.66 pints in 40 gallons of water per acre for application as directed broadcast spray when weeds are small. For band applications, mix 2.66 pints in 40 gallons of water per acre, then apply 1 gallon of the diluted spray for each 1 inch band width to be treated of Cotton grown on 40 inch row spacing. Direct the spray solution to the base of the Cotton plant. Nozzles should be placed so as to avoid spraying the Cotton foliage, but to give good coverage of the weeds. If regrowth occurs, make a second application about 1 to 3 weeks after the first. Make directed applications only when Cotton is 3 inches high to first bloom. Do not apply after first bloom. Do not feed treated foliage to livestock or graze treated areas.

GOLF COURSES AND SOD FARMS
Mow Turfgrass to a height of 1 to 1.5 inches before treatment. Mix 1 fluid ounce (2 tbsp.) of this product in 1 to 2.5 gallons of water for application to a total area of 1,000 square feet. For established Bermudagrass and Zoysiagrass, mix 1 to 2 fluid ounces (2 to 4 tbsp.) of this product in 1 to 2.5 gallons of water for application to a total area of 1,000 square feet. Apply during warm weather when temperature is between 80°F and 90°F. Do not water turf for at least 24 hours after application. Turfgrass may be temporarily discolored. Bermudagrass, Bluegrass, and Zoysiagrass have shown tolerance if this product is properly applied. Injury may result if applied to Bentgrass, Fescue, and St. Augustinegrass. **DO NOT apply to St. Augustinegrass except for commercial sod production.** DO NOT apply to Carpetgrass, Centipedegrass or to Dichondra. DO NOT reseed until two weeks after last application. For application to St. Augustinegrass in sod farms, last application can be made 4 to 5 weeks prior to lifting the sod for harvest to allow full recovery before lifting. St. Augustinegrass sod will be temporarily discolored following application. DO NOT apply to freshly mowed St. Augustinegrass sod.

USE RESTRICTIONS
- For newly constructed golf courses, ONLY one broadcast application is permitted.
- For all other applications to golf courses, this product can ONLY be used for spot treatments (100 sq. ft. per spot), not to exceed 25% of the total golf course acreage per year.
- In Sod farms, ONLY two broadcast applications are allowed per season. Do not apply within 25 feet of permanent water bodies or aquatic habitat, including, but not limited to lakes, reservoirs, rivers, streams, marshes, ponds and estuaries.

HIGHWAY RIGHTS-OF-WAY
This product is useful for controlling weeds listed under *"USE INFORMATION"* section and similar other weeds on Highway Rights-Of-Way. Mix this product at a rate of 2.5 to 6 pints per 40 to 50 gallons of water per acre. Use higher rates and spray volume for dense weed growth. For small areas, use 1 to 2 fluid ounces in 5 gallons per 1,000 square feet. Spray undesirable vegetation thoroughly to point of runoff. Adequate coverage and complete wetting of foliage is important for effective control. If regrowth occurs, reapply as required.

USE RESTRICTIONS
- Do not apply more than two broadcast applications per year.
- Do not apply within 100 feet of permanent water bodies or aquatic habitat, including, but not limited to lakes, reservoirs, rivers, streams, marshes, ponds and estuaries.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

PESTICIDE STORAGE: Storage should be under lock and key and secure from access by unauthorized persons and children. Storage should be in a cool, dry area away from any heat or ignition source. High heat may form volatile arsenic compounds. Do not stack over 2 pallets high. Move containers by handles or in cases. Do not move containers from one area to another unless they are securely sealed. Keep container tightly sealed when not in use. Keep away from any puncture source. Avoid storage near water supplies, food, feed, seed, fungicides, insecticides and fertilizers to avoid contamination. Store in original containers only. If the contents are leaking or material is spilled, follow these steps while wearing protective clothing:

1. Contain spill. Absorb with an inert material such as sand or sawdust.
2. Collect and place in suitable containers for disposal.
3. Wash area with soap and water to remove remaining pesticide.
4. Follow washing with clean water rinse.
5. Place a leaking container in a plastic tub and transfer content as soon as possible, to an empty, original container.
6. Do not allow runoff to enter sewer or contaminate water supplies.
7. Dispose of waste as indicated below.

PESTICIDE DISPOSAL: Pesticide wastes are toxic. If these wastes cannot be disposed of by use according to label instructions, contact your state pesticide or environmental control agency or the hazardous waste representative at the nearest EPA regional office for guidance.

CONTAINER HANDLING:

Nonrefillable Container (rigid material; less than 5 gallons): Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container one-fourth full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

Nonrefillable Container (rigid material; 5 gallons up to < 250 gallons): Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill container one-fourth full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

Refillable Container (≥ 250 gallons & Bulk): Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

WARRANTY—CONDITIONS OF SALE

OUR DIRECTIONS FOR USE of this product are based upon tests believed reliable. Follow directions carefully. Timing and method of application, weather and crop conditions, mixtures with other chemicals not specifically recommended and other influencing factors in the use of this product are beyond the control of the Seller. To the extent consistent with applicable law, Buyer assumes all risks of use, storage and handling of this material not in strict accordance with directions given herewith. To the extent consistent with applicable law, in no case shall the Manufacturer or the Seller be liable for consequential, special or indirect damages resulting from the use or handling of this product when such use and/or handling is not in strict accordance with directions given herewith. The foregoing is a condition of sale by the Seller and is accepted as such by the Buyer.

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BID NAME: IFB 17-006/YS

BID NO: Term Contract for Insecti[illegible], Herbicides, Spray Adjuvants, and Adulticides for Jefferson County Mosquito Control District

DUE DATE/TIME: 11:00 AM CDT, Tuesday, March 14, 2017

MAIL OR DELIVER TO: Jefferson County Purchasing Department
1149 Pearl Street, 1st Floor
Beaumont, Texas 77701

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ORIGIN ID:SHVA (318) 584-7217
PRO PEST AND LAWN STORE
PRO PEST AND LAWN STORE
4726 EAST TEXAS
SUITE 150
BOSSIER CITY, LA 71111
UNITED STATES US

SHIP DATE: 11MAR17
ACTWGT: 3.40 LB
CAD: 109599284/INET3850

BILL SENDER

TO JEFFERSON COUNTY PURCHASING DEPT
1149 PEARL STREET, 1ST FLOOR
BEAUMONT TX 77701
(409) 835-8593 REF:
INV:
PO: DEPT:

FedEx Express

J171117021481uv

546J3/1ADB/53C1

TUE - 14 MAR 10:30A
MORNING 2DAY

TRK# 0201 7786 3040 9416

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TX-US IAH

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JEFFERSON COUNTY PURCHASING DEPARTMENT

Deborah L. Clark, Purchasing Agent

1149 Pearl Street, 1st Floor, Beaumont, TX 77701 409-835-8593 Fax 409-835-8456

LEGAL NOTICE
Advertisement for Invitation for Bids

February 13, 2017

Notice is hereby given that sealed bids will be accepted by the Jefferson County Purchasing Department for IFB 17-006/YS, Term Contract for Insecticides, Herbicides, Spray Adjuvants, and Adulticides for Jefferson County Mosquito Control District. **Specifications for this project may be obtained from the Jefferson County website, http://www.co.jefferson.tx.us/Purchasing/main.htm or by calling 409-835-8593.**

Bids are to be sealed and addressed to the Purchasing Agent with the bid number and name marked on the outside of the envelope. Bidders shall forward an original and two (2) copies of their bid to the address shown below. Jefferson County does not accept bids submitted electronically. Late bids will be rejected as non-responsive. Bids will be publicly opened and read aloud in the Jefferson County Commissioners' Courtroom at the time and date below. Bidders are invited to attend the sealed bid opening.

BID NAME:	**IFB 17-006/YS**
BID NO:	**Term Contract for Insecticides, Herbicides, Spray Adjuvants, and Adulticides for Jefferson County Mosquito Control District**
DUE DATE/TIME:	**11:00 AM CDT, Tuesday, March 14, 2017**
MAIL OR DELIVER TO:	**Jefferson County Purchasing Department 1149 Pearl Street, 1st Floor Beaumont, Texas 77701**

Any questions relating to these requirements should be directed to Yea-Mei Sauer, Contract Specialist, at 409-835-8593 or ysauer@co.jefferson.tx.us.

Jefferson County encourages Disadvantaged Business Enterprises to participate in the bidding process. Jefferson County does not discriminate on the basis of race, color, national origin, sex, religion, age or disability in employment or the provisions of services. Individuals requiring special accommodations are requested to contact our office at 409-835-8593 to make arrangements no later than seven (7) calendar days prior to the submittal deadline. Jefferson County reserves the right to accept or reject any or all proposals, to waive technicalities and to take whatever action is in the best interest of Jefferson County.

All interested firms are invited to submit a bid in accordance with the terms and conditions stated in this bid.

RESPONDENTS ARE STRONGLY ENCOURAGED TO CAREFULLY READ THE ENTIRE INVITATION.

Deborah Clark

Deborah L. Clark, Purchasing Agent
Jefferson County, Texas
Publish: Beaumont Enterprise & Port Arthur News – February 15, 2017 & February 22, 2017

IFB 17-006/YS
Term Contract for Insecticides, Herbicides, Spray Adjuvants, and Adulticides for Jefferson County Mosquito Control District
Bids due: 11:00 AM CDT, Tuesday, March 14, 2017

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Bid Submissions:

Bidder is responsible for submitting one (1) *original* bid copy to include a completed copy of this specifications packet in its entirety; and two (2) numbered bid *hard copies* to include at a minimum all pages requiring completion and/or marked with instructions to be returned with bid submission and any other documentation requested within these specifications.

Additionally, Bidder must monitor the Jefferson County Purchasing Department Website (below) to see if addenda or additional instructions have been posted. Failure to return all required forms could result in a response being declared as non-responsive.

http://www.co.jefferson.tx.us/purchasing/main.htm

Instructions to Bidders

1. Bid Submission

Bids must be submitted in complete original form by mail or messenger to the following address:

Jefferson County Purchasing Department
1149 Pearl Street, 3rd Floor
Beaumont, TX 77701

Bids will be accepted at the above address until the time and date specified herein, and immediately after will be publicly opened and read aloud.

Bidder shall submit bid in a tightly sealed opaque envelope or box, plainly marked "SEALED BID." The outside of the envelope of box shall also include the Bid Number, Bid Name, Bid Due Date, and the Bidder's Name and Address; and shall be addressed to the Purchasing Agent.

Late bids will not be accepted and will be returned unopened to the bidder.

All bids submitted in response to this invitation shall become the property of Jefferson County and will be a matter of public record available for review.

2. Bid Submissions During Time of Inclement Weather, Disaster, or Emergency

In case of inclement weather or any other unforeseen event causing the County to close for business on the date of a bid/proposal/statement of qualifications submission deadline, the closing will automatically be postponed until the next business day that County offices are open to the public. Should inclement weather conditions or any other unforeseen event cause delays in courier service operations, the County may issue an addendum to all known vendors interested in the project to extend the deadline. It will be the responsibility of the vendor to notify the county of their interest in the project should these conditions impact their ability to submit a bid/proposal/statement of qualifications submission before the stated deadline. The County reserves the right to make the final judgement call to extend any deadline.

Should an emergency or unanticipated event interrupt normal County processes, and bid/proposal/statement of qualifications submissions cannot be received by the Jefferson County Purchasing Department's office by the exact time specified in the IFB and urgent County requirements preclude amendment to the IFB, the time specified for receipt of bids will be deemed to be extended to the same time of day specified in the solicitation on the first business day on which normal County processes resume.

3. Courthouse Security

Bidders are advised that all visitors to the Courthouse must pass through Security. **Bidders planning to hand deliver bids must allow time to get through Security, as a delay in entering the Courthouse will not be accepted as an excuse for late submittal.** Mondays and Tuesdays are particularly heavy days. Bidders are strongly urged to plan accordingly.

4. Preparation of Bids

The bid shall be legibly printed in ink or typed.

If a unit price or extension already entered is to be altered, it shall be crossed out and initialed in ink by the bidder.

The bid shall be legally signed and shall include the complete address of the bidder.

Jefferson County is exempt from Federal and State Sales Taxes, and such taxes shall not be included in bid prices.

5. Signatures

All bids, notifications, claims, and statements must be signed by an individual authorized to bind the bidder. The individual signing certifies, under penalty of perjury, that he or she has the legal authorization to bind the bidder.

6. County Holidays – 2017:

January 16	Monday	Martin Luther King, Jr. Day
February 20	Monday	President's Day
April 14	Friday	Good Friday
May 29	Monday	Memorial Day
July 4	Tuesday	Independence Day
September 4	Monday	Labor Day
November 10	Friday	Veteran's Day
November 23 & 24	Thursday & Friday	Thanksgiving
December 25 & 26	Monday & Tuesday	Christmas
January 1, 2018	Monday	New Year's

7. Rejection or Withdrawal

Submission of additional terms, conditions or agreements with the bid document are grounds for deeming a bid non-responsive and may result in bid rejection. Jefferson County reserves the right to reject any and all bids and to waive any informalities and minor irregularities or defects in bids. Bids may be withdrawn in person by a bidder or authorized representative, provided their identity is made known and a receipt is signed for the bid, but only if the withdrawal is made prior to the time set for receipt of bids. Bids are an irrevocable offer and may not be withdrawn within 90 days after opening date.

8. Emergency/Declared Disaster Requirements

In the event of an emergency or if Jefferson County is declared a disaster area, by the County, State, or Federal Government, this Acceptance of Offer may be subjected to unusual usage. Contractor shall service the county during such an emergency or declared disaster under the same terms and conditions that apply during non-emergency/disaster conditions. The pricing as specified in this Acceptance of Offer shall apply to serving the County's needs regardless of the circumstances. If Contractor is unable to supply the services under the terms of the Acceptance of Offer, then Contractor shall provide proof of such disruption and a copy of the invoice from Contractor's supplier(s). Additional profit margin as a result of supplying services during an emergency or declared disaster shall not be permitted. In the event that additional equipment, supplies, and materials are required during the declared disaster, additional shipping, handling and drayage fees may apply.

9. Award

The bid will be awarded to the responsible, responsive bidder(s) whose bid, conforming to the solicitation, will be most advantageous to Jefferson County – price and other factors considered. Unless otherwise specified in this IFB, Jefferson County reserves the right to accept a bid in whole or in part, and to award by item or by group, whichever is deemed to be in the best interest of Jefferson County. Any bidder who is in default to Jefferson County at the time of submittal of the bid shall have that bid rejected. Jefferson County reserves the right to clarify any contractual terms with the concurrence of the Contractor; however, any substantial nonconformity in the offer, as determined by Jefferson County, shall be deemed non-responsive and the offer rejected.

In evaluating bids, Jefferson County shall consider the qualifications of the bidders, and, where applicable, operating costs, delivery time, maintenance requirements, performance data, and guarantees of materials and equipment. In addition, Jefferson County may conduct such investigation as it deems necessary to assist in the evaluation of a bid and to establish the responsibility, qualifications, and financial ability of the bidders to fulfill the contract.

Jefferson County reserves the right to award this contract on the basis of **lowest and best bid** in accordance with the laws of the State of Texas, to waive any formality or irregularity, to make awards to more than one offeror, and/or to reject any or all bids. In the event the lowest dollar offeror meeting specifications is not a awarded a contract, Offeror may appear before the Commissioners' Court and present evidence concerning Offeror responsibility after officially notifying the Office of the Purchasing Agent of Offeror's intent to appear.

10. Contract

A response to an IFB is an offer to contract with Jefferson County based upon the terms, conditions, and specifications contained in the IFB. Bids do not become contracts unless and until they are executed by Jefferson County, eliminating a formal signing of a separate contract. For that reason, all of the terms and conditions of the contract are contained in the IFB, unless any of the terms and conditions is modified by an IFB Amendment, a Contract Amendment, or by mutually agreed terms and conditions in the contract documents.

11. Waiver of Subrogation

Bidder and bidder's insurance carrier waive any and all rights whatsoever with regard to subrogation against Jefferson County as an indirect party to any suit arising out of personal or property damages resulting from bidder's performance under this agreement.

12. Fiscal Funding

A multi-year contract (if requested by the specifications) continuing as a result of an extension option must include fiscal funding out. If, for any reason, funds are not appropriated to continue the contract, said contract shall become null and void.

13. Bid Results

Bid results are not provided in response to telephone inquiries. A preliminary tabulation of bids received will be posted on the Purchasing web page (http://co.jefferson.tx.us/ purchasing/main.htm) as soon as possible following bid opening. A final tabulation will be posted following bid award, and will also be available for review in the Purchasing Department.

14. Changes and Addenda to Bid Documents

Each change or addendum issued in relation to this IFB document will be on file in the Office of the Purchasing Agent, and will be posted on the Purchasing web site as soon as possible. It shall be the bidder's responsibility to make inquiry as to change or addenda issued, and to monitor the web site. All such changes or addenda shall become part of the contract and all bidders shall be bound by such addenda. Information on all changes or addenda issued will be available at the Office of the County Purchasing Agent.

15. Specifications

Unless otherwise stated by the bidder, the bid will be considered as being in accordance with Jefferson County's applicable standard specifications, and any special specifications outlined in the bid document. References to a particular trade name, manufacturer's catalogue, or model number are made for descriptive purposes to guide the bidder in interpreting the requirements of Jefferson County, and should not be construed as excluding bids on other types of materials, equipment, and supplies. However, the bidder, if awarded a contract, will be required to furnish the particular item referred to in the specifications or description unless departure or substitution is clearly noted and described in the bid. Jefferson County reserves the right to determine if equipment/ product being bid is an acceptable alternate. All goods shall be new unless otherwise so stated in the bid. Any

unsolicited alternate bid, or any changes, insertions, or omissions to the terms and conditions, specifications, or any other requirements of the bid, may be considered non-responsive.

16. Delivery

Bids shall include all charges for delivery, packing, crating, containers, etc. Unless otherwise stated by the bidder (in writing on the included Bid Form), prices bid will be considered as being based on F.O.B. destination/delivered freight included.

17. Interpretation of Bid and/or Contract Documents

All inquiries shall be made within a reasonable time prior to the date and time fixed for the bid opening, in order that a written response in the form of an addendum, if required, can be processed before the bids are opened. Inquiries received that are not made in a timely fashion may or may not be considered.

18. Currency

Prices calculated by the bidder shall be stated in U.S. dollars.

19. Pricing

Prices shall be stated in units of quantity specified in the bid documents. In case of discrepancy in computing the amount of the bid, the unit price shall govern.

20. Notice to Proceed/Purchase Order

The successful bidder may not commence work under this contract until authorized to do so by the Purchasing Agent.

21. Certification

By signing the offer section of the Offer and Acceptance page, bidder certifies:

- The submission of the offer did not involve collusion or other anti-competitive practices.
- The bidder has not given, offered to give, nor intends to give at any time hereafter, any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor, or service to any public servant in connection with the submitted offer.
- The bidder hereby certifies that the individual signing the bid is an authorized agent for the bidder and has the authority to bind the bidder to the contract.

22. Definitions

"County" – Jefferson County, Texas.

"Contractor" – The bidder whose proposal is accepted by Jefferson County.

23. Minority-Women Business Enterprise Participation

It is the desire of Jefferson County to increase the participation of Minority (MBE) and women-owned (WBE) businesses in its contracting and procurement programs. While the County does not have any preference or set aside programs in place, it is committed to a policy of equitable participation for these firms.

General Conditions of Bidding and Terms of Contract

By execution of this document, the vendor accepts all general and special conditions of the contract as outlined below and in the specifications and plans.

1. Bidding

1.1 Bids. All bids must be submitted on the bid form furnished in this package.

1.2 Authorized Signatures. The bid must be executed personally by the vendor, duly authorized partner of the partnership, or duly authorized officer of the corporation. If executed by an agent, a power of attorney or other evidence of authority to act on behalf of the vendor shall accompany the bid to become a valid bid.

1.3 Late Bids. Bids must be in the office of the Jefferson County Purchasing Agent before or at the specified time and date bids are due. Bids received after the submission deadline shall be rejected as non-responsive and returned unopened.

1.4 Withdrawal of Bids Prior to Bid Opening. A bid may be withdrawn before the opening date by submitting a written request to the Purchasing Agent. If time allows, the bidder may submit a new bid. Bidder assumes full responsibility for submitting a new bid before or at the specified time and date bids are due. Jefferson County reserves the right to withdraw a request for bids before the opening date.

1.5 Withdrawal of Bids after Bid Opening. Bidder agrees that its offer may not be withdrawn or cancelled by the vendor for a period of ninety (90) days following the date and time designated for the receipt of bids unless otherwise stated in the bid and/or specifications.

1.6 Bid Amounts. Bids shall show net prices, extensions where applicable and net total. In case of conflict between unit price and extension, the unit price will govern. Any ambiguity in the bid as a result of omission, error, unintelligible or illegible wording shall be interpreted in the favor of Jefferson County.

1.7 Exceptions and/or Substitutions. All bids meeting the intent of the specifications and plans will be considered for award. Vendors taking exception to the specifications and plans, or offering substitutions, shall state these exceptions in the section provided. If bid is made on an article other than the one specified, which a bidder considers comparable, the name and grade of said article must be specified in the bid and sufficient specifications and descriptive data must accompany same to permit thorough evaluation. The absence of stated exceptions and/or substitutions shall indicate that the vendor has not taken any exceptions to the specifications and shall be responsible to perform in strict accordance with the specifications. As a matter of practice, Jefferson County rejects exception(s) and /or substitutions as non-responsive but reserves the right to accept any and/or all of the exception(s) and/or substitution(s) deemed to be in the best interest of Jefferson County.

1.8 Alternates. The Invitation for Bid and/or specifications may expressly allow bidder to submit an alternate bid. Presence of such an offer shall not be considered an indication of non-responsiveness.

1.9 Descriptions. Unless otherwise specified, any reference to make, manufacturer and/or model used in the bid specifications is merely descriptive and not restrictive, and is used only to indicate type, style, or quality of material desired.

1.10 Bid Alterations. Bids cannot be altered or amended after submission deadline. Any interlineations, alterations, or erasures made before opening time must be initialed by the signer of the bid, guaranteeing authenticity.

1.11 Tax Exempt Status. Jefferson County is exempt from federal excise tax and state sales tax. Unless the bid form or specifications specifically indicate otherwise, the bid price must be net, exclusive of above-mentioned taxes and will be so construed. Therefore, the bid price shall not include taxes.

1.12 Quantities. Quantities indicated are estimated quantities only and are not a commitment to buy. Approximate usage does not constitute an order, but only implies the probable quantity that will be used. Commodities will be ordered on an as-needed basis. Bidder is responsible for accurate final counts.

1.13 Bid Award. Award of contract shall be made to the most responsible, responsive bidder, whose offer is determined to be the best value, taking into consideration the relative importance of price. Jefferson County reserves the right to be the sole judge as to whether items bid will serve the purpose intended. Jefferson County reserves the right to accept or reject in part or in whole any bid submitted, and to waive any technicalities or informalities for the best interest of the County. Jefferson County reserves the right to award based upon individual line items, sections or total bid.

1.14 Silence of Specifications for Complete Units. All materials, equipment and/or parts that will become a portion of the completed work, including items not specifically stated herein but, necessary to render the service(s) complete and operational per the specifications, are to be included in the bid price. Vendor may be required to furnish evidence that the service, as bid, will meet or exceed these requirements.

1.15 Addenda. Any interpretations, corrections or changes to the specifications and plans will be made by addenda no later than forty-eight (48) hours prior to the bid opening. Addenda will be posted on the Purchasing web site. Vendors are responsible for monitoring the web site in order to remain informed on addenda. Vendors shall acknowledge receipt of all addenda with submission of bid.

1.16 General Bid Bond/Surety Requirements. Failure to furnish bid bond/surety, if requested, will result in bid being declared non-responsive. Non-responsive bids will not be considered for award.

1.17 General Insurance Requirements. Failure to furnish Affidavit of Insurance, if required in these specifications, will result in bid being declared non-responsive. Non-responsive bids will not be considered for award.

1.18 Responsiveness. A responsive bid shall substantially conform to the requirements of this Invitation to Bid and/or specifications contained herein. Bidders who substitute any other terms, conditions, specifications and/or requirements or who qualify their bids in such a manner as to nullify or limit their liability to the contracting entity shall have their bids deemed non-responsive. Also, bids containing any clause that would limit contracting authority shall be considered non-responsive. Examples of non-responsive bids include but shall not be limited to: a) bids that fail to conform to required delivery schedules as set forth in the bid request; b) bids with prices qualified in such a manner that the bid price cannot be determined, such as with vague wording that may include "price in effect at the time of delivery," and c) bids made contingent upon award of other bids currently under consideration.

1.19 Responsible Standing of Bidder. To be considered for award, bidder must at least: have the ability to obtain adequate financial resources, be able to comply with required or proposed delivery/completion schedule, have a satisfactory record of performance; have a satisfactory record of integrity and ethics, and be otherwise qualified and eligible to receive award.

1.20 Proprietary Data. Bidder may, by written request, indicate as confidential any portion(s) of a bid that contain proprietary information, including manufacturing and/or design processes exclusive to the vendor. Jefferson County will protect from public disclosure such portions of a bid, unless directed otherwise by legal authority, including existing Open Records Acts.

1.21 Public Bid Opening. Bidders are invited to be present at the opening of bids. After the official opening of bids, a period of not less than one week is necessary to evaluate bids. The amount of time necessary for bid evaluation may vary and is determined solely by the County. Following the bid evaluation, all bids submitted are available for public review.

2. Performance

2.1 Design, Strength, and Quality. Design, strength, and quality of materials and workmanship must conform to the highest standards of manufacturing and engineering practices. The apparent silence of specifications and/or plans as to any detailed description concerning any point shall be regarded as meaning that only the best commercial practices are to prevail. All interpretations of these specifications and/or plans shall be made on the basis of this statement.

2.2 Age and Manufacture. All tangible goods being bid must be new and unused, unless otherwise specified, in first-class condition, of current manufacture, and furnished ready to use. All items not specifically mentioned that are required for a complete unit shall be furnished.

2.3 Delivery Location. All deliveries will be made to the address(es) specified on the purchase order during normal working hours of 8:00 a.m. to 4:00 p.m., Monday through Friday, unless otherwise authorized by the Purchasing Agent or designee.

2.4 Delivery Schedule. Delivery time may be an important consideration in the evaluation of best value. The maximum number of days necessary for delivery ARO shall be stated in the space, if provided, on the bid form.

2.5 Delivery Charges. All delivery and freight charges, F.O.B. destination shown on Jefferson County purchase order, as necessary to perform contract are to be included in the bid price.

2.6 Installation Charges. All charges for assembly, installation and set-up shall be included in the bid price. Unless otherwise stated, assembly, installation and set-up will be required.

2.7 Operating Instructions and Training. Clear and concise operating instructions and descriptive literature will be provided in English, if requested. On-site detailed training in the safe and efficient use and general maintenance of item(s) purchased shall be provided as needed at the request of Jefferson County. Instructions and training shall be at no additional cost to the County.

2.8 Storage. Bidder agrees to provide storage of custom ordered materials, if requested, for up to thirty (30) calendar days.

2.9 Compliance with Federal, State, County, and Local Laws. Bids must comply with all federal, state, county and local laws, including, but not limited to, all applicable standard safety, emission, and noise control requirements. Any vehicles or equipment shall contain all standard safety, emission, and noise control requirements required for the types and sizes of equipment at the time of their manufacture. The contractor agrees, during the performance of work or service, to comply with all applicable codes and ordinances of Jefferson County or the State of Texas as they may apply, as these laws may now read, or as they may hereafter be changed or amended.

2.10 OSHA. The bidder will certify all equipment complies with all regulations and conditions stipulated under the Williams-Steiger Occupational Safety and Health Act of 1971, as amended. The successful bidder will further certify that all items furnished under this project will conform and comply with federal and State of Texas OSHA standards. The successful bidder will agree to indemnify and hold harmless Jefferson County for any and all damages that may be assessed against the County.

2.11 Patents and Copyrights. The successful vendor agrees to protect the County from claims involving infringements of patents and/or copyrights.

2.12 Samples, Demonstrations and Testing. At Jefferson County's request and direction, bidder shall provide product samples and/or testing of items bid to ensure compliance with specifications. Samples, demonstrations and/or testing may be requested at any point prior to or following bid award. Samples, demonstrations and/or testing may be requested upon delivery and/or any point during the term of resulting contract. All samples (including return thereof), demonstrations, and/or testing shall be at the expense of the bidder/vendor.

2.13 Acceptability. All articles enumerated in the bid shall be subject to inspection by an officer designated for that purpose by Jefferson County. If found inferior to the quality called for, or not equal in value to the specifications, deficient in workmanship or otherwise, this fact shall be certified to the Purchasing Agent, who shall have the right to reject the whole or any part of the same. Items

and/or work determined to be contrary to specifications must be replaced at the vendor's expense. Inferior items not retrieved by the vendor within thirty (30) calendar days, or an otherwise agreed upon time, shall become the property of the County. If disposal of such items warrants an expense, an amount equal to the disposal expense will be deducted from amounts payable to the vendor.

2.14 Maintenance. Maintenance required for equipment bid should be available in Jefferson County by a manufacturer authorized maintenance facility. Cost for this service shall be shown on the bid sheet as requested or on a separate sheet, as required. If Jefferson County opts to include maintenance, it shall be so stated in the purchase order and said cost will be included. Service will commence only upon expiration of applicable warranties and should be priced accordingly.

2.15 Material Safety Data Sheets. Under the "Hazardous Communications Act," common known as the "Texas Right to Know Act," a bidder must provide the user department, with each delivery, material safety data sheets which are applicable to hazardous substances defined in the Act. Failure of the bidder to furnish this documentation, will be cause to reject any bid applying thereto.

2.16 Evaluation. Evaluation shall be used as a determinant as to which services are the most efficient and/or most economical for the County. It shall be based on all factors having a bearing on price and performance of the items in the user environment. All bids are subject to tabulation by the Jefferson County Purchasing Department and recommendation to Jefferson County Commissioners' Court. Compliance with all bid requirements and needs of the using department are considered in evaluating bids. Pricing is not the only criteria for making a recommendation. The Jefferson County Purchasing Department reserves to right to contact any bidder, at any time, to clarify, verify or requirement information with regard to this bid.

3. Purchase Orders and Payment

3.1 Purchase Orders. A purchase order(s) shall be generated by the Jefferson County Purchasing Agent to the successful vendor. The purchase order number must appear on all itemized invoices and packing slips. The County will not be held responsible for any work orders placed and/or performed without a valid current purchase order number. Payment will be made for all services rendered and accepted by the contract administrator for which a valid invoice has been received.

3.2 Invoices. All invoices shall reference the Purchase Order number. Invoices shall reference the bid item number or a detailed description for each item invoiced. If an item purchased and itemized on the invoice does not correspond to an item in any of the categories awarded to the vendor, invoice shall reference the item as "N/C" to indicate that it is a non-contract item. This requirement is to assist the County in verifying contract pricing on all invoices. Payment will be made under terms of net thirty (30) days unless otherwise agreed upon by seller and the purchasing department.

3.3 Prompt Payment. In accordance with the State of Texas Prompt Payment Act, Article 601f V.T.C.S., payment will be made after receive and acceptance by the County of the merchandise ordered and of a valid invoice. Successful bidder(s) is required to pay subcontractors within ten (10) days after the successful bidder receives payment from the County.

3.4 Funding. Jefferson County is operated and funded on an October 1 to September 30 basis; accordingly, the County reserves the right to terminate, without liability to the County, any contract for which funding is not available.

4. Contract

4.1 Contract Definition. The General Conditions of Bidding and Terms of Contract, Specifications, Plans, Bidding Forms, Addenda, and any other documents made a part of this bid shall constitute the complete bid. This bid, when duly accepted by Jefferson County, shall constitute a contract equally binding between the successful bidder and Jefferson County.

4.2 Contract Agreement. Once a contract is awarded, the unit prices offered by the successful bidder shall remain firm for the term of the contract. Contract shall commence on date of award and,

upon agreement between vendor(s) and Jefferson County, may be renewed annually for up to four (4) additional years. **(OMIT if N/A or EDIT if Needed)**

4.3 Change Order. No different or additional terms will become part of this contract with the exception of a change order. No oral statement of any person shall modify or otherwise change, or affect the terms, conditions or specifications stated in the resulting contract. All change orders to the contract will be made in writing and at the discretion and approval of Jefferson County. No change order will be binding unless signed by an authorized representative of the County and the vendor.

4.4 Price Re-determination. A price re-determination may be requested at the time of annual renewal. All requests for price re-determination shall be in written form. Cause for such request, i.e., manufacturer's direct cost, postage rates, Railroad Commission rates, Federal/State minimum wage law, Federal/State unemployment taxes, F.I.C.A, Insurance Coverage Rates, etc., shall be substantiated in writing by the source of the cost increase. The bidder's past experience of honoring contracts at the bid price will be an important consideration in the evaluation of the lowest and best bid. Jefferson County reserves the right to accept or reject any/all requests for price re-determination as it deems to be in the best interest of the County.

4.5 Termination. Jefferson County reserves the right to terminate the contract for default if the bidder breached any of the terms therein, including warranties of bidder or if the bidder becomes insolvent or commits acts of bankruptcy. Such right of termination is in addition to and not in lieu of any other remedies which Jefferson County may have in law or equity. Default may be construed as, but not limited to, failure to deliver the proper goods and/or service within the proper amount of time, and/or to properly perform any and all services required to Jefferson County's satisfaction and/or to meet all other obligations and requirements. Contracts may be terminated without cause upon thirty (30) days' written notice to either party unless otherwise specified. Jefferson County reserves the right to award canceled contract to the next lowest bidder. Bidder, in submitting this bid, agrees that Jefferson County shall not be liable to prosecution for damages in the event that the County declares the bidder in default.

4.6 Conflict of Interest. Employees of the County are not permitted to maintain financial interest in, or receive payment, directly or indirectly, borrow from, lend to, invest in, or engage in any substantial financial transaction with any individual, organization, supplier, or subcontractor who does business with the County without disclosure. When conflict of interest is discovered, it shall be grounds for termination of contract.

4.7 Injuries or Damages Resulting from Negligence. Successful vendor shall defend, indemnify and save harmless Jefferson County and all its officers, agents and employees from all suits, actions, or other claims of any character, name and description brought for or on account of any injuries or damages received or sustained by any person, persons, or property on account of any negligent act or fault of the successful vendor, or of any agent, employee, subcontractor or supplier in the execution of, or performance under, any contract which may result from bid award. Successful vendor shall pay any judgment with cost which may be obtained against Jefferson County growing out of such injury or damages.

4.8 Interest by Public Officials. No public official shall have interest in this contract, in accordance with Texas Local Government Code.

4.9 Warranty. The successful vendor shall warrant that all materials utilized in the performance of this contract shall conform to the proposed specifications and/or all warranties as stated in the Uniform Commercial Code and be free from all defects in material, workmanship and title.

4.10 Uniform Commercial Code. The successful vendor and Jefferson County agree that both parties have all rights, duties, and remedies available as stated in the Uniform Commercial Code.

4.11 Venue. This agreement will be governed and construed according to the laws of the State of Texas. This agreement is performable in the County of Jefferson, Texas.

4.12 Sale, Assignment, or Transfer of Contract. The successful vendor shall not sell, assign, transfer or convey this contract, in whole or in part, without the prior written consent of Jefferson County.

4.13 Silence of Specifications. The apparent silence of these specifications as to any detailed description concerning any point, shall be regarded as meaning that only the best commercial practices are to prevail. All interpretations of these specifications shall be made on the basis of this statement.

Special Requirements/Instructions

The following requirements and instructions supersede General Requirements where applicable.

1. Bid Requirement

Each bidder shall ensure that required parts of the bid are completed with accuracy and submitted as per the requirements within this specifications packet, including any addenda.

Bidder is responsible for submitting one (1) *original* bid copy to include a completed copy of this specifications packet in its entirety; and two (2) numbered bid *hard copies* to include at a minimum all pages requiring completion and/or marked with instructions to be returned with bid submission and any other documentation requested within these specifications.

All bids shall be tightly sealed in an opaque envelope or box and plainly marked "SEALED BID." The outside of the envelope or box shall also include: Bid Number, Bid Name, Bid Due Date, Bidder's Name and Address; and shall be addressed to the Purchasing Agent.

Jefferson County shall not be responsible for any effort or cost expended in the preparation of a response to this IFB. All protests should be coordinated through the Purchasing Office prior to award recommendation to Commissioners' Court.

2. Vendor Registration: SAM (System for Award Management).

Vendors doing business with Jefferson County are **required** to be registered with The System for Award Management (SAM), with an "active" status. The System for Award Management (SAM) is the Official U.S. Government system that consolidated the capabilities of CCR/FedReg, ORCA, and EPLS. There is NO fee to register for this site. Entities may register at no cost directly from the SAM website at: https://www.sam.gov

Bid Respondents are strongly encouraged to review their firm's SAM (System for Award Management) status prior to Bid Submission.

3. Awarded Vendor(s): Submission of FORM 1295 (Texas Ethics Commission)

As of January 1, 2016, per House Bill 1295, the Texas Ethics Commission (TEC) requires **all awarded vendors** to complete a Certificate of Interested Parties (FORM 1295) at time of notification of award. **Awarded Vendors** must visit the TEC website link below, enter the required information on Form 1295, and print a copy of the completed form. The form will include a certification of filing that will contain a unique certification number.

At the time of award, the Jefferson County Purchasing Department will submit a request to the Awarded Vendor to both:

1. Submit FORM 1295 online via the Texas Ethics Commission website link below.

2. Submit a printed copy of FORM 1295, signed by an Authorized Agent of the Awarded Vendor and notarized to the Jefferson County Purchasing Department.

FORM 1295, Completion Instructions, and Login Instructions are available via the Texas Ethics Commission Website at: https://www.ethics.state.tx.us/whatsnew/elf_info_form1295.htm

4. Multiple Vendor Award

Jefferson County reserves the right to award this contract to more than one vendor at the County's discretion.

5. Delivery

If delivery is required, all items must be packaged so as to be protected from damage during shipping and handling. Any item(s) damaged in shipping must be replaced in kind, or repaired, by the contractor, at the discretion of, and at no additional charge to, Jefferson County.

6. Payment

Jefferson County will pay original invoices that clearly itemize the goods and/or services provided as to quantity, part number, description, price, applicable discount (if any), labor charges showing time differential, if applicable and if previously agreed to, and delivery, installation, and set-up costs, if applicable and if previously agreed to. Only charges as stated on the Bid Form(s) submitted as a part of the bid will be considered.

Invoices must indicate Jefferson County as applicable, the address to which the product(s) and/or service(s) were delivered, and the applicable purchase order number. Invoices will be matched to delivery tickets prior to payment; therefore, all delivery tickets should have an accurate description of the product(s) and/or service(s).

Invoices shall be submitted to: Jefferson County Auditing Department, Attention: Accounts Payable, 1149 Pearl Street, 7th floor, Beaumont, TX 77701.

7. Usage Reports

Jefferson County reserves the right to request, and receive at no additional cost, up to two (2) times during the contract period, a usage report detailing the products and/or services furnished to date under a contract resulting from this IFB. The reports must be furnished no later than five (5) working days after written request and itemize all purchases to date by Jefferson County department, description of each item purchased, including manufacturer, quantity of each item purchased, per unit and extended price of each item purchased, and total amount and price of all items purchased.

8. Insurance

The contractor (including any and all subcontractors as defined in Section 9.1.3 below) shall, at all times during the term of this contract, maintain insurance coverages with not less than the type and requirements shown below. Such insurance is to be provided at the sole cost of the contractor. These requirements do not establish limits of the contractor's liability.

All policies of insurance shall waive all rights of subrogation against the County, its officers, employees and agents; a copy of the policy wording or endorsement is required.

Contractor shall furnish Jefferson County with Certificate of Insurance naming Jefferson County as additional insured and will provide the actual policy wording or endorsement showing as such.

All insurance must be written by an insurer licensed to conduct business in the State of Texas.

Minimum Insurance Requirements

Public Liability, including Products & Completed Operations	$1,000,000
Excess Liability	$1,000,000

Property Insurance (policy below that is applicable to this project):
- Improvements & Betterments Policy: Improvements/Remodeling (for Lease Tenants)
- Builder's Risk Policy: Structural Coverage for Construction Projects
- Installation Floater Policy: Improvements/Alterations to Existing Structure

Workers' Compensation	Statutory Coverage (see attached)

9. Workers' Compensation Insurance

9.1 Definitions:

9.1.1 **Certificate of coverage ("Certificate")** – A copy of a certificate of insurance, a certificate of authority to self-insure issued by the commission, or a coverage agreement, DWC-81, DWC-82, DWC-83, or DWC-84 showing statutory workers' compensation insurance coverage for the person's or entity's employees providing services on a project, for the duration of the project.

9.1.2 **Duration of the project** – Includes the time from the beginning of the work on the project until the contractor's/person's work on the project has been completed and accepted by the governmental entity.

9.1.3 **Persons providing services on the project ("subcontractor") in article 406.096** – Includes all persons or entities performing all or part of the services under the contractor has undertaken to perform on the project, regardless of whether that person contracted directly

with the contractor and regardless of whether that person has employees. This includes, without limitation, independent contractors, subcontractor, leasing companies, motor carriers, owner-operators, employees of any such entity, or employees of any entity which furnishes persons to provide services on the project. "Services" includes, without limitation, providing, hauling or delivering equipment or materials, or providing labor, transportation, or other service related to a project. "Services" does not include activities unrelated to the project, such as food/beverage vendors, office supply deliveries, and delivery of portable toilets.

9.2 The Contractor shall provide coverage, based on proper reporting of classification code and payroll amounts and filing any coverage agreements, which meets the statutory requirements of Texas Labor Code, Section 401.011(44) for all employees of the contractor providing services on the project, for the duration of the project.

9.3 The Contractor must provide a certificate of coverage to the governmental entity prior to being awarded the contract – refer to Section 8 above.

9.4 If the coverage period shown on the Contractor's current certificate of coverage ends during the duration of the project, the Contractor must, prior to the end of the coverage period, file a new certificate of coverage with the governmental entity showing that coverage has been extended.

9.5 The Contractor shall obtain from each person providing services on a project, and provide to the governmental entity:

9.5.1 A certificate of coverage, prior to that person beginning work on the project, so the governmental entity will have on file certificates of coverage showing coverage for all persons providing services on the project; and

9.5.2 No later than seven (7) days after receipt by the Contractor, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate ends during the duration of the project.

9.6 The Contractor shall retain all required certificates of coverage for the duration of the project and for one (1) year thereafter.

9.7 The Contractor shall notify the governmental entity in writing by certified mail or personal delivery, within ten (10) days after the contractor knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project.

9.8 The Contractor shall post on each project site a notice, in the text, form and manner prescribed by the Texas Department of Workers' Compensation, informing all persons providing services on the project that they are required to be covered, and stating how a person may verify coverage and report lack of coverage.

9.9 The Contractor shall contractually require each person with whom it contracts to provide services on a project to:

9.9.1 Provide coverage, based on reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of Texas Labor Code, Section 401.011(44) for all its employees providing services on the project, for the duration of the project.

9.9.2 Provide to the Contractor, prior to that person beginning work on the project a certificate of coverage showing that coverage is being provided for all employees of the person providing services on the project, for the duration of the project.

9.9.3 Provide the Contractor, prior to the end of coverage period, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the project.

9.9.4 Obtain from each person with whom it contracts, and provide to the Contractor:

9.9.4.1 A certificate of coverage, prior to the other person beginning work on the project; and

9.9.4.2 the coverage period, if the coverage period shown on the current certificate of a new certificate of coverage showing extension of coverage, prior to the end of coverage ends during the duration of the project.

9.9.5 Retain all required certificates of coverage on file for the duration of the project and for one (1) year thereafter.

9.9.6 Notify the governmental entity in writing by certified mail or personal delivery, within ten (10) days after the person knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project; and

9.9.7 Contractually require each person with whom it contracts to perform as required by paragraphs 9.1. – 9.7., with the certificates of coverage to be provided to the person for whom they are providing services.

9.10 By signing this contract or providing or causing to be provided a certificate of coverage, the Contractor is representing to the governmental entity that all employees of the contractor who will provide services of the project will be covered by workers' compensation coverage for the duration of the project, that the coverage will be based on proper reporting of classification codes and payroll amounts, and that all coverage agreements will be filed with the appropriate insurance carrier or, in the case of a self-insured, with the commission's Division of Self-Insurance Regulation. Providing false or misleading information may subject the contractor to administrative penalties, criminal penalties, civil penalties, or other civil actions.

9.11 The Contractor's failure to comply with any of these provisions is a breach of contract by the Contractor which entitles the governmental entity to declare the contract void if the Contractor does not remedy the breach within ten (10) days after receipt of notice of breach from the governmental entity.

Minimum Specifications

The following requirements and specifications supersede General Requirements where applicable. Contact Yea-Mei Sauer, Contract Specialist (e-mail: ysauer@co.jefferson.tx.us; phone: 409-835-8593), regarding any questions or comments. Please reference bid number IFB 17-006/YS.

Scope

Vendor shall provide Insecticides, Herbicides, Spray Adjuvants, and Adulticides for the Jefferson County Mosquito Control District subject to the terms and conditions stated for an initial period **beginning on or about date of award.**

Bidders shall attach to bid form, a current material safety data sheet and current labels for each chemical. Failure to do so may result in rejection of bid.

Prices quoted shall be F.O.B. Jefferson County Mosquito Control District, Jefferson County Airport, 1st Street, Nederland, TX. Bidder bears freight charges. All prices must be written in ink or typewritten.

Quote unit prices extended to lump sum prices. The basis of the award will be the unit prices quoted. The County reserves the right to increase or decrease the quantity purchased based on weather conditions and availability of funds.

The County reserves the right to make the award to one (1) successful bidder or per line item.

Purchase orders for insecticides, herbicides, adjuvants, and adulticides will be released to the successful bidder(s) **on an as-needed basis. MINIMUM ORDERS ARE NOT ACCEPTABLE.**

Refer questions of a commercial nature to Jamey West, Contract Specialist at 409-835-8593; and questions of a technical nature to Kevin Sexton, Jefferson County Mosquito Control, at 409-719-5940.

A price re-determination may be considered by Jefferson County only at the twelve (12) month and twenty-four (24) month anniversary dates of the contract. All requests for price re-determination shall be in written form. Cause for such request, i.e., manufacturer's direct cost, postage rates, Railroad Commission rates, Federal/State minimum wage law, Federal/State unemployment taxes, F.I.C.A, Insurance Coverage Rates, etc., shall be substantiated in writing by the source of the cost increase. The bidder's past experience of honoring contracts at the bid price will be an important consideration in the evaluation of the lowest and best bid. Jefferson County reserves the right to accept or reject any/all requests for price re-determination as it deems to be in the best interest of the County.

Approximate Annual Usage

Items listed on the Bid Form indicate our approximate annual usage. No promise is made or implied that these quantities will be purchased. Orders will be placed on an **as-needed basis** for the duration of the contract. Purchase Orders will be released to the successful bidder(s) as required. **MINIMUM ORDERS ARE NOT ACCEPTABLE.**

Contract

This bid, when properly accepted by Jefferson County Commissioners' Court, shall constitute a contract equally binding between the successful bidder and Jefferson County. No different or additional terms will become a part of this contract.

The brand name references are for description only, and are not intended to exclude other herbicides or adjuvants of equal quality. Bidders desiring to substitute items may do so provided brand name is **indicated on Bid Form**. Change of container size may disqualify bid. Dilution ratio will be a factor in award of chemicals.

Bidders shall attach to bid form a current material safety data sheet and current labels for each chemical. Failure to do so may result in rejection of bid.

Item	Description
1	**MSMA herbicide** – to contain 6.00 lb. MSMA (Mono-sodium Acid Methanearsonate) plus surfactant per gallon
2	**Tordon 101** – to contain 10.2% 4-amino3,5,6-trichloropicolinic acid (picloram), tri-isopropanolomine salt 39.6% 2,4-Dichlorophenoxyacetric acid, tri-isopropanolomiane salt.
3	**Roundup herbicide or equivalent** – to contain 41.0% by weight Isopropylamine Salt of Glyphosate
4	**Rodeo herbicide or equivalent** – to contain 53.5% by weight Isopropylamine Salt of Glyphosate
5	**Nalco Trol II or equivalent** – water soluble spray drift control agent
6	**Aqua-King or equivalent** – product must be a non-ionic aquatic surfactant approved for use in the State of Texas, contain 90% active ingredient (excluding alcohols, fatty acids, oils ethylene glycol or diethylene glycol), a minimum of 80% surfactant load, possess an HLB (hydrophilic to lipophilic balance) ratio of 12 to 17, a maximum of 10% isopropyl alcohol, have a flash point greater than 200 degrees F., and contain an anti-foaming agent that will provide instantaneous foam breakdown when agitation ceases.
7	**Malathion insecticide** – concentrate to contain a minimum of 9.9 lb. of malathion per gallon (96.5% by weight active ingredient). Product offered must have current approval in Texas for both aerial and ground ULV application against adult mosquitoes. Bulk shipments only.
8	**Scourge insecticide** – concentrate to contain 1.51 lb. Resmethrin (18% by weight active ingredient) and 4.51 lb. Piperonyl Butoxide Technical (54% by weight active ingredient) per gallon. Product offered must have current approval in Texas for ground ULV application against adult mosquitoes.
9	**Envion 30/30 insecticide or equivalent -** water compatible concentrate in 2.52 lb. Permethrin (30.0% by weight) and 2.52 lb. Piperonyl Butoxide (30.0% by weight) per gallon. Product offered must have current approval in Texas for aerial and ground ULV application against adult mosquitoes.
10	**Duet Adulticide or equivalent** – 1.00% Prallethrin: = 0.085 lbs. of Technical Prallethrin per gallon. Chemical name = (RS) – 2 methyl-4-oxo-3-(2-propynl) cyclopent-2-enyl- (1RS)-cis, trans-chyrsanthemate. 5.00 % Sumethrin: = 0.370 lbs. of Technical Sumethrin per gallon. Chemical name = 3-Phenoxbenzyl- (1RS, 3 RS; 1RS, 3SR) -2,-2dimethyl-3-(2-methylprop-1-enyl) cyclopropanecarboxlate. 5.00% PBO = 0.370 lbs. Technical Pepronyl Butoxide per gallon. Chemical name = Pyperonyl Butoxide. Returnable 275 gallon stainless steel totes with 2.5 inch quick connect hose attachment. Successful bidder will deliver full containers and pick up empty containers at no additional charge

Bidder Information Form

Instructions: Complete the form below. Please provide legible, accurate, and complete contact information. PLEASE PRINT.

Bid Name & Number: IFB 17-006/YS, Term Contract for Insecticides, Herbicides, Spray Adjuvants, and Adulticides for Jefferson County Mosquito Control District

Bidder's Company/Business Name: SiteOne Landscape Supply

Bidder's TAX ID Number: 36-4485550

Contact Person: Bids Department **Title:** Bid Rep

Phone Number (with area code): 800-321-5325 x:2550

Alternate Phone Number if available (with area code):

Fax Number (with area code): 248-581-1433

Email Address: bids@SiteOne.com

Mailing Address (Please provide a physical address for bid bond return, if applicable):

Bid Dept: SiteOne Landscape Supply
1385 East 36th Street
Address Cleveland, Ohio 44114

City, State, Zip Code

OFFER AND ACCEPTANCE FORM

OFFER TO CONTRACT

To Jefferson County:

We hereby offer and agree to furnish the materials or service in compliance with all terms, conditions, specifications, and amendments in the Invitation for Bid and any written exceptions in the offer. We understand that the items in this Invitation for Bid, including, but not limited to, all required certificates are fully incorporated herein as a material and necessary part of the contract.

The undersigned hereby states, under penalty of perjury, that all information provided is true, accurate, and complete, and states that he/she has the authority to submit this bid, which will result in a binding contract if accepted by Jefferson County.

We acknowledge receipt of the following amendment(s): Ø, _____, _____, _____.

I certify, under penalty of perjury, that I have the legal authorization to bind the firm hereunder:

SiteOne Landscape Supply
1385 East 36th Street
Cleveland, Ohio 44114
Company Name

*See attached list of local branches
Address

City State Zip

Molly M Vorous
Signature of Person Authorized to Sign

Molly M. Vorous
Printed Name

Senior Bid Rep.
Title

For clarification of this offer, contact:

Molly Vorous
Name

800 321 5325 x 2550 248-581-1433
Phone Fax

bids@SiteOne.com
E-mail

Bidder Shall Return Completed Form with Offer.

Acceptance of Offer

The Offer is hereby accepted for the following items: Term Contract for Insecticides, Herbicides, Spray Adjuvants, and Adulticides for Jefferson County Mosquito Control District. Contract Term: One (1) year from date of award with an option to renew for four (4) additional years.

The Contractor is now bound to sell the materials or services listed by the attached contract and based upon the Invitation for Bid, including all terms, conditions, specifications, amendments, etc., and the Contractor's Offer as accepted by Jefferson County.

This contract shall henceforth be referred to as Contract No. 17-006/YS, Term Contract for Insecticides, Herbicides, Spray Adjuvants, and Adulticides for Jefferson County Mosquito Control District. The Contractor has not been authorized to commence any billable work or to provide any material or service under this contract until Contractor receives a purchase order and/or a notice to proceed from the Jefferson County Purchasing Agent.

Countersigned:

Jeff R. Branick
County Judge

Date

Attest:

Carolyn L. Guidry
County Clerk

Bidder Shall Return Completed Form with Offer.

Bid Form

Item	Est Qty. (Gal.)	Description	Brand bid	MSDS Labels Attached	Price per Gallon	Total Price
1	700	MSMA Herbicide – 2.5 gal. container	Drexel	Yes	$35.06/gal.	$24,542.00
2	700	Tordon 101 Herbicide or equivalent – 2.5 gal. container	Dow Tordon RTT 1qt./ea.	Yes	$158.50/gal.	$110,950.00
3	700	Roundup Herbicide or equivalent – 2.5 gal. container	Lesco Prosecutor Pro	Yes	$21.26/gal.	$14,882.00
4	100	Rodeo Herbicide or equivalent – 2.5 gal. container	Nufarm Aquaneat	Yes	$25/gal.	$2,500.00
5	100	Nalco Trol II or equivalent – 2.5 gal. (or smaller) container	Lesco Hawkeye Hozlea.	Yes	$50.50/gal.	$4,850.00
6	400	Aqua-King Surfactant or equivalent – 2.5 gal. (or smaller) container	Lesco Spreader Sticker	Yes	$21.60/gal.	$8,640.00
7	20,000	Malathion Insecticide – **bulk shipment only**			NO BID	—
8	250	Scourge Insecticide – 5 gal. containers				—
9	600	Envion 30/30 insecticide – 2.5 gal. containers				—
10	1,375	Duet Adulticide 275 gal. steel containers				—

Bidders shall attach to bid form a current material safety data sheet and current labels for each chemical. Failure to do so may result in rejection of bid.

Acknowledgment of Addenda (if any):

Addendum 1 _____ Date Received_____

Addendum 2 _____ Date Received_____

Addendum 3 _____ Date Received_____

Bidder Shall Return Completed Form with Offer.

Vendor References

Please list at least three (3) companies or governmental agencies (preferably a municipality) where the same or similar products and/or services as contained in this specification package were recently provided.

THIS FORM MUST BE RETURNED WITH YOUR BID.

REFERENCE ONE

Government/Company Name: See attached

Address: _____

Contact Person and Title: _____

Phone: _____ Fax: _____

Contract Period: _____ Scope of Work: _____

REFERENCE TWO

Government/Company Name: _____

Address: _____

Contact Person and Title: _____

Phone: _____ Fax: _____

Contract Period: _____ Scope of Work: _____

REFERENCE THREE

Government/Company Name: _____

Address: _____

Contact Person and Title: _____

Phone: _____ Fax: _____

Contract Period: _____ Scope of Work: _____

Bidder Shall Return Completed Form with Offer.

SITEONE LANDSCAPE SUPPLY REFERENCE PAGE

1	Pinellas County		Mike Guild	
	Company Name		Contact Person	
	P.O. Box 2942	Largo	FL	33779
	Street Address	City	State	Zip
	(727) 638-2645			
	Telephone	Fax	Email	
	Supply and deliver landscaping & Irrigation supplies		guildm@pcsb.org	
	Products or Services Purchased by the above Reference			
2	East Baton Rouge – Recreation & Park Commission		Michelle McKee	
	Company Name		Contact Person	
	P.O. Box 15887	Baton Rouge	LA	70895
	Street Address	City	State	Zip
	(225) 273-6421			
	Telephone	Fax	Email	
	Supply and deliver landscaping supplies		mmckee@brec.org	
	Products or Services Purchased by the above Reference			
3	City of Fort Walton Beach		Paul Eubanks	
	Company Name		Contact Person	
	143 Hollywood Blvd. N.W.	Fort Walton Beach	FL	32549
	Street Address	City	State	Zip
	(850) 833-9523			
	Telephone	Fax	Email	
	Supply and deliver landscaping & Irrigation supplies		peubanks@fwb.org	
	Products or Services Purchased by the above Reference			
4	City of Sioux Falls	Scott Rust		
	Company Name		Contact Person	
	224 West 9th Street	City of Sioux Falls	SD	57104
	Street Address	City	State	Zip
	(605) 367-8013			
	Telephone	Fax	Email	
	Supply and deliver landscaping & Irrigation supplies		srust@siouxfalls.org	
	Products or Services Purchased by the above Reference			
5	City of Roanoke	Marcia Hammond		
	Company Name		Contact Person	
	1802 Courtland Rd., NE	Roanoke	VA	24014
	Street Address	City	State	Zip
	(540) 853-1513			
	Telephone	Fax	Email	
	Supply and deliver landscaping & Irrigation supplies		marcia.hammond@roanokeva.gov	
	Products or Services Purchased by the above Reference			

Government Agencies That Your Firm Has Done Business With:

All the above

Signature Page

As permitted under Article 4413 (32c) V.A.C.S., other governmental entities may wish to participate under the same terms and conditions contained in this contract (i.e., piggyback). In the event any other entity participates, all purchase orders will be issued directly from and shipped directly to the entity requiring supplies/services. Jefferson County shall not be held responsible for any orders placed, deliveries made or payment for supplies/services ordered by another entity. Each entity reserves the right to determine their participation in this contract.

Would bidder be willing to allow other governmental entities to piggyback off this contract, if awarded, under the same terms and conditions?.....**Yes** [X] **No** [ ]

This bid shall remain in effect for ninety (90) days from bid opening and shall be exclusive of federal excise and state and local sales tax (exempt).

The undersigned agrees, if this bid is accepted, to furnish any and all items upon which prices are offered, at the price and upon the terms and conditions contained in the Invitation for Bid, Conditions of Bidding, Terms of Contract, and Specifications and all other items made a part of the accepted contract.

The undersigned affirms that they are duly authorized to execute the contract, that this company, corporation, firm, partnership or individual has not prepared this bid in collusion with any other bidder, and that the contents of this bid as to prices, terms or conditions of said bid have not been communicated by the undersigned nor by any employee or agent to any other bidder or to any other person(s) engaged in this type of business prior to the official opening of this bid. And further, that neither the bidder nor their employees nor agents have been for the past six (6) months directly nor indirectly concerned in any pool or agreement or combination to control the price of goods or services on, nor to influence any person to bid or not to bid thereon.

SiteOne Landscape Supply
1385 East 36th Street
Cleveland, Ohio 44114
(Bidder Entity Name)

Street & Mailing Address

City, State & Zip

800-321-5325 x12550
Telephone Number

bids@SiteOne.com
E-mail Address

Molly M Varone
Signature

Molly M. Varons
Print Name

3/9/17
Date Signed

248 581 1433
Fax Number

Bidder Shall Return Completed Form with Offer.

Conflict of Interest Questionnaire

CONFLICT OF INTEREST QUESTIONNAIRE — FORM CIQ

For vendor doing business with local governmental entity

This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session.

This questionnaire is being filed in accordance with Chapter 176, Local Government Code, by a vendor who has a business relationship as defined by Section 176.001(1-a) with a local governmental entity and the vendor meets requirements under Section 176.006(a).

By law this questionnaire must be filed with the records administrator of the local governmental entity not later than the 7th business day after the date the vendor becomes aware of facts that require the statement to be filed. *See* Section 176.006(a-1), Local Government Code.

A vendor commits an offense if the vendor knowingly violates Section 176.006, Local Government Code. An offense under this section is a misdemeanor.

OFFICE USE ONLY

Date Received

1 **Name of vendor who has a business relationship with local governmental entity.**

SiteOne Landscape Supply

2 ☐ **Check this box if you are filing an update to a previously filed questionnaire.**

(The law requires that you file an updated completed questionnaire with the appropriate filing authority not later than the 7th business day after the date on which you became aware that the originally filed questionnaire was incomplete or inaccurate.)

3 **Name of local government officer about whom the information in this section is being disclosed.**

None

Name of Officer

This section (item 3 including subparts A, B, C, & D) must be completed for each officer with whom the vendor has an employment or other business relationship as defined by Section 176.001(1-a), Local Government Code. Attach additional pages to this Form CIQ as necessary.

A. Is the local government officer named in this section receiving or likely to receive taxable income, other than investment income, from the vendor?

☐ Yes ☒ No

B. Is the vendor receiving or likely to receive taxable income, other than investment income, from or at the direction of the local government officer named in this section AND the taxable income is not received from the local governmental entity?

☐ Yes ☒ No

C. Is the filer of this questionnaire employed by a corporation or other business entity with respect to which the local government officer serves as an officer or director, or holds an ownership interest of one percent or more?

☐ Yes ☒ No

D. Describe each employment or business and family relationship with the local government officer named in this section.

None

4 Molly M Johnson

Signature of vendor doing business with the governmental entity

3/9/17

Date

Adopted 8/7/2015

Bidder Shall Return Completed Form with Offer.

Local Government Officer

Conflicts Disclosure Statement - OFFICE USE ONLY

LOCAL GOVERNMENT OFFICER CONFLICTS DISCLOSURE STATEMENT

FORM CIS

This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session.

This is the notice to the appropriate local governmental entity that the following local government officer has become aware of facts that require the officer to file this statement in accordance with Chapter 176, Local Government Code.

OFFICE USE ONLY

Date Received

1 **Name of Local Government Officer**

2 **Office Held**

3 **Name of vendor described by Sections 176.001(7) and 176.003(a), Local Government Code**

4 **Description of the nature and extent of employment or other business relationship with vendor named in item 3**

5 **List gifts accepted by the local government officer and any family member, if aggregate value of the gifts accepted from vendor named in item 3 exceeds $100 during the 12-month period described by Section 176.003(a)(2)(B).**

Date Gift Accepted _____ Description of Gift _____

Date Gift Accepted _____ Description of Gift _____

Date Gift Accepted _____ Description of Gift _____

(attach additional forms as necessary)

6 **AFFIDAVIT**

I swear under penalty of perjury that the above statement is true and correct. I acknowledge that the disclosure applies to each family member (as defined by Section 176.001(2), Local Government Code) of this local government officer. I also acknowledge that this statement covers the 12-month period described by Section 176.003(a)(2)(B), Local Government Code.

_____
Signature of Local Government Officer

AFFIX NOTARY STAMP / SEAL ABOVE

Sworn to and subscribed before me, by the said _____, this the _____ day of _____, 20 _____, to certify which, witness my hand and seal of office.

_____
Signature of officer administering oath | Printed name of officer administering oath | Title of officer administering oath

Adopted 8/7/2015

Good Faith Effort (GFE) Determination Checklist

This information must be submitted with your bid.

Bidder intends to utilize subcontractors/subconsultants in the fulfillment of this contract (if awarded).
☐ Yes ☒ No

Instructions: In order to determine if a "Good Faith Effort" was made in soliciting HUBs for subcontracting opportunities, the following checklist and supporting documentation shall be completed by the Prime Contractor/Consultant, and returned with the Prime Contractor/ Consultant's bid. This list contains the **minimum** efforts that should be put forth by the Prime Contractor/Consultant when attempting to achieve or exceed the goals of HUB Subcontractor participation. The Prime Contractor/Consultant may extend his/her efforts in soliciting HUB Subcontractor participation beyond what is listed below.

Did the Prime Contractor/Consultant . . .

☐ Yes ☒ No 1. To the extent practical, and consistent with standard and prudent industry standards, divide the contract work into the smallest feasible portions, to allow for maximum HUB Subcontractor participation?

☐ Yes ☒ No 2. **Notify** in writing a reasonable number of HUBs, allowing sufficient time for effective participation of the planned work to be subcontracted?

☐ Yes ☒ No 3. **Provide** HUBs that were genuinely interested in bidding on a subcontractor, adequate information regarding the project (i.e., plans, specifications, scope of work, bonding and insurance requirements, and a point of contract within the Prime Contractor/Consultant's organization)?

☐ Yes ☒ No 4. **Negotiate** in good faith with interested HUBs, and not reject bids from HUBs that qualify as lowest and responsive bidders?

☐ Yes ☒ No 5. **Document** reasons HUBs were rejected? Was a written rejection notice, including the reason for rejection, provided to the rejected HUBs?

☐ Yes ☒ No 6. If Prime Contractor/Consultant has zero (0) HUB participation, **please explain the reasons why.**

If "No" was selected, please explain and include any pertinent documentation with your bid.
If necessary, please use a separate sheet to answer the above questions.

Molly M. Vorons
Printed Name of Authorized Representative

Molly M Vorons
Signature

Sr. Bid Rep
Title

3/9/17
Date

* No Subcontractors will be used. We are self performing this Contract

Bidder Shall Return Completed Form with Offer.

Notice of Intent (NOI) to Subcontract with Historically Underutilized Business (HUB)

This information must be submitted with your bid.

Bidder intends to utilize subcontractors/subconsultants in the fulfillment of this contract (if awarded).
☐ Yes ☒ No

Instructions for Prime Contractor/Consultant: Bidder shall submit this form with the bid; however, the information below may be submitted after contract award, but prior to beginning performance on the contract. Please submit one form for each HUB Subcontractor/Subconsultant with proper signatures, per the terms and conditions of your contract.

Contractor Name: _____ HUB: p Yes p No

Address: _____
Street City State Zip

Phone (with area code): _____ Fax (with area code): _____

Project Title & No.: _____

Prime Contract Amount: $ _____

HUB Subcontractor Name: _____

HUB Status (Gender & Ethnicity): _____

Certifying Agency: ☐ Tx. Bldg & Procurement Comm. ☐ Jefferson County ☐ Tx Unified Certification Prog.

Address: _____
Street City State Zip

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

Printed Name of Contractor Representative	Signature of Representative	Date
Molly Vorus	Molly M Vorus	3/9/17
Printed Name of HUB	Signature of Representative	Date

NOTE: NOTHING ON THIS NOTICE OF INTENT FORM IS INTENDED TO CONFER ANY RIGHTS, EXPRESSED OR IMPLIED, TO ANY THIRD PARTIES.

Pre-Approval for Subcontractor Substitutions must be obtained from the Jefferson County Purchasing Agent's Representative. The "HUB Subcontractor/Subconsultant Change Form" must be completed and faxed to 409-835-8456.

Bidder Shall Return Completed Form with Offer.

Historically Underutilized Business (HUB) Subcontracting Participation Declaration Form

This information must be submitted with your bid.

Bidder intends to utilize subcontractors/subconsultants in the fulfillment of this contract (if awarded).
☐ Yes ☒ No

Prime Contractor: _____ HUB: ☐ Yes ☐ No

HUB Status (Gender & Ethnicity): _____

Address: _____
Street City State Zip

Phone (with area code): _____ Fax (with area code): _____

Project Title & No.: _____ IFB/RFP No.: _____

Total Contract: $ _____ Total HUB Subcontract(s): $ _____

Construction HUB Goals: 12.8% MBE:: _____ % 12.6% WBE: _____ %

Sub-goals: 1.7 African-American, 9.7% Hispanic, 0.7% Native American, 0.8% Asian American.
Use these goals as a guide to diversify.

FOR HUB OFFICE USE ONLY:

Verification date HUB Program Office reviewed and verified HUB Sub information Date: _____ Initials: _____

PART I. HUB SUCONTRACTOR DISCLOSURE

HUB Subcontractor Name: _____

HUB Status (Gender & Ethnicity): _____

Certifying Agency: ☐ Texas Bldg & Procurement Comm. ☐ Texas Unified Certification Prog.

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

Bidder Shall Return Completed Form with Offer.

Historically Underutilized Business (HUB) Subcontracting Participation Declaration Form

HUB SUBCONTRACTOR DISCLOSURE

PART I: Continuation Sheet **(Duplicate as Needed)**

HUB Subcontractor Name: _____

HUB Status (Gender & Ethnicity): _____

Certifying Agency: ☐ Tx. Bldg & Procurement Comm. ☐ Jefferson County ☐ Tx Unified Certification Prog.

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

_____

HUB Subcontractor Name: _____

HUB Status (Gender & Ethnicity): _____

Certifying Agency: ☐ Tx. Bldg & Procurement Comm. ☐ Jefferson County ☐ Tx Unified Certification Prog.

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

_____

All HUB Subcontractor Participation may be verified with the HUB Subcontractor(s) listed on Part I.

Bidder Shall Return Completed Form with Offer.

Historically Underutilized Business (HUB)
Subcontracting Participation Declaration Form

PART II: STATEMENT OF NON-COMPLIANCE FOR NOT MEETING HUB SUBCONTRACTING GOALS

Please complete Good Faith Effort (GFE) Checklist and attach any supporting documentation.

Our firm was unable to meet the HUB goals for this project for the following reasons:

- ☐ All subcontractors to be utilized are "Non-HUBs." *(Complete Part III)*
- ☐ HUBs were solicited but did not respond.
- ☐ HUBs solicited were not competitive.
- ☐ HUBs were unavailable for the following trade(s):
- ☒ Other: No Subcontractors will be used, Self performing Contract

Was the Jefferson County HUB Office contacted for assistance in locating HUBs? ☐ Yes ☒ No

PART III: DISCLOSURE OF OTHER "NON-HUB" SUBCONTRACTS

The bidder shall use this area to provide a listing of all "Non-HUB" Subcontractors, including suppliers, that will perform under this project. A list of those "Non-HUB" Subcontractors the bidder selects, after bid submission, shall be provided to the Purchasing Office not later than five (5) calendar days after being notified that bidder is the apparent low bidder. A list of those "Non-HUB" Subcontractors that are selected after contract award must be provided **immediately** after their selection.

Subcontractor Name: _____

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

Subcontractor Name: _____

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

Bidder Shall Return Completed Form with Offer.

Historically Underutilized Business (HUB)
Subcontracting Participation Declaration Form

PAGE 4 OF 4

Subcontractor Name: _____

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

Subcontractor Name: _____

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

I hereby certify that I have read the *HUB Program Instructions and Information*, truthfully completed all applicable parts of this form, and **attached any necessary support documentation as required**. I fully understand that intentionally falsifying information on this document may result in my not receiving a contract award or termination of any resulting contract.

Name (print or type): Molly M. Voros

Title: Br. Bid Rep

Signature: _____

Date: 3/9/17

E-mail address: bids@SiteOne.com

Contact person that will be in charge of invoicing for this project:

Name (print or type): Bid Dept.

Title: Bid Rep

Date: 3/9/17

E-mail address: bids@SiteOne.com

Bidder Shall Return Completed Form with Offer.

Residence Certification/Tax Form

Pursuant to Texas Government Code §2252.001 *et seq.*, as amended, Jefferson County requests Resident Certification. §2252.001 *et seq.* of the Government Code provides some restrictions on the awarding of governmental contracts; pertinent provisions of §2252.001 are stated below:

(3) "Nonresident bidder" refers to a person who is not a resident.

(4) "Resident bidder" refers to a person whose principal place of business is in this state, including a contractor whose ultimate parent company or majority owner has its principal place of business in this state.

☐ I certify that _____ [company name] is a Resident Bidder of Texas as defined in Government Code §2252.001.

☒ I certify that SiteOne Landscape Supply [company name] is a Nonresident Bidder as defined in Government Code §2252.001 and our principal place of business is Roswell GA (city and state).

Taxpayer Identification Number (T.I.N.):	36-4485550
Company Name submitting bid/proposal:	SiteOne Landscape Supply 1385 East 36th Street Cleveland, Ohio 44114
Mailing address:	
If you are an individual, list the names and addresses of any partnership of which you are a general partner:	

Property: List all taxable property owned by you or above partnerships in Jefferson County.

Jefferson County Tax Acct. No.*	Property address or location**
	*See attached list of local branches in the State of TX

* This is the property amount identification number assigned by the Jefferson County Appraisal District.

** For real property, specify the property address or legal description. For business property, specify the address where the property is located. For example, office equipment will normally be at your office, but inventory may be stored as a warehouse or other location.

Bidder Shall Return Completed Form with Offer.

Bid Affidavit

The undersigned certifies that the bid prices contained in this bid have been carefully reviewed and are submitted as correct and final. Bidder further certifies and agrees to furnish any and/or all commodities upon which prices are extended at the price offered, and upon the conditions contained in the specifications and the Notice to Bidders.

STATE OF Ohio COUNTY OF Cuyahoga

BEFORE ME, the undersigned authority, a Notary Public in and for the State of Ohio,

on this day personally appeared Molly M. Vorous (name), who

after being by me duly sworn, did depose and say:

"I, Molly M Vorous (name) am a duly authorized officer of/agent

for SiteOne Landscape Supply (name of firm) and have been duly authorized to execute the

foregoing on behalf of the said SiteOne Landscape Supply (name of firm).

I hereby certify that the foregoing bid has not been prepared in collusion with any other bidder or other person or persons engaged in the same line of business prior to the official opening of this bid. Further, I certify that the bidder is not now, nor has been for the past six (6) months, directly or indirectly concerned in any pool or agreement or combination, to control the price of services/commodities bid on, or to influence any person or persons to bid or not to bid thereon."

Name and address of bidder: SiteOne Landscape Supply
1385 East 36th Street
Cleveland, Ohio 44114

Fax: 248 581-1933 Telephone# 800 321 5325 x: 2550

by: Molly M Vorous (print name) Title: Sr. Bid Rep

Signature: Molly M Vorous

SUBSCRIBED AND SWORN to before me by the above-named

on

this the 9th day of March, 2017.

Rosalin Santiago
Notary Public in and for
the State of Ohio

ROSALIN SANTIAGO
Notary Public - State of Ohio
Recorded in Cuyahoga County
My Commission Expires 12-25-19

Bidder Shall Return Completed Form with Offer.

SiteOne LANDSCAPE SUPPLY
Stronger Together

FIND WHAT YOU ARE AFTER

To build great things, you need a great resource. Whether it's sitting on the shelf in a product or standing behind the counter in an answer - find what you're after at SiteOne Landscape Supply

Irrigation

Drip Irrigation
- Nursery Propagation Materials
- Ag Products

Backflow

Controllers & Remotes
- Remote Control Technology
- Central Control Systems

Enclosures

Heads

Fittings
- Brass
- Copper
- Ductile Iron
- Electrical
- Galvanized
- Gasket
- PVC/Nylon Insert
- PVC Schedule 40, 80
- Sewer and Drain
- UVR

Irrigation Supplies
- Glue
- Cement/Solvents
- Primer
- Pipe & Wire Cutters
- Duct Tape
- Electrical Tape

Nipples/Riser Assemblies
- Brass
- Galvanized
- Poly
- Cobra Connectors
- Flex Risers
- PVC Schedule 80

Pipe
- Copper
- Drainage
- Galvanized
- PVC/Gasketed
- PVC-Solvent Weld
- PE Pipe
- Reclaimed (Purple)
- UVR

Specialty Valves/ Pumps
- Ball Valves
- Butterfly Valves
- Check Valves
- Gate Valves
- Pressure Regulating
- Pumps
- Pump Stations
- Quick Coupling Valves

Valves & Valve Boxes

Brands
- Agrifim
- All Spec
- Applied Engineering
- Armor Access
- BES Concrete
- Brooks Concrete
- Bow Smith
- Calsense
- Champion
- Christy's
- DIG
- Elcon
- Febco
- Griswold
- Hit
- Hot Box
- Hunter
- IPS Weld-On
- Irrigation
- Irritrol
- L.R. Nelson
- NDS
- Netafim
- Pepco
- Rain Bird
- Rain Master
- Salco
- Senninger
- Spears
- Superior
- Toro
- V.I.T./Strongbox
- Watts
- Wilkins
- Weather Guard
- Weathermatic

Turf & Landscape Supplies

Fertilizers & Chemicals
- Slow-Release
- Custom Blends
- Glyphosate
- Herbicides
- Insecticides
- Fungicides
- Rodenticides
- Combination Products
- Fertilizer Injectors
- Planting Tablets
- Sprayers/ Spreaders

Fertilizer & Chemical Brands
- Arysta
- Arborjet
- BASF
- Bayer
- Dow AgroSciences
- Dupont
- Hydro Agri
- LESCO®
- Monsanto
- Plant Health Care
- Pro Pax
- Ronstar
- Roots
- Syngenta

Drainage
- Catch Basins
- Fittings
- Grates
- Pipe

Drainage Brands
- ADS
- NDS

Erosion Control
- Filter Fabrics
- Jute Net
- Sand Bags
- Silt Fence
- Straw Matting
- Straw Wattles
- Wood Stakes

Misc. & Accessories
- WD-40
- Garden Hoses
- Marking Paint
- Pond Supplies
  - Pumps
  - Liners
  - Skimmers
- Staking Flags
- Tarps
- Treegator
- Tapes

Landscape Materials
- Jute Mesh
- Rebar Stakes
- Fabrics
- Grass Seed
- Edging
- Hydromulch
- Tree Stakes & Ties
- Root Barriers
- Rock
- Boulders
- 2 Cycle Oil
- Blades
- Trimmer Line
- Top Soil
- Soil Amendments
- Wood Products

Landscape Material Brands
- American Excelsior
- Bend-A-Board
- DeWitt
- LESCO®
- Pennington
- Profile/Turface

Tools
- Brooms
- Hand Tools
- Pipe Cutters/Saws
- Pruning Tools
- Shovels
- Tampers
- Safety Equipment
- Sprayers
- Wheelbarrows

Tool Brands
- Corona

Outdoor Lighting

Lighting Materials
- Fixtures
- Wire
- Connectors
- Control Cable
- Sweeps & Ells
- Electrical Covers
- PVC/UL Conduit
- Transformers

Brands
- 3M Products
- FX Luminaire
- Focus
- Hadco
- Kichler
- King Safety
- Pen-Tite Connectors
- Unique
- Vista
- X10 Pro

Hardscapes

Hardscape Products
- Appliances
- Stone Veneer
- Concrete Pavers & Walls
- Natural Stone
- Boulders
- Gravel
- Sand
- Polymeric Sand
- Sealers
- Specialized Tools

Brands
- Alliance Designer Products
- Belgard
- Coyote
- Eldorado Stone
- Keystone
- Techniseal

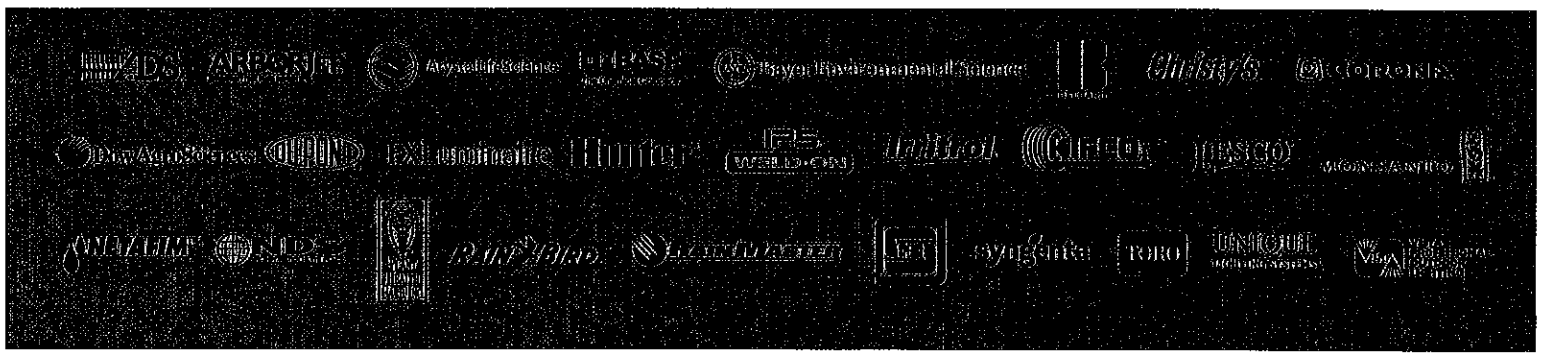
Equipment

Products
- Aerators
- Renovators
- Sprayers
- Spreaders
- Combo Equipment

Brands
- GNC Sprayers
- LESCO®
- LT Rich
- Permagreen

Nursery Direct

- Grasses
- Perennials
- Shrubs
- Annuals
- Trees
- Sod



WITH OVER 450 LOCATIONS NATIONWIDE WE ARE THERE EVERY STEP OF THE WAY.

TEXAS BRANCHES

Arlington, TX 76001
811 West Harris Road
817-557-9732

Amarillo, TX 79109
6018 Canyon Drive, Unit B
806-463-6334

Austin, TX 78758
10805 Metric Blvd
512-833-5070

Beaumont, TX 77707
5360 Washington Blvd.
409-840-9415

Benbrook, TX 76126
106 Gollad
817-249-2700

College Station, TX 77845
10500 Highway 30 East,
Bldg. 300
979-776-8000

Conroe, TX 77385
8823 Fawn Trai Ste B
936-273-7717

Corpus Christi, TX 78416
5045 Ambassador Row
361-854-7499

Dallas, TX 75243
13510 Floyd Circle
972-231-0535

Dallas, TX 75220
10588 Shady Trl
214-352-7755

El Paso, TX 79935
11145 Rojas Drive
915-850-0463

Ft. Worth, TX 76244
4733 Keller-Haslet Road
817-490-0330

Ft. Worth, TX 76107
1019 N Henderson St. Ste 101
817-332-1521

Garland, TX 75044
1901 Holford Rd.
972-530-0500

Hoston, TX 77084
3802 Barker Cypress Road
281-398-3040

Hoston, TX 77041
4519 Brittmore Road
713-849-2700

Houston, TX 77041
4320 Brittmoore Road
713-849-1910

Katy, TX 77449
20120 Park Row Dr
281-398-9388

Lewisville, TX 75056
521 Huffines Blvd
972-939-1144

Lewisville, TX 75067
701 S. Stemmons Fwy., Ste 60
972-434-0408

Lubbock, TX 79424
5815 West 50th St.
806-780-7995

Manor, TX 78653
12550 Harris Branch Pkwy
512-278-0997

McKinney, TX 75071
1501 Mercury Circle
469-742-0953

Mesquite, TX 75150
2945 E. Meadows Blvd.
972-681-5511

Pflugerville, TX 78660
1938 Waukesha Drive
512-989-7510

Pharr, TX 78577
807 W Ferguson Street
956-782-7777

Plano, TX 75074
1200 Summit Ave
972-881-0205

Prosper, TX 75078
544 S Dallas Parkway
972-346-3577

Round Rock, TX 78664
1816 Central Commerce Ct.
512-837-7997

San Antonio, TX 78247
3535 Metro Parkway
210-545-2266

San Antonio, TX 78247
15934 Nacogdoches Rd.
210-656-8100

San Antonio, TX 78249
16113 University Oak
210-764-0619

Southlake, TX 76092
260 Bank Street
817-488-9392

Spring, TX 77388
21145 Falvel Road
281-353-6502

Stafford, TX 77477
10410 Mula Rd
281-498-0904

Tyler, TX 75703
1913 Deerbrook Drive
903-581-8877

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REFERENCES:

KATY Independent School District
 # 281-391-2184
PO Box 159
Katy, TX 77492

City of Carrollton
 # 972-466-3115
PO Box 110535
Carrollton, TX 75011

Fort Worth Independent School District
 # 817-871-2166
100 North University Drive
Fort Worth, TX 76107

Tarrant County College District
 # 817-263-8599
4801 Marine Creek Parkway
Fort Worth, TX 76179

Arlington Independent School District
 # 682-867-7352
1203 West Pioneer Parkway
Arlington, TX 76013

GROUP 17 HERBICIDE

Drexel

MSMA 6.6

MSMA Liquid

MSMA liquid herbicide for selective post-emergent weed control on Cotton, Golf courses and Sod farms, and Highway Rights-of-Way.

ACTIVE INGREDIENT:

Monosodium acid methanearsonate*	51.3%
OTHER INGREDIENTS:	48.7%
TOTAL:	100.0%

Total Arsenic (as elemental) all in water soluble form is 23.61%.

*This product contains 6.6 pounds of MSMA per gallon.

KEEP OUT OF REACH OF CHILDREN

CAUTION

See FIRST AID Below

EPA Reg. No. 19713-41 **Net Content:**
EPA Est. No. 19713-MS-1 **2.5 Gals. (9.46 L)**

FIRST AID

IF SWALLOWED:
- Call a poison control center or doctor immediately for treatment advice.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to do so by a poison control center or doctor.
- Do not give anything by mouth to an unconscious or convulsing person.

IF ON SKIN OR CLOTHING:
- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15 to 20 minutes.
- Call a poison control center or doctor for treatment advice.

IF IN EYES:
- Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.
- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
- Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also call CHEMTREC at 800-424-9300 for emergency.

PRECAUTIONARY STATEMENTS

Hazards To Humans And Domestic Animals

CAUTION: Harmful if swallowed. Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are polyethylene or polyvinyl chloride. If you want more options, follow the instructions for category A on an EPA chemical-resistance category selection chart.

All mixers, loaders, applicators and other handlers must wear: Long-sleeved shirt and long pants, chemical-resistant gloves, and shoes plus socks.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

When handlers use aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for Agricultural Pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS. Pilots must use an enclosed cockpit that meets the requirements listed in the WPS for Agricultural Pesticides [40 CFR 170.240(d)(6)].

USER SAFETY RECOMMENDATIONS

Users should: 1) Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. 2) Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. 3) Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water by cleaning equipment or disposal of wastes. Do not contaminate water used by wildlife or aquatic life or water used for domestic or irrigation purposes.

USE INFORMATION

MSMA 6.6 herbicide is useful for selective post-emergent weed control, particularly for grassy weeds in Cotton, Golf courses and Sod farms, and Highway Rights-of-Way. Its activity is enhanced by addition of a suitable surfactant, cleared for application to growing crops, to the spray solution. Best results are obtained on young actively growing weeds at air temperature above 70°F.

This product applied properly will kill or control noxious weeds susceptible to MSMA such as:

Bahiagrass	Fall panicum	Oats (Wild)
Barnyardgrass	Fiddleneck	Pigweed
Beggartick (Hairy)	Florida beggarweed	Puncturevine
Brachiaria spp.	Foxtail	Purslane (Common)
Broomsedge	(Green and Yellow)	Ragweed
Chickweed	Goosegrass	Sandbur
Cocklebur	Guineagrass	Sicklepod
Crabgrass	Jimsonweed	Spurge
(Smooth and Large)	Johnsongrass	Watergrass
Dallisgrass	Morningglory	Witchgrass
Dandelion	Mustard (Wild)	Wood *sorrel*
Dayflower	Nutsedge	

RESISTANCE MANAGEMENT

GROUP 17 HERBICIDE

This product is a Group 17 herbicide. Any weed population may contain or develop plants naturally resistant to this product and other Group 17 herbicides. Weed species with acquired resistance to Group 17 may eventually dominate the weed population if Group 17 herbicides are used repeatedly in the same field or in successive years as primary method of control for targeted species. This may result in partial or total loss of control of those species by this product or other Group 17 herbicides.

Manufactured By:
Drexel Chemical Company
P.O. BOX 13327, MEMPHIS, TN 38113-0327
SINCE 1972

The DREXEL logo is a registered trademark of Drexel Chemical Company.

4703-0SDS

Drexel

SAFETY DATA SHEET

DREXEL MSMA 6.6 MSMA LIQUID

Section 1: Material Identification

Product Name: Drexel MSMA 6.6 MSMA Liquid

EPA Reg No.: 19713-41

CAS NO: 2163-80-6

Formula: CH_4AsO_3Na

Company: Drexel Chemical Company
1700 Channel Avenue
Memphis, TN 38106

Synonyms: Monosodium Acid Methanearsonate
MSMA

Identifiers:

EINECS:	218-495-9
RTECS:	PA2625000
DOT label:	non-regulated

Emergency Telephone Number:

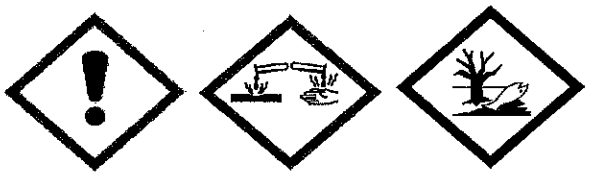
CHEMTREC	Drexel Chemical Co.
Tel: 1-800-424-9300	901-774-4370

This product is an EPA FIFRA registered pesticide. Some of the classifications on this SDS are not the same as the FIFRA label. Certain sections of this SDS are superseded by federal law governed by EPA for a registered pesticide. Please see **Section 15. REGULATORY INFORMATION** for explanation.

Section 2: Hazard Identification

(As defined by the OSHA Hazard Communication Standard, 29)

GHS Classification	Acute Inhalation	Category 4
	Skin Irritation	Category 2
	Aquatic acute toxicity	Category 2
	Corrosive to metals	Category 1
GHS Label Elements		
Signal word	Warning	



Hazard statement

Harmful if inhaled
Causes skin irritation
Moderately toxic to aquatic life
May be corrosive to metals

Precautionary statement

Prevention

Avoid breathing vapors or mist. Use only outdoors or in a well-ventilated area. Wash exposed skin thoroughly after handling. Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Neoprene, Nitrile/butadiene rubber ("nitrile" or "NBR") or Polyvinyl chloride ("PVC" or "vinyl").
Prevent from entering into ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.
Keep only in original container. May react with aluminum, zinc or steel.

Response

If inhaled: Remove person to fresh air and keep comfortable for breathing. Call Poison Control Center of Doctor if you feel unwell.
If on skin: Wash with plenty of water while removing contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Destroy contaminated leather items such as shoes, belts, and watchbands.
Absorb spillage to prevent material damage.

Storage

Store in a cool, dry, well ventilated, and secure area designated specifically for pesticides and away from heat sources. Keep in original containers and keep containers closed when not in use. Do not store in excessive heat. Do not store near children, food, foodstuffs, drugs or potable water supplies.
Store in corrosive resistant high density polyethylene container.

Disposal

If wastes and/or containers cannot be disposed of according to the product label directions, disposal of this material must be in accordance with your local or area regulatory authorities.

Section 3: Composition Information

Components	% By Wt.	OSHA PEL:	ACGIH TLV:
Active Ingredient:			
Monosodium Acid Methanearsonate	51.3%	N/Av	0.5 mg/m^3
Inert Ingredients:	48.7%	N/A	N/A

Section 4: First-Aid Measures

Eye Contact: Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes for at least 10 minutes. Obtain medical attention without delay, preferably from an ophthalmologist

If Swallowed: Call a poison control center or doctor immediately for treatment advice. Rinse mouth with water and have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person. Have product label with you when calling a poison control center or doctor.

Skin Contact: Immediately flush skin with water while removing contaminated clothing and shoes. Wash exposed areas with soap and water. Get medical attention if symptoms occur. Wash clothing before reuse. Destroy contaminated leather items such as shoes, belts, and watchbands.

If Inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

Note to Physician: This product has low oral, dermal, and inhalation toxicity. If swallowed, gastric lavage using an endotracheal tube may be preferred to vomiting. Literature recommendations for arsenic poisoning call for chelation therapy with BAL or d-penicillin. Persons with sensitivity to penicillin may suffer an allergic reaction. BAL is recommended for persons allergic to penicillin.

Section 5: Fire Fighting Measures

Fire Hazards: Closed containers may rupture if exposed to excess heat or flame due to a build-up of internal pressure. Thermal decomposition during a fire can produce fumes and irritating gases.

Flammability classification (OSHA 29 CFR 1910.1200): Non-combustible.
Flash point: Non-combustible (Aqueous Formulation).
Lower flammable limit (% by volume): NA
Upper flammable limit (% by volume): NA

Fire Fighting Procedures: Keep people away. Isolate fire and deny unnecessary entry. Evacuate the area and fight the fire from upwind at a safe distance to avoid hazardous vapors or decomposition products. Dike and collect fire-extinguishing water to prevent environmental damage and excessive waste runoff.

Firefighting media: Use dry chemical or carbon dioxide when fighting fires involving this product. Do not use water or foam, as this may spread material.

Special Protective Equipment for Firefighters:
Wear positive-pressure self-contained breathing apparatus (SCBA) and protective firefighting clothing (includes firefighting helmet, coat, trousers, boots, and gloves). Use full face shield and operate in positive pressure mode. Avoid contact with this material during firefighting operations. If contact is likely, change to full chemical resistant firefighting clothing with self-contained breathing apparatus. If this is not available, wear full chemical resistant clothing with self-contained breathing apparatus and fight fire from a remote location. For protective equipment in post-fire or non-fire clean-up situations, refer to the relevant sections. **Avoid contact with aluminum equipment (i.e. ladders, etc.) as this will create arsine gas.**

Hazardous Combustion Products: May generate toxic fumes and smoke.

(NFPA):	Health:	Flammability:	Reactivity:
	3	0	0

Section 6: Accidental Release Measures

Steps to be taken if Material is Released or Spilled:

- Contain spilled material if possible. Small spills: Absorb with suitable absorbent and sweep up. Collect in suitable and properly labeled containers. Large spills: Contact Drexel Chemical Co. for clean-up assistance. See Section 13, Disposal Considerations, for additional information.

Personal Precautions:

- Isolate area. Keep unnecessary and unprotected personnel from entering the area. Refer to Section 7, Handling, for additional precautionary measures. Spilled material may cause a slipping hazard. Ventilate area of leak or spill. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

Environmental Precautions: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

Section 7: Handling and Storage

KEEP OUT OF REACH OF CHILDREN

Handling: **General Handling:** Avoid contact with eyes, skin, and clothing. Wash thoroughly with soap and water after handling. Do not swallow. Avoid breathing vapor. Use with adequate ventilation. Wear long-sleeved shirt, long pants, chemical resistant footwear, socks plus a chemical resistant apron when handling. Keep away from heat, sparks and flame. See Section 8, Exposure Controls and Personal Protection.

Storage: Store in a cool, dry, ventilated and secure area designated specifically for pesticides and away from heat sources. Keep in original containers and keep containers closed when not in use. Do not store in excessive heat. Do not store near children, food, foodstuffs, drugs or potable water supplies.

Section 8: Exposure Controls/ Personal Protection

Exposure Limits: TLV MSMA 0.5 mg/m^3

Personal Protection:

Eye/Face Protection: Wear safety glasses with side shields or chemical splash goggles to prevent vapors or mists from entering the eyes. If using a full face shield, always sue safety glasses or goggles along with the face shield to ensure adequate protection of the eyes.

Skin Protection: Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task. Safety shower should be located in immediate work area. Remove contaminated clothing immediately, wash skin area with soap and water, and launder clothing before reuse or dispose of properly. Items which cannot be decontaminated, such as shoes, belts and watchbands, should be removed and disposed of properly.

Hand protection: Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Neoprene, Nitrile/butadiene rubber ("nitrile" or "NBR") or Polyvinyl chloride ("PVC" or "vinyl"). NOTICE:

Respiratory Protection: Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. When handling in enclosed areas, when large quantities of mists are generated or prolonged exposure is possible in excess of the TLV, use a respirator with either an organic vapor-removing

cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C) or a canister approved for pesticides (MSHA/NIOSH approval number prefixTC-14G).

Ingestion: Avoid ingestion of even very small amounts; do not consume or store food or tobacco in the work area; wash hands and face with soap and water before smoking or eating.

Engineering Controls:

Ventilation: When handling this product proper ventilation is required to maintain exposure below the TLV. Ventilate all transport vehicles prior to unloading. Facilities storing or utilizing this material should be equipped with and eyewash facility and safety shower.

Section 9: Physical and Chemical Properties

Physical State:	Liquid
Color:	Light green
Odor:	Slight garlic odor
Flash Point:	Non-combustible
Vapor Pressure (mmHg):	N/Av
Boiling Point:	>212°F
Vapor Density (air = 1):	0.6
Bulk Density (H_2O = 1):	12.50 lbs./gal.
Freezing Point:	N/Av
Solubility in water:	Complete
pH:	5 – 6.5
Viscosity:	N/Av
Vapor Density:	0.6
% Volatiles	Approx. 45%

Section 10: Stability and Reactivity

Stability/Instability:	Thermally stable at typical use temperatures and in closed containers.
Conditions to Avoid:	Avoid heat of open flame. Avoid high temperatures above 130°F (54.4°C).
Incompatible Materials:	Avoid contact with: Reducing agents such as aluminum and zinc.
Hazardous Polymerization:	Will not occur
Thermal Decomposition:	Hazardous decomposition products can include and are not limited to: Arsine gas.

Section 11: Toxicological Information

Acute Toxicity

Ingestion:

- LD50, (rat): 2,833 mg/kg

Dermal:

- LD50, (rabbit): >2,500 mg/kg

Inhalation:
- LC50, (4h), (rat): >2.2 mg/l

Eye Irritation (rabbit):
- Not a primary irritant.

Skin Irritation (rabbit):
- Slight irritant.

Sensitization Skin:
- Non-sensitizer (guinea pigs).

Chronic Toxicity: Exposure below levels of concern.

Carcinogenicity: Not listed as carcinogenic in humans by IARC, NTP and OSHA.

Teratogenicity, mutagenicity, and other reproductive effects: None known

Section 12: Ecological Information

Information provided for Monosodium Acid Methanearsonate.

ENVIRONMENTAL FATE:
- Slightly toxic to fish, aquatic invertebrates and aquatic plants. Practically non-toxic in bees. Moderately toxic to birds.

Persistence and Degradability:
- Immobilized by binding to soil particles and not easily leached to groundwater except in sandy soils. Arsenic is persistent in the environment.

Aquatic Toxicity:
- Rainbow Trout: 96 hour LC50: >167 mg/L
- Bluegill 96 hour LC50: >51 mg/L
- Daphnia magna: 48 hour EC50: 77.5 mg/L

Bees: LD50: 68 µg/bee
Bird Toxicity: Bobwhite Quail LD50: 425 mg/kg

Section 13: Disposal Considerations

If wastes and/or containers cannot be disposed of according to the product label directions, disposal of this material must be in accordance with your local or area regulatory authorities. This information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. If the material as supplied becomes a waste, follow all applicable regional, national and local laws,

Section 14: Transport Information

DOT: Non-Regulated-See 49 CFR 173.132 (b) (3) & 1712.1-1 Appendix A

IMDG: Consult appropriate IMDG regulations for shipment requirements in the Maritime shipping modes.

ICAO/IATA: Consult appropriate ICAO/IATA regulations for shipment requirements in the Air modes.

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material

Section 15: Regulatory Information

OSHA Hazard Communication Standard:

- **Arsenic is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.**
- **EPA FIFRA INFORMATION**
  This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemical. The hazard information required on the pesticide label is listed out below. The pesticide label also includes other important information, including directions for use.
- **EPA/CERCLA Reportable Quantity**: None Known

SARA/TITLE III:

- **Sec 302: Extremely Hazardous Substance Notification**: This material is not known to contain any Extremely Hazardous Substances.
- **Sec. 311/312. Hazard Categories:** Immediate health hazard
  Chronic health hazard
- **Section 313 Toxic Chemical(s):** Arsenic Compounds
- **RCA Waste Code: Not applicable**

California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986):

- This product is not listed.

Toxic Substances Control Act (TSCA):

- All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.30

Section 16: Other Information

Drexel Chemical Company recommends that each customer or recipient of this SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown below. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific SDSs, we are not and cannot be responsible for SDSs obtained from any source other than ourselves. If you have obtained an SDS from another source or if you are not sure that the SDS you have is current, please contact us for the most current version.

Date Issued: May 3, 2015

21215I6-1/53

LESCO®

PROSECUTOR®™

Non-Selective Herbicide

The complete broad-spectrum
postemergence herbicide for
industrial, turf and ornamental weed control.

(91)021215106153

Complete Directions for Use

EPA Reg. No. 524-536-10404 2010-2

LESCO, Inc.

Safety Data Sheet #4038
Commercial Product

1. PRODUCT AND COMPANY IDENTIFICATION

1.1. Product identifier

LESCO® PROSECUTOR® PRO Herbicide

1.1.1. Chemical name
Not applicable.

1.1.2. Synonyms
None.

1.1.3. EPA Reg. No.
524-536-10404

1.2. Product use
Herbicide

1.3. Company
LESCO, Inc., 1385 East 36th Street, Cleveland, OH, 44114
Telephone: 800-347-4272
Website: www.lesco.com

1.4. Emergency numbers
FOR CHEMICAL EMERGENCY, SPILL LEAK, FIRE, EXPOSURE, OR ACCIDENT Call CHEMTREC - Day or Night: 1-800-424-9300 toll free in the continental U.S., Puerto Rico, Canada, or Virgin Islands. For calls originating elsewhere: 703-527-3887 (collect calls accepted).
FOR MEDICAL EMERGENCY - Day or Night: +1 (314) 694-4000 (collect calls accepted).

2. HAZARDS IDENTIFICATION

2.1. Classification
OSHA Hazard Communication Standard, 29 CFR 1910.1200 (2012)
Acute toxicity, inhalation - Category 4

2.2. Label elements

2.2.1. Signal word
WARNING!

2.2.2. Hazard pictogram/pictograms



2.2.3. Hazard statement/statements
Harmful if inhaled.

2.2.4. Precautionary statement/statements
Do not breathe mist/vapours/spray.
Use only outdoors or in a well-ventilated area.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Call a POISON CENTER or doctor/physician if you feel unwell.

2.3. Appearance and odour (colour/form/odour)
Amber /Liquid / Sweet

2.4. OSHA Status
This product is hazardous according to the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Refer to section 11 for toxicological and section 12 for environmental information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Active ingredient
Isopropylamine salt of N-(phosphonomethyl)glycine; {Isopropylamine salt of glyphosate}

Composition

COMPONENT	CAS No.	% by weight (approximate)
Isopropylamine salt of glyphosate	38641-94-0	41
Other ingredients		59

Trade secret composition.

4. FIRST AID MEASURES

Use personal protection recommended in section 8.

4.1. Description of first aid measures
4.1.1. Eye contact: If in eyes, hold eye open and rinse slowly and gently for 15-20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing. Call a poison control center or doctor for treatment advice.
4.1.2. Skin contact: Take off contaminated clothing, wristwatch, jewellery. Wash affected skin with plenty of water. Wash clothes and clean shoes before re-use.
4.1.3. Inhalation: Remove to fresh air.
4.1.4. Ingestion: Immediately offer water to drink. Do NOT induce vomiting unless directed by medical personnel. If symptoms occur, get medical attention.

4.2. Most important symptoms and effects, both acute and delayed
4.2.1. Eye contact, short term: May cause temporary eye irritation.
4.2.2. Skin contact, short term: Not expected to produce significant adverse effects when recommended use instructions are followed.
4.2.3. Inhalation, short term: Not expected to produce significant adverse effects when recommended use instructions are followed.

4.3. Indication of any immediate medical attention and special treatment needed
4.3.1. Advice to doctors: This product is not an inhibitor of cholinesterase.
4.3.2. Antidote: Treatment with atropine and oximes is not indicated.

5. FIRE-FIGHTING MEASURES

5.1. Extinguishing media
5.1.1. Recommended: Water, foam, dry chemical, carbon dioxide (CO2)

5.2. Special hazards
5.2.1. Unusual fire and explosion hazards
Minimise use of water to prevent environmental contamination.
Environmental precautions: see section 6.
5.2.2. Hazardous products of combustion
Carbon monoxide (CO), phosphorus oxides (PxOy), nitrogen oxides (NOx)

5.3. Fire fighting equipment: Self-contained breathing apparatus. Equipment should be thoroughly decontaminated after use.

5.4. Flash point
None.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions
Use personal protection recommended in section 8.

6.2. Environmental precautions
SMALL QUANTITIES:
Low environmental hazard.
LARGE QUANTITIES:
Minimize spread.
Keep out of drains, sewers, ditches and water ways.
Notify authorities.

6.3. Methods for cleaning up
SMALL QUANTITIES:
Flush spill area with water.
LARGE QUANTITIES:
Absorb in earth, sand or absorbent material.
Dig up heavily contaminated soil.
Collect in containers for disposal.
Refer to section 7 for types of containers.
Flush residues with small quantities of water.
Minimise use of water to prevent environmental contamination.

Refer to section 13 for disposal of spilled material.
Use handling recommendations in Section 7 and personal protection recommendations in Section 8.

7. HANDLING AND STORAGE

Good industrial practice in housekeeping and personal hygiene should be followed.

7.1. Precautions for safe handling
When using do not eat, drink or smoke. Wash hands thoroughly after handling or contact. Thoroughly clean equipment after use. Do not contaminate drains, sewers and water ways when disposing of equipment rinse water. Emptied containers retain vapour and product residue. Refer to section 13 of the safety data sheet for disposal of rinse water. Observe all labeled safeguards until container is cleaned, reconditioned or destroyed.

7.2. Conditions for safe storage
Minimum storage temperature: -15 °C
Maximum storage temperature: 50 °C
Compatible materials for storage: stainless steel, aluminium, fiberglass, plastic, glass lining
Incompatible materials for storage: galvanized steel, unlined mild steel, see section 10. Keep out of reach of children.
Keep away from food, drink and animal feed.
Keep only in the original container.
Partial crystallization may occur on prolonged storage below the minimum storage temperature.
If frozen, place in warm room and shake frequently to put back into solution.
Minimum shelf life: 5 years.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Airborne exposure limits

Components	Exposure Guidelines
Isopropylamine salt of glyphosate	No specific occupational exposure limit has been established.
Other ingredients	No specific occupational exposure limit has been established.

8.2. Engineering controls: No special requirement when used as recommended.

8.3. Recommendations for personal protective equipment

8.3.1. Eye protection: If there is significant potential for contact: Wear chemical goggles.

8.3.2. Skin protection: No special requirement when used as recommended. If repeated or prolonged contact: Wear chemical resistant gloves.

8.3.3. Respiratory protection: No special requirement when used as recommended.

When recommended, consult manufacturer of personal protective equipment for the appropriate type of equipment for a given application.

9. PHYSICAL AND CHEMICAL PROPERTIES

These physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specifications for the product.

Colour/colour range:	Amber
Odour:	Sweet
Form:	Liquid
Physical form changes (melting, boiling, etc.):	
Melting point:	Not applicable.
Boiling point:	No data.
Flash point:	None.
Explosive properties:	No explosive properties
Auto ignition temperature:	452 °C
Self-accelerating decomposition temperature (SADT):	No data.
Oxidizing properties:	No data.
Specific gravity:	1.169 @ 20 °C / 15.6 °C
Vapour pressure:	25 mmHg 24 °C
Vapour density:	Not applicable.
Evaporation rate:	No data.
Dynamic viscosity:	73.2 cP
Kinematic viscosity:	Not applicable.
Density:	1.17 g/cm3 @ 20 °C
Solubility:	Water: Completely miscible.
pH:	4.4 - 5.0
Partition coefficient:	log Pow: < 0.00 (active ingredient)

10. STABILITY AND REACTIVITY

10.1. Reactivity

Reacts with galvanised steel or unlined mild steel to produce hydrogen, a highly flammable gas that could explode.

10.2. Stability
Stable under normal conditions of handling and storage.

10.3. Possibility of hazardous reactions
Reacts with galvanised steel or unlined mild steel to produce hydrogen, a highly flammable gas that could explode.

10.4. Incompatible materials
galvanised steel;unlined mild steel;see section 10.;
Compatible materials for storage: see section 7.2.

10.5. Hazardous decomposition
Thermal decomposition: Hazardous products of combustion: see section 5.

11. TOXICOLOGICAL INFORMATION

This section is intended for use by toxicologists and other health professionals.

Likely routes of exposure: Skin contact, eye contact

Potential health effects
Eye contact, short term: May cause temporary eye irritation.
Skin contact, short term: Not expected to produce significant adverse effects when recommended use instructions are followed.
Inhalation, short term: Not expected to produce significant adverse effects when recommended use instructions are followed.

Data obtained on similar products and on components are summarized below.

Similar formulation

Acute oral toxicity
Rat, LD50: 5,108 mg/kg body weight
Practically non-toxic.
Acute dermal toxicity
Rat, LD50 (limit test): > 5,000 mg/kg body weight
Practically non-toxic. No mortality.
Skin irritation
Rabbit, 6 animals, OECD 404 test:
Days to heal: 3
Primary Irritation Index (PII): 0.5/8.0
Essentially non irritating.
Eye irritation
Rabbit, 6 animals, OECD 405 test:
Days to heal: 3
Slight irritation.
Acute inhalation toxicity
Rat, LC50, 4 hours, aerosol: 2.9 mg/L
Other effects: weight loss, breathing difficulty
Practically non-toxic.
Skin sensitization
Guinea pig, 3-induction Buehler test:
Positive incidence: 0 %

N-(phosphonomethyl)glycine; {glyphosate acid}

Genotoxicity
Not genotoxic.

Carcinogenicity
Not carcinogenic in rats or mice.

Reproductive/Developmental Toxicity
Developmental effects in rats and rabbits only in the presence of significant maternal toxicity.
Reproductive effects in rats only in the presence of significant maternal toxicity.

12. ECOLOGICAL INFORMATION

This section is intended for use by ecotoxicologists and other environmental specialists.

Data obtained on product and components are summarized below.

Aquatic toxicity, fish
Rainbow trout (Oncorhynchus mykiss):
Acute toxicity, 96 hours, static, LC50: 5.4 mg/L
Moderately toxic.
Bluegill sunfish (Lepomis macrochirus):
Acute toxicity, 96 hours, static, LC50: 7.3 mg/L
Moderately toxic.

Aquatic toxicity, invertebrates
Water flea (Daphnia magna):
Acute toxicity, 48 hours2, static, EC50: 11 mg/L
Slightly toxic.

Avian toxicity
Mallard duck (Anas platyrhynchos):
Dietary toxicity, 5 days, LC50: > 5,620 mg/kg diet
Practically non-toxic.
Bobwhite quail (Colinus virginianus):
Dietary toxicity, 5 days, LC50: > 5,620 mg/kg diet
Practically non-toxic.

Arthropod toxicity
Honey bee (Apis mellifera):
Oral/contact, 48 hours, LD50: > 100 µg/bee
Practically non-toxic.

Soil organism toxicity, invertebrates
Earthworm (Eisenia foetida):
Acute toxicity, 14 days, LC50: > 1,250 mg/kg soil
Practically non-toxic.

N-(phosphonomethyl)glycine; {glyphosate acid}

Bioaccumulation
Bluegill sunfish (Lepomis macrochirus):
Whole fish: BCF: < 1
No significant bioaccumulation is expected.

Dissipation
Soil, field:
Half life: 2 - 174 days
Koc: 884 - 60,000 L/kg
Adsorbs strongly to soil.
Water, aerobic:

Half life: < 7 days

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

13.1.1. Product

Keep out of drains, sewers, ditches and water ways. Recycle if appropriate facilities/equipment available. Burn in proper incinerator. Follow all local/regional/national/international regulations.

13.1.2. Container

See the individual container label for disposal information. Emptied containers retain vapour and product residue. Observe all labeled safeguards until container is cleaned, reconditioned or destroyed. Empty packaging completely. Triple or pressure rinse empty containers. Do NOT contaminate water when disposing of rinse waters. Ensure packaging cannot be reused. Do NOT re-use containers. Store for collection by approved waste disposal service. Recycle if appropriate facilities/equipment available. Follow all local/regional/national/international regulations.

Use handling recommendations in Section 7 and personal protection recommendations in Section 8.

14. TRANSPORT INFORMATION

The data provided in this section is for information only. Please apply the appropriate regulations to properly classify your shipment for transportation.

14.1. US Dept. of Transportation (DOT) Hazardous Materials Regulations (49 CFR Parts 105-180)

Proper Shipping Name (Technical Name if required):	Not regulated for domestic ground transportation.

14.2. IMDG Code

Proper Shipping Name (Technical Name if required):	Not regulated for transport under IMO Regulations

14.3. IATA/ICAO

Proper Shipping Name (Technical Name if required):	Not regulated for transport under IATA/ICAO Regulations

15. REGULATORY INFORMATION

15.1. Environmental Protection Agency

15.1.1. TSCA Inventory

All components are on the US EPA's TSCA Inventory

15.1.2. SARA Title III Rules

Section 311/312 Hazard Categories: Immediate
Section 302 Extremely Hazardous Substances: Not applicable.
Section 313 Toxic Chemical(s): Not applicable.

15.1.3. CERCLA Reportable quantity

Not applicable.

15.1.4. Federal Insecticide, Fungicide, Rodenticide Act (FIFRA)

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

CAUTION!
CAUSES EYE IRRITATION

Acute oral toxicity: FIFRA category IV.
Acute dermal toxicity: FIFRA category IV.
Acute inhalation toxicity: FIFRA category IV.
Skin irritation: FIFRA category IV.
Eye irritation: FIFRA category III.

16. OTHER INFORMATION

The information given here is not necessarily exhaustive but is representative of relevant, reliable data.
Follow all local/regional/national/international regulations.
Please consult supplier if further information is needed.
In this document the British spelling was applied.

	Health	Flammability	Instability	Additional Markings
NFPA	2	1	1	

0 = Minimal hazard, 1 = Slight hazard, 2 = Moderate hazard, 3 = Severe hazard, 4 = Extreme hazard

Full denomination of most frequently used acronyms. BCF (Bioconcentration Factor), BOD (Biochemical Oxygen Demand), COD (Chemical Oxygen Demand), EC50 (50% effect concentration), ED50 (50% effect dose), I.M. (intramuscular), I.P. (intraperitoneal), I.V. (intravenous), Koc (Soil adsorption coefficient), LC50 (50% lethality concentration), LD50 (50% lethality dose), LDLo (Lower limit of lethal dosage), LEL (Lower Explosion Limit), LOAEC (Lowest Observed Adverse Effect Concentration), LOAEL (Lowest Observed Adverse Effect Level), LOEC (Lowest Observed Effect Concentration), LOEL (Lowest Observed Effect Level), MEL (Maximum Exposure limit), MTD (Maximum Tolerated Dose), NOAEC (No Observed Adverse Effect Concentration), NOAEL (No Observed Adverse Effect Level), NOEC (No Observed Effect Concentration), NOEL (No Observed Effect Level), OEL (Occupational Exposure Limit), PEL (Permissible Exposure Limit), PII (Primary Irritation Index), Pow (Partition coefficient n-octanol/water), S.C. (subcutaneous), STEL (Short-Term Exposure Limit), TLV-C (Threshold Limit Value-Ceiling), TLV-TWA (Threshold Limit Value - Time Weighted Average), UEL (Upper Explosion Limit)

This Material Safety Data Sheet (MSDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-APPROVED PRODUCT LABELING (attached to and accompanying the product container). This MSDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course. Use, storage and disposal of pesticide products are regulated by the EPA under the authority of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) through the product labeling, and all necessary and appropriate precautionary, use, storage, and disposal information is set forth on that labeling. It is a violation of federal law to use a pesticide product in any manner not prescribed on the EPA-approved label.

Although the information and recommendations set forth herein (hereinafter "Information") are presented in good faith and believed to be correct as of the date hereof, LESCO, Inc. or any of its subsidiaries makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for the purposes prior to use. In no event will LESCO, Inc. or any of its subsidiaries be responsible for damages of any nature whatsoever resulting from the use of or reliance upon information. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO INFORMATION OR TO THE

PRODUCT TO WHICH INFORMATION REFERS.

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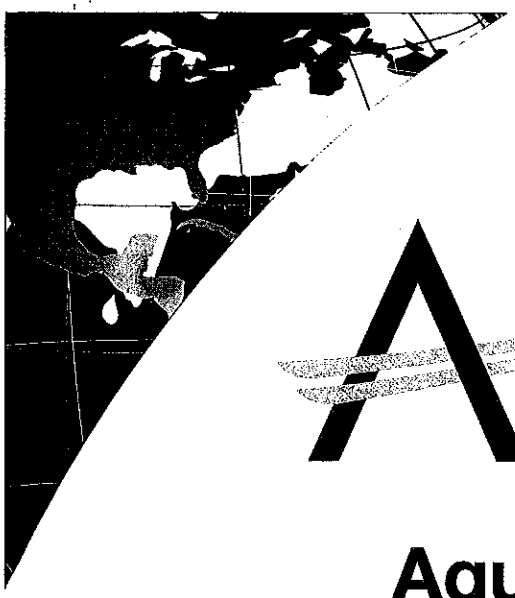

Aqua Neat®

Aquatic Herbicide

For use on emerged aquatic weeds and brush in aquatic and other noncrop sites

ACTIVE INGREDIENT:	
Glyphosate, N-(phosphonomethyl)glycine, in the form of its isopropylamine salt*	53.8%
OTHER INGREDIENTS:	46.2%
TOTAL:	100.0%

*Contains 648 grams per litre or 5.4 pounds per U.S. gallon of the active ingredient, glyphosate, in the form of its isopropylamine salt. Equivalent to 480 grams per litre or 4 pounds per U.S. gallon of the acid, glyphosate.

KEEP OUT OF REACH OF CHILDREN

CAUTION / PRECAUCION

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

SEE INSIDE BOOKLET FOR FIRST AID AND ADDITIONAL PRECAUTIONARY STATEMENTS

For Chemical Spill, Leak, Fire, or Exposure, Call CHEMTREC (800) 424-9300

For Medical Emergencies Only, Call (877) 325-1840

EPA Reg. No. 228-365

Manufactured for
Nufarm Americas Inc.
150 Harvester Drive
Burr Ridge, IL 60527

Nufarm

SAFETY DATA SHEET **Aquaneat Aquatic Herbicide**

Nufarm

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: **Aquaneat Aquatic Herbicide**
EPA Reg. No.: 228-365
Product Type: Herbicide
Company Name: Nufarm Americas Inc.
11901 S. Austin Avenue
Alsip, IL 60803
1-800-345-3330

Telephone Numbers: **For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident, Call CHEMTREC Day or Night: 1-800-424-9300**
For Medical Emergencies Only, Call 1-877-325-1840

This product is an EPA FIFRA registered pesticide. Some classifications on this SDS are not the same as on the FIFRA label. Certain sections are superseded by federal law governed by EPA for a registered pesticide. Please see Section 15. Regulatory Information for explanation.

2. HAZARDS IDENTIFICATION

PHYSICAL HAZARDS:
Not Hazardous

HEALTH HAZARDS:
Not Hazardous

ENVIRONMENTAL HAZARDS

Hazardous to aquatic environment, acute	Category 2
Hazardous to aquatic environment, chronic	Category 2

SIGNAL WORD
None

HAZARD STATEMENTS:
Toxic to aquatic life with long lasting effects.



PRECAUTIONARY STATEMENTS
Avoid release to the environment.

Collect spillage.

Dispose of contents in accordance with local, state, and federal regulations.

3. COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENTS	CAS NO.	% BY WEIGHT
N-(phosphonomethyl)glycine, Isopropylamine salt	38641-94-0	52.2 – 55.4
Other Ingredients	Trade Secret	Trade Secret

Synonyms: Mixture containing Glyphosate IPA salt; N-(phosphonomethyl) glycine, in the form of its isopropylamine salt.

Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.

4. FIRST AID MEASURES

If in Eyes: Hold eye open and rinse slowly and gently with water Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Get medical attention if irritation develops and persists.
If on Skin or Clothing: Take off contaminated clothing. Wash with soap and water. Get medical attention if irritation develops and persists.
If **Inhaled:** Move person to fresh air. If symptoms develop, get medical advice.
If **Swallowed:** Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person. If symptoms develop, get medical advice.
Most Important symptoms/effects, acute and delayed: None expected. May cause mild eye irritation.
Indication of Immediate medical attention and special treatment if needed: None expected. For ingestion there is no specific antidote available. Treat symptomatically.

5. FIRE FIGHTING MEASURES

Extinguishing Media: Recommended for large fires: foam or water spray. Recommended for small fires: dry chemical or carbon dioxide.
Special Fire Fighting Procedures: Firefighters should wear NIOSH/approved self-contained breathing apparatus and full fire-fighting turn out gear. Dike area to prevent runoff and contamination of water sources. Dispose of fire control water later.
Unusual Fire and Explosion Hazards: If water is used to fight fire, contain runoff, using dikes to prevent contamination of water supplies. Dispose of fire control water later. This product reacts with galvanized steel or unlined steel (except stainless steel) to produce hydrogen gas that may form a highly combustible gas mixture which could flash or explode.
Hazardous Decomposition Materials (Under Fire Conditions): May produce gases such as oxides of carbon, nitrogen, and phosphorous.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Wear appropriate protective gear for the situation. See Personal Protection information in Section 8.
Environmental Precautions: Prevent material from entering public sewer systems or any waterways. Do not flush to drain. Large spills to soil or similar surfaces may necessitate removal of topsoil. The affected area should be removed and placed in an appropriate container for disposal.
Methods for Containment: Dike spill using absorbent or impervious materials such as earth, sand or clay. Collect and contain contaminated absorbent and dike material for disposal.
Methods for Cleanup and Disposal: Pump any free liquid into an appropriate closed container. Collect washings for disposal. Decontaminate tools and equipment following cleanup. See Section 13: DISPOSAL CONSIDERATIONS for more information.
Other Information: Large spills may be reportable to the National Response Center (800-424-8802) and to state and/or local agencies.

7. HANDLING AND STORAGE

Handling:
Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove Personal Protective Equipment (PPE) immediately after handling this product. Wash outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

DO NOT MIX, STORE OR APPLY THIS PRODUCT OR SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS. This product or spray solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source.
Storage:
STORE ABOVE 32° F (0° C) TO KEEP PRODUCT FROM CRYSTALLIZING. Crystals will settle to the bottom. If allowed to crystallize, warm to 68° F (20° C) and mix well or recirculate to redissolve before using. Do not contaminate water, foodstuffs, feed or seed by storage or disposal.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls:
Where engineering controls are indicated by specific use conditions or a potential for excessive exposure, use local exhaust ventilation at the point of generation.
Personal Protective Equipment:
Eye/Face Protection: To avoid contact with eyes, wear goggles or safety glasses with front, brow and temple protection. Washing facilities should be readily accessible to the work area.
Skin Protection: To avoid contact with skin, wear long pants, long-sleeved shirt, socks, shoes and chemical-resistant gloves. Washing facilities should be readily accessible to the work area.
Respiratory Protection: Not normally required. If vapors or mists exceed acceptable levels, wear NIOSH approved air-purifying respirator with cartridges/canisters approved for use against pesticides.
General Hygiene Considerations: Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this material: 1) do not store, use and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored; 2) wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics or using the toilet.

Exposure Guidelines:

	OSHA		ACGIH		
Component	TWA	STEL	TWA	STEL	Unit
Glyphosate IPA	NE	NE	NE	NE	
Other Ingredients	NE	NE	NE	NE	

NE = Not Established

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear green or yellow tinted liquid
Odor:	Odorless
Odor threshold:	No data available
pH:	4.82 (1% dilution w/w in DIW @ 24° C)
Melting point/freezing point:	No data available
Initial boiling point and boiling range	No data available
Flash point:	Not applicable due to aqueous formulation
Evaporation rate:	Not applicable
Flammability (solid, gas):	Not applicable
Upper/lower flammability or explosive limits:	Not applicable
Vapor pressure:	No data available (mixture)
Vapor density:	No data available
Relative density:	1.21 g/mL @ 20° C
Solubility(ies):	No data available
Partition coefficient: n-octanol/water:	No data available
Autoignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity:	67.9 cPs @ 20° C, 29.8 cPs @ 20° C
VOC Emission Potential (%):	0.00

Note: Physical data are typical values, but may vary from sample to sample. A typical value should not be construed as a guaranteed analysis or as a specification.

10. STABILITY AND REACTIVITY

Reactivity: Corrosive to mild steel, reaction with galvanized steel or unlined steel may produce hydrogen gas.
Chemical Stability: This material is stable under normal handling and storage conditions.
Possibility of Hazardous Reactions: Will not occur.
Conditions to Avoid: Excessive heat. Do not store near heat or flame.
Incompatible Materials: This product reacts with galvanized steel or unlined steel (except stainless steel) to produce hydrogen gas that may form a highly combustible gas mixture which could flash or explode.
Hazardous Decomposition Products: Under fire conditions, may produce gases such as oxides of carbon, nitrogen and phosphorous.

11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure: Eye contact, Skin contact
Symptoms of Exposure: Minimally irritating to the eye based on toxicity studies. Slightly toxic and non-irritating to the skin based on toxicity studies. Low inhalation toxicity. Inhalation of mists may cause coughing and sneezing. Slightly toxic if ingested based on toxicity studies. No significant adverse health effects are expected to develop if only small amounts (less than a mouthful) are swallow
Delayed, immediate and chronic effects of exposure: None known

Toxicological Data:
Data from laboratory studies on this product are summarized below:
Oral: Rat LD_{50}: >5,000 mg/kg
Dermal: Rat LD_{50}: >5,000 mg/kg
Inhalation: Rat 4-hr LC_{50}: >2.07 mg/l (no mortality at highest dose tested)
Eye Irritation: Rabbit: Minimally irritating
Skin Irritation: Rabbit: Non-irritating
Skin Sensitization: Not a contact sensitizer in guinea pigs following repeated skin exposure.

Subchronic (Target Organ) Effects: Repeated overexposure to glyphosate may decrease body weight gains and effects to liver.
Carcinogenicity / Chronic Health Effects: Prolonged overexposure to glyphosate may cause effects to the liver. EPA has given glyphosate a Group E classification (evidence of non-carcinogenicity in humans). Canada PMRA has classified glyphosate as non-carcinogenic. n 2015, IARC classified glyphosate as a probable human carcinogen Group 2A based on limited human evidence and some evidence in animals.
Reproductive Toxicity: In laboratory animal studies with glyphosate, effects on reproduction have been seen only at doses that produced significant toxicity to the parent animals.
Developmental Toxicity: In animal studies, glyphosate did not cause birth defects in animals; other effects were seen in the fetus only at doses which caused toxic effects to the mother.
Genotoxicity: Glyphosate has produced no genetic changes in a variety of standard tests using animals and animal or bacterial cells.

ASSESSMENT CARCINOGENICITY:

	Regulatory Agency Listing As Carcinogen			
Component	**ACGIH**	**IARC**	**NTP**	**OSHA**
Glyphosate IPA Salt	No	2A	No	No
Other Ingredients	No	No	No	No

12. ECOLOGICAL INFORMATION

Ecotoxicity:

Data on Glyphosate IPA
96-hour LC_{50} Rainbow Trout: >1000 mg/l
48-hour EC_{50} Daphnia: 930 mg/l
72-hour ErC_{50} Algae: 166 mg/l

Data on Glyphosate Acid:
96-hour LC_{50} Bluegill: 120 mg/l
96-hour LC_{50} Rainbow Trout: 786 mg/l
48-hour EC_{50} Daphnia: 780 mg/l
96-hour EC_{50} Diatoms: 1.3 mg/l
14-day EC_{50} Duckweed: 25.5 mg/l
72-hour EC_{50} Algae: 450 mg/l

Bobwhite Quail Acute Oral LD_{50}: >3,851 mg/kg
Bobwhite Quail 5-day Dietary LC_{50}: >4,640 ppm
Mallard Duck 5-day Dietary LC_{50}: >4,640 ppm

Environmental Fate:
In the environment glyphosate adsorbs strongly to soil and is expected to be immobile in soil. Glyphosate is readily degraded by soil microbes to AMPA (aminomethyl phosphonic acid) that is further degraded to carbon dioxide. Glyphosate and AMPA are unlikely to enter ground water due to their strong adsorptive characteristics. Terrestrially-applied glyphosate has the potential to move into surface waters through soil erosion because it may be adsorbed to soil particles suspended in the runoff. Aquatic applications registered for certain formulations may also result in glyphosate entering surface waters. Complete degradation is slow, but dissipation in water is rapid because glyphosate is bound in sediments and has low biological availability to aquatic organisms. These

characteristics suggest a low potential for bioconcentration in aquatic organisms and this has been verified by laboratory investigations of glyphosate bioconcentration in numerous marine and freshwater organisms with and without soil. The maximum whole body bioconcentration factors for fish were observed to be less than 1X. Bioconcentration factors for sediment dwelling mollusks and crayfish tended to be slightly higher, but were always less than 10X. In addition, any residues accumulated in organisms were rapidly eliminated.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method:
Wastes resulting from use of this product that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, state or local procedures. Emptied container retains vapors and product reside. Observe all labeled safeguards until container is cleaned, reconditioned or destroyed.

Container Handling and Disposal:
Nonrefillable Containers 5 Gallons or Less: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Plastic containers are also disposable by incineration, or, if allowed by State and local authorities, by burning. If burned stay out of smoke.
Nonrefillable containers larger than 5 gallons: Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. **Triple rinse as follows**: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. **Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.
Refillable containers larger than 5 gallons: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10% full with water and, if possible, spray all sides while adding water. If practical, agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

14. TRANSPORTATION INFORMATION

Follow the precautions indicated in Section 7: HANDLING AND STORAGE of this MSDS.

DOT:
Non Regulated

IMDG:
Non Regulated

IATA:
Non Regulated

15. REGULATORY INFORMATION

EPA FIFRA INFORMATION

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

Caution. Harmful if inhaled. Avoid breathing spray mist. Remove contaminated clothing and wash clothing before reuse. Wash thoroughly with soap and water after handling.

U.S. FEDERAL REGULATIONS

TSCA Inventory: This product is exempted from TSCA because it is solely for FIFRA regulated use.

SARA Hazard Notification/Reporting:
Hazard Categories Under Criteria of SARA Title III Rules (40 CFR Part 370):
Not Hazardous

Section 313 Toxic Chemical(s):
None

Reportable Quantity (RQ) under U.S. CERCLA:
None

RCRA Waste Code:
Under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste.

State Information:
Other state regulations may apply. Check individual state requirements.

California Proposition 65: Not Listed.

16. OTHER INFORMATION

National Fire Protection Association (NFPA) Hazard Rating:
Rating for this product: Health: 1 **Flammability:** 0 **Reactivity:** 0
Hazards Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

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Use, storage and disposal of pesticide products are regulated by the EPA under the authority of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) through the product labeling, and all necessary and appropriate precautionary, use, storage, and disposal information is set forth on that labeling. It is a violation of Federal law to use a pesticide product in any manner not prescribed on the EPA-accepted label.

Although the information and recommendations set forth herein (hereinafter "Information") are presented in good faith and believed to be correct as of the date hereof, Nufarm Americas Inc. makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for their purposes prior to use. In no event will Nufarm Americas Inc. be responsible for damages of any nature whatsoever resulting from the use of or reliance upon Information. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH INFORMATION REFERS AND ALL SUCH WARRANTIES ARE HEREBY SPECIFICALLY DISCLAIMED.

Date of Issue: May 15, 2015 **Supersedes:** April 8, 2015

LESCO®

HAWKEYE™

NONIONIC ORGANOSILICONE SURFACTANT With Masking Fragrance

ACTIVE INGREDIENTS: (BY WEIGHT)

A patented blend of polyalkyleneoxide modified polydimethylsiloxane and nonionic surfactants	99.00%
Constituents Ineffective as an Adjuvant	1.00%
TOTAL	100.00%

All ingredients are exempt from tolerance requirements under 40 CFR 180

CAUTION

KEEP OUT OF REACH OF CHILDREN

Causes eye irritation. Avoid contact with skin, eyes or clothing. Harmful if swallowed or absorbed through skin. Wash thoroughly with soap and water after handling.

Hazard statements: Harmful to aquatic life

Precautionary statements: Avoid release to the environment

#069404

Net Contents: 2 Qts. (64 oz.)

SN: 005-071510

0107580769404 1

JO 4-7-15

TM

LESCO is a registered trademark and Hawkeye and the sweeping design are trademarks of LESCO Technologies, LLC.

Manufactured for: **LESCO, Inc.** • 1385 East 36th Street • Cleveland, OH 44114-4114

PEEL BACK BOOK HERE AND RESEAL AFTER OPENING

612

5045SDS

LESCO®

Hawkeye

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture

Product name : Hawkeye

Product code : 80469

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.3. Details of the supplier of the safety data sheet

Lesco, Inc.
1385 East 36th St.
Cleveland, 44114-4114 T: 800-347-4272

1.4. Emergency telephone number

Emergency number : 1-800-424-9300
ChemTrec

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Aquatic Acute 3 H402

2.2. Label elements

GHS-US labelling

Hazard statements (GHS-US) : H402 - Harmful to aquatic life

Precautionary statements (GHS-US) : P273 - Avoid release to the environment
P501 - Dispose of contents/container to ...

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS-US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

Full text of H-phrases: see section 16

3.2. Mixture

Name	Product identifier	%	GHS-US classification
nonylphenoxypoly(ethyleneoxy)ethanol (9EO)	(CAS No)9016-45-9	5 - 30	Aquatic Acute 2, H401

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : Assure fresh air breathing. Allow the victim to rest.

First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.

First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries : Not expected to present a significant hazard under anticipated conditions of normal use.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store aways from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Keep container closed when not in use.

Incompatible products : Strong bases. Strong acids.

Incompatible materials : Sources of ignition. Direct sunlight.

Storage temperature : >= 25 (5 - 42) °C

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Personal protective equipment : Avoid all unnecessary exposure.

Hand protection : Wear protective gloves.

Eye protection : Chemical goggles or safety glasses.

Respiratory protection : Wear appropriate mask.

Other information : Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Colourless.
Odour	: Characteristic odour.
Odour threshold	: No data available
pH	: >= 7.5
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: <= 0 °C
Boiling point	: >= 100 °C
Flash point	: None
Self ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 1.043 g/ml
Solubility	: Soluble in water.
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

VOC content : <= 10 g/l

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Not established.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	: Not classified
Skin corrosion/irritation	: Not classified pH: >= 7.5

Serious eye damage/irritation	: Not classified pH: >= 7.5
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified
Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - water : Harmful to aquatic life.

nonylphenoxypoly(ethyleneoxy)ethanol (9EO) (9016-45-9)	
LC50 fishes 1	5 mg/l (96 h; Gasterosteus aculeatus; Intermittent flow)
EC50 other aquatic organisms 1	500 mg/l (Selenastrum capricornutum; Chronic)
LC50 fish 2	7 mg/l (96 h; Leuciscus idus)
Threshold limit algae 1	500 mg/l (Selenastrum capricornutum; Cell numbers)

12.2. Persistence and degradability

Hawkeye	
Persistence and degradability	Not established.

nonylphenoxypoly(ethyleneoxy)ethanol (9EO) (9016-45-9)	
Persistence and degradability	Not readily biodegradable in water.

12.3. Bioaccumulative potential

Hawkeye	
Bioaccumulative potential	Not established.

nonylphenoxypoly(ethyleneoxy)ethanol (9EO) (9016-45-9)	
Log Pow	> 4

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to ...

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with DOT

No dangerous good in sense of transport regulations

Additional information

Other information : No supplementary information available.

ADR

Transport document description :

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

nonylphenoxypoly(ethyleneoxy)ethanol (9EO) (9016-45-9)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Classification according to Directive 67/548/EEC or 1999/45/EC

Not classified

15.2.2. National regulations

No additional information available

15.3. US State regulations

No additional information available

SECTION 16: Other information

Other information : None.

Full text of H-phrases: see section 16:

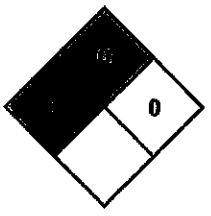
Aquatic Acute 2	Hazardous to the aquatic environment — AcuteHazard, Category 2
Aquatic Acute 3	Hazardous to the aquatic environment — AcuteHazard, Category 3
H401	Toxic to aquatic life
H402	Harmful to aquatic life

NFPA health hazard : 0 - Exposure under fire conditions would offer no hazard beyond that of ordinary combustible materials.

NFPA fire hazard : 0 - Materials that will not burn.

NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.

NFPA specific hazard : None



HMIS III Rating

Health : 0 Minimal Hazard - No significant risk to health

Flammability : 0 Minimal Hazard

Physical : 0 Minimal Hazard

Personal Protection : C

Hawkeye

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SDS US (GHS HazCom 2012)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product

Specimen Label

Dow AgroSciences™

Tordon® RTU

Specialty Herbicide

®Trademark of Dow AgroSciences LLC

For controlling unwanted trees via cut surface treatments in forests and non-cropland areas such as fencerows, roadsides, and rights-of-way.

Not for sale, distribution or use in Nassau and Suffolk Counties in New York State

Active Ingredient(s):

picloram: 4-amino-3,5,6-trichloropicolinic acid, triisopropanolamine salt	5.4%
2,4-dichlorophenoxyacetic acid, triisopropanolamine salt	20.9%
Other Ingredients	73.7%
Total	100.0%

Acid equivalents:
picloram - 3.0%
2,4-dichlorophenoxyacetic acid - 11.2%

Precautionary Statements

Hazards to Humans and Domestic Animals

EPA Reg. No. 62719-31

CAUTION

Causes moderate eye irritation • Harmful if Swallowed or Absorbed Through Skin

Avoid contact with skin, eyes or clothing.

Personal Protective Equipment (PPE)

Some materials that are chemical-resistant to this product are made of any waterproof material. If you want more options, follow the instructions for category A on an EPA chemical resistance category selections chart.

All loaders, applicators, and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes and socks
- Chemical-resistant gloves

See engineering controls for additional requirements

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

Engineering Controls Statements

When handlers use closed systems in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d) (4)], the handler PPE requirements may be reduced or modified as specified in the WPS.

User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

First Aid

If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment.
If swallowed: Call a poison control center or doctor immediately for treatment advice. Have a person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-800-992-5994 for emergency medical treatment information.

Note to Physician: Contains ethylene glycol.

Environmental Hazards

This pesticide is toxic to some plants at very low concentrations. This pesticide may be toxic to fish and aquatic invertebrates. Non-target plants may be adversely affected if pesticide is allowed to drift from areas of application. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment washwaters or rinsate.

Picloram is known to leach through soil into ground water under certain conditions as a result of agricultural use. 2,4-D has properties and characteristics associated with chemicals detected in groundwater. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination. Application around a cistern or well may result in contamination of drinking water or groundwater.

This chemical can contaminate surface water through spray drift. Under some conditions, picloram may also have a high potential for runoff into surface water (primarily via dissolution in runoff water). These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas over-laying extremely shallow ground water, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas over-laying tile drainage systems that drain to surface water.

Physical or Chemical Hazards

Combustible. Do not use or store near heat or open flame.

Directions for Use

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
Read all Directions for Use carefully before applying.

Use undiluted only as indicated below.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation.

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about Personal Protective Equipment (PPE), and restricted entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 48 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks
- Protective eyewear

Dow AgroSciences

SAFETY DATA SHEET

DOW AGROSCIENCES LLC

Product name: TORDON™ RTU Herbicide

Issue Date: 05/14/2015
Print Date: 06/03/2015

DOW AGROSCIENCES LLC encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

1. IDENTIFICATION

Product name: TORDON™ RTU Herbicide

Recommended use of the chemical and restrictions on use
Identified uses: End use herbicide product

COMPANY IDENTIFICATION
DOW AGROSCIENCES LLC
9330 ZIONSVILLE RD
INDIANAPOLIS IN 46268-1053
UNITED STATES

Customer Information Number: 800-992-5994
info@dow.com

EMERGENCY TELEPHONE NUMBER
24-Hour Emergency Contact: 800-992-5994
Local Emergency Contact: 352-323-3500

2. HAZARDS IDENTIFICATION

Hazard classification
This material is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.
Flammable liquids - Category 3
Serious eye damage - Category 1
Specific target organ toxicity - repeated exposure - Category 2 - Oral

Label elements
Hazard pictograms



Signal word: **DANGER!**

Hazards
Flammable liquid and vapour.
Causes serious eye damage.
May cause damage to organs (Kidney) through prolonged or repeated exposure if swallowed.

Precautionary statements

Prevention
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Keep container tightly closed.
Ground/bond container and receiving equipment.
Use explosion-proof electrical/ ventilating/ lighting/ equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
Wear protective gloves/ eye protection/ face protection.

Response
IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.
Get medical advice/ attention if you feel unwell.
In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

Storage
Store in a well-ventilated place. Keep cool.

Disposal
Dispose of contents/ container to an approved waste disposal plant.

Other hazards
no data available

3. COMPOSITION/INFORMATION ON INGREDIENTS

This product is a mixture.

Component	CASRN	Concentration
2,4-Dichlorophenoxyacetic acid, triisopropanolamine salt	18584-79-7	20.9%
Picloram triisopropanolamine salt	6753-47-5	5.4%
isopropanol	67-63-0	7.8%
Ethylene glycol	107-21-1	>= 7.7 - <= 15.4 %

Triisopropanolamine	122-20-3	3.4%
Ethylenediamine tetraacetic acid	60-00-4	0.3%
Balance	Not available	>= 46.8 - <= 54.5 %

4. FIRST AID MEASURES

Description of first aid measures
Inhalation: Move person to fresh air. If person is not breathing, call an emergency responder or ambulance, then give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask etc). Call a poison control center or doctor for treatment advice. If breathing is difficult, oxygen should be administered by qualified personnel.

Skin contact: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

Eye contact: Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. Call a poison control center or doctor for treatment advice.

Ingestion: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Never give anything by mouth to an unconscious person. If person is fully conscious give 1 cup or 8 ounces (240 ml) of water. If medical advice is delayed and if an adult has swallowed several ounces of chemical, then give 3-4 ounces (1/3-1/2 Cup) (90-120 ml) of hard liquor such as 80 proof whiskey. For children, give proportionally less liquor at a dose of 0.3 ounce (1 ½ tsp.) (8 ml) liquor for each 10 pounds of body weight, or 2 ml per kg body weight [e.g., 1.2 ounce (2 1/3 tbsp.) for a 40 pound child or 36 ml for an 18 kg child].

Most important symptoms and effects, both acute and delayed: Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

Indication of any immediate medical attention and special treatment needed
Notes to physician: If several ounces (60 - 100 ml) of ethylene glycol have been ingested, early administration of ethanol may counter the toxic effects (metabolic acidosis, renal damage). Consider hemodialysis or peritoneal dialysis & thiamine 100 mg plus pyridoxine 50 mg intravenously every 6 hours. If ethanol is used, a therapeutically effective blood concentration in the range of 100 - 150 mg/dl may be achieved by a rapid loading dose followed by a continuous intravenous infusion. Consult standard literature for details of treatment. 4-Methyl pyrazole (Antizol®) is an effective blocker of alcohol dehydrogenase and should be used in the treatment of ethylene glycol (EG), di- or triethylene glycol (DEG, TEG), ethylene glycol butyl ether (EGBE), or methanol intoxication if available. Fomepizole protocol (Brent, J. et al., New England Journal of Medicine, Feb. 8, 2001, 344:6, p. 424-9): loading dose 15 mg/kg intravenously, follow by bolus dose of 10 mg/kg every 12 hours; after 48 hours, increase bolus dose to 15 mg/kg every 12 hours. Respiratory symptoms, including pulmonary edema, may be delayed. Persons receiving significant exposure should be observed 24-48 hours for signs of respiratory distress. In severe poisoning, respiratory support with mechanical ventilation and positive end expiratory pressure may be required. Maintain adequate ventilation and oxygenation of the patient. If lavage is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering

emptying the stomach. Continue fomepizole until serum methanol, EG, DEG, TEG or EGBE are undetectable. The signs and symptoms of poisoning include anion gap metabolic acidosis, CNS depression, renal tubular injury, and possible late stage cranial nerve involvement. Hemodialysis may be of benefit if substantial amounts have been ingested and the patient is showing signs of intoxication. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

5. FIREFIGHTING MEASURES

Suitable extinguishing media: Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective.

Unsuitable extinguishing media: no data available

Special hazards arising from the substance or mixture
Hazardous combustion products: During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Carbon monoxide. Carbon dioxide. Combustion products may include trace amounts of: Nitrogen oxides. Hydrogen chloride.

Unusual Fire and Explosion Hazards: Electrically ground and bond all equipment. Flammable mixtures of this product are readily ignited even by static discharge. Vapors are heavier than air and may travel a long distance and accumulate in low lying areas. Ignition and/or flash back may occur. If exposed to fire from another source and water is evaporated, exposure to high temperatures may cause toxic fumes.

Advice for firefighters
Fire Fighting Procedures: Keep people away. Isolate fire and deny unnecessary entry. Stay upwind. Keep out of low areas where gases (fumes) can accumulate. Consider feasibility of a controlled burn to minimize environment damage. Foam fire extinguishing system is preferred because uncontrolled water can spread possible contamination. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of reignition has passed. Burning liquids may be extinguished by dilution with water. Eliminate ignition sources. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage. Contain fire water run-off if possible. Fire water run-off, if not contained, may cause environmental damage. Review the "Accidental Release Measures" and the "Ecological Information" sections of this (M)SDS.

Special protective equipment for firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). Avoid contact with this material during fire fighting operations. If contact is likely, change to full chemical resistant fire fighting clothing with self-contained breathing apparatus. If this is not available, wear full chemical resistant clothing with self-contained breathing apparatus and fight fire from a remote location. For protective equipment in post-fire or non-fire clean-up situations, refer to the relevant sections.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Isolate area. Keep unnecessary and unprotected personnel from entering the area. Refer to section 7, Handling, for additional precautionary measures. Keep personnel out of low areas. No smoking in area. Vapor

explosion hazard. Keep out of sewers. Eliminate all sources of ignition in vicinity of spill or released vapor to avoid fire or explosion. Ground and bond all containers and handling equipment. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

Environmental precautions: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

Methods and materials for containment and cleaning up: Contain spilled material if possible. Pump with explosion-proof equipment. If available, use foam to smother or supress. Small spills: Absorb with materials such as: Clay. Dirt. Sand. Sweep up. Collect in suitable and properly labeled containers. Large spills: Contact Dow AgroSciences for clean-up assistance. See Section 13, Disposal Considerations, for additional information.

7. HANDLING AND STORAGE

Precautions for safe handling: Keep away from heat, sparks and flame. No smoking, open flames or sources of ignition in handling and storage area. Electrically ground and bond all equipment. Use of non-sparking or explosion-proof equipment may be necessary, depending upon the type of operation. Containers, even those that have been emptied, can contain vapors. Do not cut, drill, grind, weld, or perform similar operations on or near empty containers. Vapors are heavier than air and may travel a long distance and accumulate in low lying areas. Ignition and/or flash back may occur. Keep out of reach of children. Do not swallow. Avoid breathing vapor or mist. Avoid contact with eyes, skin, and clothing. Use with adequate ventilation. Wash thoroughly after handling.

Conditions for safe storage: Minimize sources of ignition, such as static build-up, heat, spark or flame. Store in a dry place. Store in original container. Keep container tightly closed when not in use. Do not store near food, foodstuffs, drugs or potable water supplies.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure limits are listed below, if they exist.

Component	Regulation	Type of listing	Value/Notation
isopropanol	ACGIH	TWA	200 ppm
	ACGIH	STEL	400 ppm
	OSHA Z-1	TWA	980 mg/m3 400 ppm
Ethylene glycol	Dow IHG	TWA	50 mg/m3
	Dow IHG	STEL	100 mg/m3
	ACGIH	C Aerosol only	100 mg/m3
Triisopropanolamine	Dow IHG	TWA	10 mg/m3

RECOMMENDATIONS IN THIS SECTION ARE FOR MANUFACTURING, COMMERCIAL BLENDING AND PACKAGING WORKERS. APPLICATORS AND HANDLERS SHOULD SEE THE PRODUCT LABEL FOR PROPER PERSONAL PROTECTIVE EQUIPMENT AND CLOTHING.

Exposure controls

Engineering controls: Use engineering controls to maintain airborne level below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use only with adequate ventilation. Local exhaust ventilation may be necessary for some operations.

Individual protection measures

Eye/face protection: Use chemical goggles.

Skin protection

Hand protection: Use gloves chemically resistant to this material when prolonged or frequently repeated contact could occur. Examples of preferred glove barrier materials include: Butyl rubber. Natural rubber ("latex"). Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyethylene. Ethyl vinyl alcohol laminate ("EVAL"). Polyvinyl chloride ("PVC" or "vinyl"). NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

Other protection: When prolonged or frequently repeated contact could occur, use protective clothing chemically resistant to this material. Selection of specific items such as faceshield, boots, apron, or full-body suit will depend on the task. Remove contaminated clothing immediately, wash skin area with soap and water, and launder clothing before reuse or dispose of properly.

Respiratory protection: Atmospheric levels should be maintained below the exposure guideline. When respiratory protection is required, use an approved air-purifying or positive-pressure supplied-air respirator depending on the potential airborne concentration. For emergency and other conditions where the exposure guideline may be exceeded, use an approved positive-pressure self-contained breathing apparatus or positive-pressure air line with auxiliary self-contained air supply. In confined or poorly ventilated areas, use an approved self-contained breathing apparatus or positive pressure air line with auxiliary self-contained air supply.

The following should be effective types of air-purifying respirators: Organic vapor cartridge with a particulate pre-filter.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	
Physical state	Liquid.
Color	Green to blue
Odor	Alcohols
Odor Threshold	No test data available
pH	6.9 *pH Electrode*
Melting point/range	Not applicable
Freezing point	No test data available
Boiling point (760 mmHg)	>= 82 °C (>= 180 °F)
Flash point	**closed cup** 41 °C (106 °F) *Closed Cup*
Evaporation Rate (Butyl Acetate = 1)	No test data available
Flammability (solid, gas)	Not Applicable
Lower explosion limit	No test data available
Upper explosion limit	No test data available
Vapor Pressure	32 mmHg at 20 °C (68 °F) Approx.
Relative Vapor Density (air = 1)	2 (alcohol)
Relative Density (water = 1)	1.092 at 68 °F (68 °F) / 68 °F

Water solubility	miscible
Partition coefficient: n-octanol/water	no data available
Auto-ignition temperature	No test data available
Decomposition temperature	No test data available
Kinematic Viscosity	no data available
Explosive properties	no data available
Oxidizing properties	no data available
Liquid Density	1.0902 g/cm3 at 20 °C (68 °F) *Digital density meter*
Molecular weight	no data available

NOTE: The physical data presented above are typical values and should not be construed as a specification.

10. STABILITY AND REACTIVITY

Reactivity: no data available

Chemical stability: Thermally stable at typical use temperatures.

Possibility of hazardous reactions: Polymerization will not occur.

Conditions to avoid: Some components of this product can decompose at elevated temperatures. Generation of gas during decomposition can cause pressure in closed systems. Avoid static discharge. Avoid direct sunlight.

Incompatible materials: Avoid contact with: Strong acids. Strong bases. Strong oxidizers. Heat produced by the reaction with water will cause vaporization.

Hazardous decomposition products: Decomposition products depend upon temperature, air supply and the presence of other materials. Decomposition products can include and are not limited to: Carbon monoxide. Carbon dioxide. Hydrogen chloride. Nitrogen oxides. Toxic gases are released during decomposition.

11. TOXICOLOGICAL INFORMATION

Toxicological information appears in this section when such data is available.

Acute toxicity

Acute oral toxicity

Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts. Oral toxicity is expected to be moderate in humans due to ethylene glycol even though tests with animals show a lower degree of toxicity.

LD50, Rat, male and female, > 5,000 mg/kg

Acute dermal toxicity

Prolonged skin contact is unlikely to result in absorption of harmful amounts. Repeated skin exposure to large quantities may result in absorption of harmful amounts.

LD50, Rabbit, male and female, > 3,980 mg/kg
LD50, Rabbit, male and female, > 2,000 mg/kg

Acute inhalation toxicity
Prolonged excessive exposure to mist may cause adverse effects. Excessive exposure (400 ppm) to isopropanol may cause eye, nose and throat irritation. Incoordination, confusion, hypotension, hypothermia, circulatory collapse, respiratory arrest and death may follow a longer duration or higher levels. Observations in animals include middle ear lining damage upon exposure to vapors of isopropanol. However, the relevance of this to humans is unknown

Maximum attainable concentration.
LC50, Rat, male and female, 4 Hour, dust/mist, > 1.85 mg/l

Skin corrosion/irritation
Brief contact is essentially nonirritating to skin.
Prolonged contact may cause slight skin irritation with local redness.
Repeated contact may cause slight skin irritation with local redness.

Serious eye damage/eye irritation
May cause severe eye irritation.
May cause slight corneal injury.

Sensitization
Did not cause allergic skin reactions when tested in guinea pigs.

For respiratory sensitization:
No relevant data found.

Specific Target Organ Systemic Toxicity (Single Exposure)
Product test data not available.

Specific Target Organ Systemic Toxicity (Repeated Exposure)
For the active ingredient(s):
In animals, effects have been reported on the following organs:
Kidney.
Liver.
Eye.
Thyroid.
Observations in animals include:
Nausea and/or vomiting.

For Ethylene glycol:
Repeated excessive exposure may cause irritation of the upper respiratory tract.
In humans, effects have been reported on the following organs:
Central nervous system.
Observations in humans include:
Nystagmus (involuntary eye movement).
In animals, effects have been reported on the following organs:
Kidney.

Liver.
For the major component(s):
Isopropanol exposure may increase the toxicity of subsequent exposures to hepatotoxic chlorinated aliphatic hydrocarbons such as carbon tetrachloride.
Liver.
Observations in animals include:
Lethargy.
Kidney effects and/or tumors have been observed in male rats. These effects are believed to be species specific and unlikely to occur in humans.

Carcinogenicity
For similar active ingredient(s). Picloram acid. For the component(s) tested: Did not cause cancer in laboratory animals.

For similar active ingredient(s). Various animal cancer tests have shown no reliably positive association between 2,4-D exposure and cancer. Epidemiology studies on herbicide use have been both positive and negative with the majority being negative.

Teratogenicity
For the active ingredient(s): 2,4-Dichlorophenoxyacetic acid, Triisopropanolamine salt Has caused birth defects in lab animals only at doses producing severe toxicity in the mother. Did not cause birth defects or other effects in the fetus even at doses which caused toxic effects in the mother.

For the major component(s): Based on animal studies, ingestion of very large amounts of ethylene glycol appears to be the major and possibly only route of exposure to produce birth defects. Exposures by inhalation or skin contact, the primary routes of occupational exposure, had minimal effect on the fetus, in animal studies. Isopropanol has been toxic to the fetus in laboratory animals at doses toxic to the mother. For the minor component(s) EDTA and its sodium salts have been reported to cause birth defects in laboratory animals only at exaggerated doses that were toxic to the mother. These effects are likely associated with zinc deficiency due to chelation.

Reproductive toxicity
For similar active ingredient(s). 2,4-Dichlorophenoxyacetic acid. In laboratory animals, excessive doses toxic to the parent animals caused decreased weight and survival of offspring. Picloram. For the major component(s): Isopropyl alcohol. In animal studies, did not interfere with reproduction.

For the major component(s): Ingestion of large amounts of ethylene glycol has been shown to interfere with reproduction in animals.

Mutagenicity
For the active ingredient(s): For the component(s) tested: In vitro genetic toxicity studies were negative. For the majority of components: Animal genetic toxicity studies were negative. For the minor component(s): Most data indicate that EDTA and its salts are not mutagenic. Minimal effects reported are likely due to trace metal deficiencies resulting from chelating by EDTA.

Aspiration Hazard
Product test data not available.

COMPONENTS INFLUENCING TOXICOLOGY:

2,4-Dichlorophenoxyacetic acid, triisopropanolamine salt

Aspiration Hazard
Based on available information, aspiration hazard could not be determined.

Picloram triisopropanolamine salt

Aspiration Hazard
Based on physical properties, not likely to be an aspiration hazard.

isopropanol

Specific Target Organ Systemic Toxicity (Single Exposure)
May cause drowsiness or dizziness.
Route of Exposure: Ingestion
Target Organs: Central nervous system

Aspiration Hazard
May be harmful if swallowed and enters airways.

Ethylene glycol

Specific Target Organ Systemic Toxicity (Single Exposure)
Evaluation of available data suggests that this material is not an STOT-SE toxicant.

Aspiration Hazard
Based on physical properties, not likely to be an aspiration hazard.

Triisopropanolamine

Specific Target Organ Systemic Toxicity (Single Exposure)
Evaluation of available data suggests that this material is not an STOT-SE toxicant.

Aspiration Hazard
Based on physical properties, not likely to be an aspiration hazard.

Ethylenediamine tetraacetic acid

Specific Target Organ Systemic Toxicity (Single Exposure)
Evaluation of available data suggests that this material is not an STOT-SE toxicant.

Aspiration Hazard
Based on physical properties, not likely to be an aspiration hazard.

12. ECOLOGICAL INFORMATION

Ecotoxicological information appears in this section when such data is available.

Toxicity

2,4-Dichlorophenoxyacetic acid, triisopropanolamine salt

Acute toxicity to fish
Material is moderately toxic to aquatic organisms on an acute basis (LC50/EC50 between 1 and 10 mg/L in the most sensitive species tested).
LC50, Oncorhynchus mykiss (rainbow trout), static test, 96 Hour, 317 mg/l, OECD Test Guideline 203 or Equivalent

Acute toxicity to aquatic invertebrates
LC50, Daphnia magna (Water flea), static test, 48 Hour, 748 mg/l

Acute toxicity to algae/aquatic plants
ErC50, Pseudokirchneriella subcapitata (green algae), 5 d, 103 mg/l

EC50, Lemna minor (duckweed), 14 d, 2.37 mg/l

Toxicity to Above Ground Organisms
Material is moderately toxic to birds on an acute basis (LD50 between 51 and 500 mg/kg).
Material is practically non-toxic to birds on a dietary basis (LC50 > 5000 ppm).
oral LD50, Colinus virginianus (Bobwhite quail), 405 mg/kg
dietary LC50, Colinus virginianus (Bobwhite quail), > 5,620 ppm

Picloram triisopropanolamine salt

Acute toxicity to fish
Material is slightly toxic to aquatic organisms on an acute basis (LC50/EC50 between 10 and 100 mg/L in the most sensitive species tested).
LC50, Oncorhynchus mykiss (rainbow trout), static test, 96 Hour, 51 mg/l

Acute toxicity to aquatic invertebrates
LC50, Daphnia magna (Water flea), static test, 48 Hour, 125 mg/l

Chronic toxicity to fish
NOEC, Pimephales promelas (fathead minnow), 28 d, 7.19 mg/l

isopropanol

Acute toxicity to fish
Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested).
LC50, Pimephales promelas (fathead minnow), flow-through test, 96 Hour, 9,640 mg/l, OECD Test Guideline 203 or Equivalent

Acute toxicity to aquatic invertebrates
LC50, Daphnia magna (Water flea), static test, 24 Hour, > 1,000 mg/l, OECD Test Guideline 202 or Equivalent

Acute toxicity to algae/aquatic plants
NOEC, alga Scenedesmus sp., static test, 7 d, Growth inhibition (cell density reduction), 1,800 mg/l
ErC50, alga Scenedesmus sp., static test, 72 Hour, Growth rate inhibition, > 1,000 mg/l

Toxicity to bacteria
EC50, activated sludge, > 1,000 mg/l

Chronic toxicity to aquatic invertebrates
NOEC, Daphnia magna (Water flea), semi-static test, 21 d, 30 mg/l

Ethylene glycol

Acute toxicity to fish
Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested).
LC50, Pimephales promelas (fathead minnow), static test, 96 Hour, 72,860 mg/l, Other guidelines

Acute toxicity to aquatic invertebrates
EC50, Daphnia magna (Water flea), static test, 48 Hour, > 100 mg/l, OECD Test Guideline 202 or Equivalent

Acute toxicity to algae/aquatic plants

ErC50, Pseudokirchneriella subcapitata (green algae), 96 Hour, Growth rate inhibition, 6,500 - 13,000 mg/l, Other guidelines

Toxicity to bacteria
EC50, activated sludge, 30 min, 225 mg/l, OECD 209 Test

Triisopropanolamine

Acute toxicity to fish
Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested).
LC50, Leuciscus idus (Golden orfe), static test, 96 Hour, 3,158.4 mg/l, DIN 38412

Acute toxicity to aquatic invertebrates
EC50, Daphnia magna (Water flea), static test, 48 Hour, > 500 mg/l, OECD Test Guideline 202 or Equivalent

Acute toxicity to algae/aquatic plants
EC50, alga Scenedesmus sp., static test, 72 Hour, Growth rate inhibition, 710 mg/l, EU Method C.3 (Algal Inhibition test)

Toxicity to bacteria
EC10, activated sludge, 30 min, > 1,195 mg/l

Ethylenediamine tetraacetic acid

Acute toxicity to fish
Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested).
LC50, Fish., 96 Hour, 1,000 mg/l, OECD Test Guideline 203 or Equivalent

Acute toxicity to aquatic invertebrates
EC50, Daphnia magna (Water flea), static test, 48 Hour, 113 mg/l, OECD Test Guideline 202 or Equivalent

Balance

Acute toxicity to fish
No relevant data found.

Persistence and degradability

2,4-Dichlorophenoxyacetic acid, triisopropanolamine salt

Biodegradability: For similar active ingredient(s). 2,4-Dichlorophenoxyacetic acid. Material is readily biodegradable. Passes OECD test(s) for ready biodegradability.

Picloram triisopropanolamine salt

Biodegradability: For similar active ingredient(s). Picloram. Based on stringent OECD test guidelines, this material cannot be considered as readily biodegradable; however, these results do not necessarily mean that the material is not biodegradable under environmental conditions. Biodegradation may occur under aerobic conditions (in the presence of oxygen). Surface photodegradation is expected with exposure to sunlight.

isopropanol

Biodegradability: Material is readily biodegradable. Passes OECD test(s) for ready biodegradability.
10-day Window: Pass

Biodegradation: 95 %
Exposure time: 21 d
Method: OECD Test Guideline 301E or Equivalent
10-day Window: Pass
Biodegradation: 53 %
Exposure time: 5 d
Method: Other guidelines

Theoretical Oxygen Demand: 2.40 mg/mg Estimated.

Chemical Oxygen Demand: 2.09 mg/mg Estimated.

Biological oxygen demand (BOD)

Incubation Time	BOD
5 d	20 - 72 %
20 d	78 - 86 %

Photodegradation
Test Type: Half-life (indirect photolysis)
Sensitizer: OH radicals
Atmospheric half-life: 1.472 d
Method: Estimated.

Ethylene glycol

Biodegradability: Material is readily biodegradable. Passes OECD test(s) for ready biodegradability. Material is ultimately biodegradable (reaches > 70% mineralization in OECD test(s) for inherent biodegradability).
10-day Window: Pass
Biodegradation: 90 - 100 %
Exposure time: 10 d
Method: OECD Test Guideline 301A or Equivalent
10-day Window: Not applicable
Biodegradation: 90 %
Exposure time: 1 d
Method: OECD Test Guideline 302B or Equivalent

Theoretical Oxygen Demand: 1.29 mg/mg

Triisopropanolamine

Biodegradability: Biodegradation under aerobic static laboratory conditions is high (BOD20 or BOD28/ThOD > 40%). Biodegradation rate may increase in soil and/or water with acclimation. Material is not readily biodegradable according to OECD/EEC guidelines.
10-day Window: Fail
Biodegradation: 0 %
Exposure time: 28 d
Method: OECD Test Guideline 301F or Equivalent

Theoretical Oxygen Demand: 2.35 mg/mg

Photodegradation
Test Type: Half-life (indirect photolysis)
Sensitizer: OH radicals

Atmospheric half-life: 3 Hour
Method: Estimated.

Ethylenediamine tetraacetic acid

Biodegradability: Material is inherently biodegradable (reaches > 20% biodegradation in OECD test(s) for inherent biodegradability).
10-day Window: Not applicable
Biodegradation: 37 %
Exposure time: 14 d
Method: OECD Test Guideline 302B or Equivalent
10-day Window: Fail
Biodegradation: 0 %
Exposure time: 30 d
Method: OECD Test Guideline 301D or Equivalent

Theoretical Oxygen Demand: 1.37 mg/mg

Photodegradation
Test Type: Half-life (indirect photolysis)
Sensitizer: OH radicals
Atmospheric half-life: 2.12 Hour
Method: Estimated.

Balance

Biodegradability: No relevant data found.

Bioaccumulative potential

2,4-Dichlorophenoxyacetic acid, triisopropanolamine salt

Bioaccumulation: No bioconcentration is expected because of the relatively high water solubility. For similar active ingredient(s). 2,4-Dichlorophenoxyacetic acid. Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

Picloram triisopropanolamine salt

Bioaccumulation: No data available for this product. For similar active ingredient(s). Picloram. Bioconcentration potential is moderate (BCF between 100 and 3000 or Log Pow between 3 and 5).

isopropanol

Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).
Partition coefficient: n-octanol/water(log Pow): 0.05 Measured

Ethylene glycol

Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).
Partition coefficient: n-octanol/water(log Pow): -1.36 Measured

Triisopropanolamine

Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).
Partition coefficient: n-octanol/water(log Pow): -0.015 at 23 °C Measured
Bioconcentration factor (BCF): < 0.57 Fish. 42 d Measured

Ethylenediamine tetraacetic acid

Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).
Partition coefficient: n-octanol/water(log Pow): -3.86 at 25 °C Estimated.
Bioconcentration factor (BCF): 1.1 Fish. 28 d Measured

Balance

Bioaccumulation: No relevant data found.

Mobility in soil

2,4-Dichlorophenoxyacetic acid, triisopropanolamine salt

For similar active ingredient(s).
2,4-Dichlorophenoxyacetic acid.
Potential for mobility in soil is very high (Koc between 0 and 50).

Picloram triisopropanolamine salt

For similar active ingredient(s).
Picloram.
Potential for mobility in soil is very high (Koc between 0 and 50).

isopropanol

Potential for mobility in soil is very high (Koc between 0 and 50).
Partition coefficient(Koc): 1.1 Estimated.

Ethylene glycol

Given its very low Henry's constant, volatilization from natural bodies of water or moist soil is not expected to be an important fate process.
Potential for mobility in soil is very high (Koc between 0 and 50).
Partition coefficient(Koc): 1 Estimated.

Triisopropanolamine

Potential for mobility in soil is very high (Koc between 0 and 50).
Partition coefficient(Koc): 10 Estimated.

Ethylenediamine tetraacetic acid

Potential for mobility in soil is high (Koc between 50 and 150).
Partition coefficient(Koc): 98

Balance

No relevant data found.

13. DISPOSAL CONSIDERATIONS

Disposal methods: If wastes and/or containers cannot be disposed of according to the product label directions, disposal of this material must be in accordance with your local or area regulatory authorities. This information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. If the material as supplied becomes a waste, follow all applicable regional, national and local laws.

14. TRANSPORT INFORMATION

DOT

Proper shipping name	Flammable liquids, n.o.s.(Isopropanol)
UN number	UN 1993
Class	3
Packing group	III

Classification for SEA transport (IMO-IMDG):

Proper shipping name	FLAMMABLE LIQUID, N.O.S.(Isopropanol)
UN number	UN 1993
Class	3
Packing group	III
Marine pollutant	No
Transport in bulk according to Annex I or II of MARPOL 73/78 and the IBC or IGC Code	Consult IMO regulations before transporting ocean bulk

Classification for AIR transport (IATA/ICAO):

Proper shipping name	Flammable liquid, n.o.s.(Isopropanol)
UN number	UN 1993
Class	3
Packing group	III

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

15. REGULATORY INFORMATION

OSHA Hazard Communication Standard
This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312
Fire Hazard
Acute Health Hazard
Chronic Health Hazard

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Section 313

Components	**CASRN**

Picloram	1918-02-1
Ethylene glycol	107-21-1
isopropanol	67-63-0

Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) Section 103
This product contains the following substances which are subject to CERCLA Section 103 reporting requirements and which are listed in 40 CFR 302.4.

Components	**CASRN**	**RQ**
Ethylene glycol	107-21-1	5000 lbs RQ
Ethylenediamine tetraacetic acid	60-00-4	5000 lbs RQ

California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986)
This product contains no listed substances known to the State of California to cause cancer, birth defects or other reproductive harm, at levels which would require a warning under the statute.

Pennsylvania (Worker and Community Right-To-KnowAct): Pennsylvania Hazardous Substances List and/or Pennsylvania Environmental Hazardous Substance List:
The following product components are cited in the Pennsylvania Hazardous Substance List and/or the Pennsylvania Environmental Substance List, and are present at levels which require reporting.

Components	**CASRN**
2,4-Dichlorophenoxyacetic acid, triisopropanolamine salt	18584-79-7
isopropanol	67-63-0
Ethylene glycol	107-21-1
Triisopropanolamine	122-20-3

Pennsylvania (Worker and Community Right-To-KnowAct): Pennsylvania Special Hazardous Substances List:
To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

United States TSCA Inventory (TSCA)
This product contains chemical substance(s) exempt from U.S. EPA TSCA Inventory requirements. It is regulated as a pesticide subject to Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) requirements.

Federal Insecticide, Fungicide and Rodenticide Act
EPA Registration Number: 62719-031
This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

CAUTION

Causes moderate eye irritation
Harmful if swallowed or absorbed through skin

16. OTHER INFORMATION

Hazard Rating System
NFPA

Health	Fire	Reactivity
2	2	1

Revision
Identification Number: 101201565 / A211 / Issue Date: 05/14/2015 / Version: 2.0
DAS Code: XRM-4086
Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

Legend

ACGIH	USA. ACGIH Threshold Limit Values (TLV)
C	Ceiling limit
Dow IHG	Dow Industrial Hygiene Guideline
OSHA Z-1	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
STEL	Short term exposure limit
TWA	Time weighted average

Information Source and References
This SDS is prepared by Product Regulatory Services and Hazard Communications Groups from information supplied by internal references within our company.

DOW AGROSCIENCES LLC urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.

LESCO®

Spreader-Sticker

Non-Ionic Surface Active Agent

Lesco Spreader-Sticker is a biodegradable spray adjuvant for foliar applied pesticides, and also for dust control.

Non-Plant Food Ingredients:

Alkylarylpolyoxyethylene glycols	77.4%
Alkyl fatty acids	12.0%
Inert ingredients	10.6%

For Turf, Landscape, and Ornamental Use

CAUTION
KEEP OUT OF REACH OF CHILDREN

May be harmful if swallowed. Avoid contact with eyes. May cause eye irritation. In case of contact with eyes, immediately flush with plenty of water for at least 15 minutes. Get medical attention.

SEE BACK LABEL FOR USE DIRECTIONS

Hazard statements:
Toxic to aquatic life
Precautionary statements:
Avoid release to the environment
Dispose of contents in accordance with state and local regulations

10758073192555

#019255

Net Contents: 2.5 gallons (9.45 L)

™

MADE IN THE U.S.A.

LESCO, Inc. • 1385 East 36th Street • Cleveland, OH 44114-4114

JO 2-24-15

LESCO® Spreader-Sticker

Nonionic Surface Active Agent

PRODUCT INFORMATION

LESCO Spreader-Sticker is a high-flash, nonionic general purpose spray adjuvant for use with foliar applied pesticides in turf, landscape and ornamental settings where optimal leaf contact is desired.

Spreader-Sticker works to optimize the performance of pesticides at product label rates by providing more uniform coverage without excessive run-off of the spray while enhancing foliar contact activity.

PRINCIPAL FUNCTIONING AGENTS

Active Ingredients
- Alkylarylpolyoxyethylene glycols: 77.4%
- Alkyl fatty acids: 12.0%

Inert Ingredients
- Aromatic petroleum derivative solvent: 10.6%

DIRECTIONS FOR USE

Shake well before using.

APPLICATION RATES

Herbicides: Unless otherwise directed by the manufacturer of the herbicide, use 1-3 pints of Spreader-Sticker per 100 gallons of spray for post emergence use of products such as Image®, Basagran®, phenoxy herbicides (i.e. LESCO Three Way), Methanearsonates (i.e. LESCO MSMA 6.6), Poast®, Fusilade®, etc.

Insecticides, fungicides, acaricides: LESCO Spreader-Sticker may also be used to enhance the wetting characteristics of the above pesticides at a rate of 2-8 ounces per 100 gallons of spray mix. The rate will vary depending on plant size and type of foliage to be covered.

Dust control: Use Spreader-Sticker for temporary control of nuisance dust on unimproved roads and in construction zones. Add 2 quarts for every 100 gallons of water volume.

PACKAGING

1 gallon #005182
2.5 gallon #019255
55 gallon drum #007509
1 gallon #091297 (CA only)

LESCO® Is a registered trademark of LESCO Technologies, LLC. Image®, Basagran® and Poast® are registered trademarks of BASF Corporation. Fusilade® is a registered trademark of a Syngenta Group Company. rev. 2.11

www.lesco.com • 1385 East 36th Street, Cleveland, Ohio 44114-4114 • 800-321-5325
LESCO, a John Deere Landscapes brand.

LESCO® Spreader-Sticker
Nonionic Surface Active Agent

1 gal. #005182
2.5 gal. #019255
55 gal. drum #007509
1 gal. #091297 (CA only)

LESCO®

Lesco Spreader Sticker

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture

Product name : Lesco Spreader Sticker

Product code : 80310

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.3. Details of the supplier of the safety data sheet

Lesco, Inc.
1385 East 36th St.
Cleveland, 44114-4114

1.4. Emergency telephone number

Emergency number : 1-800-424-9300
ChemTrec

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Flam. Liq. Not classified
Carc. Not classified
Aquatic Acute 2 H401

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :



GHS07

Signal word (GHS-US) : Warning

Hazard statements (GHS-US) : H401 - Toxic to aquatic life

Precautionary statements (GHS-US) : P273 - Avoid release to the environment
P501 - Dispose of contents/container to ...

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS-US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

Full text of H-phrases: see section 16

3.2. Mixture

Lesco Spreader Sticker

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SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : Assure fresh air breathing. Allow the victim to rest.

First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.

First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries : Not expected to present a significant hazard under anticipated conditions of normal use.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store aways from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Keep container closed when not in use.

Incompatible products : Strong bases. Strong acids.

Incompatible materials : Sources of ignition. Direct sunlight.

Storage temperature : >= 25 (5 - 42) °C >=77 F (40-107 F) DO NOT FREEZE

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7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Personal protective equipment	: Avoid all unnecessary exposure.
Hand protection	: Wear protective gloves.
Eye protection	: Chemical goggles or safety glasses.
Respiratory protection	: Wear appropriate mask.
Other information	: Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: amber.
Odour	: Characteristic odour.
Odour threshold	: No data available
pH	: >= 5.5
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: <= 0 °C
Boiling point	: >= 100 °C
Flash point	: None
Self ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: >= 1.04 g/ml
Solubility	: Soluble in water.
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

VOC content : <= 10 g/l

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Not established.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	: Not classified
Skin corrosion/irritation	: Not classified pH: >= 5.5
Serious eye damage/irritation	: Not classified pH: >= 5.5
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified.
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified
Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - water : Toxic to aquatic life.

12.2. Persistence and degradability

Lesco Spreader Sticker	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

Lesco Spreader Sticker	
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to ...

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with DOT

No dangerous good in sense of transport regulations

Additional information

Other information : No supplementary information available.

ADR

Transport document description :

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

No additional information available

15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Classification according to Directive 67/548/EEC or 1999/45/EC

Not classified

15.2.2. National regulations

No additional information available

15.3. US State regulations

No additional information available

SECTION 16: Other information

Other information : None.

Full text of H-phrases: see section 16:

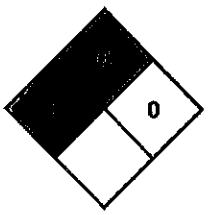
Aquatic Acute 2	Hazardous to the aquatic environment — AcuteHazard, Category 2
Carc. Not classified	Carcinogenicity Not classified
Flam. Liq. Not classified	Flammable liquids Not classified
H401	Toxic to aquatic life

NFPA health hazard : 0 - Exposure under fire conditions would offer no hazard beyond that of ordinary combustible materials.

NFPA fire hazard : 0 - Materials that will not burn.

NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.

NFPA specific hazard : None



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HMIS III Rating

Health	: 0 Minimal Hazard - No significant risk to health
Flammability	: 0 Minimal Hazard
Physical	: 0 Minimal Hazard
Personal Protection	: B

SDS US (GHS HazCom 2012)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product

SiteOne
LANDSCAPE SUPPLY

1385 E. 36th St.
Cleveland, OH 44114

Jefferson Co. Purchasing
1st floor

Sealed Bid: 17-006/YS – Insect/Herb/Spray/Adulticides
Due: 3/14/17 11 AM

Insert shipping document here.

Extremely Urgent

ORIGIN ID:BKLA (216) 706-9.. MAR17
BIDS DEPARTMENT
SITEONE LANDSCPAE SUPPLY
1385 E 36TH ST
CLEVELAND, OH 44114
UNITED STATES US

A 2773 03.10 10:30 4 RT 746 ST 19

TO PURCHASING DEPARTMENT
JEFFERSON COUNTY
1149 PEARL ST. 1ST FLOOR

BEAUMONT TX 77701
(409) 835-8593 REF: SEALED BID 17-0..6/YS
INV:
PO: DEPT:

546J3/1ADB/53C1

FedEx Express

E

FRI - 10 MAR 10:30A
PRIORITY OVERNIGHT

TRK# 0201 7786 1026 2773

77701
XH BPTA TX-US IAH

RECEIVED 02:08 PM MAR 10 2017

Express

ORIGINAL

JEFFERSON COUNTY PURCHASING DEPARTMENT

Deborah L. Clark, Purchasing Agent

1149 Pearl Street, 1st Floor, Beaumont, TX 77701 409-835-8593 Fax 409-835-8456

LEGAL NOTICE
Advertisement for Invitation for Bids

February 13, 2017

Notice is hereby given that sealed bids will be accepted by the Jefferson County Purchasing Department for IFB 17-006/YS, Term Contract for Insecticides, Herbicides, Spray Adjuvants, and Adulticides for Jefferson County Mosquito Control District. **Specifications for this project may be obtained from the Jefferson County website, http://www.co.jefferson.tx.us/Purchasing/main.htm or by calling 409-835-8593.**

Bids are to be sealed and addressed to the Purchasing Agent with the bid number and name marked on the outside of the envelope. Bidders shall forward an original and two (2) copies of their bid to the address shown below. Jefferson County does not accept bids submitted electronically. Late bids will be rejected as non-responsive. Bids will be publicly opened and read aloud in the Jefferson County Commissioners' Courtroom at the time and date below. Bidders are invited to attend the sealed bid opening.

BID NAME: **IFB 17-006/YS**

BID NO: **Term Contract for Insecticides, Herbicides, Spray Adjuvants, and Adulticides for Jefferson County Mosquito Control District**

DUE DATE/TIME: **11:00 AM CDT, Tuesday, March 14, 2017**

MAIL OR DELIVER TO: **Jefferson County Purchasing Department**
1149 Pearl Street, 1st Floor
Beaumont, Texas 77701

Any questions relating to these requirements should be directed to Yea-Mei Sauer, Contract Specialist, at 409-835-8593 or ysauer@co.jefferson.tx.us.

Jefferson County encourages Disadvantaged Business Enterprises to participate in the bidding process. Jefferson County does not discriminate on the basis of race, color, national origin, sex, religion, age or disability in employment or the provisions of services. Individuals requiring special accommodations are requested to contact our office at 409-835-8593 to make arrangements no later than seven (7) calendar days prior to the submittal deadline. Jefferson County reserves the right to accept or reject any or all proposals, to waive technicalities and to take whatever action is in the best interest of Jefferson County.

All interested firms are invited to submit a bid in accordance with the terms and conditions stated in this bid.

RESPONDENTS ARE STRONGLY ENCOURAGED TO CAREFULLY READ THE ENTIRE INVITATION.

Deborah Clark

Deborah L. Clark, Purchasing Agent
Jefferson County, Texas
Publish: Beaumont Enterprise & Port Arthur News – February 15, 2017 & February 22, 2017

IFB 17-006/YS
Term Contract for Insecticides, Herbicides, Spray Adjuvants, and Adulticides for Jefferson County Mosquito Control District
Bids due: 11:00 AM CDT, Tuesday, March 14, 2017

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Bid Submissions:

Bidder is responsible for submitting one (1) *original* bid copy to include a completed copy of this specifications packet in its entirety; and two (2) numbered bid *hard copies* to include at a minimum all pages requiring completion and/or marked with instructions to be returned with bid submission and any other documentation requested within these specifications.

Additionally, Bidder must monitor the Jefferson County Purchasing Department Website (below) to see if addenda or additional instructions have been posted. Failure to return all required forms could result in a response being declared as non-responsive.

http://www.co.jefferson.tx.us/purchasing/main.htm

Instructions to Bidders

1. Bid Submission

Bids must be submitted in complete original form by mail or messenger to the following address:

Jefferson County Purchasing Department
1149 Pearl Street, 3rd Floor
Beaumont, TX 77701

Bids will be accepted at the above address until the time and date specified herein, and immediately after will be publicly opened and read aloud.

Bidder shall submit bid in a tightly sealed opaque envelope or box, plainly marked "SEALED BID." The outside of the envelope of box shall also include the Bid Number, Bid Name, Bid Due Date, and the Bidder's Name and Address; and shall be addressed to the Purchasing Agent.

Late bids will not be accepted and will be returned unopened to the bidder.

All bids submitted in response to this invitation shall become the property of Jefferson County and will be a matter of public record available for review.

2. Bid Submissions During Time of Inclement Weather, Disaster, or Emergency

In case of inclement weather or any other unforeseen event causing the County to close for business on the date of a bid/proposal/statement of qualifications submission deadline, the closing will automatically be postponed until the next business day that County offices are open to the public. Should inclement weather conditions or any other unforeseen event cause delays in courier service operations, the County may issue an addendum to all known vendors interested in the project to extend the deadline. It will be the responsibility of the vendor to notify the county of their interest in the project should these conditions impact their ability to submit a bid/proposal/statement of qualifications submission before the stated deadline. The County reserves the right to make the final judgement call to extend any deadline.

Should an emergency or unanticipated event interrupt normal County processes, and bid/proposal/statement of qualifications submissions cannot be received by the Jefferson County Purchasing Department's office by the exact time specified in the IFB and urgent County requirements preclude amendment to the IFB, the time specified for receipt of bids will be deemed to be extended to the same time of day specified in the solicitation on the first business day on which normal County processes resume.

3. Courthouse Security

Bidders are advised that all visitors to the Courthouse must pass through Security. **Bidders planning to hand deliver bids must allow time to get through Security, as a delay in entering the Courthouse will not be accepted as an excuse for late submittal.** Mondays and Tuesdays are particularly heavy days. Bidders are strongly urged to plan accordingly.

4. Preparation of Bids

The bid shall be legibly printed in ink or typed.

If a unit price or extension already entered is to be altered, it shall be crossed out and initialed in ink by the bidder.

The bid shall be legally signed and shall include the complete address of the bidder.

Jefferson County is exempt from Federal and State Sales Taxes, and such taxes shall not be included in bid prices.

5. Signatures

All bids, notifications, claims, and statements must be signed by an individual authorized to bind the bidder. The individual signing certifies, under penalty of perjury, that he or she has the legal authorization to bind the bidder.

6. County Holidays – 2017:

January 16	Monday	Martin Luther King, Jr. Day
February 20	Monday	President's Day
April 14	Friday	Good Friday
May 29	Monday	Memorial Day
July 4	Tuesday	Independence Day
September 4	Monday	Labor Day
November 10	Friday	Veteran's Day
November 23 & 24	Thursday & Friday	Thanksgiving
December 25 & 26	Monday & Tuesday	Christmas
January 1, 2018	Monday	New Year's

7. Rejection or Withdrawal

Submission of additional terms, conditions or agreements with the bid document are grounds for deeming a bid non-responsive and may result in bid rejection. Jefferson County reserves the right to reject any and all bids and to waive any informalities and minor irregularities or defects in bids. Bids may be withdrawn in person by a bidder or authorized representative, provided their identity is made known and a receipt is signed for the bid, but only if the withdrawal is made prior to the time set for receipt of bids. Bids are an irrevocable offer and may not be withdrawn within 90 days after opening date.

8. Emergency/Declared Disaster Requirements

In the event of an emergency or if Jefferson County is declared a disaster area, by the County, State, or Federal Government, this Acceptance of Offer may be subjected to unusual usage. Contractor shall service the county during such an emergency or declared disaster under the same terms and conditions that apply during non-emergency/disaster conditions. The pricing as specified in this Acceptance of Offer shall apply to serving the County's needs regardless of the circumstances. If Contractor is unable to supply the services under the terms of the Acceptance of Offer, then Contractor shall provide proof of such disruption and a copy of the invoice from Contractor's supplier(s). Additional profit margin as a result of supplying services during an emergency or declared disaster shall not be permitted. In the event that additional equipment, supplies, and materials are required during the declared disaster, additional shipping, handling and drayage fees may apply.

9. Award

The bid will be awarded to the responsible, responsive bidder(s) whose bid, conforming to the solicitation, will be most advantageous to Jefferson County – price and other factors considered. Unless otherwise specified in this IFB, Jefferson County reserves the right to accept a bid in whole or in part, and to award by item or by group, whichever is deemed to be in the best interest of Jefferson County. Any bidder who is in default to Jefferson County at the time of submittal of the bid shall have that bid rejected. Jefferson County reserves the right to clarify any contractual terms with the concurrence of the Contractor; however, any substantial nonconformity in the offer, as determined by Jefferson County, shall be deemed non-responsive and the offer rejected.

In evaluating bids, Jefferson County shall consider the qualifications of the bidders, and, where applicable, operating costs, delivery time, maintenance requirements, performance data, and guarantees of materials and equipment. In addition, Jefferson County may conduct such investigation as it deems necessary to assist in the evaluation of a bid and to establish the responsibility, qualifications, and financial ability of the bidders to fulfill the contract.

Jefferson County reserves the right to award this contract on the basis of **lowest and best bid** in accordance with the laws of the State of Texas, to waive any formality or irregularity, to make awards to more than one offeror, and/or to reject any or all bids. In the event the lowest dollar offeror meeting specifications is not a awarded a contract, Offeror may appear before the Commissioners' Court and present evidence concerning Offeror responsibility after officially notifying the Office of the Purchasing Agent of Offeror's intent to appear.

10. Contract

A response to an IFB is an offer to contract with Jefferson County based upon the terms, conditions, and specifications contained in the IFB. Bids do not become contracts unless and until they are executed by Jefferson County, eliminating a formal signing of a separate contract. For that reason, all of the terms and conditions of the contract are contained in the IFB, unless any of the terms and conditions is modified by an IFB Amendment, a Contract Amendment, or by mutually agreed terms and conditions in the contract documents.

11. Waiver of Subrogation

Bidder and bidder's insurance carrier waive any and all rights whatsoever with regard to subrogation against Jefferson County as an indirect party to any suit arising out of personal or property damages resulting from bidder's performance under this agreement.

12. Fiscal Funding

A multi-year contract (if requested by the specifications) continuing as a result of an extension option must include fiscal funding out. If, for any reason, funds are not appropriated to continue the contract, said contract shall become null and void.

13. Bid Results

Bid results are not provided in response to telephone inquiries. A preliminary tabulation of bids received will be posted on the Purchasing web page (http://co.jefferson.tx.us/ purchasing/main.htm) as soon as possible following bid opening. A final tabulation will be posted following bid award, and will also be available for review in the Purchasing Department.

14. Changes and Addenda to Bid Documents

Each change or addendum issued in relation to this IFB document will be on file in the Office of the Purchasing Agent, and will be posted on the Purchasing web site as soon as possible. It shall be the bidder's responsibility to make inquiry as to change or addenda issued, and to monitor the web site. All such changes or addenda shall become part of the contract and all bidders shall be bound by such addenda. Information on all changes or addenda issued will be available at the Office of the County Purchasing Agent.

15. Specifications

Unless otherwise stated by the bidder, the bid will be considered as being in accordance with Jefferson County's applicable standard specifications, and any special specifications outlined in the bid document. References to a particular trade name, manufacturer's catalogue, or model number are made for descriptive purposes to guide the bidder in interpreting the requirements of Jefferson County, and should not be construed as excluding bids on other types of materials, equipment, and supplies. However, the bidder, if awarded a contract, will be required to furnish the particular item referred to in the specifications or description unless departure or substitution is clearly noted and described in the bid. Jefferson County reserves the right to determine if equipment/ product being bid is an acceptable alternate. All goods shall be new unless otherwise so stated in the bid. Any

unsolicited alternate bid, or any changes, insertions, or omissions to the terms and conditions, specifications, or any other requirements of the bid, may be considered non-responsive.

16. Delivery

Bids shall include all charges for delivery, packing, crating, containers, etc. Unless otherwise stated by the bidder (in writing on the included Bid Form), prices bid will be considered as being based on F.O.B. destination/delivered freight included.

17. Interpretation of Bid and/or Contract Documents

All inquiries shall be made within a reasonable time prior to the date and time fixed for the bid opening, in order that a written response in the form of an addendum, if required, can be processed before the bids are opened. Inquiries received that are not made in a timely fashion may or may not be considered.

18. Currency

Prices calculated by the bidder shall be stated in U.S. dollars.

19. Pricing

Prices shall be stated in units of quantity specified in the bid documents. In case of discrepancy in computing the amount of the bid, the unit price shall govern.

20. Notice to Proceed/Purchase Order

The successful bidder may not commence work under this contract until authorized to do so by the Purchasing Agent.

21. Certification

By signing the offer section of the Offer and Acceptance page, bidder certifies:

- The submission of the offer did not involve collusion or other anti-competitive practices.
- The bidder has not given, offered to give, nor intends to give at any time hereafter, any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor, or service to any public servant in connection with the submitted offer.
- The bidder hereby certifies that the individual signing the bid is an authorized agent for the bidder and has the authority to bind the bidder to the contract.

22. Definitions

"County" – Jefferson County, Texas.

"Contractor" – The bidder whose proposal is accepted by Jefferson County.

23. Minority-Women Business Enterprise Participation

It is the desire of Jefferson County to increase the participation of Minority (MBE) and women-owned (WBE) businesses in its contracting and procurement programs. While the County does not have any preference or set aside programs in place, it is committed to a policy of equitable participation for these firms.

General Conditions of Bidding and Terms of Contract

By execution of this document, the vendor accepts all general and special conditions of the contract as outlined below and in the specifications and plans.

1. Bidding

1.1 Bids. All bids must be submitted on the bid form furnished in this package.

1.2 Authorized Signatures. The bid must be executed personally by the vendor, duly authorized partner of the partnership, or duly authorized officer of the corporation. If executed by an agent, a power of attorney or other evidence of authority to act on behalf of the vendor shall accompany the bid to become a valid bid.

1.3 Late Bids. Bids must be in the office of the Jefferson County Purchasing Agent before or at the specified time and date bids are due. Bids received after the submission deadline shall be rejected as non-responsive and returned unopened.

1.4 Withdrawal of Bids Prior to Bid Opening. A bid may be withdrawn before the opening date by submitting a written request to the Purchasing Agent. If time allows, the bidder may submit a new bid. Bidder assumes full responsibility for submitting a new bid before or at the specified time and date bids are due. Jefferson County reserves the right to withdraw a request for bids before the opening date.

1.5 Withdrawal of Bids after Bid Opening. Bidder agrees that its offer may not be withdrawn or cancelled by the vendor for a period of ninety (90) days following the date and time designated for the receipt of bids unless otherwise stated in the bid and/or specifications.

1.6 Bid Amounts. Bids shall show net prices, extensions where applicable and net total. In case of conflict between unit price and extension, the unit price will govern. Any ambiguity in the bid as a result of omission, error, unintelligible or illegible wording shall be interpreted in the favor of Jefferson County.

1.7 Exceptions and/or Substitutions. All bids meeting the intent of the specifications and plans will be considered for award. Vendors taking exception to the specifications and plans, or offering substitutions, shall state these exceptions in the section provided. If bid is made on an article other than the one specified, which a bidder considers comparable, the name and grade of said article must be specified in the bid and sufficient specifications and descriptive data must accompany same to permit thorough evaluation. The absence of stated exceptions and/or substitutions shall indicate that the vendor has not taken any exceptions to the specifications and shall be responsible to perform in strict accordance with the specifications. As a matter of practice, Jefferson County rejects exception(s) and /or substitutions as non-responsive but reserves the right to accept any and/or all of the exception(s) and/or substitution(s) deemed to be in the best interest of Jefferson County.

1.8 Alternates. The Invitation for Bid and/or specifications may expressly allow bidder to submit an alternate bid. Presence of such an offer shall not be considered an indication of non-responsiveness.

1.9 Descriptions. Unless otherwise specified, any reference to make, manufacturer and/or model used in the bid specifications is merely descriptive and not restrictive, and is used only to indicate type, style, or quality of material desired.

1.10 Bid Alterations. Bids cannot be altered or amended after submission deadline. Any interlineations, alterations, or erasures made before opening time must be initialed by the signer of the bid, guaranteeing authenticity.

1.11 Tax Exempt Status. Jefferson County is exempt from federal excise tax and state sales tax. Unless the bid form or specifications specifically indicate otherwise, the bid price must be net, exclusive of above-mentioned taxes and will be so construed. Therefore, the bid price shall not include taxes.

1.12 Quantities. Quantities indicated are estimated quantities only and are not a commitment to buy. Approximate usage does not constitute an order, but only implies the probable quantity that will be used. Commodities will be ordered on an as-needed basis. Bidder is responsible for accurate final counts.

1.13 Bid Award. Award of contract shall be made to the most responsible, responsive bidder, whose offer is determined to be the best value, taking into consideration the relative importance of price. Jefferson County reserves the right to be the sole judge as to whether items bid will serve the purpose intended. Jefferson County reserves the right to accept or reject in part or in whole any bid submitted, and to waive any technicalities or informalities for the best interest of the County. Jefferson County reserves the right to award based upon individual line items, sections or total bid.

1.14 Silence of Specifications for Complete Units. All materials, equipment and/or parts that will become a portion of the completed work, including items not specifically stated herein but, necessary to render the service(s) complete and operational per the specifications, are to be included in the bid price. Vendor may be required to furnish evidence that the service, as bid, will meet or exceed these requirements.

1.15 Addenda. Any interpretations, corrections or changes to the specifications and plans will be made by addenda no later than forty-eight (48) hours prior to the bid opening. Addenda will be posted on the Purchasing web site. Vendors are responsible for monitoring the web site in order to remain informed on addenda. Vendors shall acknowledge receipt of all addenda with submission of bid.

1.16 General Bid Bond/Surety Requirements. Failure to furnish bid bond/surety, if requested, will result in bid being declared non-responsive. Non-responsive bids will not be considered for award.

1.17 General Insurance Requirements. Failure to furnish Affidavit of Insurance, if required in these specifications, will result in bid being declared non-responsive. Non-responsive bids will not be considered for award.

1.18 Responsiveness. A responsive bid shall substantially conform to the requirements of this Invitation to Bid and/or specifications contained herein. Bidders who substitute any other terms, conditions, specifications and/or requirements or who qualify their bids in such a manner as to nullify or limit their liability to the contracting entity shall have their bids deemed non-responsive. Also, bids containing any clause that would limit contracting authority shall be considered non-responsive. Examples of non-responsive bids include but shall not be limited to: a) bids that fail to conform to required delivery schedules as set forth in the bid request; b) bids with prices qualified in such a manner that the bid price cannot be determined, such as with vague wording that may include "price in effect at the time of delivery," and c) bids made contingent upon award of other bids currently under consideration.

1.19 Responsible Standing of Bidder. To be considered for award, bidder must at least: have the ability to obtain adequate financial resources, be able to comply with required or proposed delivery/completion schedule, have a satisfactory record of performance; have a satisfactory record of integrity and ethics, and be otherwise qualified and eligible to receive award.

1.20 Proprietary Data. Bidder may, by written request, indicate as confidential any portion(s) of a bid that contain proprietary information, including manufacturing and/or design processes exclusive to the vendor. Jefferson County will protect from public disclosure such portions of a bid, unless directed otherwise by legal authority, including existing Open Records Acts.

1.21 Public Bid Opening. Bidders are invited to be present at the opening of bids. After the official opening of bids, a period of not less than one week is necessary to evaluate bids. The amount of time necessary for bid evaluation may vary and is determined solely by the County. Following the bid evaluation, all bids submitted are available for public review.

2. Performance

2.1 Design, Strength, and Quality. Design, strength, and quality of materials and workmanship must conform to the highest standards of manufacturing and engineering practices. The apparent silence of specifications and/or plans as to any detailed description concerning any point shall be regarded as meaning that only the best commercial practices are to prevail. All interpretations of these specifications and/or plans shall be made on the basis of this statement.

2.2 Age and Manufacture. All tangible goods being bid must be new and unused, unless otherwise specified, in first-class condition, of current manufacture, and furnished ready to use. All items not specifically mentioned that are required for a complete unit shall be furnished.

2.3 Delivery Location. All deliveries will be made to the address(es) specified on the purchase order during normal working hours of 8:00 a.m. to 4:00 p.m., Monday through Friday, unless otherwise authorized by the Purchasing Agent or designee.

2.4 Delivery Schedule. Delivery time may be an important consideration in the evaluation of best value. The maximum number of days necessary for delivery ARO shall be stated in the space, if provided, on the bid form.

2.5 Delivery Charges. All delivery and freight charges, F.O.B. destination shown on Jefferson County purchase order, as necessary to perform contract are to be included in the bid price.

2.6 Installation Charges. All charges for assembly, installation and set-up shall be included in the bid price. Unless otherwise stated, assembly, installation and set-up will be required.

2.7 Operating Instructions and Training. Clear and concise operating instructions and descriptive literature will be provided in English, if requested. On-site detailed training in the safe and efficient use and general maintenance of item(s) purchased shall be provided as needed at the request of Jefferson County. Instructions and training shall be at no additional cost to the County.

2.8 Storage. Bidder agrees to provide storage of custom ordered materials, if requested, for up to thirty (30) calendar days.

2.9 Compliance with Federal, State, County, and Local Laws. Bids must comply with all federal, state, county and local laws, including, but not limited to, all applicable standard safety, emission, and noise control requirements. Any vehicles or equipment shall contain all standard safety, emission, and noise control requirements required for the types and sizes of equipment at the time of their manufacture. The contractor agrees, during the performance of work or service, to comply with all applicable codes and ordinances of Jefferson County or the State of Texas as they may apply, as these laws may now read, or as they may hereafter be changed or amended.

2.10 OSHA. The bidder will certify all equipment complies with all regulations and conditions stipulated under the Williams-Steiger Occupational Safety and Health Act of 1971, as amended. The successful bidder will further certify that all items furnished under this project will conform and comply with federal and State of Texas OSHA standards. The successful bidder will agree to indemnify and hold harmless Jefferson County for any and all damages that may be assessed against the County.

2.11 Patents and Copyrights. The successful vendor agrees to protect the County from claims involving infringements of patents and/or copyrights.

2.12 Samples, Demonstrations and Testing. At Jefferson County's request and direction, bidder shall provide product samples and/or testing of items bid to ensure compliance with specifications. Samples, demonstrations and/or testing may be requested at any point prior to or following bid award. Samples, demonstrations and/or testing may be requested upon delivery and/or any point during the term of resulting contract. All samples (including return thereof), demonstrations, and/or testing shall be at the expense of the bidder/vendor.

2.13 Acceptability. All articles enumerated in the bid shall be subject to inspection by an officer designated for that purpose by Jefferson County. If found inferior to the quality called for, or not equal in value to the specifications, deficient in workmanship or otherwise, this fact shall be certified to the Purchasing Agent, who shall have the right to reject the whole or any part of the same. Items

and/or work determined to be contrary to specifications must be replaced at the vendor's expense. Inferior items not retrieved by the vendor within thirty (30) calendar days, or an otherwise agreed upon time, shall become the property of the County. If disposal of such items warrants an expense, an amount equal to the disposal expense will be deducted from amounts payable to the vendor.

2.14 Maintenance. Maintenance required for equipment bid should be available in Jefferson County by a manufacturer authorized maintenance facility. Cost for this service shall be shown on the bid sheet as requested or on a separate sheet, as required. If Jefferson County opts to include maintenance, it shall be so stated in the purchase order and said cost will be included. Service will commence only upon expiration of applicable warranties and should be priced accordingly.

2.15 Material Safety Data Sheets. Under the "Hazardous Communications Act," common known as the "Texas Right to Know Act," a bidder must provide the user department, with each delivery, material safety data sheets which are applicable to hazardous substances defined in the Act. Failure of the bidder to furnish this documentation, will be cause to reject any bid applying thereto.

2.16 Evaluation. Evaluation shall be used as a determinant as to which services are the most efficient and/or most economical for the County. It shall be based on all factors having a bearing on price and performance of the items in the user environment. All bids are subject to tabulation by the Jefferson County Purchasing Department and recommendation to Jefferson County Commissioners' Court. Compliance with all bid requirements and needs of the using department are considered in evaluating bids. Pricing is not the only criteria for making a recommendation. The Jefferson County Purchasing Department reserves to right to contact any bidder, at any time, to clarify, verify or requirement information with regard to this bid.

3. Purchase Orders and Payment

3.1 Purchase Orders. A purchase order(s) shall be generated by the Jefferson County Purchasing Agent to the successful vendor. The purchase order number must appear on all itemized invoices and packing slips. The County will not be held responsible for any work orders placed and/or performed without a valid current purchase order number. Payment will be made for all services rendered and accepted by the contract administrator for which a valid invoice has been received.

3.2 Invoices. All invoices shall reference the Purchase Order number. Invoices shall reference the bid item number or a detailed description for each item invoiced. If an item purchased and itemized on the invoice does not correspond to an item in any of the categories awarded to the vendor, invoice shall reference the item as "N/C" to indicate that it is a non-contract item. This requirement is to assist the County in verifying contract pricing on all invoices. Payment will be made under terms of net thirty (30) days unless otherwise agreed upon by seller and the purchasing department.

3.3 Prompt Payment. In accordance with the State of Texas Prompt Payment Act, Article 601f V.T.C.S., payment will be made after receive and acceptance by the County of the merchandise ordered and of a valid invoice. Successful bidder(s) is required to pay subcontractors within ten (10) days after the successful bidder receives payment from the County.

3.4 Funding. Jefferson County is operated and funded on an October 1 to September 30 basis; accordingly, the County reserves the right to terminate, without liability to the County, any contract for which funding is not available.

4. Contract

4.1 Contract Definition. The General Conditions of Bidding and Terms of Contract, Specifications, Plans, Bidding Forms, Addenda, and any other documents made a part of this bid shall constitute the complete bid. This bid, when duly accepted by Jefferson County, shall constitute a contract equally binding between the successful bidder and Jefferson County.

4.2 Contract Agreement. Once a contract is awarded, the unit prices offered by the successful bidder shall remain firm for the term of the contract. Contract shall commence on date of award and,

upon agreement between vendor(s) and Jefferson County, may be renewed annually for up to four (4) additional years. **(OMIT if N/A or EDIT if Needed)**

4.3 Change Order. No different or additional terms will become part of this contract with the exception of a change order. No oral statement of any person shall modify or otherwise change, or affect the terms, conditions or specifications stated in the resulting contract. All change orders to the contract will be made in writing and at the discretion and approval of Jefferson County. No change order will be binding unless signed by an authorized representative of the County and the vendor.

4.4 Price Re-determination. A price re-determination may be requested at the time of annual renewal. All requests for price re-determination shall be in written form. Cause for such request, i.e., manufacturer's direct cost, postage rates, Railroad Commission rates, Federal/State minimum wage law, Federal/State unemployment taxes, F.I.C.A, Insurance Coverage Rates, etc., shall be substantiated in writing by the source of the cost increase. The bidder's past experience of honoring contracts at the bid price will be an important consideration in the evaluation of the lowest and best bid. Jefferson County reserves the right to accept or reject any/all requests for price re-determination as it deems to be in the best interest of the County.

4.5 Termination. Jefferson County reserves the right to terminate the contract for default if the bidder breached any of the terms therein, including warranties of bidder or if the bidder becomes insolvent or commits acts of bankruptcy. Such right of termination is in addition to and not in lieu of any other remedies which Jefferson County may have in law or equity. Default may be construed as, but not limited to, failure to deliver the proper goods and/or service within the proper amount of time, and/or to properly perform any and all services required to Jefferson County's satisfaction and/or to meet all other obligations and requirements. Contracts may be terminated without cause upon thirty (30) days' written notice to either party unless otherwise specified. Jefferson County reserves the right to award canceled contract to the next lowest bidder. Bidder, in submitting this bid, agrees that Jefferson County shall not be liable to prosecution for damages in the event that the County declares the bidder in default.

4.6 Conflict of Interest. Employees of the County are not permitted to maintain financial interest in, or receive payment, directly or indirectly, borrow from, lend to, invest in, or engage in any substantial financial transaction with any individual, organization, supplier, or subcontractor who does business with the County without disclosure. When conflict of interest is discovered, it shall be grounds for termination of contract.

4.7 Injuries or Damages Resulting from Negligence. Successful vendor shall defend, indemnify and save harmless Jefferson County and all its officers, agents and employees from all suits, actions, or other claims of any character, name and description brought for or on account of any injuries or damages received or sustained by any person, persons, or property on account of any negligent act or fault of the successful vendor, or of any agent, employee, subcontractor or supplier in the execution of, or performance under, any contract which may result from bid award. Successful vendor shall pay any judgment with cost which may be obtained against Jefferson County growing out of such injury or damages.

4.8 Interest by Public Officials. No public official shall have interest in this contract, in accordance with Texas Local Government Code.

4.9 Warranty. The successful vendor shall warrant that all materials utilized in the performance of this contract shall conform to the proposed specifications and/or all warranties as stated in the Uniform Commercial Code and be free from all defects in material, workmanship and title.

4.10 Uniform Commercial Code. The successful vendor and Jefferson County agree that both parties have all rights, duties, and remedies available as stated in the Uniform Commercial Code.

4.11 Venue. This agreement will be governed and construed according to the laws of the State of Texas. This agreement is performable in the County of Jefferson, Texas.

4.12 Sale, Assignment, or Transfer of Contract. The successful vendor shall not sell, assign, transfer or convey this contract, in whole or in part, without the prior written consent of Jefferson County.

4.13 Silence of Specifications. The apparent silence of these specifications as to any detailed description concerning any point, shall be regarded as meaning that only the best commercial practices are to prevail. All interpretations of these specifications shall be made on the basis of this statement.

Special Requirements/Instructions

The following requirements and instructions supersede General Requirements where applicable.

1. Bid Requirement

Each bidder shall ensure that required parts of the bid are completed with accuracy and submitted as per the requirements within this specifications packet, including any addenda.

Bidder is responsible for submitting one (1) *original* bid copy to include a completed copy of this specifications packet in its entirety; and two (2) **numbered bid *hard copies* to include at a minimum all pages requiring completion and/or marked with instructions to be returned with bid submission and any other documentation requested within these specifications.**

All bids shall be tightly sealed in an opaque envelope or box and plainly marked "SEALED BID." The outside of the envelope or box shall also include: Bid Number, Bid Name, Bid Due Date, Bidder's Name and Address; and shall be addressed to the Purchasing Agent.

Jefferson County shall not be responsible for any effort or cost expended in the preparation of a response to this IFB. All protests should be coordinated through the Purchasing Office prior to award recommendation to Commissioners' Court.

2. Vendor Registration: SAM (System for Award Management).

Vendors doing business with Jefferson County are **required** to be registered with The System for Award Management (SAM), with an "active" status. The System for Award Management (SAM) is the Official U.S. Government system that consolidated the capabilities of CCR/FedReg, ORCA, and EPLS. There is NO fee to register for this site. Entities may register at no cost directly from the SAM website at: https://www.sam.gov

Bid Respondents are strongly encouraged to review their firm's SAM (System for Award Management) status prior to Bid Submission.

3. Awarded Vendor(s): Submission of FORM 1295 (Texas Ethics Commission)

As of January 1, 2016, per House Bill 1295, the Texas Ethics Commission (TEC) requires **all awarded vendors** to complete a Certificate of Interested Parties (FORM 1295) at time of notification of award. **Awarded Vendors** must visit the TEC website link below, enter the required information on Form 1295, and print a copy of the completed form. The form will include a certification of filing that will contain a unique certification number.

At the time of award, the Jefferson County Purchasing Department will submit a request to the Awarded Vendor to both:

1. Submit FORM 1295 online via the Texas Ethics Commission website link below.

2. Submit a printed copy of FORM 1295, signed by an Authorized Agent of the Awarded Vendor and notarized to the Jefferson County Purchasing Department.

FORM 1295, Completion Instructions, and Login Instructions are available via the Texas Ethics Commission Website at: https://www.ethics.state.tx.us/whatsnew/elf_info_form1295.htm

4. Multiple Vendor Award

Jefferson County reserves the right to award this contract to more than one vendor at the County's discretion.

5. Delivery

If delivery is required, all items must be packaged so as to be protected from damage during shipping and handling. Any item(s) damaged in shipping must be replaced in kind, or repaired, by the contractor, at the discretion of, and at no additional charge to, Jefferson County.

6. Payment

Jefferson County will pay original invoices that clearly itemize the goods and/or services provided as to quantity, part number, description, price, applicable discount (if any), labor charges showing time differential, if applicable and if previously agreed to, and delivery, installation, and set-up costs, if applicable and if previously agreed to. Only charges as stated on the Bid Form(s) submitted as a part of the bid will be considered.

Invoices must indicate Jefferson County as applicable, the address to which the product(s) and/or service(s) were delivered, and the applicable purchase order number. Invoices will be matched to delivery tickets prior to payment; therefore, all delivery tickets should have an accurate description of the product(s) and/or service(s).

Invoices shall be submitted to: Jefferson County Auditing Department, Attention: Accounts Payable, 1149 Pearl Street, 7th floor, Beaumont, TX 77701.

7. Usage Reports

Jefferson County reserves the right to request, and receive at no additional cost, up to two (2) times during the contract period, a usage report detailing the products and/or services furnished to date under a contract resulting from this IFB. The reports must be furnished no later than five (5) working days after written request and itemize all purchases to date by Jefferson County department, description of each item purchased, including manufacturer, quantity of each item purchased, per unit and extended price of each item purchased, and total amount and price of all items purchased.

8. Insurance

The contractor (including any and all subcontractors as defined in Section 9.1.3 below) shall, at all times during the term of this contract, maintain insurance coverages with not less than the type and requirements shown below. Such insurance is to be provided at the sole cost of the contractor. These requirements do not establish limits of the contractor's liability.

All policies of insurance shall waive all rights of subrogation against the County, its officers, employees and agents; a copy of the policy wording or endorsement is required.

Contractor shall furnish Jefferson County with Certificate of Insurance naming Jefferson County as additional insured and will provide the actual policy wording or endorsement showing as such.

All insurance must be written by an insurer licensed to conduct business in the State of Texas.

Minimum Insurance Requirements

Public Liability, including Products & Completed Operations	$1,000,000
Excess Liability	$1,000,000

Property Insurance (policy below that is applicable to this project):
- Improvements & Betterments Policy: Improvements/Remodeling (for Lease Tenants)
- Builder's Risk Policy: Structural Coverage for Construction Projects
- Installation Floater Policy: Improvements/Alterations to Existing Structure

Workers' Compensation	Statutory Coverage (see attached)

9. Workers' Compensation Insurance

9.1 Definitions:

9.1.1 **Certificate of coverage ("Certificate")** – A copy of a certificate of insurance, a certificate of authority to self-insure issued by the commission, or a coverage agreement, DWC-81, DWC-82, DWC-83, or DWC-84 showing statutory workers' compensation insurance coverage for the person's or entity's employees providing services on a project, for the duration of the project.

9.1.2 **Duration of the project** – Includes the time from the beginning of the work on the project until the contractor's/person's work on the project has been completed and accepted by the governmental entity.

9.1.3 **Persons providing services on the project ("subcontractor") in article 406.096** – Includes all persons or entities performing all or part of the services under the contractor has undertaken to perform on the project, regardless of whether that person contracted directly

with the contractor and regardless of whether that person has employees. This includes, without limitation, independent contractors, subcontractor, leasing companies, motor carriers, owner-operators, employees of any such entity, or employees of any entity which furnishes persons to provide services on the project. "Services" includes, without limitation, providing, hauling or delivering equipment or materials, or providing labor, transportation, or other service related to a project. "Services" does not include activities unrelated to the project, such as food/beverage vendors, office supply deliveries, and delivery of portable toilets.

9.2 The Contractor shall provide coverage, based on proper reporting of classification code and payroll amounts and filing any coverage agreements, which meets the statutory requirements of Texas Labor Code, Section 401.011(44) for all employees of the contractor providing services on the project, for the duration of the project.

9.3 The Contractor must provide a certificate of coverage to the governmental entity prior to being awarded the contract – refer to Section 8 above.

9.4 If the coverage period shown on the Contractor's current certificate of coverage ends during the duration of the project, the Contractor must, prior to the end of the coverage period, file a new certificate of coverage with the governmental entity showing that coverage has been extended.

9.5 The Contractor shall obtain from each person providing services on a project, and provide to the governmental entity:

9.5.1 A certificate of coverage, prior to that person beginning work on the project, so the governmental entity will have on file certificates of coverage showing coverage for all persons providing services on the project; and

9.5.2 No later than seven (7) days after receipt by the Contractor, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate ends during the duration of the project.

9.6 The Contractor shall retain all required certificates of coverage for the duration of the project and for one (1) year thereafter.

9.7 The Contractor shall notify the governmental entity in writing by certified mail or personal delivery, within ten (10) days after the contractor knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project.

9.8 The Contractor shall post on each project site a notice, in the text, form and manner prescribed by the Texas Department of Workers' Compensation, informing all persons providing services on the project that they are required to be covered, and stating how a person may verify coverage and report lack of coverage.

9.9 The Contractor shall contractually require each person with whom it contracts to provide services on a project to:

9.9.1 Provide coverage, based on reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of Texas Labor Code, Section 401.011(44) for all its employees providing services on the project, for the duration of the project.

9.9.2 Provide to the Contractor, prior to that person beginning work on the project a certificate of coverage showing that coverage is being provided for all employees of the person providing services on the project, for the duration of the project.

9.9.3 Provide the Contractor, prior to the end of coverage period, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the project.

9.9.4 Obtain from each person with whom it contracts, and provide to the Contractor:

9.9.4.1 A certificate of coverage, prior to the other person beginning work on the project; and

9.9.4.2 the coverage period, if the coverage period shown on the current certificate of a new certificate of coverage showing extension of coverage, prior to the end of coverage ends during the duration of the project.

9.9.5 Retain all required certificates of coverage on file for the duration of the project and for one (1) year thereafter.

9.9.6 Notify the governmental entity in writing by certified mail or personal delivery, within ten (10) days after the person knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project; and

9.9.7 Contractually require each person with whom it contracts to perform as required by paragraphs 9.1. – 9.7., with the certificates of coverage to be provided to the person for whom they are providing services.

9.10 By signing this contract or providing or causing to be provided a certificate of coverage, the Contractor is representing to the governmental entity that all employees of the contractor who will provide services of the project will be covered by workers' compensation coverage for the duration of the project, that the coverage will be based on proper reporting of classification codes and payroll amounts, and that all coverage agreements will be filed with the appropriate insurance carrier or, in the case of a self-insured, with the commission's Division of Self-Insurance Regulation. Providing false or misleading information may subject the contractor to administrative penalties, criminal penalties, civil penalties, or other civil actions.

9.11 The Contractor's failure to comply with any of these provisions is a breach of contract by the Contractor which entitles the governmental entity to declare the contract void if the Contractor does not remedy the breach within ten (10) days after receipt of notice of breach from the governmental entity.

Minimum Specifications

The following requirements and specifications supersede General Requirements where applicable. Contact Yea-Mei Sauer, Contract Specialist (e-mail: ysauer@co.jefferson.tx.us; phone: 409-835-8593), regarding any questions or comments. Please reference bid number IFB 17-006/YS.

Scope

Vendor shall provide Insecticides, Herbicides, Spray Adjuvants, and Adulticides for the Jefferson County Mosquito Control District subject to the terms and conditions stated for an initial period **beginning on or about date of award.**

Bidders shall attach to bid form, a current material safety data sheet and current labels for each chemical. Failure to do so may result in rejection of bid.

Prices quoted shall be F.O.B. Jefferson County Mosquito Control District, Jefferson County Airport, 1st Street, Nederland, TX. Bidder bears freight charges. All prices must be written in ink or typewritten.

Quote unit prices extended to lump sum prices. The basis of the award will be the unit prices quoted. The County reserves the right to increase or decrease the quantity purchased based on weather conditions and availability of funds.

The County reserves the right to make the award to one (1) successful bidder or per line item.

Purchase orders for insecticides, herbicides, adjuvants, and adulticides will be released to the successful bidder(s) **on an as-needed basis. MINIMUM ORDERS ARE NOT ACCEPTABLE.**

Refer questions of a commercial nature to Jamey West, Contract Specialist at 409-835-8593; and questions of a technical nature to Kevin Sexton, Jefferson County Mosquito Control, at 409-719-5940.

A price re-determination may be considered by Jefferson County only at the twelve (12) month and twenty-four (24) month anniversary dates of the contract. All requests for price re-determination shall be in written form. Cause for such request, i.e., manufacturer's direct cost, postage rates, Railroad Commission rates, Federal/State minimum wage law, Federal/State unemployment taxes, F.I.C.A, Insurance Coverage Rates, etc., shall be substantiated in writing by the source of the cost increase. The bidder's past experience of honoring contracts at the bid price will be an important consideration in the evaluation of the lowest and best bid. Jefferson County reserves the right to accept or reject any/all requests for price re-determination as it deems to be in the best interest of the County.

Approximate Annual Usage

Items listed on the Bid Form indicate our approximate annual usage. No promise is made or implied that these quantities will be purchased. Orders will be placed on an **as-needed basis** for the duration of the contract. Purchase Orders will be released to the successful bidder(s) as required. **MINIMUM ORDERS ARE NOT ACCEPTABLE.**

Contract

This bid, when properly accepted by Jefferson County Commissioners' Court, shall constitute a contract equally binding between the successful bidder and Jefferson County. No different or additional terms will become a part of this contract.

The brand name references are for description only, and are not intended to exclude other herbicides or adjuvants of equal quality. Bidders desiring to substitute items may do so provided brand name is **indicated on Bid Form**. Change of container size may disqualify bid. Dilution ratio will be a factor in award of chemicals.

Bidders shall attach to bid form a current material safety data sheet and current labels for each chemical. Failure to do so may result in rejection of bid.

Item	Description
1	**MSMA herbicide** – to contain 6.00 lb. MSMA (Mono-sodium Acid Methanearsonate) plus surfactant per gallon
2	**Tordon 101** – to contain 10.2% 4-amino3,5,6-trichloropicolinic acid (picloram), tri-isopropanolomine salt 39.6% 2,4-Dichlorophenoxyacetric acid, tri-isopropanolomiane salt.
3	**Roundup herbicide or equivalent** – to contain 41.0% by weight Isopropylamine Salt of Glyphosate
4	**Rodeo herbicide or equivalent** – to contain 53.5% by weight Isopropylamine Salt of Glyphosate
5	**Nalco Trol II or equivalent** – water soluble spray drift control agent
6	**Aqua-King or equivalent** – product must be a non-ionic aquatic surfactant approved for use in the State of Texas, contain 90% active ingredient (excluding alcohols, fatty acids, oils ethylene glycol or diethylene glycol), a minimum of 80% surfactant load, possess an HLB (hydrophilic to lipophilic balance) ratio of 12 to 17, a maximum of 10% isopropyl alcohol, have a flash point greater than 200 degrees F., and contain an anti-foaming agent that will provide instantaneous foam breakdown when agitation ceases.
7	**Malathion insecticide** – concentrate to contain a minimum of 9.9 lb. of malathion per gallon (96.5% by weight active ingredient). Product offered must have current approval in Texas for both aerial and ground ULV application against adult mosquitoes. Bulk shipments only.
8	**Scourge insecticide** – concentrate to contain 1.51 lb. Resmethrin (18% by weight active ingredient) and 4.51 lb. Piperonyl Butoxide Technical (54% by weight active ingredient) per gallon. Product offered must have current approval in Texas for ground ULV application against adult mosquitoes.
9	**Envion 30/30 insecticide or equivalent** - water compatible concentrate in 2.52 lb. Permethrin (30.0% by weight) and 2.52 lb. Piperonyl Butoxide (30.0% by weight) per gallon. Product offered must have current approval in Texas for aerial and ground ULV application against adult mosquitoes.
10	**Duet Adulticide or equivalent** – 1.00% Prallethrin: = 0.085 lbs. of Technical Prallethrin per gallon. Chemical name = (RS) – 2 methyl-4-oxo-3-(2-propynl) cyclopent-2-enyl- (1RS)-cis, trans-chyrsanthemate. 5.00 % Sumethrin: = 0.370 lbs. of Technical Sumethrin per gallon. Chemical name = 3-Phenoxbenzyl- (1RS, 3 RS; 1RS, 3SR) -2,-2dimethyl-3-(2-methylprop-1-enyl) cyclopropanecarboxlate. 5.00% PBO = 0.370 lbs. Technical Pepronyl Butoxide per gallon. Chemical name = Pyperonyl Butoxide. Returnable 275 gallon stainless steel totes with 2.5 inch quick connect hose attachment. Successful bidder will deliver full containers and pick up empty containers at no additional charge

Bidder Information Form

Instructions: Complete the form below. Please provide legible, accurate, and complete contact information. PLEASE PRINT.

Bid Name & Number: IFB 17-006/YS, Term Contract for Insecticides, Herbicides, Spray Adjuvants, and Adulticides for Jefferson County Mosquito Control District

Bidder's Company/Business Name: Target Specialty Products

Bidder's TAX ID Number: 23-1568350

Contact Person: Mike Nichols **Title:** Vector Business Manager

Phone Number (with area code): Mobile: (713) 249-2075

Alternate Phone Number if available (with area code): Office: (800) 901-9746

Fax Number (with area code): (713) 682-4374

Email Address: mike.nichols@target-specialty.com

Mailing Address (Please provide a physical address for bid bond return, if applicable):

1225 N. Post Oak Rd.
Address
Houston, TX 77055
City, State, Zip Code

OFFER AND ACCEPTANCE FORM

OFFER TO CONTRACT

To Jefferson County:

We hereby offer and agree to furnish the materials or service in compliance with all terms, conditions, specifications, and amendments in the Invitation for Bid and any written exceptions in the offer. We understand that the items in this Invitation for Bid, including, but not limited to, all required certificates are fully incorporated herein as a material and necessary part of the contract.

The undersigned hereby states, under penalty of perjury, that all information provided is true, accurate, and complete, and states that he/she has the authority to submit this bid, which will result in a binding contract if accepted by Jefferson County.

We acknowledge receipt of the following amendment(s): N/A, _____, _____, _____.

I certify, under penalty of perjury, that I have the legal authorization to bind the firm hereunder:

Target Specialty Products
Company Name

1225 N. Post Oak Rd.
Address

Houston TX 77055
City State Zip

Signature of Person Authorized to Sign

Mike Nichols
Printed Name

Vector Business Manager
Title

For clarification of this offer, contact:

Mike Nichols
Name

(713) 249-2075 (713) 682-4374
Phone Fax

mike.nichols@target-specialty.com
E-mail

Bidder Shall Return Completed Form with Offer.

Acceptance of Offer

The Offer is hereby accepted for the following items: Term Contract for Insecticides, Herbicides, Spray Adjuvants, and Adulticides for Jefferson County Mosquito Control District. Contract Term: One (1) year from date of award with an option to renew for four (4) additional years.

The Contractor is now bound to sell the materials or services listed by the attached contract and based upon the Invitation for Bid, including all terms, conditions, specifications, amendments, etc., and the Contractor's Offer as accepted by Jefferson County.

This contract shall henceforth be referred to as Contract No. 17-006/YS, Term Contract for Insecticides, Herbicides, Spray Adjuvants, and Adulticides for Jefferson County Mosquito Control District. The Contractor has not been authorized to commence any billable work or to provide any material or service under this contract until Contractor receives a purchase order and/or a notice to proceed from the Jefferson County Purchasing Agent.

Countersigned:

_____ _____

Jeff R. Branick
County Judge

Date

Attest:

_____

Carolyn L. Guidry
County Clerk

<u>Bidder Shall Return Completed Form with Offer.</u>

Bid Form

Item	Est Qty. (Gal.)	Description	Brand bid	MSDS Labels Attached	Price per Gallon	Total Price	
1	700	MSMA Herbicide – 2.5 gal. container	Target 6 Plus	Yes	$ 24.48 per gal.	$ 17,136.00	
2	700	Tordon 101 Herbicide or equivalent – 2.5 gal. container	Tordon 101	Yes	$ 43.94 per gal.	$ 30,758.00	
3	700	Roundup Herbicide or equivalent – 2.5 gal. container	Ranger Pro	Yes	$ 10.24 per gal.	$ 7,168.00	
4	100	Rodeo Herbicide or equivalent – 2.5 gal. container	Roundup Custom	Yes	$ 17.62 per gal.	$ 1,762.00	
5	100	Nalco Trol II or equivalent – 2.5 gal. (or smaller) container	Reign LC	Yes	$ 124.00 per gal.	$ 12,400.00	(quarts)
6	400	Aqua-King Surfactant or equivalent – 2.5 gal. (or smaller) container	Target Pro	Yes	$ 13.95 per gal.	$ 5,580.00	(1 gal.)
7	20,000	Malathion Insecticide – **bulk shipment only**	N/A	N/A	$ NO BID	$ NO BID	
8	250	Scourge Insecticide – 5 gal. containers	N/A	N/A	$ NO BID	$ NO BID	
9	600	Envion 30/30 insecticide – 2.5 gal. containers	Envion 30-30	Yes	$ 90.00 per gal.	$ 54,000.00	
10	1,375	Duet Adulticide 275 gal. steel containers	N/A	N/A	$ NO BID	$ NO BID	

Bidders shall attach to bid form a current material safety data sheet and current labels for each chemical. Failure to do so may result in rejection of bid.

Acknowledgment of Addenda (if any):

Addendum 1 N/A Date Received N/A

Addendum 2 _____ Date Received _____

Addendum 3 _____ Date Received _____

Bidder Shall Return Completed Form with Offer.

Vendor References

Please list at least three (3) companies or governmental agencies (preferably a municipality) where the same or similar products and/or services as contained in this specification package were recently provided.

THIS FORM MUST BE RETURNED WITH YOUR BID.

REFERENCE ONE

Government/Company Name: Orange County Mosquito Control

Address: 123 S. 6th Street, Orange, TX 77630

Contact Person and Title: Patrick Beebe, Director

Phone: (409) 883-5717 Fax: (409) 886-7990

Contract Period: 2016-2017 Scope of Work: Mosquito Control Chemicals

REFERENCE TWO

Government/Company Name: Harris County Public Health and Environmental Services

Address: 3330 Old Spanish Trail, Building D, Houston, TX 77021

Contact Person and Title: Chris Fredregill, Field Supervisor

Phone: (713) 440-4800 Fax: (713) 440-4795

Contract Period: 2013-2018 Scope of Work: Mosquito Control Chemicals

REFERENCE THREE

Government/Company Name: Tarrant County Environmental Health / Vector Control

Address: 1101 S. Main St., Suite 2300, Fort Worth, TX 76104

Contact Person and Title: Nina Dacko

Phone: (817) 321-4986 Fax: (409) 321-4961

Contract Period: 2015-2017 Scope of Work: Mosquito Control Chemicals

Bidder Shall Return Completed Form with Offer.

Signature Page

As permitted under Article 4413 (32c) V.A.C.S., other governmental entities may wish to participate under the same terms and conditions contained in this contract (i.e., piggyback). In the event any other entity participates, all purchase orders will be issued directly from and shipped directly to the entity requiring supplies/services. Jefferson County shall not be held responsible for any orders placed, deliveries made or payment for supplies/services ordered by another entity. Each entity reserves the right to determine their participation in this contract.

Would bidder be willing to allow other governmental entities to piggyback off this contract, if awarded, under the same terms and conditions? ..... **Yes** ☒ **No** ☐

This bid shall remain in effect for ninety (90) days from bid opening and shall be exclusive of federal excise and state and local sales tax (exempt).

The undersigned agrees, if this bid is accepted, to furnish any and all items upon which prices are offered, at the price and upon the terms and conditions contained in the Invitation for Bid, Conditions of Bidding, Terms of Contract, and Specifications and all other items made a part of the accepted contract.

The undersigned affirms that they are duly authorized to execute the contract, that this company, corporation, firm, partnership or individual has not prepared this bid in collusion with any other bidder, and that the contents of this bid as to prices, terms or conditions of said bid have not been communicated by the undersigned nor by any employee or agent to any other bidder or to any other person(s) engaged in this type of business prior to the official opening of this bid. And further, that neither the bidder nor their employees nor agents have been for the past six (6) months directly nor indirectly concerned in any pool or agreement or combination to control the price of goods or services on, nor to influence any person to bid or not to bid thereon.

Target Specialty Products	Mike Nichols
Bidder (Entity Name)	Signature
1225 N. Post Oak Rd.	Mike Nichols
Street & Mailing Address	Print Name
Houston, TX 77055	03/11/2017
City, State & Zip	Date Signed
(800) 901-9746 or (713) 682-4411	(713) 682-4374
Telephone Number	Fax Number
mike.nichols@target-specialty.com	
E-mail Address	

Bidder Shall Return Completed Form with Offer.

Conflict of Interest Questionnaire

CONFLICT OF INTEREST QUESTIONNAIRE — FORM CIQ

For vendor doing business with local governmental entity

This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session.

This questionnaire is being filed in accordance with Chapter 176, Local Government Code, by a vendor who has a business relationship as defined by Section 176.001(1-a) with a local governmental entity and the vendor meets requirements under Section 176.006(a).

By law this questionnaire must be filed with the records administrator of the local governmental entity not later than the 7th business day after the date the vendor becomes aware of facts that require the statement to be filed. *See* Section 176.006(a-1), Local Government Code.

A vendor commits an offense if the vendor knowingly violates Section 176.006, Local Government Code. An offense under this section is a misdemeanor.

OFFICE USE ONLY

Date Received

1 **Name of vendor who has a business relationship with local governmental entity.**

Mike Nichols / Target Specialty Products

2 ☐ **Check this box if you are filing an update to a previously filed questionnaire.**

(The law requires that you file an updated completed questionnaire with the appropriate filing authority not later than the 7th business day after the date on which you became aware that the originally filed questionnaire was incomplete or inaccurate.)

3 **Name of local government officer about whom the information in this section is being disclosed.**

N/A

Name of Officer

This section (Item 3 including subparts A, B, C, & D) must be completed for each officer with whom the vendor has an employment or other business relationship as defined by Section 176.001(1-a), Local Government Code. Attach additional pages to this Form CIQ as necessary.

A. Is the local government officer named in this section receiving or likely to receive taxable income, other than investment income, from the vendor?

☐ Yes ☒ No

B. Is the vendor receiving or likely to receive taxable income, other than investment income, from or at the direction of the local government officer named in this section AND the taxable income is not received from the local governmental entity?

☐ Yes ☒ No

C. Is the filer of this questionnaire employed by a corporation or other business entity with respect to which the local government officer serves as an officer or director, or holds an ownership interest of one percent or more?

☐ Yes ☒ No

D. Describe each employment or business and family relationship with the local government officer named in this section.

No employment or business and family relationship exists with any local government officer.

4

Signature of vendor doing business with the governmental entity

03/11/2017

Date

Adopted 8/7/2015

Bidder Shall Return Completed Form with Offer.

Local Government Officer

Conflicts Disclosure Statement - OFFICE USE ONLY

LOCAL GOVERNMENT OFFICER CONFLICTS DISCLOSURE STATEMENT — **FORM CIS**

This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session.

This is the notice to the appropriate local governmental entity that the following local government officer has become aware of facts that require the officer to file this statement in accordance with Chapter 176, Local Government Code.

OFFICE USE ONLY

Date Received

1 **Name of Local Government Officer**

N/A

2 **Office Held**

N/A

3 **Name of vendor described by Sections 176.001(7) and 176.003(a), Local Government Code**

N/A

4 **Description of the nature and extent of employment or other business relationship with vendor named in item 3**

N/A

5 **List gifts accepted by the local government officer and any family member, if aggregate value of the gifts accepted from vendor named in item 3 exceeds $100 during the 12-month period described by Section 176.003(a)(2)(B).**

Date Gift Accepted N/A Description of Gift N/A

Date Gift Accepted _____ Description of Gift _____

Date Gift Accepted _____ Description of Gift _____

(attach additional forms as necessary)

6 **AFFIDAVIT**

I swear under penalty of perjury that the above statement is true and correct. I acknowledge that the disclosure applies to each family member (as defined by Section 176.001(2), Local Government Code) of this local government officer. I also acknowledge that this statement covers the 12-month period described by Section 176.003(a)(2)(B), Local Government Code.

N/A

Signature of Local Government Officer

AFFIX NOTARY STAMP / SEAL ABOVE

Sworn to and subscribed before me, by the said _____, this the _____ day of _____, 20_____, to certify which, witness my hand and seal of office.

Signature of officer administering oath | Printed name of officer administering oath | Title of officer administering oath

Adopted 8/7/2015

Good Faith Effort (GFE) Determination Checklist

This information must be submitted with your bid.

Bidder intends to utilize subcontractors/subconsultants in the fulfillment of this contract (if awarded).
☐ Yes ☒ No

Instructions: In order to determine if a "Good Faith Effort" was made in soliciting HUBs for subcontracting opportunities, the following checklist and supporting documentation shall be completed by the Prime Contractor/Consultant, and returned with the Prime Contractor/ Consultant's bid. This list contains the **minimum** efforts that should be put forth by the Prime Contractor/Consultant when attempting to achieve or exceed the goals of HUB Subcontractor participation. The Prime Contractor/Consultant may extend his/her efforts in soliciting HUB Subcontractor participation beyond what is listed below.

Did the Prime Contractor/Consultant . . .

☒ Yes	☐ No	1. To the extent practical, and consistent with standard and prudent industry standards, divide the contract work into the smallest feasible portions, to allow for maximum HUB Subcontractor participation?
☐ Yes	☒ No	2. **Notify** in writing a reasonable number of HUBs, allowing sufficient time for effective participation of the planned work to be subcontracted?
☐ Yes	☒ No	3. **Provide** HUBs that were genuinely interested in bidding on a subcontractor, adequate information regarding the project (i.e., plans, specifications, scope of work, bonding and insurance requirements, and a point of contract within the Prime Contractor/Consultant's organization)?
☐ Yes	☒ No	4. **Negotiate** in good faith with interested HUBs, and not reject bids from HUBs that qualify as lowest and responsive bidders?
☐ Yes	☒ No	5. **Document** reasons HUBs were rejected? Was a written rejection notice, including the reason for rejection, provided to the rejected HUBs?
☐ Yes	☒ No	6. If Prime Contractor/Consultant has zero (0) HUB participation, **please explain the reasons why.**

If "No" was selected, please explain and include any pertinent documentation with your bid.
If necessary, please use a separate sheet to answer the above questions.

Mike Nichols
Printed Name of Authorized Representative

Signature

Vector Business Manager
Title

03/11/2017
Date

Bidder Shall Return Completed Form with Offer.



1225 N. Post Oak Rd.
Houston, TX 77055
Tel: 713-682-4411
Tel: 800-901-9746
Fax: 713-682-4374

March 11, 2017

Jefferson County
Purchasing Department
1149 Pearl St., 1st Floor
Beaumont, TX 77701

RE: IFB 17-006/YS, Term Contract for Insecticides, Herbicides, Spray Adjuvants, and Adulticides for Jefferson County Mosquito Control District

To whom it may concern,

Regarding the above referenced bid, please be aware that Target Specialty Products is submitting a bid with zero HUB participation. Target is a wholesale distributor of specialty agricultural chemicals and equipment. For all products being bid, Target is an authorized direct distributor for all respective manufacturers. Target operates from company owned locations, employs full-time employees in all locations, and delivers these products in company owned vehicles. There is nothing for target to subcontract, as is standard for this industry.

If you have any questions regarding this matter or need anything else, you can reach me through Target's Houston office, or on my mobile phone at (713) 249-2075.

Sincerely,

Mike Nichols

Mike Nichols
Vector Business Manager

Notice of Intent (NOI) to Subcontract with Historically Underutilized Business (HUB)

This information must be submitted with your bid.

Bidder intends to utilize subcontractors/subconsultants in the fulfillment of this contract (if awarded).
☐ Yes ☒ No

Instructions for Prime Contractor/Consultant: Bidder shall submit this form with the bid; however, the information below may be submitted after contract award, but prior to beginning performance on the contract. Please submit one form for each HUB Subcontractor/Subconsultant with proper signatures, per the terms and conditions of your contract.

Contractor Name: Target Specialty Products HUB: p Yes (p No)

Address: 1225 N. Post Oak Rd. (Street) Houston (City) TX (State) 77055 (Zip)

Phone (with area code): (800) 901-9746 Fax (with area code): (713) 682-4374

Project Title & No.: IFB 17-006/YS, Term Contract for Insecticides, Herbicides, Spray Adjuvants, and Adulticides for Jefferson County Mosquito Control District

Prime Contract Amount: $ Unknown

HUB Subcontractor Name: N/A

HUB Status (Gender & Ethnicity): N/A

Certifying Agency: ☐ Tx. Bldg & Procurement Comm. ☐ Jefferson County ☐ Tx Unified Certification Prog.

Address: N/A (Street) (City) (State) (Zip)

Phone (with area code): N/A Fax (with area code): N/A

Proposed Subcontract Amount: $ N/A Percentage of Prime Contract: N/A %

Description of Subcontract Work to be Performed: N/A

Mike Nichols	Mike Nichols	03/11/2017
Printed Name of Contractor Representative	Signature of Representative	Date
N/A	N/A	N/A
Printed Name of HUB	Signature of Representative	Date

NOTE: NOTHING ON THIS NOTICE OF INTENT FORM IS INTENDED TO CONFER ANY RIGHTS, EXPRESSED OR IMPLIED, TO ANY THIRD PARTIES.

Pre-Approval for Subcontractor Substitutions must be obtained from the Jefferson County Purchasing Agent's Representative. The "HUB Subcontractor/Subconsultant Change Form" must be completed and faxed to 409-835-8456.

Bidder Shall Return Completed Form with Offer.

Historically Underutilized Business (HUB)
Subcontracting Participation Declaration Form

PAGE 1 OF 4

This information must be submitted with your bid.

Bidder intends to utilize subcontractors/subconsultants in the fulfillment of this contract (if awarded).
☐ Yes ☒ No

Prime Contractor: Target Specialty Products HUB: ☐ Yes ☒ No

HUB Status (Gender & Ethnicity): N/A

Address: 1225 N. Post Oak Rd. (Street) Houston (City) TX (State) 77055 (Zip)

Phone (with area code): (800) 901-9746 Fax (with area code): (713) 682-4374

Project Title & No.: Insecticides, Herbicides, Spray Adj. IFB/RFP No.: 17-006/YS

Total Contract: $ Unknown Total HUB Subcontract(s): $ 0

Construction HUB Goals: 12.8% MBE:: 0 % 12.6% WBE: 0 %

Sub-goals: 1.7 African-American, 9.7% Hispanic, 0.7% Native American, 0.8% Asian American.
Use these goals as a guide to diversify.

FOR HUB OFFICE USE ONLY:

Verification date HUB Program Office reviewed and verified HUB Sub information Date: _____ Initials: _____

PART I. HUB SUCONTRACTOR DISCLOSURE

HUB Subcontractor Name: N/A

HUB Status (Gender & Ethnicity): N/A

Certifying Agency: ☐ Texas Bldg & Procurement Comm. ☐ Texas Unified Certification Prog.

Address: N/A (Street) (City) (State) (Zip)

Contact person: N/A Title: N/A

Phone (with area code): N/A Fax (with area code): N/A

Proposed Subcontract Amount: $ 0 Percentage of Prime Contract: 0 %

Description of Subcontract Work to be Performed: N/A

Bidder Shall Return Completed Form with Offer.

Historically Underutilized Business (HUB) Subcontracting Participation Declaration Form

HUB SUBCONTRACTOR DISCLOSURE

PART I: Continuation Sheet **(Duplicate as Needed)**

HUB Subcontractor Name: N/A

HUB Status (Gender & Ethnicity): N/A

Certifying Agency: ☐ Tx. Bldg & Procurement Comm. ☐ Jefferson County ☐ Tx Unified Certification Prog.

Address: N/A
Street City State Zip

Contact person: N/A Title: N/A

Phone (with area code): N/A Fax (with area code): N/A

Proposed Subcontract Amount: $ 0 Percentage of Prime Contract: 0 %

Description of Subcontract Work to be Performed: N/A

HUB Subcontractor Name: N/A

HUB Status (Gender & Ethnicity): N/A

Certifying Agency: ☐ Tx. Bldg & Procurement Comm. ☐ Jefferson County ☐ Tx Unified Certification Prog.

Address: N/A
Street City State Zip

Contact person: N/A Title: N/A

Phone (with area code): N/A Fax (with area code): N/A

Proposed Subcontract Amount: $ 0 Percentage of Prime Contract: 0 %

Description of Subcontract Work to be Performed: N/A

All HUB Subcontractor Participation may be verified with the HUB Subcontractor(s) listed on Part I.

Bidder Shall Return Completed Form with Offer.

Historically Underutilized Business (HUB) Subcontracting Participation Declaration Form

PART II: STATEMENT OF NON-COMPLIANCE FOR NOT MEETING HUB SUBCONTRACTING GOALS

Please complete Good Faith Effort (GFE) Checklist and attach any supporting documentation.

Our firm was unable to meet the HUB goals for this project for the following reasons:

- ☐ All subcontractors to be utilized are "Non-HUBs." *(Complete Part III)*
- ☐ HUBs were solicited but did not respond.
- ☐ HUBs solicited were not competitive.
- ☐ HUBs were unavailable for the following trade(s):
- ☒ Other: There was nothing to subcontract.

Was the Jefferson County HUB Office contacted for assistance in locating HUBs? ☐ Yes ☒ No

PART III: DISCLOSURE OF OTHER "NON-HUB" SUBCONTRACTS

The bidder shall use this area to provide a listing of all "Non-HUB" Subcontractors, including suppliers, that will perform under this project. A list of those "Non-HUB" Subcontractors the bidder selects, after bid submission, shall be provided to the Purchasing Office not later than five (5) calendar days after being notified that bidder is the apparent low bidder. A list of those "Non-HUB" Subcontractors that are selected after contract award must be provided **immediately** after their selection.

Subcontractor Name: N/A

Address: N/A
Street City State Zip

Contact person: N/A Title: N/A

Phone (with area code): N/A Fax (with area code): N/A

Proposed Subcontract Amount: $ 0 Percentage of Prime Contract: 0 %

Description of Subcontract Work to be Performed: N/A

Subcontractor Name: N/A

Address: N/A
Street City State Zip

Contact person: N/A Title: N/A

Phone (with area code): N/A Fax (with area code): N/A

Proposed Subcontract Amount: $ 0 Percentage of Prime Contract: 0 %

Description of Subcontract Work to be Performed: N/A

Bidder Shall Return Completed Form with Offer.

Historically Underutilized Business (HUB) Subcontracting Participation Declaration Form

Subcontractor Name: N/A

Address: N/A
Street City State Zip

Contact person: N/A Title: N/A

Phone (with area code): N/A Fax (with area code): N/A

Proposed Subcontract Amount: $ 0 Percentage of Prime Contract: 0 %

Description of Subcontract Work to be Performed: N/A

Subcontractor Name: N/A

Address: N/A
Street City State Zip

Contact person: N/A Title: N/A

Phone (with area code): N/A Fax (with area code): N/A

Proposed Subcontract Amount: $ 0 Percentage of Prime Contract: 0 %

Description of Subcontract Work to be Performed: N/A

I hereby certify that I have read the *HUB Program Instructions and Information*, truthfully completed all applicable parts of this form, and **attached any necessary support documentation as required.** I fully understand that intentionally falsifying information on this document may result in my not receiving a contract award or termination of any resulting contract.

Name (print or type): Mike Nichols

Title: Vector Business Manager

Signature:

Date: 03/11/2017

E-mail address: mike.nichols@target-specialty.com

Contact person that will be in charge of invoicing for this project:

Name (print or type): Jeff Bastian

Title: Service Center Manager - Houston

Date: 03/11/2017

E-mail address: jeff.bastian@target-specialty.com

Bidder Shall Return Completed Form with Offer.

Residence Certification/Tax Form

Pursuant to Texas Government Code §2252.001 *et seq.*, as amended, Jefferson County requests Resident Certification. §2252.001 *et seq.* of the Government Code provides some restrictions on the awarding of governmental contracts; pertinent provisions of §2252.001 are stated below:

(3) "Nonresident bidder" refers to a person who is not a resident.

(4) "Resident bidder" refers to a person whose principal place of business is in this state, including a contractor whose ultimate parent company or majority owner has its principal place of business in this state.

☒ I certify that Target Specialty Products [company name] is a Resident Bidder of Texas as defined in Government Code §2252.001.

☐ I certify that _____ [company name] is a Nonresident Bidder as defined in Government Code §2252.001 and our principal place of business is _____ _____ (city and state).

Taxpayer Identification Number (T.I.N.):	23-1568350
Company Name submitting bid/proposal:	Target Specialty Products
Mailing address:	1225 N. Post Oak Rd., Houston, TX 77055
If you are an individual, list the names and addresses of any partnership of which you are a general partner:	

Property: List all taxable property owned by you or above partnerships in Jefferson County.

Jefferson County Tax Acct. No.*	Property address or location**
N/A	N/A

* This is the property amount identification number assigned by the Jefferson County Appraisal District.

** For real property, specify the property address or legal description. For business property, specify the address where the property is located. For example, office equipment will normally be at your office, but inventory may be stored as a warehouse or other location.

Bidder Shall Return Completed Form with Offer.

Bid Affidavit

The undersigned certifies that the bid prices contained in this bid have been carefully reviewed and are submitted as correct and final. Bidder further certifies and agrees to furnish any and/or all commodities upon which prices are extended at the price offered, and upon the conditions contained in the specifications and the Notice to Bidders.

STATE OF Texas COUNTY OF Harris

BEFORE ME, the undersigned authority, a Notary Public in and for the State of Texas,

on this day personally appeared John Michael Nichols (name), who

after being by me duly sworn, did depose and say:

"I, John Michael Nichols (name) am a duly authorized officer of/agent

for Target Specialty Products (name of firm) and have been duly authorized to execute the

foregoing on behalf of the said Target Specialty Products (name of firm).

I hereby certify that the foregoing bid has not been prepared in collusion with any other bidder or other person or persons engaged in the same line of business prior to the official opening of this bid. Further, I certify that the bidder is not now, nor has been for the past six (6) months, directly or indirectly concerned in any pool or agreement or combination, to control the price of services/commodities bid on, or to influence any person or persons to bid or not to bid thereon."

Name and address of bidder: Target Specialty Products
1225 N. Post Oak Rd., Houston, TX 77055

Fax: (713) 682-4374 Telephone# (800) 901-9746

by: Mike Nichols (print name) Title: Vector Business Manager

Signature: John M. Nichols

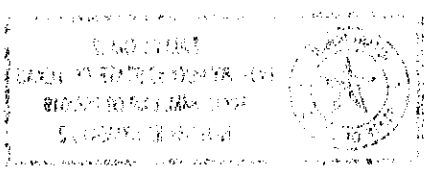
SUBSCRIBED AND SWORN to before me by the above-named
John Michael Nichols on

this the 13th day of March, 2017.

SALLY GOMEZ
NOTARY PUBLIC STATE OF TEXAS
MY COMM. EXP. 09/25/2019
NOTARY ID 130384163

Notary Public in and for
the State of Texas

Bidder Shall Return Completed Form with Offer.



ACORD®

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 09/27/2016

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	1-404-439-8000
Integro USA Inc. dba Integro Insurance Brokers 1000 Abernathy Road N.E. Suite 850 Atlanta, GA 30328	

CONTACT NAME:	Certifiates Atlanta	
PHONE (A/C, No, Ext):	404-439-8000	FAX (A/C, No): 404-439-8001
E-MAIL ADDRESS:	CertificatesAtlanta@integrogroup.com	

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A: ACE AMER INS CO	22667
INSURER B: OLD REPUBLIC INS CO	24147
INSURER C: ACE PROP & CAS INS CO	20699
INSURER D:	
INSURER E:	
INSURER F:	

INSURED
RENTOKIL NORTH AMERICA, INC. (650)

1125 Berkshire Boulevard
Suite 150
Wyomissing, PA 19610

COVERAGES **CERTIFICATE NUMBER:** 48030958 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY			OGLG27240331	10/01/16	10/01/17	EACH OCCURRENCE	$ 5,000,000
	CLAIMS-MADE [X] OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	$ 5,000,000
							MED EXP (Any one person)	$ 5,000
							PERSONAL & ADV INJURY	$ 5,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	$ 5,000,000
	POLICY [X] PRO-JECT [X] LOC						PRODUCTS - COMP/OP AGG	$ 5,000,000
	OTHER:							$
B	AUTOMOBILE LIABILITY			MWTB308236	10/01/16	10/01/17	COMBINED SINGLE LIMIT (Ea accident)	$ 2,000,000
	X ANY AUTO						BODILY INJURY (Per person)	$
	ALL OWNED AUTOS / SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	HIRED AUTOS / NON-OWNED AUTOS						PROPERTY DAMAGE (Per accident)	$
								$
C	X UMBRELLA LIAB X OCCUR			XOOG27239420	10/01/16	10/01/17	EACH OCCURRENCE	$ 5,000,000
	EXCESS LIAB CLAIMS-MADE						AGGREGATE	$ 5,000,000
	DED RETENTION $ 10,000							$
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y/N			MWC308235	10/01/16	10/01/17	X PER STATUTE OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? [N] N/A (Mandatory in NH)						E.L. EACH ACCIDENT	$ 2,000,000
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$ 2,000,000
							E.L. DISEASE - POLICY LIMIT	$ 2,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER

EVIDENCE OF COVERAGE

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Marsh Kinnett

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Form **W-9**
(Rev. December 2014)
Department of the Treasury
Internal Revenue Service

Request for Taxpayer Identification Number and Certification

Give Form to the requester. Do not send to the IRS.

Print or type See Specific Instructions on page 2.

1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank.
Rentokil North America, Inc.

2 Business name/disregarded entity name, if different from above
Target Specialty Products

3 Check appropriate box for federal tax classification; check only **one** of the following seven boxes:
☐ Individual/sole proprietor or single-member LLC ☑ C Corporation ☐ S Corporation ☐ Partnership ☐ Trust/estate
☐ Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=partnership) ▶
Note. For a single-member LLC that is disregarded, do not check LLC; check the appropriate box in the line above for the tax classification of the single-member owner.
☐ Other (see instructions) ▶

4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3):
Exempt payee code (if any) 5
Exemption from FATCA reporting code (if any)
(Applies to accounts maintained outside the U.S.)

5 Address (number, street, and apt. or suite no.)
PO Box 14084

Requester's name and address (optional)

6 City, state, and ZIP code
Reading, PA 19612

7 List account number(s) here (optional)

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN* on page 3.

Note. If the account is in more than one name, see the instructions for line 1 and the chart on page 4 for guidelines on whose number to enter.

Social security number
			–			–				

or

Employer identification number
2	3	–	1	5	6	8	3	5	0

Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
3. I am a U.S. citizen or other U.S. person (defined below); and
4. The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions on page 3.

Sign Here Signature of U.S. person ▶ Darla Larson Date ▶ 10/22/15

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. Information about developments affecting Form W-9 (such as legislation enacted after we release it) is at *www.irs.gov/fw9*.

Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following:

- Form 1099-INT (interest earned or paid)
- Form 1099-DIV (dividends, including those from stocks or mutual funds)
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
- Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
- Form 1099-S (proceeds from real estate transactions)
- Form 1099-K (merchant card and third party network transactions)
- Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
- Form 1099-C (canceled debt)
- Form 1099-A (acquisition or abandonment of secured property)

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See *What is backup withholding?* on page 2.

By signing the filled-out form, you:

1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),
2. Certify that you are not subject to backup withholding, or
3. Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income, and
4. Certify that FATCA code(s) entered on this form (if any) indicating that you are exempt from the FATCA reporting, is correct. See *What is FATCA reporting?* on page 2 for further information.

Brd Dem #1

GROUP 17 HERBICIDE

Drexel

MSMA 6 Plus

MSMA Liquid Plus Surfactant

For selective post-emergent weed control in Cotton, Golf courses and Sod farms, and Highway Rights-of-Way.

ACTIVE INGREDIENT:

Monosodium acid methanearsonate*.....	47.6%
OTHER INGREDIENTS:	52.4%
TOTAL:	100.0%

*This product contains 6 pounds of MSMA per gallon.

*Total Arsenic (as elemental), all in water-soluble form, is 22.0%.

KEEP OUT OF REACH OF CHILDREN

CAUTION

See FIRST AID Below

EPA Reg. No. 19713-42 **Net Content:**
EPA Est. No. 19713-MS-1 **2.5 Gals. (9.46 L)**

FIRST AID

IF SWALLOWED:
- Call a poison control center or doctor immediately for treatment advice.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to do so by a poison control center or doctor.
- Do not give anything by mouth to an unconscious or convulsing person.

IF IN EYES:
- Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.
- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
- Call a poison control center or doctor for treatment advice.

IF ON SKIN OR CLOTHING:
- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15 to 20 minutes.
- Call a poison control center or doctor for treatment advice.

IF INHALED:
- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.
- Call a poison control center or doctor for further treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also call CHEMTREC at 800-424-9300 for emergency.

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

CAUTION: Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with eyes, skin and clothing. Avoid breathing spray mist.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are polyethylene or polyvinyl chloride. If you want more options, follow the instructions for category A on an EPA chemical-resistance category selection chart. *(Continued)*

PRECAUTIONARY STATEMENTS *(Cont.)*

All mixers, loaders, applicators and other handlers must wear: Long-sleeved shirt and long pants, chemical-resistant gloves, and shoes plus socks.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

When handlers use aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for Agricultural Pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS. Pilots must use an enclosed cockpit that meets the requirements listed in the WPS for agricultural pesticides [40 CFR 170.240 (d)(6)].

USER SAFETY RECOMMENDATIONS

Users should: 1) Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. 2) Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. 3) Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters or rinsate.

USE INFORMATION

MSMA 6 PLUS is a herbicide useful for controlling weeds in Cotton, Golf courses and Sod farms, and Highway Rights-of-Way. It is a combination of herbicide and surfactant. It is unnecessary to add any surfactant to the spray solution. Best results are obtained on young, actively growing weeds at air temperatures above 70°F.

Weeds controlled by this product include:

Bahiagrass *(Paspalum* sp.)	Crabgrass, Large *(Digitaria* sp.)
Barnyardgrass *(Echinochloa crus-galli)*	Crabgrass, Smooth *(Digitaria* sp.)
Beggartick, Hairy *(Biden pilosa)*	Dallisgrass *(Paspalum dilatatum)*
Brachiaria spp.	Dandelion *(Taraxacum officinale)*
Broomsedge	Dayflower *(Commelina* sp.)
Chickweed *(Stellaria media)*	Fiddleneck *(Amsinckia* sp.)
Cocklebur *(Xanthium spinosum)*	

(Continued)

Manufactured By:
Drexel Chemical Company
P.O. BOX 13327, MEMPHIS, TN 38113-0327
SINCE 1972

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(Cont.)	
Florida Beggarweed *(Desmodium tortuosum)*	Oats, Wild *(Avena fatua)*
Foxtail *(Setaria* sp.)	Pigweed *(Amaranthus* sp.)
Goosegrass *(Eleusine indica)*	Puncturevine *(Tribulus terrestris)*
Guineagrass *(Panicum* sp.)	Purslane, common
Jimsonweed *(Datura stramonium)*	Ragweed *(Ambrosia* spp.)
Johnsongrass *(Sorghum halipense)*	Sandbur *(Cenchrus* sp.)
Morningglory *(Ipomoea* spp.)	Sicklepod *(Cassia obtusifolia)*
Mustard, Wild	Sorrel, Wood *(Oxalis* sp.)
Nutsedge *(Cyperus* sp.)	Spurge *(Euphorbia* sp.)
	Witchgrass *(Panicum capillare)*

RESISTANCE MANAGEMENT

GROUP 17 HERBICIDE

This product is a Group 17 herbicide. Any weed population may contain or develop plants naturally resistant to this product and other Group 17 herbicides. Weed species with acquired resistance to Group 17 may eventually dominate the weed population if Group 17 herbicides are used repeatedly in the same field or in successive years as primary method of control for targeted species. This may result in partial or total loss of control of those species by this product or other Group 17 herbicides.

To delay herbicide resistance, consider:

- Avoiding the consecutive use of this product or other target site of action Group 17 herbicides that have a similar target site of action on the same weed species.
- Using tank-mixtures or pre-mixes with herbicides from different target site of action Groups as long as the involved products are all registered for the same use, have different sites of action, and are both effective at the tank-mix or pre-pack rate on the weed(s) of concern.
- Basing herbicide use on a comprehensive IPM program.
- Monitoring treated weed populations for loss of field efficacy.
- Contacting your local extension specialist, certified crop advisors and/or manufacturer for herbicide resistance management and/or integrated weed management recommendations for specific crops and resistant weed biotypes.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product through any type of irrigation system. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard (WPS), 40 CFR Part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, greenhouses and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about Personal Protective Equipment (PPE) and Restricted Entry Interval (REI). The requirements in this box only apply to uses of this product that are covered by the WPS.

Do not enter or allow worker entry into treated areas during the REI of 12 hours.

PPE required for early entry to treated areas that is permitted under the WPS and that involves contact with anything that has been treated, such as plants, soil or water is: Coveralls, chemical-resistant gloves such as polyethylene or polyvinyl chloride and shoes plus socks.

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are not within the scope of the WPS for Agricultural Pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses.

Keep children and pets out of the treated area until sprays have dried.

APPLICATION RESTRICTIONS

- Do not apply this product in Florida except on Cotton in the counties listed in the Cotton use section of this label.
- Aerial application is prohibited, except when applying to Cotton.

MIXING INSTRUCTIONS

This product is completely water-soluble. Fill the spray equipment reservoir about half full with water and add the required amount of herbicide with agitation. Finish filling the tank with water and apply. After use, clean equipment thoroughly by flushing with water. Do not store spray solution in tank for a prolonged period. Although this product is only moderately corrosive, do not use in galvanized or aluminum equipment.

SPRAY DRIFT MANAGEMENT

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment and weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

1) The distance of the outer most nozzles on the boom must not exceed three-fourth the length of the wingspan or rotor.
2) Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they shall be observed. The applicator should be familiar with and take into account the information covered in the *"AERIAL DRIFT REDUCTION ADVISORY INFORMATION"* section below.

AERIAL DRIFT REDUCTION ADVISORY INFORMATION

Information on Droplet Size

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see *"Wind"*, *"Temperature and Humidity"*, and *"Temperature Inversions"*).

Controlling Droplet Size

- Volume – Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- Pressure – Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- Number of Nozzles – Use the minimum number of nozzles that provide uniform coverage.
- Nozzle Orientation – Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- Nozzle Type – Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce larger droplets than other nozzle types.

Boom Length

For some use patterns, reducing the effective boom length to less than three-fourths of the wingspan or rotor length may further reduce drift without reducing swath width.

Application Height

Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

Swath Adjustment

When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.)

Wind

Drift potential is lowest between speeds of 2 to 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential.
Note: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

Temperature and Humidity

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

Temperature Inversions

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog. However, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

Sensitive Areas

This pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive area).

COTTON

This product is useful for the control of weeds listed under *"USE INFORMATION"* section and many similar weeds. Applications can be made: 1) Post-emergent, over the top, when Cotton is 3 to 6 inches high or up to early first square stage, whichever occurs first using ground or aircraft equipment. 2) Post-emergent as a directed spray with ground equipment when Cotton is 3 inches high to first bloom.
Slight burning and a reddish discoloration of the Cotton leaf may occasionally occur following application, but the Cotton plant will develop normally.

USE RESTRICTIONS

- Do not apply in Florida except on Cotton grown in the following counties: Calhoun, Columbia, Escambia, Gadsden, Hamilton, Holmes, Jackson, Jefferson, Okaloosa, Santa Rosa, Suwannee, Walton and Washington.
  Note: Applications to Cotton in Florida should be confined to band treatments.
- Only one application at 2 pounds a.i. (2.66 pts. of this product) per acre is allowed per season, except when a salvage operation is needed.
- If a salvage operation is needed (i.e., if Pigweed escapes the first application), then a second or repeat application at 2 pounds a.i. (2.66 pts. of this product) per acre is allowed.
- A second or repeat application, if needed, should be timed 1 to 3 weeks after the first application. Apply only as a salvage operation. Apply only to healthy rapidly growing Cotton 3 inches high, but no later than 6 inches high or early square, whichever occurs first. Preference should be given to directed spray. In order to minimize injury, the second application should be made as a directed spray when possible.
- Do not make more than two applications per season.
- Do not apply more than a total of 4 pounds a.i. per acre per season.
- Do not apply pre-plant to Cotton.
- Do not apply within 50 feet of permanent water bodies or aquatic habitat, including, but not limited to lakes, reservoirs, rivers, streams, marshes, ponds and estuaries.
- Do not allow spray or spray drift to contact adjacent crops or injury will result.
- Apply only on still days when weather conditions do not favor drift from areas being treated. Aircraft applications of this product should only be made by applicators experienced in use of herbicides, and application should be made in accordance with State and Federal regulations.
- Do not feed treated foliage to livestock or graze treated areas.

Post-Emergent Applications Using Ground or Aircraft Equipment as an Over-the-Top Broadcast Spray when Cotton is 3 inches high until early first square stage as a salvage operation. **One application:** Apply 2.5 pints in 40 gallons of water for ground application, or in 5 to 10 gallons of water for aircraft application per acre. DO NOT repeat this treatment. **Two applications:** Mix at the rate of 1 to 1.25 pints of this product in 40 gallons of water for ground equipment or in 5 to 10 gallons of water for aircraft application per acre of Cotton. If needed, a second or repeat application should be made 1 to 3 weeks after the first application. Apply only as a salvage operation. Apply only to healthy, rapidly growing Cotton, 3 inches high, but no later than 6 inches high or early square, whichever occurs first. Preference should be given to directed sprays. In order to minimize injury, the second application should be made as a directed spray when possible. DO NOT make more than two applications per season. Do not feed treated foliage to livestock or graze treated areas.
Post-emergent Directed Spray Applications: Mix this product at the rate of 2.66 pints in 40 gallons of water per acre for application as directed broadcast spray when weeds are small. For band applications, mix 2.66 pints in 40 gallons of water per acre, then apply 1 gallon of the diluted spray for each 1 inch band width to be treated of Cotton grown on 40 inch row spacing. Direct the spray solution to the base of the Cotton plant. Nozzles should be placed so as to avoid spraying the Cotton foliage, but to give good coverage of the weeds. If regrowth occurs, make a second application about 1 to 3 weeks after the first. Make directed applications only when Cotton is 3 inches high to first bloom. Do not apply after first bloom. Do not feed treated foliage to livestock or graze treated areas.

GOLF COURSES AND SOD FARMS

Mow Turfgrass to a height of 1 to 1.5 inches before treatment. Mix 1 fluid ounce (2 tbsp.) of this product in 1 to 2.5 gallons of water for application to a total area of 1,000 square feet. For established Bermudagrass and Zoysiagrass, mix 1 to 2 fluid ounces (2 to 4 tbsp.) of this product in 1 to 2.5 gallons of water for application to a total area of 1,000 square feet. Apply during warm weather when temperature is between 80°F and 90°F. Do not water turf for at least 24 hours after application. Turfgrass may be temporarily discolored. Bermudagrass, Bluegrass, and Zoysiagrass have shown tolerance if this product is properly applied. Injury may result if applied to Bentgrass, Fescue, and St. Augustinegrass. **DO NOT apply to St. Augustinegrass except for commercial sod production.** DO NOT apply to Carpetgrass, Centipedegrass or to Dichondra. DO NOT reseed until two weeks after last application. For application to St. Augustinegrass in sod farms, last application can be made 4 to 5 weeks prior to lifting the sod for harvest to allow full recovery before lifting. St. Augustinegrass sod will be temporarily discolored following application. DO NOT apply to freshly mowed St. Augustinegrass sod.

USE RESTRICTIONS

- For newly constructed golf courses, ONLY one broadcast application is permitted.
- For all other applications to golf courses, this product can ONLY be used for spot treatments (100 sq. ft. per spot), not to exceed 25% of the total golf course acreage per year.
- In Sod farms, ONLY two broadcast applications are allowed per season. Do not apply within 25 feet of permanent water bodies or aquatic habitat, including, but not limited to lakes, reservoirs, rivers, streams, marshes, ponds and estuaries.

HIGHWAY RIGHTS-OF-WAY

This product is useful for controlling weeds listed under *"USE INFORMATION"* section and similar other weeds on Highway Rights-Of-Way. Mix this product at a rate of 2.5 to 6 pints per 40 to 50 gallons of water per acre. Use higher rates and spray volume for dense weed growth. For small areas, use 1 to 2 fluid ounces in 5 gallons per 1,000 square feet. Spray undesirable vegetation thoroughly to point of runoff. Adequate coverage and complete wetting of foliage is important for effective control. If regrowth occurs, reapply as required.

USE RESTRICTIONS

- Do not apply more than two broadcast applications per year.
- Do not apply within 100 feet of permanent water bodies or aquatic habitat, including, but not limited to lakes, reservoirs, rivers, streams, marshes, ponds and estuaries.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

PESTICIDE STORAGE: Storage should be under lock and key and secure from access by unauthorized persons and children. Storage should be in a cool, dry area away from any heat or ignition source. High heat may form volatile arsenic compounds. Do not stack over 2 pallets high. Move containers by handles or in cases. Do not move containers from one area to another unless they are securely sealed. Keep container tightly sealed when not in use. Keep away from any puncture source. Avoid storage near water supplies, food, feed, seed, fungicides, insecticides and fertilizers to avoid contamination. Store in original containers only. If the contents are leaking or material is spilled, follow these steps while wearing protective clothing:

1. Contain spill. Absorb with an inert material such as sand or sawdust.
2. Collect and place in suitable containers for disposal.
3. Wash area with soap and water to remove remaining pesticide.
4. Follow washing with clean water rinse.
5. Place a leaking container in a plastic tub and transfer content as soon as possible, to an empty, original container.
6. Do not allow runoff to enter sewer or contaminate water supplies.
7. Dispose of waste as indicated below.

PESTICIDE DISPOSAL: Pesticide wastes are toxic. If these wastes cannot be disposed of by use according to label instructions, contact your state pesticide or environmental control agency or the hazardous waste representative at the nearest EPA regional office for guidance.

CONTAINER HANDLING:

Nonrefillable Container (rigid material; less than 5 gallons): Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container one-fourth full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

Nonrefillable Container (rigid material; 5 gallons up to < 250 gallons): Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill container one-fourth full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

Refillable Container (≥ 250 gallons & Bulk): Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

WARRANTY—CONDITIONS OF SALE

OUR DIRECTIONS FOR USE of this product are based upon tests believed reliable. Follow directions carefully. Timing and method of application, weather and crop conditions, mixtures with other chemicals not specifically recommended and other influencing factors in the use of this product are beyond the control of the Seller. To the extent consistent with applicable law, Buyer assumes all risks of use, storage and handling of this material not in strict accordance with directions given herewith. To the extent consistent with applicable law, in no case shall the Manufacturer or the Seller be liable for consequential, special or indirect damages resulting from the use or handling of this product when such use and/or handling is not in strict accordance with directions given herewith. The foregoing is a condition of sale by the Seller and is accepted as such by the Buyer.

Bid Item #1

Drexel

SAFETY DATA SHEET

DREXEL MSMA 6 PLUS

Section 1: Material Identification

Product Name: Drexel MSMA 6 Plus

EPA Reg No.: 19713-42

CAS NO: 2163-80-6

Formula: CH_4AsO_3Na

Company: Drexel Chemical Company
1700 Channel Avenue
Memphis, TN 38106

Synonyms: Monosodium Acid Methanearsonate
MSMA

Identifiers:
EINECS: 218-495-9
RTECS: PA2625000
DOT information: **See Section 14 for Transportation Information**

Emergency Telephone Number:

CHEMTREC
Tel: 1-800-424-9300

Drexel Chemical Co.
901-774-4370

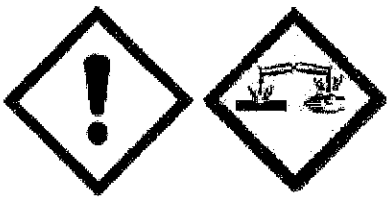
This product is an EPA FIFRA registered pesticide. Some of the classifications on this SDS are not the same as the FIFRA label. Certain sections of this SDS are superseded by federal law governed by EPA for a registered pesticide. Please see **Section 15: REGULATORY INFORMATION** for explanation.

Section 2: Hazard Identification
(As defined by the OSHA Hazard Communication Standard, 29)

GHS classification:

Health Hazards:	Acute inhalation	Category 4
	Skin corrosive/irritation	Category 2
	Aquatic toxicity - acute	Category 2
	Corrosive to metals	Category 1

GHS label elements:
Signal Word: Warning



Hazard Statements:

Harmful if inhaled.
Causes skin irritation.
Harmful to aquatic life.
May be corrosive to metals.

Precautionary Statements:

Prevention:

Avoid breathing vapors or mist. Use only outdoors or in a well-ventilated area. Wash exposed skin thoroughly after handling. Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Neoprene, Nitrile/butadiene rubber ("nitrile" or "NBR") or Polyvinyl chloride ("PVC" or "vinyl"). Prevent from entering into ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information. Keep only in original container. May react with aluminum, zinc or steel.

Response:

If inhaled: Remove person to fresh air and keep comfortable for breathing. Call Poison Control Center of Doctor if you feel unwell. **If on skin:** Wash with plenty of water while removing contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Destroy contaminated leather items such as shoes, belts, and watchbands. Absorb spillage to prevent material damage.

Storage:

Store in a cool, dry, well ventilated, and secure area designated specifically for pesticides and away from heat sources. Keep in original containers and keep containers closed when not in use. Do not store in excessive heat. Do not store near children, food, foodstuffs, drugs or potable water supplies. Store in corrosive resistant high density polyethylene container.

Disposal:

If wastes and/or containers cannot be disposed of according to the product label directions, disposal of this material must be in accordance with your local or area regulatory authorities.

Section 3: Composition Information

Components	CAS No.	% By Wt.	OSHA PEL	ACGIH TLV
Active Ingredient:				
Monosodium Acid Methanearsonate	2163-80-6	47.6%	N/Av	0.5 mg/m^3
Inert Ingredients:	N/A	52.4%	N/A	N/A

Section 4: First-Aid Measures

Eye Contact: Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes for at least 10 minutes. Obtain medical attention without delay, preferably from an ophthalmologist.

If Swallowed: Call a poison control center or doctor immediately for treatment advice. Rinse mouth with water and have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person. Have product label with you when calling a poison control center or doctor.

Skin Contact: Immediately flush skin with water while removing contaminated clothing and shoes. Wash exposed areas with soap and water. Get medical attention if symptoms occur. Wash clothing before reuse. Destroy contaminated leather items such as shoes, belts, and watchbands.

If Inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

Note to Physician: This product has low oral, dermal, and inhalation toxicity. If swallowed, gastric lavage using an endotracheal tube may be preferred to vomiting. Literature recommendations for arsenic poisoning call for chelation therapy with BAL or d-penicillin. Persons with sensitivity to penicillin may suffer an allergic reaction. BAL is recommended for persons allergic to penicillin.

Section 5: Fire Fighting Measures

Fire Hazards: Closed containers may rupture if exposed to excess heat or flame due to a build-up of internal pressure. Thermal decomposition during a fire can produce fumes and irritating gases.

Flammability classification (OSHA 29 CFR 1910.1200): Non-combustible
Flash point: Non-combustible (Aqueous Formulation)
Lower flammable limit (% by volume): N/A
Upper flammable limit (% by volume): N/A

Fire Fighting Procedures: Keep people away. Isolate fire and deny unnecessary entry. Evacuate the area and fight the fire from upwind from a safe distance to avoid hazardous vapors or decomposition products. Dike and collect fire-extinguishing water to prevent environmental damage and excessive waste runoff.

Firefighting media: Use dry chemical or carbon dioxide when fighting fires involving this product. Do not use water or foam, as this may spread material.

Special Protective Equipment for Firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective firefighting clothing (includes firefighting helmet, coat, trousers, boots, and gloves). Use full face shield and operate in positive pressure mode. Avoid contact with this material during firefighting operations. If contact is likely, change to full chemical resistant firefighting clothing with self-contained breathing apparatus. If this is not available, wear full chemical resistant clothing with self-contained breathing apparatus and fight fire from a remote location. For protective equipment in post-fire or non-fire clean-up situations, refer to the relevant sections. Avoid contact with aluminum equipment (i.e. ladders, etc.) as this will create arsine gas.

Hazardous Combustion Products: May generate toxic fumes and smoke.

NFPA):	Health:	Flammability:	Reactivity:
	3	0	0

(Rating: 4-Extreme, 3-High, 2-Moderate, 1-Slight, 0-Insignificant)

Section 6: Accidental Release Measures

Steps to be taken if Material is Released or Spilled:

- Contain spilled material if possible. Small spills: Absorb with suitable absorbent and sweep up. Collect in suitable and properly labeled containers. Large spills: Contact Drexel Chemical Co. for clean-up assistance. See Section 13, Disposal Considerations, for additional information.

Personal Precautions:

- Isolate area. Keep unnecessary and unprotected personnel from entering the area. Refer to Section 7, Handling, for additional precautionary measures. Spilled material may cause a slipping hazard. Ventilate area of leak or spill. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

Environmental Precautions: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

Section 7: Handling and Storage

KEEP OUT OF REACH OF CHILDREN

Handling: **General Handling:** Avoid contact with eyes, skin, and clothing. Wash thoroughly with soap and water after handling. Do not swallow. Avoid breathing vapor. Use with adequate ventilation. Wear chemical protective equipment when handling. Keep away from heat, sparks and flame. See Section 8, Exposure Controls and Personal Protection.

Storage: Store in a cool, dry, ventilated and secure area designated specifically for pesticides and away from heat sources. Keep in original containers and keep containers closed when not in use. Do not store in excessive heat. Do not store near children, food, foodstuffs, drugs or potable water supplies.

Section 8: Exposure Controls / Personal Protection

Exposure Limits: TLV MSMA 0.5 mg/m^3

Personal Protection:

Eye/Face Protection: Wear safety glasses with side shields or chemical splash goggles to prevent vapors or mists from entering the eyes. If using a full face shield, always sue safety glasses or goggles along with the face shield to ensure adequate protection of the eyes.

Skin Protection: Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task. Safety shower should be located in immediate work area. Remove contaminated clothing immediately, wash skin area with soap and water, and launder clothing before reuse or dispose of properly. Items which cannot be decontaminated, such as shoes, belts and watchbands, should be removed and disposed of properly.

Hand protection: Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Neoprene, Nitrile/butadiene rubber ("nitrile" or "NBR") or Polyvinyl chloride ("PVC" or "vinyl").

Respiratory Protection: Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. When handling in enclosed areas, when large quantities of mists are generated or prolonged exposure is possible in excess of the TLV, use a respirator with either an organic vapor-removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C) or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G).

Ingestion: Avoid ingestion of even very small amounts; do not consume or store food or tobacco in the work area; wash hands and face with soap and water before smoking or eating.

Engineering Controls:

Ventilation: When handling this product proper ventilation is required to maintain exposure below the TLV. Ventilate all transport vehicles prior to unloading. Facilities storing or utilizing this material should be equipped with and eyewash facility and safety shower.

Section 9: Physical and Chemical Properties

Physical State:	Liquid
Color:	Light green
Odor:	Slight garlic
Flash Point:	Non-combustible
Vapor Pressure (mmHg):	15 mmHg
Boiling Point:	220°F
Vapor Density (air = 1):	0.6
Bulk Density (H_2O = 1):	1.49 g/cc
Freezing Point:	N/Av
Solubility in water (wt % - weight):	Complete
pH:	5 - 7
Viscosity:	N/Av
% Volatiles:	0.6

Section 10: Stability and Reactivity

Stability/Instability: Thermally stable at typical use temperatures and in closed containers.

Conditions to Avoid: Avoid heat of open flame. Avoid high temperatures above 130°F (54.4°C).

Incompatible Materials: Avoid contact with: Reducing agents such as aluminum and zinc.

Hazardous Polymerization: Will not occur

Thermal Decomposition: Hazardous decomposition products can include and are not limited to: Arsine gas.

Section 11: Toxicological Information

Acute Toxicity:

Ingestion:

- **LD50, (rat):** 2,833 mg/kg

Dermal:

- **LD50, (rabbit):** >2,500 mg/kg

Inhalation:

- **LC50, (4h), (rat):** >2.2 mg/kg

Eye Irritation (rabbit):

- Not a primary irritant.

Skin Irritation (rabbit):

- Slight irritant.

Sensitization Skin:

- Non-sensitizer (guinea pigs).

Chronic Toxicity:
- Exposure below levels of concern.

Carcinogenicity:
- Not listed as carcinogenic in humans by IARC, NTP and OSHA.

Teratogenicity, mutagenicity, and other reproductive effects: None known

Section 12: Ecological Information

Information provided for Monosodium Acid Methanearsonate:

ENVIRONMENTAL FATE:
- Slightly toxic to fish, aquatic invertebrates, and aquatic plants. Practically non-toxic to bees. Moderately toxicto birds.

Persistence and Degradability:
- Immobilized by binding to soil particles and not easily leached to groundwater except in sandy soils.

Aquatic Toxicity:
- Rainbow Trout, 96 hour, LC50: >167 mg/L
- Bluegill, 96 hour, LC50: >51 mg/L
- Daphnia magna, 48 hour, EC50: 77.5 mg/L

Bees:
- LD50: 68 µg/bee

Bird Toxicity:
- Bobwhite Quail, LD50: 425 mg/kg

Section 13: Disposal Considerations

If wastes and/or containers cannot be disposed of according to the product label directions, disposal of this material must be in accordance with your local or area regulatory authorities. This information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. If the material as supplied becomes a waste, follow all applicable regional, national and local laws.

Section 14: Transport Information

DOT: Not regulated - See 49 CFR 173.132 (b) (3) & 1712.1-1 Appendix

IMDG: Not regulated

ICAO/IATA: Consult appropriate ICAO/IATA regulations for shipment requirements in the Air.

Freight Description: Agricultural Herbicide, liquid, n.o.s.

ERG Guide No.: 171

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

Section 15: Regulatory Information

OSHA Hazard Communication Standard:

- **Arsenic is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR1910.1200.**
- **EPA FIFRA INFORMATION:**
  This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemical. The hazard information required on the pesticide label is listed out below. The pesticide label also includes other important information, including directions for use.
- **EPA/CERCLA Reportable Quantity:** None known

SARA/TITLE III:

- **Sec. 302. Extremely Hazardous Substance Notification:** This material is not known to contain any Extremely Hazardous Substances.
- **Sec. 311/312. Hazard Categories:** Immediate health hazard
  Chronic health hazard
- **Sec. 313. Toxic Chemical(s):** Arsenic Compounds
- **RCRA Waste Code:** Not applicable

California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986):

- This product is not listed.

Toxic Substances Control Act (TSCA):

- All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.30

Section 16: Other Information

Drexel Chemical Company recommends that each customer or recipient of this SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown below. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific SDSs, we are not and cannot be responsible for SDSs obtained from any source other than ourselves. If you have obtained an SDS from another source or if you are not sure that the SDS you have is current, please contact us for the most current version.

Date Revised: August 4, 2016 **Supersedes: September 10, 2015**

Bid Item #2

Specimen Label

RESTRICTED USE PESTICIDE
May Injure (Phytotoxic) Susceptible, Non-Target Plants. For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification. Commercial certified applicators must also ensure that all persons involved in these activities are informed of the precautionary statements.

Dow AgroSciences™

Tordon® 101 Mixture

Specialty Herbicide

®Trademark of Dow AgroSciences LLC

For the control of herbaceous broadleaf weeds, woody plants and vines on forest planting sites and non-crop areas including industrial, manufacturing, and storage sites; rights-of-way, such as electrical power lines, communication lines, pipelines, highways, railroads; and wildlife openings in forest and non-crop areas

Not for sale, distribution or use in Nassau and Suffolk Counties in New York State

Active Ingredient(s):	
picloram: 4-amino-3,5,6-trichloropicolinic acid, triisopropanolamine salt	10.2%
2,4-dichlorophenoxyacetic acid, triisopropanolamine salt	39.6%
Other Ingredients	50.2%
Total	100.0%

Acid equivalents:
picloram: 4-amino-3,5,6-trichloropicolinic acid - 5.7% - 0.54 lb/gal
2,4-dichlorophenoxyacetic acid - 21.2% - 2 lb/gal

EPA Reg. No. 62719-5

Keep Out of Reach of Children

DANGER PELIGRO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to label booklet under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

Refer to label booklet for Directions for Use.

Notice: Read the entire label. Use only according to label directions. **Before using this product, read Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies at end of label booklet. If terms are unacceptable, return at once unopened.**

In case of emergency endangering health or the environment involving this product, call 1-800-992-5994.

Agricultural Chemical: Do not ship or store with food, feeds, drugs or clothing.

Precautionary Statements

First Aid

If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a Poison Control Center or doctor for treatment advice.
If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
If swallowed: Call a Poison Control Center or doctor immediately for treatment advice. Have a person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a Poison Control Center or doctor. Do not give anything by mouth to an unconscious person.
If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

Have the product container or label with you when calling a Poison Control Center or doctor or going for treatment. You may also contact 1-800-992-5994 for emergency medical treatment information.

Note to Physician: Probable mucosal damage may contraindicate the use of gastric lavage.

Hazards to Humans and Domestic Animals

DANGER

Corrosive • Causes Irreversible Eye Damage • Harmful If Swallowed Or Inhaled • Harmful If Absorbed through Skin.

Do not get in eyes, on skin, or on clothing. Avoid breathing spray mist.

Personal Protective Equipment (PPE)

Some materials that are chemical-resistant to this product are barrier laminate, butyl rubber ≥ 14 mils, and nitrile rubber ≥ 14 mils. If you want more options, follow the instructions for category C on an EPA chemical resistance category selections chart.

All mixers, loaders, applicators, flaggers, and other handlers must wear:
- Long-sleeved shirt and long pants
- Shoes plus socks
- Chemical-resistant gloves, when applying with any handheld nozzle or equipment, mixing or loading, cleaning up spills or equipment, or otherwise exposed to the concentrate.
- Protective eyewear
- Chemical resistant apron when applying postharvest dips or sprays to citrus, mixing or loading, cleaning up spills or equipment, or otherwise exposed to the concentrate

See engineering controls for additional requirements

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

Engineering Controls Statements

When handlers use closed systems or enclosed cabs in a manner that meets the requirements listed in the Worker Protections Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

Pilots must use an enclosed cockpit that meets the requirements listed in the Worker Protections Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)].

User Safety Recommendations

Users should:

- Wash hands, before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Environmental Hazards

This pesticide is toxic to some plants at very low concentrations. This pesticide may be toxic to fish and aquatic invertebrates. Non-target plants may be adversely affected if pesticide is allowed to drift from areas of application. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment washwaters or rinsate.

Picloram is known to leach through soil into ground water under certain conditions as a result of agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

This chemical can contaminate surface water through spray drift. Under some conditions, picloram may also have a high potential for runoff into surface water (primarily via dissolution in runoff water). These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas over-laying extremely shallow ground water, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas over-laying tile drainage systems that drain to surface water.

2,4-D has properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination. Application around a cistern or well may result in contamination of drinking water or groundwater.

Physical or Chemical Hazards

Combustible. Do not use or store near heat or open flame.

Directions for Use

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
Read all Directions for Use carefully before applying.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation.

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 48 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls
- Chemical-resistant gloves such as Barrier Laminate, Butyl Rubber, Neoprene Rubber, Natural Rubber, Polyvinyl Chloride (PVC), or Viton
- Shoes plus socks
- Protective eyewear

Non-Agricultural Use Requirements

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for Agricultural Pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Entry Restrictions for Non-WPS Uses: Do not enter or allow people (or pets) to enter the treated area until sprays have dried.

Storage and Disposal

Do not contaminate water, food, fertilizer, or feed by storage or disposal. Open dumping is prohibited.
Pesticide Storage: Keep container tightly closed when not in use. If exposed to subfreezing temperatures, the product should be warmed to at least 40°F and mixed thoroughly before using.
Pesticide Disposal: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your state pesticide or environmental control agency, or the hazardous waste representative at the nearest EPA regional office for guidance.

Nonrefillable containers 5 gallons or less:
Container Disposal: Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available.
Triple rinse or pressure rinse container (or equivalent) promptly after emptying. **Triple rinse** as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. **Pressure rinse** as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Refillable containers larger than 5 gallons:
Container Disposal: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10% full with water and, if possible, spray all sides while adding water. If practical, agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

Nonrefillable containers larger than 5 gallons:
Container Disposal: Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available.
Triple rinse or pressure rinse container (or equivalent) promptly after emptying. **Triple rinse** as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. **Pressure rinse** as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

General Information

Tordon® 101 Mixture specialty herbicide is recommended for the control of herbaceous broadleaf annual and perennial weeds, woody plants and vines on forest planting sites and non-crop areas including industrial manufacturing and storage sites, rights-of-way, such as electrical power

lines, communication lines, pipelines, highways, railroads, and wildlife openings in forest and non-crop areas.

Unless otherwise noted in Application Directions Section, use Tordon 101 Mixture weed and brush herbicide at rates of 2 to 8 pints per acre to control broadleaf weeds and at rates of 1 to 2 gallons per acre to control woody plants and vines. Tordon 101 Mixture may be tank-mixed with Garlon® 4 Ultra or Garlon 3A herbicides, or 4 lb/gal 2,4-D low-volatile esters registered for sites listed on this label to control mixed woody plant and vine species. When tank-mixing, observe all precautions, directions, and limitations on both products' labeling. In all cases use the amounts specified in enough water to give thorough and uniform coverage of the plants to be controlled.

Note: Tordon 101 Mixture does not mix readily with oil. Use of a non-ionic agricultural surfactant, such as Ortho X-77, Triton AG-98, or Tronic, is recommended for all applications. When using surfactants, follow the use directions and precautions listed on the surfactant manufacturer's label. Use the higher recommended concentrations of surfactant in the spray mixture when applying lower spray volumes per acre.

Herbicidal effects of Tordon 101 Mixture occur primarily from uptake by plant foliage and translocation throughout the plant, however, herbicidal activity may occur from soil uptake of picloram. Very small amounts can kill or damage broadleaf plants. To prevent damage to crops and other desirable plants, carefully follow all directions and precautions.

Precautions and Restrictions

Not for sale, distribution or use in Nassau and Suffolk Counties in New York State

Use this product only as specified on this label. Observe any special use and application restrictions and limitations, including method of application and permissible areas of use as required by state or local regulations. When used in tank mix combination with other products, follow all applicable use directions, precautions, restrictions, and limitations on the labels of each product used.

Use of this product in certain portions of California, Oregon, and Washington is subject to the January 22, 2004 Order for injunctive relief in Washington Toxics Coalition et al. v. EPA, C01-0132C, (W.D. W.A.). For further information, please refer to http://www.epa/gov/espp/wtc/

Application Rate Ranges: Use higher rates in areas with dense weed populations or for longer residual control. For best results, the lower rate should be used only when environmental conditions are favorable for plant growth and when the plants are at the recommended growth stage. Compared to results obtained with the higher rate, a lower rate may be slower in activity, provide a lower level of control, and may require retreatment.

Maximum Use Rates: Total use of Tordon 101 Mixture for control of herbaceous weeds must not exceed 4 quarts per acre per annual growing season on rights-of-way and other non-crop areas. For control of woody plants on these sites, up to 8 qt per acre per year may be used. On rangeland, pasture land, conservation reserve program (CRP) acreage, do not apply more than 2 qt per acre per year of Tordon 101 Mixture. On these use sites, do not make more than two applications per year, and wait a minimum of 30 days between applications. No more than one application every two years of up to 8 quarts per acre may be applied to woody plants on forest sites.

For all 2,4-D containing products applied, on rangeland, pastureland, CRP acres, and other areas that may be grazed, do not apply more than a total of 1 lb ae/A to susceptible plants or 2 lb ae/A to moderately susceptible and more difficult to control plants. Do not make more than two applications per year, and wait at least 30 days between applications. On other noncrop use sites, do not apply more than 2 lb ae per acre per year to herbaceous plants, or 4 lb ae per acre per year to woody plants.

For all picloram products applied, do not apply more than 0.5 lb ae per acre per year to rangeland, pastureland, and other sites that may be grazed; up to 1 lb ae per acre per year may be applied to noxious weeds on sites that may be grazed and other noncrop use sites. For forestry sites, do not apply more than 1 lb ae per acre of picloram, and do not make more than one application of picloram every two years.

Chemigation: Do not apply this product through any type of irrigation system.

Be sure that use of this product conforms to all applicable regulations.

Do not make application when circumstances favor movement from treatment site.

Do not rotate food or feed crops on treated land if they are not registered for use with picloram until an adequately sensitive bioassay or chemical test shows that no detectable picloram is present in the soil.

Grazing Restrictions:

- There are no grazing restrictions for non-lactating dairy animals or other livestock **including horses, sheep, goats, and other animals in the treatment area.**
- Do not allow lactating dairy animals to graze treated areas within 7 days after application.
- Do not harvest grass cut for hay from treated areas for 30 days after application.
- Meat animals must be withdrawn from treated forage at least 3 days before slaughter

On areas treated with this product, do not rotate to crops intended for food or feed use, other than grasses, rye, forage sorghum, sudangrass, wheat, barley or oats not underseeded with a legume.

Do not move treated soil to other areas or use it to grow plants if they are not registered for use with picloram until an adequate sensitive bioassay or chemical test shows that no detectable picloram is present in the soil.

Do not spray if the loss of legumes cannot be tolerated. Tordon 101 Mixture may injure or kill legumes. New legume seedlings may not grow within 2 years following application of this herbicide.

Established grasses are tolerant to this product, but newly seeded grasses may be injured until well established as indicated by tillering, development of a secondary root system and vigorous growth (see Planting Grasses Section).

Do not transfer livestock from treated grazing areas onto sensitive broadleaf crop areas without first allowing 7 days of grazing grass that has not been treated with picloram. Otherwise, urine may contain enough picloram to cause injury to sensitive broadleaf plants.

Do not use manure from animals grazing treated areas on land used for growing broadleaf crops, ornamentals, orchards, or other susceptible, desirable plants. Manure may contain enough picloram to cause injury to susceptible plants.

Do not mix with dry fertilizer.

Do not use plant material from treated areas for composting or mulching of susceptible broadleaf plants.

Do not contaminate water intended for irrigation or domestic purposes. To avoid injury to crops or other desirable plants, do not treat or allow spray drift or run-off to fall onto banks or bottoms of irrigation ditches, either dry or containing water, or other channels that carry water that may be used for irrigation or domestic purposes. Do not apply to snow or frozen ground.

Do not use on sub-irrigated land.

Do not apply or otherwise permit Tordon 101 Mixture or sprays containing Tordon 101 Mixture to contact crops or other desirable broadleaf plants including, but not limited to alfalfa, beans, cotton, grapes, melons, peas, potatoes, safflower, soybeans, sugar beets, sunflower, tobacco, tomatoes, and other vegetable crops, flowers, fruit plants, ornamentals, or shade trees.

Do not make application when circumstances favor movement from treatment site.

Tordon 101 Mixture should not be applied on residential or commercial lawns or near ornamental trees and shrubs. Untreated trees can occasionally be affected by root uptake of herbicide through movement into the top soil or by excretion of the product from the roots of nearby treated trees. Do not apply Tordon 101 Mixture within the root zone of desirable trees unless injury can be tolerated.

Avoid injury to newly planted conifers. Conifer planting intervals vary. Pines planted sooner than 6 months after treatment with Tordon 101 Mixture may be injured in the south or west of the Cascade Mountains. Other conifers, west of the Cascade Mountains, may be injured if planted sooner than 8 to 9 months after treatment. For all conifers, the waiting period treatment and planting should be 11 to 12 months in the area between the Cascade and Rocky Mountains and 8 to 9 months in the lake States and the Northeastern U.S.

Spray Drift Management

A variety of factors including weather conditions (e.g., wind direction, wind speed, temperature, relative humidity) and method of application (e.g., ground, aerial, airblast) can influence pesticide drift. The applicator must evaluate all factors and make appropriate adjustments when applying this product.

Droplet Size
When applying sprays that contain 2,4-D as the sole active ingredient, or when applying sprays that contain 2,4-D mixed with active ingredients that require a Coarse or coarser spray, apply only as a Coarse or coarser spray (ASAE standard 572) or a volume mean diameter of 385 microns or greater for spinning atomizer nozzles.

When applying sprays that contain 2,4-D mixed with other active ingredients that require a Medium or more fine spray, apply only as a Medium or coarser spray (ASAE standard 572) or a volume mean diameter of 300 microns or greater for spinning atomizer nozzles.

Wind Speed
Do not apply at wind speeds greater than 15 mph. Only apply this product if the wind direction favors on-target deposition and there are not sensitive areas (including, but not limited to, residential areas, bodies of water, known habitat for nontarget species, nontarget crops) within 250 feet downwind. If applying a Medium spray, leave one swath unsprayed at the downwind edge of the treated field.

Temperature Inversions
If applying at wind speeds less than 3 mph, the applicator must determine if: a) conditions of temperature inversion exist, or b) stable atmospheric conditions exist at or below nozzle height. Do not make applications into areas of temperature inversions or stable atmospheric conditions.

Susceptible Plants
Do not apply under circumstances where spray drift may occur to food, forage, or other plantings that might be damaged or crops thereof rendered unfit for sale, use or consumption. Susceptible crops include, but are not limited to, cotton, okra, flowers, fruit trees, grapes (in growing stage), fruit trees (foliage), soybeans (vegetative stage), ornamentals, sunflowers, tomatoes, beans, and other vegetables, or tobacco. Small amounts of spray drift that may not be visible may injure susceptible broadleaf plants.

Other State and Local Requirements
Applicators must follow all state and local pesticide drift requirements regarding application of 2,4-D herbicides. Where states have more stringent regulations, they must be observed.

Equipment
All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers or surrogates.

Aerial Application
The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter.

Release spray at the lowest height consistent with efficacy and flight safety. Do not release spray at a height greater than 10 feet above the crop canopy unless a greater height is required for aircraft safety. This requirement does not apply to forestry or rights-of-way applications.

When applications are made with a crosswind, the swath will be displaced downwind. The applicator must compensate for this by adjusting the path of the aircraft upwind.

Ground Boom Application
Do not apply with a nozzle height greater than 4 feet above the crop canopy.

Specific Use Directions

Forestry and Non-Crop Areas

Restrictions – Non-Cropland (fencerows, hedgerows, roadsides, ditches, rights-of-way, utility power lines, railroads, airports, and industrials sites)

Postemergence (annual and perennial weeds):
- Limited to 2 applications per year
- Maximum of 1 gallon (2.0 lbs ae of 2,4-D) per acre per application
- Minimum of 30 days between applications.

Postemergence (woody plants)
- Limited to 1 application per year
- Maximum of 2 gallons (4.0 lbs ae of 2,4-D) per acre per year.

Applications to non-cropland areas are not applicable to treatment of commercial timber or other plants being grown for sale or other commercial use, or for commercial seed production, or for research purposes.

Restrictions - Forestry:
- For broadcast applications, apply no more than 8 quarts per acre.
- For cut surface – stumps, and frill, apply no more than 2 gallons per 100 gallons of spray solution and 1 cut surface application per year.
- For injection applications, apply no more than 2 mL of 2 gallons formulation per injection site.
- Use is allowed only once every two years.

High Volume Leaf-Stem Treatment

Use Tordon 101 Mixture at the rate of 1 gallon in water to make 100 gallons of spray to control broadleaf weeds, vines, and other woody plants. To control a wider range of plant species, mix 1 to 2 quarts of Tordon 101 Mixture with 1 to 3 quarts of Garlon 4 Ultra herbicide or 1 to 4 quarts of Garlon 3A Herbicide or 4 lb/gal 2,4-D low-volatile ester and dilute to make 100 gallons of spray. Apply after the foliage is well developed and in a manner to give thorough spray coverage. For woody plants, apply the spray mixture in a manner which thoroughly wets all leaves, stems, and root collars. For hard-to-kill species, such as ash and oak, also wet the soil around the root collar. The amount of spray mixture applied per acre will vary with plant size and density; however, total use of Tordon 101 Mixture must not exceed 8 quarts per acre.

Note: Do not allow the spray, even as minute amounts of spray drift, to contact desirable broadleaf plants, and do not wet the soil over roots of such plants.

Broadcast Ground or Aerial Foliage Treatment

To obtain adequate plant coverage, it is recommended that ground applications of Tordon 101 Mixture must be made in 15 or more gallons of total spray mixture per acre. For aerial applications, use 5 to 20 gallons per acre of spray mixture. Use higher spray volumes where plants are tall, where the vegetation to be treated is dense, or where difficult to control species are present.

Broadleaf Annual and Perennial Weed and Woody Vine Control
Use Tordon 101 Mixture weed and brush herbicide at rates of 2 quarts to 4 quarts per acre in a water spray mixture. Apply to problem weeds and vines any time after growth begins in the spring and late in summer or fall.

For seasonal control of vigorously growing stands of field bindweed, Canada thistle, or mixtures of these with susceptible annual weeds such as ragweed, dandelion, plantain, clovers, and dock use 2 to 3 quarts of Tordon 101 Mixture per acre in water spray.

In arid areas and for control of more resistant perennial weeds use 4 quarts of Tordon 101 Mixture per acre. Use 4 quarts per acre to control species such as Canada thistle, field bindweed, and milkweed. The spectrum of activity can be improved by tank-mixing 2 to 4 quarts of Tordon 101 Mixture with 1/3 to 1 gallon of Garlon 3A or 1 to 3 quarts of Garlon 4 per acre.

Woody Plant Control
Use Tordon 101 Mixture at the rate of 4 to 8 quarts per acre in a water spray mixture.

For susceptible seedling stages of species such as aspen, cherry, and sumac use 4 to 6 quarts of Tordon 101 Mixture per acre in a water spray mixture.

For more mature and/or less susceptible species such as Poison oak, blackberries, Douglas fir, willow, buttonbush, black locust, sassafras, sumac, tulip poplar, and cherry use 8 quarts of Tordon 101 Mixture per acre in a water spray mixture.

For more resistant brush, such as maple, pine, sourwood, blackgum, cedar, and oak, and to improve the spectrum of species controlled, 4 to 8 quarts of Tordon 101 Mixture per acre can be tank mixed with 2 to 8 quarts per acre of Garlon 3A, Garlon 4 Ultra, or 4 lb/gal 2,4-D low-volatile ester.

Note: For best results under conditions of drought stress, use the higher rates listed. Even these rates under such conditions may not be as effective as the lower rates under good growing conditions.

Broadcast Treatments for Forest Site Preparation
(not for conifer release)

For broadcast applications apply the listed rate of Tordon 101 Mixture in a total spray volume of 5 to 25 gallons per acre by air or 10 to 100 gallons per acre by ground. Use spray volumes sufficient to provide thorough coverage of treated foliage. Use application systems designed to prevent spray drift to off-target sites. Nozzles or additives that produce larger droplets may require higher spray volumes to provide adequate coverage. **Note:** This use is not intended for conifer release (see precautions).

Southern States Including Alabama, Arkansas, Delaware, Georgia, Louisiana, Maryland, Mississippi, North Carolina, Tennessee, Texas, and Virginia
To control susceptible woody plants and broadleaf weeds, apply Tordon 101 Mixture at a rate of 6 to 8 quarts per acre. To broaden the spectrum of woody plants and broadleaf weeds controlled, apply 6 to 8 quarts per acre of Tordon 101 Mixture in tank mix combination with 2 to 4 quarts per acre of Garlon 4 Ultra herbicide. Where grass control is also desired, Tordon 101 Mixture, alone or in combination with Garlon 4 Ultra, may be tank mixed with 1 to 4 quarts per acre of Accord XRT or Roundup herbicide, or 8 to 16 fluid ounces per acre of Arsenal Applicator's Concentrate herbicide. Susceptible woody plants, broadleaf weeds, and grasses may also be controlled using a tank mix of 6 to 8 quarts per acre of Tordon 101 Mixture and 3 to 5 quarts of Accord XRT or Roundup herbicide, or 16 to 24 fluid ounces of Arsenal Applicator's Concentrate. **When applying tank mixes, follow use directions and precautions on each product label.**

In Western, Northeastern, North Central, and Lake States (States not listed above as Southern States)
To control susceptible woody plants and broadleaf weeds, apply Tordon 101 Mixture at a rate of 4 to 8 quarts per acre. To broaden the spectrum of woody plants and broadleaf weeds controlled, apply 4 to 8 quarts per acre of Tordon 101 Mixture in tank mix combination with 1 1/2 to 3 quarts of Garlon 4 Ultra. Where grass control is also desired, Tordon 101 Mixture alone or in tank mix combination with Garlon 4 Ultra, may be applied with 1 to 3 quarts per acre of Accord or Roundup, 2 to 4 fluid ounces of Oust, a combination of Accord XRT (or Roundup) plus Oust at the rates listed, or 8 to 16 fluid ounces of Arsenal Applicator's Concentrate. **When applying tank mixes, follow the use directions and precautions on each product label.**

Conifer Strip Thinning in the Northeastern United States

To thin stands of naturally regenerated spruce and fir by applying herbicide in treated bands or strips which alternate with untreated bands or strips, apply Tordon 101 Mixture such that the application rate in the treated bands or strips is 2 gallons of herbicide per acre in a total spray mixture volume of 12 to 20 gallons. For best results, apply during the period of active conifer growth. To obtain the precise placement of spray mixture in the treated bands that is required for this technique, aerial applications should be made using a helicopter equipped with a Microfoil or Thru-Valve boom. Multiple treated bands may be obtained within a single spray swath by establishing alternating series of flowing and blocked spray nozzles.

Note: Injury or death of desired residual conifers may result if spray mixture is permitted to contact their foliage as a result of inaccurate flight guidance during aerial application or as a result of spray drift from treated into untreated strips.

Cut Surface Treatments

In forest and other non-crop areas to kill unwanted trees such as elm, maple, oak, and pine apply Tordon 101 Mixture, either undiluted or diluted in a 1:1 ratio with water, as directed below.

With Tree Injector Method
Application should be made by injecting 1/2 milliliter of undiluted Tordon 101 Mixture or 1 milliliter of the diluted solution through the bark at intervals of 3 inches between edges of the injector wound. The injections should completely surround the tree at any convenient height.

Note: No Worker Protection Standard worker entry restrictions or worker notification requirements apply when this product is directly injected into agricultural plants.

With Frill or Girdle Method
Make a single girdle through the bark completely around the tree at a convenient height. Wet the cut surface with the diluted solution.

Stump Treatment
Spray or paint to wet the cut surfaces of freshly cut stumps or stubs with Tordon 101 Mixture undiluted or diluted 1:1 in water. All of the cambium area next to the bark is the most vital area to wet.

The above methods may be used successfully at any season except during periods of heavy sap flow of certain species, such as maples, or during drouthy periods. Untreated trees within a few feet of the treated trees or stumps may be injured or killed.

Broadcast Cut Stubble Treatment

To prevent resprouting of susceptible woody species, after mowing or hand-cutting on non-crop areas and rights-of-way, use Tordon 101 Mixture at the rate of 8 quarts per acre in 25 or more gallons of a water spray mixture. Best results may be obtained when applications are made before or during periods of active root growth. Applications should not be made when the soil surface is frozen or covered by snow or standing water. It is recommended that applications be made soon after cutting, before sprouting of woody species has occurred.

Plants Controlled by Tordon 101 Mixture

Annual and Perennial Broadleaf Weeds Controlled by Tordon 101 Mixture

bindweed, field	goldenrod	rush skeleton weed
bouncingbet	horsenettle	sowthistle
carrot, wild	knapweed	spurge, leafy
chicory	milkweed	starthistle, yellow
clover	plantain	thistles
dandelion	prickly lettuce	toadflax
dock	ragweed	vetch
fleabane	ragwort, tansy	

Woody Plants and Vines Controlled by Tordon 101 Mixture

ailanthus	fir, balsam	persimmon
alder	gorse	pine
aspen	gum	poison oak
birch	hemlock	sassafras
blackberry	hickory	sourwood
bracken fern	honeysuckle	spruce
buttonbush	kudzu	sumac
cherry	locust	tulip poplar
Douglas fir	maple	wild rose
elm	oak	willow

* Additional weeds and specific use rates and recommendations are detailed in Application Directions section below.

Application Directions

Broadcast Foliar Application (Ground or Aerial)
Unless otherwise specified, apply in water alone or in an oil-water emulsion in a total spray volume of 10 to 40 gallons per acre using ground equipment or 1 or more gallons per acre by aerial application. If aerially applied, results will be more consistent for spray volumes of 2 or more gallons per acre. Use of the lower total spray volume with ground equipment is recommended primarily where Tordon 101 Mixture is applied simultaneously with liquid fertilizer. Good coverage is essential. For aerial application, swath width should not exceed 1 1/4 times the wingspan of the aircraft.

To provide more complete wetting and coverage of the foliage, a non-ionic surfactant may be used at recommended rates. The use of a drift control additive is recommended for drift reduction and improved deposition.

Section I: Control of Broadleaf Weeds and Woody Plants in the Southwest, Southeast, and Mid-Atlantic States

1-2 Pints/Acre or 3-4 Pints/Acre: Apply at the rate indicated by stage of growth to control the following woody plants or broadleaf weeds:	
Weed Species	**Specific Use Directions**
annual broomweed, bitter sneezeweed, bitterweed, buffalo bur, bull thistle, bursage (bur ragweed), camphor weed, cocklebur, common ragweed, croton, horseweed, lambsquaters, pigweed, prickly lettuce, smartweed, sunflower, tasajillo, wild carrot	**Early Season: Apply at a rate of 1-2 pt/acre** in early to mid spring when weeds are less than 3 inches tall. Rates in the lower end of the rate range are effective only when weeds are less than 2 inches tall and conditions are favorable for plant growth. **Mid to Late Season: Apply at a rate of 3-4 pt/acre** in late spring to early summer when weeds are 3 inches tall to early flowering.

2-4 Pints/Acre: Apply at the indicated stage of growth to control the following woody plants or broadleaf weeds:	
Weed or Brush Species	**Specific Use Directions**
aster, heath	Apply prior to bud stage when actively growing.
aster, spiny (Mexican devilweed)	Apply prior to bud stage when actively growing.
bee plant, Rocky Mountain	Apply prior to bud stage when actively growing.
bindweed, hedge	Apply prior to bud stage when actively growing.
blackberry	Tank-mix 2 pints per acre of Tordon 101 Mixture with 1 pint per acre of Garlon 4* Ultra herbicide plus surfactant. Apply in late May to early June during or after bloom (not before) when the foliage is dark green. Do not treat blackberries in the same year after mowing, shredding, or burning. Even one year after removal of top growth, blackberry stands will be more difficult to control than undisturbed stands and will require retreatment.
buckwheat, climbing false	Apply prior to seed development when actively growing.
buckwheat, wild	Apply prior to seed development when actively growing.
bullnettle, western	Apply in spring when plants begin to flower.
bundleflower, Illinois	Apply prior to bud stage when actively growing.
burdock, common	Apply prior to bud stage when actively growing.
buttercup	Apply in early spring prior to bud stage.
chickweed, mouseear	Apply prior to bud stage when actively growing.
chicory	Apply from rosette stage to early bud stage when actively growing.
coneflower, upright prairie	Apply when plants are to 6 inches tall, but before flowering.
common goldenweed, Drummond's goldenweed (*Isocoma* spp.)	Apply in the spring (April-June) when favorable growing conditions result in substantial canopy development. Thorough and uniform coverage is essential. Use higher spray volumes (20-25 gallons per acre for ground and 4-5 gallons per acre for aerial equipment). Use of a non-ionic surfactant or oil-water emulsion is recommended (see Mixing Instructions).
curly dock	**Early Season:** Apply 2 pints per acre prior to bolting stage of growth. **Mid-to-Late Season: Apply at a rate of 3-4 pt/acre** from bolting to bud stage.
devil's-claw	Apply prior to flowering when actively growing.
dogfennel (cypressweed)	Apply when plants are from 6 to 24 inches tall, but before flowering. Increase rate within the rate range as season progresses and plants become larger.
eriogonum, annual	Apply prior to bud stage when actively growing.
fleabane, rough	Apply prior to bud stage when actively growing.
gray goldaster narrowleaf goldaster	Apply in the spring during the bud stage (pre-bloom) using an oil-water emulsion spray. Thorough coverage is essential.
goldenrod, Missouri	Apply prior to bud stage when actively growing.
goldenweed, common, goldenweed, Drummond's (*Isocoma* spp.)	Apply in the spring (April-June) when favorable growing conditions result in substantial canopy development. Thorough and uniform coverage is essential. Use higher spray volumes (20-25 gallons per acre for ground and 4-5 gallons per acre for aerial equipment). Use of a non-ionic surfactant or oil-water emulsion is recommended (see Mixing Instructions).
hemlock, poison	Apply from rosette stage in spring or fall up to 36" tall.
hemlock, water (common)	Apply from rosette stage in spring or fall up to bud stage.
horsenettle, Carolina	Apply 2 pints per acre when plants are 4-6 inches tall. At 2 pints per acre retreatment may be necessary for acceptable control. Apply 3 to 4 pints per acre when flowering or for longer residual control of later emerging plants and greater stand reduction the following year.
horehound	Apply during active growth.
jimsonweed	Apply prior to bud stage when actively growing.
morningglory, ivyleaf	Apply prior to bud stage when actively growing.
mugwort	Apply prior to bud stage when actively growing.
nightshade, silverleaf	Apply 2 pints per acre when plants are 4-6 inches tall. Apply 3 to 4 pints per acre when flowering or for longer residual control of later emerging plants and greater stand reduction the following year. Retreatment is necessary for total control.
pennycress, field	Apply when plants are to 6 inches tall, but before flowering.
plantain, buckhorn	Apply prior to bud stage when actively growing.
pricklypoppy, annual	Apply prior to bud stage when actively growing.

2-4 Pints/Acre: Apply at the indicated stage of growth to control the following woody plants or broadleaf weeds:	
Weed or Brush Species	**Specific Use Directions**
puncturevine	Apply prior to flowering when actively growing.
ragweed, common, giant, lanceleaf and western	Use lower rates in rate range when weeds no more than 2 inches tall and conditions are favorable for plant growth. Use higher rates when weeds are from 3 inches tall to early flowering.
sagebrush, sand	Apply when new terminal growth reaches 6 - 12" and before average daytime temperature reaches 95 degrees F. Use low rate only in early season.
snow-on-the-mountain	Apply prior to bud stage when actively growing.
sowthistle, spiny (prickly)	Apply prior to bud stage when actively growing.
stickweed	Apply 2 - 3 pt/acre prebloom.
thistles, biennial: including bull, musk, plumeless or scotch	Apply 2 pt/acre at rosette stage. Apply 3 to 4 pt/acre in mid to late season from bolting to bud stage.
vervain, blue vervain, hoary	Apply when plants are 6 inches tall to early flowering. Increase rate within the rate range as season progresses and weeds mature.
vetch, hairy	Apply prior to bud stage when actively growing.
wingstem	Apply 2 - 3 pt/acre prebloom.
yankeeweed	Apply when plants are 8 to 10 inches tall.

3-4 Pints/Acre: Apply at the indicated stage of growth to control the following woody plants or broadleaf weeds:	
Weed or Brush Species	**Specific Use Directions**
marshelder (sumpweed)	Apply in early season when weeds are less than 4 inches tall. Older plants require higher rates. Thorough and uniform coverage is essential. Use higher spray volumes (20-25 gallons per acre for ground and 5 or more gallons per acre for aerial equipment
mesquite and oak sprouts (suppression of regrowth):	Delay applications of Tordon 101 Mixture for weed control until the foliage of regrowth brush in the treatment area is fully expanded and turned from light to dark green.
milkweed	Apply 4 pt/acre to actively growing milkweeds less than 4 inches tall. Add a surfactant at the manufacturer's recommended rate to improve wetting of foliage.
mullein, common	Apply 4 pints per acre during the rosette stage in spring or fall prior to bolting. Add a surfactant at the manufacturer's recommended rate to improve wetting of foliage.
poisonous plants such as: groundsel (*Senecio* spp.), garbancillo, (Wooton loco) and Woolly loco	Apply in fall or winter when moisture conditions are favorable. Because locoweeds are difficult to wet, use of a surfactant (0.25-0.5% volume/volume) or oil-water emulsion is recommended (see Mixing Instructions). **Herbicide treatment may increase palatability of poisonous plants. Treated areas should not be grazed until the toxic plants are no longer palatable.**
thistle, wavyleaf	Apply from rosette to late bolt stage.
tropical soda apple	Apply when plants are beginning to flower.

1 Gallon/Acre: Apply at the indicated stage of growth to control the following woody plants or broadleaf weeds:	
Weed or Brush Species	**Specific Use Directions**
cactus, pricklypear or cholla	Make ground broadcast application in the spring or early summer to control a broad spectrum of broadleaf weeds in addition to pricklypear.
Chinese tallowtree	Apply in spring or fall when conditions are favorable for plant growth. Thorough and uniform spray coverage is required. Use higher spray volumes (20-25 gallons per acre for ground and 5 or more gallons per acre for aerial equipment). Use of a non-ionic surfactant or oil-water emulsion is recommended (see Mixing Instructions).
Macartney rose multiflora rose	Apply in spring or fall when conditions are favorable for plant growth. Thorough and uniform spray coverage is essential. Use higher spray volumes (20-25 gallons per acre for ground and 5 or more gallons per acre for aerial equipment). Use of a non-ionic surfactant or oil-water emulsion is recommended (see Mixing Instructions). Avoid application within 9-12 months after mowing or when plants have a high percentage of new growth. Poor control will result if plants are less than 3 ft tall.
locust (honey and black) wild plum	Apply in spring when leaves are fully expanded and mature. Use of a surfactant (0.25-0.5% volume/volume) is recommended.

Section II: Control of Broadleaf Weeds and Woody Plants in the North and Northwestern U.S. including Colorado, Idaho, Iowa, Kansas, Minnesota, Missouri, Montana, Nebraska, North Dakota, Oregon, South Dakota, Utah, Washington and Wyoming

Application Rates: Use higher rates in areas with dense weed populations or for longer residual control. For best results, the lower rate should be used only when environmental conditions are favorable for plant growth and when the plants are in the recommended growth stage. Compared to results obtained with the higher rate, a lower rate may be slower to show activity, provide a lower level of control, and may require retreatment.

2 to 4 Pints/Acre: Apply at the indicated stage of growth to control the following broadleaf plant species. Increase rate within rate range as growing season progresses:	
Weed or Brush Species	**Specific Use Directions**
absinth wormwood annual broomweed	Apply when actively growing in spring or early summer.

2 to 4 Pints/Acre: Apply at the indicated stage of growth to control the following broadleaf plant species. Increase rate within rate range as growing season progresses:	
Weed or Brush Species	**Specific Use Directions**
biennial thistles, such as bull, musk, plumeless or scotch	Apply 2 pt/acre at rosette stage. Apply 3 to 4 pt/acre to bolted thistle, but apply before early bud stage.
broom snakeweed	Apply after full leaf development to early bloom stage when plants are actively growing.
curly dock	Apply 2 pt/acre early season prior to bolting. Apply 3 to 4 pt/acre in mid to late season from bolting to early flower.
curlycup gumweed	Apply when new growth and seedlings have fully emerged before bloom stage.
fringed sagebrush	Apply a minimum of 3 pt/acre after seed stalk elongation and early flowering (mid - late June) and throughout the summer under good growing conditions.
goldenrod	Apply prior to bud stage during active growth.
hemp (marijuana) hemlock, poison	Apply from rosette stage in spring or fall up to 36" tall.
hemlock, water (common)	Apply from rosette stage in spring or fall up to bud stage.
ironweed, western	Apply 2 to 3 pt/acre prior to bud stage during active growth. A surfactant is recommended.
locoweeds, such as silky crazyweed (white point loco) and lambert crazyweed	Apply from early bud to early bloom stage. Herbicide application may increase palatability of these poisonous plants. Therefore, treated areas should not be grazed until after the toxic plants have dried up. Higher rate range should be considered to provide greater reduction of poisonous plants.
phlox, hoods	Apply during active growth.
plains pricklypear	Apply when the majority of plants are in the flower stage. The lower rate will provide a partial stand reduction. More complete control may be obtained with the higher rate. Treatment response is very slow and may continue for 2 years or longer.
ragweed, common, giant, lanceleaf and western	Use the lower rate in early season when weeds are no more than 2 inches tall. Use the higher rate when weeds range from 3 inches tall to early flowering, when conditions are favorable for plant growth.
thistles, biennial: including bull, musk, plumeless or scotch	Apply 2 pt/acre at rosette stage. Apply 3 to 4 pt/acre in mid to late season from bolting to bud stage.
vervain, blue and hoary	Apply when plants are 6 inches tall to early flowering. Increase rate within the rate range as season progresses and plants mature.
wormwood, Louisiana and absinth	Apply during active growth prior to woody stem development.
yarrow	Apply 2 pt/acre prior to bud stage. A surfactant is recommended.

4 Pints/Acre: Apply at the indicated stage of growth to control the following broadleaf weed species:	
Weed or Brush Species	**Application Timing**
dense clubmoss	Apply in early summer with a surfactant at 0.25% volume/volume.
geyer larkspur	Apply from rosette to flower bud formation.
hairy goldenaster	Apply at bloom stage during active growth.
houndstongue	Apply to rosettes in late fall or early summer
larkspur, plains	Apply prior to bud stage when actively growing.
licorice, wild	Apply at bloom stage, but before bur formation.
loco, woolly	Apply from bolting to early bloom. Herbicide application may temporarily increase palatability of this poisonous plant. Therefore, treated areas should not be grazed until toxic plants have dried up.
milkweed, common	Apply at bud stage when actively growing.
mullein, common	Apply during rosette stage in spring or fall prior to bolting. Add a surfactant at the manufacturer's recommended rate to improve wetting of foliage.
oxeye daisy	Apply 3-4 pt/acre when all plants have emerged to late flowering.
pussytoes	Apply prior to bud stage when actively growing. Use a surfactant at the manufacturer's recommended rate to improve wetting of foliage.

1 Gallon/Acre: Apply at the indicated stage of growth to control the following woody plants or broadleaf weeds:	
Weed or Brush Species	**Specific Use Directions**
Macartney rose multiflora rose	Apply in spring or fall when conditions are favorable for plant growth. Thorough and uniform spray coverage is essential. Use higher spray volumes (20-25 gallons per acre for ground and 5 or more gallons per acre for aerial equipment). Use of a non-ionic surfactant or oil-water emulsion is recommended (see Mixing Instructions). Avoid application within 9-12 months after mowing or when plants have a high percentage of new growth. Poor control will result if plants are less than 3 ft tall.
locust (honey and black) wild plum	Apply in spring when leaves are fully expanded and mature. Use of a surfactant (0.25-0.5% volume/volume) is recommended.

High-Volume Foliar Applications

Spray to thoroughly wet foliage and stems. The use of an approved agricultural surfactant is recommended. To minimize spray drift, use lowest possible pressure and coarse spray to achieve good coverage. Keep sprays no higher than brush tops. Use of an approved drift control agent is recommended to reduce the potential for spray drift.

1 Gallon/100 Gallons of Spray: Apply at the indicated stage of growth to control the following woody plants or broadleaf weeds:	
Weed or Brush Species	**Specific Use Directions**
blackberry, elm, granjeno, locust ,maple, oaks, sweetgum, sumac	Tank mix recommended rate of Tordon 101 Mixture with 1-2 quarts/100 gallons of Garlon 4 Ultra and apply in late spring to early summer when leaves are fully expanded and mature. Use of a surfactant (0.25-0.5% volume/volume) is recommended. Spray to thoroughly wet foliage. For best results on blackberry, treat during or after bloom.
annual broomweed, bitterweed, bitter sneezeweed, bullnettle, bursage (bur ragweed), bull thistle, buffalo bur, camphorweed, cocklebur, common ragweed, croton, gray goldaster, lanceleaf ragweed, marshelder (sumpweed), musk thistle, narrowleaf goldaster, prickly lettuce, smartweed, sunflower, wild carrot, silverleaf nightshade, tasajillo, upright prairie cone flower, western horsenettle, western ragweed, yankeeweed	Apply when target weeds are 2-3 inches tall until early flowering.
flameleaf sumac honeylocust,	Apply in spring when leaves are fully expanded and mature. Use of a surfactant (0.25-0.5% volume/volume) is recommended. Spray to thoroughly wet foliage.
Tropical soda apple	Apply when plant begin to flower.

1 Gallon/100 Gallons of Spray: Apply at the indicated stage of growth to control the following woody plants or broadleaf weeds:	
Brush Species	**Specific Use Directions**
Marcartney rose multiflora rose	Apply in spring or fall when conditions are favorable for plant growth. High volume application is recommended for control of large undisturbed clumps or small regrowth.

1 Gallon/100 Gallons of Spray: Apply at the indicated stage of growth to control the following woody plants or broadleaf weeds:	
Weed or Brush Species	**Specific Use Directions**
Chinese tallow tree	Apply in spring or fall when conditions are favorable for plant growth.
cactus, pricklypear or cholla	Applications may be made throughout the year. Spray to wet all pads to runoff. Use of a surfactant (0.25-0.5% volume/volume) is recommended. Water soluble dye may be added to the spray mixture to mark treated plants.
common goldenweed, Drummond's goldenweed	Apply in the spring (April-June) when favorable growing conditions result in substantial canopy development.
poisonous plants such as: groundsel (*Senecio* spp.), garbancillo (Wooton loco), and Woolly loco	Apply in fall or winter when moisture conditions are favorable. Herbicide treatment may increase palatability of poisonous plants. Treated areas should not be grazed until the toxic plants have dried up and lost their palatability.

Treatment After Planting Grasses

Weed Control Prior to Seeding Planting Grasses
Tordon 101 Mixture may be applied to control weeds prior to planting **cool season grasses.**
Apply Tordon 101 Mixture at 4 pints per acre or less depending on the target species. Tordon 101 Mixture may be tank-mixed with glyphosate to control grasses prior to seeding.

- To optimize weed control, minimal disturbance of the treatment area with the seeding operation is suggested. The site should be left undisturbed for a minimum of **21 days prior to seedbed preparation or seeding.** To optimize weed control and reduce the potential for injury of seeded grasses, increase the interval between application of Tordon 101 Mixture and planting grass seed.
- Do not plant smooth bromegrass for 60 days after treatment.

Perennial Grasses
Applications of Tordon 101 Mixture to perennial grasses should be made only after perennial grasses are well established as indicated by vigorous growth and a well-developed secondary root system.

Sprigged Bermudagrass: Tordon 101 Mixture at 1.5 pints per acre or less can be used on sprigged bermudagrass once the runners (stolons) have reached 6 inches in length and growing conditions are favorable.

Overseeding: Tordon 101 Mixture at rates of 1.5 pints per acre or less can be applied to areas that have been over seeded with small grains (such as barley, forage sorghum, oats, rye, ryegrass, sudangrass or wheat). Young seedling small grains or grasses are sensitive to Tordon 101 Mixture. Tordon 101 Mixture should not be applied until overseeded grasses are well established and at tillering stage of growth or later.

Precautions:
- Applications of Tordon 101 Mixture to established warm season grasses such as bermudagrass during initial greenup in early spring could delay or suppress emergence of new growth. If temporary suppression of new growth cannot be tolerated, application of Tordon 101 Mixture should be made prior to greenup or after vigorous vegetative growth has resumed.
- Do not use Tordon 101 Mixture if legumes are a desired cover.
- Conditions unfavorable to plant growth, such as drought, will increase potential for injury to grasses at all stages of growth.

- **Crop Rotation:** Do not rotate to grain sorghum (milo) if greater than 4 pints per acre of Tordon 101 Mixture has been applied. For rates below 4 pints per acre, do not plant grain sorghum for 8 months after application. This product is not intended for use on land planted to sweet sorghum. To avoid potential crop injury, planting of small grains should be delayed a minimum of 60 days of soil temperatures above 40°F following application, except in Idaho, North Dakota, Nebraska, Montana, Oregon, South Dakota, Washington and Wyoming, where the minimum interval should be 90 days.
- Do not plant broadleaf crops in treated acres until an adequately sensitive bioassay (described below) shows that no detectable picloram is present in the soil.

Field Bioassay Instructions: In fields previously treated with this product, plant short test rows of the intended rotational crop across the original direction of application. The test area should sample field conditions such as soil texture, soil pH, drainage, and any other variable that could affect the seed bed of the new crop. The field bioassay can be initiated at any time between harvest of the treated crop and the planting of the rotational crop. Observe the test crop for herbicidal activity, such as poor stand (effect on seed germination), chlorosis (yellowing), and necrosis (dead leaves or shoots), or stunting (reduced growth). If herbicidal symptoms do not occur, the test crop can be grown. If there is apparent herbicidal activity, do not plant the field to the test rotational crop; plant only a labeled crop such as grasses, small grains (barley, oats, rye or wheat), or, after a rotational interval of 8 months, grain sorghum.

Terms and Conditions of Use

If terms of the following Warranty Disclaimer, Inherent Risks of Use and Limitation of Remedies are not acceptable, return unopened package at once to the seller for a full refund of purchase price paid. To the extent permitted by law, otherwise, use by the buyer or any other user constitutes acceptance of the terms under Warranty Disclaimer, Inherent Risks of Use and Limitation of Remedies.

Warranty Disclaimer

Dow AgroSciences warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. To the extent permitted by law, Dow AgroSciences MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

Inherent Risks of Use

It is impossible to eliminate all risks associated with use of this product. Crop injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperatures, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of Dow AgroSciences or the seller. To the extent permitted by law, all such risks shall be assumed by buyer.

Limitation of Remedies

To the extent permitted by law, the exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability, or other legal theories), shall be limited to, at Dow AgroSciences' election, one of the following:

1. Refund of purchase price paid by buyer or user for product bought, or
2. Replacement of amount of product used.

To the extent permitted by law, Dow AgroSciences shall not be liable for losses or damages resulting from handling or use of this product unless Dow AgroSciences is promptly notified of such loss or damage in writing. To the extent permitted by law, in no case shall Dow AgroSciences be liable for consequential or incidental damages or losses.

The terms of the Warranty Disclaimer, Inherent Risks of Use and this Limitation of Remedies cannot be varied by any written or verbal statements or agreements. No employee or sales agent of Dow AgroSciences or the seller is authorized to vary or exceed the terms of the Warranty Disclaimer or this Limitation of Remedies in any manner.

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Revisions:

1. Revisions per 2,4-D RED: First Aid; Environmental Hazards; precautionary statements; PPE' added Maximum Use Rate section to General Precautions; spray drift; changed REI to 48 hours
2. Forestry: per picloram RED, added restriction for use in forestry once every 2 years.
3. Non-Crop: Added restrictions for postemergence annual and perennial weeds, and postemergence woody plants. Revised rates to 2.0 lbs ae of 2,4-D/acre for annual and perennial weeds.
4. CRP, Rangeland and Permanent Pastures: Added restrictions for susceptible annual and biennial broadleaf weeds, moderately susceptible biennial and perennial broadleaf weeds, difficult to control weeds and woody plants. Added restrictions for spot treatment and maximum yearly rate. Revised rates which were above maximum use rates.
5. Added restriction statement for states of California, Oregon and Washington.
6. Revised Storage and Disposal

Bid Item #2

Dow AgroSciences

SAFETY DATA SHEET

DOW AGROSCIENCES LLC

Product name: TORDON™ 101 Herbicide Mixture

Issue Date: 05/04/2015
Print Date: 05/07/2015

DOW AGROSCIENCES LLC encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

1. IDENTIFICATION

Product name: TORDON™ 101 Herbicide Mixture

Recommended use of the chemical and restrictions on use
Identified uses: End use herbicide product

COMPANY IDENTIFICATION
DOW AGROSCIENCES LLC
9330 ZIONSVILLE RD
INDIANAPOLIS IN 46268-1053
UNITED STATES

Customer Information Number: 800-992-5994
info@dow.com

EMERGENCY TELEPHONE NUMBER
24-Hour Emergency Contact: 800-992-5994
Local Emergency Contact: 352-323-3500

2. HAZARDS IDENTIFICATION

Hazard classification
This material is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.
Eye irritation - Category 2A
Skin sensitisation - Category 1

Label elements
Hazard pictograms



Signal word: **WARNING!**

Hazards
May cause an allergic skin reaction.
Causes serious eye irritation.

Precautionary statements

Prevention
Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
Wash skin thoroughly after handling.
Contaminated work clothing should not be allowed out of the workplace.
Wear eye protection/ face protection.
Wear protective gloves.

Response
IF ON SKIN: Wash with plenty of soap and water.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If skin irritation or rash occurs: Get medical advice/ attention.
If eye irritation persists: Get medical advice/ attention.
Wash contaminated clothing before reuse.

Disposal
Dispose of contents/ container to an approved waste disposal plant.

Other hazards
no data available

3. COMPOSITION/INFORMATION ON INGREDIENTS

This product is a mixture.

Component	CASRN	Concentration
2,4-Dichlorophenoxyacetic acid, triisopropanolamine salt	18584-79-7	39.6%
Picloram triisopropanolamine salt	6753-47-5	10.2%
Alkylphenol alkoxylate	69029-39-6	5.1%
isopropanol	67-63-0	1.6%
Triisopropanolamine	122-20-3	1.0%
Balance	Not available	42.5%

4. FIRST AID MEASURES

Description of first aid measures

General advice: First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.

Inhalation: Move person to fresh air. If person is not breathing, call an emergency responder or ambulance, then give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask etc). Call a poison control center or doctor for treatment advice.

Skin contact: Take off contaminated clothing. Wash skin with soap and plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice. Wash clothing before reuse. Shoes and other leather items which cannot be decontaminated should be disposed of properly.

Eye contact: Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. Call a poison control center or doctor for treatment advice. Suitable emergency eye wash facility should be available in work area.

Ingestion: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed: Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

Indication of any immediate medical attention and special treatment needed
Notes to physician: No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient. Have the Safety Data Sheet, and if available, the product container or label with you when calling a poison control center or doctor, or going for treatment.

5. FIREFIGHTING MEASURES

Suitable extinguishing media: To extinguish combustible residues of this product use water fog, carbon dioxide, dry chemical or foam.

Unsuitable extinguishing media: no data available

Special hazards arising from the substance or mixture
Hazardous combustion products: Under fire conditions some components of this product may decompose. The smoke may contain unidentified toxic and/or irritating compounds. Combustion products may include and are not limited to: Nitrogen oxides. Hydrogen chloride. Carbon monoxide. Carbon dioxide. Combustion products may include trace amounts of: Phosgene.

Unusual Fire and Explosion Hazards: This material will not burn until the water has evaporated. Residue can burn.

Advice for firefighters
Fire Fighting Procedures: Keep people away. Isolate fire and deny unnecessary entry. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of reignition has passed. To extinguish combustible residues of this product use water fog, carbon dioxide, dry chemical or foam. Contain fire water run-off if possible. Fire water run-off, if not contained, may cause

environmental damage. Review the "Accidental Release Measures" and the "Ecological Information" sections of this (M)SDS.

Special protective equipment for firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). Avoid contact with this material during fire fighting operations. If contact is likely, change to full chemical resistant fire fighting clothing with self-contained breathing apparatus. If this is not available, wear full chemical resistant clothing with self-contained breathing apparatus and fight fire from a remote location. For protective equipment in post-fire or non-fire clean-up situations, refer to the relevant sections.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Isolate area. Ventilate area of leak or spill. Keep upwind of spill. Keep unnecessary and unprotected personnel from entering the area. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection. Refer to section 7, Handling, for additional precautionary measures.

Environmental precautions: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

Methods and materials for containment and cleaning up: Contain spilled material if possible. Small spills: Absorb with materials such as: Clay. Dirt. Sand. Sweep up. Collect in suitable and properly labeled containers. Large spills: Contact Dow AgroSciences for clean-up assistance. See Section 13, Disposal Considerations, for additional information.

7. HANDLING AND STORAGE

Precautions for safe handling: Keep out of reach of children. Do not swallow. Avoid breathing vapor or mist. Avoid contact with eyes, skin, and clothing. Use with adequate ventilation. Wash thoroughly after handling. Keep container closed.

Conditions for safe storage: Store in a dry place. Store in original container. Keep container tightly closed when not in use. Do not store near food, foodstuffs, drugs or potable water supplies.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure limits are listed below, if they exist.

Component	Regulation	Type of listing	Value/Notation
Alkylphenol alkoxylate	Dow IHG	TWA	2 mg/m3
isopropanol	ACGIH	TWA	200 ppm
	ACGIH	STEL	400 ppm
	OSHA Z-1	TWA	980 mg/m3 400 ppm
Triisopropanolamine	Dow IHG	TWA	10 mg/m3

RECOMMENDATIONS IN THIS SECTION ARE FOR MANUFACTURING, COMMERCIAL BLENDING AND PACKAGING WORKERS. APPLICATORS AND HANDLERS SHOULD SEE THE PRODUCT LABEL FOR PROPER PERSONAL PROTECTIVE EQUIPMENT AND CLOTHING.

Exposure controls
Engineering controls: Use engineering controls to maintain airborne level below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use only with adequate ventilation. Local exhaust ventilation may be necessary for some operations.

Individual protection measures

Eye/face protection: Use chemical goggles.

Skin protection

Hand protection: Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyvinyl chloride ("PVC" or "vinyl"). NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

Other protection: Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task.

Respiratory protection: Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use an approved respirator. Selection of air-purifying or positive-pressure supplied-air will depend on the specific operation and the potential airborne concentration of the material. For emergency conditions, use an approved positive-pressure self-contained breathing apparatus.

The following should be effective types of air-purifying respirators: Organic vapor cartridge with a particulate pre-filter.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	
Physical state	Liquid.
Color	Yellow to brown
Odor	Alcohols
Odor Threshold	no data available
pH	6.8 - 7.8 *pH Electrode*
Melting point/range	Not applicable
Freezing point	No test data available
Boiling point (760 mmHg)	82 °C (180 °F)
Flash point	**closed cup** > 100 °C (> 212 °F) *Setaflash Closed Cup ASTM D3828*
Evaporation Rate (Butyl Acetate = 1)	No test data available
Flammability (solid, gas)	Not Applicable
Lower explosion limit	No test data available
Upper explosion limit	No test data available
Vapor Pressure	32 hPa at 20 °C (68 °F)
Relative Vapor Density (air = 1)	Not applicable

Relative Density (water = 1)	1.143 at 20 °C (68 °F) *Literature*
Water solubility	Soluble
Partition coefficient: n-octanol/water	no data available
Auto-ignition temperature	No test data available
Decomposition temperature	No test data available
Dynamic Viscosity	No test data available
Kinematic Viscosity	No test data available
Explosive properties	no data available
Oxidizing properties	no data available
Liquid Density	1.149 g/cm3 at 20 °C (68 °F)
Molecular weight	no data available

NOTE: The physical data presented above are typical values and should not be construed as a specification.

10. STABILITY AND REACTIVITY

Reactivity: no data available

Chemical stability: Thermally stable at typical use temperatures.

Possibility of hazardous reactions: Polymerization will not occur.

Conditions to avoid: Active ingredient decomposes at elevated temperatures. Generation of gas during decomposition can cause pressure in closed systems.

Incompatible materials: Avoid contact with: Strong acids. Strong bases. Strong oxidizers.

Hazardous decomposition products: Decomposition products depend upon temperature, air supply and the presence of other materials. Decomposition products can include and are not limited to: Hydrogen chloride. Nitrogen oxides. Toxic gases are released during decomposition. Decomposition products can include trace amounts of: Phosgene.

11. TOXICOLOGICAL INFORMATION

Toxicological information on this product or its components appear in this section when such data is available.

Acute toxicity

Acute oral toxicity

Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury.

Single dose oral LD50 has not been determined. For similar material(s):
LD50, Rat, 2,598 mg/kg

Acute dermal toxicity
Prolonged skin contact is unlikely to result in absorption of harmful amounts.

The dermal LD50 has not been determined. For similar material(s):
LD50, Rabbit, > 5,000 mg/kg

Acute inhalation toxicity
Prolonged excessive exposure may cause adverse effects. Based on the available data, respiratory irritation was not observed.

The LC50 has not been determined. For similar material(s): Maximum attainable concentration.
LC50, Rat, 4 Hour, dust/mist, > 1.38 mg/l No deaths occurred at this concentration.

Skin corrosion/irritation
Brief contact is essentially nonirritating to skin.
Prolonged contact may cause slight skin irritation with local redness.
Repeated contact may cause slight skin irritation with local redness.

Serious eye damage/eye irritation
May cause moderate eye irritation.
May cause slight corneal injury.
Effects may be slow to heal.

Sensitization
For similar material(s):
Has caused allergic skin reactions when tested in guinea pigs.

For respiratory sensitization:
No relevant data found.

Specific Target Organ Systemic Toxicity (Single Exposure)
Evaluation of available data suggests that this material is not an STOT-SE toxicant.

Specific Target Organ Systemic Toxicity (Repeated Exposure)
For the active ingredient(s):
In animals, effects have been reported on the following organs:
Kidney.
Liver.
Eye.
Thyroid.
Observations in animals include:
Nausea and/or vomiting.

Carcinogenicity
For similar active ingredient(s). Picloram acid. Did not cause cancer in laboratory animals.

For similar active ingredient(s). Various animal cancer tests have shown no reliably positive association between 2,4-D exposure and cancer. Epidemiology studies on herbicide use have been both positive and negative with the majority being negative.

Teratogenicity

For the active ingredient(s): 2,4-Dichlorophenoxyacetic acid, Triisopropanolamine salt Has caused birth defects in lab animals only at doses producing severe toxicity in the mother. For the minor component(s): Isopropanol has been toxic to the fetus in laboratory animals at doses toxic to the mother.

Reproductive toxicity
For similar active ingredient(s). 2,4-Dichlorophenoxyacetic acid. In laboratory animals, excessive doses toxic to the parent animals caused decreased weight and survival of offspring.

Mutagenicity
For the component(s) tested: In vitro genetic toxicity studies were negative. For the majority of components: Animal genetic toxicity studies were negative.

Aspiration Hazard
Based on physical properties, not likely to be an aspiration hazard.

12. ECOLOGICAL INFORMATION

Ecotoxicological information on this product or its components appear in this section when such data is available.

Toxicity

2,4-Dichlorophenoxyacetic acid, triisopropanolamine salt

Acute toxicity to fish
Material is moderately toxic to aquatic organisms on an acute basis (LC50/EC50 between 1 and 10 mg/L in the most sensitive species tested).
LC50, Oncorhynchus mykiss (rainbow trout), static test, 96 Hour, 317 mg/l, OECD Test Guideline 203 or Equivalent

Acute toxicity to aquatic invertebrates
LC50, Daphnia magna (Water flea), static test, 48 Hour, 748 mg/l

Acute toxicity to algae/aquatic plants
ErC50, Pseudokirchneriella subcapitata (green algae), 5 d, 103 mg/l
EC50, Lemna minor (duckweed), 14 d, 2.37 mg/l

Toxicity to Above Ground Organisms
Material is moderately toxic to birds on an acute basis (LD50 between 51 and 500 mg/kg).
Material is practically non-toxic to birds on a dietary basis (LC50 > 5000 ppm).
oral LD50, Colinus virginianus (Bobwhite quail), 405 mg/kg
dietary LC50, Colinus virginianus (Bobwhite quail), > 5,620 ppm

Picloram triisopropanolamine salt

Acute toxicity to fish
Material is slightly toxic to aquatic organisms on an acute basis (LC50/EC50 between 10 and 100 mg/L in the most sensitive species tested).
LC50, Oncorhynchus mykiss (rainbow trout), static test, 96 Hour, 51 mg/l

Acute toxicity to aquatic invertebrates
LC50, Daphnia magna (Water flea), static test, 48 Hour, 125 mg/l

Chronic toxicity to fish
NOEC, Pimephales promelas (fathead minnow), 28 d, 7.19 mg/l

Alkylphenol alkoxylate

Acute toxicity to fish
Material is moderately toxic to aquatic organisms on an acute basis (LC50/EC50 between 1 and 10 mg/L in the most sensitive species tested).
LC50, Oncorhynchus mykiss (rainbow trout), static test, 96 Hour, 3.7 mg/l, OECD Test Guideline 203 or Equivalent

Acute toxicity to aquatic invertebrates
LC50, Daphnia magna (Water flea), 48 Hour, 10.5 mg/l, OECD Test Guideline 202 or Equivalent

Toxicity to Above Ground Organisms
dietary LC50, Apis mellifera (bees), 2 d, > 105micrograms/bee
contact LD50, Apis mellifera (bees), 2 d, > 100micrograms/bee
oral LD50, Colinus virginianus (Bobwhite quail), > 2,250 mg/kg

Isopropanol

Acute toxicity to fish
Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested).
LC50, Pimephales promelas (fathead minnow), flow-through test, 96 Hour, 9,640 mg/l, OECD Test Guideline 203 or Equivalent

Acute toxicity to aquatic invertebrates
LC50, Daphnia magna (Water flea), static test, 24 Hour, > 1,000 mg/l, OECD Test Guideline 202 or Equivalent

Acute toxicity to algae/aquatic plants
NOEC, alga Scenedesmus sp., static test, 7 d, Growth inhibition (cell density reduction), 1,800 mg/l
ErC50, alga Scenedesmus sp., static test, 72 Hour, Growth rate inhibition, > 1,000 mg/l

Toxicity to bacteria
EC50, activated sludge, > 1,000 mg/l

Chronic toxicity to aquatic invertebrates
NOEC, Daphnia magna (Water flea), semi-static test, 21 d, 30 mg/l

Triisopropanolamine

Acute toxicity to fish
Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested).
LC50, Leuciscus idus (Golden orfe), static test, 96 Hour, 3,158.4 mg/l, DIN 38412

Acute toxicity to aquatic invertebrates
EC50, Daphnia magna (Water flea), static test, 48 Hour, > 500 mg/l, OECD Test Guideline 202 or Equivalent

Acute toxicity to algae/aquatic plants

EC50, alga Scenedesmus sp., static test, 72 Hour, Growth rate inhibition, 710 mg/l, EU Method C.3 (Algal Inhibition test)

Toxicity to bacteria
EC10, activated sludge, 30 min, > 1,195 mg/l

Balance

Acute toxicity to fish
No relevant data found.

Persistence and degradability

2,4-Dichlorophenoxyacetic acid, triisopropanolamine salt

Biodegradability: For similar active ingredient(s). 2,4-Dichlorophenoxyacetic acid. Material is readily biodegradable. Passes OECD test(s) for ready biodegradability.

Picloram triisopropanolamine salt

Biodegradability: For similar active ingredient(s). Picloram. Based on stringent OECD test guidelines, this material cannot be considered as readily biodegradable; however, these results do not necessarily mean that the material is not biodegradable under environmental conditions. Biodegradation may occur under aerobic conditions (in the presence of oxygen). Surface photodegradation is expected with exposure to sunlight.

Alkylphenol alkoxylate

Biodegradability: Biodegradation under aerobic laboratory conditions is below detectable limits (BOD20 or BOD28/ThOD < 2.5%).

Theoretical Oxygen Demand: 2.35 mg/mg

Chemical Oxygen Demand: 1.78 mg/mg

isopropanol

Biodegradability: Material is readily biodegradable. Passes OECD test(s) for ready biodegradability.
10-day Window: Pass
Biodegradation: 95 %
Exposure time: 21 d
Method: OECD Test Guideline 301E or Equivalent
10-day Window: Pass
Biodegradation: 53 %
Exposure time: 5 d
Method: Other guidelines

Theoretical Oxygen Demand: 2.40 mg/mg Estimated.

Chemical Oxygen Demand: 2.09 mg/mg Estimated.

Biological oxygen demand (BOD)

Incubation Time	BOD
5 d	20 - 72 %
20 d	78 - 86 %

Photodegradation
Test Type: Half-life (indirect photolysis)
Sensitizer: OH radicals
Atmospheric half-life: 1.472 d
Method: Estimated.

Triisopropanolamine

Biodegradability: Biodegradation under aerobic static laboratory conditions is high (BOD20 or BOD28/ThOD > 40%). Biodegradation rate may increase in soil and/or water with acclimation. Material is not readily biodegradable according to OECD/EEC guidelines.
10-day Window: Fail
Biodegradation: 0 %
Exposure time: 28 d
Method: OECD Test Guideline 301F or Equivalent

Theoretical Oxygen Demand: 2.35 mg/mg

Photodegradation
Test Type: Half-life (indirect photolysis)
Sensitizer: OH radicals
Atmospheric half-life: 3 Hour
Method: Estimated.

Balance

Biodegradability: No relevant data found.

Bioaccumulative potential

2,4-Dichlorophenoxyacetic acid, triisopropanolamine salt

Bioaccumulation: No bioconcentration is expected because of the relatively high water solubility. For similar active ingredient(s). 2,4-Dichlorophenoxyacetic acid. Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

Picloram triisopropanolamine salt

Bioaccumulation: No data available for this product. For similar active ingredient(s). Picloram. Bioconcentration potential is moderate (BCF between 100 and 3000 or Log Pow between 3 and 5).

Alkylphenol alkoxylate

Bioaccumulation: No bioconcentration is expected because of the relatively high water solubility. May foam in water.

isopropanol

Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).
Partition coefficient: n-octanol/water(log Pow): 0.05 Measured

Triisopropanolamine

Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).
Partition coefficient: n-octanol/water(log Pow): -0.015 at 23 °C Measured
Bioconcentration factor (BCF): < 0.57 Fish. 42 d Measured

Balance

Bioaccumulation: No relevant data found.

Mobility in soil

2,4-Dichlorophenoxyacetic acid, triisopropanolamine salt

For similar active ingredient(s).
2,4-Dichlorophenoxyacetic acid.
Potential for mobility in soil is very high (Koc between 0 and 50).

Picloram triisopropanolamine salt

For similar active ingredient(s).
Picloram.
Potential for mobility in soil is very high (Koc between 0 and 50).

Alkylphenol alkoxylate

No data available.

isopropanol

Potential for mobility in soil is very high (Koc between 0 and 50).
Partition coefficient(Koc): 1.1 Estimated.

Triisopropanolamine

Potential for mobility in soil is very high (Koc between 0 and 50).
Partition coefficient(Koc): 10 Estimated.

Balance

No relevant data found.

13. DISPOSAL CONSIDERATIONS

Disposal methods: If wastes and/or containers cannot be disposed of according to the product label directions, disposal of this material must be in accordance with your local or area regulatory authorities. This information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. If the material as supplied becomes a waste, follow all applicable regional, national and local laws.

14. TRANSPORT INFORMATION

DOT

Proper shipping name	Environmentally hazardous substance, liquid, n.o.s.(2,4-D Salt)
UN number	UN 3082
Class	9
Packing group	III
Reportable Quantity	2,4-D Salt

Classification for SEA transport (IMO-IMDG):

Not regulated for transport

Transport in bulk according to Annex I or II of MARPOL 73/78 and the IBC or IGC Code	Consult IMO regulations before transporting ocean bulk

Classification for AIR transport (IATA/ICAO):
Not regulated for transport

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

15. REGULATORY INFORMATION

OSHA Hazard Communication Standard
This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312
Acute Health Hazard
Chronic Health Hazard

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Section 313

Components	**CASRN**
isopropanol	67-63-0

California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986)
This product contains no listed substances known to the State of California to cause cancer, birth defects or other reproductive harm, at levels which would require a warning under the statute.

Pennsylvania (Worker and Community Right-To-KnowAct): Pennsylvania Hazardous Substances List and/or Pennsylvania Environmental Hazardous Substance List:
To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

Pennsylvania (Worker and Community Right-To-KnowAct): Pennsylvania Special Hazardous Substances List:
To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

United States TSCA Inventory (TSCA)

This product contains chemical substance(s) exempt from U.S. EPA TSCA Inventory requirements. It is regulated as a pesticide subject to Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) requirements.

Federal Insecticide, Fungicide and Rodenticide Act
EPA Registration Number: 62719-005
This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

DANGER

Corrosive
Causes irreversible eye damage
Harmful if swallowed or inhaled
Harmful if absorbed through skin

16. OTHER INFORMATION

Hazard Rating System
NFPA

Health	Fire	Reactivity
1	1	0

Revision
Identification Number: 101192176 / A211 / Issue Date: 05/04/2015 / Version: 3.0
DAS Code: GF-2179
Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

Legend

ACGIH	USA. ACGIH Threshold Limit Values (TLV)
Dow IHG	Dow Industrial Hygiene Guideline
OSHA Z-1	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
STEL	Short-term exposure limit
TWA	8-hour, time-weighted average

Information Source and References
This SDS is prepared by Product Regulatory Services and Hazard Communications Groups from information supplied by internal references within our company.

DOW AGROSCIENCES LLC urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with

all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.

Bid Item #3

ATTENTION:

This specimen label is provided for general information only.

- This pesticide product may not yet be available or approved for sale or use in your area.
- It is your responsibility to follow all Federal, state and local laws and regulations regarding the use of pesticides.
- Before using any pesticide, be sure the intended use is approved in your state or locality.
- Your state or locality may require additional precautions and instructions for use of this product that are not included here.
- Monsanto does not guarantee the completeness or accuracy of this specimen label. The information found in this label may differ from the information found on the product label. You must have the EPA approved labeling with you at the time of use and must read and follow all label directions.
- You should not base any use of a similar product on the precautions, instructions for use or other information you find here.
- Always follow the precautions and instructions for use on the label of the pesticide you are using.

21225H2-13

Ranger PRO® Herbicide

Ranger PRO herbicide is a complete broad-spectrum postemergence professional herbicide for industrial, turf and ornamental weed control.

Complete Directions for Use

EPA Reg. No. 524-517 2010-1

AVOID CONTACT OF HERBICIDE WITH FOLIAGE, STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES, BECAUSE SEVERE INJURY OR DESTRUCTION IS LIKELY TO RESULT.

Read the entire label before using this product.

Use only according to label instructions.

Not all products listed in this label are registered for use in California. Check the registration status of each product in California before using.

Read the "LIMIT OF WARRANTY AND LIABILITY" statement at the end of the label before buying or using. If terms are not acceptable, return at once unopened.

THIS IS AN END-USE PRODUCT. MONSANTO DOES NOT INTEND AND HAS NOT REGISTERED IT FOR REFORMULATION. SEE INDIVIDUAL CONTAINER LABEL FOR REPACKAGING LIMITATIONS.

1.0 INGREDIENTS

ACTIVE INGREDIENT:	
*Glyphosate, N-(phosphonomethyl)glycine, in the form of its isopropylamine salt	41.0%
OTHER INGREDIENTS (including surfactant):	59.0%
	100.0%

*Contains 480 grams per liter or 4 pounds per U.S. gallon of the active ingredient glyphosate, in the form of its isopropylamine salt. Equivalent to 356 grams per liter or 3 pounds per U.S. gallon of the acid, glyphosate.

This product is protected by U.S. Patent Nos. 5,683,958; 5,703,015; 6,063,733; 6,121,199; 6,121,200. No license granted under any non-U.S. patent(s).

2.0 IMPORTANT PHONE NUMBERS

FOR PRODUCT INFORMATION OR ASSISTANCE IN USING THIS PRODUCT, **CALL TOLL-FREE, 1-800-332-3111.**

IN CASE OF AN EMERGENCY INVOLVING THIS PRODUCT, OR FOR MEDICAL ASSISTANCE, **CALL COLLECT, DAY OR NIGHT, (314)-694-4000.**

3.0 PRECAUTIONARY STATEMENTS

3.1 Hazards to Humans and Domestic Animals

Keep out of reach of children.

CAUTION!

CAUSES EYE IRRITATION.

Avoid contact with eyes or clothing.

FIRST AID: Call a poison control center or doctor for treatment advice.	
IF IN EYES	• Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. • Remove contact lenses if present after the first 5 minutes then continue rinsing eye.

- Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
- You may also contact **(314) 694-4000**, collect day or night, for emergency medical treatment information.
- This product is identified as **Ranger PRO® herbicide, EPA Registration No. 524-517.**

DOMESTIC ANIMALS: This product is considered to be relatively nontoxic to dogs and other domestic animals; however, ingestion of this product or large amounts of freshly sprayed vegetation may result in temporary gastrointestinal irritation (vomiting, diarrhea, colic, etc.). If such symptoms are observed, provide the animal with plenty of fluids to prevent dehydration. Call a veterinarian if symptoms persist for more than 24 hours.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear: long-sleeved shirt and long pants, shoes plus socks. Follow manufacturer's instructions for cleaning/maintaining Personal Protective Equipment. If there are no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

When handlers use closed systems, enclosed cabs or aircraft in a manner that meets the requirements listed in Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

3.2 Environmental Hazards

Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

3.3 Physical or Chemical Hazards

Mix, store and apply spray solutions of this product using only stainless steel, fiberglass, plastic or plastic-lined steel containers.

DO NOT MIX, STORE OR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS. This product or spray solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling. This product can only be used in accordance with the Directions for Use on this label or in separately published Monsanto Supplemental Labeling or Fact Sheets. Supplemental labeling can be found on the Internet at www.agrian.com, www.cdms.net or www.greenbook.net websites or obtained by contacting your Authorized Monsanto Retailer or Monsanto Company Representative.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulations.

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about Personal Protective Equipment (PPE) and restricted entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 4 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water, is: coveralls, chemical resistant gloves greater than 14 mils in thickness composed of materials such as butyl rubber, natural rubber, neoprene rubber, or nitrile rubber, shoes plus socks.

Non-Agricultural Use Requirements

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard (40 CFR Part 170) for agricultural pesticides. The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses.

Keep people and pets off treated areas until spray solution has dried.

4.0 STORAGE AND DISPOSAL

Proper pesticide storage and disposal are essential to protect against exposure to people and the environment due to leaks and spills, excess product or waste, and vandalism. Do not allow this product to contaminate water, foodstuffs, feed or seed by storage or disposal.

PESTICIDE STORAGE: Store pesticides away from food, pet food, feed, seed, fertilizers, and veterinary supplies. Keep container closed to prevent spills and contamination.

PESTICIDE DISPOSAL: To avoid wastes, use all material in this container, including rinsate, by application in accordance with label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program. Such programs are often run by state or local governments or by industry. All disposal must be in accordance with applicable Federal, State and local procedures.

See container label for container handling and disposal instructions and for refilling limitations.

5.0 PRODUCT INFORMATION

Product Description: This product is a postemergence, systemic herbicide with no residual soil activity. It gives broad-spectrum control of many annual weeds, perennial weeds, woody brush and trees. It is formulated as a water-soluble liquid containing surfactant and no additional surfactant is needed or recommended. It may be applied through standard equipment after dilution and mixing with water or other carriers according to label instructions.

Time to Symptoms: This product moves through the plant from the point of foliage contact to and into the root system. Visible effects are a gradual wilting and yellowing of the plant which advances to complete browning of above-ground growth and deterioration of underground plant parts. Effects are visible on most annual weeds within 2 to 4 days, but on most perennial weeds may not occur for 7 days or more. Extremely cool or cloudy weather following treatment may slow activity of this product and delay development of visual symptoms.

Stage of Weeds: Annual weeds are easiest to control when they are small. Best control of most perennial weeds is obtained when treatment is made at late growth stages approaching maturity. See the "WEEDS CONTROLLED" sections of this label for specific weed rates.

Always use the higher product application rate in the range when weed growth is heavy or dense, or when weeds are growing in an undisturbed (non-cultivated) area. Reduced weed control may result from treating weeds with disease or insect damage, weeds heavily covered with dust, or weeds under poor growing conditions.

Mode of Action in Plants: The active ingredient in this product inhibits an enzyme found only in plants and microorganisms that is essential to formation of specific amino acids.

Cultural Considerations: Reduced control may result when applications are made to annual or perennial weeds that have been mowed, grazed or cut, and have not been allowed to regrow to the appropriate stage for treatment.

Rainfastness: Heavy rainfall soon after application may wash this product off of the foliage and a repeat application may be required for adequate control.

Spray Coverage: For best results, ensure spray coverage is uniform and complete. Do not spray foliage to the point of runoff.

No Soil Activity: Weeds must be emerged at the time of application to be controlled by this product. Weeds germinating from seed after application will not be controlled. Unemerged plants arising from unattached underground rhizomes or rootstocks of perennials will not be affected by the herbicide and will continue to grow.

Maximum Application Rates: The maximum application or use rates stated throughout this label are given in units of volume (fluid ounces or quarts) of this product per acre. However, the maximum allowed application rates apply to this product combined with the use of any and all other herbicides containing the active ingredient glyphosate, whether applied separately or as tank mixtures, on a basis of total pounds of glyphosate (acid equivalents) per acre. If more than one glyphosate-containing product is applied to the same site within the same year, you must ensure that the total use of glyphosate (pounds acid equivalents) does not exceed the maximum allowed. The combined total of all treatments must not exceed 10.6 quarts of this product (10.6 pounds of glyphosate acid) per acre per year. See the "INGREDIENTS" section of this label for necessary product information.

ATTENTION

AVOID CONTACT OF HERBICIDE WITH FOLIAGE, STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES, BECAUSE SEVERE INJURY OR DESTRUCTION MAY RESULT.

AVOID DRIFT. EXTREME CARE MUST BE USED WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS.

Do not allow the herbicide solution to mist, drip, drift or splash onto desirable vegetation since minute quantities of this product can cause severe damage or destruction to the crop, plants or other areas on which treatment was not intended. The likelihood of injury occurring from the use of this product increases when winds are gusty, as wind velocity increases, when wind direction is constantly changing or when there are other meteorological conditions that favor spray drift. When spraying, avoid combinations of pressure and nozzle type that will result in splatter or fine particles (mist) that are likely to drift. AVOID APPLYING AT EXCESSIVE SPEED OR PRESSURE.

NOTE: Use of this product in any manner not consistent with this label may result in injury to persons, animals or crops, or other unintended consequences.

5.1 Weed Resistance Management

GROUP	9	HERBICIDE

Glyphosate, the active ingredient in this product, is a Group 9 herbicide based on the mode of action classification system of the Weed Science Society of America. Any weed population may contain plants naturally resistant to Group 9 herbicides. Weed species resistant to Group 9 herbicides may be effectively managed utilizing another herbicide from a different Group or using other cultural or mechanical practices.

To minimize the occurrence of glyphosate resistant biotypes observe the following good weed management practices:

- Scout your application site before and after herbicide applications.
- Control weeds early when they are relatively small.
- Incorporate other herbicides and cultural or mechanical practices as part of your weed control system where appropriate.
- Utilize the label rate for the most difficult weed in the site. Avoid tank-mixtures with other herbicides that reduce this product's efficacy (through antagonism) or tank mixtures which encourage rates of this product below the labeled amounts.
- Control weed escapes and prevent weeds from setting seeds.
- Clean equipment before moving from site to site to minimize spread of weed seed.
- Use new commercial seed as free of weed seed as possible.
- Report any incidence of repeated non-performance of this product on a particular weed to your Monsanto representative, local retailer, or county extension agent.

5.2 Management for Glyphosate Resistant Weed Biotypes

NOTE: Appropriate testing is critical in order to confirm weed resistance to glyphosate. Contact your Monsanto representative to determine if resistance has been confirmed to any particular weed biotype in your area. Control instructions for biotypes confirmed as resistant to glyphosate are made available on separately published supplemental

labeling or Fact Sheets for this product and may be obtained from your local retailer or Monsanto representative.

Since the occurrence of new glyphosate resistant weeds cannot be determined until after product use and scientific confirmation, Monsanto Company is not responsible for any losses that may result from the failure of this product to control glyphosate resistant weed biotypes.

The following good weed management practices are encouraged to reduce the spread of confirmed glyphosate resistant biotypes:

- If a naturally occurring resistant biotype is present at your site, this product may be tank-mixed or applied sequentially with an appropriately labeled herbicide with a different mode of action to achieve control.
- Cultural and mechanical control practices may also be used as appropriate.
- Scout treated sites after herbicide applications and control escapes of resistant biotypes before they set seed.
- Thoroughly clean equipment before leaving sites known to contain resistant biotypes.

6.0 MIXING

Mix, store and apply spray solutions of this product using only clean stainless steel, fiberglass, plastic or plastic-lined steel containers.

DO NOT MIX, STORE OR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS.

Use caution to avoid siphoning back into the carrier source. Use approved anti-back-siphoning devices where required by state or local regulations.

Clean sprayer parts immediately after using this product by thoroughly flushing with water.

NOTE: REDUCED RESULTS MAY OCCUR IF WATER CONTAINING SOIL IS USED, VISIBLY MUDDY WATER OR WATER FROM PONDS AND DITCHES THAT IS NOT CLEAR.

6.1 Mixing with Water

This product mixes readily with water. Mix spray solutions of this product as follows: Fill the mixing or spray tank with the required amount of clean water. Add the labeled amount of this product near the end of the filling process and mix gently (well). During mixing and application, foaming of the spray solution may occur. To prevent or minimize foam, avoid the use of mechanical agitators, terminate by-pass and return lines at the bottom of the tank and, if needed, use an approved anti-foam or defoaming agent.

6.2 Tank Mixtures

This product does not provide residual weed control. This product may be tank-mixed with other herbicides to provide residual weed control, a broader weed control spectrum or an alternate mode of action. Always read and follow label directions for all products in the tank mixture. Use according to the most restrictive precautionary statements for each product in the mixture. Any labeled rate of this product may be used in a tank mix.

When this label describes a tank mixture with a generic active ingredient such as diuron, 2,4-D or dicamba, the user is responsible for ensuring the mixture product label allows the specific application.

Buyer and all users are responsible for all loss or damage in connection with the use or handling of mixtures of this product with herbicides or other materials that are not expressly listed in this label. Mixing this product with herbicides or other materials not identified on this label may result in reduced performance.

6.3 Tank Mixing Procedure

When tank mixing, read and carefully observe label directions, cautionary statements and all information on the labels of all products used. Add the tank-mix product to the tank as directed by the label. Maintain agitation and add the labeled amount of this product.

Maintain good agitation at all times until the contents of the tank are sprayed. If the spray mixture is allowed to settle, thorough agitation may be required to resuspend the mixture before spraying is resumed.

Keep by-pass line on or near the bottom of the tank to minimize foaming. Screen size in nozzle or line strainers should be no finer than 50-mesh.

Always predetermine the compatibility of labeled tank mixtures of this product with water carrier by mixing small proportional quantities in advance. Ensure that the specific tank mixture product is registered for application at the desired site.

Refer to the "Tank Mixtures" section for additional precautions.

6.4 Mixing Percent Solutions

Prepare the desired volume of spray solution by mixing the amount of this product in water as shown in the following table:

Spray Solution

Desired Volume	Amount of Ranger PRO Herbicide 1/2%	1%	1-1/2%	2%	5%	10%
1 gal	2/3 oz	1-1/3 oz	2 oz	2-2/3 oz	6-1/2 oz	13 oz
25 gal	1 pt	1 qt	1-1/2 qt	2 qt	5 qt	10 qt
100 gal	2 qt	1 gal	1-1/2 gal	2 gal	5 gal	10 gal

2 tablespoons = 1 fluid ounce

For use in backpack, knapsack or pump-up sprayers, it is suggested that the labeled amount of this product be mixed with water in a larger container. Fill sprayer with the mixed solution.

6.5 Surfactants

Nonionic surfactants which are labeled for use with herbicides may be used. Do not reduce rates of this product when adding surfactant. When adding additional surfactant, use 0.5 percent surfactant concentration (2 quarts per 100 gallons of spray solution) when using surfactants which contain at least 70 percent active ingredient or a 1 percent surfactant concentration (4 quarts per 100 gallons of spray solution) for those surfactants containing less than 70 percent active ingredient. Read and carefully observe surfactant cautionary statements and other information appearing on the surfactant label.

6.6 Colorants or Dyes

Approved colorants or marking dyes may be added to this product. Colorants or dyes used in spray solutions of this product may reduce performance, especially at lower rates or dilution. Use colorants or dyes according to the manufacturer's instructions.

6.7 Drift Control Additives

Drift reduction additives may be used with all equipment types, except wiper applicators, and sponge bars. When a drift reduction additive is used, read and carefully observe precautionary statements and all other information appearing on the additive label. The use of drift reduction additives can affect spray coverage which may result in reduced performance.

7.0 APPLICATION EQUIPMENT AND TECHNIQUES

Do not apply this product through any type of irrigation system.

APPLY THESE SPRAY SOLUTIONS IN PROPERLY MAINTAINED AND CALIBRATED EQUIPMENT CAPABLE OF DELIVERING DESIRED VOLUMES.

SPRAY DRIFT MANAGEMENT

AVOID DRIFT. EXTREME CARE MUST BE USED WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE VEGETATION.

Do not allow the herbicide solution to mist, drip, drift or splash onto desirable vegetation since minute quantities of this product can cause severe damage or destruction to the crop, plants or other areas on which treatment was not intended.

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment- and weather-related factors determines the potential for spray drift. The applicator and/or the grower is responsible for considering all these factors when making decisions.

7.1 Aerial Equipment

DO NOT APPLY THIS PRODUCT USING AERIAL SPRAY EQUIPMENT EXCEPT UNDER CONDITIONS AS SPECIFIED WITHIN THIS LABEL.

FOR AERIAL APPLICATION IN CALIFORNIA, REFER TO THE FEDERAL SUPPLEMENTAL LABEL FOR AERIAL APPLICATIONS IN THAT STATE FOR SPECIFIC INSTRUCTIONS, RESTRICTIONS AND REQUIREMENTS.

TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, APPROPRIATE BUFFER ZONES MUST BE MAINTAINED.

Avoid direct application to any body of water.

Use the labeled rates of this herbicide in 3 to 25 gallons of water per acre.

Coarse sprays are less likely to drift; therefore, do not use nozzles or nozzle configurations that dispense spray as fine spray droplets. Do not angle nozzles forward into the air stream and do not increase spray volume by increasing nozzle pressure. Drift control additives may be used. When a drift control additive is used, read and carefully observe the cautionary statements and all other information appearing on the additive label.

Ensure uniform application—To avoid streaked, uneven or overlapped application, use appropriate marking devices.

Aircraft Maintenance

PROLONGED EXPOSURE OF THIS PRODUCT TO UNCOATED STEEL SURFACES MAY RESULT IN CORROSION AND POSSIBLE FAILURE OF THE PART. The maintenance of an

organic coating (paint) which meets aerospace specification MIL-C-38413 may prevent corrosion. To prevent corrosion of exposed parts, thoroughly wash aircraft after each day of spraying to remove residues of this product accumulated during spraying or from spills. Landing gear is most susceptible.

AERIAL SPRAY DRIFT MANAGEMENT

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops.

1. The distance of the outermost nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees. Where states have more stringent regulations, they should be observed.

Importance of droplet size

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see the **Wind, Temperature and Humidity**, and **Temperature Inversion** sections of this label).

Controlling droplet size

- **Volume:** Use high flow-rate nozzles to apply the highest practical spray volume. Nozzles with the higher rated flows produce larger droplets.
- **Pressure:** Use the lower spray pressures labeled for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. When higher flow-rates are needed, use higher flow-rate nozzles instead of increasing pressure.
- **Number of nozzles:** Use the minimum number of nozzles that provide uniform coverage.
- **Nozzle orientation:** Orienting nozzles so that the spray is released backwards, parallel to the air stream, will produce larger droplets than other orientations. Significant deflection from the horizontal will reduce droplet size and increase drift potential.
- **Nozzle type:** Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce larger droplets than other nozzle types.
- **Boom Length:** For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.
- **Application Height:** Applications must not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces the exposure of the droplets to evaporation and wind.

Swath Adjustment

When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance increases, with increasing drift potential (higher wind, smaller droplets, etc.).

Wind

Drift potential is lowest between wind speeds of 2 to 10 miles per hour. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application must be avoided below 2 miles per hour due to variable wind direction and high inversion potential. **NOTE:** Local terrain can influence wind patterns. Every applicator must be familiar with local wind patterns and how they affect drift.

Temperature and Humidity

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

Temperature Inversions

Applications must not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

Sensitive Areas

This product must only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

7.2 Ground Broadcast Equipment

Apply the labeled rates of this product in 3 to 40 gallons of water per acre as a broadcast spray unless otherwise specified in this label or in separate supplemental labeling or Fact Sheets published by Monsanto. As density of weeds increases, increase spray volume within the labeled range to ensure complete coverage. Carefully select proper nozzles to avoid spraying a fine mist. For best results with ground application equipment, use flat-fan nozzles. Check for even distribution of spray droplets.

7.3 Backpack or High-Volume Equipment

Apply to foliage of vegetation to be controlled. For applications made on a spray-to-wet basis, ensure spray coverage is uniform and complete. Do not spray to the point of runoff. Use coarse sprays only.

Refer to the "Annual Weeds" instructions of "WEEDS CONTROLLED" section for specific rates and restrictions.

7.4 Selective Equipment

This product may be diluted with water and applied through recirculating spray systems, shielded applicators, hooded sprayers, wiper applicators or sponge bars, to listed weeds growing in any site specified on this label.

AVOID CONTACT OF HERBICIDE WITH DESIRABLE VEGETATION. Contact of this product with desirable vegetation may result in unwanted plant damage or destruction.

Recirculating Spray

A recirculating spray system directs the spray solution onto weeds growing above desirable vegetation, while spray solution not intercepted by weeds is collected and returned to the spray tank for reuse.

Adjust application equipment used above desired vegetation to the lowest spray stream or wiper contact point is at least 2 inches above the desirable vegetation. Droplets, mist, foam or splatter of the herbicide solution settling on desirable vegetation is likely to result in discoloration, stunting or destruction.

Better results may be obtained when more of the weed is exposed to the herbicide solution. Weeds not contacted by the herbicide solution will not be affected. This may occur in dense clumps, severe infestations or when the height of the weeds varies so that not all weeds are contacted. In these instances, repeat treatment may be necessary.

Shielded and Hooded Applicators

A shielded or hooded applicator directs the herbicide solution onto weeds, while shielding desirable vegetation from the herbicide. Use nozzles that provide uniform coverage within the treated area. Keep shields on these sprayers adjusted to protect desirable vegetation. EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF HERBICIDE WITH DESIRABLE VEGETATION.

Wiper Applicators and Sponge Bars

A wiper or sponge applicator applies the herbicide solution onto weeds by rubbing the weed with an absorbent material containing the herbicide solution. Equipment must be designed, maintained and operated to prevent the herbicide solution from contacting desirable vegetation. Operate this equipment at ground speeds no greater than 5 miles per hour. Performance may be improved by reducing speed in areas of heavy weed infestations to ensure adequate wiper saturation. Better results may be obtained if 2 applications are made in opposite directions.

Avoid leakage or dripping onto desirable vegetation. Adjust height of applicator to ensure adequate contact with weeds. Keep wiping surfaces clean. Be aware that, on sloping ground, the herbicide solution may migrate, causing dripping on the lower end and drying of the wicks on the upper end of a wiper applicator.

Do not use wiper equipment when weeds are wet.

Mix only the amount of solution to be used during a 1-day period, as reduced product performance may result from the use of solutions held in storage. Clean wiper parts immediately after using this product by thoroughly flushing with water.

For Rope or Sponge Wick Applicators: Solutions ranging from 33 to 75 percent of this product in water may be used.

For Panel Applicators and Pressure-Feed Systems: Solutions ranging from 33 to 100 percent of this product in water may be used.

When applied as directed, this product CONTROLS the following weeds:

Corn, volunteer	Sicklepod
Panicum, Texas	Spanishneedles
Rye, common	Starbur, bristly
Shattercane	

When applied as directed, this product SUPPRESSES the following weeds:

Beggarweed, Florida	Ragweed, common
Bermudagrass	Ragweed, giant
Dogbane, hemp	Smutgrass
Dogfennel	Sunflower
Guineagrass	Thistle, Canada
Johnsongrass	Thistle, musk
Milkweed	Vaseygrass
Nightshade, silverleaf	Velvetleaf
Pigweed, redroot	

7.5 Injection Systems

This product may be used in aerial or ground injection spray systems. It may be used as a liquid concentrate or diluted prior to injecting into the spray stream. Do not mix this product with the undiluted concentrate of other products when using injection systems unless specifically directed.

7.6 CDA Equipment

The rate of this product applied per acre by controlled droplet application (CDA) equipment must not be less than the amount directed in this label when applied by conventional broadcast equipment. For vehicle-mounted CDA equipment, apply 2 to 15 gallons of water per acre.

CDA equipment produces a spray pattern that is not easily visible. Extreme care must be exercised to avoid spray or drift contacting the foliage or any other tissue of desirable vegetation, as damage or destruction is likely to result.

8.0 SITE AND USE INSTRUCTIONS

Detailed instructions follow alphabetically, by site.

Unless otherwise specified on this label or in separate supplemental labeling or Fact Sheets published by Monsanto, applications may be made to control any weeds listed in the annual, perennial and woody brush tables. Also refer to the "Selective Equipment" section.

8.1 Cut Stump

Cut stump treatments may be made on any site listed on this label. This product will control many types of woody brush and tree species. Apply this product using suitable equipment to ensure coverage of the entire cambium. Cut trees or resprouts close to the soil surface. Apply a 50- to 100-percent solution of this product to the freshly-cut surface **immediately after** cutting. Delays in application may result in reduced performance. For best results, make applications during periods of active growth and full leaf expansion.

DO NOT MAKE CUT STUMP APPLICATIONS WHEN THE ROOTS OF DESIRABLE WOODY BRUSH OR TREES MAY BE GRAFTED TO THE ROOTS OF THE CUT STUMP. Some sprouts, stems, or trees may share the same root system. Adjacent trees having a similar age, height and spacing may signal shared roots. Whether grafted or shared, injury is likely to occur to non-treated stems/trees when one or more trees sharing common roots are treated.

8.2 Forestry Site Preparation

This product is labeled for the control or partial control of woody brush, trees and herbaceous weeds in forestry sites and for use in preparing or establishing wildlife openings within these sites and maintaining logging roads.

This product is labeled for use in site preparation prior to planting any tree species, including Christmas trees, eucalyptus, hybrid tree cultivars and silvicultural nursery sites.

Use higher rates of this product within the labeled range for control or partial control of woody brush, trees and hard-to-control perennial herbaceous weeds. For best results, apply to actively growing woody brush and trees after full leaf expansion and before fall color and leaf drop. Increase rates within the labeled range for control of perennial herbaceous weeds any time after emergence and before seedheads, flowers or berries appear.

Use the lower rates of this product within the labeled range for control of annual herbaceous weeds and actively growing perennial herbaceous weeds after seedheads, flowers or berries appear. Apply to the foliage of actively growing annual herbaceous weeds any time after emergence.

This product has no herbicidal or residual activity in the soil. Where repeat applications are necessary, do not exceed 10.6 quarts of this product per acre per year.

TANK MIXTURES: Tank mixtures of this product may be used to increase the spectrum of vegetation controlled. When tank mixing, read and carefully observe the label claims, cautionary statements and all information on the labels of all products used. Use according to the most restrictive precautionary statements for each product in the mixture.

NOTE: For forestry site preparation, make sure the tank-mix product is approved for use prior to planting the desired species. Observe planting interval restrictions.

Any labeled rate of this product may be used in a tank mix with the following products for forestry site preparation.

Arsenal Applicators Concentrate	Garlon 3A
Chopper	Garlon 4
Chopper Gen2	Oust XP
Escort	

For control of herbaceous weeds, use the lower labeled tank mixture rates. For control of dense stands or tough-to-control woody brush and trees, use the higher labeled tank mixture rates.

Do not apply this product as an over-the-top broadcast spray for forestry conifer or hardwood release unless otherwise directed on this label or in separately published Monsanto supplemental labeling or Fact Sheets.

8.3 Non-Crop Areas and Industrial Sites

This product may be used in non-crop areas, airports, apartment complexes, commercial sites, ditch banks, driveways, dry ditches, dry canals, fencerows, forestry sites, golf courses, greenhouses, industrial sites, landscape areas, lumber yards, manufacturing sites, municipal sites, natural areas, office complexes, ornamentals, parks, parking areas, petroleum tank farms and pumping installations, railroads, recreational areas, residential areas, rights-of-way, roadsides, schools, shadehouses, sports complexes, storage areas, substations, turfgrass areas, utility sites, warehouse areas, and wildlife management sites.

This product may also be used in non-food crop sites, Christmas tree farms, plant nurseries, sod or turf seed farms.

Unless otherwise specified, applications may be made to control any weeds listed in the "WEEDS CONTROLLED" section of this label.

Weed Control, Trim-and-Edge, Bare Ground

This product may be used in non-crop and non-food crop areas. It may be applied with any application equipment described in this label. This product may be used to trim-and-edge around objects in non-crop sites, for spot treatment of unwanted vegetation and to eliminate unwanted weeds growing in established shrub beds or ornamental plantings. This product may be used prior to planting an area to ornamentals, flowers, turfgrass (sod or seed), or prior to laying asphalt or beginning construction projects.

Repeated applications of this product may be used, as weeds emerge, to maintain bare ground.

TANK MIXTURES: This product may be tank mixed with the following products provided that the specific product is labeled for application at the use site. Refer to the individual product labels for approved sites and application rates.

Arsenal	Pendulum WDG
Barricade 65WG	Plateau
Clarity	Princep DF
diuron	Princep Liquid
Endurance	Ronstar 50 WSP
Escort	Sahara
Garlon 3A	simazine
Garlon 4	Surflan
Karmex	Telar
Krovar I DF	Vanquish
Oust XP	2,4-D
Pendulum 3.3 EC	

This product plus dicamba tank mixtures may not be applied by air in California.

When applied as a tank mixture for bare ground, this product provides control of the emerged annual weeds and control or partial control of emerged perennial weeds, woody brush and trees.

For control or partial control of the following perennial weeds, apply 1 to 2 quarts of this product plus 2 to 8 ounces of Oust XP per acre.

Bahiagrass	Fescue, tall
Bermudagrass	Johnsongrass
Broomsedge	Poorjoe
Dallisgrass	Quackgrass
Dock, curly	Vaseygrass
Dogfennel	Vervain, blue

Chemical Mowing - Perennials

This product will suppress perennial grasses listed in this section to serve as a substitute for mowing. Use 8 fluid ounces of this product per acre when treating tall fescue, fine fescue, orchardgrass, quackgrass or reed canarygrass covers. Use 6 fluid ounces of this product per acre when treating Kentucky bluegrass. Apply treatments in 10 to 40 gallons of spray solution per acre.

Use only in areas where some temporary injury or discoloration of perennial grasses can be tolerated.

Chemical Mowing - Annuals

For growth suppression of some annual grasses, annual ryegrass, wild barley and wild oats growing in coarse turf on roadsides or other industrial areas, apply 4 to 5 fluid ounces of this product in 10 to 40 gallons of spray solution per acre. Make applications when annual grasses are actively growing and before the seedheads are in the boot stage of development. Treatments may cause injury to the desired grasses.

***Bromus* Species and Medusahead in Pastures and Rangelands**

***Bromus* species.** This product may be used to treat downy brome (*Bromus tectorum*), Japanese brome (*Bromus japonicus*), soft chess (*Bromus mollis*) and cheatgrass (*Bromus secalinus*) found in industrial, rangeland and pasture sites. Apply 8 to 16 fluid ounces of this product per acre on a broadcast basis.

For best results, coincide treatment with early seedhead emergence of the most mature plants. Delaying the application until this growth stage will maximize the emergence of other weedy grass flushes. Make applications to the same site each year until seed

banks are depleted and the desirable perennial grasses can become reestablished on the site.

Medusahead. To treat medusahead, apply 16 fluid ounces of this product per acre as soon as plants are actively growing, and prior to the 4-leaf stage. Applications may be made in the fall or spring.

Applications to brome and medusahead may be made using ground or aerial equipment. Aerial applications for these uses may be made using fixed wing or helicopter equipment. For aerial applications, apply in 2 to 10 gallons of water per acre. For applications using ground equipment, apply in 10 to 20 gallons of water per acre. When applied as directed in this label, there are no grazing restrictions.

Dormant Turfgrass

This product may be used to control or suppress many winter annual weeds and tall fescue for effective release of dormant bermudagrass and bahiagrass turf. Treat only when turf is dormant and prior to spring green-up.

Apply 8 to 64 fluid ounces of this product per acre. Apply the labeled rates in 10 to 40 gallons of water per acre. Use only in areas where bermudagrass or bahiagrass are desirable ground covers and where some temporary injury or discoloration can be tolerated.

Treatments in excess of 16 fluid ounces per acre may result in injury or delayed green-up in highly maintained areas, golf courses and lawns. DO NOT apply tank mixtures of this product plus Oust XP in highly maintained turfgrass areas. For further uses, refer to the "Railroads" section of this label, which gives rates for dormant bermudagrass treatment and the "Roadsides" section of this label, which gives rates for dormant bermudagrass and bahiagrass treatments.

Actively Growing Bermudagrass

This product may be used to control or partially control many annual and perennial weeds for effective release of actively growing bermudagrass. DO NOT apply more than 16 fluid ounces of this product per acre in highly maintained turfgrass areas. DO NOT apply tank mixtures of this product plus Oust XP in highly maintained turfgrass areas. For further uses, refer to the "Roadsides" section of this label, which gives rates for actively growing bermudagrass treatments. Use only in areas where some temporary injury or discoloration can be tolerated.

Turfgrass Renovation, Seed, or Sod Production

This product controls most existing vegetation prior to renovating turfgrass areas or establishing turfgrass grown for seed or sod. For maximum control of existing vegetation, delay planting or sodding to determine if any regrowth from escaped underground plant parts occurs. Where repeat treatments are necessary, sufficient regrowth must be attained prior to application. For warm-season grasses like bermudagrass, summer or fall applications provide the best control. Where existing vegetation is growing under mowed turfgrass management, apply this product after omitting at least one regular mowing to allow sufficient growth for good interception of the spray.

Do not disturb soil or underground plant parts before treatment. Delay tillage or renovation techniques such as vertical mowing, coring or slicing for 7 days after application to allow translocation into underground plant parts.

Desirable turfgrasses may be planted following the above procedures.

Hand-held equipment may be used for spot treatment of unwanted vegetation growing in existing turfgrass. Broadcast or hand-held equipment may be used to control sod remnants or other unwanted vegetation after sod is harvested.

If application rates total 3 quarts per acre or less, no waiting period between treatment and feeding or livestock grazing is required. If the rate is greater than 3 quarts per acre, remove domestic livestock before application and wait 8 weeks after application before grazing or harvesting.

8.4 Habitat Management

Habitat Restoration and Management

This product may be used to control exotic and other undesirable vegetation in habitat management and natural areas, including rangeland and wildlife refuges. Applications can be made to allow recovery of native plant species, prior to planting desirable native species, and for similar broad-spectrum vegetation control requirements. Spot treatments can be made to selectively remove unwanted plants for habitat management and enhancement.

Wildlife Food Plots

This product may be used as a site preparation treatment prior to planting wildlife food plots. Any wildlife food species may be planted after applying this product, or native species may be allowed to repopulate the area. If tillage is needed to prepare a seedbed, wait 7 days after application before tillage to allow translocation into underground plant parts.

8.5 Injection and Frill (Woody Brush and Trees)

This product may be used to control or partially control woody brush and trees by injection or frill applications. Apply this product using suitable equipment that must penetrate into the living tissue. Apply the equivalent of 1/25 fluid ounce (1 ml) of this product per each 2 to 3 inches of trunk diameter at breast height (DBH). This is best achieved by applying a 50 to 100 percent concentration of this product either to a continuous frill around the tree or as cuts evenly spaced around the tree below all branches. As tree diameter increases in size, better results are achieved by applying diluted material to a continuous frill or more closely spaced cuttings. Avoid application techniques that allow runoff to occur from frilled or cut areas in species that exude sap freely. In these species, make the frill or cuts at an oblique angle to produce a cupping effect and use a 100 percent concentration of this product. For best results, make application during periods of active growth and after full leaf expansion.

8.6 Ornamentals, Plant Nurseries, and Christmas Trees

Post-Directed and Trim-and-Edge

This product may be used prior to the planting of and as a post-directed spray around established woody ornamental species, arborvitae, azalea, boxwood, crabapple, eucalyptus, euonymus, fir, Douglas fir, jojoba, hollies, lilac, magnolia, maple, oak, poplar, privet, pine, spruce and yew, growing in plant nurseries, on Christmas tree farms, or on other non-food tree production sites. This product may also be used to trim and edge around trees, buildings, sidewalks and roads, potted plants and other objects in a nursery setting.

Desirable plants may be protected from the spray solution by using shields or coverings made of cardboard or other impermeable material. THIS PRODUCT IS NOT LABELED FOR USE AS AN OVER-THE-TOP BROADCAST SPRAY IN ORNAMENTALS AND CHRISTMAS TREES. Care must be exercised to avoid contact of spray, drift or mist with foliage or bark of established ornamental species.

Site Preparation

This product may be used prior to planting any ornamental, nursery or Christmas tree species.

Wiper Applications

This product may be used through wick or other suitable wiper applicators to control or partially control undesirable vegetation around established eucalyptus or poplar trees. See the "Selective Equipment" section of this label for further information about the proper use of wiper applicators.

Greenhouse/Shadehouse

This product may be used to control weeds growing in and around greenhouses and shadehouses. Desirable vegetation must not be present during application and air circulation fans must be turned off.

8.7 Parks, Recreational and Residential Areas

This product may be used in parks, recreational and residential areas. It may be applied with any application equipment described in this label. This product may be used to trim-and-edge around trees, fences, and paths, around buildings, sidewalks, and other objects in these areas. This product may be used for spot treatment of unwanted vegetation. This product may be used to eliminate unwanted weeds growing in established shrub beds or ornamental plantings. This product may be used prior to planting an area to ornamentals, flowers, turfgrass (sod or seed), or prior to laying asphalt or beginning construction projects.

All of the instructions in the "Non-Crop Areas and Industrial Sites" section apply to park and recreational areas.

8.8 Railroads

All of the instructions in the "Non-Crop Areas and Industrial Sites" section apply to railroads.

Bare Ground, Ballast and Shoulders, Crossings, and Spot Treatment

This product may be used to maintain bare ground on railroad ballast and shoulders. Repeat applications of this product may be used, as weeds emerge, to maintain bare ground. This product may be used to control tall-growing weeds to improve line-of-sight at railroad crossings and reduce the need for mowing along rights-of-way. For crossing applications, up to 80 gallons of spray solution per acre may be used.

This product may be tank mixed with the following products provided that the specific product is registered for ballast, shoulder, spot, bare ground and crossing treatments:

Arsenal	Krovar I DF
Clarity	Oust XP
diuron	Sahara
Escort	Spike
Garlon 3A	Telar
Garlon 4	Vanquish
Hyvar X	2,4-D

Brush Control

This product may be used to control woody brush and trees on railroad rights-of-way. Apply 4 to 10 quarts of this product per acre as a broadcast spray, using boom-type or boomless nozzles. Up to 80 gallons of spray solution per acre may be used. Apply a 3/4- to 2-percent solution of this product when using high-volume spray-to-wet applications. Apply a 5- to 10-percent solution of this product when using low-volume directed sprays

for spot treatment. This product may be mixed with the following products for enhanced control of woody brush and trees:

Arsenal	Garlon 4
Escort	Tordon K
Garlon 3A	

Bermudagrass Release

This product may be used to control or partially control many annual and perennial weeds for effective release of actively growing bermudagrass. Apply 1 to 3 pints of this product in up to 80 gallons of spray solution per acre. Use the lower rate when treating annual weeds below 6 inches in height (or runner length). Use the higher rate as weeds increase in size or as they approach flower or seedhead formation. These rates will also provide partial control of the following perennial species:

Bahiagrass	Johnsongrass
Bluestem, silver	Trumpetcreeper
Fescue, tall	Vaseygrass

This product may be tank-mixed with Oust XP. If tank-mixed, use no more than 1 to 3 pints of this product with 1 to 2 ounces of Oust XP per acre. Use the lower rates of each product to control annual weeds less than 6 inches in height (or runner length) that are listed in this label and the Oust XP label. Use the higher rates as annual weeds increase in size and approach the flower or seedhead stages. These rates will also provide partial control of the following perennial weeds:

Bahiagrass	Fescue, tall
Blackberry	Johnsongrass
Bluestem, silver	Poorjoe
Broomsedge	Raspberry
Dallisgrass	Trumpetcreeper
Dewberry	Vaseygrass
Dock, curly	Vervain, blue
Dogfennel	

Use only on well-established bermudagrass. Bermudagrass injury may result from the treatment, but regrowth will occur under moist conditions. Do not make repeat applications in the same season since severe injury may occur.

8.9 Roadsides

All of the instructions in the "Non-Crop Areas and Industrial Sites" section apply to roadsides.

Shoulder Treatments

This product may be used on road shoulders. It may be applied with boom sprayers, shielded boom sprayers, high-volume off-center nozzles, hand-held equipment, and similar equipment.

Guardrails and Other Obstacles to Mowing

This product may be used to control weeds growing under guardrails and around signposts and other objects along the roadside.

Spot Treatment

This product may be used as a spot treatment to control unwanted vegetation growing along roadsides.

Tank Mixtures

This product may be tank-mixed with the following products for shoulder, guardrail, spot and bare ground treatments provided that the specific product is registered for use on such sites. Read and carefully observe label directions, cautionary statements and all information on the labels of all products used.

Clarity	Princep DF
diuron	Princep Liquid
Endurance	Ronstar 50 WSP
Escort	Sahara
Krovar I DF	simazine
Oust XP	Surflan
Outrider®	Telar
Pendulum 3.3 EC	Vanquish
Pendulum WDG	2,4-D

See the "Tank Mixtures" section of this label for tank-mixing instructions.

Release of Bermudagrass or Bahiagrass

Dormant Applications

This product may be used to control or partially control many winter annual weeds and tall fescue for effective release of dormant bermudagrass or bahiagrass. Treat only when turf is dormant and prior to spring green-up. This product may also be tank-mixed with Outrider or Oust XP for residual control. Tank mixtures of this product with Oust XP may delay green-up.

For best results on winter annuals, treat when plants are in an early growth stage (below 6 inches in height) after most have germinated. For best results on tall fescue, treat when fescue is at or beyond the 4- to 6-leaf stage.

Apply 8 to 64 fluid ounces of this product in a tank mixture with 3/4 to 1-1/3 ounces Outrider herbicide per acre. Read and follow all label directions for Outrider herbicide.

Apply 8 to 64 fluid ounces of this product per acre alone or in a tank mixture with 1/4 to 1 ounce per acre of Oust XP. Apply the labeled rates in 10 to 40 gallons of water per acre. Use only in areas where bermudagrass or bahiagrass are desirable ground covers and where some temporary injury or discoloration can be tolerated. To avoid delays in green-up and minimize injury, add no more than 1 ounce of Oust XP per acre on bermudagrass and no more than 1/2 ounce of Oust XP per acre on bahiagrass and avoid treatments when these grasses are in a semi-dormant condition.

Actively Growing Bermudagrass

This product may be used to control or partially control many annual and perennial weeds for effective release of actively growing bermudagrass. Apply 1 to 3 pints of this product in 10 to 40 gallons of spray solution per acre. Use the lower rate when treating annual weeds below 6 inches in height (or runner length). Use the higher rate as weeds increase in size or as they approach flower or seedhead formation. These rates will also provide partial control of the following perennial species:

Bahiagrass	Johnsongrass
Bluestem, silver	Trumpetcreeper
Fescue, tall	Vaseygrass

This product may be tank mixed with Outrider for control or partial control of Johnsongrass and other weeds listed in the Outrider label. Use 8 to 32 fluid ounces of this product with 3/4 to 1-1/3 ounces of Outrider. Use the higher rates of both products for control of perennial weeds or annual weeds greater than 6 inches in height.

This product may be tank mixed with Oust XP. If tank-mixed, use no more than 1 to 2 pints of this product with 1 to 2 ounces of Oust XP per acre. Use the lower rates of each product to control annual weeds less than 6 inches in height (or runner length) that are listed in this label and the Oust XP label. Use the higher rates as annual weeds increase in size and approach the flower or seedhead stages. These rates will also provide partial control of the following perennial weeds:

Bahiagrass	Fescue, tall
Bluestem, silver	Johnsongrass
Broomsedge	Poorjoe
Dallisgrass	Trumpetcreeper
Dock, curly	Vaseygrass
Dogfennel	Vervain, blue

Use only on well-established bermudagrass. Bermudagrass injury may result from the treatment, but regrowth will occur under moist conditions. Repeat applications of the tank mix in the same season causes severe injury.

Actively Growing Bahiagrass

For suppression of vegetative growth and seedhead inhibition of bahiagrass for approximately 45 days, apply 6 fluid ounces of this product in 10 to 40 gallons of water per acre. Apply 1 to 2 weeks after full green-up or after mowing to a uniform height of 3 to 4 inches. This application must be made prior to seedhead emergence.

For suppression up to 120 days, apply 4 fluid ounces of this product per acre, followed by an application of 2 to 4 fluid ounces per acre about 45 days later. Make no more than 2 applications per year.

This product may be used for control or partial control of Johnsongrass and other weeds listed on the Outrider label in actively growing bahiagrass. Apply 1-1/2 to 4-3/4 ounces of this product with 0.75 to 1.33 ounces of Outrider per acre. Use the higher rates for control of perennial weeds or annual weeds greater than 6 inches in height. Use only on well-established bahiagrass.

A tank mixture of this product plus Oust XP may be used. Apply 6 fluid ounces of this product plus 1/4 ounce of Oust XP per acre 1 to 2 weeks following an initial spring mowing. Make only one application per year.

8.10 Utility Sites

This product is labeled for use along electrical power, pipeline and telephone rights-of-way, and in other sites associated with these rights-of-way, substations, roadsides, railroads or similar rights-of-way that run in conjunction with utilities.

This product may be used in utility sites and substations for bare ground, trim-and-edge, spot treatment of unwanted vegetation and to eliminate unwanted weeds growing in established shrub beds or ornamental plantings. This product may be used prior to planting a utility site to ornamentals, flowers, turfgrass (sod or seed), or beginning construction projects.

Repeated applications of this product may be used, as weeds emerge, to maintain bare ground.

This product is also labeled for use in preparing or establishing wildlife openings within these sites, maintaining access roads and for side trimming along utility rights-of-way.

Tank Mixtures

Tank mixtures of this product may be used to increase the spectrum of control for herbaceous weeds, woody brush and trees provided that the specific product is registered for application to the desired site. When tank mixing, read and carefully observe the label claims, cautionary statements and all information on the labels of all products used. Use according to the most restrictive precautionary statements for each product in the mixture. Any labeled rate of this product may be used in a tank mix.

For control of herbaceous weeds, use the lower labeled tank mixture rates. For control of dense stands or tough-to-control woody brush and trees, use the higher labeled rates.

TANK MIXTURES: This product may be tank mixed with the following products for use in utility sites, provided that the specific product used is labeled for use on these sites. Refer to the individual product labels for approved sites and application rates.

Arsenal	Outrider
atrazine[1]	pendimethalin[1]
Barricade 65WG	Plateau
dicamba[1]	Ronstar 50 WP
diuron[1]	Sahara
Endurance	simazine[1]
Escort	Surflan AS
Escort XP	Surflan WDG
Garlon 3A[2]	Telar DF
Garlon 4[3]	Transline
Krenite	Vanquish
Krovar I DF	Velpar DF
Oust	Velpar L
Oust XP	2,4-D [1]

[1] Tank mixtures with product containing this generic active ingredient may be made provided the specific product is labeled for application at the use site.

[2] Ensure that Garlon 3A is thoroughly mixed with water according to label directions before adding this product. Have spray mixture agitating at the time this product is added to avoid spray incompatibility problems.

[3] For side trimming treatments, use this product alone or in a tank mixture with Garlon 4.

Bare Ground and Trim-and-Edge

This product may be used in utility sites and substations for bare ground, trim-and-edge around objects, spot treatment of unwanted vegetation and to eliminate unwanted weeds growing in established shrub beds or ornamental plantings. This product may be used prior to planting a utility site to ornamentals, flowers, turfgrass (sod or seed), or beginning construction projects.

Repeated applications of this product may be used, as weeds emerge, to maintain bare ground.

This product may be tank mixed with the following products. Refer to these products' labels for approved non-crop sites and application rates.

Arsenal	Plateau
Banvel	Princep DF
Barricade 65WG	Princep Liquid
diuron	Ronstar 50 WP
Endurance	Sahara
Escort	simazine
Garlon 3A	Surflan

9.0 WEEDS CONTROLLED

Always use the higher rate of this product per acre within the labeled range when weed growth is heavy or dense or weeds are growing in an undisturbed (non-cultivated) area.

Reduced results may occur when treating weeds heavily covered with dust. For weeds that have been mowed, grazed or cut, allow regrowth to occur prior to treatment.

For low-volume directed spray applications, use a 5- to 10-percent solution of this product for control or partial control of annual weeds, perennial weeds, or woody brush and trees. Spray coverage must be uniform with at least 50 percent of the foliage contacted. Coverage of the top one-half of the plant is important for best results. To ensure adequate spray coverage, spray both sides of large or tall woody brush and trees, when foliage is thick and dense, or where there are multiple resprouts.

Refer to the following label sections for labeled rates for the control of annual and perennial weeds and woody brush and trees. For difficult to control perennial weeds and woody brush and trees, where plants are growing under stressed conditions, or where infestations are dense, this product may be used at 5 to 10 quarts per acre for enhanced results.

9.1 Annual Weeds

Use 1 quart per acre if weeds are less than 6 inches in height or runner length and 1.5 quarts to 4 quarts per acre if weeds are over 6 inches in height or runner length or when weeds are growing under stressed conditions.

For spray-to-wet applications, apply a 1/2-percent solution of this product to weeds less than 6 inches in height or runner length. Apply prior to seedhead formation in grass or bud formation in broadleaf weeds. For annual weeds over 6 inches tall, or for smaller weeds growing under stressed conditions, use a 1- to 2-percent solution. Use the higher rate for tough-to-control species or for weeds over 24 inches tall.

WEED SPECIES

Anoda, spurred	Medusahead*
Barley*	Morningglory (*Ipomoea spp*)
Barley, little*	Mustard, blue*
Barnyardgrass*	Mustard, tansy*
Bassia, fivehook	Mustard, tumble*
Bittercress*	Mustard, wild*
Bluegrass, annual*	Nightshade, black*
Bluegrass, bulbous*	Oats
Brome, downy*	Pancium, browntop*
Brome, Japanese*	Pancium, fall*
Buttercup*	Pancium, Texas*
Castorbean	Pennycress, field*
Cheatgrass*	Pepperweed, Virginia*
Cheeseweed (*Malva parviflora*)	Pigweed*
Chervil*	Puncturevine
Chickweed*	Purslane, common
Cocklebur*	Pusley, Florida
Copperleaf, hophornbeam	Ragweed, common*
Copperleaf, Virginia	Ragweed, giant
Coreopis, plains/tickseed*	Rice, red
Corn*	Rocket, London*
Crabgrass*	Rocket, yellow
Cupgrass, woolly*	Rye*
Dwarfdandelion*	Ryegrass*
Eclipta*	Sandbur, field*
Falsedandelion*	Sesbania, hemp
Falseflax, smallseed*	Shattercane*
Fiddleneck	Shepherd's-purse*
Filaree	Sicklepod
Fleabane, annual*	Signalgrass, broadleaf*
Fleabane, hairy (*Conyza bonariensis*)*	Smartweed, ladysthumb*
	Smartweed, Pennsylvania*
Fleabane, rough*	Sorghum, grain (milo)*
Foxtail*	Sowthistle, annual
Foxtail, Carolina*	Spanishneedles
Geranium, Carolina	Speedwell, corn*
Goatgrass, jointed*	Speedwell, purslane*
Goosegrass	Sprangletop*
Groundsel, common*	Spurge, annual
Henbit	Spurge, prostrate*
Horseweed/Marestail (*Conyza canadensis*)	Spurge, spotted*
	Spurry, umbrella*
Itchgrass*	Starthistle, yellow
Johnsongrass, seedling	Stinkgrass*
Junglerice	Sunflower*
Knotweed	Teaweed/Prickly sida
Kochia	Thistle, Russian
Lamb's-quarters*	Velvetleaf
Lettuce, prickly*	Wheat*
Mannagrass, eastern*	Wild oats*
Mayweed	Witchgrass*

*When using field broadcast equipment (aerial applications or boom sprayers using flat-fan nozzles) these species will be controlled or partially controlled using 1 pint of this product per acre. Applications must be made using 3 to 10 gallons of carrier volume per acre. Use nozzles that ensure thorough coverage of foliage and treat when weeds are in an early growth stage.

9.2 Perennial Weeds

Best results are obtained when perennial weeds are treated after they reach the reproductive stage of growth (seedhead initiation in grasses and bud formation in broadleaves). For non-flowering plants, best results are obtained when the plants reach a mature stage of growth. In many situations, treatments are required prior to these growth stages. Under these conditions, use the higher application rate within the labeled range.

Use a 2-percent solution on tough-to-control perennials like bermudagrass, dock, field bindweed, hemp dogbane, milkweed and Canada thistle.

Ensure thorough coverage when using spray-to-wet treatments using hand-held equipment. When using hand-held equipment for low-volume directed spot treatments, apply a 5- to 10-percent solution of this product.

Allow 7 or more days after application before tillage.

Weed Species	Rate (QT/A)	Hand-Held % Solution
Alfalfa*	1	2
Alligatorweed*	4	1.5
Anise (fennel)	2 - 4	1 - 2
Artichoke, Jerusalem	3 - 5	2
Bahiagrass	3 - 5	2

Weed Species	Rate (QT/A)	Hand-Held % Solution
Beachgrass, European (*Ammophila arenaria*)	—	5
Bentgrass*	1.5	2
Bermudagrass	5	2
Bermudagrass, water (knotgrass)	1.5	2
Bindweed, field	4 - 5	2
Bluegrass, Kentucky	2	2
Blueweed, Texas	4 - 5	2
Brackenfern	3 - 4	1 - 1.5
Bromegrass, smooth	2	2
Bursage, woolly-leaf	—	2
Canarygrass, reed	2 - 3	2
Cattail	3 - 5	2
Clover; red, white	3 - 5	2
Cogongrass	3 - 5	2
Dallisgrass	3 - 5	2
Dandelion	3 - 5	2
Dock, curly	3 - 5	2
Dogbane, hemp	4	2
Fescue (except tall)	3 - 5	2
Fescue, tall	1 - 3	2
Guineagrass	3	1
Hemlock, poison	2 - 4	1 - 2
Horsenettle	3 - 5	2
Horseradish	4	2
Iceplant	2	1.5 - 2
Ivy, German	2 - 4	1 - 2
Johnsongrass	2 - 3	1
Kikuyugrass	2 - 3	2
Knapweed	4	2
Lantana	—	1 - 1.25
Lespedeza	3 - 5	2
Milkweed, common	3	2
Muhly, wirestem	2	2
Mullein, common	3 - 5	2
Napiergrass	3 - 5	2
Nightshade, silverleaf	2	2
Nutsedge; purple, yellow	3	1 - 2
Orchardgrass	2	2
Pampasgrass	3 - 5	1.5 - 2
Paragrass	3 - 5	2
Pepperweed, perennial	4	2
Phragmites*	3 - 5	1 - 2
Quackgrass	2 - 3	2
Redvine*	2	2
Reed, giant	4 - 5	2
Ryegrass, perennial	2 - 3	1
Smartweed, swamp	3 - 5	2
Spurge, leafy*	—	2
Sweet potato, wild*	—	2
Thistle, artichoke	2 - 3	1 - 2
Thistle, Canada	2 - 3	2
Timothy	2 - 3	2
Torpedograss*	4 - 5	2
Trumpetcreeper*	2 - 3	2
Vaseygrass	3 - 5	2
Velvetgrass	3 - 5	2
Wheatgrass, western	2 - 3	2

*Partial control

9.3 Woody Brush and Trees

Apply this product after full leaf expansion, unless otherwise directed in this label or separate supplemental label or Fact Sheet published by Monsanto. Use the higher rate for larger plants and/or dense areas of growth. On vines, use the higher rate for plants that have reached the woody stage of growth. Best results are obtained when application is made in late summer or fall after fruit formation.

In arid areas, best results are obtained when applications are made in the spring to early summer when brush species are at high moisture content and are flowering.

Ensure thorough coverage when using spray-to-wet treatments using hand-held equipment. When using hand-held equipment for low-volume directed-spray spot treatments, apply a 5- to 10-percent solution of this product.

Symptoms may not appear prior to frost or senescence with fall treatments.

Allow 7 or more days after application before tillage, mowing or removal. Repeat treatments may be necessary to control plants regenerating from underground parts or seed. Some autumn colors on undesirable deciduous species are acceptable provided no major leaf drop has occurred. Reduced performance may result if fall treatments are made following a frost.

Weed Species	Broadcast Rate (QT/A)	Hand-Held Spray-to-Wet % Solution
Alder	3 - 4	1 - 1.5
Ash*	2 - 5	1 - 2
Aspen, quaking	2 - 3	1 - 1.5
Bearclover (Bearmat)*	2 - 5	1 - 2
Beech*	2 - 5	1 - 2
Birch	2	1
Blackberry	3 - 4	1 - 1.5
Blackgum*	2 - 5	1 - 2
Bracken	2 - 5	1 - 2
Broom, French, Scotch	2 - 5	1.5 - 2
Buckwheat, California*	2 - 4	1 - 2
Cascara*	2 - 5	1 - 2
Catsclaw*	—	1 - 1.5
Ceanothus*	2 - 5	1 - 2
Chamise*	2 - 5	1
Cherry, bitter, black, pin	2 - 3	1 - 1.5
Coyotebrush	3 - 4	1.5 - 2
Creeper, Virginia	2 - 5	1 - 2
Deerweed	2 - 5	1
Dogwood*	2 - 5	1 - 2
Elderberry	2	1
Elm*	2 - 5	1 - 2
Eucalyptus	—	2
Flower, monkey flower*	2 - 4	1 - 2
Gorse*	2 - 5	1 - 2
Hasardia*	2 - 4	1 - 2
Hawthorn	2 - 3	1 - 1.5
Hazel	2	1
Hickory*	2 - 5	1 - 2
Honeysuckle	3 - 4	1 - 1.5
Hornbeam, American*	2 - 5	1 - 2
Ivy, poison	4 - 5	2
Kudzu	4	2
Locust, black*	2 - 4	1 - 2
Madrone resprouts*	—	2
Manzanita*	2 - 5	1 - 2
Maple, red*	2 - 4	1 - 1.5
Maple, sugar	—	1 - 1.5
Maple, vine*	2 - 5	1 - 2
Oak, black, white*	2 - 4	1 - 2
Oak, post	3 - 4	1 - 1.5
Oak, northern pin	2 - 4	1 - 1.5
Oak, poison	4 - 5	2
Oak, scrub*	2 - 4	1 - 1.5
Oak, southern red	2 - 3	1 - 1.5
Olive, Russian*	2 - 5	1 - 2
Peppertree, Brazilian (Florida holly)*	2 - 5	1 - 2
Persimmon*	2 - 5	1 - 2
Pine	2 - 5	1 - 2
Poplar, yellow*	2 - 5	1 - 2
Redbud, eastern	2 - 5	1 - 2
Rose, multiflora	2	1
Sage, black	2 - 4	1
Sage, white*	2 - 4	1 - 2

Weed Species	Broadcast Rate (QT/A)	Hand-Held Spray-to-Wet % Solution
Sage brush, California	2 - 4	1
Salmonberry	2	1
Saltcedar*	2 - 5	1 - 2
Sassafras*	2 - 5	1 - 2
Sourwood*	2 - 5	1 - 2
Sumac, laurel, poison, smooth, sugarbush, winged *	2 - 4	1 - 2
Sweetgum	2 - 3	1 -1 .5
Swordfern*	2 - 5	1 - 2
Tallowtree, Chinese	—	1
Tanoak resprouts*	—	2
Thimbleberry	2	1
Tobacco, tree*	2 - 4	1 - 2
Toyon*	-	2
Trumpetcreeper	2 - 3	1 - 1.5
Waxmyrtle, southern*	2 - 5	1 - 2
Willow	3	1
Yerba Santa, California*	—	2

*Partial control

10.0 LIMIT OF WARRANTY AND LIABILITY

Monsanto Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes set forth in the Complete Directions for Use label booklet ("Directions") when used in accordance with those Directions under the conditions described therein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, NO OTHER EXPRESS WARRANTY OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE OR MERCHANTABILITY IS MADE. This warranty is also subject to the conditions and limitations stated herein.

Buyer and all users shall promptly notify this Company of any claims whether based in contract, negligence, strict liability, other tort or otherwise.

To the extent consistent with applicable law, buyer and all users are responsible for all loss or damage from use or handling which results from conditions beyond the control of this Company, including, but not limited to, incompatibility with products other than those set forth in the Directions, application to or contact with desirable vegetation, unusual weather, weather conditions which are outside the range considered normal at the application site and for the time period when the product is applied, as well as weather conditions which are outside the application ranges set forth in the Directions, application in any manner not explicitly set forth in the Directions, moisture conditions outside the moisture range specified in the Directions, or the presence of products other than those set forth in the Directions in or on the soil, crop or treated vegetation.

This Company does not warrant any product reformulated or repackaged from this product except in accordance with this Company's stewardship requirements and with express written permission from this Company.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE LIMIT OF THE LIABILITY OF THIS COMPANY OR ANY OTHER SELLER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT (INCLUDING CLAIMS BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY, OTHER TORT OR OTHERWISE) SHALL BE THE PURCHASE PRICE PAID BY THE USER OR BUYER FOR THE QUANTITY OF THIS PRODUCT INVOLVED, OR, AT THE ELECTION OF THIS COMPANY OR ANY OTHER SELLER, THE REPLACEMENT OF SUCH QUANTITY, OR, IF NOT ACQUIRED BY PURCHASE, REPLACEMENT OF SUCH QUANTITY. IN NO EVENT SHALL THIS COMPANY OR ANY OTHER SELLER BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES.

Upon opening and using this product, buyer and all users are deemed to have accepted the terms of this LIMIT OF WARRANTY AND LIABILITY which may not be varied by any verbal or written agreement. If terms are not acceptable, return at once unopened.

Outrider, Ranger PRO, Ranger PRO and Design and Monsanto and Vine Design are registered trademarks of Monsanto Technology LLC. All other trademarks are the property of their respective owners.

This product is protected by U.S. Patent Nos. 5,683,958; 5,703,015; 6,063,733; 6,121,199; 6,121,200. No license granted under any non-U.S. patent(s).

EPA Reg. No. 524-517

In case of an emergency involving this product, or for medical assistance, Call Collect, day or night, (314) 694-4000.

Packed For:
MONSANTO COMPANY
800 N. LINDBERGH BLVD.
ST. LOUIS, MISSOURI, 63167 U.S.A.
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012510

MONSANTO

Bid Item #3

MONSANTO COMPANY

Safety Data Sheet
Commercial Product

1. PRODUCT AND COMPANY IDENTIFICATION

1.1. Product identifier

Ranger PRO® Herbicide

1.1.1. Chemical name
Not applicable.
1.1.2. Synonyms
None.
1.1.3. EPA Reg. No.
524-517

1.2. Product use
Herbicide

1.3. Company
MONSANTO COMPANY, 800 N. Lindbergh Blvd., St. Louis, MO, 63167
Telephone: 800-332-3111, **Fax:** 314-694-5557
E-mail: safety.datasheet@monsanto.com

1.4. Emergency numbers
FOR CHEMICAL EMERGENCY, SPILL LEAK, FIRE, EXPOSURE, OR ACCIDENT Call CHEMTREC - Day or Night: 1-800-424-9300 toll free in the continental U.S., Puerto Rico, Canada, or Virgin Islands. For calls originating elsewhere: 703-527-3887 (collect calls accepted).
FOR MEDICAL EMERGENCY - Day or Night: +1 (314) 694-4000 (collect calls accepted).

2. HAZARDS IDENTIFICATION

2.1. Classification
OSHA Hazard Communication Standard, 29 CFR 1910.1200 (2012)
Acute toxicity, inhalation - Category 4

2.2. Label elements

2.2.1. Signal word
WARNING!

2.2.2. Hazard pictogram/pictograms



2.2.3. Hazard statement/statements
Harmful if inhaled.

2.2.4. Precautionary statement/statements
Avoid breathing dust/fume/gas/mist/vapours/spray.
Use only outdoors or in a well-ventilated area.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Call a POISON CENTER or doctor/physician if you feel unwell.

2.3. Appearance and odour (colour/form/odour)
Amber /Liquid / Sweet

2.4. OSHA Status
This product is hazardous according to the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Refer to section 11 for toxicological and section 12 for environmental information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Active ingredient
Isopropylamine salt of N-(phosphonomethyl)glycine; {Isopropylamine salt of glyphosate}

Composition

COMPONENT	CAS No.	% by weight (approximate)
Isopropylamine salt of glyphosate	38641-94-0	41
Other ingredients		59

The specific chemical identity is being withheld because it is trade secret information of Monsanto Company.

4. FIRST AID MEASURES

Use personal protection recommended in section 8.

4.1. Description of first aid measures

4.1.1. Eye contact: If in eyes, hold eye open and rinse slowly and gently for 15-20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing. Call a poison control center or doctor for treatment advice. Immediately flush with plenty of water.

4.1.2. Skin contact: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

4.1.3. Inhalation: If inhaled, move person to fresh air. If person is not breathing, call emergency number or ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advice.

4.1.4. Ingestion: Call poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison center or doctor. Do not give anything by mouth to an unconscious person.

4.2. Most important symptoms and effects, both acute and delayed

4.2.1. Eye contact, short term: May cause temporary eye irritation.

4.2.2. Skin contact, short term: Not expected to produce significant adverse effects when recommended use instructions are followed.

4.2.3. Inhalation, short term: Not expected to produce significant adverse effects when recommended use instructions are followed.

4.2.4. Single ingestion: Not expected to produce significant adverse effects when recommended use instructions are followed.

4.3. Indication of any immediate medical attention and special treatment needed

4.3.1. Advice to doctors: This product is not an inhibitor of cholinesterase.

4.3.2. Antidote: Treatment with atropine and oximes is not indicated.

5. FIRE-FIGHTING MEASURES

5.1. Extinguishing media

5.1.1. Recommended: Water, foam, dry chemical, carbon dioxide (CO2)

5.2. Special hazards

5.2.1. Unusual fire and explosion hazards

Minimise use of water to prevent environmental contamination.
Environmental precautions: see section 6.

5.2.2. Hazardous products of combustion

Carbon monoxide (CO), phosphorus oxides (PxOy), nitrogen oxides (NOx)

5.3. Fire fighting equipment: Self-contained breathing apparatus. Equipment should be thoroughly decontaminated after use.

5.4. Flash point

Does not flash.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions

Use personal protection recommended in section 8.

6.2. Environmental precautions

SMALL QUANTITIES:
Low environmental hazard.
LARGE QUANTITIES:
Minimise spread.
Keep out of drains, sewers, ditches and water ways.
Notify authorities.

6.3. Methods for cleaning up

SMALL QUANTITIES:
Flush spill area with water.
LARGE QUANTITIES:
Absorb in earth, sand or absorbent material.
Dig up heavily contaminated soil.
Collect in containers for disposal.
Refer to section 7 for types of containers.
Flush residues with small quantities of water.
Minimise use of water to prevent environmental contamination.

Refer to section 13 for disposal of spilled material.
Use handling recommendations in Section 7 and personal protection recommendations in Section 8.

7. HANDLING AND STORAGE

Good industrial practice in housekeeping and personal hygiene should be followed.

7.1. Precautions for safe handling

When using do not eat, drink or smoke. Wash hands thoroughly after handling or contact. Thoroughly clean equipment after use. Do not contaminate drains, sewers and water ways when disposing of equipment rinse water. Refer to section 13 of the safety data sheet for disposal of rinse water.

7.2. Conditions for safe storage

Minimum storage temperature: -15 °C
Maximum storage temperature: 50 °C
Compatible materials for storage: stainless steel, fibreglass, plastic, glass lining

Incompatible materials for storage: galvanised steel, unlined mild steel, see section 10.
Keep out of reach of children.
Keep away from food, drink and animal feed.
Keep only in the original container.
Partial crystallization may occur on prolonged storage below the minimum storage temperature.
If frozen, place in warm room and shake frequently to put back into solution.
Minimum shelf life: 5 years.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Airborne exposure limits

Components	Exposure Guidelines
Isopropylamine salt of glyphosate	No specific occupational exposure limit has been established.
Other ingredients	No specific occupational exposure limit has been established.

8.2. Engineering controls: No special requirement when used as recommended.

8.3. Recommendations for personal protective equipment

8.3.1. Eye protection: If there is significant potential for contact: Wear chemical goggles.

8.3.2. Skin protection: No special requirement when used as recommended. If repeated or prolonged contact: Wear chemical resistant gloves.

8.3.3. Respiratory protection: No special requirement when used as recommended.

When recommended, consult manufacturer of personal protective equipment for the appropriate type of equipment for a given application.

9. PHYSICAL AND CHEMICAL PROPERTIES

These physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specifications for the product.

Colour/colour range:	Amber
Odour:	Sweet
Form:	Liquid
Physical form changes (melting, boiling, etc.):	
Melting point:	Not applicable.
Boiling point:	No data.
Flash point:	Does not flash.
Explosive properties:	No data.
Auto ignition temperature:	No data.
Self-accelerating decomposition temperature (SADT):	No data.
Oxidizing properties:	No data.
Specific gravity:	1.162 @ 20 °C / 15.6 °C
Vapour pressure:	No significant volatility.
Vapour density:	Not applicable.
Evaporation rate:	No data.
Dynamic viscosity:	No data.
Kinematic viscosity:	No data.
Density:	1.162 g/cm3 @ 20 °C
Solubility:	Water: Completely miscible.

pH:	4.4 - 5.0
Partition coefficient:	log Pow: < 0.00

10. STABILITY AND REACTIVITY

10.1. Reactivity
Reacts with galvanised steel or unlined mild steel to produce hydrogen, a highly flammable gas that could explode.

10.2. Stability
Stable under normal conditions of handling and storage.

10.3. Possibility of hazardous reactions
Reacts with galvanised steel or unlined mild steel to produce hydrogen, a highly flammable gas that could explode.

10.4. Incompatible materials
galvanised steel;unlined mild steel;see section 10.;
Compatible materials for storage: see section 7.2.

10.5. Hazardous decomposition
Thermal decomposition: Hazardous products of combustion: see section 5.

11. TOXICOLOGICAL INFORMATION

This section is intended for use by toxicologists and other health professionals.

Likely routes of exposure: Skin contact, eye contact

Potential health effects
Eye contact, short term: May cause temporary eye irritation.
Skin contact, short term: Not expected to produce significant adverse effects when recommended use instructions are followed.
Inhalation, short term: Not expected to produce significant adverse effects when recommended use instructions are followed.
Single ingestion: Not expected to produce significant adverse effects when recommended use instructions are followed.

Data obtained on similar products and on components are summarized below.

Similar formulation

Acute oral toxicity
Rat, LD50: 5,108 mg/kg body weight
Practically non-toxic.
Acute dermal toxicity
Rat, LD50 (limit test): > 5,000 mg/kg body weight
Practically non-toxic. No mortality.
Skin irritation
Rabbit, 6 animals, OECD 404 test:
Days to heal: 3
Primary Irritation Index (PII): 0.5/8.0
Essentially non irritating.

Eye irritation
Rabbit, 6 animals, OECD 405 test:
Days to heal: 3
Slight irritation.
Acute inhalation toxicity
Rat, LC50, 4 hours, aerosol: 2.9 mg/L
Other effects: weight loss, breathing difficulty
Practically non-toxic.
Skin sensitization
Guinea pig, 3-induction Buehler test:
Positive incidence: 0 %

N-(phosphonomethyl)glycine; { glyphosate acid}

Genotoxicity
Not genotoxic.

Carcinogenicity
Not carcinogenic in rats or mice.

Reproductive/Developmental Toxicity
Developmental effects in rats and rabbits only in the presence of significant maternal toxicity.
Reproductive effects in rats only in the presence of significant maternal toxicity.

12. ECOLOGICAL INFORMATION

This section is intended for use by ecotoxicologists and other environmental specialists.

Data obtained on similar products and on components are summarized below.

Similar formulation

Aquatic toxicity, fish
Rainbow trout (Oncorhynchus mykiss):
Acute toxicity, 96 hours, static, LC50: 5.4 mg/L
Moderately toxic.
Bluegill sunfish (Lepomis macrochirus):
Acute toxicity, 96 hours, static, LC50: 7.3 mg/L
Moderately toxic.
Aquatic toxicity, invertebrates
Water flea (Daphnia magna):
Acute toxicity, 48 hours, static, EC50: 11 mg/L
Slightly toxic.
Avian toxicity
Mallard duck (Anas platyrhynchos):
Dietary toxicity, 5 days, LC50: > 5,620 mg/kg diet
Practically non-toxic.
Bobwhite quail (Colinus virginianus):
Dietary toxicity, 5 days, LC50: > 5,620 mg/kg diet
Practically non-toxic.
Arthropod toxicity
Honey bee (Apis mellifera):
Oral/contact, 48 hours, LD50: > 100 µg/bee
Practically non-toxic.
Soil organism toxicity, invertebrates
Earthworm (Eisenia foetida):

Acute toxicity, 14 days, LC50: > 1,250 mg/kg soil
Practically non-toxic.

Similar formulation

Aquatic toxicity, algae/aquatic plants
Green algae (Selenastrum capricornutum):
Acute toxicity, 72 hours, static, EbC50 (biomass): 12.4 mg/L
Slightly toxic.
Green algae (Selenastrum capricornutum):
Acute toxicity, 72 hours, static, NOEC: 6.3 mg/L

N-(phosphonomethyl)glycine; { glyphosate acid}

Bioaccumulation
Bluegill sunfish (Lepomis macrochirus):
Whole fish: BCF: < 1
No significant bioaccumulation is expected.
Dissipation
Soil, field:
Half life: 2 - 174 days
Koc: 884 - 60,000 L/kg
Adsorbs strongly to soil.
Water, aerobic:
Half life: < 7 days

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

13.1.1. Product

Excess product may be disposed of by agricultural use according to label instructions. Keep out of drains, sewers, ditches and water ways. Recycle if appropriate facilities/equipment available. Burn in proper incinerator. Follow all local/regional/national/international regulations.

13.1.2. Container

See the individual container label for disposal information. Emptied containers retain vapour and product residue. Observe all labeled safeguards until container is cleaned, reconditioned or destroyed. Empty packaging completely. Triple or pressure rinse empty containers. Do NOT contaminate water when disposing of rinse waters. Ensure packaging cannot be reused. Do NOT re-use containers. Store for collection by approved waste disposal service. Recycle if appropriate facilities/equipment available. Follow all local/regional/national/international regulations.

Use handling recommendations in Section 7 and personal protection recommendations in Section 8.

14. TRANSPORT INFORMATION

The data provided in this section is for information only. Please apply the appropriate regulations to properly classify your shipment for transportation.

14.1. US Dept. of Transportation (DOT) Hazardous Materials Regulations (49 CFR Parts 105-180)

Proper Shipping Name (Technical Name if required):	Not regulated for domestic ground transportation. ()

14.2. IMDG Code

Proper Shipping Name	Not regulated for transport under IMO Regulations ()

(Technical Name if required):	

14.3. IATA/ICAO

Proper Shipping Name (Technical Name if required):	Not regulated for transport under IATA/ICAO Regulations ()

15. REGULATORY INFORMATION

15.1. Environmental Protection Agency

15.1.1. TSCA Inventory

All components are on the US EPA's TSCA Inventory

15.1.2. SARA Title III Rules

Section 311/312 Hazard Categories: Immediate
Section 302 Extremely Hazardous Substances: Not applicable.
Section 313 Toxic Chemical(s): Not applicable.

15.1.3. CERCLA Reportable quantity

Not applicable.

15.1.4. Federal Insecticide, Fungicide, Rodenticide Act (FIFRA)

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

CAUTION!
CAUSES EYE IRRITATION

Acute oral toxicity: FIFRA category IV.
Acute dermal toxicity: FIFRA category IV.
Acute inhalation toxicity: FIFRA category IV.
Skin irritation: FIFRA category IV.
Eye irritation: FIFRA category III.

16. OTHER INFORMATION

The information given here is not necessarily exhaustive but is representative of relevant, reliable data.
Follow all local/regional/national/international regulations.
Please consult supplier if further information is needed.
In this document the British spelling was applied.

	Health	Flammability	Instability	Additional Markings
NFPA	1	1	1	

0 = Minimal hazard, 1 = Slight hazard, 2 = Moderate hazard, 3 = Severe hazard, 4 = Extreme hazard

Full denomination of most frequently used acronyms. BCF (Bioconcentration Factor), BOD (Biochemical Oxygen Demand), COD (Chemical Oxygen Demand), EC50 (50% effect concentration), ED50 (50% effect dose), I.M. (intramuscular), I.P. (intraperitoneal), I.V. (intravenous), Koc (Soil adsorption coefficient), LC50 (50% lethality concentration), LD50 (50% lethality dose), LDLo (Lower limit of lethal dosage), LEL (Lower Explosion Limit), LOAEC (Lowest Observed Adverse Effect Concentration), LOAEL (Lowest Observed Adverse Effect Level), LOEC (Lowest

Observed Effect Concentration), LOEL (Lowest Observed Effect Level), MEL (Maximum Exposure limit), MTD (Maximum Tolerated Dose), NOAEC (No Observed Adverse Effect Concentration), NOAEL (No Observed Adverse Effect Level), NOEC (No Observed Effect Concentration), NOEL (No Observed Effect Level), OEL (Occupational Exposure Limit), PEL (Permissible Exposure Limit), PII (Primary Irritation Index), Pow (Partition coefficient n-octanol/water), S.C. (subcutaneous), STEL (Short-Term Exposure Limit), TLV-C (Threshold Limit Value-Ceiling), TLV-TWA (Threshold Limit Value - Time Weighted Average), UEL (Upper Explosion Limit)

This Material Safety Data Sheet (MSDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-APPROVED PRODUCT LABELING (attached to and accompanying the product container). This MSDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course. Use, storage and disposal of pesticide products are regulated by the EPA under the authority of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) through the product labeling, and all necessary and appropriate precautionary, use, storage, and disposal information is set forth on that labeling. It is a violation of federal law to use a pesticide product in any manner not prescribed on the EPA-approved label.

Although the information and recommendations set forth herein (hereinafter "Information") are presented in good faith and believed to be correct as of the date hereof, MONSANTO Company or any of its subsidiaries makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for the purposes prior to use. In no event will MONSANTO Company or any of its subsidiaries be responsible for damages of any nature whatsoever resulting from the use of or reliance upon information. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO INFORMATION OR TO THE PRODUCT TO WHICH INFORMATION REFERS.

000000012797

End of document

ATTENTION:

This specimen label is provided for general information only.

- This pesticide product may not yet be available or approved for sale or use in your area.
- It is your responsibility to follow all Federal, state and local laws and regulations regarding the use of pesticides.
- Before using any pesticide, be sure the intended use is approved in your state or locality.
- Your state or locality may require additional precautions and instructions for use of this product that are not included here.
- Monsanto does not guarantee the completeness or accuracy of this specimen label. The information found in this label may differ from the information found on the product label. You must have the EPA approved labeling with you at the time of use and must read and follow all label directions.
- You should not base any use of a similar product on the precautions, instructions for use or other information you find here.
- Always follow the precautions and instructions for use on the label of the pesticide you are using.

21153L1-37

Roundup CUSTOM™

FOR AQUATIC & TERRESTRIAL USE

TRUEBLUE ADVANTAGE
PROVEN | RELIABLE | SUPPORTED

Complete Directions for Use

Roundup Custom™ for Aquatic and Terrestrial Use is a complete broad-spectrum postemergence herbicide for aquatic, crop, non-agricultural crop, industrial, turf, ornamental, forestry, roadside, and utility rights-of-way weed control.

EPA Reg. No. 524-343 2012-2

GROUP	9	HERBICIDE

AVOID CONTACT OF HERBICIDE WITH FOLIAGE, GREEN STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES, BECAUSE SEVERE INJURY OR DESTRUCTION MAY RESULT.

Read the entire label before using this product.

Use only according to label instructions.

Not all products listed on this label are registered for use in California. Check the registration status of each product in California before using.

Read the "LIMIT OF WARRANTY AND LIABILITY" statement at the end of the label before buying or using. If terms are not acceptable, return at once unopened.

THIS IS AN END-USE PRODUCT. MONSANTO DOES NOT INTEND AND HAS NOT REGISTERED IT FOR REFORMULATION. SEE INDIVIDUAL CONTAINER LABEL FOR REPACKAGING LIMITATIONS.

PRODUCT INFORMATION

1.0 INGREDIENTS

ACTIVE INGREDIENT:

*Glyphosate, N-(phosphonomethyl)glycine, in the form of its isopropylamine salt	53.8%
OTHER INGREDIENTS:	46.2%
	100.0%

*Contains 648 grams per liter or 5.4 pounds per U.S. gallon of the active ingredient glyphosate, in the form of its isopropylamine salt. Equivalent to 480 grams per liter or 4.0 pounds per U.S. gallon of the acid, glyphosate.

No license granted under any non-U.S. patent(s).

2.0 IMPORTANT PHONE NUMBERS

FOR PRODUCT INFORMATION OR ASSISTANCE IN USING THIS PRODUCT, CALL TOLL-FREE, **1-800-332-3111.**

IN CASE OF AN **EMERGENCY** INVOLVING THIS PRODUCT, OR FOR **MEDICAL ASSISTANCE,** CALL COLLECT, DAY OR NIGHT, **(314)-694-4000.**

3.0 PRECAUTIONARY STATEMENTS

3.1 Hazards to Humans and Domestic Animals

Keep Out of Reach of Children.

CAUTION!

DOMESTIC ANIMALS: This product is considered to be relatively nontoxic to dogs and other domestic animals; however, ingestion of this product or large amounts of freshly sprayed vegetation may result in temporary gastrointestinal irritation (vomiting, diarrhea, colic, etc.). If such symptoms are observed, provide the animal with plenty of fluids to prevent dehydration. Call a veterinarian if symptoms persist for more than 24 hours.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear: long-sleeved shirt and long pants, shoes plus socks. Follow manufacturer's instructions for cleaning/maintaining PPE (Personal Protective Equipment). If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

Engineering Control Statements: When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

User Safety Recommendations:

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove contaminated clothing and wash clothing before reuse.

3.2 Environmental Hazards

Do not contaminate water when cleaning equipment or disposing of equipment washwaters. Treatment of aquatic weeds can result in oxygen depletion or loss due to decomposition of dead plants. This oxygen loss can cause fish suffocation.

In case of SPILL or LEAK, soak up and remove to a landfill.

3.3 Physical or Chemical Hazards

Spray solutions of this product should be mixed, stored and applied using only stainless steel, fiberglass, plastic or plastic-lined steel containers.

DO NOT MIX, STORE OR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS. This product or spray solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling. This product can only be used in accordance with the Directions for Use on this label or in separately published Monsanto Supplemental Labeling or Fact Sheets. Supplemental labeling can be found on the Internet at www.cdms.net, www.agrian.com or www.greenbook.net websites but may not be approved for use in all states. Copies can also be obtained by contacting your Authorized Monsanto Retailer or Monsanto Company Representative.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any

requirements specific to your State or Tribe, consult the agency responsible for pesticide regulations.

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 4 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, are: coveralls, shoes plus socks, and chemical resistant gloves made of any waterproof material.

Non-Agricultural Use Requirements

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses.

Keep people and pets off treated areas until spray solution has dried.

4.0 STORAGE AND DISPOSAL

Proper pesticide storage and disposal are essential to protect against exposure to people and the environment due to leaks and spills, excess product or waste, and vandalism. Do not allow this product to contaminate water, foodstuffs, feed or seed by storage and disposal.

PESTICIDE STORAGE: STORE ABOVE 5°F (-15°C) TO KEEP PRODUCT FROM CRYSTALLIZING. Crystals will settle to the bottom. If allowed to crystallize, place in a warm room 68°F (20°C) for several days to redissolve and roll or shake container or recirculate in mini-bulk containers to mix well before using. Store pesticides away from food, pet food, feed, seed, fertilizers, and veterinary supplies. Keep container closed to prevent spills and contamination.

PESTICIDE DISPOSAL: To avoid wastes, use all material in this container, including rinsate, by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program. Such programs are often run by state or local governments or by industry. All disposal must be in accordance with applicable federal, state and local regulations and procedures.

CONTAINER HANDLING AND DISPOSAL: See container label for container handling and disposal instructions and refilling limitations.

5.0 PRODUCT INFORMATION

Product Description: This product is a postemergent, systemic herbicide with no residual soil activity. It gives broad-spectrum control of many annual weeds, perennial weeds, woody brush and trees. It is formulated as a water-soluble liquid and may be applied through standard equipment after dilution and mixing with water or other carriers according to label instructions.

Time to Symptoms: This product moves through the plant from the point of foliage contact to and into the root system. Visible effects are a gradual wilting and yellowing of the plant which advances to complete browning of above-ground growth and deterioration of underground plant parts. Effects are visible on most annual weeds within 2 to 4 days, but on most perennial weeds may not occur for 7 days or more. Extremely cool or cloudy weather following treatment may slow activity of this product and delay development of visual symptoms.

Stage of Weeds: Annual weeds are easiest to control when they are small. Best control of most perennial weeds is obtained when treatment is made at late growth stages approaching maturity. See the **WEEDS CONTROLLED** section of this label for specific weed rates.

Always use the higher product application rate in the range when weed growth is heavy or dense, or when weeds are growing in an undisturbed (non-cultivated) area. Reduced weed control may result from treating weeds with disease or insect damage, weeds heavily covered with dust, or weeds under poor growing conditions.

Mode of Action in Plants: The active ingredient in this product inhibits production of an enzyme in plants and microorganisms that is essential to formation of specific amino acids.

Cultural Considerations: Reduced control could result when applications are made to annual or perennial weeds that have been mowed, grazed or cut, and have not been allowed to regrow to the specified stage for treatment.

Rainfastness: Heavy rainfall soon after application may wash this product off of the foliage and a repeat application may be required for adequate weed control.

Spray Coverage: For best results, spray coverage should be uniform and complete. Do not spray foliage to the point of run-off.

No Soil Activity: Weeds must be emerged at the time of application to be controlled by this product. Weeds germinating from seed after application will not be controlled. Unemerged plants arising from unattached underground rhizomes or rootstocks of perennials will not be affected by the herbicide and will continue to grow.

Maximum Application Rates: The maximum application or use rates stated throughout this label are given in units of volume (fluid ounces or quarts) of this product per acre. However, the maximum allowed application rates apply to this product combined with the use of any and all other herbicides containing the active ingredient glyphosate, whether applied separately or as tank mixtures, on a basis of total pounds of glyphosate (acid equivalents) per acre. If more than one glyphosate-containing product is applied to the same site within the same year, you must ensure that the total use of glyphosate (pounds acid equivalents) does not exceed the maximum allowed. The combined total of all treatments must not exceed 8 quarts of this product (8 pounds of glyphosate acid) per acre per year. See the **INGREDIENTS** section of this label for necessary product information.

ATTENTION

AVOID CONTACT OF HERBICIDE WITH FOLIAGE, STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES, BECAUSE SEVERE INJURY OR DESTRUCTION MAY RESULT.

AVOID DRIFT. EXTREME CARE MUST BE USED WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS.

Do not allow the herbicide solution to mist, drip, drift or splash onto desirable vegetation since minute quantities of this product can cause severe damage or destruction to the crop, plants or other areas on which treatment was not intended. The likelihood of injury occurring from the use of this product increases when winds are gusty, as wind velocity increases, when wind direction is constantly changing or when there are other meteorological conditions that favor spray drift. When spraying, avoid combinations of pressure and nozzle type that will result in splatter or fine particles (mist) that are likely to drift. AVOID APPLYING AT EXCESSIVE SPEED OR PRESSURE.

NOTE: Use of this product in any manner not consistent with this label may result in injury to persons, animals or crops, or other unintended consequences.

5.1 Weed Resistance Management

GROUP	9	HERBICIDE

Glyphosate, the active ingredient in this product, is a Group 9 herbicide based on the mode of action classification system of the Weed Science Society of America. Any weed population may contain plants naturally resistant to Group 9 herbicides. Weed species resistant to Group 9 herbicides may be effectively managed utilizing another herbicide from a different Group or using other cultural or mechanical practices.

To minimize the occurrence of glyphosate-resistant biotypes observe the following general weed management recommendations:

- Scout your application site before and after herbicide applications.
- Control weeds early when they are relatively small.
- Incorporate other herbicides and cultural or mechanical practices as part of your weed control system where appropriate.
- Use the labeled rate for the most difficult to control weed in the site. Avoid tank-mixtures with other herbicides that reduce this product's efficacy through antagonism or with tank mixtures that encourage rates of this product below those specified on this label.
- Control weed escapes and prevent weeds from setting seeds.
- Clean equipment before moving from site to site to minimize spread of weed seed.
- Use new commercial seed as free of weed seed as possible.
- Report any incidence of repeated non-performance of this product on a particular weed to your Monsanto representative, local retailer, or county extension agent.

5.2 Management of Glyphosate Resistant Weed Biotypes

NOTE: Appropriate testing is critical in order to confirm weed resistance to glyphosate. Contact your Monsanto representative to determine if resistance has been confirmed to any particular weed biotype in your area. Directions for the control of biotypes confirmed to be resistant to glyphosate are made available on separately published supplemental labeling or Fact Sheets for this product and may be obtained from your local retailer or Monsanto representative.

Since the occurrence of new glyphosate resistant weeds cannot be determined until after product use and scientific confirmation, Monsanto Company is not responsible for any losses that may result from the failure of this product to control glyphosate-resistant weed biotypes.

The following good weed management practices are recommended to reduce the spread of confirmed glyphosate resistant biotypes:

- If a naturally occurring resistant biotype is present at your site, this product may be tank-mixed or applied sequentially with an appropriately labeled herbicide with a different mode of action to achieve control.

- Cultural and mechanical control practices may also be used as appropriate.
- Scout treated sites after herbicide applications and control escapes of resistant biotypes before they set seed.
- Thoroughly clean equipment before leaving sites known to contain resistant biotypes.

6.0 MIXING

Spray solutions of this product can be mixed, stored and applied using only clean stainless steel, fiberglass, plastic or plastic-lined steel containers.

DO NOT MIX, STORE OR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS.

Use caution to avoid siphoning back into the carrier source. Use approved anti-back-siphoning devices where required by state or local regulations.

Clean sprayer parts promptly after using this product by thoroughly flushing with water.

NOTE: REDUCED PRODUCT PERFORMANCE CAN OCCUR IF WATER CONTAINING SOIL SEDIMENT IS USED AS CARRIER OR WATER THAT IS VISIBLY MUDDY OR MURKY FROM PONDS AND DITCHES.

6.1 Mixing with Water

This product mixes readily with water. Mix spray solutions of this product as follows: Fill the mixing or spray tank with the required amount of clean water. Add the labeled amount of this product near the end of the filling process and mix gently (well). During mixing and application, foaming of the spray solution may occur. To prevent or minimize foam, avoid the use of mechanical agitators, terminate by-pass and return lines at the bottom of the tank and, if needed, use an approved anti-foam or defoaming agent.

6.2 Tank Mixtures

This product does not provide residual weed control. This product can be tank-mixed with other herbicides to provide residual weed control, a broader weed control spectrum or an alternate mode of action. Always read and follow label directions for all products in the tank mixture.

When this product is tank-mixed with other products, refer to these product labels for approved sites and application rates. Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used. Use according to the most restrictive precautionary statements for each product in the mixture. Any labeled rate of this product may be used in a tank mix.

When this label lists a tank mixture with a generic active ingredient such as diuron, 2,4-D or dicamba, the user is responsible for ensuring the mixture product label allows the specific application.

Buyer and all users are responsible for all loss or damage in connection with the use or handling of mixtures of this product with herbicides or other materials that are not expressly listed in this label. Mixing this product with herbicides or other materials not specified on this label may result in reduced performance.

This product provides control of the emerged weeds listed on this label. When applied as a tank mixture, the following herbicides will provide preemergence and/or postemergence control of the weeds listed in the individual product labels.

This product can be tank-mixed with the following products. Any labeled rate of this product can be used in a tank mixture with these products. User is responsible for ensuring that the specific product is registered for use on the target site. Refer to these product labels for approved application sites and application rates. Read and carefully observe the cautionary statements and all other information on the labels of all the herbicides used. Use according to the most restrictive precautionary statements for each product in the mixture.

Tank-mix Products

Arsenal	Krovar I DF + 2,4-D
Banvel	Krovar I DF + Garlon 3A
2,4-D	Krovar I DF + Garlon 4
Garlon 3A	Oust XP
Garlon 4	Oust XP + 2,4-D
diuron	Oust XP + Garlon 3A
diuron + 2,4-D	Oust XP + Garlon 4
diuron + Garlon 3A	Ronstar
diuron + Garlon 4	Spike 80W
Hyvar X	Spike 80W + 2,4-D
Hyvar X + 2,4-D	Spike 80W + Garlon 3A
Hyvar X + Garlon 3A	Spike 80W + Garlon 4
Hyvar X + Garlon 4	Surflan
Krovar I DF	

When used in combination as recommended by Monsanto Company, the liability of Monsanto shall in no manner extend to any damage, loss or injury not solely and directly caused by the inclusion of the Monsanto product in such combination use.

6.3 Tank Mixing Procedure

When tank mixing, read and carefully observe label directions, cautionary statements and all information on the labels of all products used. Add the tank-mix product to the tank as directed by the label. Maintain agitation and add the specified amount of this product.

Maintain good agitation at all times during the mixing process. Ensure that the tank-mix products are well mixed with the spray solution before adding this product.

Mix only the quantity of spray solution that can be used during the same day. Tank mixtures allowed to stand overnight may result in reduced weed control.

Maintain good agitation at all times until the contents of the tank are sprayed. If the spray mixture is allowed to settle, thorough agitation is required to resuspend the mixture before spraying is resumed.

Keep by-pass line on or near the bottom of the tank to minimize foaming. Screen size in nozzle or line strainers should be no finer than 50 mesh.

Always predetermine the compatibility of labeled tank mixtures of this product with water carrier by mixing small proportional quantities in advance. Ensure that the specific tank mixture product is registered for application at the desired site.

6.4 Mixing Percent Solutions

Prepare the desired volume of spray solution by mixing the amount of this product in water as shown in the following table:

Spray Solution

Desired Volume	Amount of Roundup Custom for Aquatic and Terrestrial Use					
	0.5%	0.75%	1%	1.5%	4%	8%
1 gal	2/3 oz	1 oz	1.3 oz	2 oz	5 oz	10 oz
25 gal	1 pt	1.5 pt	1 qt	1.5 qt	4 qt	2 gal
100 gal	2 qt	3 qt	1 gal	1.5 gal	4 gal	8 gal

2 tablespoons = 1 fluid ounce

For use in backpack, knapsack or pump-up sprayers, it is suggested that the specified amount of this product be mixed with water in a larger container. Fill sprayer with the mixed solution.

6.5 Surfactant

This product requires the use of a nonionic surfactant unless otherwise specified. When using this product, unless otherwise specified, mix 2 or more quarts of a nonionic surfactant per 100 gallons of spray solution. Increasing the rate of surfactant may enhance performance. Examples of when to use the higher surfactant rate include, but are not limited to: hard to control woody brush, trees and vines, high water volumes, adverse environmental conditions, tough to control weeds, weeds under stress, surfactants with less than 70 percent active ingredient, tank mixes, etc.

Always read and follow the manufacturer's surfactant label for best results. Carefully observe all cautionary statements and other information appearing in the surfactant label.

6.6 Colorants or Dyes

Approved colorants or marking dyes may be added to this product. At lower rates or dilution, colorants or dyes used in spray solutions of this product may reduce performance. Use colorants or dyes according to the manufacturer's instructions.

6.7 Drift Reduction Additives

Drift reduction additives can be used with all equipment types, except wiper applicators and sponge bars. When a drift reduction additive is used, read and carefully observe precautionary statements and all other information appearing on the additive label. The use of drift reduction additives can affect spray coverage which may result in reduced performance.

7.0 APPLICATION EQUIPMENT AND TECHNIQUES

Do not apply this product through any type of irrigation system.

APPLY THESE SPRAY SOLUTIONS IN PROPERLY MAINTAINED AND CALIBRATED EQUIPMENT CAPABLE OF DELIVERING DESIRED VOLUMES.

SPRAY DRIFT MANAGEMENT

AVOID DRIFT. EXTREME CARE MUST BE USED WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS.

Do not allow the herbicide solution to mist, drip, drift or splash onto desirable vegetation since minute quantities of this product can cause severe damage or destruction to the crop, plants or other areas on which treatment was not intended.

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment- and weather-related factors determines the potential for spray drift. The applicator and/or the grower are responsible for considering all these factors when making decisions.

7.1 Aerial Equipment

DO NOT APPLY THIS PRODUCT USING AERIAL SPRAY EQUIPMENT EXCEPT UNDER CONDITIONS AS SPECIFIED WITHIN THIS LABEL.

FOR AERIAL APPLICATION IN CALIFORNIA, OR SPECIFIC COUNTIES THEREIN, REFER TO THE FEDERAL SUPPLEMENTAL LABELING FOR AERIAL APPLICATIONS OF THIS PRODUCT IN THAT STATE OR COUNTY FOR SPECIFIC INSTRUCTIONS, RESTRICTIONS AND REQUIREMENTS.

This product, tank-mixed with dicamba, may not be applied by air in California. Only 2,4-D amine formulations may be applied by air in California.

Use the labeled rates of this herbicide in 3 to 25 gallons of water per acre.

TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, APPROPRIATE BUFFER ZONES MUST BE MAINTAINED.

Avoid direct application to any body of water. Drift control reduction additives may be used. When a drift control reduction additive is used, read and carefully observe the cautionary statements and all other information appearing on the additive label.

Ensure uniform application. To avoid streaked, uneven or overlapped application, use appropriate marking devices.

Aircraft Maintenance

PROLONGED EXPOSURE OF THIS PRODUCT TO UNCOATED STEEL SURFACES MAY RESULT IN CORROSION AND POSSIBLE FAILURE OF THE PART. The maintenance of an organic coating (paint) which meets aerospace specification MIL-C-38413 may prevent corrosion. To prevent corrosion of exposed parts, thoroughly wash aircraft after each day of spraying to remove residues of this product accumulated during spraying or from spills. Landing gear is most susceptible.

AERIAL SPRAY DRIFT MANAGEMENT

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications or to public health uses.

1. The distance of the outermost nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees. Where states have more stringent regulations, they should be observed.

Importance of Droplet Size

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see the Wind, Temperature and Humidity, and Temperature Inversions sections of this label).

Controlling Droplet Size

Volume: Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with the higher rated flows produce larger droplets.

Pressure: Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.

Number of nozzles: Use the minimum number of nozzles that provide uniform coverage.

Nozzle orientation: Orienting nozzles so that the spray is released backwards, parallel to the air stream, will produce larger droplets than other orientations. Significant deflection from the horizontal will reduce droplet size and increase drift potential.

Nozzle type: Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce larger droplets than other nozzle types.

Boom length: For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.

Application height: Applications must not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces the exposure of the droplets to evaporation and wind.

Swath Adjustment

When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller droplets, etc.).

Wind

Drift potential is lowest between wind speeds of 2 to 10 miles per hour. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 miles per hour due to variable wind direction and high inversion potential. **NOTE:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect drift.

Temperature and Humidity

Set up equipment to produce larger droplets when making applications in low relative humidity to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

Temperature Inversions

Applications must not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

Sensitive Areas

This product must only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

7.2 Ground Broadcast Equipment

For broadcast ground applications, unless otherwise specified in this label or in separate supplemental labeling or Fact Sheets published by Monsanto, use this product at the rate of 1.5 to 3 pints per acre for annual weeds, 3 to 7.5 pints per acre for perennial weeds and 3 to 7.5 pints per acre for woody brush and trees. When used according to label directions this product will give control or partial control of herbaceous weeds, woody brush and trees listed in the **WEEDS CONTROLLED** section of this label.

Use the labeled rates of this product in 3 to 40 gallons of water per acre as a broadcast spray unless otherwise specified in this label or in separate supplemental labeling or Fact Sheets published by Monsanto. As weed density increases, the spray volume should be increased toward the upper end of the specified range to ensure complete coverage. Carefully select proper nozzles to avoid spraying a fine mist. For best results with ground application equipment, use flat-fan nozzles. Check spray pattern for even distribution of spray droplets.

7.3 Hand-Held Equipment

Apply to foliage of vegetation to be controlled. For applications made on a spray-to-wet basis, spray coverage should be uniform and complete. Do not spray to the point of runoff. Use coarse sprays only.

For control of weeds listed in the **Annual Weeds** section of **WEEDS CONTROLLED**, apply a 0.5-percent solution of this product to weeds less than 6 inches in height or runner length. For annual weeds over 6 inches tall, or unless otherwise specified, use a 1-percent solution. Apply prior to seedhead formation in grass or bud formation in broadleaf weeds.

For best results, use a 1.5-percent solution on harder-to-control perennials, woody vines, brush and trees. Make applications to perennials after seedhead emergence in grasses or bud formation in broadleaf weeds, woody brush and trees for best results.

For low-volume directed spray applications, use a 4- to 8-percent solution of this product for control or partial control of annual weeds, perennial weeds, or woody brush and trees. Spray coverage should be uniform with at least 50 to 75 percent of the foliage contacted. Coverage of the top one half of the plant is important for best results. If a straight stream nozzle is used, start the application at the top of the targeted vegetation and spray from top to bottom in a lateral zig-zag motion. For flat-fan and cone nozzles and with hand-directed mist blowers, mist the application over the foliage of the targeted vegetation. To ensure adequate spray coverage, spray both sides of large or tall woody brush and trees, when foliage is thick and dense, or where there are multiple sprouts. For best results, apply to actively growing woody brush and trees after full leaf expansion and before fall color and leaf drop.

Unless otherwise specified, use the rates listed in the following table for various methods of foliar application using high-volume, backpack, knapsack and similar types of hand-held equipment. When used according to label directions this product will give control or partial control of herbaceous weeds, woody brush and trees listed in the **WEEDS CONTROLLED** section of this label.

APPLICATION RATES

APPLICATION		SPRAY VOLUME Gallons/Acre
SPRAY-TO-WET		
Handgun or Backpack	0.5 to 1.5% by volume	spray-to-wet*
LOW-VOLUME DIRECTED SPRAY		
Backpack	4 to 8% by volume	15 to 25**
Modified High-volume	1.5 to 3% by volume	40 to 60**

* For applications made on a spray-to-wet basis, spray coverage should be uniform and complete. Do not spray to the point of runoff.

**Low-volume directed applications with backpacks work best when treating weeds and brush less than 10 feet tall. For taller weeds and brush, high-volume handguns can be modified by reducing nozzle size and spray pressure to produce a low-volume directed spray.

7.4 Selective Equipment

This product can be applied through recirculating spray systems, shielded applicators, hooded sprayers, wiper applicators or sponge bars, after dilution and thorough mixing with water, to listed weeds growing in any aquatic or non-agricultural crop site specified on this label.

A recirculating spray system directs the spray solution onto weeds growing above desirable vegetation, while spray solution not intercepted by weeds is collected and returned to the spray tank for reuse.

AVOID CONTACT OF THIS HERBICIDE WITH DESIRABLE VEGETATION, AS SERIOUS INJURY OR DEATH TO DESIRABLE VEGETATION IS LIKELY TO OCCUR.

Applicators used above desired vegetation should be adjusted so that the lowest spray stream or wiper contact point is at least 2 inches above the desirable vegetation. Droplets, mist, foam or splatter of the herbicide solution settling on desirable vegetation is likely to result in discoloration, stunting or destruction.

Better results may be obtained when more of the weed is exposed to the herbicide solution. Weeds not contacted by the herbicide solution will not be affected. This may occur in dense clumps, severe infestations or when the height of the weeds varies so that not all weeds are contacted. In these instances, repeat treatment may be necessary.

Shielded and Hooded Applicators

A shielded or hooded applicator directs the herbicide solution onto weeds, while shielding desirable vegetation from the herbicide. Use nozzles that provide uniform coverage within the treated area. Keep shields on these sprayers adjusted to protect desirable vegetation. USE EXTREME CARE TO AVOID CONTACT OF HERBICIDE WITH DESIRABLE VEGETATION.

Wiper Applicators and Sponge Bars

Wiper applicators are devices that physically wipe this product directly onto the weed.

Equipment must be designed, maintained and operated to prevent the herbicide solution from contacting desirable vegetation. Operate this equipment at ground speeds no greater than 5 miles per hour. Performance may be improved by reducing speed in areas of heavy weed infestations to ensure adequate wiper saturation. Better results may be obtained if 2 applications are made in opposite directions.

Avoid leakage or dripping onto desirable vegetation. Adjust height of applicator to ensure adequate contact with weeds. Keep wiping surfaces clean. Be aware that, on sloping ground, the herbicide solution may migrate, causing dripping on the lower end and drying of the wicks on the upper end of a wiper applicator.

Do not use wiper equipment when weeds are wet.

Mix only the amount of solution to be used during a 1-day period, as reduced activity may result from the use of leftover solutions. Clean wiper parts immediately after using this product by thoroughly flushing with water.

Nonionic surfactant at a rate of 10 percent by volume of total herbicide solution is recommended with all wiper applications.

For Rope or Sponge Wick Applicators—Solutions ranging from 33 to 75 percent of this product in water may be used.

For Panel Applicators—Solutions ranging from 33 to 100 percent of this product in water may be used in panel wiper applicators.

7.5 Injection Systems

This product can be used in aerial or ground injection spray systems. It may be used as a liquid concentrate or diluted prior to injecting into the spray stream. Do not mix this product with the undiluted concentrate of other products when using injection systems unless specifically recommended.

7.6 CDA Equipment

The rate of this product applied per acre by controlled droplet application (CDA) equipment must not be less than the amount in this label when applied by conventional broadcast equipment. For vehicle-mounted CDA equipment, apply 2 to 15 gallons of water per acre.

For the control of annual weeds with hand-held CDA units — Apply a 15-percent solution of this product (19.25 oz of product per gallon) at a flow rate of 2 fluid ounces per minute and a walking speed of 1.5 miles per hour (1 quart per acre). For the control of perennial weeds, apply a 15- to 30-percent solution of this product at a flow rate of 2 fluid ounces per minute and a walking speed of 0.75 mile per hour (2 to 4 quarts per acre).

CDA equipment produces a spray pattern that is not easily visible. Extreme care must be exercised to avoid spray or drift contacting the foliage or any other tissue of desirable vegetation, as damage or destruction is likely to result.

8.0 SITE AND USE INSTRUCTIONS

This product can be used to control weeds, woody brush and trees in aquatic sites, non-agricultural crop sites and crop sites listed on this label.

Non-agricultural crop sites include airports, apartment complexes, commercial sites, ditch banks, dry ditches, dry canals, fence rows, forestry sites, golf courses, habitat restoration and management areas, industrial sites, lumber yards, manufacturing sites, municipal sites, natural areas, office complexes, public areas, parks, parking areas, pastures, petroleum tank farms and pumping installations, railroads, rangeland, recreational areas, residential areas, roadsides, schools, storage areas, substations, utility rights-of-way, utility sites, warehouse areas, and wildlife management areas.

Crop sites include citrus, sugarcane, turf, sod and vegetable fallow.

Unless otherwise specified on this label or in separate supplemental labeling or Fact Sheets published by Monsanto, applications may be made to control any weeds listed in the **Annual Weeds, Perennial Weeds** and **Woody Brush And Trees** rate tables. Refer also to the **Selective Equipment** section.

8.1 Aquatic Sites

This product can be applied to emerged weeds in all bodies of fresh and brackish water which may be flowing, non-flowing or transient. This includes lakes, rivers, streams, ponds, estuaries, rice levees, seeps, irrigation and drainage ditches, canals, reservoirs, wastewater treatment facilities, wildlife habitat restoration and management areas.

If aquatic sites are present in the area and are part of the intended treatment, read and observe the following directions:

This product does not control plants which are completely submerged or have a majority of their foliage under water.

There is no restriction on the use of treated water for irrigation, recreation or domestic purposes.

Consult your local state fish and game agency and water control authorities before applying this product to public water. Permits may be required to treat such water.

NOTE: Do not apply this product **directly to water** within 0.5 mile upstream of an active potable water intake in flowing water (i.e., river, stream, etc.) or within 0.5 mile of an active potable water intake in a standing body of water such as lake, pond or reservoir. To make aquatic applications around and within 0.5 mile of active potable water intakes, the water intake must be turned off for a minimum period of 48 hours after the application. The water intake may be turned on prior to 48 hours if the glyphosate level in the intake water is below 0.7 parts per million as determined by laboratory analysis. These aquatic applications may be made ONLY in those cases where there are alternative water sources or holding ponds which would permit the turning off of an active potable water intake for a minimum period of 48 hours after the applications. This restriction does **NOT** apply to intermittent inadvertent overspray of water in terrestrial use sites.

For treatments after drawdown of water or in dry ditches, allow 7 or more days after treatment before reintroduction of water to achieve maximum weed control. Apply this product within 1 day after drawdown to ensure application to actively growing weeds.

Floating mats of vegetation may require retreatment. Avoid wash-off of sprayed foliage by spray boat or recreational boat backwash or by rainfall within 6 hours of application. Do not retreat within 24 hours following the initial treatment.

Applications made to moving bodies of water must be made while traveling upstream to prevent concentration of this herbicide in water. When making any bankside applications, do not overlap more than 1 foot into open water. Do not spray in bodies of water where weeds do not exist. The maximum application rate of 7.5 pints per acre must not be exceeded in any single broadcast application that is being made over water except as follows, where any labeled rate may be applied:

- Stream crossings in utility rights-of-way.
- Where applications will result in less than 20 percent of the total water area being treated.

When emerged infestations require treatment of the total surface area of impounded water, treating the area in strips may avoid oxygen depletion due to decaying vegetation. Oxygen depletion may result in fish kill.

For Control of Cordgrass (*Spartina spp.*)

The presence of debris and silt on the surface of cordgrass plants will reduce product performance. It may be necessary to wash targeted plants prior to application to improve herbicide uptake. Where cordgrass has been cut or mowed prior to application, allow significant regrowth before application to ensure adequate interception and uptake of the herbicide solution. Rainfall within 2 hours or immersion within 4 hours after application may reduce effectiveness.

Prior to application, survey the areas to be treated to determine if shellfish beds exist within the intended treatment area. Wait either until shellfish have been harvested before application is made or do not harvest shellfish for 14 days following treatment.

Add 1 to 2 quarts or more of nonionic surfactant or other adjuvant approved for use on aquatic sites and compatible with this product per 100 gallons of spray solution for broadcast applications (ground or air) and when using optical sensing application equipment.

Do not apply this product through any type of irrigation system.

APPLICATION

Under ideal application conditions, that is, where silt and debris are not present on plant surfaces, good spray coverage is achievable, target plants are actively growing and labeled rates and application volumes are used, allow at least 4 hours drying time before plants are covered by tidewater. Where one or more of these conditions are not met, schedule applications to allow at lest 5 hours drying time before plants are covered by tidewater. Do not apply when wind speed at the application site exceed 10 miles per hour.

Broadcast Application (Ground): Apply 2 to 8 quarts of this herbicide in 5 to 100 gallons of spray solution per acre. For best results, complete coverage of cordgrass clumps is required.

Broadcast Application (Ground/Optical Sensing Application Equipment): Apply 2 to 8 quarts of this product in 5 to 100 gallons of spray solution per acre using equipment designed and calibrated to deliver spray solution only when cordgrass plants are present and detected by optical sensors. For best results, complete coverage of cordgrass clumps is required.

Hand-Held Backpack or High-volume Equipment: Apply a 5 to 8 percent solution of this product. Ensure that complete coverage of cordgrass clumps is achieved. Do not spray to the point of runoff.

Broadcast Application (Air): Apply 2 to 8 quarts of this product in 5 to 10 gallons of spray solution per acre. Maintain at least a 50-foot buffer between commercial shellfish beds and treated areas. The potential for spray drift is dependent upon weather- and equipment-related factors. The applicator must be familiar with local wind patterns and monitor and record temperature and wind speed prior to and periodically during application. Schedule application in order to allow at least 5 hours before treated plants are covered by tidewater.

For Foliar and Broadcast Treatment of Japanese Knotweed

For control of Japanese knotweed (*Polygonum cuspidatum*), this product may be applied as a 2.0% v/v spray-to-wet solution with 0.5 to 2.0% v/v of a nonionic surfactant containing at least 70 percent active ingredient. Ensure thorough coverage when using spray-to-wet treatments using hand-held equipment.

For broadcast applications, apply 3 quarts of this product with an aquatic approved surfactant system containing 0.1% v/v nonionic organosilicone and 0.25% v/v nonionic spreader sticker surfactant in 3 to 40 gallons per acre as a broadcast treatment.

Allow at least 3 days after application before disturbing treated vegetation. This product does not control plants which are completely submerged or have a majority of their foliage under water.

For Foliar and Broadcast Treatment of Oriental Bittersweet

For control of Oriental bittersweet (*Celastrus orbiculatus*), this product may be applied as a 2.0% v/v spray-to-wet solution with 0.5 to 2.0% v/v of a nonionic surfactant containing at least 70 percent active ingredient. Ensure thorough coverage when using spray-to-wet treatments using hand-held equipment.

For broadcast application, apply 2.25 quarts of this product with an aquatic approved surfactant system containing 0.1% v/v nonionic organosilicone and 0.25% v/v nonionic spreader sticker surfactant in 3 to 40 gallons per acre as a broadcast treatment.

Allow at least 3 days after application before disturbing treated vegetation. This product does not control plants which are completely submerged or have a majority of their foliage under water.

Tank Mixtures

Tank mixtures of this product plus 2,4-D amine may be used to increase the spectrum of vegetation controlled in aquatic sites. Use 1.5 to 2 pints of this product plus 1 to 2 quarts of 2,4-D amine (4 pounds active ingredient per gallon, labeled for aquatic sites) for control of annual weeds. Use 3 to 7.5 pints of this product plus 2 to 4 quarts of 2,4-D amine (4 pounds active ingredient per gallon, labeled for aquatic sites) for control or partial control of perennial weeds, woody brush and trees.

When tank mixing, read and carefully observe the label claims, cautionary statements and all information on the labels of all products used. Use according to the most restrictive precautionary statements for each product in the mixture. Mix in the following sequence: Fill sprayer tank one-half full with water, add Roundup Custom for Aquatic and Terrestrial Use, then 2,4-D amine and finally surfactant. Fill sprayer tank to final volume of water.

NOTE: DO NOT MIX ROUNDUP CUSTOM FOR AQUATIC AND TERRESTRIAL USE AND 2,4-D AMINE CONCENTRATES WITHOUT WATER CARRIER. DO NOT MIX ROUNDUP CUSTOM FOR AQUATIC AND TERRESTRIAL USE AND 2,4-D AMINE IN BYPASS INJECTOR-TYPE SPRAY EQUIPMENT.

8.2 Cut Stump

Cut stump treatments may be made on any site listed on this label. This product will control many types of woody brush and tree species. Apply this product using suitable equipment to ensure coverage of the entire cambium. Cut trees or resprouts close to the soil surface. Apply a 50- to 100-percent solution of this product to the freshly-cut surface **immediately after** cutting. Delays in application may result in reduced performance. For best results, applications should be made during periods of active growth and full leaf expansion.

For control of *Ailanthus altissima* (Tree-of-heaven) make a cut stump treatment according to the directions in this section using a spray mixture of 50% Roundup Custom for Aquatic and Terrestrial Use and 10% Arsenal.

DO NOT MAKE CUT STUMP APPLICATIONS WHEN THE ROOTS OF DESIRABLE WOODY BRUSH OR TREES MAY BE GRAFTED TO THE ROOTS OF THE CUT STUMP. Some sprouts, stems, or trees may share the same root system. Adjacent trees having a similar age, height and spacing may signal shared roots. Whether grafted or shared, injury is likely to occur to non-treated stems/trees when one or more trees sharing common roots are treated.

8.3 Conifer and Herbaceous Release Sites

This product can be used for conifer release as a broadcast spray for control, partial control or suppression of herbaceous weeds and hardwoods listed in the **WEEDS CONTROLLED** section of this label. Use only where conifers have been established for more than one year unless otherwise stated below. This product can be applied as a directed spray or by using selective equipment in forestry hardwood and conifer sites, including Christmas tree plantations and silvicultural nurseries.

Use a nonionic surfactant that is labeled for use in over-the-top conifer release applications. Refer to the surfactant manufacturer's label for surfactant use rates and other precautionary statements. Use of this product without a surfactant will result in reduced herbicide performance.

APPLICATION MUST BE MADE AFTER FORMATION OF FINAL CONIFER RESTING BUDS IN THE FALL OR PRIOR TO INITIAL BUD SWELLING IN THE SPRING.

Injury may occur to conifers treated for release, especially where spray patterns overlap or the higher rates are applied. Damage can be accentuated if applications are made when conifers are actively growing, or are under stress from drought, flood water, improper planting, insects, animal damage or diseases.

For release of the following conifer species <u>outside</u> the Southeastern United States:

Douglas fir, Fir, Hemlock, Pines*, California Redwood, Spruce

*Includes all species except loblolly pine, longleaf pine, shortleaf pine or slash pine.

Use 1.5 to 3 pints of this product per acre as a broadcast spray.

To release Douglas fir, and pine and spruce species at the end of the first growing season (except in California), this product can be used at the lower labeled rates of 1.5 to 2.5 pints per acre. Ensure that the conifers are well hardened off before application. Make sure that the nonionic surfactant has been adequately tested for safety to Douglas fir before use.

For release of Spruce (*Picea spp.*) in Maine, Michigan, Minnesota, New Hampshire and Wisconsin, up to 4.5 pints per acre of this product may be used for the control of difficult woody brush and tree species and application must be made after formation of final conifer resting buds in the fall.

Use of a surfactant is not recommended for release of hemlock species or California redwood. In mix conifer stands injury to these species may result if a surfactant is used.

For release of the following conifer species in the Southeastern United States:

Loblolly pine, Slash pine, Eastern white pine, Virginia pine, Shortleaf pine, Longleaf pine

Apply 2.25 to 3.75 pints of this product per acre as a broadcast spray during late summer or early fall after the pines have hardened off.

For applications made at the end of the first growing season, use 1.5 pints per acre of this product.

TANK MIXTURES: This product can be tank-mixed with the following products for conifer or herbaceous release. When tank mixing, read and carefully observe the label claims, cautionary statements and all information on the labels of all products used. Use according to the most restrictive precautionary statements and label uses for each product in the mixture.

When applied as directed, this product plus listed residual herbicides provides postemergence control of the annual weeds and control or suppression of the perennial weeds listed in this label, and residual control of the weeds listed in the residual herbicide label. Use only on conifer species that are labeled for over-the top sprays for both products.

atrazine
Arsenal Applicator Concentrate
Oust XP

Late Summer and Fall after Resting Bud Formation

For release of jack pine, white pine and white spruce, apply 1.5 to 3 pints of this product plus 1 to 3 ounces of Oust XP per acre. For white pine tank mix a maximum of 1 to 1.5 ounces of Oust XP per acre.

For conifer release of Douglas fir, use 1.5 to 2.25 pints of this product plus 2 to 6 ounces of Arsenal Applicator Concentrate per acre. For conifer release of balsam fir and red spruce, apply 3 pints of this product plus 1 to 2.5 ounces of Arsenal Applicator Concentrate per acre.

Herbaceous Release

For spring and early summer herbaceous release of loblolly pine, Virginia and longleaf pine apply 12 to 18 fluid ounces of this product with 2 to 4 ounces of Oust XP.

For early spring release of Douglas fir, prior to bud swell, apply 1.5 pints of this product plus 4 pounds active ingredient of atrazine per acre. Allow one full growing season before application. Do not add surfactant to this treatment.

8.4 Forestry Site Preparation

Use this product for the control or partial control of woody brush, trees and herbaceous weeds in forestry or for use in preparing or establishing wildlife openings within these sites and maintaining logging roads.

This product can also be used in site preparation prior to planting any tree species, including Christmas trees, eucalyptus, hybrid tree cultivars and silvicultural nursery sites.

For applications using different types of equipment, see **APPLICATION RATES** table in the **HAND-HELD EQUIPMENT** section of this label.

TANK MIXTURES: Tank mixtures of this product can be used to increase the spectrum of vegetation controlled in forestry site preparation. When tank mixing, read and carefully

observe the label claims, cautionary statements and all information on the labels of all products used. Use according to the most restrictive precautionary statements for each product in the mixture.

NOTE: For forestry site preparation, make sure the tank-mix product is approved for use prior to planting the desired species. Observe planting interval restrictions.

Any labeled rate of this product can be used in a tank mix with the following products for forestry site preparation.

Arsenal Applicators Concentrate	Garlon 3A
Chopper	Garlon 4
Chopper GEN2	Oust XP
Escort	

For control of herbaceous weeds, use the lower specified tank mixture rates. For control of dense stands or tough-to-control woody brush and trees, use the higher labeled rates.

Unless otherwise directed on this label or in separately published Monsanto supplemental labeling or Fact Sheet, do not apply this product as an over-the-top broadcast spray for forestry conifer or hardwood release.

8.5 Non-Crop Areas and Industrial Sites

Use in areas including airports, apartment complexes, commercial sites, ditch banks, dry ditches, dry canals, fencerows, forestry sites, golf courses, industrial sites, lumber yards, manufacturing sites, office complexes, parks, parking areas, petroleum tank farms and pumping installations, railroads, recreational areas, residential areas, roadsides, sod or turf seed farms, schools, storage areas, substations, utility sties, warehouse areas, and wildlife management areas.

Weed Control, Trim-and-Edge and Bare Ground

This product can be used in non-agricultural crop areas. It can be applied with any application equipment described in this label. This product can be used to trim-and-edge around objects for spot treatment of unwanted vegetation and to eliminate unwanted weeds growing in established shrub beds or ornamental plantings. This product can be used prior to planting an area to ornamentals, flowers, turfgrass (sod or seed), or prior to laying asphalt or beginning construction projects.

Repeat applications of this product as weeds emerge to maintain bare ground.

TANK MIXTURES: This product can be tank-mixed with the following products.

Arsenal	Garlon 3A	Ronstar 50WP
atrazine*	Garlon 4	simazine*
Barricade 65WG	Goal 2XL	Surflan AS
Certainty®	Krovar I DF	Surflan WDG
Crossbow L	Landmark II	Telar DF
dicamba*	Landmark II MP	Transline
diuron*	Outrider®	Velpar DF
Endurance	Oust XP	Velpar L
Escort XP	Plateau	2,4-D*
Gallery 75DF	Poast	

*User is responsible for ensuring that tank mixtures with products containing this generic active ingredient may be made provided the specific product is registered for this use.

Do not apply dicamba tank mixtures by air in California. Only 2,4-D amine formulations can be applied by air in California.

Brush Control Tank Mixtures

TANK MIXTURES: Tank mixtures of this product can be used to increase the spectrum of control for herbaceous weeds, woody brush and trees. When tank mixing, read and carefully observe the label claims, cautionary statements and all information on the labels of all products used. Use according to the most restrictive precautionary statements for each product in the mixture. Any labeled rate of this product can be used in a tank mix.

For control of herbaceous weeds, use the lower tank mixture rates. For control of dense stands or tough-to-control woody brush and trees, use the higher labeled rates.

NOTE: For side trimming treatments, this product can be used alone or in tank mixture with Garlon 4.

Arsenal	Garlon 3A
Escort XP	Garlon 4

Chemical mowing - Perennials

This product will suppress perennial grasses listed in this section to serve as a substitute for mowing. Use 6 fluid ounces of this product per acre when treating tall fescue, fine fescue, orchardgrass, quackgrass or reed canarygrass covers. Use 5 fluid ounces of this product per acre when treating Kentucky bluegrass. Apply treatments in 10 to 40 gallons of spray solution per acre. Apply after grasses have greened up to at least 75 percent green color in the spring, or 7 to 10 days after mowing when sufficient regrowth has occurred to provide a desirable height for growth regulation.

Use only in areas where some temporary injury or discoloration of perennial grasses can be tolerated.

Chemical mowing - Annuals

For growth suppression of some annual grasses, such as annual ryegrass, wild barley and wild oats growing in coarse turf on roadsides or other industrial areas, apply 3 to 4 fluid ounces of this product in 10 to 40 gallons of spray solution per acre. Applications should be made when annual grasses are actively growing and before the seedheads are in the boot stage of development. Treatments may cause injury to the desired grasses.

Dormant Turfgrass

Use this product to control or suppress many winter annual weeds and tall fescue for effective release of dormant bermudagrass and bahiagrass turf. Treat only when turf is dormant and prior to spring greenup.

Apply 6 to 48 fluid ounces of this product per acre. Apply the labeled rates in 10 to 40 gallons of water per acre. Use only in areas where bermudagrass or bahiagrass are desirable ground covers and where some temporary injury or discoloration can be tolerated.

Treatments in excess of 12 fluid ounces per acre may result in injury or delayed greenup in highly maintained areas, such as golf courses and lawns. DO NOT apply tank mixtures of this product plus Oust XP or Outrider in highly maintained turfgrass areas. For further uses, refer to the **ROADSIDES** section of this label, which gives rates for dormant bermudagrass and bahiagrass treatments.

Actively Growing Bermudagrass

This product can be used to control or partially control many annual and perennial weeds for effective release of actively growing bermudagrass. DO NOT apply more than 12 fluid ounces of this product per acre in highly maintained turfgrass areas. DO NOT apply tank mixtures of this product plus Oust XP or Outrider in highly maintained turfgrass areas. For further uses, refer to the **ROADSIDES** section of this label, which gives rates for actively growing bermudagrass treatments. Use only in areas where some temporary injury or discoloration can be tolerated.

Turfgrass Renovation, Seed, or Sod Production

This product controls most existing vegetation prior to renovating turfgrass areas or establishing turfgrass grown for seed or sod. For maximum control of existing vegetation, delay planting or sodding to determine if any regrowth from escaped underground plant parts occurs. Where repeat treatments are necessary, sufficient regrowth must be attained prior to application. For warm-season grasses such as bermudagrass, summer or fall applications provide the best control. Where existing vegetation is growing under mowed turfgrass management, apply this product after omitting at least one regular mowing to allow sufficient growth for good interception of the spray.

Do not disturb soil or underground plant parts before treatment. Tillage or renovation techniques such as vertical mowing, coring or slicing should be delayed for 7 days after application to allow translocation into underground plant parts.

Desirable turfgrasses can be planted following the above procedures.

Hand-held equipment can be used for spot treatment of unwanted vegetation growing in existing turfgrass. Broadcast or hand-held equipment can be used to control sod remnants or other unwanted vegetation after sod is harvested.

Do not feed or graze turfgrass grown for seed or sod production for 8 weeks following application.

8.6 Habitat Management

Habitat Restoration and Management

Use this product to control exotic and other undesirable vegetation in habitat management and natural areas, including riparian and estuarine areas, rangeland and wildlife refuges. Applications can be made to allow recovery of native plant species, prior to planting desirable native species, and for similar broad-spectrum vegetation control requirements. Spot treatments can be made to selectively remove unwanted plants for habitat management and enhancement.

Wildlife Food Plots

Use this product as a site preparation treatment prior to planting wildlife food plots. Any wildlife food species may be planted after applying this product, or native species may be allowed to repopulate the area. If tillage is needed to prepare a seedbed, wait 7 days after application before tillage to allow translocation into underground plant parts.

8.7 Hollow Stem Injection

Apply this product through hand-held injection devices that deliver specified amounts of this product into targeted hollow-stem plants growing in any aquatic or non-crop site specified on this label. For control of the following hollow-stem plants, follow the use instructions below:

Castorbean (*Ricinus communis*)
Inject 4 mL/plant of this product into the lower portion of the main stem.

Hemlock, Poison (*Conium maculatum*)
Inject one leaf cane per plant 10 to 12 inches above root crown with 5 mL of a 5% v/v solution of this product.

Hogweed, Giant (*Heracleum mantegazzianum*)
Inject one leaf cane per plant 12 inches above root crown with 5 mL of a 5% v/v solution of this product.

Horsetail, Field (*Equisetum arvense*)
Inject one segment above the root crown with 0.5 mL/stem of this product. Use a small syringe that calibrates to this rate.

Iris, Yellow Flag (*Iris Pseudocorus*)

Cut flower stems with clippers 8 to 9 inches above the root crown. Use a cavity needle that is pushed into the stem center and then slowly removed as 0.5 mL/stem of this product is injected into the stem.

Knotweed, Bohemian (*Polygonum bohemicum*), **Knotweed, Giant** (*Polygonum sachalinense*), and **Knotweed, Japanese** (*Polygonum cuspidatum*)
Inject 5 mL/stem of this product into the second or third internode.

Reed, Common (*Phragmites australis*)
Inject 5 mL per stem of a 50% solution of this product into the second or third internode or into freshly cut stems.

Reed, Giant (*Arundo donax*)
Inject 6 mL/stem of this product into the second or third internode.

Thistle, Canada (*Cirsium arvense*)
Cut 8 to 9 of the tallest plants at bud stage in a clump with clippers. Use a cavity needle that is pushed into the stem center and then slowly removed as 0.5 mL/stem of this product is injected into the stem.

NOTE: Based on the maximum annual use rate of glyphosate for these non-crop sites, the combined total for all treatments must not exceed 8 quarts of this product per acre. At 5 mL per stem, 8 quarts should treat approximately 1500 stems.

8.8 Injection and Frill (Woody Brush and Trees)

This product can be used to control woody brush and trees by injection or frill applications. Apply using suitable equipment that must penetrate into the living tissue. Apply the equivalent of 1 mL of this product per each 2 to 3 inches of trunk diameter at breast height (DBH). This is best achieved by applying a 50- to 100-percent concentration of this product either to a continuous frill around the tree or as cuts evenly spaced around the tree below all branches. As tree diameter increases in size, better results are achieved by applying diluted material to a continuous frill or more closely spaced cuttings. Avoid application techniques that allow runoff to occur from frilled or cut areas in species that exude sap freely. In species such as this, make the frill or cuts at an oblique angle to produce a cupping effect and use a 100-percent (undiluted) concentration of this product. For best results, application should be made during periods of active growth and after full leaf expansion.

8.9 Ornamentals, Plant Nurseries, and Christmas Trees

Post-directed, Trim-and-edge

This product can be used as a post-directed spray around established woody ornamental species such as arborvitae, azalea, boxwood, crabapple, eucalyptus, euonymus, fir, douglas fir, jojoba, hollies, lilac, magnolia, maple, oak, poplar, privet, pine, spruce and yew. This product can also be used to trim and edge around trees, buildings, sidewalks and roads, potted plants and other objects in a nursery setting.

Desirable plants may be protected from the spray solution by using shields or coverings made of cardboard or other impermeable material. THIS PRODUCT IS NOT TO BE USED AS AN OVER-THE-TOP BROADCAST SPRAY IN ORNAMENTALS AND CHRISTMAS TREES. Care must be exercised to avoid contact of spray, drift or mist with foliage or bark of established ornamental species.

Site Preparation

This product can be used prior to planting any ornamental, nursery or Christmas tree species.

Wiper Applications

This product can be used through wick or other suitable wiper applicators to control or partially control undesirable vegetation around established eucalyptus or poplar trees. See the **Selective Equipment** section of this label for further information about the proper use of wiper applicators.

Greenhouse/Shadehouse

This product can be used to control weeds growing in and around greenhouses and shadehouses. Desirable vegetation must not be present during application and air circulation fans must be turned off.

8.10 Parks, Recreational and Residential Areas

All of the instructions in the **Non- Crop Areas and Industrial Sites** section apply to park and recreational areas.

This product can be used in parks, recreational and residential areas. It may be applied with any application equipment described in this label to trim-and-edge around trees, fences, and paths, around buildings, sidewalks, and other objects in these areas. This product can be used for spot treatment of unwanted vegetation and to eliminate unwanted weeds growing in established shrub beds or ornamental plantings. This product can be used prior to planting an area to ornamentals, flowers, turfgrass (sod or seed), or prior to laying asphalt or beginning construction projects.

8.11 Railroads

All of the instructions in the **Non-crop Areas and Industrial Sites** section apply to railroads.

Bare ground, Ballast and Shoulders, Crossings, and Spot Treatment

This product can be used to maintain bare ground on railroad ballast and shoulders. Repeat applications can be made as weeds emerge to maintain bare ground. This product can be used to control tall-growing weeds to improve line-of-sight at railroad crossings and reduce the need for mowing along rights-of-way. For crossing applications, up to 80 gallons of spray solution per acre may be used.

TANK MIXTURES: This product can be tank-mixed with the following products for ballast, shoulder, spot, bare ground and crossing treatments provided that the specific product is registered for use on such sites.

Arsenal	Hyvar X-L	Spike 80DF
atrazine*	Krovar I DF	Telar DF
dicamba*	Oust XP	Transline
Escort XP	Outrider	Velpar DF
Garlon 3A	Sahara DG	Velpar L
Garlon 4	simazine*	2,4-D*
Hyvar X		

*Tank mixtures with products containing this active ingredient can be made provided the specific product is registered for this use. User is responsible for ensuring that the mixture product labels allow the specific applications when tank mixing with a generic active ingredient.

Brush Control

This product can be used to control woody brush and trees on railroad rights-of-way. Apply 3 to 8 quarts of this product per acre as a broadcast spray, using boom-type or boomless nozzles. Up to 80 gallons of spray solution per acre may be used. Apply a 0.75- to 1.5-percent solution of this product when using high-volume spray-to-wet applications. Apply a 4- to 8-percent solution of this product when using low-volume directed sprays for spot treatment.

TANK MIXTURES: This product can be mixed with the following products for enhanced control of woody brush and trees provided that the specific product is registered for use on such sites.

Arsenal	Krenite	Transline
Escort XP	Telar DF	Vanquish
Garlon 3A	Tordon K	Velpar DF
Garlon 4	Tordon 22K	Velpar L

Additional instructions are located in the **Non-Crop Areas and Industrial Sites** section under **Brush Control Tank Mixtures.**

Bermudagrass Release

This product can be used to control or partially control many annual and perennial weeds for effective release of actively growing bermudagrass. Apply 12 to 36 fluid ounces of this product in up to 80 gallons of spray solution per acre. Use the lower rate when treating annual weeds below 6 inches in height (or runner length). Use the higher rate as weeds increase in size or as they approach flower or seedhead formation. These rates will also provide partial control of the following perennial species:

Bahiagrass	Fescue, tall	Trumpetcreeper
Bluestem, silver	Johnsongrass	Vaseygrass

TANK MIXTURES: This product can be tank-mixed with Oust XP. If tank-mixed, use no more than 12 to 36 fluid ounces of this product with 1 to 2 ounces of Oust XP per acre. Use the lower rates of each product to control annual weeds less than 6 inches in height (or runner length) that are listed in this label and the Oust XP label. Use the higher rates as annual weeds increase in size and approach the flower or seedhead stages. These rates will also provide partial control of the following perennial weeds:

Bahiagrass	Dock, curly	Trumpetcreeper
Blackberry	Dogfennel	Vaseygrass
Bluestem, silver	Fescue, tall	Vervain, blue
Broomsedge	Johnsongrass	
Dallisgrass	Poorjoe	
Dewberry	Raspberry	

Use only on well-established bermudagrass. Bermudagrass injury may result from the treatment, but regrowth will occur under moist conditions. Do not make repeat applications in the same season since severe injury may occur.

8.12 Roadsides

All of the instructions in the **Non-Crop Areas and Industrial Sites** section apply to roadsides.

Shoulder Treatments

Use this product on road shoulders and applied with boom sprayers, shielded boom sprayers, high-volume off-center nozzles, hand-held equipment, and similar equipment.

Guardrails and Other Obstacles to Mowing

This product can be used to control weeds growing under guardrails and around signposts and other objects along the roadside.

Spot Treatment

This product can be used as a spot treatment to control unwanted vegetation growing along roadsides.

TANK MIXTURES: This product can be tank-mixed with the following products for shoulder, guardrail, spot and bare ground treatments, provided that the specific tank mixture product is registered for use on such sites. Refer to these product labels and observe the cautionary statements and all other information appearing on the labels of all herbicides used. Use according to the most restrictive precautionary statements for each product in the mixture.

atrazine*	Landmark MP	Sahara DG
Crossbow L	Landmark XP	simazine*
dicamba*	Oust XP	Surflan AS
diuron*	Outrider	Surflan WDG
Escort XP	pendimethalin*	Telar DF
Endurance	Plateau	Velpar DF
Gallery 75 DF	Plateau DG	Velpar L
Krovar I DF	Poast	2,4-D*
Landmark II MP	Ronstar 50 WSP	

* Tank mixtures with products containing this generic active ingredient can be made provided the specific product is registered for this use. User is responsible for ensuring the mixture product allows the specific application.

Release of Bermudagrass or Bahiagrass

Dormant Applications

This product can be used to control or partially control many winter annual weeds and tall fescue for effective release of dormant bermudagrass or bahiagrass. Treat only when turf is dormant and prior to spring greenup. This product can also be tank-mixed with Outrider or Oust XP for residual control. Tank mixtures of this product with Oust XP may delay greenup.

For best results on winter annuals, treat when plants are in an early growth stage (below 6 inches in height) after most have germinated. For best results on tall fescue, treat when fescue is at or beyond the 4- to 6-leaf stage.

Apply 6 to 48 ounces of this product in a tank mixture with 0.75 to 1.33 ounces Outrider herbicide per acre. Read and follow all label directions for Outrider herbicide.

TANK MIXTURES: Apply 6 to 48 fluid ounces of this product per acre alone or in a tank mixture with 0.25 to 1 ounce per acre of Oust XP. Apply the labeled rates in 10 to 40 gallons of water per acre. Use only in areas where bermudagrass or bahiagrass are desirable ground covers and where some temporary injury or discoloration can be tolerated. To avoid delays in greenup and minimize injury, add no more than 1 ounce of Oust XP per acre on bermudagrass and no more than 0.5 ounce of Oust XP per acre on bahiagrass and avoid treatments when these grasses are in a semi-dormant condition.

Actively Growing Bermudagrass

This product can be used to control or partially control many annual and perennial weeds for effective release of actively growing bermudagrass. Apply 12 to 36 fluid ounces of this product in 10 to 40 gallons of spray solution per acre. Use the lower rate when treating annual weeds below 6 inches in height (or runner length). Use the higher rate as weeds increase in size or as they approach flower or seedhead formation. These rates will also provide partial control of the following perennial species:

Bahiagrass	Fescue, tall	Trumpetcreeper
Bluestem, silver	Johnsongrass	Vaseygrass

TANK MIXTURES: This product can be tank-mixed with Outrider for control or partial control of Johnsongrass and other weeds listed in the Outrider label. Use 6 to 24 ounces of this product with 0.75 to 1.33 ounces of Outrider. Use the higher rates of both products for control of perennial weeds or annual weeds greater than 6 inches in height.

This product can be tank-mixed with Oust XP. If tank-mixed, use no more than 12 to 24 fluid ounces of this product with 1 to 2 ounces of Oust XP per acre. Use the lower rates of each product to control annual weeds less than 6 inches in height (or runner length) that are listed in this label and the Oust XP label. Use the higher rates as annual weeds increase in size and approach the flower or seedhead stages. These rates will also provide partial control of the following perennial weeds:

Bahiagrass	Dock, curly	Poorjoe
Bluestem, silver	Dogfennel	Trumpetcreeper
Broomsedge	Fescue, tall	Vaseygrass
Dallisgrass	Johnsongrass	Vervain, blue

Use only on well-established bermudagrass. Bermudagrass injury may result from the treatment, but regrowth will occur under moist conditions. Do not make repeat applications of the tank mix in the same season since severe injury may occur.

Actively Growing Bahiagrass

For suppression of vegetative growth and seedhead inhibition of bahiagrass for approximately 45 days, apply 4 fluid ounces of this product in 10 to 40 gallons of water per acre. Apply 1 to 2 weeks after full greenup or after mowing to a uniform height of 3 to 4 inches. This application must be made prior to seedhead emergence.

For suppression up to 120 days, apply 3 fluid ounces of this product per acre, followed by an application of 2 to 3 fluid ounces per acre about 45 days later. Make no more than 2 applications per year.

This product can be used for control or partial control of Johnsongrass and other weeds listed on the Outrider label in actively growing bahiagrass. Apply 1.5 to 3.5 fluid ounces of this product with 0.75 to 1.33 ounces of Outrider per acre. Use the higher rates for control of perennial weeds or annual weeds greater than 6 inches in height. Use only on well established bahiagrass.

A tank mixture of this product plus Oust XP may be used. Apply 4 fluid ounces of this product plus 1/4 ounce of Oust XP per acre 1 to 2 weeks following an initial spring mowing. Make only one application per year.

8.13 Utility Sites

In utilities, use this product along electrical power, pipeline and telephone rights-of-way, and in other sites associated with these rights-of-way, such as substations, roadsides, railroads or similar rights-of-way that run in conjunction with utilities. Use in preparing or establishing wildlife openings within these sites, maintaining access roads and for side trimming along utility rights-of-way.

TANK MIXTURES: Tank mixtures of this product can be used to increase the spectrum of control for herbaceous weeds, woody brush and trees. Any labeled rate of this product can be used in a tank mix.

For control of herbaceous weeds, use the lower tank mixture rates. For control of dense stands or tough-to-control woody brush and trees, use the higher rates.

NOTE: For side trimming treatments, this product may be used alone or in tank mixture with Garlon 4.

Arsenal	Krenite	Surflan AS
atrazine*	Krovar I DF	Surflan WDG
dicamba*	Oust XP	Telar DF
diuron*	Outrider	Transline
Endurance	pendimethalin*	Vanquish
Escort XP	Plateau	Velpar DF
Garlon 3A**	Sahara DG	Velpar L
Garlon 4	simazine*	2,4-D*

* Tank mixtures with products containing this generic active ingredient can be made provided the specific product is registered for this use. User is responsible for ensuring the mixture product allows the specific application.

** Ensure that Garlon 3A is thoroughly mixed with water according to label directions before adding this product. Have spray mixture agitating at the time this product is added to avoid spray compatibility problems.

Bare Ground and Trim-and-Edge

Use this product in and around utility sites and substations for bare ground, trim-and-edge around objects, spot treatment of unwanted vegetation and to eliminate unwanted weeds growing in established shrub beds or ornamental plantings. This product can be used prior to planting a utility site to ornamentals, flowers, turfgrass (sod or seed), or beginning construction projects.

Repeat applications of this product as weeds emerge to maintain bare ground.

TANK MIXTURES: Tank mix with the following products. Refer to the specific product labels for approved sites and application rates. Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used. Use according to the most restrictive precautionary statements for each product in the mixture.

Arsenal	Garlon 3A	Poast
atrazine*	Garlon 4	Ronstar 50WP
Barricade 65WG	Goal 2XL	simazine*
Certainty	Krovar I DF	Surflan AS
Crossbow L	Landmark II MP	Surflan WDG
dicamba *	Landmark II	Telar DF
diuron*	Outrider	Transline
Endurance	Oust XP	Velpar DF
Escort XP	pendimethalin*	Velpar L
Gallery 75DF	Plateau	2,4-D*

*Tank mixtures with products containing this generic active ingredient may be made provided the specific product is registered for this use. User is responsible for ensuring the mixture product label allows the specific application.

9.0 PASTURE AND RANGELANDS

9.1 Pastures

LABELED GRASSES: Bahiagrass, Bermudagrass, Bluegrass, Brome, Fescue, Guineagrass, Kikuyugrass, Orchardgrass, Pangola grass, Ryegrass, Timothy, Wheatgrass.

Preplant, Preemergence, Pasture Renovation

This product can be applied prior to planting or emergence of forage grasses. In addition, this product can be used to control perennial pasture species listed on this label prior to re-planting.

If application rates total 4.5 pints per acre or less, no waiting period between treatment and feeding or livestock grazing is required. If the rate is greater than 4.5 pints per acre, remove domestic livestock before application and wait 8 weeks after application before grazing or harvesting.

Spot Treatment, Over-the-Top Wiper Applications

This product can be applied as a spot treatment or with wiper applicators in pastures. Applications may be made in the same area at 30-day intervals.

For spot treatments or wiper application methods using rates of 4.5 pints per acre or less, the entire field or any portion of it may be treated. When spot treatments or wiper application are made using rates above 4.5 pints per acre, no more than 10 percent of the total pasture may be treated at any one time. To achieve maximum performance, remove domestic livestock before application and wait 7 days after application before grazing livestock or harvesting.

Postemergent Weed Control (Broadcast Treatments)

This product can be used to suppress competitive growth and seed production of annual weeds and undesirable vegetation in pastures. For selective applications with broadcast spray equipment, apply 9 to 12 fluid ounces of this product per acre in early spring before desirable perennial grasses break dormancy and initiate green growth. Late fall applications can be made after desirable perennial grasses have reached dormancy.

Some stunting of perennial grasses will occur if broadcast applications are made when plants are not dormant. No waiting period is required between application and grazing or harvesting for feed. Use of higher application rates will cause stand reductions. Do not apply more than 4.5 pints per acre per year onto pasture grasses except for renovation uses. If replanting is needed due to severe stand reduction, applications must be made at least 30 days prior to planting any grass not listed for treatment in this label.

9.2 Rangelands

Postemergence application of this product will control or suppress many annual weeds growing in perennial cool- and warm-season grass rangelands.

Preventing viable seed production is key to the successful control and invasion of annual grassy weeds in rangelands. Follow-up applications in sequential years should eliminate most of the viable seeds.

Grazing of treated areas should be delayed to encourage growth of desirable perennials. Allowing desirable perennials to flower and reseed in the treated area will encourage successful transition.

Apply 9 to 12 fluid ounces of this product per acre to control or suppress many weeds, including downy brome, cheatgrass, cereal rye and jointed goatgrass in rangelands. Apply when most brome plants are in early flower and before the plants, including seedheads, turn color. Allowing for secondary weed flushes to occur in the spring following rain events further depletes the seed reserve and encourages perennial grass conversion on weedy sites. Fall applications are possible and recommended, where spring moisture is usually limited and fall germination allows for good weed growth.

For medusahead, apply 12 fluid ounces of this product per acre at the 3-leaf stage. Delaying applications beyond this stage will result in reduced or unacceptable control. Controlled burning may be useful in eliminating the thatch layer produced by slowly decaying culms prior to application. Allow new growth to occur before spraying after a burn. Repeat applications in subsequent years may be necessary to eliminate the seedbank before reestablishing desirable perennial grasses in medusahead-dominated rangelands.

Slight discoloration of the desirable grasses may occur, but they will regreen and regrow under moist soil conditions as effects of this product wear off. Do not use ammonium sulfate when spraying rangeland grasses with this product. No waiting period between treatment and feeding of livestock grazing is required.

10.0 CROP USES

10.1 Citrus

For use in Florida and Texas on Calamondin, Chironja, Citron, Citrus Hybrids, Grapefruit, Kumquat, Lemon, Lime, Mandarin (tangerine), Orange (all), Pummelo, Satsuma Mandarin, Tangelo (ugli), Tangor.

This product can be applied preplant (site preparation) broadcast spray, middles (between rows of trees, vines or bushes), strips (within rows of trees, vines or bushes), shielded sprayers, wiper applications, directed spray, or as spot treatment.

Applications may be made with boom equipment, CDA equipment, shielded sprayers, hand-held and high-volume wands, lances, orchard guns or with wiper applicator equipment, except as directed.

The following instructions pertain to Florida and Texas.

For burndown or control of the weeds listed below, apply the labeled rates of this product in 3 to 30 gallons of water per acre. Where weed foliage is dense, use 10 to 30 gallons of water per acre.

For goatweed, apply 3 to 4.5 pints of this product per acre. Apply in 20 to 30 gallons of water per acre when plants are actively growing. Use 3 pints per acre when plants are less than 8 inches tall and 4.5 pints per acre when plants are greater than 8 inches tall. If goatweed is greater than 8 inches tall, the addition of Krovar I or Karmex may improve control. Refer to the individual product labels for specific crops, rates, geographic restrictions and precautionary statements.

Perennial weeds:

S = Suppression B = Burndown PC = Partial control C = Control

ROUNDUP CUSTOM FOR AQUATIC AND TERRESTRIAL USE RATE PER ACRE

WEED SPECIES	1.5 PT	3 PT	4.5 PT	7.5 PT
Bermudagrass	B	--	PC	C
Guineagrass				
Texas and Florida Ridge	B	C	C	C
Florida Flatwoods	--	B	C	C
Paragrass	B	C	C	C
Torpedograss	S	--	PC	C

Allow a minimum of 1 day between last application and harvest in citrus crops. For citron groves, apply as directed sprays only.

10.2 Sugarcane

This product can be applied fallow, preplant, preemergence or at-planting using hooded sprayers, shielded sprayers, or by wiper application in row-middles, as a post-harvest treatment, as a spot treatment or as foliar treatment for plant growth regulation.

Preplant, Preemergence, At-Planting

Apply this product in or around sugarcane fields or in fields prior to the emergence of plant cane. Do not apply to vegetation in or around ditches, canals or ponds containing water to be used for irrigation.

Spot Treatment

Apply this product as a spot treatment in sugarcane. For control of volunteer or diseased sugarcane, make a 0.75-percent solution of this product in water and spray-to-wet the foliage of vegetation to be controlled. Volunteer or diseased sugarcane should have at least 7 new leaves. Avoid spray contact with healthy cane plants since severe damage or destruction may result. Do not feed or graze treated sugarcane foliage following application.

Fallow Treatments

Apply this product as a replacement for tillage in fields that are lying fallow between sugarcane crops. This product can also be used to remove the last stubble of ratoon cane. For removal of last stubble of ratoon cane, apply 6 to 7.5 pints of this product in 10 to 40 gallons of water per acre to new growth having at least 7 new leaves. Allow 7 or more days after application before tillage. Ground or aerial application equipment may be used. Applications up to 4.5 pints per acre may be made by aerial application in fallow sites where there is sufficient buffer to prevent injury due to drift onto adjacent crops. Tank mixtures with 2,4-D and dicamba can be used.

Hooded Sprayers

Apply this product through hooded sprayers for weed control between the rows of sugarcane. See the **APPLICATION EQUIPMENT AND TECHNIQUES** section of this label for additional use instructions.

Do not allow treated weeds to come into contact with the crop. Droplets, mist, foam or splatter of the herbicide solution settling on the crop can result in discoloration, stunting or destruction. Such damage shall be the sole responsibility of the applicator.

Foliar Treatment for Plant Growth Regulation

Do not plant to subsequent crops other than the following for 30 days after application: Corn (All), Soybean, Sorghum (Milo), Cotton, Alfalfa, Beans (All), Forage Grasses, Potatoes (Irish, Sweet), Wheat.

When applied as directed under the conditions described, this product will hasten ripening and extend the period of high sucrose level in sugarcane. It is effective in both low- and high-tonnage sugarcane. As a result of leaf desiccation, improved trash burn can be expected. Within 2 to 3 weeks after application, this product can produce a slight yellowing to pronounced browning and drying of leaves, and a shortening of upper internodes; spindle death may occur. Most of the sucrose increase is concentrated in the top nodes of the treated cane stalk. In order to recover the maximum sugar where topping is practiced, during harvest, top at the base of the fourth leaf. Prior to application, consult your state sugarcane authority or local Monsanto representative regarding the degree of sucrose response anticipated from the variety of sugarcane to be treated.

See the following for rates and time of application for the State in which applications are to be made. **NOTE:** Use the higher rate within the specified range when treating sugarcane under adverse ripening conditions or when less responsive varieties are to be treated.

FLORIDA—Apply 6 to 14 fluid ounces of this product per acre 3 to 5 weeks before harvest of LAST RATOON CANE ONLY.

HAWAII—Apply 10 to 24 fluid ounces of this product per acre 4 to 10 weeks before harvest.

LOUISIANA—Apply 4 to 14 fluid ounces of this product per acre 3 to 7 weeks before harvest of RATOON CANE ONLY.

PUERTO RICO—Apply 6 fluid ounces of this product per acre 3 to 5 weeks before harvest of RATOON CANE ONLY.

TEXAS—Apply 6 to 14 fluid ounces of this product per acre 3 to 5 weeks before harvest of RATOON CANE ONLY.

Application of this product can initiate development of shooting eyes. This product can not increase the sucrose content of sugarcane under conditions of good natural ripening. Do not apply to sugarcane to be harvested for seed purposes. Do not feed or graze treated sugarcane forage following application.

10.3 Chemical Fallow Treatments

Apply this product during fallow intervals preceding planting, prior to planting or transplanting, at-planting, or preemergent to vegetable crops.

When applying this product prior to transplanting or direct-seeding vegetable crops into plastic mulch, care must be taken to remove residues of this product, which could cause crop injury, from the plastic prior to planting. Residues can be removed by a single 0.5-inch application of water, either by natural rainfall or via a sprinkler system. Ensure that the wash water flushes off the plastic mulch and does not enter the transplant holes. Applications made at emergence will result in injury or death to emerged seedlings.

Avoid contact of herbicide with foliage, shoots or stems, green bark, exposed roots (including those emerging from plastic mulch), or fruit of crops because severe injury or

destruction may result. Post-harvest or fallow applications must be made at least 30 days prior to planting any non-labeled crop.

10.4 Sod or Commercial Sod Production

Preplant, Preemergence, At-Planting, Renovation, Site Preparation

This product controls most existing vegetation prior to renovating turf or forage grass seed areas or establishing turf grass grown for sod. Make applications before, during, or after planting or for renovation. For maximum control of existing vegetation, delay planting to determine if any regrowth from escaped underground plant parts occurs. Where existing vegetation is growing under mowed turfgrass management, apply this product after omitting at least one regular mowing to allow sufficient growth for good interception of the spray. Where repeat treatments are necessary, sufficient regrowth must be attained prior to application. For warm-season grasses, such as Bermudagrass, summer or fall applications provide best control. Broadcast equipment may be used to control sod remnants or other unwanted vegetation after sod is harvested.

Do not disturb soil or underground plant parts before treatment. Tillage or renovation techniques such as vertical mowing, coring or slicing should be delayed for 7 days after application to allow proper translocation into underground plant parts. If application rates total 72 fluid ounces per acre or less, no waiting period between treatment and feeding or livestock grazing is required. If the rate is greater than 4.5 pints per acre, remove domestic livestock before application and wait 8 weeks after application before grazing or harvesting. For any crop not listed for treatment in this label, applications must be made at least 30 days prior to planting. Applications must be made prior to the emergence of the crop to avoid crop injury.

Shielded Sprayers

Apply 1.5 to 4.5 pints of this product in 10 to 20 gallons of water per acre to control weeds between grass seed rows. Uniform planting in straight rows aid in shielded sprayer applications. Best results are obtained when the grass seed crop is small enough to easily pass by the protective shields. For additional instructions, see **Hooded and Shielded Applicators** in the **Selective Equipment** section.

Contact of this product in any manner to any vegetation to which treatment is not intended can cause damage. Such damage shall be the sole responsibility of the applicator.

Over-the-Top Wiper Applications

Adjust applicators so that the wiper contact point is at least 2 inches above the desirable vegetation. Weeds should be a minimum of 6 inches above the desirable vegetation. Better results may be obtained when more of the weed is exposed to the herbicide solution. Weeds not contacted by the herbicide solution will not be affected. This may occur in dense clumps, severe infestations, or when height of weeds varies so that not all weeds are contacted. In these instances, repeat treatments may be necessary. For additional instructions, see **Wiper Applicators** in the **Selective Equipment** section.

Contact of the herbicide solution with desirable vegetation can result in damage or destruction.

Spot Treatment

Apply this product as a 1-percent solution prior to heading of grasses grown for seed. The crop receiving the spray in the treated area will be killed. Take care to avoid drift or spray outside the target area for the same reason. Use hand-held equipment to control sod remnants or other unwanted vegetation after sod is harvested.

Creating Rows in Annual Ryegrass

Use 12 to 24 fluid ounces of this product per acre. Use the higher rate when the ryegrass is greater than 6 inches tall. Best results are obtained when applications are made before the ryegrass reaches 6 inches in height.

Set nozzle heights to allow the establishment of the desired row spacing while preventing spray droplets, spray fines, or drift to contact the ryegrass plants not treated. Use of low-pressure nozzles, or drop nozzles designed to target the application over a narrow band are recommended.

Grower assumes all responsibility for crop losses from misapplication.

11.0 USES AROUND THE FARMSTEAD

11.1 Weed Control and Trim-And-Edge

This product can be used to control annual weeds, perennial weeds and woody brush which are found in any part of the farmstead, including building foundations, along and in fences, in dry ditches and canals, along ditchbanks, farm roads, shelterbelts, prior to landscape plantings and equipment storage areas.

This product can be tank-mixed with the following products, provided that the specific product is registered for use on such non-agricultural crop sites. Refer to these product labels for approved farmstead sites and application rates. For annual weeds, use 1.5 pints per acre of this product when weeds are less than 6 inches tall, 2.25 pints per acre when weeds are 6 to 12 inches tall and 3 pints per acre when weeds are greater than 12 inches tall. For perennial weeds, apply 3 to 7.5 pints per acre in these tank mixes. For tank mixtures with these products through backpack sprayers, handguns or other high-volume spray-to-wet applications, see the **ANNUAL WEEDS** section for hand-held or high-volume equipment of this label for specific rates.

Arsenal	Krovar I DF	Ronstar 50 WP
Banvel/Clarity	Oust XP	Sahara
Barricade 65WG	Pendulum 3.3 EC	simazine
diuron	Pendulum WDG	Surflan
Endurance	Plateau	Telar
Escort	Princep DF	Vanquish
Karmex DF	Princep Liquid	2,4-D

This product plus dicamba tank mixtures may not be applied by air in California.

11.2 Greenhouse/Shadehouse

This product can be used to control weeds in and around greenhouses and shadehouses. Desirable vegetation must not be present during application and air circulation fans must be turned off.

11.3 Chemical Mowing

This product will suppress perennial grasses listed in this section to serve as a substitute for mowing. Use 4.5 fluid ounces of this product per acre when treating Kentucky bluegrass. Use 6 fluid ounces of this product per acre when treating tall fescue, fine fescue, orchardgrass, bahiagrass or quackgrass covers. Use 12 fluid ounces of this product per acre when treating bermudagrass. Use 48 fluid ounces of this product per acre when treating torpedograss or paragrass. Apply treatments in 10 to 20 gallons of spray solution per acre. Chemical mowing applications may be made along farm ditches and other parts of farmsteads.

Use only in areas where some temporary injury or discoloration of perennial grasses can be tolerated.

12.0 WEEDS CONTROLLED

Always use the higher rate of this product per acre within the labeled range when weed growth is heavy or dense or weeds are growing in an undisturbed (non-cultivated) area.

Reduced results can occur when treating weeds heavily covered with dust. For weeds that have been mowed, grazed or cut, allow regrowth to occur prior to treatment.

Refer to the following label sections for application rates for the control of annual and perennial weeds and woody brush and trees. For difficult to control perennial weeds and woody brush and trees, where plants are growing under stressed conditions, or where infestations are dense, use this product at 4.5 to 8 quarts per acre for enhanced results.

12.1 Annual Weeds

Apply to actively growing annual grasses and broadleaf weeds.

Allow at least 3 days after application before disturbing treated vegetation. After this period the weeds may be mowed, tilled or burned. See **DIRECTIONS FOR USE**, **PRODUCT INFORMATION** and **MIXING** and **APPLICATION INSTRUCTIONS** for labeled uses and specific application instructions.

Use 1.5 pints per acre if weeds are less than 6 inches in height or runner length and 1 to 4 quarts per acre if weeds are over 6 inches in height or runner length or when weeds are growing under stressed conditions.

For spray-to-wet applications, apply a 0.5-percent solution of this product to weeds less than 6 inches in height or runner length. Apply prior to seedhead formation in grass or bud formation in broadleaf weeds. For annual weeds over 6 inches tall, or for smaller weeds growing under stressed conditions, use a 0.75- to 1.5-percent solution. Use the higher labeled rate for tough-to-control species or for weeds over 24 inches tall.

WEED SPECIES

Anoda, spurred	Copperleaf, Virginia
Balsamapple**	Coreopsis, plains/tickseed*
Barley*	Corn*
Barley, little*	Crabgrass*
Barnyardgrass*	Cupgrass, woolly*
Bassia, fivehook	Dwarfdandelion*
Bittercress*	Eclipta*
Bluegrass, annual*	Falsedandelion*
Bluegrass, bulbous*	Falseflax, smallseed*
Brome, downy*	Fiddleneck
Brome, Japanese*	Filaree
Broomsedge	Fleabane, annual*
Buttercup*	Fleabane, hairy *(Conyza bonariensis)**
Castorbean	Fleabane, rough*
Cheatgrass*	Foxtail*
Cheeseweed *(Malva parviflora)*	Foxtail, Carolina*
Chervil*	Geranium, Carolina
Chickweed*	Goatgrass, jointed*
Cocklebur*	Goosegrass
Copperleaf, hophornbeam	Groundsel, common*

Henbit	Rocket, London*
Horseweed/Marestail *(Conyza canadensis)*	Rocket, Yellow
Itchgrass*	Rye*
Johnsongrass, seedling	Ryegrass*
Junglerice	Sandbur, field*
Knotweed	Sesbania, hemp
Kochia	Shattercane*
Lamb's-quarters*	Shepherd's-purse*
Lettuce, prickly*	Sicklepod
Mannagrass, eastern*	Signalgrass, broadleaf*
Mayweed	Smartweed, ladysthumb*
Medusahead*	Smartweed, Pennsylvania*
Morningglory *(Ipomoea spp)*	Sorghum, grain (milo)*
Mustard, blue*	Sowthistle, annual
Mustard, tansy*	Spanishneedles***
Mustard, tumble*	Speedwell, Corn*
Mustard, wild*	Speedwell, purslane*
Nightshade, black*	Sprangletop*
Oats	Spurge, annual
Panicum, browntop*	Spurge, prostrate*
Panicum, fall*	Spurge, spotted*
Panicum, Texas*	Spurry, umbrella*
Pennycress, field*	Starthistle, yellow
Pepperweed, Virginia*	Stinkgrass*
Pigweed*	Sunflower*
Puncturevine	Teaweed / Prickly sida
Purslane, common	Thistle, Russian
Pusley, Florida	Velvetleaf
Ragweed, common*	Wheat*
Ragweed, giant	Wild oats*
Rice, red	Witchgrass*

* When using field broadcast equipment (aerial applications or boom sprayers using flat-fan nozzles) these species will be controlled or partially controlled using 12 fluid ounces of this product per acre. Applications must be made using 3 to 10 gallons of carrier volume per acre. Use nozzles that ensure thorough coverage of foliage and treat when weeds are in an early growth stage.

** Apply with hand-held equipment only.

*** Apply 3 pints of this product per acre.

12.2 Perennial Weeds

Best results are obtained when perennial weeds are treated after they reach the reproductive stage of growth (seedhead initiation in grasses and bud formation in broadleaves). For non-flowering plants, best results are obtained when the plants reach a mature stage of growth. In many situations, treatments are required prior to these growth stages. Under these conditions, use the higher application rate within the labeled range.

- Apply when target plants are actively growing. Do not treat when target plants are under drought stress.
- Ensure thorough coverage when using spray-to-wet treatments using hand-held equipment.
- When using hand-held equipment for low-volume directed spot treatments, apply a 4- to 8-percent solution of this product.
- Allow 7 or more days after application before tillage or mowing. If weeds have been mowed or tilled, do not treat until regrowth has reached the specified stages.
- Fall treatments must be applied before a killing frost.
- Repeat treatments may be necessary to control weeds regenerating from underground parts or seed.

Weed Species	Rate (QT/A)	Hand-Held % Solution
Alfalfa*	0.7	1.5
Alligatorweed*	3	1.3
Apply when most of the target plants are in bloom. Repeat applications will be required to maintain such control.		
Anise (fennel)	1.5 – 3	1 – 1.5
Bahiagrass	2.3 – 3.75	1.5
Beachgrass, European *(Ammophila arenaria)*	–	3.5
Apply an 8-percent solution of this product plus 0.5- to 1.5-percent nonionic surfactant on a low-volume spray-to-wet basis. Best results are obtained when applications are made when European beachgrass is actively growing through the boot to the full heading stages of growth. Make applications prior to the loss of more than 50% green leaf color in the fall. Repeat applications may be necessary to treat skips. Monitor treated areas prior to reseeding of desirable vegetation. For selective control of European beachgrass with wiper application, apply a 33.3-percent solution of this product plus 1 to 2.5 percent nonionic surfactant during active growth. Avoid contact of herbicide solution with desirable vegetation. Wiping the plants in opposite directions may improve performance. Maximizing the amount of individual leaf tissue contacted with the wiping equipment will result in optimal performance.		
Bentgrass*	1	1.5
Bermudagrass	4	1.5
Apply to target plants when seed heads appear.		
Bermudagrass, water (knotgrass)	1	1.5
Bindweed, field	2.3 – 3.75	1.5
Apply 3 to 3.75 quarts of this product per acre as a broadcast spray west of the Mississippi River and 2.3 to 3 quarts of this product per acre east of the Mississippi River. Apply when most target plants are at or beyond full bloom. New leaf development indicates active growth. For best results apply in late summer or fall.		
Bluegrass, Kentucky	1.5 – 2.3	0.75
Apply when most target plants have reached the boot-to-head stage of growth. When applied prior to the boot stage, less desirable control may be obtained. In the fall, apply before plants have turned brown.		
Blueweed, Texas	2.3 – 3.75	1.5
Apply 3 to 3.75 quarts of this product per acre as a broadcast spray west of the Mississippi River and 2.3 to 3 quarts of this product per acre east of the Mississippi River. Apply when most target plants are at or beyond full bloom. New leaf development indicates active growth. For best results apply in late summer or fall.		
Brackenfern	2.3 – 3	0.75 – 1
Apply to fully expanded fronds which are at least 18 inches long.		
Bromegrass, smooth	1.5 – 2.3	0.75
Apply when most target plants have reached the boot-to-head stage of growth. When applied prior to the boot stage, less desirable control may be obtained. In the fall, apply before plants have turned brown.		
Bursage, woolly-leaf	–	1.5
Canarygrass, reed	1.5 – 2.3	0.75
Apply when most target plants have reached the boot-to-head stage of growth. When applied prior to the boot stage, less desirable control may be obtained. In the fall, apply before plants have turned brown.		
Cattail	2.3 – 3.75	0.75
Apply when target plants are actively growing and are at or beyond the early-to-full bloom stage of growth. Best results are achieved when application is made during the summer or fall months.		
Clover, red, white	2.3 – 3.75	1.5
Cogongrass	2.3 – 3.75	1.5
Apply when cogongrass is at least 18 inches tall and actively growing in late summer or fall. Due to uneven stages of growth and the dense nature of vegetation preventing good spray coverage, repeat treatments may be necessary to maintain control.		
Cordgrass	See Sect 8.1	2 – 8
Schedule applications in order to allow 6 hours before treated plants are covered by tidewater. When applying spray to wet with hand-held equipment, use a 2 to 8 percent solution of this product. Ensure complete coverage of clumps but do not spray to the point of run-off. Follow specific application instructions in Section 8.1 **Aquatic Sites.**		
Cutgrass, giant*	3	1
Repeat applications will be required to maintain such control, especially where vegetation is partially submerged in water. Allow for substantial regrowth to the 7- to 10-leaf stage prior to retreatment.		
Dallisgrass	2.3 – 3.75	1.5
Dandelion	2.3 – 3.75	1.5
Dock, curly	2.3 – 3.75	1.5
Dogbane, hemp	3	1.5
Apply when most target plants have reached the late bud-to-flower stage of growth. For best results, apply in late summer or fall.		
Fescue (except tall)	2.3 – 3.75	1.5
Fescue, tall	2.3	1
Apply when most target plants have reached the boot-to-head stage of growth. When applied prior to the boot stage, less desirable control may be obtained.		
Guineagrass	2.3	0.75
Apply when most target plants have reached at least the 7-leaf stage of growth.		
Hemlock, poison	1.5 – 3	0.75 – 1.5
Also see Hollow Stem Injection section of this label.		
Horsenettle	2.3 – 3.75	1.5
Horseradish	3	1.5
Apply when most target plants have reached the late bud-to-flower stage of growth. For best results, apply in late summer or fall.		
Iceplant	1.5	1.5
Ivy, German, cape	1.5 – 3	0.75 – 1.5
Jerusalem artichoke	2.3 – 3.75	1.5
Johnsongrass	1.5 – 2.3	0.75
Apply when most target plants have reached the boot-to-head stage of growth. When applied prior to the boot stage, less desirable control may be obtained. In the fall, apply before plants have turned brown.		
Kikuyugrass	1.5 – 2.3	0.75
Knapweed	3	1.5
Apply when most target plants have reached the late bud-to-flower stage of growth. For best results, apply in late summer or fall.		
Knotweed, Bohemian, Giant, Japanese *(Polygonum bohemicum, P. sachalinense and P. cuspidatum)* Stem Injection: See the Hollow Stem Injection section of this label.		
Cut Stem: Cut stems cleanly just below the 2nd or 3rd node above the ground. Immediately apply 0.36 fluid ounce (10 mL) of a 50-percent solution of this product into the 'well' or remaining internode. Ensure that removed upper plant material is carefully gathered and discarded so that it will not contact soil and regenerate plants from sprouting buds. Use of a bio-barrier such as cardboard, plywood or plastic sheeting is recommended. The combined total for all treatments must not exceed 8 quarts per acre. At 10 mL of a 50-percent solution, approximately 1500 stems per acre may be treated.		

Lantana	–	0.75 – 1

Apply when most target plants are at or beyond the bloom stage of growth. Use the higher application rate for plants that have reached the woody stage of growth.

Lespedeza	2.3 – 3.75	1.5
Loosestrife, purple	2	1 – 1.5

Treat when most target plants are at or beyond the bloom stage of growth. Best results are achieved when application is made during summer or fall months. Fall treatments must be applied before a killing frost.

Lotus, American	2	0.75

Treat when most target plants are at or beyond the bloom stage of growth. Best results are achieved when application is made during summer or fall months. Fall treatments must be applied before a killing frost. Repeat treatment may be necessary to control regrowth from underground parts and seeds.

Maidencane	3	0.75

Repeat treatments will be required, especially to vegetation partially submerged in water. Under these conditions, allow for regrowth to the 7- to 10-leaf stage prior to retreatment.

Milkweed, common	2.3	1.5

Apply when most target plants have reached the late bud-to-flower stage of growth.

Muhly, wirestem	1.5 – 2.3	0.75

Apply when most target plants are at least 8 inches in height (3 to 4-leaf stage of growth) and actively growing.

Mullein, common	2.3 – 3.75	1.5
Napiergrass	2.3 – 3.75	1.5
Nightshade, silverleaf	2.3 – 3.75	1.5

Apply 3 to 3.75 quarts of this product per acre as a broadcast spray west of the Mississippi River and 2.3 to 3 quarts of this product per acre east of the Mississippi River. Apply when most target plants are at or beyond full bloom. Best results can be obtained when application is made after berries are formed. New leaf development indicates active growth. For best results apply in late summer or fall.

Nutsedge; purple, yellow	2.3	0.75

Apply this product to control existing nutsedge plants and immature nutlets attached to treated plants. Apply when target plants are in flower or when new nutlets can be found at rhizome tips. Nutlets which have not germinated will not be controlled and may germinate following treatment. Repeat treatments will be required for long-term control.

Orchardgrass	1.5 – 2.3	0.75

Apply when most target plants have reached the boot-to-head stage of growth. When applied prior to the boot stage, less desirable control may be obtained. In the fall, apply before plants have turned brown.

Pampasgrass	2.3 – 3.75	1.5
Para grass	3	0.75

Repeat treatments may be required. Allow for regrowth to the 7- to 10-leaf stage prior to retreatment.

Pepperweed, perennial	3	1.5
Phragmites*	2 – 3.75	0.75 – 1.5

For partial control of phragmites in Florida and the counties of other states bordering the Gulf of Mexico, apply 3.75 quarts per acre as a broadcast spray or apply a 1.5-percent solution with hand-held equipment. In other areas of the U.S., apply 2 to 3 quarts per acre as a broadcast spray or apply a 0.75-percent solution with hand-held equipment for partial control. For best results, treat during late summer or fall months when plants are actively growing and in full bloom. Due to the dense nature of the vegetation, which may prevent good spray coverage and uneven stages of growth, repeat treatments may be necessary to maintain control. Visual control symptoms will be slow to develop.

Quackgrass	1.5 – 2.3	0.75

Apply when most target plants are at least 8 inches in height (3 to 4-leaf stage of growth) and actively growing.

Redvine*	1.5	1.5
Reed, giant	3 – 3.75	1.5

Best results are obtained when applications are made in late summer to fall. Also see Hollow Stem Injection section of this label.

Ryegrass, perennial	1.5 – 2.3	0.75

Apply when most target plants have reached the boot-to-head stage of growth. When applied prior to the boot stage, less desirable control may be obtained. In the fall, apply before plants have turned brown.

Salvinia, giant	3 – 3.75	2

Apply as a 2.0% v/v spray-to-wet solution with 0.5 to 2.0% v/v of a nonionic surfactant containing at least 70% active ingredient. For broadcast applications, apply 3 to 3.75 quarts of this product with an aquatic approved surfactant system containing 0.1% v/v nonionic organosilicone and 0.25% v/v nonionic spreader sticker surfactant in 3 to 40 gallons per acre as a broadcast treatment. Allow at least 3 days after application before disturbing treated vegetation. This product does not control plants which are completely submerged or have a majority of their foliage under water.

Smartweed, swamp	2.3 – 3.75	1.5
Spatterdock	3	0.75

Apply when most plants are in full bloom. For best results, apply during the summer or fall months.

Spurge, leafy*	–	1.5
Starthistle, yellow	–	1.5
Sweetpotato, wild*		1.5

Apply when most target plants are at or beyond the bloom stage of growth. Repeat applications will be required. Allow the plant to reach the specified stage of growth before retreatment.

Thistle, artichoke	1.5 – 2.3	2

Apply when target plants are at or beyond the bud stage of growth.

Thistle, Canada	1.5 – 2.3	1.5

Apply when target plants are at or beyond the bud stage of growth. Also see Hollow Stem Injection section of this label.

Timothy	1.5 – 2.3	1.5

Apply when most target plants have reached the boot-to-head stage of growth. When applied prior to the boot stage, less desirable control may be obtained. In the fall, apply before plants have turned brown.

Torpedograss*	3 – 3.75	0.75 – 1.5

Use the lower recommended rates under terrestrial conditions and the higher rates under partially submerged or a floating mat conditions. Repeat treatments will be required to maintain such control.

Trumpetcreeper*	1.5 – 2.3	1.5
Tules, common	–	1.5

Apply to target plants at or beyond the seedhead stage of growth. After application, visual symptoms will be slow to appear and may not occur for 3 or more weeks.

Vaseygrass	2.3 – 3.75	1.5
Velvetgrass	2.3 – 3.75	1.5
Waterhyacinth	2.5 – 3	0.75 – 1

Apply when target plants are at or beyond the early bloom stage of growth. After application, visual symptoms may require 3 or more weeks to appear with complete necrosis and decomposition usually occurring within 60 to 90 days. Use the higher recommended rates when more rapid visual effects are desired.

Waterlettuce	–	0.75 – 1

Use higher recommended rates where infestations are heavy. Best results are obtained from mid-summer through winter applications. Spring applications may require retreatment.

Waterprimrose	–	0.75

Apply to plants that are at or beyond the bloom stage of growth, but before fall color changes occur. Thorough coverage is necessary for best control.

Wheatgrass, western	1.5 – 2.3	0.75

Apply when most target plants have reached the boot-to-head stage of growth. When applied prior to the boot stage, less desirable control may be obtained. In the fall, apply before plants have turned brown.

*Partial control

Other perennials listed on this label – Apply 2.3 to 3.75 quarts of this product per acre as a broadcast spray or as a 0.75- to 1.5-percent solution with hand-held equipment. Apply when target plants are actively growing and most have reached early head or early bud stage of growth.

12.3 Woody Brush and Trees

Apply this product after full leaf expansion, unless otherwise directed. Use the higher rate for larger plants and/or dense areas of growth. On vines, use the higher rate for plants that have reached the woody stage of growth. Best results are obtained when application is made in late summer or fall after fruit formation. Apply when plants are actively growing. Thorough coverage of foliage is necessary for best results. Avoid application to drought-stressed plants.

In arid areas, best results are obtained when applications are made in the spring to early summer when brush species are at high moisture content and are flowering.

Ensure thorough coverage when using spray-to-wet treatments using hand-held equipment.

When using hand-held equipment for low-volume directed-spray spot treatments, apply a 4- to 8-percent solution of this product.

Symptoms may not appear prior to frost or senescence with fall treatments.

Allow 7 or more days after application before tillage, mowing or removal. Repeat treatments may be necessary to control plants regenerating from underground parts or seed. Some autumn colors on undesirable deciduous species are acceptable provided no major leaf drop has occurred. Reduced performance may result if fall treatments are made following a frost.

Weed Species	Broadcast Rate (QT/A)	Hand-Held Spray-To-Wet % Solution
Alder	2.3 – 3	0.75 – 1.2
Ash*	1.5 – 3.75	0.75 – 1.5
Aspen, quaking	1.5 – 2.3	0.75 – 1.2
Bearclover (Bearmat)*	1.5 – 3.75	0.75 – 1.5
Beech*	1.5 – 3.75	0.75 – 1.5
Birch	1.5	0.75
Blackberry	2.3 – 3	0.75 – 1.2
Blackgum	1.5 – 3.75	0.75 – 1.5
Bracken	1.5 – 3.75	0.75 – 1.5
Broom, French, Scotch	1.5 – 3.75	1.2 – 1.5
Buckwheat, California*	1.5 – 3	0.75 – 1.5
Cascara*	1.5 – 3.75	0.75 – 1.5
Castorbean	1.5 – 3.75	1.5

Also see Hollow Stem Injection section of this label.

Catsclaw*		1.2 – 1.5

For partial control, apply this product when at least 50 percent of the new leaves are fully developed.

Ceanothus*	1.5 – 3.75	0.75 – 1.5
Chamise*	1.5 – 3.75	0.75
Cherry; bitter, black, pin	1.5 – 3.75	1– 1.5
Cottonwood, eastern	1.5 – 3.75	0.75 – 1.5
Coyote brush	2.3 – 3	1.2 – 1.5
For control, apply when at least 50 percent of the new leaves are fully developed.		
Cypress, swamp, bald	1.5 – 3.75	0.75 – 1.5
Deerweed	1.5 – 3.75	0.75 – 1.5
Dewberry	2.3 – 3	0.75 – 1.2
Dogwood*	3 – 3.75	1 – 2
Elderberry	1.5	0.75
Elm*	1.5 – 3.75	0.75 – 1.5
Eucalyptus, bluegum	–	1.5
For control of eucalyptus resprouts, apply this product with hand-held equipment when resprouts are 6- to 12-feet tall. Ensure complete coverage.		
Gallberry	1.5 – 3.75	0.75 – 1.5
Gorse*	1.5 – 3.75	0.75 – 1.5
Hackberry, western	1.5 – 3.75	0.75 – 1.5
Hasardia*	1.5 – 3	0.75 – 1.5
Hawthorn	1.5 – 2.3	0.75 – 1.2
Hazel	1.5	0.75
Hickory*	3 – 3.75	1 – 2
Honeysuckle	2.3 – 3	0.75 – 1.2
Hornbeam, American*	1.5 – 3.75	0.75 – 1.5
Huckleberry	1.5 – 3.75	0.75 – 1.5
Ivy, poison	3 – 3.75	1.5
Kudzu	3	1.5
Locust, black*	1.5 – 3	0.75 – 1.5
Madrone resprouts*	–	1.5
Magnolia, sweetbay	1.5 – 3.75	0.75 – 1.5
Manzanita*	1.5 – 3.75	0.75 – 1.5
Maple, red	1 – 3.75	0.75 – 1.2
For control, apply as a 0.75- to 1.2-percent solution with hand-held equipment when leaves are fully developed. For partial control, apply 1 to 3.75 quarts of this product per acre as a broadcast spray.		
Maple, sugar	–	0.75 – 1.2
For control, apply as a 0.75- to 1.2-percent solution with hand-held equipment when at least 50 percent of the new leaves are fully developed.		
Maple, vine*	1.5 – 3.75	0.75 – 1.5
Monkey flower*	1.5 – 3	0.75 – 1.5
Oak; black, white*	1.5 – 3	0.75 – 1.5
Oak, northern pin	1.5 – 3	0.75 – 1.2
For control, apply when at least 50 percent of the new leaves are fully developed.		
Oak, poison	3 – 3.75	1.5
Repeat applications may be required to maintain control. Fall treatments must be applied before leaves lose green color.		
Oak, post	2.3 – 3	0.75 – 1.2
Oak, red	–	0.75 – 1.2
For control, apply as a 0.75- to 1.2-percent solution with hand-held equipment when at least 50 percent of the new leaves are fully developed.		
Oak, scrub*	1.5 – 3	0.75 – 1.5
Oak, southern red	1.5 – 3.75	1 – 1.5
Orange, Osage	1.5 – 3.75	0.75 – 1.5
Peppertree, Brazilian (Florida holly)*	1.5 – 3.75	1.5
Persimmon*	1.5 – 3.75	0.75 – 1.5
Pine	1.5 – 3.75	0.75 – 1.5
Poplar, yellow*	1.5 – 3.75	0.75 – 1.5
Prunus	1.5 – 3.75	1 – 1.5
Raspberry	2.3 – 3	0.75 – 1.2
Redbud, eastern	1.5 – 3.75	0.75 – 1.5
Redcedar, eastern	1.5 – 3.75	0.75 – 1.5
Rose, multiflora	1.5	0.75
Treatments should be made prior to leaf deterioration by leaf-feeding insects.		
Russian olive*	1.5 – 3.75	0.75 – 1.5
Sage, black	1.5 – 3	0.75
Sage, white*	1.5 – 3	0.75 – 1.5
Sagebrush, California	1.5 – 3	0.75
Salmonberry	1.5	0.75
Saltbush	–	1
Saltcedar	3 – 3.75	1 – 2
For partial control, apply a 1- to 2-percent solution of this product with hand-held equipment or 3 to 3.75 quarts per acre as a broadcast spray. For control, apply a 1- to 2-percent solution of this product mixed with 0.25-percent Arsenal with hand-held equipment. For control using broadcast applications, apply 1.5 quarts of this product in a tank-mix with 1 pint of Arsenal to plants less than 6 feet tall. To control saltcedar greater than 6 feet tall using broadcast applications, apply 3 quarts of this product in a tank-mix with 2 pints of Arsenal.		
Sassafras*	1.5 – 3.75	0.75 – 1.5
Sea Myrtle	–	1
Sourwood*	1.5 – 3.75	0.75 – 1.5
Sumac; laurel, poison, smooth, sugarbush, winged*	1.5 – 3	0.75 – 1.5
Sweetgum	1.5 – 2.3	0.75 – 1.5
Swordfern*	1.5 – 3.75	0.75 – 1.5
Tallowtree, Chinese	–	0.75
Tanoak resprouts*	–	1.5
Thimbleberry	1.5	0.75
Tobacco, tree*	1.5 – 3	0.75 – 1.5
Toyon*	–	1.5
Trumpetcreeper	1.5 – 2.3	0.75 – 1.2
Vine maple*	1.5 – 3.75	0.75 – 1.5
Virginia creeper	1.5 – 3.75	0.75 – 1.5
Waxmyrtle, southern*	1.5 – 3.75	1.5
Willow	2.3	0.75
Yerba Santa, California*	–	1.5

* Partial control

Other woody brush and trees listed in this label – For partial control, apply 1.5 to 3.75 quarts of this product per acre as a broadcast spray or as a 0.75- to 1.5-percent solution with hand-held equipment.

13.0 LIMIT OF WARRANTY AND LIABILITY

Monsanto Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes set forth in the Complete Directions for Use label booklet ("Directions") when used in accordance with those Directions under the conditions described therein. NO OTHER EXPRESS WARRANTY OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE OR MERCHANTABILITY IS MADE. This warranty is also subject to the conditions and limitations stated herein.

Buyer and all users shall promptly notify this Company of any claims whether based in contract, negligence, strict liability, other tort or otherwise.

To the fullest extent permitted by law, buyer and all users are responsible for all loss or damage from use or handling which results from conditions beyond the control of this Company, including, but not limited to, incompatibility with products other than those set forth in the Directions, application to or contact with desirable vegetation, unusual weather, weather conditions which are outside the range considered normal at the application site and for the time period when the product is applied, as well as weather conditions which are outside the application ranges set forth in the Directions, application in any manner not explicitly set forth in the Directions, moisture conditions outside the moisture range specified in the Directions, or the presence of products other than those set forth in the Directions in or on the soil, crop or treated vegetation.

This Company does not warrant any product reformulated or repackaged from this product except in accordance with this Company's stewardship requirements and with express written permission from this Company.

THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE LIMIT OF THE LIABILITY OF THIS COMPANY OR ANY OTHER SELLER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT (INCLUDING CLAIMS BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY, OTHER TORT OR OTHERWISE) SHALL BE THE PURCHASE PRICE PAID BY THE USER OR BUYER FOR THE QUANTITY OF THIS PRODUCT INVOLVED, OR, AT THE ELECTION OF THIS COMPANY OR ANY OTHER SELLER, THE REPLACEMENT OF SUCH QUANTITY, OR, IF NOT ACQUIRED BY PURCHASE, REPLACEMENT OF SUCH QUANTITY. TO THE FULLEST EXTENT PERMITTED BY LAW, IN NO EVENT SHALL THIS COMPANY OR ANY OTHER SELLER BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES.

Upon opening and using this product, buyer and all users are deemed to have accepted the terms of this LIMIT OF WARRANTY AND LIABILITY which may not be varied by any verbal or written agreement. If terms are not acceptable, return at once unopened.

Roundup Custom, Certainty, Outrider, Monsanto and Vine symbol are trademarks of Monsanto Technology LLC. All others are the property of their respective owners

No license granted under any non-U.S. patent(s).

EPA Reg. No. 524-343

In case of an emergency involving this product, or for medical assistance, Call Collect, day or night, (314) 694-4000.

MONSANTO

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St. Louis, Missouri, 63167 U.S.A.
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Bid Item #4

MONSANTO COMPANY

Safety Data Sheet
Commercial Product

1. PRODUCT AND COMPANY IDENTIFICATION

1.1. Product identifier

Roundup Custom[TM] for Aquatic & Terrestrial Use

1.1.1. Chemical name
Not applicable.

1.1.2. Synonyms
None.

1.1.3. EPA Reg. No.
524-343

1.2. Product use
Herbicide

1.3. Company
MONSANTO COMPANY, 800 N. Lindbergh Blvd., St. Louis, MO, 63167
Telephone: 800-332-3111, **Fax:** 314-694-5557
E-mail: safety.datasheet@monsanto.com

1.4. Emergency numbers
FOR CHEMICAL EMERGENCY, SPILL LEAK, FIRE, EXPOSURE, OR ACCIDENT Call CHEMTREC - Day or Night: 1-800-424-9300 toll free in the continental U.S., Puerto Rico, Canada, or Virgin Islands. For calls originating elsewhere: 703-527-3887 (collect calls accepted).
FOR MEDICAL EMERGENCY - Day or Night: +1 (314) 694-4000 (collect calls accepted).

2. HAZARDS IDENTIFICATION

2.1. Classification
OSHA Hazard Communication Standard, 29 CFR 1910.1200 (2012)
Not classified as hazardous.

2.2. Appearance and odour (colour/form/odour)
Colourless-Amber /Liquid, (viscous) / Odourless

2.3. OSHA Status
This product is not hazardous according to the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Refer to section 11 for toxicological and section 12 for environmental information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Active ingredient
Isopropylamine salt of N-(phosphonomethyl)glycine; {Isopropylamine salt of glyphosate}

Composition

COMPONENT	CAS No.	% by weight (approximate)
Isopropylamine salt of glyphosate	38641-94-0	53.8
Water	7732-18-5	46.2

4. FIRST AID MEASURES

Use personal protection recommended in section 8.

4.1. Description of first aid measures

4.1.1. Eye contact: If in eyes, hold eye open and rinse slowly and gently for 15-20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing. Call a poison control center or doctor for treatment advice.

4.1.2. Skin contact: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice. Wash clothes and clean shoes before re-use.

4.1.3. Inhalation: If inhaled, move person to fresh air. If person is not breathing, call emergency number or ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advice.

4.1.4. Ingestion: Call poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison center or doctor. Do not give anything by mouth to an unconscious person.

4.2. Most important symptoms and effects, both acute and delayed

4.2.1. Eye contact, short term: Not expected to produce significant adverse effects when recommended use instructions are followed.

4.2.2. Skin contact, short term: Not expected to produce significant adverse effects when recommended use instructions are followed.

4.2.3. Inhalation, short term: Not expected to produce significant adverse effects when recommended use instructions are followed.

4.2.4. Single ingestion: Not expected to produce significant adverse effects when recommended use instructions are followed.

4.3. Indication of any immediate medical attention and special treatment needed

4.3.1. Advice to doctors: This product is not an inhibitor of cholinesterase.

4.3.2. Antidote: Treatment with atropine and oximes is not indicated.

5. FIRE-FIGHTING MEASURES

5.1. Extinguishing media

5.1.1. Recommended: Water, foam, dry chemical, carbon dioxide (CO2)

5.2. Special hazards

5.2.1. Unusual fire and explosion hazards

None.
Minimise use of water to prevent environmental contamination.
Environmental precautions: see section 6.

5.2.2. Hazardous products of combustion

Carbon monoxide (CO), phosphorus oxides (PxOy), nitrogen oxides (NOx)

5.3. Fire fighting equipment: Self-contained breathing apparatus. Equipment should be thoroughly decontaminated after use.

5.4. Flash point

Does not flash.

6. ACCIDENTAL RELEASE MEASURES

6.1. Environmental precautions

SMALL QUANTITIES:
Low environmental hazard.
LARGE QUANTITIES:
Minimise spread.
Keep out of drains, sewers, ditches and water ways.

6.2. Methods for cleaning up

SMALL QUANTITIES:
Absorb only in non-combustible material.
Sweep, scoop or vacuum to remove.
LARGE QUANTITIES:
Absorb in earth, sand or absorbent material.
Dig up heavily contaminated soil.
Collect in containers for disposal.
Flush residues with small quantities of water.
Minimise use of water to prevent environmental contamination.
Refer to section 7 for types of containers.

Refer to section 13 for disposal of spilled material.
Use handling recommendations in Section 7 and personal protection recommendations in Section 8.

7. HANDLING AND STORAGE

Good industrial practice in housekeeping and personal hygiene should be followed.

7.1. Precautions for safe handling

Avoid contact with eyes, skin and clothing. When using do not eat, drink or smoke. Wash hands thoroughly after handling or contact. Wash contaminated clothing before re-use. Thoroughly clean equipment after use. Do not contaminate drains, sewers and water ways when disposing of equipment rinse water. Refer to section 13 of the safety data sheet for disposal of rinse water.

7.2. Conditions for safe storage

Minimum storage temperature: -15 °C
Maximum storage temperature: 50 °C
Compatible materials for storage: stainless steel, fibreglass, plastic
Incompatible materials for storage: galvanised steel, unlined mild steel, see section 10.
Keep out of reach of children.
Keep away from food, drink and animal feed.
Keep only in the original container.
Keep container tightly closed in a cool, well-ventilated place.
Partial crystallization may occur on prolonged storage below the minimum storage temperature.
If frozen, place in warm room and shake frequently to put back into solution.
Minimum shelf life: 5 years.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Airborne exposure limits

Components	Exposure Guidelines
Isopropylamine salt of glyphosate	No specific occupational exposure limit has been established.
Water	No specific occupational exposure limit has been established.

8.2. Engineering controls: No special requirement when used as recommended.

8.3. Recommendations for personal protective equipment

8.3.1. Eye protection: No special requirement when used as recommended.

8.3.2. Skin protection: No special requirement when used as recommended.

8.3.3. Respiratory protection: No special requirement when used as recommended.

When recommended, consult manufacturer of personal protective equipment for the appropriate type of equipment for a given application.

9. PHYSICAL AND CHEMICAL PROPERTIES

These physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specifications for the product.

Colour/colour range:	Colourless - Amber
Odour:	Odourless
Form:	Liquid, (viscous)
Physical form changes (melting, boiling, etc.):	
Melting point:	Not applicable.
Boiling point:	No data.
Flash point:	Does not flash.
Explosive properties:	No data.
Auto ignition temperature:	No data.
Self-accelerating decomposition temperature (SADT):	No data.
Oxidizing properties:	No data.
Specific gravity:	1.206 @ 20 °C / 15.6 °C
Vapour pressure:	No significant volatility; aqueous solution.
Vapour density:	No data.
Evaporation rate:	No data.
Dynamic viscosity:	No data.
Kinematic viscosity:	No data.
Density:	1.206 g/cm3 @ 20 °C
Solubility:	Water: Completely miscible.
pH:	4.6 - 4.8 @ 63 g/l
Partition coefficient:	log Pow: < 0.000 (active ingredient)

10. STABILITY AND REACTIVITY

10.1. Reactivity

Reacts with galvanised steel or unlined mild steel to produce hydrogen, a highly flammable gas that could explode.

10.2. Stability

Stable under normal conditions of handling and storage.

10.3. Possibility of hazardous reactions

Reacts with galvanised steel or unlined mild steel to produce hydrogen, a highly flammable gas that could explode.

10.4. Incompatible materials
galvanised steel;unlined mild steel;see section 10.;
Compatible materials for storage: see section 7.2.

10.5. Hazardous decomposition
Thermal decomposition: Hazardous products of combustion: see section 5.

11. TOXICOLOGICAL INFORMATION

This section is intended for use by toxicologists and other health professionals.

Likely routes of exposure: Skin contact, eye contact, inhalation

Potential health effects
Eye contact, short term: Not expected to produce significant adverse effects when recommended use instructions are followed.
Skin contact, short term: Not expected to produce significant adverse effects when recommended use instructions are followed.
Inhalation, short term: Not expected to produce significant adverse effects when recommended use instructions are followed.
Single ingestion: Not expected to produce significant adverse effects when recommended use instructions are followed.

Data obtained on product, similar products and on components are summarized below.

Isopropylamine salt of glyphosate (62%)

Data obtained on product and components are summarized below.
Acute oral toxicity
Rat, LD50 (limit test): > 5,000 mg/kg body weight
Practically non-toxic. No mortality.
Mouse, LD50 (limit test): > 5,000 mg/kg body weight
Practically non-toxic. No mortality.
Acute dermal toxicity
Rabbit, LD50 (limit test): > 5,000 mg/kg body weight
Practically non-toxic. No mortality.
Skin irritation
Rabbit, 6 animals, Draize test:
Days to heal: 3
Primary Irritation Index (PII): 0.0/8.0
Essentially non irritating.
Eye irritation
Rabbit, 6 animals, OECD 405 test:
Days to heal: 0
Essentially non irritating.
Acute inhalation toxicity
Rat, LC50, 4 hours, aerosol: > 4.24 mg/L
Practically non-toxic. No mortality. Maximum attainable concentration.
Skin sensitization
Guinea pig, 3-induction Buehler test:
Positive incidence: 0 %
Negative.

N-(phosphonomethyl)glycine; { glyphosate acid}

Genotoxicity
Not genotoxic.

Carcinogenicity
Not carcinogenic in rats or mice.

Reproductive/Developmental Toxicity
Developmental effects in rats and rabbits only in the presence of significant maternal toxicity.
Reproductive effects in rats only in the presence of significant maternal toxicity.

12. ECOLOGICAL INFORMATION

This section is intended for use by ecotoxicologists and other environmental specialists.

Data obtained on components are summarized below.

Isopropylamine salt of glyphosate (62%)

Data obtained on product and components are summarized below.

Aquatic toxicity, fish
Bluegill sunfish (Lepomis macrochirus):
Acute toxicity, 96 hours, static, LC50: > 1,000 mg/L
Practically non-toxic.
Rainbow trout (Oncorhynchus mykiss):
Acute toxicity, 96 hours, static, LC50: > 1,000 mg/L
Practically non-toxic.
Aquatic toxicity, invertebrates
Water flea (Daphnia magna):
Acute toxicity, 48 hours, static, EC50: 930 mg/L
Practically non-toxic.
Aquatic toxicity, algae/aquatic plants
Green algae (Scenedesmus subspicatus):
Acute toxicity, 72 hours, static, EbC50 (biomass): 72.9 mg/L
Slightly toxic.
Green algae (Scenedesmus subspicatus):
Acute toxicity, 72 hours, static, NOEC (growth rate): 26.4 mg/L
Soil organism toxicity, invertebrates
Earthworm (Eisenia foetida):
Acute toxicity, 14 days, LC50: > 5,000 mg/kg dry soil
Practically non-toxic.

N-(phosphonomethyl)glycine; { glyphosate acid}

Avian toxicity
Bobwhite quail (Colinus virginianus):
Dietary toxicity, 5 days, LC50: > 4,640 mg/kg diet
No more than slightly toxic.
Mallard duck (Anas platyrhynchos):
Dietary toxicity, 5 days, LC50: > 4,640 mg/kg diet
No more than slightly toxic.
Bobwhite quail (Colinus virginianus):
Acute oral toxicity, single dose, LD50: > 3,851 mg/kg body weight
Practically non-toxic.
Arthropod toxicity

Honey bee (Apis mellifera):
Oral, 48 hours, LD50: 100 µg/bee
Honey bee (Apis mellifera):
Contact, 48 hours, LD50: > 100 µg/bee
Practically non-toxic.

Bioaccumulation

Bluegill sunfish (Lepomis macrochirus):
Whole fish: BCF: < 1
No significant bioaccumulation is expected.

Dissipation

Soil, field:
Half life: 2 - 174 days
Koc: 884 - 60,000 L/kg
Adsorbs strongly to soil.
Water, aerobic:
Half life: < 7 days

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

13.1.1. Product

Not classified as hazardous waste by the Resource, Conservation and Recovery Act (RCRA), 40 CFR 261. Keep out of drains, sewers, ditches and water ways. Recycle if appropriate facilities/equipment available. Burn in proper incinerator. Follow all local/regional/national/international regulations.

13.1.2. Container

Dispose of as non hazardous industrial waste. See the individual container label for disposal information. Emptied containers retain vapour and product residue. Observe all labeled safeguards until container is cleaned, reconditioned or destroyed. Empty packaging completely. Triple or pressure rinse empty containers. Pour rinse water into spray tank. Do NOT contaminate water when disposing of rinse waters. Do NOT re-use containers. Store for collection by approved waste disposal service. Follow all local/regional/national/international regulations.

Use handling recommendations in Section 7 and personal protection recommendations in Section 8.

14. TRANSPORT INFORMATION

The data provided in this section is for information only. Please apply the appropriate regulations to properly classify your shipment for transportation.

14.1. US Dept. of Transportation (DOT) Hazardous Materials Regulations (49 CFR Parts 105-180)

Proper Shipping Name (Technical Name if required):	Not regulated for domestic ground transportation. ()

14.2. IMDG Code

Proper Shipping Name (Technical Name if required):	Not regulated for transport under IMO Regulations ()

14.3. IATA/ICAO

Proper Shipping Name (Technical Name if required):	Not regulated for transport under IATA/ICAO Regulations ()

15. REGULATORY INFORMATION

15.1. Environmental Protection Agency

15.1.1. TSCA Inventory

All components are on the US EPA's TSCA Inventory

15.1.2. SARA Title III Rules

Section 311/312 Hazard Categories: Not applicable.
Section 302 Extremely Hazardous Substances: Not applicable.
Section 313 Toxic Chemical(s): Not applicable.

15.1.3. CERCLA Reportable quantity

Not applicable.

15.1.4. Federal Insecticide, Fungicide, Rodenticide Act (FIFRA)

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

CAUTION!

Acute oral toxicity: FIFRA category IV.
Acute oral toxicity: FIFRA category IV.
Acute dermal toxicity: FIFRA category IV.
Acute inhalation toxicity: FIFRA category IV.
Skin irritation: FIFRA category IV.
Eye irritation: FIFRA category IV.

16. OTHER INFORMATION

The information given here is not necessarily exhaustive but is representative of relevant, reliable data.
Follow all local/regional/national/international regulations.
Please consult supplier if further information is needed.
For more information refer to product label.
Please consult Monsanto if further information is needed.
In this document the British spelling was applied.
® Registered trademark of Monsanto Company or its subsidiaries.

	Health	Flammability	Instability	Additional Markings
NFPA	0	1	1	

0 = Minimal hazard, 1 = Slight hazard, 2 = Moderate hazard, 3 = Severe hazard, 4 = Extreme hazard

Full denomination of most frequently used acronyms. BCF (Bioconcentration Factor), BOD (Biochemical Oxygen Demand), COD (Chemical Oxygen Demand), EC50 (50% effect concentration), ED50 (50% effect dose), I.M. (intramuscular), I.P. (intraperitoneal), I.V. (intravenous), Koc (Soil adsorption coefficient), LC50 (50% lethality concentration), LD50 (50% lethality dose), LDLo (Lower limit of lethal dosage), LEL (Lower Explosion Limit), LOAEC (Lowest Observed Adverse Effect Concentration), LOAEL (Lowest Observed Adverse Effect Level), LOEC (Lowest Observed Effect Concentration), LOEL (Lowest Observed Effect Level), MEL (Maximum Exposure limit), MTD (Maximum Tolerated Dose), NOAEC (No Observed Adverse Effect Concentration), NOAEL (No Observed Adverse Effect Level), NOEC (No Observed Effect Concentration), NOEL (No Observed Effect Level), OEL (Occupational Exposure Limit), PEL (Permissible Exposure Limit), PII (Primary Irritation Index), Pow (Partition coefficient n-octanol/water), S.C. (subcutaneous), STEL (Short-Term Exposure Limit), TLV-C (Threshold Limit Value-Ceiling), TLV-TWA (Threshold Limit Value - Time Weighted Average), UEL (Upper Explosion Limit)

OR MODIFY THE EPA-APPROVED PRODUCT LABELING (attached to and accompanying the product container). This MSDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course. Use, storage and disposal of pesticide products are regulated by the EPA under the authority of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) through the product labeling, and all necessary and appropriate precautionary, use, storage, and disposal information is set forth on that labeling. It is a violation of federal law to use a pesticide product in any manner not prescribed on the EPA-approved label.

Although the information and recommendations set forth herein (hereinafter "Information") are presented in good faith and believed to be correct as of the date hereof, MONSANTO Company or any of its subsidiaries makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for the purposes prior to use. In no event will MONSANTO Company or any of its subsidiaries be responsible for damages of any nature whatsoever resulting from the use of or reliance upon information. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO INFORMATION OR TO THE PRODUCT TO WHICH INFORMATION REFERS.

Bid Item #5

Reign LC

SALT

DEPOSITION AID
DRIFT CONTROL AGENT

Principal Functioning Agents:	
Polyvinyl polymer (polyacrylamide)	30%
Constituents ineffective as spray adjuvants	70%
TOTAL	100%

CA Reg. No. 34704-50048

KEEP OUT OF REACH OF CHILDREN

WARNING

Precautionary Statements: Causes eye irritation. Causes skin irritation. May be harmful if swallowed. Wash hands thoroughly after handling. Wear protective gloves and eye/face protection. May be harmful if inhaled. **Environmental Precautions:** Prevent further leakage or spillage if safe to do so. Do not contaminate water. Do not allow to enter drains, sewers, or watercourses.

Loveland PRODUCTS

NET CONTENTS: 1 QT (946 mL)

Manufactured for:
LOVELAND PRODUCTS, INC.
PO Box 1286 • Greeley, CO 80632-1286

0 21077 47340 5

G0814

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS & DOMESTIC ANIMALS
Personal Protective Equipment: Wear protective gloves and eye/face protection.

First Aid: If on Skin or Clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice. **If in Eyes:** Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice. **If Swallowed:** Call a poison control center or doctor immediately for treatment advice. Have a person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person. **If Inhaled:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.

FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT, CALL 1-866-944-8565.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
REIGN® LC is an effective, easy-to-use adjuvant for deposition improvement and drift retardation in spraying operations. REIGN LC is compatible with most water soluble and wettable powder pesticides, desiccants and cotton-defoliants when applied by aerial application or standard ground equipment.

REIGN LC Directions for Use - Suggested Use Rates

Pressure	Ground/Aerial rate / 100 gallons
Below 20 psi	1 to 2 ounces
Below 40 psi	1.5 to 3 ounces
Above 40 psi	2 to 4 ounces

Turf, Ornamental and Industrial Spraying: Use approximately 1 tablespoon of REIGN LC per 5 gallons of spray solution.
REIGN LC use precautions: The degree of drift hazard varies with the type of pesticide, application conditions and vegetation near the sprayed area. Consult your local agricultural advisor. Remember, pesticide drift is no accident. Common sense and sound application technology must be followed when spraying pesticides. REIGN LC will retard, but not totally eliminate, drift.
To avoid product degradation and equipment corrosion, do not use iron, copper, or aluminum containers or equipment. This material reacts slowly with iron, copper and aluminum, resulting in corrosion and product degradation. Do not store near oxidizing agents.
Environmental Hazards: Do not contaminate water when cleaning equipment or disposing of equipment washwaters.
THIS PRODUCT CAN BE USED IN THE FOLLOWING SETTINGS: AGRICULTURAL, AQUATIC, FORESTRY, INDUSTRIAL, MUNICIPAL, NON-CROPLAND, ORNAMENTAL, RIGHTS-OF-WAY AND TURF.

STORAGE AND DISPOSAL

STORAGE: Store in cool, dry place. Store in original container. Keep container tightly closed. Do not reuse empty container. **DISPOSAL:** Do not contaminate water, food or feed by storage or disposal. Dispose of contents/container on-site or at an approved waste disposal facility. Triple rinse (or equivalent) adding rinse water to spray tank. Offer container for recycling or dispose of container in sanitary landfill, or by other procedures approved by appropriate authorities. Recycling decontaminated containers is the best option of container disposal. The Agricultural Container Recycling Council (ACRC) operates the national recycling program. To contact your state and local ACRC recycler visit the ACRC web page at www.acrecycle.org.
For help with any spill, leak, fire or exposure involving this material, call day or night CHEMTREC 1-800-424-9300.

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

BEFORE BUYING OR USING THIS PRODUCT, read the Directions for Use and the following Conditions of Sale and Limitation of Warranty and Liability. By buying or using this product, the buyer or user accepts the following Conditions of Sale and Limitation of Warranty and Liability, which no employee or agent of LOVELAND PRODUCTS, INC. or the seller is authorized to vary. LOVELAND PRODUCTS, INC. warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, when the product is used in accordance with such Directions for Use under normal conditions of use. LOVELAND PRODUCTS, INC. MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THE BUYER'S OR USER'S EXCLUSIVE REMEDY FOR ANY INJURY, LOSS, OR DAMAGE RESULTING FROM THE HANDLING OR USE OF THIS PRODUCT SHALL BE LIMITED TO ONE OF THE FOLLOWING, AT THE ELECTION OF LOVELAND PRODUCTS, INC. OR THE SELLER: DIRECT DAMAGES NOT EXCEEDING THE PURCHASE PRICE OF THE PRODUCT OR REPLACEMENT OF THE PRODUCT. LOVELAND PRODUCTS, INC. AND THE SELLER SHALL NOT BE LIABLE TO THE BUYER OR USER OF THIS PRODUCT FOR ANY CONSEQUENTIAL, SPECIAL, OR INDIRECT DAMAGES, OR DAMAGES IN THE NATURE OF A PENALTY.

Bid Item #5

Loveland PRODUCTS

SAFETY DATA SHEET

REIGN® LC

SDS NUMBER: 1000013537-15-LPI **SDS REVISIONS: SEC. 2** **DATE OF ISSUE: 04/21/15** **SUPERSEDES: 09/08/14**

FOR CHEMICAL EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT, CALL CHEMTREC - DAY OR NIGHT 1-800-424-9300

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 PRODUCT IDENTIFIER:
TRADE NAME: **REIGN® LC**
1.2 RECOMMENDED USE: DEPOSITION AND DRIFT CONTROL AGENT
1.3 SUPPLIER DETAILS:
LOVELAND PRODUCTS, INC.
P.O. Box 1286 • Greeley, CO 80632-1286
1.4 24 Hour Emergency Phone: 1-800-424-9300 - **Medical Emergencies:** 1-866-944-8565 - **Product Information:** 1-888-574-2878 (LPI-CUST)
U.S. Coast Guard National Response Center: 1-800-424-8802

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to 29 CFR 1910.1200

Eye Damage/Irritation	Category 2B	H320
Skin Damage/Irritation	Category 2	H315

2.2 Label elements



Signal word: **WARNING**

Hazard Statements:
H320 – Causes eye irritation
H315 – Causes skin irritation.
H303 – May be harmful if swallowed
H333 – May be harmful if inhaled.

Precautionary Statement: (Prevention):
P264 – Wash hands, face, and other affected areas thoroughly after handling.
P280 – Wear protective gloves/protective clothing/eye protection face protection.

Precautionary Statement: (Response):
P302+P352 – IF ON SKIN: Wash with plenty of water for 15 to 20 minutes.
P332+P313 – If skin irritation occurs: Get medical advice/attention
P321 – Specific treatment (see First Aid information on the product label).
P362+P364 – Take off contaminated clothing and wash before reuse
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P337 + P313 – If eyes irritation persists: Get medical advice/attention

Precautionary Statement: (General):
P101 + P102 + P103 – If medical advice is needed, have product container or label available. Keep out of reach of children. Read label before use

2.3 Other hazards

None known

Potential environmental effects This product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have harmful or damaging effect on the environment.

Loveland PRODUCTS **SAFETY DATA SHEET** **REIGN® LC**

SDS NUMBER: 1000013537-15-LPI **SDS REVISIONS: SEC. 2** **DATE OF ISSUE: 04/21/15** **SUPERSEDES: 09/08/14**

3. COMPOSITION, INFORMATION ON INGREDIENTS

3.1 Substances

3.2 Mixtures

Classification according to 29 CFR 1910.1200

Chemical Name:	CAS No.	Concentration [%]
Proprietary blend of Polyacrylamide in water-in oil emulsion	Mixture	100.00

4. FIRST AID MEASURES

4.1 Description of First Aid Measures

General Advice: Get medical attention if symptoms occur.

Eye contact: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

Skin contact: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

Ingestion: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

Inhalation: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferable by mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advice.

4.2 Most Important Symptoms and Effects, Acute and Delayed

Symptoms: May be harmful if swallowed.

4.3 Immediate Medical Attention and Special Treatment

Treatment: Treat symptomatically. Symptoms may be delayed.

FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: **1-866-944-8565**

Take container, label or product name with you when seeking medical attention.

NOTES TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

5. FIRE FIGHTING MEASURES

5.1 EXTINGUISHING MEDIA:

Suitable Extinguishing Media: Water spray, dry chemical, foam, or carbon dioxide (CO_2).

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE:

Specific Hazards During Firefighting: During a fire, hazardous by-products can be released.

5.3 SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS

Special Protective Equipment for Firefighters: Self-contained breathing apparatus and full protective gear should be worn in fighting large fires involving chemicals. Use water spray to keep fire exposed containers cool. Keep people away. Isolate fire and deny unnecessary entry.

6. ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Personal Precautions: Avoid inhalation of vapors and spray mist and contact with skin and eyes. Ensure adequate ventilation. Wear suitable protective clothing.

6.2 ENVIRONMENTAL PRECAUTIONS

Environmental Precautions: Prevent further leakage or spillage if safe to do so. Do not contaminate water. Do not allow to enter drains, sewers, or watercourses.

6.3 METHODS AND MATERIALS FOR CONTAINMENT AND CLEAN-UP

Methods for Clean-Up: Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. After removal flush contaminated area thoroughly with water.
Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to Remove residual contamination.
Never return spills to original containers for re-use.

7. HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING:

Advice on Safe Handling: Avoid inhalation of mists, vapors / spray and contact with eyes, skin and clothing. Do not breathe mists or vapor. Wear personal protective equipment. Do not use in areas without adequate ventilation. Avoid prolonged exposure. Wash thoroughly after handling. Do not empty into drains. Handle and open container with care. Use care in handling/storage. Wash before eating, drinking and/or smoking.

7.2 CONDITIONS FOR SAFE STORAGE:

Requirements for Storage Areas and Containers: Store in cool, dry place. Store in original container. Keep tightly closed. Do not reuse empty container. Product will become thicker at cold temperatures but effectiveness will not be affected. Warm product before use. Do not contaminate water, food or feed by storage or disposal.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 CONTROL PARAMETERS:

OCCUPATIONAL EXPOSURE LIMITS

U.S. Workplace Exposure Level (ACGIH) Guides

Components	Type	Value
No listings	TWA	

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Specimen
No listings		

8.2 EXPOSURE CONTROLS:

Engineering Measures

Provide adequate general and local exhaust ventilation. Observe Occupational Exposure Limits and minimize the risk of inhalation of vapors and spray mists. Provide eyewash station and safety shower.

Individual Protection Measures:

Eye / Face Protection: Goggles or shielded safety glasses are recommended.

Skin Protection: Coveralls worn over long-sleeved shirt and long pants. Chemical-resistant gloves. Chemical-resistant footwear plus socks.

Respiratory Protection: In case of inadequate ventilation or risk of inhalation of mists or vapors, use suitable respiratory equipment such as MSHA/NIOSH TC-21C or NIOSH approved respirator with N, R, P or HE filter. Wear respiratory protection during operations where spraying or misting occurs. If respirators are used, a program should be in place to assure compliance with 29 CFR 1910.134, the OSHA Respiratory Protection standard. Wear air supplied respiratory protection if exposure concentrations are unknown.

Loveland PRODUCTS **SAFETY DATA SHEET** **REIGN® LC**

SDS NUMBER: 1000013537-15-LPI **SDS REVISIONS: SEC. 2** **DATE OF ISSUE: 04/21/15** **SUPERSEDES: 09/08/14**

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 APPEARANCE : Liquid emulsion
ODOR: Sulfur dioxide.
ODOR THRESHOLD: No data available.
COLOR: White.
pH: 4 – 6 (aqueous solution)
MELTING POINT / FREEZING POINT: No data available
BOILING POINT: >200°F (>93.3°C)
FLASH POINT: >200°F (>93.3°C) / TCC
FLAMMABILILITY (solid, gas): No data available.
UPPER / LOWER FLAMMABILITY OR EXPLOSIVE LIMITS: No data available.
VAPOR PRESSURE: No data available.
SOLUBILITY: Soluble
PERCENT VOLATILE (by volume): No data available
PARTITION CO-EFFICIENT, n-OCTANOL / WATER: No data available.
AUTO-IGNITION TEMPERATURE: No data available.
DECOMPOSITION TEMPERATURE: No data available
VISCOSITY, kinematic (104°F): >20.5 mm^2/sec
SPECIFIC GRAVITY (Water = 1): 1.000 g/ml
DENSITY: 8.34 lbs./gal / 1.00 kg/L

Note: These physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specification items.

10. STABILITY AND REACTIVITY

10.1 REACTIVITY
Stable
10.2 CHEMICAL STABILITY
Stable under normal temperature conditions
10.3 POSSIBILITY OF HAZARDOUS REACTIONS
No reactions known under normal use conditions. Will not polymerize.
10.4 CONDITIONS TO AVOID
Avoid strong oxidizing materials.
10.5 INCOMPATIBILE MATERIALS
Strong oxidizers.
10.6 HAZARDOUS DECOMPOSITION PRODUCTS
Oxides of carbon, oxides of nitrogen, and ammonia.

11. TOXICOLOGICAL INFORMATION

11.1 LIKELY ROUTES OF EXPOSURE
Eye contact. Inhalation. Skin contact.
LC_{50} (rat): No data available
LD_{50} Oral (male rat): No data available
LD_{50} Dermal (rabbit): No data available
Acute Toxicity Estimates: No data available
Skin Irritation (rabbit): No data available.
Eye Irritation (rabbit): No data available
Specific Target Organ Toxicity: Single exposure: No data available.
Aspiration: No data available
Skin Sensitization (guinea pig): Not a sensitizer
Carcinogenicity: No data available
Germ Cell Mutagenicity: No data available
Interactive Effects: None known

12. ECOLOGICAL INFORMATION

12.1 ECOTOXICITY

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment. This product is not intended for use in aquatic settings.

Ecotoxicological Data

	Species	Test Results
Product (information from a similar product)		
96-hour LC_{50}	Branchydanio rerio (zebra fish)	>100 mg/L
96-hour LC_{50}	Oncorhynchus mykiss (rainbow trout)	>100 mg/L
48-hour EC_{50}	Daphnia Magna	>100 mg/L
48-hour EC_{50}	Ceridaphnia dubia	>100 mg/L

Drift or runoff may adversely affect non-target plants.
Do not apply directly to water.
Do not contaminate water when disposing of equipment wash water.
Do not apply when weather conditions favor drift from target area.

12.2 PERSISTENCE AND DEGRADABILITY

Biodegradability: No data available

12.3 BIOACCUMULATIVE POTENTIAL

Bioaccumulation: No data available.

12.4 MOBILITY IN SOIL

No data available.

12.5 OTHER ADVERSE EFFECTS

Assessment: No data available.

13. DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS

P501 - Wastes may be disposed of on site or at an approved waste disposal facility. Triple rinse (or equivalent), adding rinse water to spray tank. Offer container for recycling or dispose of in a sanitary landfill or by other procedures approved by appropriate authorities. Recycling decontaminated containers is the best option of container disposal. The Agricultural Container Recycling Council (ACRC) operates the national recycling program. To contact your state and local ACRC recycler visit the ACRC web page at http://www.acrecycle.org/. Do not contaminate water, food or feed by storage or disposal.

14. TRANSPORT INFORMATION

14.1 LAND TRANSPORT

DOT Shipping Description: NOT REGULATED.
U.S. Surface Freight Classification: ADHESIVES, ADJUVANTS, SPREADERS OR STICKERS (NMFC 4610; CLASS 60)

15. REGULATORY INFORMATION

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS

NFPA & HMIS Hazard Ratings:

NFPA		HMIS	
1 Health	0 Least	1 Health	
0 Flammability	1 Slight	0 Flammability	
0 Instability	2 Moderate	0 Reactivity	
	3 High	B PPE	
	4 Severe		

SARA Hazard Notification/Reporting
SARA Title III Hazard Category:

Immediate	Y	Fire	N	Sudden Release of Pressure	N
Delayed	N	Reactive	N		

Reportable Quantity (RQ) under U.S. CERCLA: Acrylamide (CAS: 79-06-1) 5,000 lbs. (<0.05% in product)
SARA, Title III, Section 313: Acrylamide (CAS: 79-06-1)
RCRA Waste Code: U007 (Acrylamide)
CA Proposition 65: WARNING: This product contains chemicals known to the State of California to cause cancer or birth defects or other reproductive harm.

16. OTHER INFORMATION

SDS STATUS: Section 2 revised.
PREPARED BY: Registrations and Regulatory Affairs **REVIEWED BY:** Environmental Health and Safety

CA REG. NO.: 34704-50048

Disclaimer and Limitation of Liability: This data sheet was developed from information on the constituent materials identified herein and does not relate to the use of such materials in combination with any other material or process. No warranty is expressed or implied with respect to the completeness or ongoing accuracy of the information contained in this data sheet, and LOVELAND PRODUCTS, INC. disclaims all liability for reliance on such information. This data sheet is not a guarantee of safety. Users are responsible for ensuring that they have all current information necessary to safely use the product described by this data sheet for their specific purpose.

Bid Item #6

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Causes moderate eye irritation. Harmful if swallowed, inhaled, or absorbed through skin. Avoid contact with skin, eyes or clothing. Avoid breathing spray mist. Wear long sleeved shirt, long pants, shoes plus socks and chemical resistant gloves made of any waterproof material when mixing or handling concentrate. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

ENVIRONMENTAL HAZARDS

Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

FIRST AID

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. Call a Poison Control Center or doctor for treatment advice.

IF ON SKIN: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a Poison Control Center or doctor for treatment advice.

IF SWALLOWED: Call a Poison Control Center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to by a Poison Control Center or doctor. Do not give anything to an unconscious person.

IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance then give artificial respiration, preferably mouth-to-mouth if possible. Call a Poison Control Center or doctor for further treatment advice.

Have the product container or label with you when calling a Poison Control Center or doctor or going for treatment.

CONDITIONS OF SALE AND WARRANTY

Manufacturer warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated when used in accordance with the use directions under normal conditions. Manufacturer neither makes, nor authorizes any agent or representative to make, any other warranties, express or implied, including fitness or merchantability.

The directions for use of this product are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as timing and method of application, weather and crop conditions, presence of other materials, or other influencing factors, all of which are beyond the control of Manufacturer and Seller. Buyer and user acknowledge and assume all risks and liability resulting from the handling, storage and use of this material not in strict accordance with directions given herewith. In no case shall Manufacturer or the Seller be liable for consequential, special, indirect, or incidental damages or losses resulting from the handling or use of this product. The foregoing is a condition of sale by Manufacturer and is accepted as such by the Buyer.

TARGET™

PRO-SPREADER ACTIVATOR

NONIONIC SURFACTANT
FOR TERRESTRIAL / AQUATIC USE SITES

PRINCIPAL FUNCTIONING AGENTS:

Alkyl phenol ethoxylate, Isopropanol, and Fatty acids	90%
CONSTITUENTS INEFFECTIVE AS SPRAY ADJUVANT:	10%
TOTAL:	100%

CA Reg. No. 1050775-50022-AA

KEEP OUT OF REACH OF CHILDREN

CAUTION

See side panel for additional Precautionary Statements

NET CONTENTS: 5 GALLONS / 18.9 LITERS

Distributed by

TARGET SPECIALTY PRODUCTS, INC.

Manufactured by
CREATIVE MARKETING & RESEARCH, INC.
P.O. Box 35000 • Fresno, CA 93745-5000

TM – Trademark of Target Specialty Products, Inc.

DIRECTIONS FOR USE

PRO-SPREADER ACTIVATOR is used to give optimum wetting and spreading of insecticides, miticides, fungicides, herbicides and growth regulating hormones. PRO-SPREADER ACTIVATOR may be used on agricultural, forestry, turf and ornamental, industrial, structural and non-cropland sites.

PRO-SPREADER ACTIVATOR is formulated from materials which do not tend to burn foliage or leave harmful residues. Use of correct quantity for smooth wetting reduces the possibility of spot injury from large pesticide droplets.

Read and follow the precautions, restrictions and recommendations on the labels of pesticides used with PRO-SPREADER ACTIVATOR. Use according to the most restrictive label directions for each product in any tank mix.

COMPATIBILITY: PRO-SPREADER ACTIVATOR is compatible with most pesticides. However, if the desired combination has not been previously used, a compatibility test is recommended.

MIXING: Shake well before using. Fill spray tank ½ full of water and begin agitation. Add the recommended amount of PRO-SPREADER ACTIVATOR. Add products as directed by label or in the following sequence and continue filling tank: (1) Dry flowables or water dispersing granules, (2) Wettable powders, (3) Flowables, (4) Solutions, (5) Emulsifiable concentrates. Continue agitation until spray solution is completely mixed. Continuous agitation of finished spray is recommended. If spray solution has been allowed to stand, thoroughly agitate and remix before application.

RECOMMENDATIONS: Proper quantity to use will vary with the type of equipment, water volume per acre, temperature, type of foliage to be wet, and the pesticide formulation. Also, higher rates than those below may be used if recommended by pesticide labeling. Follow pesticide label directions. However, do not add this product at a rate which exceeds 5% of the finished spray volume.

AIR or GROUND: Use 4-32 fl.oz. per 100 gallons of finished spray solution. For improved efficacy, use at least 4 fl.oz. per acre when finished spray volume is less than 20 gallons per acre. For backpack or hand held sprayers, use ½ fl. oz. per gallon of finished spray solution.

FOR USE WITH AQUATIC HERBICIDES: Use 1-2 quarts per 100 gallons of finished spray solution. Consult the pesticide label for proper rates and volumes.

STORAGE AND DISPOSAL

DO NOT CONTAMINATE WATER, FOOD OR FEED BY STORAGE OR DISPOSAL.

STORAGE: Store in original container away from children, animals, foods, feeds and seeds. Handle in accordance with Precautionary Statements. In the event of spillage or leakage, soak up the material with absorbent clay, sand, sawdust or other absorbent material. Scrape up and dispose in accordance with Product Disposal.
PRODUCT DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.
CONTAINER DISPOSAL: Triple rinse (or equivalent) during mixing and loading. Recycling decontaminated containers is the best option of container disposal. The Agricultural Container Recycling Council (ACRC) operates the national recycling program. To contact your state or local ACRC recycler, visit the ACRC web page at www.acrecycle.org. Decontaminated containers may also be disposed of in a sanitary landfill.

0189/0704(05)

771

Bid Item #6

MATERIAL SAFETY DATA SHEET

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Chemical Product
TARGET PRO-SPREADER ACTIVATOR
CA Reg. No.: 1050775-50022
Common Name: Surfactant (Adjuvant).
Chemical Description: Liquid mixture of nonionic surfactants.
TSCA/CAS No.: This product is a mixture — there is no specific CAS number.

Marketed By:
Target Specialty Products, Inc.
15415 Marquardt Avenue
Santa Fe Springs, CA 90670-5711

Emergency Phone Numbers
Emergency Telephone: (310) 773-8912
CHEMTREC (24-Hour Emergency Number): (800) 424-9300
EPA National Response Center: (800) 424-8802

SECTION 2. HAZARDOUS INGREDIENTS

CHEMICAL	CAS NO.	%	TLV OR PEL	RQ (lbs)
Alkyl phenol ethoxylate	9016-45-9	66.0	N.A.*	N.A.
Isopropyl alcohol	67-63-0	19.0	400 ppm (PEL)	N.A.

* N.A. - Not Available.

SECTION 3. EMERGENCY/HAZARDS OVERVIEW

Viscous, orange liquid. Avoid contact with strong alkalies at high temperatures, acids, oxidizing agents, or materials reactive with hydroxyl compounds. Burning may result in formation of carbon oxides. Contain any liquid runoff. Not D.O.T. regulated.

HEALTH: 2 REACTIVITY: 0 FLAMMABILITY: 1 ENVIRONMENT: 1

(0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme)

SECTION 4. FIRST AID

Eyes: Immediately flush eyes with plenty of water and get medical attention.
Skin: Immediately wash skin with plenty of soap and water while removing contaminated clothing and shoes. If irritation persists, seek medical attention.
Ingestion: Call a physician or Poison Control Center. Drink 1 or 2 glasses of water. If so advised by a physician or Poison Control Center, induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.
Inhalation: Remove victim to fresh air.

SECTION 5. FIRE AND EXPLOSION HAZARDS

Flash Point:	101°F.
Test Method:	ASTM-D93
LEL Flammable Limits:	Not pertinent.
UEL Flammable Limits:	Not pertinent.
Autoignition Temperature:	Not pertinent.
Flammability Classification:	None.
Known Hazardous Products of Combustion:	None.
Properties that Initiate/Contribute to Intensity of Fire:	None.
Potential For Dust Explosion:	None.
Reactions that Release Flammable Gases or Vapors:	Not known.
Potential For Release of Flammable Vapors:	None.
Unusual Fire & Explosion Hazards:	Burning may result in formation of carbon oxides.
Extinguishing Media:	Foam, CO_2, dry chemical, water.
Special Firefighting Procedures:	Wear positive pressure, self-contained breathing apparatus and goggles. Avoid smoke inhalation. Contain any liquid runoff.

SECTION 6. SPILLS AND LEAKS

Containment:	Prevent product spillage from entering drinking water supplies or streams.
Clean Up:	Collect liquid or absorb onto absorbent material and package for disposal.
Evacuation:	Not necessary.

SECTION 7. STORAGE AND HANDLING

Storage:	Store in plastic or stainless steel container in a cool, well-ventilated, dry place at temperatures above 40°F. Do not store near food or feeds. Do not stack pallets more than two (2) high.
Transfer Equipment:	Transfer product using chemical-resistant plastic or stainless steel tanks, pumps, valves, etc.
Work/Hygienic Practices:	Harmful if swallowed. May cause irritation of eyes, nose, throat and skin. Avoid contact with eyes, skin and clothing. Avoid breathing spray mist. Remove contaminated clothing and wash thoroughly before reuse. Do not contaminate feed and foodstuffs.

SECTION 8. PERSONAL PROTECTIVE EQUIPMENT

Eyes:	Chemical dust/splash goggles or full-face shield to prevent eye contact. As a general rule, do not wear contact lenses when handling.
Skin:	Impervious gloves and clothes.
Respiratory:	Not normally needed. If use generates an aerosol mist or respiratory irritation, use NIOSH-approved dust/mist respirator (such as 3M #8710).
Ventilation:	Recommended but no TLV established.

SECTION 9. PHYSICAL AND CHEMICAL DATA

Appearance:	Viscous, orange liquid.
Odor:	Mild alcohol odor.
pH:	6.8
Vapor Pressure:	0.75 (psi)
Vapor Density (Air = 1):	> 1.0
Boiling Point:	95°C (203°F)
Freezing Point:	Not available.
Water Solubility:	Miscible.
Density:	8.76 lbs./gal.
Evaporation Rate:	Not available.
Viscosity:	Not available.
% Volatile:	Not available.
Octanol/Water Partition Coefficient:	Not available.
Saturated Vapor Concentration:	Not available.

SECTION 10. STABILITY AND REACTIVITY

Stability:	Stable.
Conditions To Avoid:	Avoid contact with strong alkalies at high temperatures, acids, oxidizing agents, or materials reactive with hydroxyl compounds.
Incompatibility:	Not available.
Hazardous Decomposition Products:	Burning may result in formation of carbon oxides.
Hazardous Polymerization:	Will not occur.

SECTION 11. POTENTIAL HEALTH EFFECTS

Acute Effects:

Eyes:	Slight to moderate irritant. Vapors or mist may cause redness and burning.
Skin:	Slight irritant, especially from prolonged exposure. Causes redness, drying and cracking. LD_{50} (Rabbit) > 2000 kg/mg.
Ingestion:	May cause abdominal discomfort, nausea, and diarrhea. LD_{50} (Rat) > 3300 kg/mg.
Inhalation:	None expected but aerosol mist may cause mild irritation of nasal mucous membranes.
Subchronic Effects:	None known.
Chronic Effects:	None known.

SECTION 12. ECOLOGICAL INFORMATION

Algal/Lemna Growth Inhibition:	Not known.
Toxicity to Fish and Invertebrates:	Rainbow trout LC_{50} = 3.3 mg/l, NOEL < 1.0 mg/L; Bluegill LC_{50} = 6.0 mg/L, NOEL = 1.8 mg/l; Dahpnia magna LC_{50} = 7.3 mg/l, NOEL = 3.2 mg/l.
Toxicity to Plants:	Not known.
Toxicity in Birds:	Not known.

SECTION 13. DISPOSAL

Do not contaminate lakes, streams, ponds, estuaries, oceans or other waters by discharge of waste effluents or equipment washwaters. Dispose of waste effluents in accordance with state and local regulations. Also, chemical additions or other alterations of this product may invalidate any disposal information in this MSDS. Therefore, consult local waste regulators for proper disposal.

SECTION 14. TRANSPORTATION

D.O.T. PROPER SHIPPING DESCRIPTION:	Not D.O.T. Regulated.
OTHER SHIPPING INFORMATION:	Adhesives, Adjuvants, Spreaders or Stickers, Liquid. NMFC Item 4612, LTL Class 60

SECTION 15. REGULATORY INFORMATION

CERCLA: None.
SARA TITLE III, Section 313 Toxic Chemicals: Isopropyl alcohol (9.0%).
PROPOSITION 65 (CA): None.

SECTION 16. OTHER

All information appearing in this document was based on data provided by third party sources and was compiled to comply with the Federal Hazard Communication Standard and the California Hazardous Substances Information and Training Act. The information is believed to be accurate as of the preparation date, but is not warranted as being the final authority in the use of this product. This information does not purport to be legal or medical advice.

Bid Item #9

AllPro® Vector GROUP

envion

For use only by federal, state, tribal, or local government officials responsible for public health or vector control, or by persons certified in the appropriate category or otherwise authorized by the state or tribal lead pesticide regulatory agency to perform adult mosquito control applications, or by persons under their direct supervision.

ACTIVE INGREDIENTS:	
Permethrin: CAS [52645-53-1]	30.0%
Piperonyl Butoxide Technical CAS [51-03-6]	30.0%
OTHER INGREDIENTS:	40.0%
Total	100.0%

Contains 2.52 lbs. a.i. Permethrin/gallon and 2.52 lbs. a.i. Piperonyl Butoxide/gallon

KEEP OUT OF REACH OF CHILDREN

CAUTION

Si usted no entienda la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail).

FIRST AID	
IF SWALLOWED:	Immediately call a Poison Control Center or doctor. Do not induce vomiting unless told to by a poison control center or doctor. Have person sip a glass of water if able to swallow. Do not give anything by mouth to an unconscious person.
IF ON SKIN OR CLOTHING:	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.

IMPORTANT: Have this product container or label with you when calling a poison control center or doctor or when going for treatment. You may also call 1-800-858-7378 for emergency medical treatment advice.
NOTE TO PHYSICIAN: Contains petroleum distillate – vomiting may cause aspiration hazard.

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Harmful if swallowed or absorbed through the skin. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Remove contaminated clothing and wash before reuse.

ENVIRONMENTAL HAZARDS

This product is extremely toxic to fish and aquatic invertebrates. Runoff from treated areas or deposition of spray droplets into a body of water may be hazardous to fish and aquatic invertebrates. Do not apply over bodies of water (lakes, rivers, permanent streams, natural ponds, commercial fish ponds, swamps, marshes or estuaries), except when necessary to target areas where adult mosquitoes are present, and weather conditions will facilitate movement of applied material away from the water in order to minimize incidental deposition into the water body. Do not contaminate bodies of water when disposing of equipment rinsate or washwaters.
Bee Warning: This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift on blooming crops or weeds while bees are actively visiting the treatment areas, except when applications are made to prevent or control a threat to public and/or animal health determined by a state, tribal or local health or vector control agency on the basis of documented evidence of disease causing agents in vector mosquitoes or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort.

PHYSICAL AND CHEMICAL HAZARDS

Combustible. Do not use, pour, spill, or store near heat or open flame.

A Synergized Permethrin Formulation.

- For Effective Control of Adult Mosquitoes (including organophosphate resistant mosquitoes), Midges (Biting and Non-Biting) and Blackflies.
- For ULV, Thermal and Barrier Applications using Ground and Aerial Equipment for control of Adult Mosquitoes and other biting flies.
- Formulation Allows Dilution with Water or Oil.
- May be Applied Undiluted.
- For surface and barrier applications using handheld equipment.
- Quick Knockdown and Effective Control of Target Insects.
- For ULV applications at rates up to 0.007 lbs. a.i. per acre.
- For barrier application at rates up to 0.1 lbs. a.i. per acre.
- Compatible with injector mixing systems or other insecticide mixing systems.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Note: Before making the first application in a season, it is advisable to consult with the state or tribal agency with primary responsibility for pesticide regulation to determine if other regulatory requirements exist.

HOW TO APPLY AND WHERE TO USE

Envion is designed for application as an Ultra-Low Volume (ULV) or thermal aerosol to control adult mosquitoes and flies of nuisance, public health or disease vector importance in areas such as but not limited to: residential areas, industrial areas, commercial areas, urban areas, parks, campgrounds, woodlands, athletic fields, golf courses, playgrounds, recreational areas, overgrown waste areas, roadsides, and other areas where adult mosquitoes and flies may be found.

Envion is recommended for application with ULV cold aerosol generators, thermal aerosol generators, mist-blowers, backpack sprayers, or handheld sprayers. Mist-blowers, backpack sprayers, handheld sprayers and low-pressure hand sprayers may be used for barrier or surface applications.

FOR BEST RESULTS treat when mosquitoes or insects are most active and weather conditions are conducive to keeping the fog near the ground e.g. cool temperatures, and consistent wind speeds are not greater than 10 m.p.h. Applications during the cool hours of night or early morning are usually preferable. Apply this product only when wind speed is greater than 1 mph.

Do not retreat the same site more than once in 12 hours. Do not apply more than 0.18lbs of permethrin per acre per year to any site. More frequent treatments may be made to prevent or control a threat to public and/or animal health determined by a state, tribal or local health or vector control agency on the basis of documented evidence of disease causing agents in vector mosquitoes or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort.

Envion can be applied over specific growing crops and range grasses prior to harvest for the control of adult mosquitoes and biting flies within or adjacent to these areas. Application can only be made where the following crops are present:

Alfalfa	Corn, grain	Onions, dry bulb
Almonds	(field and pop)	Peaches
Apples	Corn, stover	Pears
Artichoke, globe	Corn, sweet kernel+cob	Peppers, bell
Asparagus	with husks removed	Pistachios
Avocados	Eggplant	Potato
Broccoli	Filberts	Range Grasses
Brussels sprouts	Garlic	Soybeans
Cabbage	Horseradish	Spinach
Cauliflower	Kiwifruit	Tomatoes
Celery	Leafy Vegetables	Vegetables,
Cherries	(except Brassica)	cucurbit
Corn, forage	Lettuce, head	Walnuts
Corn, fodder	Mushrooms	Watercress

Do not allow spray treatment to drift on cropland (other than crops listed) or water supplies. In treatment of corrals, feedlots, animal confinements/houses, swine lots and zoos, cover any exposed drinking water, drinking fountains and animal feed before application.

Envion provides effective control of adult mosquitoes, black flies, gnats, biting and non-biting midges, stable flies, horse flies, deer flies, sheep flies, horn and heel flies, and nuisance flying insects such as houseflies.

Air temperatures should be greater than 50°F when conducting all types of applications.

GROUND APPLICATION

Vehicle-Mounted ULV Cold Aerosol Generators (Cold Fog): Apply through non-thermal ULV application equipment and base all acreage calculations on the equipment manufacturer's recommended swath width. Spray equipment must be adjusted so the volume median diameter or mass median diameter is less than 30 microns (Dv 0.5 < 30μm) and that 90% of the spray is contained in droplets smaller than 48 microns (Dv 0.9 < 48μm). Directions from the equipment manufacturer or vendor, pesticide registrant or a test facility using a laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra. Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rates(s) are properly calibrated. Apply at a rate not to exceed 0.007 pounds of permethrin per acre. An optimum swath is created when **Envion** is applied from a truck being driven perpendicular to the wind direction. Direct the spray head of the equipment to ensure an optimum distribution of the spray cloud throughout the area. For best results, apply when insects are most active and meteorological conditions are conducive to keeping the spray cloud near the ground. An inversion of air temperatures and a light breeze of approximately 1 to 3 mph is preferable. During applications consistent ground wind speeds should not exceed 10 MPH. Application of this product during cooler hours of the night or early morning is recommended.

Envion may be applied through all ULV Cold Aerosol Generators, or other similar equipment designed for non-thermal ULV aerosol applications. The desired application rate may be obtained from the chart below or by altering the dilution rate of **Envion**, the flow rate of the insecticide from the application equipment and the vehicle speed. Some examples are provided in the following chart. When an alternate rate is required, adjust the flow rate accordingly, provided the droplet size and spectrum remain within the label specifications.

FLOW RATE (Fluid Ounces Per Minute)						
Dilutions Based on a 15 Gallon Tank*						
Application Rate (Pounds of Permethrin a.i./Acre)	Vehicle Speed (MPH)	Undiluted	Diluted 1:4	Diluted 1:5	Diluted 1:6.5	Diluted 1:9
0.0015	10	0.46	2.32	2.77	3.50	4.7
	15	0.70	3.47	4.15	5.20	7.0
	20	0.93	4.64	5.60	7.00	9.3
0.00175	10	0.55	2.70	3.24	4.05	5.4
	15	0.82	4.05	4.84	6.07	8.1
	20	1.09	5.40	6.48	8.10	10.8
0.0035	10	1.09	5.40	6.48	8.1	10.8
	15	1.65	8.10	9.68	12.1	16.1
	20	2.19	10.8	12.9	16.1	21.5
0.007	10	2.19	10.7	12.9	16.1	21.5
	15	3.28	16.1	19.4	24.2	
	20	4.38	21.4	25.8		

***Dilution Instructions:** Fill tank with appropriate amount of water for the desired dilution, then add **Envion** and mix well. The use of metering pumps, injector systems or other mixing systems is optional. Note: When using oil as a diluent agitate well before use.

Where dense vegetation is present, use higher rates of application and/or a slower speed for best results. All applications should be conducted when temperatures are greater than 50° F.

BACKPACK OR HANDHELD SPRAYER APPLICATION: Apply through non-thermal ULV application equipment and base acreage calculations on a 300-foot swath. To apply undiluted at 0.007 pounds of permethrin per acre adjust equipment to an output rate of 0.86 ounces per minute and walk at 4 mph. To apply 0.0035 pounds of permethrin per acre, dilute 1 part **Envion** with 6 parts of diluent and apply at a rate of 3 ounces per minute and walk at 4 mph.

THERMAL AEROSOL APPLICATION: For use in truck-mounted, handheld or other thermal fogging equipment. Spray equipment must be adjusted so the volume median diameter or mass median diameter is less than 30 microns (Dv 0.5 < 30 μm) and that 90% of the spray is contained in droplets smaller than 48 microns (Dv 0.9 < 48 μm). Directions from the equipment manufacturer or vendor, pesticide registrant or a test facility using a laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra. Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rates(s) are properly calibrated. Apply this product mixed with water or oil at a rate not to exceed 0.007 lbs. per acre. Base acreage calculations on a 300 feet swath. For best results, direct the thermal fog into and allow to drift through areas where adult mosquitoes are found.

BARRIER APPLICATIONS: To control resting or flying adult mosquitoes in areas such as animal quarters, roadsides, urban areas, residential areas, commercial areas, industrial areas, golf courses, parks, recreational areas, tire piles and all public areas where adult mosquitoes occur or find harborage. May be used to treat aggregation and harborage areas such as the perimeter of residential buildings, commercial buildings, storage buildings, crawl spaces, transport trailers, abandoned or uninhabited buildings and other areas where adult mosquitoes find harborage.

When this product is applied as a barrier application using low pressure hand sprayers, hydraulic sprayers or ground ULV equipment, do not apply within 100 feet (30 meters) of lakes and streams.

To apply this product using low pressure hand sprayers or other similar equipment, for the control of mosquitoes on resting or aggregation surfaces mix 0.0875 oz. (2.59 ml) in one gallon of water and apply sufficient spray to dampen the surface - approximately 700-750 square feet of treated area. Use equipment that is capable of delivering an even distribution of the labeled rate over the treatment area. For application using backpack or truck-mounted mist-blower equipment apply **Envion** undiluted at a rate not to exceed 5.08 oz. per acre. If diluted apply at a rate not to exceed 0.1 lbs. permethrin a.i. per acre. Diluted or undiluted applications may be made onto foliage at the perimeter of areas such as recreational areas, parks, or golf courses from which mosquitoes or flies are to be excluded. Applications may be directed into harborage areas or other resting areas where adult mosquitoes or flies may be found.

URBAN ULV MOSQUITO CONTROL APPLICATIONS: For control of resting or flying adult mosquitoes, biting flies and biting midges in harborage areas such as but not limited to utility tunnels, sewers, storm drains and catch basins, pipe tunnels, basements, underground passages, parking decks, crawl spaces under buildings, abandoned buildings or uninhabited buildings. Apply **Envion** diluted or undiluted using mechanical foggers, hand-held or truck-mounted ULV equipment, thermal foggers or other spray equipment suitable for this type of application. **Envion** may be applied at rates up to but not exceeding 0.007 lbs. permethrin per acre.

AERIAL APPLICATION

Apply **Envion** either diluted or undiluted at rates up to 0.007 lbs. Permethrin/ PBO per acre by fixed wing or rotary aircraft equipped with a spraying system capable of making a ULV application. For aerial applications of **Envion**, use ULV equipment and nozzles such as rotary atomizers or similar spray equipment. Spray equipment must be adjusted so the volume median diameter produced is less than 60 microns (Dv 0.5 < 60 μm) and that 90% of the spray is contained in droplets smaller than 115 microns (Dv 0.9 < 115 μm). Directions from the equipment manufacturer or vendor, pesticide registrant or a test facility using a laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra. Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rates(s) are properly calibrated.

Aerial application of **Envion** shall be made at altitudes ranging from 100 feet to 300 feet. Do not apply when ground wind speed equals 0 MPH or when ground wind exceeds 10 MPH. Aerial applications of **Envion** shall only be made when recommended by public health officials and trained personnel of mosquito abatement districts and other mosquito control programs. To ensure best results applications shall be made when temperatures are greater than 50°F.

For best results, apply **Envion** when insects are most active and meteorological conditions are conducive to keeping the spray cloud near the ground. Aerial applications using aircraft equipped with global positioning systems (GPS) may be needed to compensate for windy conditions and to ensure drift into target areas.

IN FLORIDA: Do not apply by aircraft unless approved by the Florida Department of Agriculture and Consumer Services.

STORAGE AND DISPOSAL

Do not contaminate water food or feed by storage or disposal.
Pesticide Storage and Spill Procedures: Store upright at room temperature. Avoid exposure to extreme temperatures. In case of spill or leakage, soak up with an absorbent material such as sand, sawdust, earth, fuller's earth, etc. Dispose of with chemical waste.
Pesticide Disposal: Pesticide, spray mixture or rinse water that cannot be used according to label instructions must be disposed of at or by an approved waste disposal facility. **Container Disposal:** Triple rinse or equivalent, then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill or by incineration, or if allowed by State and local authorities, by burning. If burned, stay out of smoke.

NOTICE: Buyer and user assume all risk and liability of use, storage and/or handling of this product not in accordance with the terms of this label.

EPA Reg No. 769-987
EPA Est No. 44616-MO-1

Value Garden Supply
P.O. Box 585
St. Joseph, MO 64502
(952) 884-6477
www.allprovector.com
RM# 10099-10-2

Bid Item #9

SAFETY DATA SHEET

SECTION 1: IDENTIFICATION

PRODUCT NAME: AllPro Envion
EPA REG. NUMBER: 769-987

MANUFACTURER: Value Garden Supply
ADDRESS: P.O. Box 585, St. Joseph, MO 64502
MANUFACTURER PHONE: (888) 603-1008
MANUFACTURER FAX PHONE: (952) 884-6149
EMERGENCY PHONE: (800) 858-7378

PRODUCT USE: For use only by federal, state, tribal, or local government officials responsible for public health or vector control, or by persons certified in the appropriate category or otherwise authorized by the state or tribal lead pesticide regulatory agency to perform adult mosquito control applications, or by persons under their direct supervision.

SECTION 2: HAZARD IDENTIFICATION

SIGNAL WORD: DANGER

HAZARD STATEMENTS: May be fatal if swallowed and enters airways. Harmful if swallowed. Harmful in contact with skin. Harmful if inhaled.



SYMBOLS: Health Hazard and Exclamation Mark.

PRECAUTIONARY STATEMENTS:

- **PREVENTION:** Do not breathe mists. Wash hands thoroughly after handling. Avoid breathing mist and spray. Use only outdoors in a well-ventilated area. Wear protective gloves and clothes, eye and face protection. Do not eat, drink or smoke when using this product.
- **RESPONSE:** If swallowed: Immediately call a poison center. Do NOT induce vomiting. Rinse mouth. If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center, if you feel unwell. If on skin: Wash with plenty of water. Take off immediately all contaminated clothing and wash it before reuse.
- **STORAGE:** Store locked up.
- **DISPOSAL:** Dispose of contents at approved chemical waste disposal facility. Dispose of empty containers after triple rinsing, or according to label directions, in regular waste (see section 13 for specific instructions).

40% of this mixture consists of ingredients of unknown acute toxicity.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENTS*:	CAS NO.	% WT
Permethrin	52645-53-1	30%
Piperonyl Butoxide	51-03-6	30%
Petroleum Distillates	64742-55-8	<10%

A trade secret under 29 CFR 1200(i) is claimed for the remaining ingredients of this product.
* All ingredients in quantities > 1.0 % (> 0.1 % for carcinogens or teratogens) that are **potentially** hazardous per OSHA definitions

SECTION 4: FIRST AID MEASURES

EYES: Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eyes. Call a poison control center or doctor for treatment advice.

SKIN: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.

INGESTION: Immediately call a Poison Control Center or doctor. Do not induce vomiting unless told to by a poison control center or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.

INHALATION: Get to fresh air. Call a poison control center or doctor for treatment advice.

IMPORTANT: Have this product label with you when calling a poison control center or doctor or when going for treatment. You may also call 1-800-858-7378 for emergency medical treatment advice.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: Contains petroleum distillate. Vomiting may cause aspiration pneumonia.

AllPro

SAFETY DATA SHEET

Vector GROUP

SECTION 5: FIRE-FIGHTING MEASURES

FLASH POINT: 200°F

AUTOIGNITION TEMPERATURE: N/A

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemical, or ware fog

SPECIAL FIRE FIGHTING PROCEDURES: Wear full protective clothing and self-contained breathing apparatus. Evacuate non-essential personnel from the area to prevent exposure to fire, smoke, fumes, or products of combustion. Prevent use of contaminated buildings, area and equipment until decontaminated. Smother to exclude air. Do not use water. Handle as an oil fire.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None.

NFPA HAZARD CLASSIFICATION:	HEALTH	FIRE	REACTIVITY	SPECIAL
	1	0	0	N/A

NFPA HAZARD RATING CODES:	INSIGNIFICANT	SLIGHT	MODERATE	HIGH	EXTREME
	0	1	2	3	4

SPECIAL CODES: OX = oxidiser, SA = simple asphyxiant, W = reacts with water

SECTION 6: ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: In case of spill or leakage, ventilate the area, wear chemical resistant gloves, and footwear. Retrieve and filter the liquid in some manner and use as directed on this label, or "soak-up" the liquid with absorbent material such as sawdust, soil, fuller's earth or, etc. Wear goggles with splash protection or face shield, rubber gloves (nitrile, neoprene, laminated, or Viton), rubber boots, long sleeves and long pants to prevent contact with spilled product.
SMALL SPILLS: Cover spill with absorbent material, such as sand, sawdust, earth, etc.. Sweep up and place in an approved chemical waste container. Wash the spill area with water and detergent. Do not allow wash water into sewers or other bodies of water.
LARGE SPILLS: Contain spill and prevent it from reaching sewers or surface waters. Cover spill with absorbent material. Sweep up and place in an approved chemical waste container. Wash the spill area with water and detergent. Do not allow wash water into sewers or other bodies of water.

SECTION 7: HANDLING AND STORAGE

HANDLING AND STORAGE: Do not contaminate water, food or feed by storage or disposal. Store upright at room temperatures. Do not expose to extreme temperatures. Store in well-ventilated, secure area, out of reach of children and animals. Do not store near food, beverages or tobacco products. Prevent eating, drinking, tobacco use, and cosmetics application in areas where there is a potential for exposure to this product. Always wash thoroughly after handling. Do not contaminate water, food or feed by storage or handling. Store containers upright at room temperature. Avoid extreme temperatures.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

INGREDIENTS*:	CAS NO.	% WT	OSHA TWA	OSHA STEL	ACGIH TWA	ACGIH STEL	OTHER†
Permethrin	52645-53-1	30%	NE	NE	NE	NE	NE
Piperonyl Butoxide	51-03-6	30%	NE	NE	NE	NE	NE
Petroleum Distillates	64742-55-8	<40%	NE	NE	NE	NE	NE

* All ingredients in quantities > 1.0 % (> 0.1 % for carcinogens or teratogens) that are potentially hazardous per OSHA definitions
† AIHA WEEL 8 hour TWA or NIOSH REL 8 hour TWA
N/A = not applicable NE = not established

ENGINEERING CONTROLS: Engineering Controls: Pilots must use an enclosed cockpit that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240(d)(6)). Human flagging is prohibited. Flagging to support aerial application is limited to use of the Global Positioning System (GPS) or mechanical flaggers.
EYE PROTECTION: Goggles for splash protection, or face shield.
SKIN PROTECTION: Some Materials that are chemical-resistant to this product are nitrile and neoprene. If you want more options, follow the instructions for category E on an EPA chemical-resistance category selection chart. Mixers, applicators, and other handlers must wear: Long-sleeve shirt and long pants; shoes plus socks; chemical-resistant gloves for all handlers (except for applicators using motorized ground equipment, pilots, and flaggers); chemical-resistant apron for mixers/loaders, persons cleaning equipment, and persons exposed to the concentrate. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

AllPro

SAFETY DATA SHEET

Vector GROUP

WORK HYGIENIC PRACTICES: User should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. User should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Users should remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Clear amber liquid

ODOR: Slight solvent and licorice

ODOR THRESHOLD: N/A

PHYSICAL STATE: Liquid

BOILING POINT: NE

MELTING POINT: N/A

FLAMMABILITY: N/A

VISCOCITY (cSt at 40°C): NE

WATER SOLUBILITY: will not mix with water

DECOMPOSITION TEMPERATURE: N/A

EVAPORATION RATE (BuAc = 1): NE

VAPOR PRESSURE (mmHg at 20°C): <1

VAPOR DENSITY (AIR = 1): >1

pH: N/A

SPECIFIC GRAVITY: 0.842-0.846

DENSITY: 0.842-0.846g/ml

FLASH POINT: 200°F

AUTO IGNITION: N/A

LEL/UEL: N/A

OTHER SOLUBILITIES: Miscible in oil

PARTITION COEFFICIENT (n-octanol/water: N/A

% VOLATILE BY VOLUME: NE

SECTION 10: STABILITY AND REACTIVITY

HAZARDOUS POLYMERIZATION: Will not occur

CONDITIONS TO AVOID: Temperatures over 120°F

INCOMPATIBLE MATERIALS: Strong oxidizers

SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE ORAL EFFECTS: Oral LD50 (Rat): >500 to <5,000 mg./kg. (female) >5,000 mg./kg. (male)

ACUTE RESPIRATORY EFFECTS: Contains petroleum distillates, which create an aspiration hazard.

ACUTE DERMAL EFFECTS: Dermal LD50 (Rat): >2,000 mg/kg. Permethrin is a skin sensitizer in some individuals.

EYE EFFECTS: Minimally irritating

CARCINOGENICITY: Permethrin: A statistically significant increase of lung and liver tumors was observed in female mice receiving diets containing 375 and 750 mg/kg/day over 85 weeks. Piperonyl Butoxide: Marginally higher incidences of benign liver tumors in mice were observed following lifetime high dose exposures. The significance of this observation is questionable and under review. The doses at which tumors were observed greatly exceeded human dietary intake. At anticipated dietary exposure levels, it is highly unlikely that piperonyl butoxide would result in carcinogenic effects. IARC has also concluded that there is no evidence for the carcinogenicity of white oils when administered by routes other than by interperitoneal injection. The solvent is not carcinogenic according to the OSHA Hazard Communication Standard.

TERATOGENICITY (birth defects): Permethrin and Piperonyl Butoxide were not teratogenic when tested in rats.

REPRODUCTIVE TOXICITY: Permethrin and Piperonyl Butoxide were not reproductive toxins when tested in rats.

MUTAGENICITY (genetic effects):.Permethrin and Piperonyl Butoxide did not produce any mutagenic effects when tested in the Ames test.

SECTION 12: ECOLOGICAL INFORMATION

ENVIRONMENTAL HAZARDS
This pesticide is extremely toxic to aquatic organisms, including fish and invertebrates. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean water mark. Do not apply when weather conditions favor drift

from treated areas. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment wash waters.
Under some conditions, it may also have a potential for transport into surface water runoff (primarily adsorbed to suspended soil particles), for several months or more after application. These include poorly drained or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, and areas overlying extremely shallow groundwater, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas overlying tile drainage systems that drain to surface waters.
Bee Warning: This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift on blooming crops or weeds while bees are actively visiting the treatment areas, except when applications are made to prevent or control a threat to public and/or animal health determined by a state, tribal or local health or vector control agency on the basis of documented evidence of disease causing agents in vector mosquitoes or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort.

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of the resulting chemical waste as follows. Pesticide Disposal: Pesticide, spray mixture or rinsate water that cannot be used according to label instructions must be disposed of at or by an approved waste disposal facility.
Container Handling: Nonrefillable container. Do not reuse or refill this container. Triple rinse or pressure rinse container promptly after emptying. Then offer for recycling, if available, or puncture and dispose of in a sanitary landfill or by other procedures approved by state and local authorities. **Triple Rinse as Follows-Containers 5 gallons or less in capacity:** Do not reuse or refill this container. Triple rinse or pressure rinse container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill container 1/4 full with mineral oil and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. **Containers greater than 5 gallons in capacity:** Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with mineral oil. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. **Pressure Rinse as Follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure-rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seonds. Drain for 10 seconds after the flow begins to drip.

SECTION 14: TRANSPORT INFORMATION

***DOT SHIPPING NAME:** N/A
* U.S. Department of Transportation

IMO: N/A

SECTION 15: REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS: This chemical is a pesticide product registered by the United States Environmental Protections Agency and is subject to certain labeling requirements under federal pesticide law. The requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

> **CAUTION:** Harmful if swallowed or absorbed through the skin, or inhaled. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Remove contaminated clothing and wash before reuse.

SARA TITLE III: Section 311/312: Acute Health Hazard – Yes; Chronic Health Hazard – Yes; Fire Hazard – No; Sudden release of pressure hazard – No; Reactivity hazard – No; Section 313 chemicals: Permethrin (30%) (CAS # 52645-53-1), Piperonyl Butoxide (30%) (CAS # 51-03-6)

CERCLA: N/A

INDIVIDUAL STATES: N/A

SECTION 16: OTHER INFORMATION

This information is provided in good faith, but without express or implied warranty. For additional information, refer to the current American Conference of Governmental Industrial Hygienists (ACGIH) documentation for Threshold Limit Values (TLVs) for individual components, current American Industrial Hygiene Association (AIHA) documentation for Workplace Environmental Exposure Levels (WEELs), and the current U.S. DOT Emergency Response Guidebook.

Mike Nichols
Target Specialty Products
1225 N. Post Oak Rd.
Houston, TX 77055

Jefferson County Purchasing Department
1149 Pearl Street, 1st Floor
Beaumont, TX 77701

RECEIVED 09:27 AM MAR 14 2017

SEALED BID
IFB 17-006/ys
Term Contract for Insecticides, Herbicides, Spray Adjuvants, and Adulticides for Jefferson County Mosquito Control District
Due Date: 11:00 AM CDT, Tuesday, March 14, 2017

Original

JEFFERSON COUNTY PURCHASING DEPARTMENT
Deborah L. Clark, Purchasing Agent

1149 Pearl Street, 1st Floor, Beaumont, TX 77701 409-835-8593 Fax 409-835-8456

LEGAL NOTICE
Advertisement for Invitation for Bids

February 13, 2017

Notice is hereby given that sealed bids will be accepted by the Jefferson County Purchasing Department for IFB 17-006/YS, Term Contract for Insecticides, Herbicides, Spray Adjuvants, and Adulticides for Jefferson County Mosquito Control District. **Specifications for this project may be obtained from the Jefferson County website, http://www.co.jefferson.tx.us/Purchasing/main.htm or by calling 409-835-8593.**

Bids are to be sealed and addressed to the Purchasing Agent with the bid number and name marked on the outside of the envelope. Bidders shall forward an original and two (2) copies of their bid to the address shown below. Jefferson County does not accept bids submitted electronically. Late bids will be rejected as non-responsive. Bids will be publicly opened and read aloud in the Jefferson County Commissioners' Courtroom at the time and date below. Bidders are invited to attend the sealed bid opening.

BID NAME: **IFB 17-006/YS**

BID NO: **Term Contract for Insecticides, Herbicides, Spray Adjuvants, and Adulticides for Jefferson County Mosquito Control District**

DUE DATE/TIME: **11:00 AM CDT, Tuesday, March 14, 2017**

MAIL OR DELIVER TO: **Jefferson County Purchasing Department**
1149 Pearl Street, 1st Floor
Beaumont, Texas 77701

Any questions relating to these requirements should be directed to Yea-Mei Sauer, Contract Specialist, at 409-835-8593 or ysauer@co.jefferson.tx.us.

Jefferson County encourages Disadvantaged Business Enterprises to participate in the bidding process. Jefferson County does not discriminate on the basis of race, color, national origin, sex, religion, age or disability in employment or the provisions of services. Individuals requiring special accommodations are requested to contact our office at 409-835-8593 to make arrangements no later than seven (7) calendar days prior to the submittal deadline. Jefferson County reserves the right to accept or reject any or all proposals, to waive technicalities and to take whatever action is in the best interest of Jefferson County.

All interested firms are invited to submit a bid in accordance with the terms and conditions stated in this bid.

RESPONDENTS ARE STRONGLY ENCOURAGED TO CAREFULLY READ THE ENTIRE INVITATION.

Deborah Clark

Deborah L. Clark, Purchasing Agent
Jefferson County, Texas
Publish: Beaumont Enterprise & Port Arthur News – February 15, 2017 & February 22, 2017

IFB 17-006/YS
Term Contract for Insecticides, Herbicides, Spray Adjuvants, and Adulticides for Jefferson County Mosquito Control District
Bids due: 11:00 AM CDT, Tuesday, March 14, 2017

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Bid Submissions:

Bidder is responsible for submitting one (1) *original* bid copy to include a completed copy of this specifications packet in its entirety; and two (2) numbered bid *hard copies* to include at a minimum all pages requiring completion and/or marked with instructions to be returned with bid submission and any other documentation requested within these specifications.

Additionally, Bidder must monitor the Jefferson County Purchasing Department Website (below) to see if addenda or additional instructions have been posted. Failure to return all required forms could result in a response being declared as non-responsive.

http://www.co.jefferson.tx.us/purchasing/main.htm

Instructions to Bidders

1. Bid Submission

Bids must be submitted in complete original form by mail or messenger to the following address:

Jefferson County Purchasing Department
1149 Pearl Street, 3rd Floor
Beaumont, TX 77701

Bids will be accepted at the above address until the time and date specified herein, and immediately after will be publicly opened and read aloud.

Bidder shall submit bid in a tightly sealed opaque envelope or box, plainly marked "SEALED BID." The outside of the envelope of box shall also include the Bid Number, Bid Name, Bid Due Date, and the Bidder's Name and Address; and shall be addressed to the Purchasing Agent.

Late bids will not be accepted and will be returned unopened to the bidder.

All bids submitted in response to this invitation shall become the property of Jefferson County and will be a matter of public record available for review.

2. Bid Submissions During Time of Inclement Weather, Disaster, or Emergency

In case of inclement weather or any other unforeseen event causing the County to close for business on the date of a bid/proposal/statement of qualifications submission deadline, the closing will automatically be postponed until the next business day that County offices are open to the public. Should inclement weather conditions or any other unforeseen event cause delays in courier service operations, the County may issue an addendum to all known vendors interested in the project to extend the deadline. It will be the responsibility of the vendor to notify the county of their interest in the project should these conditions impact their ability to submit a bid/proposal/statement of qualifications submission before the stated deadline. The County reserves the right to make the final judgement call to extend any deadline.

Should an emergency or unanticipated event interrupt normal County processes, and bid/proposal/statement of qualifications submissions cannot be received by the Jefferson County Purchasing Department's office by the exact time specified in the IFB and urgent County requirements preclude amendment to the IFB, the time specified for receipt of bids will be deemed to be extended to the same time of day specified in the solicitation on the first business day on which normal County processes resume.

3. Courthouse Security

Bidders are advised that all visitors to the Courthouse must pass through Security. **Bidders planning to hand deliver bids must allow time to get through Security, as a delay in entering the Courthouse will not be accepted as an excuse for late submittal.** Mondays and Tuesdays are particularly heavy days. Bidders are strongly urged to plan accordingly.

4. Preparation of Bids

The bid shall be legibly printed in ink or typed.

If a unit price or extension already entered is to be altered, it shall be crossed out and initialed in ink by the bidder.

The bid shall be legally signed and shall include the complete address of the bidder.

Jefferson County is exempt from Federal and State Sales Taxes, and such taxes shall not be included in bid prices.

5. Signatures

All bids, notifications, claims, and statements must be signed by an individual authorized to bind the bidder. The individual signing certifies, under penalty of perjury, that he or she has the legal authorization to bind the bidder.

6. County Holidays – 2017:

January 16	Monday	Martin Luther King, Jr. Day
February 20	Monday	President's Day
April 14	Friday	Good Friday
May 29	Monday	Memorial Day
July 4	Tuesday	Independence Day
September 4	Monday	Labor Day
November 10	Friday	Veteran's Day
November 23 & 24	Thursday & Friday	Thanksgiving
December 25 & 26	Monday & Tuesday	Christmas
January 1, 2018	Monday	New Year's

7. Rejection or Withdrawal

Submission of additional terms, conditions or agreements with the bid document are grounds for deeming a bid non-responsive and may result in bid rejection. Jefferson County reserves the right to reject any and all bids and to waive any informalities and minor irregularities or defects in bids. Bids may be withdrawn in person by a bidder or authorized representative, provided their identity is made known and a receipt is signed for the bid, but only if the withdrawal is made prior to the time set for receipt of bids. Bids are an irrevocable offer and may not be withdrawn within 90 days after opening date.

8. Emergency/Declared Disaster Requirements

In the event of an emergency or if Jefferson County is declared a disaster area, by the County, State, or Federal Government, this Acceptance of Offer may be subjected to unusual usage. Contractor shall service the county during such an emergency or declared disaster under the same terms and conditions that apply during non-emergency/disaster conditions. The pricing as specified in this Acceptance of Offer shall apply to serving the County's needs regardless of the circumstances. If Contractor is unable to supply the services under the terms of the Acceptance of Offer, then Contractor shall provide proof of such disruption and a copy of the invoice from Contractor's supplier(s). Additional profit margin as a result of supplying services during an emergency or declared disaster shall not be permitted. In the event that additional equipment, supplies, and materials are required during the declared disaster, additional shipping, handling and drayage fees may apply.

9. Award

The bid will be awarded to the responsible, responsive bidder(s) whose bid, conforming to the solicitation, will be most advantageous to Jefferson County – price and other factors considered. Unless otherwise specified in this IFB, Jefferson County reserves the right to accept a bid in whole or in part, and to award by item or by group, whichever is deemed to be in the best interest of Jefferson County. Any bidder who is in default to Jefferson County at the time of submittal of the bid shall have that bid rejected. Jefferson County reserves the right to clarify any contractual terms with the concurrence of the Contractor; however, any substantial nonconformity in the offer, as determined by Jefferson County, shall be deemed non-responsive and the offer rejected.

In evaluating bids, Jefferson County shall consider the qualifications of the bidders, and, where applicable, operating costs, delivery time, maintenance requirements, performance data, and guarantees of materials and equipment. In addition, Jefferson County may conduct such investigation as it deems necessary to assist in the evaluation of a bid and to establish the responsibility, qualifications, and financial ability of the bidders to fulfill the contract.

Jefferson County reserves the right to award this contract on the basis of **lowest and best bid** in accordance with the laws of the State of Texas, to waive any formality or irregularity, to make awards to more than one offeror, and/or to reject any or all bids. In the event the lowest dollar offeror meeting specifications is not a awarded a contract, Offeror may appear before the Commissioners' Court and present evidence concerning Offeror responsibility after officially notifying the Office of the Purchasing Agent of Offeror's intent to appear.

10. Contract

A response to an IFB is an offer to contract with Jefferson County based upon the terms, conditions, and specifications contained in the IFB. Bids do not become contracts unless and until they are executed by Jefferson County, eliminating a formal signing of a separate contract. For that reason, all of the terms and conditions of the contract are contained in the IFB, unless any of the terms and conditions is modified by an IFB Amendment, a Contract Amendment, or by mutually agreed terms and conditions in the contract documents.

11. Waiver of Subrogation

Bidder and bidder's insurance carrier waive any and all rights whatsoever with regard to subrogation against Jefferson County as an indirect party to any suit arising out of personal or property damages resulting from bidder's performance under this agreement.

12. Fiscal Funding

A multi-year contract (if requested by the specifications) continuing as a result of an extension option must include fiscal funding out. If, for any reason, funds are not appropriated to continue the contract, said contract shall become null and void.

13. Bid Results

Bid results are not provided in response to telephone inquiries. A preliminary tabulation of bids received will be posted on the Purchasing web page (http://co.jefferson.tx.us/ purchasing/main.htm) as soon as possible following bid opening. A final tabulation will be posted following bid award, and will also be available for review in the Purchasing Department.

14. Changes and Addenda to Bid Documents

Each change or addendum issued in relation to this IFB document will be on file in the Office of the Purchasing Agent, and will be posted on the Purchasing web site as soon as possible. It shall be the bidder's responsibility to make inquiry as to change or addenda issued, and to monitor the web site. All such changes or addenda shall become part of the contract and all bidders shall be bound by such addenda. Information on all changes or addenda issued will be available at the Office of the County Purchasing Agent.

15. Specifications

Unless otherwise stated by the bidder, the bid will be considered as being in accordance with Jefferson County's applicable standard specifications, and any special specifications outlined in the bid document. References to a particular trade name, manufacturer's catalogue, or model number are made for descriptive purposes to guide the bidder in interpreting the requirements of Jefferson County, and should not be construed as excluding bids on other types of materials, equipment, and supplies. However, the bidder, if awarded a contract, will be required to furnish the particular item referred to in the specifications or description unless departure or substitution is clearly noted and described in the bid. Jefferson County reserves the right to determine if equipment/ product being bid is an acceptable alternate. All goods shall be new unless otherwise so stated in the bid. Any

unsolicited alternate bid, or any changes, insertions, or omissions to the terms and conditions, specifications, or any other requirements of the bid, may be considered non-responsive.

16. Delivery

Bids shall include all charges for delivery, packing, crating, containers, etc. Unless otherwise stated by the bidder (in writing on the included Bid Form), prices bid will be considered as being based on F.O.B. destination/delivered freight included.

17. Interpretation of Bid and/or Contract Documents

All inquiries shall be made within a reasonable time prior to the date and time fixed for the bid opening, in order that a written response in the form of an addendum, if required, can be processed before the bids are opened. Inquiries received that are not made in a timely fashion may or may not be considered.

18. Currency

Prices calculated by the bidder shall be stated in U.S. dollars.

19. Pricing

Prices shall be stated in units of quantity specified in the bid documents. In case of discrepancy in computing the amount of the bid, the unit price shall govern.

20. Notice to Proceed/Purchase Order

The successful bidder may not commence work under this contract until authorized to do so by the Purchasing Agent.

21. Certification

By signing the offer section of the Offer and Acceptance page, bidder certifies:

- The submission of the offer did not involve collusion or other anti-competitive practices.
- The bidder has not given, offered to give, nor intends to give at any time hereafter, any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor, or service to any public servant in connection with the submitted offer.
- The bidder hereby certifies that the individual signing the bid is an authorized agent for the bidder and has the authority to bind the bidder to the contract.

22. Definitions

"County" – Jefferson County, Texas.

"Contractor" – The bidder whose proposal is accepted by Jefferson County.

23. Minority-Women Business Enterprise Participation

It is the desire of Jefferson County to increase the participation of Minority (MBE) and women-owned (WBE) businesses in its contracting and procurement programs. While the County does not have any preference or set aside programs in place, it is committed to a policy of equitable participation for these firms.

General Conditions of Bidding and Terms of Contract

By execution of this document, the vendor accepts all general and special conditions of the contract as outlined below and in the specifications and plans.

1. Bidding

1.1 Bids. All bids must be submitted on the bid form furnished in this package.

1.2 Authorized Signatures. The bid must be executed personally by the vendor, duly authorized partner of the partnership, or duly authorized officer of the corporation. If executed by an agent, a power of attorney or other evidence of authority to act on behalf of the vendor shall accompany the bid to become a valid bid.

1.3 Late Bids. Bids must be in the office of the Jefferson County Purchasing Agent before or at the specified time and date bids are due. Bids received after the submission deadline shall be rejected as non-responsive and returned unopened.

1.4 Withdrawal of Bids Prior to Bid Opening. A bid may be withdrawn before the opening date by submitting a written request to the Purchasing Agent. If time allows, the bidder may submit a new bid. Bidder assumes full responsibility for submitting a new bid before or at the specified time and date bids are due. Jefferson County reserves the right to withdraw a request for bids before the opening date.

1.5 Withdrawal of Bids after Bid Opening. Bidder agrees that its offer may not be withdrawn or cancelled by the vendor for a period of ninety (90) days following the date and time designated for the receipt of bids unless otherwise stated in the bid and/or specifications.

1.6 Bid Amounts. Bids shall show net prices, extensions where applicable and net total. In case of conflict between unit price and extension, the unit price will govern. Any ambiguity in the bid as a result of omission, error, unintelligible or illegible wording shall be interpreted in the favor of Jefferson County.

1.7 Exceptions and/or Substitutions. All bids meeting the intent of the specifications and plans will be considered for award. Vendors taking exception to the specifications and plans, or offering substitutions, shall state these exceptions in the section provided. If bid is made on an article other than the one specified, which a bidder considers comparable, the name and grade of said article must be specified in the bid and sufficient specifications and descriptive data must accompany same to permit thorough evaluation. The absence of stated exceptions and/or substitutions shall indicate that the vendor has not taken any exceptions to the specifications and shall be responsible to perform in strict accordance with the specifications. As a matter of practice, Jefferson County rejects exception(s) and /or substitutions as non-responsive but reserves the right to accept any and/or all of the exception(s) and/or substitution(s) deemed to be in the best interest of Jefferson County.

1.8 Alternates. The Invitation for Bid and/or specifications may expressly allow bidder to submit an alternate bid. Presence of such an offer shall not be considered an indication of non-responsiveness.

1.9 Descriptions. Unless otherwise specified, any reference to make, manufacturer and/or model used in the bid specifications is merely descriptive and not restrictive, and is used only to indicate type, style, or quality of material desired.

1.10 Bid Alterations. Bids cannot be altered or amended after submission deadline. Any interlineations, alterations, or erasures made before opening time must be initialed by the signer of the bid, guaranteeing authenticity.

1.11 Tax Exempt Status. Jefferson County is exempt from federal excise tax and state sales tax. Unless the bid form or specifications specifically indicate otherwise, the bid price must be net, exclusive of above-mentioned taxes and will be so construed. Therefore, the bid price shall not include taxes.

1.12 Quantities. Quantities indicated are estimated quantities only and are not a commitment to buy. Approximate usage does not constitute an order, but only implies the probable quantity that will be used. Commodities will be ordered on an as-needed basis. Bidder is responsible for accurate final counts.

1.13 Bid Award. Award of contract shall be made to the most responsible, responsive bidder, whose offer is determined to be the best value, taking into consideration the relative importance of price. Jefferson County reserves the right to be the sole judge as to whether items bid will serve the purpose intended. Jefferson County reserves the right to accept or reject in part or in whole any bid submitted, and to waive any technicalities or informalities for the best interest of the County. Jefferson County reserves the right to award based upon individual line items, sections or total bid.

1.14 Silence of Specifications for Complete Units. All materials, equipment and/or parts that will become a portion of the completed work, including items not specifically stated herein but, necessary to render the service(s) complete and operational per the specifications, are to be included in the bid price. Vendor may be required to furnish evidence that the service, as bid, will meet or exceed these requirements.

1.15 Addenda. Any interpretations, corrections or changes to the specifications and plans will be made by addenda no later than forty-eight (48) hours prior to the bid opening. Addenda will be posted on the Purchasing web site. Vendors are responsible for monitoring the web site in order to remain informed on addenda. Vendors shall acknowledge receipt of all addenda with submission of bid.

1.16 General Bid Bond/Surety Requirements. Failure to furnish bid bond/surety, if requested, will result in bid being declared non-responsive. Non-responsive bids will not be considered for award.

1.17 General Insurance Requirements. Failure to furnish Affidavit of Insurance, if required in these specifications, will result in bid being declared non-responsive. Non-responsive bids will not be considered for award.

1.18 Responsiveness. A responsive bid shall substantially conform to the requirements of this Invitation to Bid and/or specifications contained herein. Bidders who substitute any other terms, conditions, specifications and/or requirements or who qualify their bids in such a manner as to nullify or limit their liability to the contracting entity shall have their bids deemed non-responsive. Also, bids containing any clause that would limit contracting authority shall be considered non-responsive. Examples of non-responsive bids include but shall not be limited to: a) bids that fail to conform to required delivery schedules as set forth in the bid request; b) bids with prices qualified in such a manner that the bid price cannot be determined, such as with vague wording that may include "price in effect at the time of delivery," and c) bids made contingent upon award of other bids currently under consideration.

1.19 Responsible Standing of Bidder. To be considered for award, bidder must at least: have the ability to obtain adequate financial resources, be able to comply with required or proposed delivery/completion schedule, have a satisfactory record of performance; have a satisfactory record of integrity and ethics, and be otherwise qualified and eligible to receive award.

1.20 Proprietary Data. Bidder may, by written request, indicate as confidential any portion(s) of a bid that contain proprietary information, including manufacturing and/or design processes exclusive to the vendor. Jefferson County will protect from public disclosure such portions of a bid, unless directed otherwise by legal authority, including existing Open Records Acts.

1.21 Public Bid Opening. Bidders are invited to be present at the opening of bids. After the official opening of bids, a period of not less than one week is necessary to evaluate bids. The amount of time necessary for bid evaluation may vary and is determined solely by the County. Following the bid evaluation, all bids submitted are available for public review.

2. Performance

2.1 Design, Strength, and Quality. Design, strength, and quality of materials and workmanship must conform to the highest standards of manufacturing and engineering practices. The apparent silence of specifications and/or plans as to any detailed description concerning any point shall be regarded as meaning that only the best commercial practices are to prevail. All interpretations of these specifications and/or plans shall be made on the basis of this statement.

2.2 Age and Manufacture. All tangible goods being bid must be new and unused, unless otherwise specified, in first-class condition, of current manufacture, and furnished ready to use. All items not specifically mentioned that are required for a complete unit shall be furnished.

2.3 Delivery Location. All deliveries will be made to the address(es) specified on the purchase order during normal working hours of 8:00 a.m. to 4:00 p.m., Monday through Friday, unless otherwise authorized by the Purchasing Agent or designee.

2.4 Delivery Schedule. Delivery time may be an important consideration in the evaluation of best value. The maximum number of days necessary for delivery ARO shall be stated in the space, if provided, on the bid form.

2.5 Delivery Charges. All delivery and freight charges, F.O.B. destination shown on Jefferson County purchase order, as necessary to perform contract are to be included in the bid price.

2.6 Installation Charges. All charges for assembly, installation and set-up shall be included in the bid price. Unless otherwise stated, assembly, installation and set-up will be required.

2.7 Operating Instructions and Training. Clear and concise operating instructions and descriptive literature will be provided in English, if requested. On-site detailed training in the safe and efficient use and general maintenance of item(s) purchased shall be provided as needed at the request of Jefferson County. Instructions and training shall be at no additional cost to the County.

2.8 Storage. Bidder agrees to provide storage of custom ordered materials, if requested, for up to thirty (30) calendar days.

2.9 Compliance with Federal, State, County, and Local Laws. Bids must comply with all federal, state, county and local laws, including, but not limited to, all applicable standard safety, emission, and noise control requirements. Any vehicles or equipment shall contain all standard safety, emission, and noise control requirements required for the types and sizes of equipment at the time of their manufacture. The contractor agrees, during the performance of work or service, to comply with all applicable codes and ordinances of Jefferson County or the State of Texas as they may apply, as these laws may now read, or as they may hereafter be changed or amended.

2.10 OSHA. The bidder will certify all equipment complies with all regulations and conditions stipulated under the Williams-Steiger Occupational Safety and Health Act of 1971, as amended. The successful bidder will further certify that all items furnished under this project will conform and comply with federal and State of Texas OSHA standards. The successful bidder will agree to indemnify and hold harmless Jefferson County for any and all damages that may be assessed against the County.

2.11 Patents and Copyrights. The successful vendor agrees to protect the County from claims involving infringements of patents and/or copyrights.

2.12 Samples, Demonstrations and Testing. At Jefferson County's request and direction, bidder shall provide product samples and/or testing of items bid to ensure compliance with specifications. Samples, demonstrations and/or testing may be requested at any point prior to or following bid award. Samples, demonstrations and/or testing may be requested upon delivery and/or any point during the term of resulting contract. All samples (including return thereof), demonstrations, and/or testing shall be at the expense of the bidder/vendor.

2.13 Acceptability. All articles enumerated in the bid shall be subject to inspection by an officer designated for that purpose by Jefferson County. If found inferior to the quality called for, or not equal in value to the specifications, deficient in workmanship or otherwise, this fact shall be certified to the Purchasing Agent, who shall have the right to reject the whole or any part of the same. Items

and/or work determined to be contrary to specifications must be replaced at the vendor's expense. Inferior items not retrieved by the vendor within thirty (30) calendar days, or an otherwise agreed upon time, shall become the property of the County. If disposal of such items warrants an expense, an amount equal to the disposal expense will be deducted from amounts payable to the vendor.

2.14 Maintenance. Maintenance required for equipment bid should be available in Jefferson County by a manufacturer authorized maintenance facility. Cost for this service shall be shown on the bid sheet as requested or on a separate sheet, as required. If Jefferson County opts to include maintenance, it shall be so stated in the purchase order and said cost will be included. Service will commence only upon expiration of applicable warranties and should be priced accordingly.

2.15 Material Safety Data Sheets. Under the "Hazardous Communications Act," common known as the "Texas Right to Know Act," a bidder must provide the user department, with each delivery, material safety data sheets which are applicable to hazardous substances defined in the Act. Failure of the bidder to furnish this documentation, will be cause to reject any bid applying thereto.

2.16 Evaluation. Evaluation shall be used as a determinant as to which services are the most efficient and/or most economical for the County. It shall be based on all factors having a bearing on price and performance of the items in the user environment. All bids are subject to tabulation by the Jefferson County Purchasing Department and recommendation to Jefferson County Commissioners' Court. Compliance with all bid requirements and needs of the using department are considered in evaluating bids. Pricing is not the only criteria for making a recommendation. The Jefferson County Purchasing Department reserves to right to contact any bidder, at any time, to clarify, verify or requirement information with regard to this bid.

3. Purchase Orders and Payment

3.1 Purchase Orders. A purchase order(s) shall be generated by the Jefferson County Purchasing Agent to the successful vendor. The purchase order number must appear on all itemized invoices and packing slips. The County will not be held responsible for any work orders placed and/or performed without a valid current purchase order number. Payment will be made for all services rendered and accepted by the contract administrator for which a valid invoice has been received.

3.2 Invoices. All invoices shall reference the Purchase Order number. Invoices shall reference the bid item number or a detailed description for each item invoiced. If an item purchased and itemized on the invoice does not correspond to an item in any of the categories awarded to the vendor, invoice shall reference the item as "N/C" to indicate that it is a non-contract item. This requirement is to assist the County in verifying contract pricing on all invoices. Payment will be made under terms of net thirty (30) days unless otherwise agreed upon by seller and the purchasing department.

3.3 Prompt Payment. In accordance with the State of Texas Prompt Payment Act, Article 601f V.T.C.S., payment will be made after receive and acceptance by the County of the merchandise ordered and of a valid invoice. Successful bidder(s) is required to pay subcontractors within ten (10) days after the successful bidder receives payment from the County.

3.4 Funding. Jefferson County is operated and funded on an October 1 to September 30 basis; accordingly, the County reserves the right to terminate, without liability to the County, any contract for which funding is not available.

4. Contract

4.1 Contract Definition. The General Conditions of Bidding and Terms of Contract, Specifications, Plans, Bidding Forms, Addenda, and any other documents made a part of this bid shall constitute the complete bid. This bid, when duly accepted by Jefferson County, shall constitute a contract equally binding between the successful bidder and Jefferson County.

4.2 Contract Agreement. Once a contract is awarded, the unit prices offered by the successful bidder shall remain firm for the term of the contract. Contract shall commence on date of award and,

upon agreement between vendor(s) and Jefferson County, may be renewed annually for up to four (4) additional years. **(OMIT if N/A or EDIT if Needed)**

4.3 Change Order. No different or additional terms will become part of this contract with the exception of a change order. No oral statement of any person shall modify or otherwise change, or affect the terms, conditions or specifications stated in the resulting contract. All change orders to the contract will be made in writing and at the discretion and approval of Jefferson County. No change order will be binding unless signed by an authorized representative of the County and the vendor.

4.4 Price Re-determination. A price re-determination may be requested at the time of annual renewal. All requests for price re-determination shall be in written form. Cause for such request, i.e., manufacturer's direct cost, postage rates, Railroad Commission rates, Federal/State minimum wage law, Federal/State unemployment taxes, F.I.C.A, Insurance Coverage Rates, etc., shall be substantiated in writing by the source of the cost increase. The bidder's past experience of honoring contracts at the bid price will be an important consideration in the evaluation of the lowest and best bid. Jefferson County reserves the right to accept or reject any/all requests for price re-determination as it deems to be in the best interest of the County.

4.5 Termination. Jefferson County reserves the right to terminate the contract for default if the bidder breached any of the terms therein, including warranties of bidder or if the bidder becomes insolvent or commits acts of bankruptcy. Such right of termination is in addition to and not in lieu of any other remedies which Jefferson County may have in law or equity. Default may be construed as, but not limited to, failure to deliver the proper goods and/or service within the proper amount of time, and/or to properly perform any and all services required to Jefferson County's satisfaction and/or to meet all other obligations and requirements. Contracts may be terminated without cause upon thirty (30) days' written notice to either party unless otherwise specified. Jefferson County reserves the right to award canceled contract to the next lowest bidder. Bidder, in submitting this bid, agrees that Jefferson County shall not be liable to prosecution for damages in the event that the County declares the bidder in default.

4.6 Conflict of Interest. Employees of the County are not permitted to maintain financial interest in, or receive payment, directly or indirectly, borrow from, lend to, invest in, or engage in any substantial financial transaction with any individual, organization, supplier, or subcontractor who does business with the County without disclosure. When conflict of interest is discovered, it shall be grounds for termination of contract.

4.7 Injuries or Damages Resulting from Negligence. Successful vendor shall defend, indemnify and save harmless Jefferson County and all its officers, agents and employees from all suits, actions, or other claims of any character, name and description brought for or on account of any injuries or damages received or sustained by any person, persons, or property on account of any negligent act or fault of the successful vendor, or of any agent, employee, subcontractor or supplier in the execution of, or performance under, any contract which may result from bid award. Successful vendor shall pay any judgment with cost which may be obtained against Jefferson County growing out of such injury or damages.

4.8 Interest by Public Officials. No public official shall have interest in this contract, in accordance with Texas Local Government Code.

4.9 Warranty. The successful vendor shall warrant that all materials utilized in the performance of this contract shall conform to the proposed specifications and/or all warranties as stated in the Uniform Commercial Code and be free from all defects in material, workmanship and title.

4.10 Uniform Commercial Code. The successful vendor and Jefferson County agree that both parties have all rights, duties, and remedies available as stated in the Uniform Commercial Code.

4.11 Venue. This agreement will be governed and construed according to the laws of the State of Texas. This agreement is performable in the County of Jefferson, Texas.

4.12 Sale, Assignment, or Transfer of Contract. The successful vendor shall not sell, assign, transfer or convey this contract, in whole or in part, without the prior written consent of Jefferson County.

4.13 Silence of Specifications. The apparent silence of these specifications as to any detailed description concerning any point, shall be regarded as meaning that only the best commercial practices are to prevail. All interpretations of these specifications shall be made on the basis of this statement.

Special Requirements/Instructions

The following requirements and instructions supersede General Requirements where applicable.

1. Bid Requirement

Each bidder shall ensure that required parts of the bid are completed with accuracy and submitted as per the requirements within this specifications packet, including any addenda.

Bidder is responsible for submitting one (1) *original* bid copy to include a completed copy of this specifications packet in its entirety; and two (2) numbered bid *hard copies* to include at a minimum all pages requiring completion and/or marked with instructions to be returned with bid submission and any other documentation requested within these specifications.

All bids shall be tightly sealed in an opaque envelope or box and plainly marked "SEALED BID." The outside of the envelope or box shall also include: Bid Number, Bid Name, Bid Due Date, Bidder's Name and Address; and shall be addressed to the Purchasing Agent.

Jefferson County shall not be responsible for any effort or cost expended in the preparation of a response to this IFB. All protests should be coordinated through the Purchasing Office prior to award recommendation to Commissioners' Court.

2. Vendor Registration: SAM (System for Award Management).

Vendors doing business with Jefferson County are **required** to be registered with The System for Award Management (SAM), with an "active" status. The System for Award Management (SAM) is the Official U.S. Government system that consolidated the capabilities of CCR/FedReg, ORCA, and EPLS. There is NO fee to register for this site. Entities may register at no cost directly from the SAM website at: https://www.sam.gov

Bid Respondents are strongly encouraged to review their firm's SAM (System for Award Management) status prior to Bid Submission.

3. Awarded Vendor(s): Submission of FORM 1295 (Texas Ethics Commission)

As of January 1, 2016, per House Bill 1295, the Texas Ethics Commission (TEC) requires **all awarded vendors** to complete a Certificate of Interested Parties (FORM 1295) at time of notification of award. **Awarded Vendors** must visit the TEC website link below, enter the required information on Form 1295, and print a copy of the completed form. The form will include a certification of filing that will contain a unique certification number.

At the time of award, the Jefferson County Purchasing Department will submit a request to the Awarded Vendor to both:

1. Submit FORM 1295 online via the Texas Ethics Commission website link below.

2. Submit a printed copy of FORM 1295, signed by an Authorized Agent of the Awarded Vendor and notarized to the Jefferson County Purchasing Department.

FORM 1295, Completion Instructions, and Login Instructions are available via the Texas Ethics Commission Website at: https://www.ethics.state.tx.us/whatsnew/elf_info_form1295.htm

4. Multiple Vendor Award

Jefferson County reserves the right to award this contract to more than one vendor at the County's discretion.

5. Delivery

If delivery is required, all items must be packaged so as to be protected from damage during shipping and handling. Any item(s) damaged in shipping must be replaced in kind, or repaired, by the contractor, at the discretion of, and at no additional charge to, Jefferson County.

6. Payment

Jefferson County will pay original invoices that clearly itemize the goods and/or services provided as to quantity, part number, description, price, applicable discount (if any), labor charges showing time differential, if applicable and if previously agreed to, and delivery, installation, and set-up costs, if applicable and if previously agreed to. Only charges as stated on the Bid Form(s) submitted as a part of the bid will be considered.

Invoices must indicate Jefferson County as applicable, the address to which the product(s) and/or service(s) were delivered, and the applicable purchase order number. Invoices will be matched to delivery tickets prior to payment; therefore, all delivery tickets should have an accurate description of the product(s) and/or service(s).

Invoices shall be submitted to: Jefferson County Auditing Department, Attention: Accounts Payable, 1149 Pearl Street, 7th floor, Beaumont, TX 77701.

7. Usage Reports

Jefferson County reserves the right to request, and receive at no additional cost, up to two (2) times during the contract period, a usage report detailing the products and/or services furnished to date under a contract resulting from this IFB. The reports must be furnished no later than five (5) working days after written request and itemize all purchases to date by Jefferson County department, description of each item purchased, including manufacturer, quantity of each item purchased, per unit and extended price of each item purchased, and total amount and price of all items purchased.

8. Insurance

The contractor (including any and all subcontractors as defined in Section 9.1.3 below) shall, at all times during the term of this contract, maintain insurance coverages with not less than the type and requirements shown below. Such insurance is to be provided at the sole cost of the contractor. These requirements do not establish limits of the contractor's liability.

All policies of insurance shall waive all rights of subrogation against the County, its officers, employees and agents; a copy of the policy wording or endorsement is required.

Contractor shall furnish Jefferson County with Certificate of Insurance naming Jefferson County as additional insured and will provide the actual policy wording or endorsement showing as such.

All insurance must be written by an insurer licensed to conduct business in the State of Texas.

Minimum Insurance Requirements

Public Liability, including Products & Completed Operations	$1,000,000
Excess Liability	$1,000,000

Property Insurance (policy below that is applicable to this project):
- Improvements & Betterments Policy: Improvements/Remodeling (for Lease Tenants)
- Builder's Risk Policy: Structural Coverage for Construction Projects
- Installation Floater Policy: Improvements/Alterations to Existing Structure

Workers' Compensation	Statutory Coverage (see attached)

9. Workers' Compensation Insurance

9.1 Definitions:

9.1.1 **Certificate of coverage ("Certificate")** – A copy of a certificate of insurance, a certificate of authority to self-insure issued by the commission, or a coverage agreement, DWC-81, DWC-82, DWC-83, or DWC-84 showing statutory workers' compensation insurance coverage for the person's or entity's employees providing services on a project, for the duration of the project.

9.1.2 **Duration of the project** – Includes the time from the beginning of the work on the project until the contractor's/person's work on the project has been completed and accepted by the governmental entity.

9.1.3 **Persons providing services on the project ("subcontractor") in article 406.096** – Includes all persons or entities performing all or part of the services under the contractor has undertaken to perform on the project, regardless of whether that person contracted directly

with the contractor and regardless of whether that person has employees. This includes, without limitation, independent contractors, subcontractor, leasing companies, motor carriers, owner-operators, employees of any such entity, or employees of any entity which furnishes persons to provide services on the project. "Services" includes, without limitation, providing, hauling or delivering equipment or materials, or providing labor, transportation, or other service related to a project. "Services" does not include activities unrelated to the project, such as food/beverage vendors, office supply deliveries, and delivery of portable toilets.

9.2 The Contractor shall provide coverage, based on proper reporting of classification code and payroll amounts and filing any coverage agreements, which meets the statutory requirements of Texas Labor Code, Section 401.011(44) for all employees of the contractor providing services on the project, for the duration of the project.

9.3 The Contractor must provide a certificate of coverage to the governmental entity prior to being awarded the contract – refer to Section 8 above.

9.4 If the coverage period shown on the Contractor's current certificate of coverage ends during the duration of the project, the Contractor must, prior to the end of the coverage period, file a new certificate of coverage with the governmental entity showing that coverage has been extended.

9.5 The Contractor shall obtain from each person providing services on a project, and provide to the governmental entity:

9.5.1 A certificate of coverage, prior to that person beginning work on the project, so the governmental entity will have on file certificates of coverage showing coverage for all persons providing services on the project; and

9.5.2 No later than seven (7) days after receipt by the Contractor, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate ends during the duration of the project.

9.6 The Contractor shall retain all required certificates of coverage for the duration of the project and for one (1) year thereafter.

9.7 The Contractor shall notify the governmental entity in writing by certified mail or personal delivery, within ten (10) days after the contractor knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project.

9.8 The Contractor shall post on each project site a notice, in the text, form and manner prescribed by the Texas Department of Workers' Compensation, informing all persons providing services on the project that they are required to be covered, and stating how a person may verify coverage and report lack of coverage.

9.9 The Contractor shall contractually require each person with whom it contracts to provide services on a project to:

9.9.1 Provide coverage, based on reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of Texas Labor Code, Section 401.011(44) for all its employees providing services on the project, for the duration of the project.

9.9.2 Provide to the Contractor, prior to that person beginning work on the project a certificate of coverage showing that coverage is being provided for all employees of the person providing services on the project, for the duration of the project.

9.9.3 Provide the Contractor, prior to the end of coverage period, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the project.

9.9.4 Obtain from each person with whom it contracts, and provide to the Contractor:

9.9.4.1 A certificate of coverage, prior to the other person beginning work on the project; and

9.9.4.2 the coverage period, if the coverage period shown on the current certificate of a new certificate of coverage showing extension of coverage, prior to the end of coverage ends during the duration of the project.

9.9.5 Retain all required certificates of coverage on file for the duration of the project and for one (1) year thereafter.

9.9.6 Notify the governmental entity in writing by certified mail or personal delivery, within ten (10) days after the person knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project; and

9.9.7 Contractually require each person with whom it contracts to perform as required by paragraphs 9.1. – 9.7., with the certificates of coverage to be provided to the person for whom they are providing services.

9.10 By signing this contract or providing or causing to be provided a certificate of coverage, the Contractor is representing to the governmental entity that all employees of the contractor who will provide services of the project will be covered by workers' compensation coverage for the duration of the project, that the coverage will be based on proper reporting of classification codes and payroll amounts, and that all coverage agreements will be filed with the appropriate insurance carrier or, in the case of a self-insured, with the commission's Division of Self-Insurance Regulation. Providing false or misleading information may subject the contractor to administrative penalties, criminal penalties, civil penalties, or other civil actions.

9.11 The Contractor's failure to comply with any of these provisions is a breach of contract by the Contractor which entitles the governmental entity to declare the contract void if the Contractor does not remedy the breach within ten (10) days after receipt of notice of breach from the governmental entity.

Minimum Specifications

The following requirements and specifications supersede General Requirements where applicable. Contact Yea-Mei Sauer, Contract Specialist (e-mail: ysauer@co.jefferson.tx.us; phone: 409-835-8593), regarding any questions or comments. Please reference bid number IFB 17-006/YS.

Scope

Vendor shall provide Insecticides, Herbicides, Spray Adjuvants, and Adulticides for the Jefferson County Mosquito Control District subject to the terms and conditions stated for an initial period **beginning on or about date of award**.

Bidders shall attach to bid form, a current material safety data sheet and current labels for each chemical. Failure to do so may result in rejection of bid.

Prices quoted shall be F.O.B. Jefferson County Mosquito Control District, Jefferson County Airport, 1st Street, Nederland, TX. Bidder bears freight charges. All prices must be written in ink or typewritten.

Quote unit prices extended to lump sum prices. The basis of the award will be the unit prices quoted. The County reserves the right to increase or decrease the quantity purchased based on weather conditions and availability of funds.

The County reserves the right to make the award to one (1) successful bidder or per line item.

Purchase orders for insecticides, herbicides, adjuvants, and adulticides will be released to the successful bidder(s) **on an as-needed basis. MINIMUM ORDERS ARE NOT ACCEPTABLE.**

Refer questions of a commercial nature to Jamey West, Contract Specialist at 409-835-8593; and questions of a technical nature to Kevin Sexton, Jefferson County Mosquito Control, at 409-719-5940.

A price re-determination may be considered by Jefferson County only at the twelve (12) month and twenty-four (24) month anniversary dates of the contract. All requests for price re-determination shall be in written form. Cause for such request, i.e., manufacturer's direct cost, postage rates, Railroad Commission rates, Federal/State minimum wage law, Federal/State unemployment taxes, F.I.C.A, Insurance Coverage Rates, etc., shall be substantiated in writing by the source of the cost increase. The bidder's past experience of honoring contracts at the bid price will be an important consideration in the evaluation of the lowest and best bid. Jefferson County reserves the right to accept or reject any/all requests for price re-determination as it deems to be in the best interest of the County.

Approximate Annual Usage

Items listed on the Bid Form indicate our approximate annual usage. No promise is made or implied that these quantities will be purchased. Orders will be placed on an **as-needed basis** for the duration of the contract. Purchase Orders will be released to the successful bidder(s) as required. **MINIMUM ORDERS ARE NOT ACCEPTABLE.**

Contract

This bid, when properly accepted by Jefferson County Commissioners' Court, shall constitute a contract equally binding between the successful bidder and Jefferson County. No different or additional terms will become a part of this contract.

The brand name references are for description only, and are not intended to exclude other herbicides or adjuvants of equal quality. Bidders desiring to substitute items may do so provided brand name is **indicated on Bid Form**. Change of container size may disqualify bid. Dilution ratio will be a factor in award of chemicals.

Bidders shall attach to bid form a current material safety data sheet and current labels for each chemical. Failure to do so may result in rejection of bid.

Item	Description
1	**MSMA herbicide** – to contain 6.00 lb. MSMA (Mono-sodium Acid Methanearsonate) plus surfactant per gallon
2	**Tordon 101** – to contain 10.2% 4-amino3,5,6-trichloropicolinic acid (picloram), tri-isopropanolomine salt 39.6% 2,4-Dichlorophenoxyacetric acid, tri-isopropanolomiane salt.
3	**Roundup herbicide or equivalent** – to contain 41.0% by weight Isopropylamine Salt of Glyphosate
4	**Rodeo herbicide or equivalent** – to contain 53.5% by weight Isopropylamine Salt of Glyphosate
5	**Nalco Trol II or equivalent** – water soluble spray drift control agent
6	**Aqua-King or equivalent** – product must be a non-ionic aquatic surfactant approved for use in the State of Texas, contain 90% active ingredient (excluding alcohols, fatty acids, oils ethylene glycol or diethylene glycol), a minimum of 80% surfactant load, possess an HLB (hydrophilic to lipophilic balance) ratio of 12 to 17, a maximum of 10% isopropyl alcohol, have a flash point greater than 200 degrees F., and contain an anti-foaming agent that will provide instantaneous foam breakdown when agitation ceases.
7	**Malathion insecticide** – concentrate to contain a minimum of 9.9 lb. of malathion per gallon (96.5% by weight active ingredient). Product offered must have current approval in Texas for both aerial and ground ULV application against adult mosquitoes. Bulk shipments only.
8	**Scourge insecticide** – concentrate to contain 1.51 lb. Resmethrin (18% by weight active ingredient) and 4.51 lb. Piperonyl Butoxide Technical (54% by weight active ingredient) per gallon. Product offered must have current approval in Texas for ground ULV application against adult mosquitoes.
9	**Envion 30/30 insecticide or equivalent** - water compatible concentrate in 2.52 lb. Permethrin (30.0% by weight) and 2.52 lb. Piperonyl Butoxide (30.0% by weight) per gallon. Product offered must have current approval in Texas for aerial and ground ULV application against adult mosquitoes.
10	**Duet Adulticide or equivalent** – 1.00% Prallethrin: = 0.085 lbs. of Technical Prallethrin per gallon. Chemical name = (RS) – 2 methyl-4-oxo-3-(2-propynl) cyclopent-2-enyl- (1RS)-cis, trans-chyrsanthemate. 5.00 % Sumethrin: = 0.370 lbs. of Technical Sumethrin per gallon. Chemical name = 3-Phenoxbenzyl- (1RS, 3 RS; 1RS, 3SR) -2,-2dimethyl-3-(2-methylprop-1-enyl) cyclopropanecarboxlate. 5.00% PBO = 0.370 lbs. Technical Pepronyl Butoxide per gallon. Chemical name = Pyperonyl Butoxide. Returnable 275 gallon stainless steel totes with 2.5 inch quick connect hose attachment. Successful bidder will deliver full containers and pick up empty containers at no additional charge

Bidder Information Form

Instructions: Complete the form below. Please provide legible, accurate, and complete contact information. PLEASE PRINT.

Bid Name & Number: IFB 17-006/YS, Term Contract for Insecticides, Herbicides, Spray Adjuvants, and Adulticides for Jefferson County Mosquito Control District

Bidder's Company/Business Name: Univar USA

Bidder's TAX ID Number: 91-1347935

Contact Person: John West **Title:** OSR

Phone Number (with area code): 713 826 0637

Alternate Phone Number if available (with area code): N/A

Fax Number (with area code): N/A

Email Address: John.West@Univar.com

Mailing Address (Please provide a physical address for bid bond return, if applicable):

PO BOX 20301
Address
Beaumont, TX 77720
City, State, Zip Code

OFFER AND ACCEPTANCE FORM

OFFER TO CONTRACT

To Jefferson County:

We hereby offer and agree to furnish the materials or service in compliance with all terms, conditions, specifications, and amendments in the Invitation for Bid and any written exceptions in the offer. We understand that the items in this Invitation for Bid, including, but not limited to, all required certificates are fully incorporated herein as a material and necessary part of the contract.

The undersigned hereby states, under penalty of perjury, that all information provided is true, accurate, and complete, and states that he/she has the authority to submit this bid, which will result in a binding contract if accepted by Jefferson County.

We acknowledge receipt of the following amendment(s): _____, _____, _____, _____.

I certify, under penalty of perjury, that I have the legal authorization to bind the firm hereunder:

Univar USA
Company Name

For clarification of this offer, contact:

PO Box 20301
Address

John West
Name

Beaumont TX 77720 713 826 0637
City State Zip Phone Fax

Signature of Person Authorized to Sign

John.West@Univar.com
E-mail

John West
Printed Name

OSR
Title

Bidder Shall Return Completed Form with Offer.

Acceptance of Offer

The Offer is hereby accepted for the following items: Term Contract for Insecticides, Herbicides, Spray Adjuvants, and Adulticides for Jefferson County Mosquito Control District. Contract Term: One (1) year from date of award with an option to renew for four (4) additional years.

The Contractor is now bound to sell the materials or services listed by the attached contract and based upon the Invitation for Bid, including all terms, conditions, specifications, amendments, etc., and the Contractor's Offer as accepted by Jefferson County.

This contract shall henceforth be referred to as Contract No. 17-006/YS, Term Contract for Insecticides, Herbicides, Spray Adjuvants, and Adulticides for Jefferson County Mosquito Control District. The Contractor has not been authorized to commence any billable work or to provide any material or service under this contract until Contractor receives a purchase order and/or a notice to proceed from the Jefferson County Purchasing Agent.

Countersigned:

Jeff R. Branick
County Judge

Date

Attest:

Carolyn L. Guidry
County Clerk

Bidder Shall Return Completed Form with Offer.

Bid Form

Item	Est Qty. (Gal.)	Description	Brand bid	MSDS Labels Attached	Price per Gallon	Total Price
1	700	MSMA Herbicide – 2.5 gal. container	NB		$	$
2	700	Tordon 101 Herbicide or equivalent – 2.5 gal. container	NB		$	$
3	700	Roundup Herbicide or equivalent – 2.5 gal. container	Ranger Pro	y	$ 13	$ 32.50/Jug
4	100	Rodeo Herbicide or equivalent – 2.5 gal. container	NB		$	$
5	100	Nalco Trol II or equivalent – 2.5 gal. (or smaller) container	NB		$	$
6	400	Aqua-King Surfactant or equivalent – 2.5 gal. (or smaller) container	NB		$	$
7	20,000	Malathion Insecticide – **bulk shipment only**	Fyfanon	y	$ 48.70	$ 48,700.00
8	250	Scourge Insecticide – 5 gal. containers	NB		$	$
9	600	Envion 30/30 insecticide – 2.5 gal. containers	Kontrol 30/30	y	$ 55.49	$
10	1,375	Duet Adulticide 275 gal. steel containers	NB		$	$

Bidders shall attach to bid form a current material safety data sheet and current labels for each chemical. Failure to do so may result in rejection of bid.

Acknowledgment of Addenda (if any):

Addendum 1 _____ Date Received_____

Addendum 2 _____ Date Received_____

Addendum 3 _____ Date Received_____

Bidder Shall Return Completed Form with Offer.

Vendor References

Please list at least three (3) companies or governmental agencies (preferably a municipality) where the same or similar products and/or services as contained in this specification package were recently provided.

THIS FORM MUST BE RETURNED WITH YOUR BID.

REFERENCE ONE

Government/Company Name: Chambers County

Address: 305 Airport RD

Contact Person and Title: Lawrence Lewis - Director

Phone: 409 594 5267 Fax: _____

Contract Period: _____ Scope of Work: Supplier of Mosquito Chemicals.

REFERENCE TWO

Government/Company Name: Jeff Davis Parish

Address: 6661 Jennings Hwy

Contact Person and Title: Robert Tunn

Phone: 337 780 0954 Fax: _____

Contract Period: _____ Scope of Work: Chemical Supplier

REFERENCE THREE

Government/Company Name: Galveston County

Address: 77510 Hwy 3 Dickinson TX

Contact Person and Title: John Marshall

Phone: 281 330 8004 Fax: _____

Contract Period: _____ Scope of Work: Chemical Supplier

Bidder Shall Return Completed Form with Offer.

Signature Page

As permitted under Article 4413 (32c) V.A.C.S., other governmental entities may wish to participate under the same terms and conditions contained in this contract (i.e., piggyback). In the event any other entity participates, all purchase orders will be issued directly from and shipped directly to the entity requiring supplies/services. Jefferson County shall not be held responsible for any orders placed, deliveries made or payment for supplies/services ordered by another entity. Each entity reserves the right to determine their participation in this contract.

Would bidder be willing to allow other governmental entities to piggyback off this contract, if awarded, under the same terms and conditions? ..... **Yes** ☒ **No** ☐

This bid shall remain in effect for ninety (90) days from bid opening and shall be exclusive of federal excise and state and local sales tax (exempt).

The undersigned agrees, if this bid is accepted, to furnish any and all items upon which prices are offered, at the price and upon the terms and conditions contained in the Invitation for Bid, Conditions of Bidding, Terms of Contract, and Specifications and all other items made a part of the accepted contract.

The undersigned affirms that they are duly authorized to execute the contract, that this company, corporation, firm, partnership or individual has not prepared this bid in collusion with any other bidder, and that the contents of this bid as to prices, terms or conditions of said bid have not been communicated by the undersigned nor by any employee or agent to any other bidder or to any other person(s) engaged in this type of business prior to the official opening of this bid. And further, that neither the bidder nor their employees nor agents have been for the past six (6) months directly nor indirectly concerned in any pool or agreement or combination to control the price of goods or services on, nor to influence any person to bid or not to bid thereon.

Univar USA Bidder (Entity Name)	 Signature
PO Box 20301 Street & Mailing Address	John West Print Name
Beaumont, TX 77720 City, State & Zip	3/10/17 Date Signed
713 826 0637 Telephone Number	N/A Fax Number

John.West@Univar.com
E-mail Address

Bidder Shall Return Completed Form with Offer.

Conflict of Interest Questionnaire

CONFLICT OF INTEREST QUESTIONNAIRE — FORM CIQ

For vendor doing business with local governmental entity

This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session.

This questionnaire is being filed in accordance with Chapter 176, Local Government Code, by a vendor who has a business relationship as defined by Section 176.001(1-a) with a local governmental entity and the vendor meets requirements under Section 176.006(a).

By law this questionnaire must be filed with the records administrator of the local governmental entity not later than the 7th business day after the date the vendor becomes aware of facts that require the statement to be filed. *See* Section 176.006(a-1), Local Government Code.

A vendor commits an offense if the vendor knowingly violates Section 176.006, Local Government Code. An offense under this section is a misdemeanor.

OFFICE USE ONLY

Date Received

1 **Name of vendor who has a business relationship with local governmental entity.**

Univar USA

2 ☐ **Check this box if you are filing an update to a previously filed questionnaire.**

(The law requires that you file an updated completed questionnaire with the appropriate filing authority not later than the 7th business day after the date on which you became aware that the originally filed questionnaire was incomplete or inaccurate.)

3 **Name of local government officer about whom the information in this section is being disclosed.**

N/A

Name of Officer

This section (item 3 including subparts A, B, C, & D) must be completed for each officer with whom the vendor has an employment or other business relationship as defined by Section 176.001(1-a), Local Government Code. Attach additional pages to this Form CIQ as necessary.

A. Is the local government officer named in this section receiving or likely to receive taxable income, other than investment income, from the vendor?

☐ Yes ☒ No

B. Is the vendor receiving or likely to receive taxable income, other than investment income, from or at the direction of the local government officer named in this section AND the taxable income is not received from the local governmental entity?

☐ Yes ☒ No

C. Is the filer of this questionnaire employed by a corporation or other business entity with respect to which the local government officer serves as an officer or director, or holds an ownership interest of one percent or more?

☐ Yes ☒ No

D. Describe each employment or business and family relationship with the local government officer named in this section.

4

Signature of vendor doing business with the governmental entity

3/10/17

Date

Adopted 8/7/2015

Bidder Shall Return Completed Form with Offer.

Local Government Officer

Conflicts Disclosure Statement - OFFICE USE ONLY

LOCAL GOVERNMENT OFFICER CONFLICTS DISCLOSURE STATEMENT — FORM CIS

This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session.

This is the notice to the appropriate local governmental entity that the following local government officer has become aware of facts that require the officer to file this statement in accordance with Chapter 176, Local Government Code.

OFFICE USE ONLY

Date Received

1 Name of Local Government Officer

NONE

2 Office Held

N/A

3 Name of vendor described by Sections 176.001(7) and 176.003(a), Local Government Code

UNIVAR

4 Description of the nature and extent of employment or other business relationship with vendor named in item 3

N/A

5 List gifts accepted by the local government officer and any family member, if aggregate value of the gifts accepted from vendor named in item 3 exceeds $100 during the 12-month period described by Section 176.003(a)(2)(B).

Date Gift Accepted _____ Description of Gift _____

Date Gift Accepted N/A Description of Gift N/A

Date Gift Accepted _____ Description of Gift _____

(attach additional forms as necessary)

6 AFFIDAVIT

I swear under penalty of perjury that the above statement is true and correct. I acknowledge that the disclosure applies to each family member (as defined by Section 176.001(2), Local Government Code) of this local government officer. I also acknowledge that this statement covers the 12-month period described by Section 176.003(a)(2)(B), Local Government Code.

_____
Signature of Local Government Officer

AFFIX NOTARY STAMP / SEAL ABOVE

Sworn to and subscribed before me, by the said _____, this the _____ day of _____, 20 _____, to certify which, witness my hand and seal of office.

_____
Signature of officer administering oath | Printed name of officer administering oath | Title of officer administering oath

Adopted 8/7/2015

Good Faith Effort (GFE) Determination Checklist

This information must be submitted with your bid.

Bidder intends to utilize subcontractors/subconsultants in the fulfillment of this contract (if awarded).
☐ Yes ☒ No

Instructions: In order to determine if a "Good Faith Effort" was made in soliciting HUBs for subcontracting opportunities, the following checklist and supporting documentation shall be completed by the Prime Contractor/Consultant, and returned with the Prime Contractor/ Consultant's bid. This list contains the **minimum** efforts that should be put forth by the Prime Contractor/Consultant when attempting to achieve or exceed the goals of HUB Subcontractor participation. The Prime Contractor/Consultant may extend his/her efforts in soliciting HUB Subcontractor participation beyond what is listed below.

Did the Prime Contractor/Consultant . . .

☐ Yes ☐ No 1. To the extent practical, and consistent with standard and prudent industry standards, divide the contract work into the smallest feasible portions, to allow for maximum HUB Subcontractor participation?

☐ Yes ☐ No 2. **Notify** in writing a reasonable number of HUBs, allowing sufficient time for effective participation of the planned work to be subcontracted?

☐ Yes ☐ No 3. **Provide** HUBs that were genuinely interested in bidding on a subcontractor, adequate information regarding the project (i.e., plans, specifications, scope of work, bonding and insurance requirements, and a point of contract within the Prime Contractor/Consultant's organization)?

☐ Yes ☐ No 4. **Negotiate** in good faith with interested HUBs, and not reject bids from HUBs that qualify as lowest and responsive bidders?

☐ Yes ☐ No 5. **Document** reasons HUBs were rejected? Was a written rejection notice, including the reason for rejection, provided to the rejected HUBs?

☐ Yes ☐ No 6. If Prime Contractor/Consultant has zero (0) HUB participation, **please explain the reasons why.**

If "No" was selected, please explain and include any pertinent documentation with your bid.
If necessary, please use a separate sheet to answer the above questions.

John West
Printed Name of Authorized Representative

Signature

OSR
Title

3/10/17
Date

Bidder Shall Return Completed Form with Offer.

Notice of Intent (NOI) to Subcontract with Historically Underutilized Business (HUB)

This information must be submitted with your bid.

Bidder intends to utilize subcontractors/subconsultants in the fulfillment of this contract (if awarded).
☐ Yes ☒ No

Instructions for Prime Contractor/Consultant: Bidder shall submit this form with the bid; however, the information below may be submitted after contract award, but prior to beginning performance on the contract. Please submit one form for each HUB Subcontractor/Subconsultant with proper signatures, per the terms and conditions of your contract.

Contractor Name: _____ HUB: p Yes p No

Address: _____
Street City State Zip

Phone (with area code): _____ Fax (with area code): _____

Project Title & No.: _____

Prime Contract Amount: $ _____

HUB Subcontractor Name: _____

HUB Status (Gender & Ethnicity): _____

Certifying Agency: ☐ Tx. Bldg & Procurement Comm. ☐ Jefferson County ☐ Tx Unified Certification Prog.

Address: _____
Street City State Zip

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

Printed Name of Contractor Representative	Signature of Representative	Date
Univar		3/10/17
Printed Name of HUB	Signature of Representative	Date

NOTE: NOTHING ON THIS NOTICE OF INTENT FORM IS INTENDED TO CONFER ANY RIGHTS, EXPRESSED OR IMPLIED, TO ANY THIRD PARTIES.

Pre-Approval for Subcontractor Substitutions must be obtained from the Jefferson County Purchasing Agent's Representative. The "HUB Subcontractor/Subconsultant Change Form" must be completed and faxed to 409-835-8456.

Bidder Shall Return Completed Form with Offer.

Historically Underutilized Business (HUB) Subcontracting Participation Declaration Form

This information must be submitted with your bid.

Bidder intends to utilize subcontractors/subconsultants in the fulfillment of this contract (if awarded).
☐ Yes ☒ No

Prime Contractor: _____ HUB: ☐ Yes ☐ No

HUB Status (Gender & Ethnicity): _____

Address: _____
Street City State Zip

Phone (with area code): _____ Fax (with area code): _____

Project Title & No.: _____ IFB/RFP No.: _____

Total Contract: $ _____ Total HUB Subcontract(s): $ _____

Construction HUB Goals: 12.8% MBE:: _____ % 12.6% WBE: _____ %

Sub-goals: 1.7 African-American, 9.7% Hispanic, 0.7% Native American, 0.8% Asian American.
Use these goals as a guide to diversify.

FOR HUB OFFICE USE ONLY:

Verification date HUB Program Office reviewed and verified HUB Sub information Date: _____ Initials: _____

PART I. HUB SUCONTRACTOR DISCLOSURE

HUB Subcontractor Name: _____

HUB Status (Gender & Ethnicity): _____

Certifying Agency: ☐ Texas Bldg & Procurement Comm. ☐ Texas Unified Certification Prog.

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

Bidder Shall Return Completed Form with Offer.

Historically Underutilized Business (HUB) Subcontracting Participation Declaration Form

HUB SUBCONTRACTOR DISCLOSURE

PART I: Continuation Sheet **(Duplicate as Needed)**

HUB Subcontractor Name: _____

HUB Status (Gender & Ethnicity): _____

Certifying Agency: ☐ Tx. Bldg & Procurement Comm. ☐ Jefferson County ☐ Tx Unified Certification Prog.

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

_____

HUB Subcontractor Name: _____

HUB Status (Gender & Ethnicity): _____

Certifying Agency: ☐ Tx. Bldg & Procurement Comm. ☐ Jefferson County ☐ Tx Unified Certification Prog.

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

_____

All HUB Subcontractor Participation may be verified with the HUB Subcontractor(s) listed on Part I.

Bidder Shall Return Completed Form with Offer.

Historically Underutilized Business (HUB) Subcontracting Participation Declaration Form

PART II: STATEMENT OF NON-COMPLIANCE FOR NOT MEETING HUB SUBCONTRACTING GOALS

Please complete Good Faith Effort (GFE) Checklist and attach any supporting documentation.

Our firm was unable to meet the HUB goals for this project for the following reasons:

- ☐ All subcontractors to be utilized are "Non-HUBs." *(Complete Part III)*
- ☐ HUBs were solicited but did not respond.
- ☐ HUBs solicited were not competitive.
- ☐ HUBs were unavailable for the following trade(s):
- ☐ Other: _____

Was the Jefferson County HUB Office contacted for assistance in locating HUBs? ☐ Yes ☒ No

PART III: DISCLOSURE OF OTHER "NON-HUB" SUBCONTRACTS

The bidder shall use this area to provide a listing of all "Non-HUB" Subcontractors, including suppliers, that will perform under this project. A list of those "Non-HUB" Subcontractors the bidder selects, after bid submission, shall be provided to the Purchasing Office not later than five (5) calendar days after being notified that bidder is the apparent low bidder. A list of those "Non-HUB" Subcontractors that are selected after contract award must be provided **immediately** after their selection.

Subcontractor Name: _____

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

Subcontractor Name: _____

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

Bidder Shall Return Completed Form with Offer.

Historically Underutilized Business (HUB)
Subcontracting Participation Declaration Form

Subcontractor Name: _____

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

Subcontractor Name: _____

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

I hereby certify that I have read the *HUB Program Instructions and Information*, truthfully completed all applicable parts of this form, and **attached any necessary support documentation as required.** I fully understand that intentionally falsifying information on this document may result in my not receiving a contract award or termination of any resulting contract.

Name (print or type): _____

Title: _____

Signature: _____

Date: _____

E-mail address: _____

Contact person that will be in charge of invoicing for this project:

Name (print or type): _____

Title: _____

Date: _____

E-mail address: _____

Bidder Shall Return Completed Form with Offer.

Residence Certification/Tax Form

Pursuant to Texas Government Code §2252.001 *et seq.*, as amended, Jefferson County requests Resident Certification. §2252.001 *et seq.* of the Government Code provides some restrictions on the awarding of governmental contracts; pertinent provisions of §2252.001 are stated below:

(3) "Nonresident bidder" refers to a person who is not a resident.

(4) "Resident bidder" refers to a person whose principal place of business is in this state, including a contractor whose ultimate parent company or majority owner has its principal place of business in this state.

☒ I certify that John West / Univar USA [company name] is a Resident Bidder of Texas as defined in Government Code §2252.001.

☐ I certify that _____ [company name] is a Nonresident Bidder as defined in Government Code §2252.001 and our principal place of business is _____ _____ (city and state).

Taxpayer Identification Number (T.I.N.):	91-1347935
Company Name submitting bid/proposal:	Univar USA
Mailing address:	PO Box 20301 Beaumont TX 77720
If you are an individual, list the names and addresses of any partnership of which you are a general partner:	

Property: List all taxable property owned by you or above partnerships in Jefferson County.

Jefferson County Tax Acct. No.*	Property address or location**

* This is the property amount identification number assigned by the Jefferson County Appraisal District.

** For real property, specify the property address or legal description. For business property, specify the address where the property is located. For example, office equipment will normally be at your office, but inventory may be stored as a warehouse or other location.

Bidder Shall Return Completed Form with Offer.

Bid Affidavit

The undersigned certifies that the bid prices contained in this bid have been carefully reviewed and are submitted as correct and final. Bidder further certifies and agrees to furnish any and/or all commodities upon which prices are extended at the price offered, and upon the conditions contained in the specifications and the Notice to Bidders.

STATE OF Texas COUNTY OF Jefferson

BEFORE ME, the undersigned authority, a Notary Public in and for the State of Texas,

on this day personally appeared John West (name), who

after being by me duly sworn, did depose and say:

"I, John West (name) am a duly authorized officer of/agent

for Univar USA (name of firm) and have been duly authorized to execute the

foregoing on behalf of the said Univar USA (name of firm).

I hereby certify that the foregoing bid has not been prepared in collusion with any other bidder or other person or persons engaged in the same line of business prior to the official opening of this bid. Further, I certify that the bidder is not now, nor has been for the past six (6) months, directly or indirectly concerned in any pool or agreement or combination, to control the price of services/commodities bid on, or to influence any person or persons to bid or not to bid thereon."

Name and address of bidder: John West - Univar USA

PO Box 20301 Beaumont, TX 77720

Fax: N/A Telephone# 713 826 0637

by: John West (print name) Title: OSR

Signature: John West

SUBSCRIBED AND SWORN to before me by the above-named

_____ on

this the 10 day of March, 2017.

JESSICA E DELACERDA
Notary Public, State Of Texas
Comm. Expires 01-17-2021
My Notary ID # 13096464-2

Jessica E. Delacerda
Notary Public in and for
the State of Texas

Bidder Shall Return Completed Form with Offer.

SAFETY DATA SHEET

SECTION 1 – IDENTIFICATION

Product Identifier : **FYFANON ULV MOSQUITO**
EPA Reg. No. : **67760-34**
Product Use : Insecticide

Supplier's name and address:

Cheminova, Inc.
One Park Drive, Suite 150
PO Box 110566
Research Triangle Park, NC, USA
27709
Phone #: (919) 474-6600 (8:00 AM to 5:00 PM EST, Monday to Friday)

Manufacturer's name and address:

Cheminova A/S
PO Box 9
DK-7620
Lemvig, Denmark

Emergency Telephone #: 1-866-303-6950 (Medical Emergencies)
1-800-424-9300 (24 Hr. Chemtrec Number)

SDS Prepared by: Cheminova Inc.
SDS Preparation date: August 19, 2003
Revision date: May 27, 2015
Revision reason: GHS Revision

SECTION 2 – HAZARDS IDENTIFICATION

GHS Signal Word:

Warning

Classification:

Health	Environmental	Physical
Skin Irritation – Category 2 Eye Irritation – Category 2B	Aquatic Toxicity – Acute 1 Aquatic Toxicity – Chronic 1	Not applicable

GHS Pictogram:



Hazard Statements:

Causes skin irritation.
Causes eye irritation.
Very toxic to aquatic life.
Very toxic to aquatic life with long lasting effects.

Precautionary Statements:

Prevention:

Wash hands thoroughly after handling.
Wear protective gloves.
Avoid release to the environment.

Response:

If on skin: Wash with plenty of water.

For specific treatment, refer to product label.
If skin irritation occurs: Get medical advice/attention.
Take off contaminated clothing and wash it before reuse.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.
Collect spillage.

Storage:

Not applicable.

Disposal:

Dispose of contents/container according to label directions.

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS #	% (weight)
Malathion (O,O-dimethyl phosphorodithioate of diethyl mercaptosuccinate)	121-75-5	60.00 – 100.00

This material is classified as hazardous under OSHA regulations (29 CFR 1910.1200).

SECTION 4 – FIRST AID MEASURES

IF SWALLOWED:
- Call a poison control center or doctor immediately for treatment advice.
- Have a person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to do so by a poison control center or doctor.
- Do not give anything by mouth to an unconscious person.

IF INHALED:
- Move person to fresh air.
- If person is not breathing, call 911 or ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.
- Call poison control center or doctor for further treatment advice.

IF ON SKIN OR CLOTHING:
- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15-20 minutes.
- Call a poison control center or doctor for treatment advice.

IF IN EYES:
- Hold eye open and rinse slowly and gently with water for 15-20 minutes.
- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
- Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-866-303-6950 for emergency medical treatment information.

Note to physician: This product is a cholinesterase inhibitor. Treat symptomatically. Atropine is antidotal.

Signs and symptoms of short-term (acute) exposure

Inhalation : Fyfanon (malathion) is a cholinesterase inhibitor of low mammalian toxicity. However storage at too high temperature may induce formation of the much more toxic and synergistic contaminant isomalathion (LD50 acute oral, rat = 89 mg/kg). Malathion and isomalathion can affect you when breathed in and can cause organophosphorous poisoning. Symptoms of poisoning may include headache, nausea, vomiting, blurred vision, tightness in chest, drooling, frothing of mouth and nose, convulsions, coma and death.

Skin : Direct skin contact may result in little or no irritation. Malathion and isomalathion can be rapidly absorbed through all skin surfaces. Causes symptoms similar to those listed for inhalation.

Eyes : Direct contact causes eye irritation. Malathion and isomalathion can be rapidly absorbed through all skin and eye surfaces. Causes symptoms similar to those listed for inhalation.

Ingestion : Malathion and isomalathion are poisons through ingestion. Causes symptoms similar to those listed for inhalation.

Effects of long-term (chronic) exposure

: Repeated ingestion may cause severe weight loss.

Conditions aggravated by overexposure

: Prolonged or repeated overexposures may cause behavioral changes.

SECTION 5 – FIRE FIGHTING MEASURES

Fire hazards/conditions of flammability

: This product is considered non-flammable. Material will decompose rapidly when exposed to heat (>212° F/100° C) and flame, increasing the risk of explosion. Heat of decomposition may cause closed containers to build up pressure and explode.

Flammability classification (OSHA 29 CFR 1910.1200)

: Non-flammable.

Oxidizing properties : None known

Explosion data: Sensitivity to mechanical impact / static discharge

: Not expected to be sensitive to mechanical impact or static discharge.

Suitable extinguishing media

: Carbon dioxide or dry chemical for small fires. For large fires, use water spray or foam.

Special fire-fighting procedures/equipment

: Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode. Move containers from fire area if safe to do so. Water spray may be useful in cooling equipment exposed to heat and flame. Avoid spreading burning liquid with water spray used for cooling purposes.

Hazardous combustion products

: Carbon oxides; Oxides of phosphorus; oxides of sulfur; dimethyl sulfide; irritating fumes and smoke.

NFPA Rating :

0 – Minimal	1 – Slight	2 – Moderate	3 – Serious	4 – Severe
Health: 1	*Flammability:* 1	*Instability:* 1	*Special Hazards:*	None

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal precautions : Restrict access to area until completion of clean-up. Ensure clean-up is conducted by trained personnel only. All persons dealing with clean-up should wear the appropriate protective equipment including self-contained breathing apparatus. Refer to Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION, for additional information on acceptable personal protective equipment.

Environmental precautions : Ensure spilled product does not enter drains, sewers, waterways or confined spaces. If necessary, dike well ahead of the spill to prevent

runoff into drains, sewers, or any natural waterway or drinking supply. Do not flush into surface water or sanitary sewer system. Uncontrolled discharge into water courses may be alerted to the appropriate regulatory body.

Spill response/cleanup : Remove all sources of ignition. Ventilate area of release. Stop the spill at source if it is safe to do so. Contain and absorb spilled material with inert, non-combustible absorbent material, such as sand. Sweep up and shovel into suitable containers for disposal. For a water spill, confine the spill immediately with booms. Notify the appropriate authorities as required. Carefully cover spilled material with soda ash or quicklime to neutralize. Do not flush into surface water or sanitary sewer system. For large spills on surfaces other than pavement (e.g. soil or sand), spills may be handled by digging up and removing the affected surface and placing it in approved containers.

Prohibited materials : None known.

Special spill response procedures

: In case of spill/release in excess of the EPA reportable quantity is made into the environment, immediately notify the national response center in the United States (phone: 1-800-424-8002)
US CERCLA Reportable quantity (RQ): Malathion (100 lbs/45.4 kg)

SECTION 7 – HANDLING AND STORAGE

Safe handling procedures : This material is a toxic liquid. Wear chemically resistant protective equipment during handling. Use only in well-ventilated areas. Avoid contact with skin, eyes and clothing. Do not breathe vapors or spray mist. Do not use near welding operations, flames or hot surfaces. Malathion should never be heated above 131° F (55° C) and also local heating above this temperature should be avoided. Keep away from acids and other incompatibles. Keep containers tightly closed when not in use. Wash thoroughly after handling. Use caution when opening cap.

Storage requirements : Store in a cool, dry, well ventilated area. Keep way from incompatibles. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks. Product should be stored at temperatures not exceeding 68 to 77° F (20 to 25° C). protect against physical damage.

Incompatible materials : Strong alkalis, amines and strong oxidizing compounds. The product can corrode iron, steel, tin plate and copper. Fyfanon is rapidly hydrolyzed at pH > 7.0.

Special packaging materials: Always keep in containers made of the same materials as the supply container.

SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Limits

Ingredients	ACGIH TLV		OSHA PEL	
	TWA	STEL	PEL	STEL
Malathion	1 mg/m^3 (inhalable)	N/Av	15 mg/m^3 (total dust)	N/Av

Ventilation and engineering measures
: Provide sufficient ventilation to keep vapor concentration below the given TLV and/or PEL.

Respiratory protection : Respiratory protection is required if the concentrations exceed the TLV. Wear a pesticide respirator jointly approved by the MSHA and NIOSH. Seek advice from respiratory protection specialists.

Skin protection : Wear impervious gloves, such as barrier laminate, butyl rubber, nitrile rubber or viton. Advice should be sought from glove suppliers.

Eye / face protection : Safety glasses with side-shields or chemical splash goggles.

Other protective equipment
: Wear appropriate protective clothing to prevent skin contact, such as coveralls or long sleeved shirt, long pants, and shoes and socks. Other protective equipment, such as an eyewash station and safety shower, may be required depending on exposure and on workplace standards.

General hygiene considerations
: Avoid contact with skin, eyes and clothing. Remove soiled clothing and wash it thoroughly before reuse. Separate contaminated work clothes from street clothes. Always wash hands, face and arms with soap and water before smoking, eating or drinking. After work, take off all protective equipment, work clothes and shoes, and wash with soap and water. Respirator should be cleaned and filter replaced according to manufacturer's instructions. Wear only clean, uncontaminated clothes when leaving place of work. Persons working with this product for a longer period should have frequent blood tests for cholinesterase levels. If the cholinesterase levels fall below a critical point, no further exposure should be allowed until it has been determined, by means of blood tests, that cholinesterase levels have returned to normal.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Colorless to light yellow liquid
Odor: Slightly aromatic
Odor threshold: ND
pH: 3.7 – 3.8 (equal amounts Fyfanon and distilled water)
Melting point/Freezing point: 37.1° F (2.85° C)
Initial boiling point and boiling range: 313 – 315° F (156 – 157° C)
Flash point: 325° F (163° C)
Evaporation rate: ND
Flammability: Non-flammable
Upper/lower flammability and explosive limits: NA
Vapor pressure: 3.4×10^{-06} mmHg @ 25° C; 1.4×10^{-04} mmHg @ 45° C
Vapor density: ND
Bulk density: ND
Specific gravity: 1.23 g/mL @ 20° C
Solubility(ies): in water 148.2 mg/L @ 25° C
Partition coefficient (n-octanol/water): Kow = 560
Auto-ignition temperature: 532° F (278° C)
Decomposition temperature: ND
Viscosity: ND

ND=Not determined

NA=Not applicable

SECTION 10 – STABILITY AND REACTIVITY

Stability and reactivity : Stable if handled below 131 F (55 C). At higher temperatures decomposition may take place, and the released heat from decomposition can raise the temperature further and accelerate decomposition. Malathion can corrode iron, steel, tin plate and copper. It can be rapidly hydrolyzed at pH > 7.

Hazardous polymerization : Above 284 F (140 C) Fyfanon will decompose rapidly, significantly increasing the risk of inducing explosions. Direct local heating such as electric heating or by steam must be avoided. The decomposition is to a considerable extent dependant on time as well as temperature due to self-accelerating exothermic and autocatalytic reactions. The reactions involve rearrangements and polymerization releasing volatile, malodorous and inflammable compounds such as dimethyl sulfide.

Conditions to avoid : Open flames, sparks, high heat, direct sunlight, and close proximity to incompatible substances.

Materials to avoid and incompatibility

: Incompatible materials (see Section 7).

Hazardous decomposition products

: Storage at too high temperatures may induce formation of the more toxic and synergistic contaminant isomalathion. Refer to hazardous combustion products in Section 5.

SECTION 11 – TOXICOLOGICAL INFORMATION

Target organs : Eyes, skin, respiratory system, digestive system, central nervous system.

Routes of exposure : *Inhalation:* YES *Skin absorption:* YES *Skin & Eyes:* YES *Ingestion:* YES

Toxicological data : Fyfanon:

LC50 Inhalation (rat): >5.2 mg/L / 4 Hrs
LD50 Oral (rat): 5500 mg/kg
LD50 Dermal (rat): >2000 mg/kg
Eye irritation: Slight
Skin irritation: Slight
Skin sensitizer: Not a skin sensitizer

Carcinogenic status : No components are listed as carcinogens by ACGIH, IARC, OSHA or NTP.

Reproductive effects : Not expected to have other reproductive effects.

Teratogenicity : Not expected to be a teratogen.

Mutagenicity : Not expected to be mutagenic in humans.

Epidemiology : Not available.

Sensitization to material : None known.

Synergistic materials : Not available.

Irritancy : May cause eye and skin irritation. May cause irritation to upper respiratory system.

Other important hazards : Cholinesterase inhibitor may cause central nervous system depression. Contains a material which can cause peripheral nervous system damage.

Conditions aggravated by exposure

: None known.

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity : The toxicity of the active ingredients to wildlife species is measured to be:

Fish – 96-Hr LC50, Rainbow Trout (*Salmo gairdneri*) = 0.18 mg/L
37-day NOEC, Rainbow Trout (*Salmo gairdneri*) = 21 µg/L

Invertebrates – 48-hr EC50, Daphnids (*Daphnia magna*) = 0.72 mg/L
21-day NOEC, Daphnids (*Daphnia magna*) = 0.06 µg/L

Algae – 72-Hr LC50, Green Algae (*Selenastrum capricornutum)* = 4.06 mg/L

Birds – LD50, Bobwhite quail (*Colinus virginianus*) = 359 mg/kg
5-day dietary LC50, Bobwhite quail (*Colinus virginianus*) = 3497 mg/kg

Earthworms – 14-day LC50, *Eisenia foetida foetida* = 613 mg/kg soil

Bees –LD50, worker honey-bees, acute oral = 0.38 µg/bee
LD50, worker honey-bees, topical = 0.27 µg/bee

Mobility : Under normal conditions, the active ingredient is of medium mobility in soil, but is degraded rapidly.

Persistence : The active ingredient, Malathion, is readily biodegradable. It undergoes rapid degradation in the environment and, without problems, in sewage treatment plants. No adverse effects are observed at concentrations up to 100 mg/L in waste water treatment plants. Degradation occurs both aerobically and anaerobically, and biologically as well as abiologically. Under normal conditions, Malathion is of medium mobility in soil, but is degraded rapidly. The product should not be allowed to enter drains or water courses or be deposited where it can affect ground or surface waters. Do not discharge product unmonitored into the environment.

Bioaccumulation potential : The bioconcentration factor (BCF) of Malathion is 95 (average for several fish species).

Other adverse environmental effects

: This product is an insecticide. Malathion is toxic to birds, fish, aquatic invertebrates, aquatic life stages of amphibians and highly toxic to bees. The product should not be allowed to enter drains or water courses, or be deposited where it can affect ground or surface waters.

SECTION 13 – DISPOSAL CONSIDERATIONS

Handling for disposal : Handle wastes according to recommendations in Section 7.

Methods for disposal : Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Triple rinse (or equivalent) containers, then offer for recycling or recondition, or puncture and dispose of in a sanitary landfill. Dispose in accordance with all applicable federal, state, provincial and local regulations. Contact your local, state, provincial or federal environmental agency for specific rules.

RCRA : If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method.

SECTION 14 – TRANSPORT INFORMATION

Regulatory Information	UN Number	Shipping Name	Class	Packing Group	Label
49CFR/DOT	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (malathion)	9	III	
49CFR/DOT Additional information	None.				
TDG	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (malathion)	9	III	
TDG Additional information	Only regulated for marine transport.				

SECTION 15 – REGULATORY INFORMATION

US Federal Information:

FIFRA: This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required on safety data sheets, and for workplace labels on non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

CAUTION
Harmful by swallowing, inhalation or skin contact.
Avoid contact with skin.
Avoid breathing spray mist.

OSHA: This material is classified as hazardous under OSHA regulations (29CFR 1910.1200).

CERCLA Reportable Quantity (RQ) (40 CFR 117.302): Malathion (100 lbs/45.4 kg)

SARA TITLE III: Sec. 302, Extremely Hazardous Substances, 40 CFR 355: No Extremely Hazardous Substances are present in this material.

SARA TITLE III: Sec. 311 and 312, MSDS Requirements, 40 CFR 370 Hazard Classes: Immediate (Acute) Health Hazard; Chronic Health Hazard. Under SARA Sections 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are 500 pounds for the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

SARA TITLE III: Sec. 313, Toxic Chemicals Notification, 40 CFR 372: This material may be subject to SARA notification requirements, since it contains Toxic Chemical constituents above their de minimus concentrations. This product contains: Malathion

US State Right to Know Laws:

California Proposition 65: To the best of our knowledge, this product does not contain any chemicals known to the State of California to cause cancer or reproductive harm.

International Information:

This product is a Pest Control Product and is not regulated as a Controlled Product under the Hazardous Products Act (HPA). For informational purposes, this product would have the following WHMIS classification:

Class D2B (Materials Causing Other Toxic Effects, Toxic Materials)
Class F (Dangerously Reactive Material)

This product has been classified according to the hazard criteria of the CPR and the SDS contains all of the information required by the CPR.

SECTION 16 – OTHER INFORMATION

HMIS Rating : *-Chronic Hazard 0 – Minimal 1 – Slight 2 – Moderate 3 – Serious 4 – Severe

Health: * 1 *Flammability:* 1 *Reactivity:* 1

Prepared by: Cheminova Inc.
Telephone #: (919) 474-6600 (8:00 AM to 5:00 PM EST, Monday to Friday)
SDS Preparation date: August 19, 2003
Revision date: May 27, 2015
Revision reason: US GHS Revision

FYFANON® ULV MOSQUITO
INSECTICIDE

ULTRA LOW VOLUME CONCENTRATE INSECTICIDE

FOR USE ONLY BY FEDERAL, STATE, TRIBAL, OR LOCAL GOVERNMENT OFFICIALS RESPONSIBLE FOR PUBLIC HEALTH OR VECTOR CONTROL, OR BY PERSONS CERTIFIED IN THE APPROPRIATE CATEGORY OR OTHERWISE AUTHORIZED BY THE STATE OR TRIBAL LEAD PESTICIDE REGULATORY AGENCY TO PERFORM ADULT MOSQUITO CONTROL APPLICATIONS, OR BY PERSONS UNDER THEIR DIRECT SUPERVISION.

ACTIVE INGREDIENT:	
*Malathion	96.5%
INERT INGREDIENTS:	3.5%
TOTAL	100.0%

*O,O-dimethyl phosphorodithioate of diethyl mercaptosuccinate
Contains 9.9 lbs. malathion per gallon

KEEP OUT OF REACH OF CHILDREN
CAUTION

IN CASE OF MEDICAL EMERGENCY INVOLVING THIS PRODUCT, CALL TOLL FREE, DAY OR NIGHT 1-866-303-6950

SEE ADDITIONAL PRECAUTIONARY STATEMENTS AND DIRECTIONS FOR USE IN BOOKLET.

Net Contents: 5 Gallons

EPA Reg. No. 67760-34

EPA Est. No. 39578-TX-1

Cheminova, Inc.
P.O. Box 110566
Research Triangle Park, NC 27709
Product of Denmark
800-548-6113

10038481 03192015

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CHEMINOVA
HELPING YOU GROW

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Harmful by swallowing, inhalation or skin contact. Avoid contact with skin. Avoid breathing spray mist.

FIRST AID **This product is an organophosphate and is a cholinesterase inhibitor.**	
IF SWALLOWED:	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to by a poison control center or doctor. • Do not give anything by mouth to an unconscious person.
IF INHALED:	• Move person to fresh air. • If person is not breathing, call 911 or ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice.
IF ON SKIN OR CLOTHING:	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
IF IN EYES:	• Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-866-303-6950 for emergency medical treatment information.	

NOTE TO PHYSICIAN:
This product is a cholinesterase inhibitor. Treat symptomatically. Atropine is antidotal.

PERSONAL PROTECTIVE EQUIPMENT

Some materials that are chemical-resistant to this product are barrier laminate, butyl rubber, nitrile rubber, and viton. If you want more options, follow the instructions for category F on an EPA chemical-resistance category selection chart.

For all formulations and use patterns – mixers, loaders, applicators, flaggers, and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves
- Shoes plus socks

Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

ENGINEERING CONTROLS STATEMENTS

Pilots must use an enclosed cockpit in a manner that is consistent with the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d)(4-6)]. Pilots must wear the PPE required on this labeling for applicators.

USER SAFETY RECOMMENDATIONS

User should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to aquatic organisms, including fish and invertebrates. Use care when applying in or to an area which is adjacent to any body of water, and do not apply when weather conditions favor drift from target area. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product. When applying as a wide area mosquito adulticide, before making the first application in a season, it is advisable to consult with the state or tribal agency charged with primary responsibility for pesticide regulation to determine if other regulatory requirements exist. This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply or allow to drift onto blooming crops or weeds while bees are actively visiting the treatment area, except when applications are made to prevent or control a threat to public and/or animal health determined by a state, tribal or local public health or vector control agency on the basis of documented evidence of disease-causing agents in vector mosquitoes or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort. When applying as a wide area mosquito adulticide, do not apply over bodies of water (lakes, rivers, permanent streams, natural ponds, commercial fish ponds, swamps, marshes or estuaries), except when necessary to target areas where adult mosquitoes are present, and weather conditions will facilitate movement of applied material away from the water in order to minimize incidental deposition into the water body.

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

PHYSICAL OR CHEMICAL HAZARDS

Do not use or store near heat or open flame.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage and disposal.

PESTICIDE STORAGE: Fyfanon ULV Mosquito should be stored in the original unopened container in a secure, dry place. Do not contaminate with other pesticides or fertilizers. Fyfanon ULV Mosquito should never be heated above 55° C (131° F), and should not be stored for long periods of time at a temperature in excess of 25°C (77°F).

PESTICIDE DISPOSAL: To avoid wastes, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry).

CONTAINER DISPOSAL:

Nonrefillable containers (equal to or less than 5 gallons): Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available.
Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Nonrefillable containers (greater than 5 gallons): Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. **Triple rinse as follows:** Empty the remaining contents into application equipment or mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank and store rinsate for later use or disposal. Repeat this procedure two more times.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. For use by federal, state, tribal, or local government officials responsible for public health or vector control, or by persons certified in the appropriate category or otherwise authorized by the state or tribal lead pesticide regulatory agency to perform adult mosquito control applications, or by persons under their direct supervision.

MOSQUITO CONTROL IN POPULATED AND RURAL AREAS PRECAUTIONS AND RESTRICTIONS

Before making the first application in a season, it is advisable to consult with the state or tribal agency with primary responsibility for pesticide regulation to determine if other regulatory requirements exist.

RESTRICTIONS

- Do not apply more than 0.23 lb/ai/A/day.
- Only treat when mosquitoes are swarming or biting. Do not re-treat a site more than 3 times in any one week. However, more frequent treatments may be made to prevent or control a threat to public and/or animal health determined by a state, tribal or local health or vector control agency on the basis of documented evidence of disease causing agents in vector mosquitoes or the occurrence of mosquito-borne diseases in animal or human populations, or if specifically approved by the state or tribe during a natural disaster effort.
- Apply when wind speed is greater than or equal to 1 mph.
- Do not apply by fixed wing aircraft at height less than 100 feet, or by helicopter at a height less than 75 feet unless specifically approved by the state or tribe based on public health needs.

PRECAUTIONS

- IMPORTANT: IN AREAS WHERE AUTOMOBILES, TRAILERS, TRUCKS AND PLEASURE BOATS ARE PRESENT, undiluted spray droplets of Fyfanon ULV Mosquito will permanently damage vehicle paint finishes unless the aircraft used for the ultra low volume application meets all of the specifications listed under AERIAL APPLICATION.

AERIAL APPLICATION

Adult Mosquitoes on Rangeland, Pasture, and Other Uncultivated Non-Agricultural Areas (Wastelands, Roadsides)
Spray equipment must be adjusted so that the volume median diameter produced is less than 60 microns (Dv 0.5 < 60 um) and that 90% of the spray is contained in droplets smaller than 100 microns (Dv 0.9 < 100 um). The effects of flight speed and, for non-rotary nozzles, nozzle angle on the droplet size spectrum must be considered. Directions from the equipment manufacturer or vendor, pesticide registrant or a test facility using a wind tunnel and laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra. Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rate(s) are properly calibrated. Adult mosquito control over cities, towns, and other areas where automobiles, trailers, trucks, and pleasure boats are present: Apply 2.6 to 3.0 fluid ounces of Fyfanon ULV Mosquito per acre. Apply only when weather conditions are favorable. Wind and rising air currents may cause undesirable spray drift and reduce insect control. See Precautions and Restrictions for additional instructions.

GROUND-BASED APPLICATION
Spray equipment must be adjusted so that the volume median diameter is less than 30 microns (Dv 0.3 < 30 um) and that 90% of the spray is contained in droplets smaller than 50 microns (Dv 0.9 < 50 um). Directions from the equipment manufacturer or vendor, pesticide registrant or test facility using laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra. Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rate(s) are properly calibrated.

Thermal Aerosols or Fogs
For control of adult mosquitoes with thermal aerosols or fogs. Apply Fyfanon ULV Mosquito at the rate of 3.9 - 5.2 gallons Fyfanon ULV Mosquito in 100 gallons of finished solution by ground equipment delivering 40 gallons per hour at a vehicle speed of 5 miles per hour to treat a swath width of 300 feet (equivalent to 180 acres per hour). At 3.9 gallons Fyfanon per 100 gallons of finished solution this is equivalent to 0.08 lbs active/acre. At 5.2 gallons per 100 gallons of finished solution, this is equivalent to 0.11 lbs active/acre.

*There is a great variation in the chemical composition of fuel oils which may be used as thermal fog solvents. These differences may cause sludge and/or affect the solubility of the Fyfanon ULV Mosquito.

Nonthermal Aerosols
Adult Mosquito Control - Control of adult mosquitoes over a 300-foot swath can be obtained with nonthermal aerosols of Fyfanon ULV Mosquito using the following rates at the indicated vehicle speeds:

Rates for Fyfanon ULV Mosquito					
Undiluted Apply as follows:					
Lbs.A.I./Acre/Day	Application Rates Fluid Ounces per Minute at Vehicle Speeds				Fluid Ounces of Fyfanon ULVMosquito per acre
	5 mph	10 mph	15 mph	20 mph	
0.03 – 0.06*	1.0 - 2.1	2.0 - 4.3	3.0 - 6.3	4.0 - 8.6	0.38 - 0.75

*Use higher rate of application when vegetation is dense and/or mosquito populations are heavy.

OPERATING EQUIPMENT
Each nonthermal aerosol generator used for dispersal of Fyfanon ULV Mosquito to control adult mosquitoes must have minimum capability of producing the droplet spectrum described under GROUND-BASED APPLICATION. The initial determination of droplet size is made after the unit is installed in a vehicle and prior to its use in mosquito control operations. Recheck the unit frequently to insure that proper droplet size is maintained for each operation. Determination of droplet size every two months is usually sufficient if the unit has been maintained in good operating condition. Equipment manufacturer's instructions setting forth cleaning and maintenance of the unit must be followed. The unit must be inspected before each operation to correct any leaks or obstructions in the spray system; to detect whether the nozzle, hoses, or other parts are worn and need replacement; to insure that the flow meter is properly calibrated and to determine that the pressure recommended by the manufacturer is being maintained.

Flow Rate - Must be regulated by accurate flow meter
- Not greater than 1 gallon per hour at 5 mph; 2 gallons per hour at 10 mph; 3 gallons per hour at 15 mph, or 4 gallons per hour at 20 mph

Nozzle Direction - Rear of the vehicle
- Upward at an angle of 45° or more

Vehicle Speed - Not greater than 20 mph
- Shut off spray equipment when vehicle is stopped

IMPORTANT: Spray droplets of undiluted Fyfanon ULV Mosquito will permanently damage automobile paint unless all the conditions described and recommended in this label are met. If accidental exposure does occur, the vehicle should be washed at once.

WARRANTY DISCLAIMER

Cheminova warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, CHEMINOVA MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

INHERENT RISKS OF USE

It is impossible to eliminate all risks associated with use of this product. Crop injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperatures, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of Cheminova or the Seller. All such risks shall be assumed by Buyer and User. Buyer and User agree to hold Cheminova and the Seller harmless for any claims related to such factors.

LIMITATION OF REMEDIES

To the extent consistent with applicable law, the exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability, or other legal theories), shall be limited to one of the following, at Cheminova's election:

(1) Refund of purchase price paid by buyer or user for product bought, or
(2) Replacement of amount of product used.

To the extent consistent with applicable law, Cheminova shall not be liable for consequential, incidental, or special damages or losses in any matter.

The terms of the Warranty Disclaimer above and this Limitation of Remedies cannot be varied by any written or verbal statements or agreements. No employee or sales agent of Cheminova or the Seller is authorized to vary or exceed the terms of the Warranty Disclaimer or this Limitation of Remedies in any manner.

MasterLine®

By Univar

KONTROL 30 – 30 CONCENTRATE

For Mosquitoes, Flies and Gnats

A Quick Knockdown, Low Odor, Non-Corrosive Synergized Synthetic Pyrethroid
for the Control of Adult Mosquitoes, in Residential, Recreational, and Other Areas.
Also for Use Against Biting and Non-Biting Midge and Black Flies

For use only by federal, state, tribal, or local governmental officials responsible for public health or vector control, or by persons certified in the appropriate category or otherwise authorized by the state or tribal lead pesticide regulatory agency to perform adult mosquito control applications, or by persons under their direct supervision.

ACTIVE INGREDIENTS:	
***Permethrin**	30.0%
****Piperonyl Butoxide**	30.0%
OTHER INGREDIENTS:	40.0%
Contains Petroleum Distillates	
TOTAL	100.0%

*(3-phenoxyphenyl)methyl(+/-)*Cis/trans* 3-(2,2-dichloroethenyl)2,2-Dimethyl cyclopropanecarboxylate
Cis/trans ratio: min. 35% (+/-) *cis* and max. 65% (+/-) *trans*
**(butylcarbityl)(6-propylpiperonyl) ether and related compounds
Contains 2.5 lb. of Permethrin and 2.5 lb. of Piperonyl Butoxide per gallon.

EPA Registration No. 73748-5

KEEP OUT OF REACH OF CHILDREN

CAUTION

See Inside Attached Booklet For Additional Precautionary Statements.

"PRECAUCION AL USUARIO: Si usted no lee ingles, no use este producto hasta que la etiqueta haya sido explicado ampliamente." (NOTE TO THE USER: If you do not understand the label, find someone to explain it to you in detail).

Univar Environmental Sciences
11305 Four Points Drive
Building 1, Suite 210
Austin, Texas 78726

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First Aid	
If in Eyes:	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
If on Skin or Clothing:	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 – 20 minutes. Call a poison control center or doctor for treatment advice.
If Swallowed:	Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.
If Inhaled:	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further advice.
HOTLINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For information on this product, contact the National Pesticide Information Center at 1-800-858-7378. You may also contact the National Poison Control Center, 1-800-222-1222 for emergency medical treatment information.	
Note to Physician: Contains petroleum distillate – vomiting may cause aspiration pneumonia.	

PRECAUTIONARY STATEMENTS
HAZARDS TO DOMESTIC ANIMALS AND HUMANS

CAUTION. Contains petroleum distillate. Causes moderate eye irritation. Harmful if swallowed. Avoid contact with skin, eyes or clothing. Avoid breathing vapors or spray mist. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove contaminated clothing and wash before reuse.

Personal Protective Equipment (PPE)

Some materials that are chemical-resistant to this product are barrier laminate, nitrile rubber greater or equal to 14 mils or neoprene rubber greater or equal to 14 mils. If you want more options, follow the instructions for category E on an EPA chemical-resistance category selection chart.

Mixers, loaders, applicators, and other handlers must wear: Long-sleeve shirt; Long pants; Shoes and socks;

Chemical-resistant gloves for all handlers except for applicators using motorized ground equipment, pilots and flaggers; and Chemical-resistant apron for mixers/loaders, persons cleaning equipment, and persons exposed to the concentrate.

See engineering controls for additional information.

User Safety Requirements:

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate.. Do not reuse them.

User Safety Recommendations:

- Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Users should remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Engineering Controls

Pilots must use an enclosed cockpit that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticide [40 CFR §170.240(d)(6)].
Human flagging is prohibited. Flagging to support aerial application is limited to use of the Global Positioning System (GPS) or mechanical flaggers.

ENVIRONMENTAL HAZARDS

This pesticide is extremely toxic to aquatic organisms, including fish and aquatic invertebrates. Run-off from treated areas or deposition of spray droplets into a body of water may be hazardous to fish and aquatic invertebrates.

Before making the first application in a season, it is advisable to consult with the state or tribal agency with primary responsibility for pesticide regulation to determine if other regulatory requirements exist.

Do not apply over bodies of water (lakes, rivers, permanent streams, natural ponds, commercial fish ponds, swamps, marshes or estuaries), except when necessary to target areas where adult mosquitoes are present, and weather conditions will facilitate movement of applied material away from the water in order to minimize incidental deposition into the water body.

SAMPLE

This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift on blooming crops or weeds while bees are actively visiting the treatment areas, except when applications are made to prevent or control a threat to public and/or animal health determined by a state, tribal or local health or vector control agency on the basis of documented evidence of disease causing agents in vector mosquitoes or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort.

PHYSICAL AND CHEMICAL HAZARDS

Do not use, pour, spill or store near heat or open flame.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Application is prohibited directly into sewers or drains, or to any area like a gutter where drainage to sewers, storm drains, water bodies, or aquatic habitat can occur. Do not allow the product to enter any drain during or after application.

For use only by federal, state, tribal, or local governmental officials responsible for public health or vector control, or by persons certified in the appropriate category or otherwise authorized by the state or tribal lead pesticide regulatory agency to perform adult mosquito control applications, or by persons under their direct supervision.

Not for use in outdoor residential misting systems.

Not for use in metered release misting devices.

Do not contaminate cropland (other than crops listed) or potable water supplies with spray drift.

Do not make applications during rain.

CONDITIONS AND RATES TO USE FOR MOSQUITO CONTROL

KONTROL 30-30 CONCENTRATE is for use as an ultra low volume (ULV) thermal or non-thermal aerosol (cold fog) to control adult mosquitoes, flies, midges and gnats in residential and recreational areas where these insect pests become a problem, such as, but not limited to parks, campsites, woodlands, athletic fields, golf courses, residential areas, municipalities, gardens, playgrounds, and non-crop waste areas. For best results, treat when mosquitoes or insects are most active and weather conditions are conducive to keeping the fog close to the ground e.g. cool temperatures. Applications during the cool hours of night and early morning are usually preferable.

Both ground and aerial applications should be made when meteorological conditions are conducive to keeping the spray cloud close to the ground, such as when an air temperature inversion is present. Applications during the cool hours of early morning or evening are preferable. Air temperatures should be greater than 50° F when conducting all types of applications. Application in calm air conditions is to be avoided. Apply when wind speed is greater than 1 mph. Do not apply when wind speeds exceed 10 mph. Applications cannot exceed the recommended rates.

Do not treat a site with more than 0.007 lbs. of each active ingredient, permethrin and piperonyl butoxide per acre in a 3-day period. Retreatments within a 3-day period must not exceed 0.007 total lbs. of permethrin in any site. Do not exceed 25 applications of 0.007 lbs. permethrin or piperonyl butoxide per acre at any site in one calendar year, or exceed 0.18 lbs. of permethrin or piperonyl butoxide per acre per site per year. When rotating this product with other insecticides containing piperonyl butoxide, do not exceed 2 lbs. piperonyl butoxide per acre per site per year.

More frequent treatments may be made to prevent or control a threat to public and /or animal health determined by a state, tribal or local health or vector control agency on the basis of documented evidence of disease causing agents in vector mosquitoes or the occurrence of mosquito-borne diseases in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort.

KONTROL 30-30 CONCENTRATE can be applied to the air column over specific growing crops prior to harvest and range grasses for the control of adult mosquitoes and biting flies within or adjacent to these areas. Application can be made where the following crops are present:

Alfalfa
Almonds
Apples
Artichoke
Asparagus
Avocados
Broccoli
Brussels Sprouts
Cabbage
Cantaloupe
Cauliflower
Celery
Cherries
Corn (field and pop)
Corn, sweet
Eggplant
Filberts (Hazelnuts)
Garlic
Horseradish
Lettuce
Onion, dry bulb
Papayas (FL only)
Peaches/Nectarines
Pears
Pepper, bell
Pistachios
Potatoes
Range Grasses
Soybeans
Spinach
Tomatoes
Walnuts

Cucurbit vegetables, including Chayote (fruit), Chinese waxgourd (Chinese preserving melon), Citron melon, Cuban pumpkin, Cucumber, Gherkin, Gourd (edible, includes hyotan, cucuzza, hechima, Chinese okra), Momordica spp. (includes balsam apple, balsam pear, bitter melon, Chinese

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cucumber), Muskmelon (hybrids and/or cultivars of Cucumis melo including true cantaloupe, cantaloupe, casaba, Crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, snake melon and Winter melon), Pumpkin, Squash (includes summer squash types such as: butternut squash, calabaza, crookneck squash, Hubbard squash, scallop squash, straightneck squash, vegetable marrow and zucchini, and winter squash types such as acorn squash and spaghetti squash), Watermelon (includes hybrids and/or varieties of Citrullus lanatus).

Leafy Vegetables, including Leafy vegetables (except brassica), Amaranth (leafy amaranth, Chinese spinach, tampala), Arugula (Roquette), Chervil, Chrysanthemum (edible leaved and garland), Corn salad, Cress (garden), Cress (upland, yellow rocket, winter cress), Dandelion, Dock (sorrel), Endive (escarole), Lettuce (head and leaf), Orach, Parsley, Purslane (garden and winter), Radicchio (red chicory), Spinach (including New Zealand and vine — Malabar spinach, Indian spinach).

In the treatment of corrals, feedlots, animal confinements/houses, swine lots, poultry ranges and zoos, cover any exposed drinking water, drinking fountains and animal feed before application.

SPRAY DROPLET SIZE DETERMINATION

Ground Application: Spray equipment must be adjusted so that the volume median diameter is less than 30 microns (Dv 0.5 < 30 µm) and that 90% of the spray is contained in droplets smaller than 50 microns (Dv 0.9 < 50 µm). Directions from the equipment manufacturer or vendor, pesticide registrant or a test facility using a laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra. Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rate(s) are properly calibrated.

Aerial Application made at ≤200 feet above ground elevation: Spray equipment must be adjusted so that the volume median diameter produced is less than 60 microns (Dv 0.5 < 60 µm) and that 90% of the spray is contained in droplets smaller than 100 microns (Dv 0.9 < 100 µm). The effects of flight speed and, for non-rotary nozzles, nozzle angle on the droplet size spectrum must be considered. Directions from the equipment manufacturer or vendor, pesticide registrant or a test facility using a wind tunnel and laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra. Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rate(s) are properly calibrated.

Aerial Application made at >200 feet above ground elevation: Spray equipment must be adjusted so that the volume median diameter produced is less than 70 microns (Dv 0.5 < 70 µm) and that 90% of the spray is contained in droplets smaller than 145 microns (Dv 0.9 < 145 µm). The effects of flight speed and, for non-rotary nozzles, nozzle angle on the droplet size spectrum must be considered. Directions from the equipment manufacturer or vendor, pesticide registrant or a test facility using a wind tunnel and laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra. Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rate(s) are properly calibrated

GROUND APPLICATION INSTRUCTIONS

ULV NON-THERMAL AEROSOL (COLD FOG) APPLICATIONS

To control mosquitoes, midges and blackflies, apply **KONTROL 30-30 CONCENTRATE** using any standard ULV ground applicator capable of producing a non-thermal aerosol spray. When applying the product undiluted, apply at a flow rate of 0.53 to 2.2 ounces per minute at an average vehicle speed of 10 mph. These rates are equivalent to 0.00175 to 0.007 pounds of permethrin a.i. and the same amount of 0.00175 to 0.007 pounds of piperonyl butoxide a.i. per acre. If different vehicle speed is used, adjust the rate accordingly. Vary flow rates accordingly to vegetation density and mosquito population. Use higher flow rates in heavy vegetation or when populations are high. An accurate flow rate control system must be used to ensure proper flow rate. **KONTROL 30–30 CONCENTRATE** may also be applied by diluting with a suitable solvent such as 60 to 100 second mineral oil and applying so as not to exceed the maximum pounds of active ingredient per acre as shown in the first column of the ULV table shown below. That table represents some suggested application rates for ground ULV applications. If an alternative dilution rate is required, adjust the flow rate accordingly, provided droplet size and spectrum remain within label specifications. Do not exceed a flow rate of 20 oz. per minute unless recommended by equipment manufacturers and/or Public Health Officials.

THERMAL AEROSOL APPLICATIONS

For use in thermal fogging equipment such as truck-mounted thermal fog generators or other equipment capable of making thermal fogging applications. **KONTROL 30-30 CONCENTRATE** may be applied either diluted or undiluted. If diluted, use a light mineral oil, or another suitable non-phytotoxic diluent. Do not exceed the maximum rate of 0.007 lbs. a.i. per acre. **KONTROL 30-30 CONCENTRATE** may be applied with truck-mounted equipment at speeds of 5 mph to 20 mph. Use a swath width of 300 feet for calculation. For use with handheld, backpack or lawn mower thermal fogging equipment do not exceed the maximum rate of 0.007 lbs. a.i. per acre. Use a walking speed of 2 mph (3.2 kph) and a swath width of 300 feet for calculations. May be used to treat aggregation and harborage sites such as abandoned buildings, warehouses, storm drains, underground drainage pipes, pipe chases and other areas where adult mosquitoes find harborage.

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BARRIER APPLICATIONS

For use in non-thermal ULV, motorized, portable, backpack, handheld or truck-mounted fogging equipment or mist blower equipment, apply **KONTROL 30-30 CONCENTRATE** with equipment adjusted to deliver ULV particles of 50 to 100 volume median diameter. **KONTROL 30-30 CONCENTRATE** may be applied undiluted or diluted (see Application Rates Charts on this label). If diluted, use a light mineral oil, or another suitable, non-phytotoxic diluent. For truck-mounted applications, use not more than 0.007 lbs. permethrin per acre. Use a 300 ft. (15.2 m) swath width (see Application Rate Charts on this label) for calculations. For backpack or handheld applications, use not more than 0.007 lbs. a.i. per acre. Use a 300 ft. swath width and a walking speed of 2 mph (3.2 kph) for calculations. Direct spray onto foliage at the perimeter of areas from which mosquitoes or flies are to be excluded or direct spray into harborage areas where adult mosquitoes or flies may be found. May be used to treat aggregation and harborage sites such as abandoned buildings, residential buildings, warehouses, storm drains, underground drainage pipes and other areas where adult mosquitoes find harborage.

Dilution Rates to Achieve 0.00175# a.i. per Acre

MACHINE OUTPUT GAL/HOUR	DILUTION RATIO WITH FOG OIL 5 MPH	DILUTION RATIO WITH FOG OIL 10 MPH	HAND HELD THERMAL FOGGERS 50 FT SWATH AT 2 MPH 0.00318# A.I. PER ACRE	
			MACHINE OUTPUT	DILUTION RATE
10 gal./hr.	1: 79	1 : 39	0.25 gal./hr.	1 : 15.5
20 gal./hr.	1: 159	1 : 79	2.0 gal./hr.	1 : 131
30 gal./hr.	1: 239	1 : 119	5.0 gal./hr.	1 : 330
			8.0 gal./hr.	1 : 496

Dilution Rates for KONTROL 30–30 CONCENTRATE

% CONCENTRATION	PARTS KONTROL 30 – 30	PARTS DILUENT OIL
2%	1	14
3%	1	9
4%	1	6.5

APPLICATION RATES (Fluid Ounces Per Minute)						
Application Rate (Pounds of Permethrin a.i./Acre)	Application Rate (Pounds of PBO a.i./Acre)	Kontrol 30-30 Concentrate fl. oz./Acre	Vehicle Speed (MPH)	Undiluted	Diluted 1: 6.5	Diluted 1: 14
0.00175	0.00175	0.09	5	0.27	2.0	4.0
			10	0.53	4.1	8.1
			20	1.1	8.1	16.3
0.0035	0.0035	0.18	5	0.53	4.0	8.1
			10	1.0	8.1	16.3
			20	2.2	16.2	32.6
0.007	0.007	0.36	5	1.1	8.1	16.2
			10	2.2	16.3	32.6
			20	4.3	32.6	64.3

AERIAL APPLICATION INSTRUCTIONS

Apply with aircraft specially equipped and capable of applying Ultra-Low Volumes of **KONTROL 30-30 CONCENTRATE.** Applications can be made diluted or undiluted but cannot exceed the specified rates of 0.007 lbs. permethrin per acre and 0.007 lbs. piperonyl butoxide per acre. Applications should be made at an altitude of 100 to 300 feet. Apply at airspeed sufficient to deliver the appropriate amount of active ingredient per acre. Do not apply by fixed wing aircraft at a height less than 100 feet, or by helicopter at a height less than 75 feet unless specifically approved by the state or tribe based on public health needs. Treat when insects are most active and meteorological conditions are conducive to keeping the spray cloud close to the ground. In order to compensate for windy conditions and ensure drift onto the target area aerial application with aircraft equipped with Global Positioning Systems (GPS) is recommended.

PROHIBITION FOR AERIAL USE IN FLORIDA: Aerial application of this product is prohibited in the State of Florida unless specifically authorized by the Bureau of Entomology and Pest Control, Florida Department of Agriculture and Consumer Services.

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STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited.

Pesticide Storage and Spill Procedures: Keep this product in its tightly closed original container when not in use. Store in a cool, dry (preferably locked) area that is designated for such insecticides and also inaccessible to children and animals. Avoid exposure to extreme temperatures. In case of spill or leakage, soak up with an absorbent material such as sand, sawdust, earth, fuller's earth, etc. Dispose of with chemical waste.

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Handling: Nonrefillable Container: Metal or Plastic Container. Do not reuse or refill container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Offer for recycling, if available, reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities. Triple rinse as follows:

Containers 5 gallons or less: Empty the remaining contents into application equipment and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Once cleaned, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill or by other procedures approved by State and local authorities. Do not cut or weld metal containers.

Containers larger than 5 gallons: Empty the remaining contents into application equipment. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Once cleaned, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill or by other procedures approved by State and local authorities. **Pressure rinse as follows (all sizes):** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Refillable container: Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

Return container to point of purchase for reuse with seal intact and in salable condition. Before refilling, inspect thoroughly for damage such as cracks, punctures, bulges, dents, abrasions, and damaged or worn threads on closure devices. After filling and before transporting, check for leaks. Do not refill or transport damaged or leaking container.

To clean the container before final disposal, empty the remaining contents from the container into application equipment or mix tank. Fill the container about 10 percent full with mineral oil. Agitate vigorously or recirculate mineral oil with pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing process two more times.

BULK STORAGE AND DISPOSAL

AGITATE BEFORE USE

Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited.

Storage: Ground water contamination may be reduced by diking and flooring of permanent liquid bulk storage sites with an impermeable material.

Pesticide Disposal: Pesticide spray mixture or rinsate that cannot be used according to label instructions must be disposed of according to Federal and local procedures under Subtitle C or the Resource Conservation and Recovery Act.

NOTICE: Buyer and user assume all risks and liability of use, storage and/or handling of this product not in accordance with the terms of this label.

BUYER GUARANTEE LIMITED TO LABEL CLAIMS

Univar Environmental Sciences
11305 Four Points Drive
Building 1, Suite 210
Austin, Texas 78726

EPA Registration Number: 73748-5

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SAFETY DATA SHEET

SECTION 1: IDENTIFICATION

Product Name: **Kontrol 30– 30 Concentrate**
Description: Synthetic Pyrethroid Insecticide and Synergist
EPA Reg. No.: 73748-5

Company Name and Address:
Univar Environmental Sciences
11305 Four points Drive
Bldg. 1, Suite 210
Austin, Texas 78726

Emergency Response Telephone Numbers

For Spills Call:	1-(800)-424-9300
For Medical Emergencies Call:	1-(866)-674-4334
For Other Emergencies Call:	1-(952)-653-3523

SECTION 2: HAZARD IDENTIFICATION

Classification in accordance with regulation HCS 29CFR §1910.1200



WARNING
Harmful if swallowed, inhaled or absorbed through the skin.
Causes moderate eye irritation.
May cause moderate skin irritation with prolonged or repeated contact.
May cause allergic skin reactions
Toxic to aquatic organisms, including fish and aquatic invertebrates.
Toxic to bees exposed to direct treatment on blooming crops or weeds.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENTS:	**(% w/w)**
Permethrin (CAS Reg. No. 52645-53-1) (3-phenoxyphenyl) methyl (±) cis, trans-3-(2,2-dichloroethenyl) -2,2-dimethylcyclopropane carboxylate [1]	30.0%
Piperonyl Butoxide (CAS Reg. No. 51-03-6) Equivalent to 80% (butylcarbityl)(6-propylpiperonyl) ether And 20% related compounds	30.0%
Inert Ingredients [2]	40.0%

[1] *cis/trans* ratio: minimum 35% (±) *cis* and maximum 65% *trans*
[2] Petroleum distillate solvent (CAS No. 64741-89-5).

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SAFETY DATA SHEET

SECTION 4: FIRST AID MEASURES

FIRST AID

If in Eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

If on Skin or Clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 – 20 minutes. Call a poison control center or doctor for treatment advice.

If Swallowed: Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.

If Inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For information on this product, contact the National Pesticide Information Center at 1-800-858-7378. You may also contact the National Poison Control Center, 1-800-222-1222 for emergency medical treatment information.

Note to Physician: Contains petroleum distillate – vomiting may cause aspiration pneumonia.

SECTION 5: FIRE-FIGHTING MEASURES

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) RATINGS:

Category	Rating
Health	1
Flammability	1
Reactivity	0

Flash Point: > 230 F (110° C)

Method Used: TCC

Extinguishing Media: Foam, CO_2, or dry chemical is preferred. Soft stream water fog only if necessary

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SAFETY DATA SHEET

SECTION 5: FIRE-FIGHTING MEASURES (CONT'D)

Fire & Explosion Precautions:	Foam fire-extinguishing system is preferred because uncontrolled water can spread possible contamination. Do not allow fire-fighting water to escape into waterways or sewers. Toxic irritating gases can be formed.
Fire-Fighting Equipment:	Use positive-pressure self-contained breathing apparatus and full protective equipment.

SECTION 6: ACCIDENTAL RELEASE MEASURES

SPILLS OR LEAKS: Wear protective clothing as described in Section 7: Handling and Storage of this MSDS. Absorb liquid with material such as clay, sand, sawdust, or dirt. Sweep up and place in a suitable container for disposal and label the contents. Area can be washed down with a suitable solution of bleach or soda ash and an appropriate alcohol (methanol, ethanol, or isopropanol). Follow this by washing with a strong soap and water solution. Absorb any excess liquid as indicated above, and add to the disposal container. Keep product, contaminated materials and wash water out of streams and sewers. Wash exposed body areas thoroughly after handling.

SECTION 7: HANDLING AND STORAGE

Keep out of reach of children. Do not contaminate water, food or feed by storage or disposal. Do not use, pour, spill or store near heat or open flame.

HANDLING: Wear proper safety equipment specified in Section 8 when mixing, loading or otherwise handling this product.

STORAGE: Keep this product in its tightly closed original container when not in use. Store in a cool, dry (preferably locked) area that is designated for such insecticides and also inaccessible to children and animals. Avoid exposure to extreme temperatures. In case of spill or leakage, soak up with an absorbent material such as sand, sawdust, earth, fuller's earth, etc. Dispose of with chemical waste.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE GUIDELINE(S):

MATERIAL:		OSHA PEL	ACGIH TLV
Active Ingredients:	Permethrin	Not established	Not established
	Piperonyl Butoxide	Not established	Not established
Inert Ingredient:	Petroleum Distillate	5 mg/m^3 (oil mist)	5 mg/m^3 (oil mist)

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SAFETY DATA SHEET

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (CONT'D)

VENTILATION: Provide general and/or local exhaust ventilation to control airborne levels below the exposure guideline. Ventilate all transport vehicles prior to unloading.

PERSONAL PROTECTIVE EQUIPMENT
Mixers, loaders, applicators, and other handlers must wear: Long-sleeve shirt; long pants; shoes and socks; chemical-resistant gloves for all handlers except for applicators using motorized ground equipment, pilots and flaggers; and chemical-resistant apron for mixers/loaders, persons cleaning equipment, and persons exposed to the concentrate.

See engineering controls for additional information.

User Safety Requirements:
Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

User Safety Recommendations:

- Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Users should remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Engineering Controls
Pilots must use an enclosed cockpit that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticide [40 CFR §170.240(d)(6)].

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Color:	Light yellow
Physical State:	Liquid
Odor:	Slight chemical odor
Density:	8.3 lbs/gal (0.99 gm/cm^3)
Solubility:	Does not disperse in water
Viscosity:	60 cps
pH:	Not applicable - does not disperse with water
Stability:	Stable

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SECTION 10: STABILITY AND REACTIVITY

Stability:	(CONDITIONS TO AVOID) Avoid heating above 230° F (110° C). Contains a petroleum distillate solvent which can burn.
Incompatibility:	(SPECIFIC MATERIALS TO AVOID) Strong Oxidizers.
Hazardous Decomposition:	Under fire conditions hydrogen chloride, oxides of chlorine, carbon dioxide, carbon monoxide, and asphyxiants can be formed.
Hazardous Polymerization:	Will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

SKIN ABSORPTION: The acute dermal toxicity is considered to be low. The dermal LD_{50} for rabbits is greater than 2000 mg/kg.

INGESTION: The acute oral toxicity is considered to be low. The oral LD_{50} for rats is greater than 1000 mg/kg. Small amounts that might be swallowed incidental to normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause serious injury, even death. If aspirated (liquid enters the lungs), may cause lung damage or even death due to chemical pneumonia.

INHALATION: The acute inhalation toxicity is considered to be low. The inhalation LC_{50} for rats is greater than 4 mg/l for 4 hours. Symptoms of excessive exposure includes squinting eyes, irregular and rattled breathing, ataxia, headache, dizziness, anesthesia, drowsiness, unconsciousness, and other central nervous system effects.

SYSTEMIC (OTHER TARGET ORGAN) EFFECTS: Excessive exposure may produce effects on the nervous system such as sensitivity to touch and sound, tremors, abnormal movement, and clonic convulsions. Long-term studies with permethrin in laboratory animal resulted in increased liver and kidney weights, induction of the liver microsomal drug metabolizing enzyme system, and histopathological changes in the lungs and liver. Long-term studies with piperonyl butoxide indicated increased organ weights in the liver, kidney, and adrenal glands.

CANCER INFORMATION: Chronic feeding studies with permethrin in mice and rats indicate limited evidence of oncogenicity in laboratory animals. Based on comprehensive evaluations of all relevant health effects data, it was concluded that the oncogenic potential in humans is extremely weak or nonexistent. A chronic feeding study in mice indicate an increased incidence of benign liver tumors; the significance of these findings is questionable and under review. The doses that produced this oncogenic effect in laboratory animals, greatly exceeds human exposure levels for the recommended use of this product.

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SECTION 11: TOXICOLOGICAL INFORMATION (CONT'D)

TERATOLOGY (BIRTH DEFECTS): The active ingredients in this product did not cause birth defects in laboratory animal studies. Exposures having no effect on the mothers had no effect on the fetuses in rabbits and rats. The no-effect levels for permethrin in rabbits and rats were 600 mg/kg and 50 mg/kg, respectively. The no-effect levels for piperonyl butoxide in rabbits and rats were 200 mg/kg and 1000 mg/kg, respectively.

REPRODUCTIVE EFFECTS: Permethrin and piperonyl butoxide did not interfere with fertility in animal reproduction studies. The no effect level for permethrin in a two-generation rat reproduction study was 180 mg/kg. The no-effect level for piperonyl butoxide in a two-generation rat reproduction study was 350 mg/kg.

MUTAGENICITY (EFFECTS ON GENETIC MATERIAL): Based on a number of *in vivo* and *in vitro* studies, it was concluded that the active ingredients in this product are not mutagenic.

SECTION 12: ECOLOGICAL INFORMATION

ENVIRONMENTAL SUMMARY: This pesticide is extremely toxic to aquatic organisms, including fish and aquatic invertebrates. Run-off from treated areas or deposition of spray droplets into a body of water may be hazardous to fish and aquatic invertebrates. Before making the first application in a season, it is advisable to consult with the state or tribal agency with primary responsibility for pesticide regulation to determine if other regulatory requirements exist.

Do not apply over bodies of water (lakes, rivers, permanent streams, natural ponds, commercial fish ponds, swamps, marshes or estuaries), except when necessary to target areas-where adult mosquitoes are present, and weather conditions will facilitate movement of applied material away from the water in order to minimize incidental deposition into the water body.

This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift on blooming crops or weeds while bees are actively visiting the treatment areas, except when applications are made to prevent or control a threat to public and/or animal health determined by a state, tribal or local health or vector control agency on the basis of documented evidence of disease causing agents in vector mosquitoes or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort.

PHYSICAL ENVIRONMENTAL PROPERTIES: In soil, permethrin is stable over a wide range of pH values. Due to its high affinity for organic matter, (K_{oc} = 86,000), there is little potential for movement in soil or entry into ground water. Permethrin has a Log P_{OW} of 6.1, but a low potential to bioconcentrate (BCF = 500) due to the ease with which it is metabolized. Piperonyl butoxide is reported to have a maximum half-life of 4.3 days in soil and from 0.55 to 1.64 days in aqueous environments.

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SECTION 12: ECOLOGICAL INFORMATION (CONT'D)

Gravitational settling remove piperonyl butoxide released in the atmosphere as an aerosol. Gaseous piperonyl butoxide degrades in the atmosphere with an estimated half-life of 3.4 hours. It is reported that piperonyl butoxide has a low potential for environmental bioconcentration.

ENVIRONMENTAL TOXICOLOGY: Permethrin is highly toxic to fish (LC_{50} = 0.5 µg/L to 315 µg/L) and aquatic invertebrates (LC_{50} = 0.02 µg/L to 7.6 µg/L). Marine species are often more sensitive than the freshwater species. Bacteria, algae, mollusks, and amphibians are much more tolerant of permethrin than the fish and arthropods. Care should be taken to avoid contamination of the aquatic environment. Permethrin is slightly toxic to birds and oral LD_{50} values are greater than 3,600 mg/kg. Longer dietary studies showed that concentrations of up to 500 ppm in the diet had no effect on bird reproduction. Piperonyl butoxide is acutely toxic to fish (LC_{50} = 3.94 mg/L to 6.12 mg/L) and highly toxic to aquatic invertebrates (LC_{50} 0.23 mg/L to 0.51 mg/L). Care should be taken to avoid contamination of aquatic environments. Piperonyl butoxide has a low to very low toxicity to birds with an acute oral LD_{50} greater than 2,250 mg/kg and longer-term dietary studies at LC_{50} values greater than 5,620 ppm.

SECTION 13: DISPOSAL CONSIDERATIONS

Do not contaminate water, food or feed by storage or disposal.
Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.
Container Handling: Nonrefillable Container: Metal or Plastic Container. Do not reuse or refill container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Offer for recycling, if available, reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities. Triple rinse as follows:
Containers 5 gallons or less: Empty the remaining contents into application equipment and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Once cleaned, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill or by other procedures approved by State and local authorities. Do not cut or weld metal containers.
Containers larger than 5 gallons: Empty the remaining contents into application equipment. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Once cleaned, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill or by other procedures approved by State and local authorities.

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SECTION 13: DISPOSAL CONSIDERATIONS (CONT'D)

Pressure rinse as follows (all sizes): Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Refillable container: Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

Return container to point of purchase for reuse with seal intact and in salable condition. Before refilling, inspect thoroughly for damage such as cracks, punctures, bulges, dents, abrasions, and damaged or worn threads on closure devices. After filling and before transporting, check for leaks. Do not refill or transport damaged or leaking container.

To clean the container before final disposal, empty the remaining contents from the container into application equipment or mix tank. Fill the container about 10 percent full with mineral oil. Agitate vigorously or recirculate mineral oil with pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing process two more times.

BULK STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited.

Storage: Ground water contamination may be reduced by diking and flooring of permanent liquid bulk storage sites with an impermeable material.

Pesticide Disposal: Pesticide spray mixture or rinsate that cannot be used according to label instructions must be disposed of according to Federal and local procedures under Subtitle C or the Resource Conservation and Recovery Act.

SECTION 14: TRANSPORTATION INFORMATION

U.S. SURFACE FREIGHT CLASS: Insecticide, NOI, other than Poison. NMFC Item 102120.

MARINE POLLUTANT #1: permethrin (Severe Marine Pollutant).

OTHER SHIPPING INFORMATION: This product is not regulated for transport in the USA when shipped via highway or railroad in non-bulk packages. Describe using the "U.S. Surface Freight Class" above, which applies in all cases.

SPECIAL NOTE: The following applies to water and air shipments, and shipments in bulk packages:

PROPER SHIPPING NAME: Environmentally hazardous substance, liquid, n.o.s. (permethrin)

HAZARD CLASS OR DIVISION: 9

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SECTION 14: TRANSPORTATION INFORMATION (CONT'D)

IDENTIFICATION NUMBER: UN 3082

PACKING GROUP: III

OTHER: NAERG Guide 171

SECTION 15: REGULATORY INFORMATION

FIFRA INFORMATION:
This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under Federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for the workplace labels of non-pesticide chemicals. The following is the hazard information as required on the pesticide label:

> **CAUTION:** Contains petroleum distillate. Causes moderate eye irritation. Harmful if swallowed. Avoid contact with skin, eyes or clothing. Avoid breathing vapors or spray mist. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove contaminated clothing and wash before reuse.

SARA 313 INFORMATION: This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

CHEMICAL NAME	CAS NUMBER	CONCENTRATION
Permethrin	52645-53-1	30.0%
Piperonyl Butoxide	51-03-5	30.0%

SARA HAZARD CATEGORY: This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

An immediate health hazard
A delayed health hazard

TOXIC SUBSTANCES CONTROL ACT (TSCA): All ingredients are on the TSCA inventory or are not required to be listed on the TSCA inventory.

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SAFETY DATA SHEET

SECTION 15: REGULATORY INFORMATION (CONT'D)

OSHA HAZARD COMMUNICATION STANDARD: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT (CERCLA, or SUPERFUND): This product contains the following substance(s) listed as "Hazardous Substances" under CERCLA which may require reporting of releases:

Category:

Chemical Name	CAS Number	RQ	% in Product
Permethrin	52645-53-1	not listed	30.0%
Piperonyl Butoxide	51-03-6	not listed	30.0%
Petroleum Distillate	64741-89-5	not listed	40.0%

SECTION 16: OTHER INFORMATION

SDS Date: May 5, 2015

This document is prepared pursuant to the OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200(g)), revised in 2012. In addition, other substances not "Hazardous" per this OSHA Standard may be listed. Where proprietary ingredient shows, the identity may be made available as provided in this standard.

NOTICE: The information herein is presented in good faith and believed to be accurate as of the effective date shown above. However, no warranty, expressed or implied, is given. Regulatory requirements are subject to change and may differ from one location to another; it is the buyer's responsibility to ensure that its activities comply with federal, state, and local laws and regulations. See SDS for health and safety information.

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MONSANTO COMPANY

Safety Data Sheet
Commercial Product

1. PRODUCT AND COMPANY IDENTIFICATION

1.1. Product identifier

Ranger PRO® Herbicide

1.1.1. Chemical name
Not applicable.
1.1.2. Synonyms
None.
1.1.3. EPA Reg. No.
524-517

1.2. Product use
Herbicide

1.3. Company
MONSANTO COMPANY, 800 N. Lindbergh Blvd., St. Louis, MO, 63167
Telephone: 800-332-3111, **Fax:** 314-694-5557
E-mail: safety.datasheet@monsanto.com

1.4. Emergency numbers
FOR CHEMICAL EMERGENCY, SPILL LEAK, FIRE, EXPOSURE, OR ACCIDENT Call CHEMTREC - Day or Night: 1-800-424-9300 toll free in the continental U.S., Puerto Rico, Canada, or Virgin Islands. For calls originating elsewhere: 703-527-3887 (collect calls accepted).
FOR MEDICAL EMERGENCY - Day or Night: +1 (314) 694-4000 (collect calls accepted).

2. HAZARDS IDENTIFICATION

2.1. Classification
OSHA Hazard Communication Standard, 29 CFR 1910.1200 (2012)
Acute toxicity, inhalation - Category 4

2.2. Label elements

2.2.1. Signal word
WARNING!

2.2.2. Hazard pictogram/pictograms



2.2.3. Hazard statement/statements
Harmful if inhaled.

2.2.4. Precautionary statement/statements
Avoid breathing dust/fume/gas/mist/vapours/spray.
Use only outdoors or in a well-ventilated area.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Call a POISON CENTER or doctor/physician if you feel unwell.

2.3. Appearance and odour (colour/form/odour)
Amber /Liquid / Sweet

2.4. OSHA Status
This product is hazardous according to the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Refer to section 11 for toxicological and section 12 for environmental information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Active ingredient
Isopropylamine salt of N-(phosphonomethyl)glycine; {Isopropylamine salt of glyphosate}

Composition

COMPONENT	CAS No.	% by weight (approximate)
Isopropylamine salt of glyphosate	38641-94-0	41
Other ingredients		59

The specific chemical identity is being withheld because it is trade secret information of Monsanto Company.

4. FIRST AID MEASURES

Use personal protection recommended in section 8.

4.1. Description of first aid measures

4.1.1. Eye contact: If in eyes, hold eye open and rinse slowly and gently for 15-20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing. Call a poison control center or doctor for treatment advice. Immediately flush with plenty of water.

4.1.2. Skin contact: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

4.1.3. Inhalation: If inhaled, move person to fresh air. If person is not breathing, call emergency number or ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advice.

4.1.4. Ingestion: Call poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison center or doctor. Do not give anything by mouth to an unconscious person.

4.2. Most important symptoms and effects, both acute and delayed

4.2.1. Eye contact, short term: May cause temporary eye irritation.

4.2.2. Skin contact, short term: Not expected to produce significant adverse effects when recommended use instructions are followed.

4.2.3. Inhalation, short term: Not expected to produce significant adverse effects when recommended use instructions are followed.

4.2.4. Single ingestion: Not expected to produce significant adverse effects when recommended use instructions are followed.

4.3. Indication of any immediate medical attention and special treatment needed

4.3.1. Advice to doctors: This product is not an inhibitor of cholinesterase.

4.3.2. Antidote: Treatment with atropine and oximes is not indicated.

5. FIRE-FIGHTING MEASURES

5.1. Extinguishing media

5.1.1. Recommended: Water, foam, dry chemical, carbon dioxide (CO2)

5.2. Special hazards

5.2.1. Unusual fire and explosion hazards

Minimise use of water to prevent environmental contamination.
Environmental precautions: see section 6.

5.2.2. Hazardous products of combustion

Carbon monoxide (CO), phosphorus oxides (PxOy), nitrogen oxides (NOx)

5.3. Fire fighting equipment: Self-contained breathing apparatus. Equipment should be thoroughly decontaminated after use.

5.4. Flash point

Does not flash.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions

Use personal protection recommended in section 8.

6.2. Environmental precautions

SMALL QUANTITIES:
Low environmental hazard.
LARGE QUANTITIES:
Minimise spread.
Keep out of drains, sewers, ditches and water ways.
Notify authorities.

6.3. Methods for cleaning up

SMALL QUANTITIES:
Flush spill area with water.
LARGE QUANTITIES:
Absorb in earth, sand or absorbent material.
Dig up heavily contaminated soil.
Collect in containers for disposal.
Refer to section 7 for types of containers.
Flush residues with small quantities of water.
Minimise use of water to prevent environmental contamination.

Refer to section 13 for disposal of spilled material.
Use handling recommendations in Section 7 and personal protection recommendations in Section 8.

7. HANDLING AND STORAGE

Good industrial practice in housekeeping and personal hygiene should be followed.

7.1. Precautions for safe handling

When using do not eat, drink or smoke. Wash hands thoroughly after handling or contact. Thoroughly clean equipment after use. Do not contaminate drains, sewers and water ways when disposing of equipment rinse water. Refer to section 13 of the safety data sheet for disposal of rinse water.

7.2. Conditions for safe storage

Minimum storage temperature: -15 °C
Maximum storage temperature: 50 °C
Compatible materials for storage: stainless steel, fibreglass, plastic, glass lining

Incompatible materials for storage: galvanised steel, unlined mild steel, see section 10.
Keep out of reach of children.
Keep away from food, drink and animal feed.
Keep only in the original container.
Partial crystallization may occur on prolonged storage below the minimum storage temperature.
If frozen, place in warm room and shake frequently to put back into solution.
Minimum shelf life: 5 years.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Airborne exposure limits

Components	Exposure Guidelines
Isopropylamine salt of glyphosate	No specific occupational exposure limit has been established.
Other ingredients	No specific occupational exposure limit has been established.

8.2. Engineering controls: No special requirement when used as recommended.

8.3. Recommendations for personal protective equipment

8.3.1. Eye protection: If there is significant potential for contact: Wear chemical goggles.

8.3.2. Skin protection: No special requirement when used as recommended. If repeated or prolonged contact: Wear chemical resistant gloves.

8.3.3. Respiratory protection: No special requirement when used as recommended.

When recommended, consult manufacturer of personal protective equipment for the appropriate type of equipment for a given application.

9. PHYSICAL AND CHEMICAL PROPERTIES

These physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specifications for the product.

Colour/colour range:	Amber
Odour:	Sweet
Form:	Liquid
Physical form changes (melting, boiling, etc.):	
Melting point:	Not applicable.
Boiling point:	No data.
Flash point:	Does not flash.
Explosive properties:	No data.
Auto ignition temperature:	No data.
Self-accelerating decomposition temperature (SADT):	No data.
Oxidizing properties:	No data.
Specific gravity:	1.162 @ 20 °C / 15.6 °C
Vapour pressure:	No significant volatility.
Vapour density:	Not applicable.
Evaporation rate:	No data.
Dynamic viscosity:	No data.
Kinematic viscosity:	No data.
Density:	1.162 g/cm3 @ 20 °C
Solubility:	Water: Completely miscible.

pH:	4.4 - 5.0
Partition coefficient:	log Pow: < 0.00

10. STABILITY AND REACTIVITY

10.1. Reactivity
Reacts with galvanised steel or unlined mild steel to produce hydrogen, a highly flammable gas that could explode.

10.2. Stability
Stable under normal conditions of handling and storage.

10.3. Possibility of hazardous reactions
Reacts with galvanised steel or unlined mild steel to produce hydrogen, a highly flammable gas that could explode.

10.4. Incompatible materials
galvanised steel;unlined mild steel;see section 10.;
Compatible materials for storage: see section 7.2.

10.5. Hazardous decomposition
Thermal decomposition: Hazardous products of combustion: see section 5.

11. TOXICOLOGICAL INFORMATION

This section is intended for use by toxicologists and other health professionals.

Likely routes of exposure: Skin contact, eye contact

Potential health effects
Eye contact, short term: May cause temporary eye irritation.
Skin contact, short term: Not expected to produce significant adverse effects when recommended use instructions are followed.
Inhalation, short term: Not expected to produce significant adverse effects when recommended use instructions are followed.
Single ingestion: Not expected to produce significant adverse effects when recommended use instructions are followed.

Data obtained on similar products and on components are summarized below.

Similar formulation

Acute oral toxicity
Rat, LD50: 5,108 mg/kg body weight
Practically non-toxic.
Acute dermal toxicity
Rat, LD50 (limit test): > 5,000 mg/kg body weight
Practically non-toxic. No mortality.
Skin irritation
Rabbit, 6 animals, OECD 404 test:
Days to heal: 3
Primary Irritation Index (PII): 0.5/8.0
Essentially non irritating.

Eye irritation
Rabbit, 6 animals, OECD 405 test:
Days to heal: 3
Slight irritation.
Acute inhalation toxicity
Rat, LC50, 4 hours, aerosol: 2.9 mg/L
Other effects: weight loss, breathing difficulty
Practically non-toxic.
Skin sensitization
Guinea pig, 3-induction Buehler test:
Positive incidence: 0 %

N-(phosphonomethyl)glycine; { glyphosate acid}

Genotoxicity
Not genotoxic.

Carcinogenicity
Not carcinogenic in rats or mice.

Reproductive/Developmental Toxicity
Developmental effects in rats and rabbits only in the presence of significant maternal toxicity.
Reproductive effects in rats only in the presence of significant maternal toxicity.

12. ECOLOGICAL INFORMATION

This section is intended for use by ecotoxicologists and other environmental specialists.

Data obtained on similar products and on components are summarized below.

Similar formulation

Aquatic toxicity, fish
Rainbow trout (Oncorhynchus mykiss):
Acute toxicity, 96 hours, static, LC50: 5.4 mg/L
Moderately toxic.
Bluegill sunfish (Lepomis macrochirus):
Acute toxicity, 96 hours, static, LC50: 7.3 mg/L
Moderately toxic.
Aquatic toxicity, invertebrates
Water flea (Daphnia magna):
Acute toxicity, 48 hours, static, EC50: 11 mg/L
Slightly toxic.
Avian toxicity
Mallard duck (Anas platyrhynchos):
Dietary toxicity, 5 days, LC50: > 5,620 mg/kg diet
Practically non-toxic.
Bobwhite quail (Colinus virginianus):
Dietary toxicity, 5 days, LC50: > 5,620 mg/kg diet
Practically non-toxic.
Arthropod toxicity
Honey bee (Apis mellifera):
Oral/contact, 48 hours, LD50: > 100 µg/bee
Practically non-toxic.
Soil organism toxicity, invertebrates
Earthworm (Eisenia foetida):

Acute toxicity, 14 days, LC50: > 1,250 mg/kg soil
Practically non-toxic.

Similar formulation

Aquatic toxicity, algae/aquatic plants
Green algae (Selenastrum capricornutum):
Acute toxicity, 72 hours, static, EbC50 (biomass): 12.4 mg/L
Slightly toxic.
Green algae (Selenastrum capricornutum):
Acute toxicity, 72 hours, static, NOEC: 6.3 mg/L

N-(phosphonomethyl)glycine; { glyphosate acid}

Bioaccumulation
Bluegill sunfish (Lepomis macrochirus):
Whole fish: BCF: < 1
No significant bioaccumulation is expected.
Dissipation
Soil, field:
Half life: 2 - 174 days
Koc: 884 - 60,000 L/kg
Adsorbs strongly to soil.
Water, aerobic:
Half life: < 7 days

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

13.1.1. Product

Excess product may be disposed of by agricultural use according to label instructions. Keep out of drains, sewers, ditches and water ways. Recycle if appropriate facilities/equipment available. Burn in proper incinerator. Follow all local/regional/national/international regulations.

13.1.2. Container

See the individual container label for disposal information. Emptied containers retain vapour and product residue. Observe all labeled safeguards until container is cleaned, reconditioned or destroyed. Empty packaging completely. Triple or pressure rinse empty containers. Do NOT contaminate water when disposing of rinse waters. Ensure packaging cannot be reused. Do NOT re-use containers. Store for collection by approved waste disposal service. Recycle if appropriate facilities/equipment available. Follow all local/regional/national/international regulations.

Use handling recommendations in Section 7 and personal protection recommendations in Section 8.

14. TRANSPORT INFORMATION

The data provided in this section is for information only. Please apply the appropriate regulations to properly classify your shipment for transportation.

14.1. US Dept. of Transportation (DOT) Hazardous Materials Regulations (49 CFR Parts 105-180)

Proper Shipping Name (Technical Name if required):	Not regulated for domestic ground transportation. ()

14.2. IMDG Code

Proper Shipping Name	Not regulated for transport under IMO Regulations ()

(Technical Name if required):	

14.3. IATA/ICAO

Proper Shipping Name (Technical Name if required):	Not regulated for transport under IATA/ICAO Regulations ()

15. REGULATORY INFORMATION

15.1. Environmental Protection Agency

15.1.1. TSCA Inventory

All components are on the US EPA's TSCA Inventory

15.1.2. SARA Title III Rules

Section 311/312 Hazard Categories: Immediate
Section 302 Extremely Hazardous Substances: Not applicable.
Section 313 Toxic Chemical(s): Not applicable.

15.1.3. CERCLA Reportable quantity

Not applicable.

15.1.4. Federal Insecticide, Fungicide, Rodenticide Act (FIFRA)

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

CAUTION!
CAUSES EYE IRRITATION

Acute oral toxicity: FIFRA category IV.
Acute dermal toxicity: FIFRA category IV.
Acute inhalation toxicity: FIFRA category IV.
Skin irritation: FIFRA category IV.
Eye irritation: FIFRA category III.

16. OTHER INFORMATION

The information given here is not necessarily exhaustive but is representative of relevant, reliable data.
Follow all local/regional/national/international regulations.
Please consult supplier if further information is needed.
In this document the British spelling was applied.

	Health	Flammability	Instability	Additional Markings
NFPA	1	1	1	

0 = Minimal hazard, 1 = Slight hazard, 2 = Moderate hazard, 3 = Severe hazard, 4 = Extreme hazard

Full denomination of most frequently used acronyms. BCF (Bioconcentration Factor), BOD (Biochemical Oxygen Demand), COD (Chemical Oxygen Demand), EC50 (50% effect concentration), ED50 (50% effect dose), I.M. (intramuscular), I.P. (intraperitoneal), I.V. (intravenous), Koc (Soil adsorption coefficient), LC50 (50% lethality concentration), LD50 (50% lethality dose), LDLo (Lower limit of lethal dosage), LEL (Lower Explosion Limit), LOAEC (Lowest Observed Adverse Effect Concentration), LOAEL (Lowest Observed Adverse Effect Level), LOEC (Lowest

Observed Effect Concentration), LOEL (Lowest Observed Effect Level), MEL (Maximum Exposure limit), MTD (Maximum Tolerated Dose), NOAEC (No Observed Adverse Effect Concentration), NOAEL (No Observed Adverse Effect Level), NOEC (No Observed Effect Concentration), NOEL (No Observed Effect Level), OEL (Occupational Exposure Limit), PEL (Permissible Exposure Limit), PII (Primary Irritation Index), Pow (Partition coefficient n-octanol/water), S.C. (subcutaneous), STEL (Short-Term Exposure Limit), TLV-C (Threshold Limit Value-Ceiling), TLV-TWA (Threshold Limit Value - Time Weighted Average), UEL (Upper Explosion Limit)

This Material Safety Data Sheet (MSDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-APPROVED PRODUCT LABELING (attached to and accompanying the product container). This MSDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course. Use, storage and disposal of pesticide products are regulated by the EPA under the authority of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) through the product labeling, and all necessary and appropriate precautionary, use, storage, and disposal information is set forth on that labeling. It is a violation of federal law to use a pesticide product in any manner not prescribed on the EPA-approved label.

Although the information and recommendations set forth herein (hereinafter "Information") are presented in good faith and believed to be correct as of the date hereof, MONSANTO Company or any of its subsidiaries makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for the purposes prior to use. In no event will MONSANTO Company or any of its subsidiaries be responsible for damages of any nature whatsoever resulting from the use of or reliance upon information. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO INFORMATION OR TO THE PRODUCT TO WHICH INFORMATION REFERS.

ATTENTION:

This specimen label is provided for general information only.

- This pesticide product may not yet be available or approved for sale or use in your area.
- It is your responsibility to follow all Federal, state and local laws and regulations regarding the use of pesticides.
- Before using any pesticide, be sure the intended use is approved in your state or locality.
- Your state or locality may require additional precautions and instructions for use of this product that are not included here.
- Monsanto does not guarantee the completeness or accuracy of this specimen label. The information found in this label may differ from the information found on the product label. You must have the EPA approved labeling with you at the time of use and must read and follow all label directions.
- You should not base any use of a similar product on the precautions, instructions for use or other information you find here.
- Always follow the precautions and instructions for use on the label of the pesticide you are using.

21225G1-13

Ranger PRO® Herbicide

Complete Directions for Use

The complete broad-spectrum postemergence professional herbicide for industrial, turf and ornamental weed control.

EPA Reg. No. 524-517 2007-1

AVOID CONTACT OF HERBICIDE WITH FOLIAGE, GREEN STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES, BECAUSE SEVERE INJURY OR DESTRUCTION IS LIKELY TO RESULT.

Read the entire label before using this product.

Use only according to label instructions.

It is a violation of Federal law to use this product in any manner inconsistent with its labeling.

Not all products recommended on this label are registered for use in California. Check the registration status of each product in California before using.

Read the "LIMIT OF WARRANTY AND LIABILITY" statement at the end of the label before buying or using. If terms are not acceptable, return at once unopened.

THIS IS AN END-USE PRODUCT. MONSANTO DOES NOT INTEND AND HAS NOT REGISTERED IT FOR REFORMULATION. SEE INDIVIDUAL CONTAINER LABEL FOR REPACKAGING LIMITATIONS.

1.0 INGREDIENTS

ACTIVE INGREDIENT:	
*Glyphosate, N-(phosphonomethyl)glycine, in the form of its isopropylamine salt	41.0%
OTHER INGREDIENTS (including surfactant):	59.0%
	100.0%

*Contains 480 grams per liter or 4 pounds per U.S. gallon of the active ingredient glyphosate, in the form of its isopropylamine salt. Equivalent to 356 grams per liter or 3 pounds per U.S. gallon of the acid, glyphosate.

This product is protected by U.S. Patent Nos. 5,683,958; 5,703,015; 6,063,733; 6,121,199; 6,121,200. No license granted under any non-U.S. patent(s).

2.0 IMPORTANT PHONE NUMBERS

FOR PRODUCT INFORMATION OR ASSISTANCE IN USING THIS PRODUCT, **CALL TOLL-FREE, 1-800-332-3111.**

IN CASE OF AN EMERGENCY INVOLVING THIS PRODUCT, OR FOR MEDICAL ASSISTANCE, **CALL COLLECT, DAY OR NIGHT, (314)-694-4000.**

3.0 PRECAUTIONARY STATEMENTS

3.1 Hazards to Humans and Domestic Animals

Keep out of reach of children.

CAUTION!

CAUSES EYE IRRITATION.

Avoid contact with eyes or clothing.

FIRST AID: Call a poison control center or doctor for treatment advice.	
IF IN EYES	• Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. • Remove contact lenses if present after the first 5 minutes then continue rinsing eye.

- Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
- You may also contact **(314) 694-4000**, collect day or night, for emergency medical treatment information.
- This product is identified as **Ranger PRO® herbicide, EPA Registration No. 524-517.**

DOMESTIC ANIMALS: This product is considered to be relatively nontoxic to dogs and other domestic animals; however, ingestion of this product or large amounts of freshly sprayed vegetation may result in temporary gastrointestinal irritation (vomiting, diarrhea, colic, etc.). If such symptoms are observed, provide the animal with plenty of fluids to prevent dehydration. Call a veterinarian if symptoms persist for more than 24 hours.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear: long-sleeved shirt and long pants, shoes plus socks. Follow manufacturer's instructions for cleaning/maintaining Personal Protective Equipment (PPE). If there are no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

When handlers use closed systems, enclosed cabs or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

3.2 Environmental Hazards

Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

3.3 Physical or Chemical Hazards

Spray solutions of this product should be mixed, stored and applied using only stainless steel, aluminum, fiberglass, plastic or plastic-lined steel containers.

DO NOT MIX, STORE OR APPLY THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS. This product or spray solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by open flame, spark, welder's torch, lighted cigarette or other ignition source.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling. This product can only be used in accordance with the Directions for Use on this label or in separately published Monsanto Supplemental Labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulations.

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about Personal Protective Equipment (PPE) and restricted entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 4 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water, is: coveralls, chemical resistant gloves greater than 14 mils in thickness composed of materials such as butyl rubber, natural rubber, neoprene rubber, or nitrile rubber, shoes plus socks.

Non-Agricultural Use Requirements

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard (40 CFR Part 170) for agricultural pesticides. The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses.

Keep people and pets off treated areas until spray solution has dried to prevent transfer of this product onto desirable vegetation.

4.0 STORAGE AND DISPOSAL

PESTICIDE STORAGE: Do not contaminate water, foodstuffs, feed or seed by storage or disposal.

Keep container closed to prevent spills and contamination.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticide disposal or in accordance with applicable Federal, state, or local procedures.

CONTAINER DISPOSAL: Emptied container retains vapor and product residue. Observe all labeled safeguards until container is cleaned, reconditioned, or destroyed.

FOR REFILLABLE PORTABLE CONTAINERS: Do not reuse this container except for refill in accordance with a valid Monsanto Repackaging or Toll Repackaging Agreement. If not refilled or returned to the authorized repackaging facility, triple rinse container, then puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

FOR BULK CONTAINERS: Triple rinse emptied bulk container. Then offer for recycling or reconditioning, or dispose of in a manner approved by state and local authorities.

FOR PLASTIC 1-WAY CONTAINERS & BOTTLES: Do not reuse container. Triple rinse container, then puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

FOR DRUMS: Do not reuse container. Return container per the Monsanto container return program. If not returned, triple rinse container, then puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

5.0 GENERAL INFORMATION (How This Product Works)

Product Description: This product is a postemergence, systemic herbicide with no soil residual activity. It gives broad-spectrum control of many annual weeds, perennial weeds, woody brush and trees. It is formulated as a water-soluble liquid containing surfactant.

Time to Symptoms: This product moves through the plant from the point of foliage contact to and into the root system. Visible effects on most annual weeds occur within 2 to 4 days, but on most perennial weeds may not occur for 7 days or more. Extremely cool or cloudy weather following treatment may slow activity of this product and delay development of visual symptoms. Visible effects are a gradual wilting and yellowing of the plant which advances to complete browning of above-ground growth and deterioration of underground plant parts.

Mode of Action in Plants: The active ingredient in this product inhibits an enzyme found only in plants and microorganisms that is essential to formation of specific amino acids.

Cultural Considerations: Reduced control may result when applications are made to annual or perennial weeds that have been mowed, grazed or cut, and have not been allowed to regrow to the recommended stage for treatment.

Rainfastness: Heavy rainfall soon after application may wash this product off of the foliage and a repeat application may be required for adequate control.

No Soil Activity: Weeds must be emerged at the time of application to be controlled by this product. Weeds germinating from seed after application will not be controlled. Unemerged plants arising from unattached underground rhizomes or rootstocks of perennials will not be affected by the herbicide and will continue to grow.

Tank Mixing: This product does not provide residual weed control. For subsequent residual weed control, follow a label-approved herbicide program. Read and carefully observe the cautionary statements and all other information appearing on the labels of all herbicides used. Use according to the most restrictive label directions for each product in the mixture.

Buyer and all users are responsible for all loss or damage in connection with the use or handling of mixtures of this product with herbicides or other materials that are not expressly recommended in this label. Mixing this product with herbicides or other materials not recommended on this label may result in reduced performance.

When this label recommends a tank mixture with a generic active ingredient such as diuron, atrazine, 2,4-D, or dicamba, the user is responsible for ensuring that the mixture product's label allows the specific application.

Annual Maximum Use Rate: The combined total of all treatments must not exceed 10.6 quarts of this product per acre per year. The maximum use rates stated throughout this product's labeling apply to this product combined with the use of all other herbicides containing glyphosate as the active ingredient, whether applied as mixtures or separately. Calculate the application rates and ensure that the total use of this and other glyphosate containing products does not exceed stated maximum use rates.

ATTENTION

AVOID CONTACT OF HERBICIDE WITH FOLIAGE, GREEN STEMS, EXPOSED NON-WOODY ROOTS OR FRUIT OF CROPS, DESIRABLE PLANTS AND TREES, BECAUSE SEVERE INJURY OR DESTRUCTION MAY RESULT.

AVOID DRIFT. EXTREME CARE MUST BE USED WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS.

Do not allow the herbicide solution to mist, drip, drift or splash onto desirable vegetation since minute quantities of this product can cause severe damage or destruction to the crop, plants or other areas on which treatment was not intended. The likelihood of injury occurring from the use of this product increases when winds are gusty, as wind velocity increases, when wind direction is constantly changing or when there are other meteorological conditions that favor spray drift. When spraying, avoid combinations of pressure and nozzle type that will result in splatter or fine particles (mist) that are likely to drift. AVOID APPLYING AT EXCESSIVE SPEED OR PRESSURE.

NOTE: Use of this product in any manner not consistent with this label may result in injury to persons, animals or crops, or other unintended consequences.

6.0 MIXING

Clean sprayer parts immediately after using this product by thoroughly flushing with water.

NOTE: REDUCED RESULTS MAY OCCUR IF WATER CONTAINING SOIL IS USED, SUCH AS VISIBLY MUDDY WATER OR WATER FROM PONDS AND DITCHES THAT IS NOT CLEAR.

6.1 Mixing with Water

This product mixes readily with water. Mix spray solutions of this product as follows: Fill the mixing or spray tank with the required amount of water. Add the recommended amount of this product near the end of the filling process and mix well. Use caution to avoid siphoning back into the carrier source. Use approved anti-back-siphoning devices where required by state or local regulations. During mixing and application, foaming of the spray solution may occur. To prevent or minimize foam, avoid the use of mechanical agitators, terminate by-pass and return lines at the bottom of the tank and, if needed, use an approved anti-foam or defoaming agent.

6.2 Tank Mixing Procedure

When tank mixing, read and carefully observe label directions, cautionary statements and all information on the labels of all products used. Add the tank-mix product to the tank as directed by the label. Maintain agitation and add the recommended amount of this product.

Maintain good agitation at all times until the contents of the tank are sprayed. If the spray mixture is allowed to settle, thorough agitation may be required to resuspend the mixture before spraying is resumed.

Keep by-pass line on or near the bottom of the tank to minimize foaming. Screen size in nozzle or line strainers should be no finer than 50 mesh.

Always predetermine the compatibility of labeled tank mixtures of this product with water carrier by mixing small proportional quantities in advance. Ensure that the specific tank mixture product is registered for application at the desired site.

Refer to the "TANK MIXING" section of "GENERAL INFORMATION" for additional precautions.

6.3 Mixing for Hand-Held Sprayers

Prepare the desired volume of spray solution by mixing the amount of this product in water as shown in the following table:

Spray Solution

Desired Volume	Amount of Ranger PRO herbicide 1/2%	1%	1-1/2%	2%	5%	10%
1 gal	2/3 oz	1-1/3 oz	2 oz	2-2/3 oz	6-1/2 oz	13 oz
25 gal	1 pt	1 qt	1-1/2 qt	2 qt	5 qt	10 qt
100 gal	2 qt	1 gal	1-1/2 gal	2 gal	5 gal	10 gal

2 tablespoons = 1 fluid ounce

For use in backpack, knapsack or pump-up sprayers, it is suggested that the recommended amount of this product be mixed with water in a larger container. Fill sprayer with the mixed solution.

6.4 Surfactant

Nonionic surfactants which are labeled for use with herbicides may be used. Do not reduce rates of this product when adding surfactant. When adding additional surfactant, use 0.5-percent surfactant concentration (2 quarts per 100 gallons of spray solution) when using surfactants which contain at least 70 percent active ingredient or a 1-percent surfactant concentration (4 quarts per 100 gallons of spray solution) for those surfactants containing less than 70 percent active ingredient. Read and carefully observe surfactant cautionary statements and other information appearing on the surfactant label.

6.5 Colorants or Dyes

Agriculturally approved colorants or marking dyes may be added to this product. Colorants or dyes used in spray solutions of this product may reduce performance, especially at lower rates or dilution. Use colorants or dyes according to the manufacturer's recommendations.

6.6 Drift Control Additives

Drift control additives may be used. When a drift control additive is used, read and carefully observe the cautionary statements and all other information appearing on the additive label.

7.0 APPLICATION EQUIPMENT AND TECHNIQUES

Do not apply this product through any type of irrigation system.

APPLY THESE SPRAY SOLUTIONS IN PROPERLY MAINTAINED AND CALIBRATED EQUIPMENT CAPABLE OF DELIVERING DESIRED VOLUMES.

SPRAY DRIFT MANAGEMENT

AVOID DRIFT. EXTREME CARE MUST BE USED WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS.

Do not allow the herbicide solution to mist, drip, drift or splash onto desirable vegetation since minute quantities of this product can cause severe damage or destruction to the crop, plants or other areas on which treatment was not intended.

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment- and weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

AERIAL SPRAY DRIFT MANAGEMENT

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops.

1. The distance of the outermost nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees. Where states have more stringent regulations, they should be observed.

Importance of droplet size

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see the **Wind, Temperature and Humidity,** and **Temperature Inversion** sections of this label).

Controlling droplet size

- **Volume:** Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with the higher rated flows produce larger droplets.
- **Pressure:** Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- **Number of nozzles:** Use the minimum number of nozzles that provide uniform coverage.
- **Nozzle orientation:** Orienting nozzles so that the spray is released backwards, parallel to the air stream, will produce larger droplets than other orientations. Significant deflection from the horizontal will reduce droplet size and increase drift potential.
- **Nozzle type:** Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce larger droplets than other nozzle types.
- **Boom length:** For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.
- **Application height:** Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces the exposure of the droplets to evaporation and wind.

Swath Adjustment

When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller droplets, etc.).

Wind

Drift potential is lowest between wind speeds of 2 to 10 miles per hour. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 miles per hour due to variable wind direction and high inversion potential. **NOTE:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect drift.

Temperature and Humidity

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

Temperature Inversions

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

Sensitive Areas

This product should only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

7.1 Aerial Equipment

DO NOT APPLY THIS PRODUCT USING AERIAL SPRAY EQUIPMENT EXCEPT UNDER CONDITIONS AS SPECIFIED WITHIN THIS LABEL.

FOR AERIAL APPLICATION IN CALIFORNIA, REFER TO THE FEDERAL SUPPLEMENTAL LABEL FOR AERIAL APPLICATIONS IN THAT STATE FOR SPECIFIC INSTRUCTIONS, RESTRICTIONS AND REQUIREMENTS.

This product plus dicamba tank mixtures may not be applied by air in California.

TO PREVENT INJURY TO ADJACENT DESIRABLE VEGETATION, APPROPRIATE BUFFER ZONES MUST BE MAINTAINED.

Avoid direct application to any body of water.

Use the recommended rates of this herbicide in 3 to 25 gallons of water per acre.

Drift control additives may be used. When a drift control additive is used, read and carefully observe the cautionary statements and all other information appearing on the additive label.

Ensure uniform application—To avoid streaked, uneven or overlapped application, use appropriate marking devices.

PROLONGED EXPOSURE OF THIS PRODUCT TO UNCOATED STEEL SURFACES MAY RESULT IN CORROSION AND POSSIBLE FAILURE OF THE PART. The maintenance of an organic coating (paint) which meets aerospace specification MIL-C-38413 may prevent corrosion. To prevent corrosion of exposed parts, thoroughly wash aircraft after each day of spraying to remove residues of this product accumulated during spraying or from spills. Landing gear is most susceptible.

7.2 Ground Broadcast Equipment

Use the recommended rates of this product in 3 to 40 gallons of water per acre as a broadcast spray unless otherwise specified. As density of weeds increases, spray volume should be increased within the recommended range to ensure complete coverage. Carefully select proper nozzles to avoid spraying a fine mist. For best results with ground application equipment, use flat-fan nozzles. Check for even distribution of spray droplets.

7.3 Hand-Held or High-Volume Equipment

Apply to foliage of vegetation to be controlled. For applications made on a spray-to-wet basis, spray coverage should be uniform and complete. Do not spray to the point of runoff. Use coarse sprays only.

For control of weeds listed in the "ANNUAL WEEDS" section of "WEEDS CONTROLLED", apply a 1/2-percent solution of this product to weeds less than 6 inches in height or runner length. For annual weeds over 6 inches tall, or unless otherwise specified, use a 1-percent solution. Apply prior to seedhead formation in grass or bud formation in broadleaf weeds.

For best results, use a 2-percent solution on harder-to-control perennials, such as Bermudagrass, dock, field bindweed, hemp dogbane, milkweed and Canada thistle.

For low volume directed spray applications, use a 5- to 10-percent solution of this product for control or partial control of annual weeds, perennial weeds, or woody brush and trees. Spray coverage should be uniform with at least 50 percent of the foliage contacted. Coverage of the top one half of the plant is important for best results. To ensure adequate spray coverage, spray both sides of large or tall woody brush and trees, when foliage is thick and dense, or where there are multiple sprouts.

7.4 Selective Equipment

This product may be applied through recirculating spray systems, shielded applicators, hooded sprayers, wiper applicators or sponge bars, after dilution and thorough mixing with water, to listed weeds growing in any non-crop site specified on this label.

A recirculating spray system directs the spray solution onto weeds growing above desirable vegetation, while spray solution not intercepted by weeds is collected and returned to the spray tank for reuse.

AVOID CONTACT OF HERBICIDE WITH DESIRABLE VEGETATION, AS SERIOUS INJURY OR DEATH IS LIKELY TO OCCUR.

Applicators used above desired vegetation should be adjusted so that the lowest spray stream or wiper contact point is at least 2 inches above the desirable vegetation. Droplets, mist, foam or splatter of the herbicide solution settling on desirable vegetation is likely to result in discoloration, stunting or destruction.

Better results may be obtained when more of the weed is exposed to the herbicide solution. Weeds not contacted by the herbicide solution will not be affected. This may occur in dense clumps, severe infestations or when the height of the weeds varies so that not all weeds are contacted. In these instances, repeat treatment may be necessary.

Shielded and Hooded Applicators

A shielded or hooded applicator directs the herbicide solution onto weeds, while shielding desirable vegetation from the herbicide. Use nozzles that provide uniform coverage within the treated area. Keep shields on these sprayers adjusted to protect desirable vegetation. EXTREME CARE MUST BE EXERCISED TO AVOID CONTACT OF HERBICIDE WITH DESIRABLE VEGETATION.

Wiper Applicators and Sponge Bars

A wiper or sponge applicator applies the herbicide solution onto weeds by rubbing the weed with an absorbent material containing the herbicide solution. Equipment must be designed, maintained and operated to prevent the herbicide solution from contacting desirable vegetation. Operate this equipment at ground speeds no greater than 5 miles per hour. Performance may be improved by reducing speed in areas of heavy weed infestations to ensure adequate wiper saturation. Better results may be obtained if 2 applications are made in opposite directions.

Avoid leakage or dripping onto desirable vegetation. Adjust height of applicator to ensure adequate contact with weeds. Keep wiping surfaces clean. Be aware that, on sloping ground, the herbicide solution may migrate, causing dripping on the lower end and drying of the wicks on the upper end of a wiper applicator.

Do not use wiper equipment when weeds are wet.

Mix only the amount of solution to be used during a 1-day period, as reduced activity may result from use of leftover solutions. Clean wiper parts immediately after using this product by thoroughly flushing with water.

For Rope or Sponge Wick Applicators—Solutions ranging from 33 to 75 percent of this product in water may be used.

For Panel Applicators and pressure-feed systems—Solutions ranging from 33 to 100 percent of this product in water may be used.

When applied as recommended above, this product CONTROLS the following weeds:

Corn, volunteer
Panicum, Texas
Rye, common
Shattercane
Sicklepod
Spanishneedles
Starbur, bristly

When applied as recommended above, this product SUPPRESSES the following weeds:

Beggarweed, Florida
Bermudagrass
Dogbane, hemp
Dogfennel
Guineagrass
Johnsongrass
Milkweed
Nightshade, silverleaf
Pigweed, redroot
Ragweed, common
Ragweed, giant
Smutgrass
Sunflower
Thistle, Canada
Thistle, musk
Vaseygrass
Velvetleaf

7.5 Injection Systems

This product may be used in aerial or ground injection spray systems. It may be used as a liquid concentrate or diluted prior to injecting into the spray stream. Do not mix this product with the undiluted concentrate of other products when using injection systems unless specifically recommended.

7.6 CDA Equipment

The rate of this product applied per acre by controlled droplet application (CDA) equipment must not be less than the amount recommended in this label when applied by conventional broadcast equipment. For vehicle-mounted CDA equipment, apply 2 to 15 gallons of water per acre.

CDA equipment produces a spray pattern that is not easily visible. Extreme care must be exercised to avoid spray or drift contacting the foliage or any other green tissue of desirable vegetation, as damage or destruction is likely to result.

8.0 SITE AND USE RECOMMENDATIONS

Detailed instructions follow alphabetically, by site.

Unless otherwise specified, applications may be made to control any weeds listed in the annual, perennial and woody brush tables. Refer also to the "SELECTIVE EQUIPMENT" section.

8.1 Cut Stumps

Cut stump treatments may be made on any site listed on this label. This product will control many types of woody brush and tree species, some of which are listed below. Apply this product using suitable equipment to ensure coverage of the entire cambium. Cut trees or resprouts close to the soil surface. Apply a 50- to 100-percent solution of this product to the freshly-cut surface **immediately after** cutting. Delays in application may result in reduced performance. For best results, applications should be made during periods of active growth and full leaf expansion.

Alder
Eucalyptus
Madrone
Oak
Reed, giant
Saltcedar
Sweetgum
Tan oak
Willow

DO NOT MAKE CUT STUMP APPLICATIONS WHEN THE ROOTS OF DESIRABLE WOODY BRUSH OR TREES MAY BE GRAFTED TO THE ROOTS OF THE CUT STUMP. Some sprouts, stems, or trees may share the same root system. Adjacent trees having a similar age, height and spacing may signal shared roots. Whether grafted or shared, injury is likely to occur to non-treated stems/trees when one or more trees sharing common roots are treated.

8.2 Forestry Site Preparation

This product is recommended for the control or partial control of woody brush, trees and herbaceous weeds in forestry. This product is also recommended for use in preparing or establishing wildlife openings within these sites and maintaining logging roads.

This product is recommended for use in site preparation prior to planting any tree species, including Christmas trees, eucalyptus, hybrid tree cultivars and silvicultural nursery sites.

APPLICATION RATES AND TIMING

APPLICATION	RANGER PRO HERBICIDE	SPRAY VOLUME GAL/A
BROADCAST		
Aerial	2 to 10 qts/A	5 to 30
Ground	2 to 10 qts/A	10 to 60
SPRAY-TO-WET		
Handgun, Backpack	3/4% to 2%	spray-to-wet by volume
LOW VOLUME DIRECTED SPRAY		
Handgun, Backpack	5% to 10%	partial coverage* by volume

*For low volume directed spray applications, coverage should be uniform with at least 50 percent of the foliage contacted. Coverage of the top one-half of the plant is important for best results.

Use higher rates of this product within the recommended range for control or partial control of woody brush, trees and hard-to-control perennial herbaceous weeds. For best results, apply to actively growing woody brush and trees after full leaf expansion and before fall color and leaf drop. Increase rates within the recommended range for control of perennial herbaceous weeds any time after emergence and before seedheads, flowers or berries appear.

Use the lower rates of this product within the recommended range for control of annual herbaceous weeds and actively growing perennial herbaceous weeds after seedheads, flowers or berries appear. Apply to the foliage of actively growing annual herbaceous weeds any time after emergence.

This product has no herbicidal or residual activity in the soil. Where repeat applications are necessary, do not exceed 10.6 quarts of this product per acre per year.

Tank Mixtures

Tank mixtures of this product may be used to increase the spectrum of vegetation controlled. When tank mixing, read and carefully observe the label claims, cautionary statements and all information on the labels of all products used. Use according to the most restrictive precautionary statements for each product in the mixture.

NOTE: For forestry site preparation, make sure the tank-mix product is approved for use prior to planting the desired species. Observe planting interval restrictions.

Any recommended rate of this product may be used in a tank mix with the following products for forestry site preparation.

PRODUCT
Arsenal Applicators Concentrate
Escort
Chopper
Garlon 4
Oust

For control of herbaceous weeds, use the lower recommended tank mixture rates. For control of dense stands or tough-to-control woody brush and trees, use the higher recommended rates.

Do not apply this product as an over-the-top broadcast spray for forestry conifer or hardwood release.

8.3 General Non-crop Areas and Industrial Sites

Use in areas such as airports, apartment complexes, ditch banks, dry ditches, dry canals, fencerows, golf courses, industrial sites, lumber yards, manufacturing sites, office complexes, parks, parking areas, petroleum tank farms and pumping installations, railroads, recreational areas, residential areas, roadsides, sod or turf seed farms, schools, storage areas, substations, warehouse areas, other public areas, and similar industrial and non-crop sites.

General Weed Control, Trim-and-Edge, Bare Ground

This product may be used in general non-crop areas. It may be applied with any application equipment described in this label. This product may be used to trim-and-edge around objects in non-crop sites, for spot treatment of unwanted vegetation and to eliminate unwanted weeds growing in established shrub beds or ornamental plantings. This product may be used prior to planting an area to ornamentals, flowers, turfgrass (sod or seed), or prior to laying asphalt or beginning construction projects.

Repeated applications of this product may be used, as weeds emerge, to maintain bare ground.

This product may be tank mixed with the following products provided that the specific product is registered for use on such non-crop sites. Refer to these products' labels for approved non-crop sites and application rates.

Arsenal	Karmex DF	Ronstar 50 WSP
Barricade 65WG	Krovar I DF	Sahara
Clarity	Oust	simazine
diuron	Pendulum 3.3 EC	Surflan
Endurance	Pendulum WDG	Telar
Escort	Plateau	Vanquish
Garlon 3A	Princep DF	2,4-D
Garlon 4	Princep Liquid	

When applied as a tank mixture for bare ground, this product provides control of the emerged annual weeds and control or partial control of emerged perennial weeds, woody brush and trees.

For control or partial control of the following perennial weeds, apply 1 to 2 quarts of this product plus 2 to 4 ounces of Oust per acre.

Bahiagrass	Fescue, tall
Bermudagrass	Johnsongrass
Broomsedge	Poorjoe
Dallisgrass	Quackgrass
Dock, curly	Vaseygrass
Dogfennel	Vervain, blue

Chemical Mowing - Perennials

This product will suppress perennial grasses listed in this section to serve as a substitute for mowing. Use 8 fluid ounces of this product per acre when treating tall fescue, fine fescue, orchardgrass, quackgrass or reed canarygrass covers. Use 6 fluid ounces of this product per acre when treating Kentucky bluegrass. Apply treatments in 10 to 40 gallons of spray solution per acre.

Use only in areas where some temporary injury or discoloration of perennial grasses can be tolerated.

Chemical Mowing - Annuals

For growth suppression of some annual grasses, such as annual ryegrass, wild barley and wild oats growing in coarse turf on roadsides or other industrial areas, apply 4 to 5 fluid ounces of this product in 10 to 40 gallons of spray solution per acre. Applications should be made when annual grasses are actively growing and before the seedheads are in the boot stage of development. Treatments may cause injury to the desired grasses.

***Bromus* Species and Medusahead in Pastures and Rangelands**

Bromus species. This product may be used to treat downy brome (*Bromus tectorum*), Japanese brome (*Bromus japonicus*), soft chess (*Bromus mollis*) and cheatgrass (*Bromus secalinus*) found in industrial, rangeland and pasture sites. Apply 8 to 16 fluid ounces of this product per acre on a broadcast basis.

For best results, treatment should coincide with early seedhead emergence of the most mature plants. Delaying the application until this growth stage will maximize the emergence of other weedy grass flushes. Applications should be made to the same site each year until seed banks are depleted and the desirable perennial grasses can become reestablished on the site.

Medusahead. To treat medusahead, apply 16 fluid ounces of this product per acre as soon as plants are actively growing, and prior to the 4-leaf stage. Applications may be made in the fall or spring.

Applications to brome and medusahead may be made using ground or aerial equipment. Aerial applications for these uses may be made using fixed wing or helicopter equipment. For aerial applications, apply in 2 to 10 gallons of water per acre. For applications using ground equipment, apply in 10 to 20 gallons of water per acre. When applied as directed in this label, there are no grazing restrictions.

Dormant Turfgrass

This product may be used to control or suppress many winter annual weeds and tall fescue for effective release of dormant Bermudagrass and bahiagrass turf. Treat only when turf is dormant and prior to spring green-up.

Apply 8 to 64 fluid ounces of this product per acre. Apply the recommended rates in 10 to 40 gallons of water per acre. Use only in areas where Bermudagrass or bahiagrass are desirable ground covers and where some temporary injury or discoloration can be tolerated.

Treatments in excess of 16 fluid ounces per acre may result in injury or delayed green-up in highly maintained areas, such as golf courses and lawns. DO NOT apply tank mixtures of this product plus Oust in highly maintained turfgrass areas. For further uses, refer to the "ROADSIDES" section of this label, which gives rates for dormant Bermudagrass and bahiagrass treatments.

Actively Growing Bermudagrass

This product may be used to control or partially control many annual and perennial weeds for effective release of actively growing Bermudagrass. DO NOT apply more than 16 fluid ounces of this product per acre in highly maintained turfgrass areas. DO NOT apply tank mixtures of this product plus Oust in highly maintained turfgrass areas. For further uses, refer to the "ROADSIDES" section of this label, which gives rates for actively growing Bermudagrass treatments. Use only in areas where some temporary injury or discoloration can be tolerated.

Turfgrass Renovation, Seed, or Sod Production

This product controls most existing vegetation prior to renovating turfgrass areas or establishing turfgrass grown for seed or sod. For maximum control of existing vegetation, delay planting or sodding to determine if any regrowth from escaped underground plant parts occurs. Where repeat treatments are necessary, sufficient regrowth must be attained prior to application. For warm-season grasses such as Bermudagrass, summer or fall applications provide the best control. Where existing vegetation is growing under mowed turfgrass management, apply this product after omitting at least one regular mowing to allow sufficient growth for good interception of the spray.

Do not disturb soil or underground plant parts before treatment. Tillage or renovation techniques such as vertical mowing, coring or slicing should be delayed for 7 days after application to allow translocation into underground plant parts.

Desirable turfgrasses may be planted following the above procedures.

Hand-held equipment may be used for spot treatment of unwanted vegetation growing in existing turfgrass. Broadcast or hand-held equipment may be used to control sod remnants or other unwanted vegetation after sod is harvested.

If application rates total 3 quarts per acre or less, no waiting period between treatment and feeding or livestock grazing is required. If the rate is greater than 3 quarts per acre, remove domestic livestock before application and wait 8 weeks after application before grazing or harvesting.

8.4 Habitat Management

Habitat Restoration and Management

This product may be used to control exotic and other undesirable vegetation in habitat management and natural areas, including rangeland and wildlife refuges. Applications can be made to allow recovery of native plant species, prior to planting desirable native species, and for similar broad-spectrum vegetation control requirements. Spot treatments can be made to selectively remove unwanted plants for habitat management and enhancement.

Wildlife Food Plots

This product may be used as a site preparation treatment prior to planting wildlife food plots. Any wildlife food species may be planted after applying this product, or native species may be allowed to repopulate the area. If tillage is needed to prepare a seedbed, wait 7 days after application before tillage to allow translocation into underground plant parts.

8.5 Injection and Frill (Woody Brush and Trees)

This product may be used to control woody brush and trees by injection or frill applications. Apply this product using suitable equipment that must penetrate into the living tissue. Apply the equivalent of 1/25 fluid ounce (1 mL) of this product per each 2 to 3 inches of trunk diameter at breast height (DBH). This is best achieved by applying a 50 to 100 percent concentration of this product either to a continuous frill around the tree or as cuts evenly spaced around the tree below all branches. As tree diameter increases in size, better results are achieved by applying diluted material to a continuous frill or more closely spaced cuttings. Avoid application techniques that allow runoff to occur from frilled or cut areas in species that exude sap freely. In species such as this, make the frill or cuts at an oblique angle to produce a cupping effect and use a 100 percent concentration of this product. For best results, application should be made during periods of active growth and after full leaf expansion. This product will control many species, some of which are listed below:

Control	Partial Control
Oak	Black gum
Poplar	Dogwood
Sweetgum	Hickory
Sycamore	Maple, red

8.6 Ornamentals, Plant Nurseries, and Christmas Trees

Post-Directed, Trim-and-Edge

This product may be used as a post-directed spray around established woody ornamental species such as arborvitae, azalea, boxwood, crabapple, eucalyptus, euonymus, fir, douglas fir, jojoba, hollies, lilac, magnolia, maple, oak, poplar, privet, pine, spruce and yew. This product may also be used to trim and edge around trees, buildings, sidewalks and roads, potted plants and other objects in a nursery setting.

Desirable plants may be protected from the spray solution by using shields or coverings made of cardboard or other impermeable material. THIS PRODUCT IS NOT RECOMMENDED FOR USE AS AN OVER-THE-TOP BROADCAST SPRAY IN ORNAMENTALS AND CHRISTMAS TREES. Care must be exercised to avoid contact of spray, drift or mist with foliage or green bark of established ornamental species.

Site Preparation

This product may be used prior to planting any ornamental, nursery or Christmas tree species.

Wiper Applications

This product may be used through wick or other suitable wiper applicators to control or partially control undesirable vegetation around established eucalyptus or poplar trees. See the "SELECTIVE EQUIPMENT" section of this label for further information about the proper use of wiper applicators.

Greenhouse/Shadehouse

This product may be used to control weeds growing in and around greenhouses and shadehouses. Desirable vegetation must not be present during application and air circulation fans must be turned off.

8.7 Parks, Recreational and Residential Areas

This product may be used in parks, recreational and residential areas. It may be applied with any application equipment described in this label. This product may be used to trim-and-edge around trees, fences, and paths, around buildings, sidewalks, and other objects in these areas. This product may be used for spot treatment of unwanted vegetation. This product may be used to eliminate unwanted weeds growing in established shrub beds or ornamental plantings. This product may be used prior to planting an area to ornamentals, flowers, turfgrass (sod or seed), or prior to laying asphalt or beginning construction projects.

All of the instructions in the "GENERAL NON-CROP AREAS AND INDUSTRIAL SITES" section apply to park and recreational areas.

8.8 Railroads

All of the instructions in the "GENERAL NON-CROP AREAS AND INDUSTRIAL SITES" section apply to railroads.

Bare Ground, Ballast and Shoulders, Crossings, and Spot Treatment

This product may be used to maintain bare ground on railroad ballast and shoulders. Repeat applications of this product may be used, as weeds emerge, to maintain bare ground. This product may be used to control tall-growing weeds to improve line-of-sight at railroad crossings and reduce the need for mowing along rights-of-way. For crossing applications, up to 80 gallons of spray solution per acre may be used.

This product may be tank mixed with the following products provided that the specific product is registered for ballast, shoulder, spot, bare ground and crossing treatments:

Arsenal	Krovar I DF
Clarity	Oust
diuron	Sahara
Escort	Spike
Garlon 3A	Telar
Garlon 4	Vanquish
Hyvar X	2,4-D

Brush Control

This product may be used to control woody brush and trees on railroad rights-of-way. Apply 4 to 10 quarts of this product per acre as a broadcast spray, using boom-type or boomless nozzles. Up to 80 gallons of spray solution per acre may be used. Apply a 3/4- to 2-percent solution of this product when using high-volume spray-to-wet applications. Apply a 5- to 10-percent solution of this product when using low volume directed sprays for spot treatment. This product may be mixed with the following products for enhanced control of woody brush and trees:

Arsenal	Garlon 4
Escort	Tordon K
Garlon 3A	

Bermudagrass Release

This product may be used to control or partially control many annual and perennial weeds for effective release of actively growing Bermudagrass. Apply 1 to 3 pints of this product in up to 80 gallons of spray solution per acre. Use the lower rate when treating annual weeds below 6 inches in height (or runner length). Use the higher rate as weeds increase in size or as they approach flower or seedhead formation. These rates will also provide partial control of the following perennial species:

Bahiagrass	Johnsongrass
Bluestem, silver	Trumpetcreeper
Fescue, tall	Vaseygrass

This product may be tank-mixed with Oust. If tank-mixed, use no more than 1 to 3 pints of this product with 1 to 2 ounces of Oust per acre. Use the lower rates of each product to control annual weeds less than 6 inches in height (or runner length) that are listed in this label and the Oust label. Use the higher rates as annual weeds increase in size and approach the flower or seedhead stages. These rates will also provide partial control of the following perennial weeds:

Bahiagrass	Fescue, tall
Blackberry	Johnsongrass
Bluestem, silver	Poorjoe
Broomsedge	Raspberry
Dallisgrass	Trumpetcreeper
Dewberry	Vaseygrass
Dock, curly	Vervain, blue
Dogfennel	

Use only on well-established Bermudagrass. Bermudagrass injury may result from the treatment, but regrowth will occur under moist conditions. Repeat applications in the same season are not recommended, since severe injury may occur.

8.9 Roadsides

All of the instructions in the "GENERAL NON-CROP AREAS AND INDUSTRIAL SITES" section apply to roadsides.

Shoulder Treatments

This product may be used on road shoulders. It may be applied with boom sprayers, shielded boom sprayers, high-volume off-center nozzles, hand-held equipment, and similar equipment.

Guardrails and Other Obstacles to Mowing

This product may be used to control weeds growing under guardrails and around signposts and other objects along the roadside.

Spot Treatment

This product may be used as a spot treatment to control unwanted vegetation growing along roadsides.

Tank Mixtures

This product may be tank-mixed with the following products provided that the specific product is registered for shoulder, guardrail, spot and bare ground treatments:

Clarity	Princep DF
diuron	Princep Liquid
Endurance	Ronstar 50 WSP
Escort	Sahara
Krovar I DF	simazine
Oust	Surflan
Outrider®	Telar
Pendulum 3.3 EC	Vanquish
Pendulum WDG	2,4-D

See the "GENERAL NON-CROP AREAS AND INDUSTRIAL SITES" section of this label for general instructions for tank mixing.

Release of Bermudagrass or Bahiagrass

Dormant Applications

This product may be used to control or partially control many winter annual weeds and tall fescue for effective release of dormant Bermudagrass or bahiagrass. Treat only when turf is dormant and prior to spring green-up. This product may also be tank-mixed with Outrider herbicide or Oust for residual control. Tank mixtures of this product with Oust may delay green-up.

For best results on winter annuals, treat when plants are in an early growth stage (below 6 inches in height) after most have germinated. For best results on tall fescue, treat when fescue is at or beyond the 4- to 6-leaf stage.

Apply 8 to 64 fluid ounces of this product in a tank mixture with 3/4 to 1 1/3 ounces Outrider herbicide per acre. Read and follow all label directions for Outrider herbicide.

Apply 8 to 64 fluid ounces of this product per acre alone or in a tank mixture with 1/4 to 1 ounce per acre of Oust. Apply the recommended rates in 10 to 40 gallons of water per acre. Use only in areas where Bermudagrass or bahiagrass are desirable ground covers and where some temporary injury or discoloration can be tolerated. To avoid delays in green-up and minimize injury, add no more than 1 ounce of Oust per acre on Bermudagrass and no more than 1/2 ounce of Oust per acre on bahiagrass and avoid treatments when these grasses are in a semi-dormant condition.

Actively Growing Bermudagrass

This product may be used to control or partially control many annual and perennial weeds for effective release of actively growing Bermudagrass. Apply 1 to 3 pints of this product in 10 to 40 gallons of spray solution per acre. Use the lower rate when treating annual weeds below 6 inches in height (or runner length). Use the higher rate as weeds increase in size or as they approach flower or seedhead formation. These rates will also provide partial control of the following perennial species:

Bahiagrass	Johnsongrass
Bluestem, silver	Trumpetcreeper
Fescue, tall	Vaseygrass

This product may be tank mixed with Outrider herbicide for control or partial control of Johnsongrass and other weeds listed in the Outrider herbicide label. Use 8 to 32 fluid ounces of this product with 3/4 to 1 1/3 ounces of Outrider herbicide. Use the higher rates of both products for control of perennial weeds or annual weeds greater than 6 inches in height.

This product may be tank-mixed with Oust. If tank-mixed, use no more than 1 to 2 pints of this product with 1 to 2 ounces of Oust per acre. Use the lower rates of each product to control annual weeds less than 6 inches in height (or runner length) that are listed in this label and the Oust label. Use the higher rates as annual weeds increase in size and approach the flower or seedhead stages. These rates will also provide partial control of the following perennial weeds:

Bahiagrass	Fescue, tall
Bluestem, silver	Johnsongrass
Broomsedge	Poorjoe
Dallisgrass	Trumpetcreeper
Deck, curly	Vaseygrass
Dogfennel	Vervain, blue

Use only on well-established Bermudagrass. Bermudagrass injury may result from the treatment, but regrowth will occur under moist conditions. Repeat applications of the tank mix in the same season are not recommended, since severe injury may occur.

Actively Growing Bahiagrass

For suppression of vegetative growth and seedhead inhibition of bahiagrass for approximately 45 days, apply 6 fluid ounces of this product in 10 to 40 gallons of water per acre. Apply 1 to 2 weeks after full green-up or after mowing to a uniform height of 3 to 4 inches. This application must be made prior to seedhead emergence.

For suppression up to 120 days, apply 4 fluid ounces of this product per acre, followed by an application of 2 to 4 fluid ounces per acre about 45 days later. Make no more than 2 applications per year.

This product may be used for control or partial control of Johnsongrass and other weeds listed on the Outrider herbicide label in actively growing bahiagrass. Apply 1 1/2 to 4 3/4 ounces of this product with 3/4 to 1 1/3 ounces of Outrider herbicide per acre. Use the higher rates for control of perennial weeds or annual weeds greater than 6 inches in height. Use only on well established bahiagrass.

A tank mixture of this product plus Oust may be used. Apply 6 fluid ounces of this product plus 1/4 ounce of Oust per acre 1 to 2 weeks following an initial spring mowing. Make only one application per year.

8.10 Utility Sites

In utilities, this product is recommended for use along electrical power, pipeline and telephone rights-of-way, and in other sites associated with these rights-of-way, such as substations, roadsides, railroads or similar rights-of-way that run in conjunction with utilities.

This product is also recommended for use in preparing or establishing wildlife openings within these sites, maintaining access roads and for side trimming along utility rights-of-way.

Tank Mixtures

Tank mixtures of this product may be used to increase the spectrum of control for herbaceous weeds, woody brush and trees provided that the specific product is registered for application to the desired site. When tank mixing, read and carefully observe the label claims, cautionary statements and all information on the labels of all products used. Use according to the most restrictive precautionary statements for each product in the mixture. Any recommended rate of this product may be used in a tank mix.

For control of herbaceous weeds, use the lower recommended tank mixture rates. For control of dense stands or tough-to-control woody brush and trees, use the higher recommended rates.

NOTE: For side trimming treatments, it is recommended that this product be used alone or in tank mixture with Garlon 4.

BROADCAST APPLICATION

Arsenal
Escort
Garlon 3A*
Garlon 4
Oust

SPRAY-TO-WET APPLICATION

Arsenal
Escort

LOW VOLUME DIRECTED SPRAY APPLICATION

Arsenal
Escort

*Ensure that Garlon 3A is thoroughly mixed with water according to label directions before adding this product. Have spray mixture agitating at the time this product is added to avoid spray compatibility problems.

Bare Ground and Trim-and-Edge

This product may be used in utility sites and substations for bare ground, trim-and-edge around objects, spot treatment of unwanted vegetation and to eliminate unwanted weeds growing in established shrub beds or ornamental plantings. This product may be used prior to planting a utility site to ornamentals, flowers, turfgrass (sod or seed), or beginning construction projects.

Repeated applications of this product may be used, as weeds emerge, to maintain bare ground.

This product may be tank mixed with the following products. Refer to these products' labels for approved non-crop sites and application rates.

Arsenal	Plateau
Banvel	Princep DF
Barricade 65WG	Princep Liquid
diuron	Ronstar 50 WSP
Endurance	Sahara
Escort	simazine
Garlon 3A	Surflan

9.0 WEEDS CONTROLLED

Always use the higher rate of this product per acre within the recommended range when weed growth is heavy or dense or weeds are growing in an undisturbed (noncultivated) area.

Reduced results may occur when treating weeds heavily covered with dust. For weeds that have been mowed, grazed or cut, allow regrowth to occur prior to treatment.

Refer to the following label sections for recommended rates for the control of annual and perennial weeds and woody brush and trees. For difficult to control perennial weeds and woody brush and trees, where plants are growing under stressed conditions, or where infestations are dense, this product may be used at 5 to 10 quarts per acre for enhanced results.

9.1 Annual Weeds

Use 1 quart per acre if weeds are less than 6 inches in height or runner length and 1.5 quarts to 4 quarts per acre if weeds are over 6 inches in height or runner length or when weeds are growing under stressed conditions.

For spray-to-wet applications, apply a 1/2-percent solution of this product to weeds less than 6 inches in height or runner length. Apply prior to seedhead formation in grass or bud formation in broadleaf weeds. For annual weeds over 6 inches tall, or for smaller weeds growing under stressed conditions, use a 1- to 2-percent solution. Use the higher rate for tough-to-control species or for weeds over 24 inches tall.

WEED SPECIES

Anoda, spurred	Brome, downy*
Barley*	Brome, Japanese*
Barnyardgrass*	Browntop panicum*
Bassia, fivehook	Buttercup*
Bittercress*	Carolina foxtail*
Black nightshade*	Carolina geranium
Bluegrass, annual*	Castorbean
Bluegrass, bulbous*	Cheatgrass*

WEED SPECIES (Cont'd.)

Cheeseweed (*Malva parviflora*)	Mustard, tansy*
Chervil*	Mustard, tumble*
Chickweed*	Mustard, wild*
Cocklebur*	Oats
Copperleaf, hophornbeam	Pigweed*
Corn*	Plains/Tickseed coreopsis*
Corn speedwell*	Prickly lettuce*
Crabgrass*	Puncturevine
Dwarfdandelion*	Purslane, common
Eastern mannagrass*	Ragweed, common*
Eclipta*	Ragweed, giant
Fall panicum*	Red rice
Falsedandelion*	Russian thistle
Falseflax, smallseed*	Rye*
Fiddleneck	Ryegrass*
Field pennycress*	Sandbur, field*
Filaree	Shattercane*
Fleabane, annual*	Shepherd's-purse*
Fleabane, hairy (*Conyza bonariensis*)*	Sicklepod
	Signalgrass, broadleaf*
Fleabane, rough*	Smartweed, ladysthumb*
Florida pusley	Smartweed, Pennsylvania*
Foxtail*	Sowthistle, annual
Goatgrass, jointed*	Spanishneedles
Goosegrass	Speedwell, purslane*
Grain sorghum (milo)*	Sprangletop*
Groundsel, common*	Spurge, annual
Hemp sesbania	Spurge, prostrate*
Henbit	Spurge, spotted*
Horseweed/Marestail (*Conyza canadensis*)	Spurry, umbrella*
	Starthistle, yellow
Itchgrass*	Stinkgrass*
Johnsongrass, seedling	Sunflower*
Junglerice	Teaweed/Prickly sida
Knotweed	Texas panicum*
Kochia	Velvetleaf
Lamb's-quarters*	Virginia copperleaf
Little barley*	Virginia pepperweed*
London rocket*	Wheat*
Mayweed	Wild oats*
Medusahead*	Witchgrass*
Morningglory (*Ipomoea spp*)	Woolly cupgrass*
Mustard, blue*	Yellow rocket
Mustard, tansy*	

*When using field broadcast equipment (aerial applications or boom sprayers using flat-fan nozzles) these species will be controlled or partially controlled using 1 pint of this product per acre. Applications must be made using 3 to 10 gallons of carrier volume per acre. Use nozzles that ensure thorough coverage of foliage and treat when weeds are in an early growth stage.

9.2 Perennial Weeds

Best results are obtained when perennial weeds are treated after they reach the reproductive stage of growth (seedhead initiation in grasses and bud formation in broadleaves). For non-flowering plants, best results are obtained when the plants reach a mature stage of growth. In many situations, treatments are required prior to these growth stages. Under these conditions, use the higher application rate within the recommended range.

Ensure thorough coverage when using spray-to-wet treatments using hand-held equipment. When using hand-held equipment for low-volume directed spot treatments, apply a 5- to 10-percent solution of this product.

Allow 7 or more days after application before tillage.

Weed Species	Rate (QT/A)	Hand-Held % Solution
Alfalfa*	1	2
Alligatorweed*	4	1.5
Anise (fennel)	2 - 4	1 - 2
Bahiagrass	3 - 5	2
Beachgrass, European (*Ammophila arenaria*)	—	5
Bentgrass*	1.5	2
Bermudagrass	5	2
Bermudagrass, water (knotgrass)	1.5	2
Bindweed, field	4 - 6	2
Bluegrass, Kentucky	2	2
Blueweed, Texas	4 - 6	2
Brackenfern	3 - 4	1 - 1.5
Bromegrass, smooth	2	2
Bursage, woolly-leaf	—	2
Canarygrass, reed	2 - 3	2
Cattail	3 - 5	2
Clover, red, white	3 - 5	2
Cogongrass	3 - 5	2
Dallisgrass	3 - 5	2
Dandelion	3 - 5	2
Dock, curly	3 - 5	2
Dogbane, hemp	4	2
Fescue (except tall)	3 - 5	2
Fescue, tall	1 - 3	2
German ivy	2 - 4	1 - 2
Guineagrass	3	1
Horsenettle	3 - 5	2
Horseradish	4	2
Iceplant	2	1.5 - 2
Jerusalem artichoke	3 - 5	2
Johnsongrass	2 - 3	1
Kikuyugrass	2 - 3	2
Knapweed	4	2
Lantana	—	1 - 1.25
Lespedeza	3 - 5	2
Milkweed, common	3	2
Muhly, wirestem	2	2
Mullein, common	3 - 5	2
Napiergrass	3 - 5	2
Nightshade, silverleaf	2	2
Nutsedge, purple, yellow	3	1 - 2
Orchardgrass	2	2
Pampasgrass	3 - 5	1.5 - 2
Paragrass	3 - 5	2
Pepperweed, perennial	4	2
Phragmites*	3 - 5	1 - 2
Poison-hemlock	2 - 4	1 - 2
Quackgrass	2 - 3	2
Redvine*	2	2
Reed, giant	4 - 5	2
Ryegrass, perennial	2 - 3	1
Smartweed, swamp	3 - 5	2
Spurge, leafy*	—	2
Sweet potato, wild*	—	2
Thistle, artichoke	2 - 3	1 - 2
Thistle, Canada	2 - 3	2
Timothy	2 - 3	2
Torpedograss*	4 - 5	2
Trumpetcreeper*	2 - 3	2
Vaseygrass	3 - 5	2
Velvetgrass	3 - 5	2
Wheatgrass, western	2 - 3	2

*Partial control

9.3 Woody Brush and Trees

Apply this product after full leaf expansion, unless otherwise directed. Use the higher rate for larger plants and/or dense areas of growth. On vines, use the higher rate for plants that have reached the woody stage of growth. Best results are obtained when application is made in late summer or fall after fruit formation.

In arid areas, best results are obtained when applications are made in the spring to early summer when brush species are at high moisture content and are flowering.

Ensure thorough coverage when using spray-to-wet treatments using hand-held equipment. When using hand-held equipment for low volume directed-spray spot treatments, apply a 5- to 10-percent solution of this product.

Symptoms may not appear prior to frost or senescence with fall treatments.

Allow 7 or more days after application before tillage, mowing or removal. Repeat treatments may be necessary to control plants regenerating from underground parts or seed. Some autumn colors on undesirable deciduous species are acceptable provided no major leaf drop has occurred. Reduced performance may result if fall treatments are made following a frost.

Weed Species	Broadcast Rate (QT/A)	Hand-Held Spray-to-Wet % Solution
Alder	3 - 4	1 - 1.5
Ash*	2 - 5	1 - 2
Aspen, quaking	2 - 3	1 - 1.5
Bearclover (Bearmat)*	2 - 5	1 - 2
Beech*	2 - 5	1 - 2
Birch	2	1
Blackberry	3 - 4	1 - 1.5
Blackgum	2 - 5	1 - 2
Bracken	2 - 5	1 - 2
Broom; French, Scotch	2 - 5	1.5 - 2
Buckwheat, California*	2 - 4	1 - 2
Cascara*	2 - 5	1 - 2
Catsclaw*	—	1 - 1.5
Ceanothus*	2 - 5	1 - 2
Chamise*	2 - 5	1
Cherry; bitter, black, pin	2 - 3	1 - 1.5
Coyote brush	3 - 4	1.5 - 2
Dearweed	2 - 5	1
Dogwood*	2 - 5	1 - 2
Elderberry	2	1
Elm*	2 - 5	1 - 2
Eucalyptus	—	2
Gorse*	2 - 5	1 - 2
Hasardia*	2 - 4	1 - 2
Hawthorn	2 - 3	1 - 1.5
Hazel	2	1
Hickory*	2 - 5	1 - 2
Honeysuckle	3 - 4	1 - 1.5
Hornbeam, American*	2 - 5	1 - 2
Kudzu	4	2
Locust, black*	2 - 4	1 - 2
Madrone resprouts*	—	2
Manzanita*	2 - 5	1 - 2
Maple, red	2 - 4	1 - 1.5
Maple, sugar	—	1 - 1.5
Monkey flower*	2 - 4	1 - 2
Oak, black, white*	2 - 4	1 - 2
Oak, post	3 - 4	1 - 1.5
Oak, northern pin	2 - 4	1 - 1.5
Oak, scrub*	2 - 4	1 - 1.5
Oak, southern red	2 - 3	1 - 1.5
Peppertree, Brazilian (*Florida holly*)*	2 - 5	1 - 2
Persimmon*	2 - 5	1 - 2
Pine	2 - 5	1 - 2
Poison ivy	4 - 5	2
Poison oak	4 - 5	2
Poplar, yellow*	2 - 5	1 - 2
Redbud, eastern	2 - 5	1 - 2
Rose, multiflora	2	1
Russian olive*	2 - 5	1 - 2
Sage, black	2 - 4	1
Sage, white*	2 - 4	1 - 2
Sage brush, California	2 - 4	1
Salmonberry	2	1
Saltcedar*	2 - 5	1 - 2
Sassafras*	2 - 5	1 - 2
Sourwood*	2 - 5	1 - 2
Sumac; laurel, poison, smooth, sugarbush, winged*	2 - 4	1 - 2
Sweetgum	2 - 3	1 - 1.5
Swordfern*	2 - 5	1 - 2
Tallowtree, Chinese	—	1
Tan oak resprouts*	—	2
Thimbleberry	2	1
Tobacco, tree*	2 - 4	1 - 2
Toyon*	—	2
Trumpetcreeper	2 - 3	1 - 1.5
Vine maple*	2 - 5	1 - 2
Virginia creeper	2 - 5	1 - 2
Waxmyrtle, southern*	2 - 5	1 - 2
Willow	3	1
Yerbasenta, California*	—	2

*Partial control

10.0 LIMIT OF WARRANTY AND LIABILITY

Monsanto Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes set forth in the Complete Directions for Use label booklet ("Directions") when used in accordance with those Directions under the conditions described therein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, NO OTHER EXPRESS WARRANTY OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE OR MERCHANTABILITY IS MADE. This warranty is also subject to the conditions and limitations stated herein.

Buyer and all users shall promptly notify this Company of any claims whether based in contract, negligence, strict liability, other tort or otherwise.

To the extent consistent with applicable law, buyer and all users are responsible for all loss or damage from use or handling which results from conditions beyond the control of this Company, including, but not limited to, incompatibility with products other than those set forth in the Directions, application to or contact with desirable vegetation, unusual weather, weather conditions which are outside the range considered normal at the application site and for the time period when the product is applied, as well as weather conditions which are outside the application ranges set forth in the Directions, application in any manner not explicitly set forth in the Directions, moisture conditions outside the moisture range specified in the Directions, or the presence of products other than those set forth in the Directions in or on the soil, crop or treated vegetation.

This Company does not warrant any product reformulated or repackaged from this product except in accordance with this Company's stewardship requirements and with express written permission from this Company.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE LIMIT OF THE LIABILITY OF THIS COMPANY OR ANY OTHER SELLER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT (INCLUDING CLAIMS BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY, OTHER TORT OR OTHERWISE) SHALL BE THE PURCHASE PRICE PAID BY THE USER OR BUYER FOR THE QUANTITY OF THIS PRODUCT INVOLVED, OR, AT THE ELECTION OF THIS COMPANY OR ANY OTHER SELLER, THE REPLACEMENT OF SUCH QUANTITY, OR, IF NOT ACQUIRED BY PURCHASE, REPLACEMENT OF SUCH QUANTITY. IN NO EVENT SHALL THIS COMPANY OR ANY OTHER SELLER BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES.

Upon opening and using this product, buyer and all users are deemed to have accepted the terms of this LIMIT OF WARRANTY AND LIABILITY which may not be varied by any verbal or written agreement. If terms are not acceptable, return at once unopened.

Outrider, Ranger PRO, and Monsanto & Vine symbol are trademarks of Monsanto Technology LLC.

All other trademarks are the property of their respective owner.

This product is protected by U.S. Patent Nos. 5,683,958; 5,703,015; 6,063,733; 6,121,199; 6,121,200. No license granted under any non-U.S. patent(s).

EPA Reg. No. 524-517

In case of an emergency involving this product, or for medical assistance, Call Collect, day or night, (314) 694-4000.

Packed For:
MONSANTO COMPANY
800 N. LINDBERGH BLVD.
ST. LOUIS, MISSOURI, 63167 USA
©2007

MONSANTO

John West
PO Box 20301
Beaumont, TX
77720

Sealed Bid

- Bid Name: IFB 17-006/YS
- Term For Contract Insecticides For Jefferson Co Mosquito Control District
- DUE: 11am Tues March 14, 2017

RECEIVED 02:18 PM MAR 10 2017

Jefferson County purchasing Dept
1149 Pearl St. 1ST Floor
Beaumont, TX 77701

CONTRACT RENEWAL FOR IFB 12-036/JW
TERM CONTRACT FOR INMATE CLOTHING AND SUPPLIES FOR JEFFERSON COUNTY

The County entered into a contract with Bob Barker Company, Inc. for one (1) year, from March 11, 2013 to March 10, 2014, with an option to renew the contract for up to a five (5) year period.

Pursuant to the contract, Jefferson County hereby exercises its fourth one-year option to renew the contract for one (1) additional year from March 7, 2017 to March 6, 2018.

ATTEST:

Carolyn L. Guidry, County Clerk

COMMISSIONERS COURT
JEFFERSON COUNTY, TEXAS

JEFFERSON COUNTY, TEXAS

Jeff Branick, County Judge

CONTRACTOR:
Bob Barker Company, Inc.

(Name)

CONTRACT RENEWAL FOR IFB 12-035/JW
TERM CONTRACT FOR INMATE CLOTHING AND SUPPLIES FOR JEFFERSON COUNTY

The County entered into a contract with Charm-Tex for one (1) year, from March 11, 2013 to March 10, 2014, with an option to renew the contract for up to a five (5) year period.

Pursuant to the contract, Jefferson County hereby exercises its fourth one-year option to renew the contract for one (1) additional year from March 7, 2017 to March 6, 2018.

ATTEST:

Carolyn L. Guidry, County Clerk

COMMISSIONERS COURT JEFFERSON COUNTY, TEXAS

JEFFERSON COUNTY, TEXAS

Jeff Branick, County Judge

CONTRACTOR:
Charm-Tex

(Name)

CONTRACT RENEWAL FOR IFB 12-036/JW
TERM CONTRACT FOR INMATE CLOTHING AND SUPPLIES FOR JEFFERSON COUNTY

The County entered into a contract with ICS Jail Supplies, Inc. for one (1) year, from March 11, 2013 to March 10, 2014, with an option to renew the contract for up to a five (5) year period.

Pursuant to the contract, Jefferson County hereby exercises its fourth one-year option to renew the contract for one (1) additional year from March 7, 2017 to March 6, 2018.

ATTEST:

Carolyn L. Guidry, County Clerk

COMMISSIONERS COURT
JEFFERSON COUNTY, TEXAS

JEFFERSON COUNTY, TEXAS

Jeff Branick, County Judge

CONTRACTOR:
ICS Jail Supplies, Inc.

(Name)

CONTRACT RENEWAL FOR IFB 12-035/JW
TERM CONTRACT FOR INMATE CLOTHING AND SUPPLIES FOR JEFFERSON COUNTY

The County entered into a contract with Shoe Corp of Birmingham for one (1) year, from March 11, 2013 to March 10, 2014, with an option to renew the contract for up to a five (5) year period.

Pursuant to the contract, Jefferson County hereby exercises its fourth one-year option to renew the contract for one (1) additional year from March 7, 2017 to March 6, 2018.

ATTEST:

Carolyn L. Guidry, County Clerk

JEFFERSON COUNTY, TEXAS

Jeff Branick, County Judge

COMMISSIONERS COURT
JEFFERSON COUNTY, TEXAS

CONTRACTOR:
Shoe Corp of Birmingham

(Name) January 30, 2017

J. Wesley Calhoun
President

CONTRACT RENEWAL FOR IFB 12-036/JW
TERM CONTRACT FOR INMATE CLOTHING AND SUPPLIES FOR JEFFERSON COUNTY

The County entered into a contract with Tabb Textile for one (1) year, from March 11, 2013 to March 10, 2014, with an option to renew the contract for up to a five (5) year period.

Pursuant to the contract, Jefferson County hereby exercises its fourth one-year option to renew the contract for one (1) additional year from March 7, 2017 to March 6, 2018.

ATTEST:

Carolyn L. Guidry, County Clerk

COMMISSIONERS COURT
JEFFERSON COUNTY, TEXAS

JEFFERSON COUNTY, TEXAS

Jeff Branick, County Judge

CONTRACTOR:
Tabb Textile

(Name) Alan Fenster President

CONTRACT RENEWAL FOR IFB 14-006/JW
TERM CONTRACT FOR MARINE MOTOR FUEL FOR JEFFERSON COUNTY

The County entered into a contract with C&I Oil Company, Inc. for one (1) year, from March 31, 2014 to March 30, 2015, with an option to renew the contract for up to a five (5) year period.

Pursuant to the contract, Jefferson County hereby exercises its third one-year option to renew the contract for one (1) additional year from March 28, 2017 to March 27, 2018.

ATTEST:

Carolyn L. Guidry, County Clerk

COMMISSIONERS COURT
JEFFERSON COUNTY, TEXAS

JEFFERSON COUNTY, TEXAS

Jeff Branick, County Judge

CONTRACTOR:
C&I Oil Company, Inc.

(Name)

Certificate of Construction Completion

Project: Road Improvements for Jefferson County Phase II (County Transportation Infrastructure Fund)

Contract No.: IFB 16-027/JW

This is to certify that a final inspection of the project described below was conducted on the 9th day of February, 2017. Contract was entered into on the 17th day of October, 2016 between the county of Jefferson and Brystar Contracting, Inc. for the construction of base repair and concrete pavement replacement.

This is to further certify that:

1. The work has been completed in accordance with the plans and specifications and all amendments, change orders and supplemental agreements thereto.

2. The sum of $ 0.00, has been deducted from the final payment to the Contractor in accordance with any contract liquidated damages requirements, separate from any liquidated damages resulting from Davis-Bacon compliance.

3. All programmatic requirements have been met, all claims and disputes have been settled, all warranties have been received, and all liens have been released.

4. All bills for materials, apparatus, fixtures, machinery, labor, and equipment used in connection with the construction of this project have been fully paid.

5.

Amount of Original Contract	$145,339.00
Cumulative Change Orders	$ 14,112.50
Final Amount of Contract	$159,451.50
Less Previous Payments	$ 0.00
Less Deductions (from #2 above)	$ 0.00
FINAL PAYMENT (Balance)	$159,451.50

6. The Final Payment above is now due and payable.

Certified by the following Engineer, Contractor, and Chief Elected Official/Designee:

Engineer	Brystar Contracting, Inc Contractor	Jeff R. Branick Chief Elected Official
Director of Engineering Title	V.P. CFO Title	Jefferson County Judge Title
Jefferson County Firm	Firm	Jefferson County County
Signature	Signature	Signature

ATTEST
DATE 2-21-17

COMMISSIONERS COURT
JEFFERSON COUNTY, TEXAS

JEFFERSON COUNTY PURCHASING DEPARTMENT

Deborah L. Clark, Purchasing Agent

1149 Pearl Street, 1st Floor, Beaumont, TX 77701 409-835-8593 Fax 409-835-8456

LEGAL NOTICE
Advertisement for Invitation for Bids

March 20, 2017

Notice is hereby given that sealed bids will be accepted by the Jefferson County Purchasing Department for IFB 17-010/YS, Term Contract Crushed Slag (Gr. 1, Type D, Class 2) and Asphalt Products for Jefferson County. **Specifications for this project may be obtained from the Jefferson County website, http://www.co.jefferson.tx.us/Purchasing/main.htm or by calling 409-835-8593.**

Bids are to be sealed and addressed to the Purchasing Agent with the bid number and name marked on the outside of the envelope. Bidders shall forward an original and two (2) copies of their bid to the address shown below. Jefferson County does not accept bids submitted electronically. Late bids will be rejected as non-responsive. Bids will be publicly opened and read aloud in the Jefferson County Commissioners' Courtroom at the time and date below. Bidders are invited to attend the sealed bid opening.

BID NAME: **Term Contract Crushed Slag (Gr. 1, Type D, Class 2) and Asphalt Products for Jefferson County**

BID NO: **IFB 17-010/YS**

DUE DATE/TIME: **11:00 AM CDT, Tuesday, April 18, 2017**

MAIL OR DELIVER TO: **Jefferson County Purchasing Department**
1149 Pearl Street, 1st Floor
Beaumont, Texas 77701

Any questions relating to these requirements should be directed to Yea-Mei Sauer, Contract Specialist, at 409-835-8593 or ysauer@co.jefferson.tx.us.

Jefferson County encourages Disadvantaged Business Enterprises to participate in the bidding process. Jefferson County does not discriminate on the basis of race, color, national origin, sex, religion, age or disability in employment or the provisions of services. Individuals requiring special accommodations are requested to contact our office at 409-835-8593 to make arrangements no later than seven (7) calendar days prior to the submittal deadline. Jefferson County reserves the right to accept or reject any or all proposals, to waive technicalities and to take whatever action is in the best interest of Jefferson County.

All interested firms are invited to submit a bid in accordance with the terms and conditions stated in this bid.

RESPONDENTS ARE STRONGLY ENCOURAGED TO CAREFULLY READ THE ENTIRE INVITATION.

Deborah L. Clark, Purchasing Agent
Jefferson County, Texas
Publish: Beaumont Enterprise & Port Arthur News – March 22, 2017 and March 29, 2017

IFB 17-010/YS
Term Contract Crushed Slag (Gr. 1, Type D, Class 2) and Asphalt Products for Jefferson County
Bids due: 11:00 AM CDT, Tuesday, April 18, 2017

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Bid Submissions:

Bidder is responsible for submitting one (1) *original* bid copy to include a completed copy of this specifications packet in its entirety; and two (2) numbered bid *hard copies* to include at a minimum all pages requiring completion and/or marked with instructions to be returned with bid submission and any other documentation requested within these specifications.

Additionally, Bidder must monitor the Jefferson County Purchasing Department Website (below) to see if addenda or additional instructions have been posted. Failure to return all required forms could result in a response being declared as non-responsive.

http://www.co.jefferson.tx.us/purchasing/main.htm

Instructions to Bidders

1. Bid Submission

Bids must be submitted in complete original form by mail or messenger to the following address:

Jefferson County Purchasing Department
1149 Pearl Street, 1st Floor
Beaumont, TX 77701

Bids will be accepted at the above address until the time and date specified herein, and immediately after will be publicly opened and read aloud.

Bidder shall submit bid in a tightly sealed opaque envelope or box, plainly marked "SEALED BID." The outside of the envelope of box shall also include the Bid Number, Bid Name, Bid Due Date, and the Bidder's Name and Address; and shall be addressed to the Purchasing Agent.

Late bids will not be accepted and will be returned unopened to the bidder.

All bids submitted in response to this invitation shall become the property of Jefferson County and will be a matter of public record available for review.

2. Bid Submissions During Time of Inclement Weather, Disaster, or Emergency

In case of inclement weather or any other unforeseen event causing the County to close for business on the date of a bid/proposal/statement of qualifications submission deadline, the closing will automatically be postponed until the next business day that County offices are open to the public. Should inclement weather conditions or any other unforeseen event cause delays in courier service operations, the County may issue an addendum to all known vendors interested in the project to extend the deadline. It will be the responsibility of the vendor to notify the county of their interest in the project should these conditions impact their ability to submit a bid/proposal/statement of qualifications submission before the stated deadline. The County reserves the right to make the final judgement call to extend any deadline.

Should an emergency or unanticipated event interrupt normal County processes, and bid/proposal/statement of qualifications submissions cannot be received by the Jefferson County Purchasing Department's office by the exact time specified in the IFB and urgent County requirements preclude amendment to the IFB, the time specified for receipt of bids will be deemed to be extended to the same time of day specified in the solicitation on the first business day on which normal County processes resume.

3. Courthouse Security

Bidders are advised that all visitors to the Courthouse must pass through Security. **Bidders planning to hand deliver bids must allow time to get through Security, as a delay in entering the Courthouse will not be accepted as an excuse for late submittal.** Mondays and Tuesdays are particularly heavy days. Bidders are strongly urged to plan accordingly.

4. Preparation of Bids

The bid shall be legibly printed in ink or typed.

If a unit price or extension already entered is to be altered, it shall be crossed out and initialed in ink by the bidder.

The bid shall be legally signed and shall include the complete address of the bidder.

Jefferson County is exempt from Federal and State Sales Taxes, and such taxes shall not be included in bid prices.

5. Signatures

All bids, notifications, claims, and statements must be signed by an individual authorized to bind the bidder. The individual signing certifies, under penalty of perjury, that he or she has the legal authorization to bind the bidder.

6. County Holidays – 2017:

January 16	Monday	Martin Luther King, Jr. Day
February 20	Monday	President's Day
April 14	Friday	Good Friday
May 29	Monday	Memorial Day
July 4	Tuesday	Independence Day
September 4	Monday	Labor Day
November 10	Friday	Veteran's Day
November 23 & 24	Thursday & Friday	Thanksgiving
December 25 & 26	Monday & Tuesday	Christmas
January 1, 2018	Monday	New Year's

7. Rejection or Withdrawal

Submission of additional terms, conditions or agreements with the bid document are grounds for deeming a bid non-responsive and may result in bid rejection. Jefferson County reserves the right to reject any and all bids and to waive any informalities and minor irregularities or defects in bids. Bids may be withdrawn in person by a bidder or authorized representative, provided their identity is made known and a receipt is signed for the bid, but only if the withdrawal is made prior to the time set for receipt of bids. Bids are an irrevocable offer and may not be withdrawn within 90 days after opening date.

8. Emergency/Declared Disaster Requirements

In the event of an emergency or if Jefferson County is declared a disaster area, by the County, State, or Federal Government, this Acceptance of Offer may be subjected to unusual usage. Contractor shall service the county during such an emergency or declared disaster under the same terms and conditions that apply during non-emergency/disaster conditions. The pricing as specified in this Acceptance of Offer shall apply to serving the County's needs regardless of the circumstances. If Contractor is unable to supply the services under the terms of the Acceptance of Offer, then Contractor shall provide proof of such disruption and a copy of the invoice from Contractor's supplier(s). Additional profit margin as a result of supplying services during an emergency or declared disaster shall not be permitted. In the event that additional equipment, supplies, and materials are required during the declared disaster, additional shipping, handling and drayage fees may apply.

9. Award

The bid will be awarded to the responsible, responsive bidder(s) whose bid, conforming to the solicitation, will be most advantageous to Jefferson County – price and other factors considered. Unless otherwise specified in this IFB, Jefferson County reserves the right to accept a bid in whole or in part, and to award by item or by group, whichever is deemed to be in the best interest of Jefferson County. Any bidder who is in default to Jefferson County at the time of submittal of the bid shall have that bid rejected. Jefferson County reserves the right to clarify any contractual terms with the concurrence of the Contractor; however, any substantial nonconformity in the offer, as determined by Jefferson County, shall be deemed non-responsive and the offer rejected.

In evaluating bids, Jefferson County shall consider the qualifications of the bidders, and, where applicable, operating costs, delivery time, maintenance requirements, performance data, and guarantees of materials and equipment. In addition, Jefferson County may conduct such investigation as it deems necessary to assist in the evaluation of a bid and to establish the responsibility, qualifications, and financial ability of the bidders to fulfill the contract.

Jefferson County reserves the right to award this contract on the basis of **lowest and best bid** in accordance with the laws of the State of Texas, to waive any formality or irregularity, to make awards to more than one offeror, and/or to reject any or all bids. In the event the lowest dollar offeror meeting specifications is not a awarded a contract, Offeror may appear before the Commissioners' Court and present evidence concerning Offeror responsibility after officially notifying the Office of the Purchasing Agent of Offeror's intent to appear.

10. Contract

A response to an IFB is an offer to contract with Jefferson County based upon the terms, conditions, and specifications contained in the IFB. Bids do not become contracts unless and until they are executed by Jefferson County, eliminating a formal signing of a separate contract. For that reason, all of the terms and conditions of the contract are contained in the IFB, unless any of the terms and conditions is modified by an IFB Amendment, a Contract Amendment, or by mutually agreed terms and conditions in the contract documents.

11. Waiver of Subrogation

Bidder and bidder's insurance carrier waive any and all rights whatsoever with regard to subrogation against Jefferson County as an indirect party to any suit arising out of personal or property damages resulting from bidder's performance under this agreement.

12. Fiscal Funding

A multi-year contract (if requested by the specifications) continuing as a result of an extension option must include fiscal funding out. If, for any reason, funds are not appropriated to continue the contract, said contract shall become null and void.

13. Bid Results

Bid results are not provided in response to telephone inquiries. A preliminary tabulation of bids received will be posted on the Purchasing web page (http://co.jefferson.tx.us/ purchasing/main.htm) as soon as possible following bid opening. A final tabulation will be posted following bid award, and will also be available for review in the Purchasing Department.

14. Changes and Addenda to Bid Documents

Each change or addendum issued in relation to this IFB document will be on file in the Office of the Purchasing Agent, and will be posted on the Purchasing web site as soon as possible. It shall be the bidder's responsibility to make inquiry as to change or addenda issued, and to monitor the web site. All such changes or addenda shall become part of the contract and all bidders shall be bound by such addenda. Information on all changes or addenda issued will be available at the Office of the County Purchasing Agent.

15. Specifications

Unless otherwise stated by the bidder, the bid will be considered as being in accordance with Jefferson County's applicable standard specifications, and any special specifications outlined in the bid document. References to a particular trade name, manufacturer's catalogue, or model number are made for descriptive purposes to guide the bidder in interpreting the requirements of Jefferson County, and should not be construed as excluding bids on other types of materials, equipment, and supplies. However, the bidder, if awarded a contract, will be required to furnish the particular item referred to in the specifications or description unless departure or substitution is clearly noted and described in the bid. Jefferson County reserves the right to determine if equipment/ product being bid is an acceptable alternate. All goods shall be new unless otherwise so stated in the bid. Any

unsolicited alternate bid, or any changes, insertions, or omissions to the terms and conditions, specifications, or any other requirements of the bid, may be considered non-responsive.

16. Delivery

Bids shall include all charges for delivery, packing, crating, containers, etc. Unless otherwise stated by the bidder (<u>in writing on the included Bid Form</u>), prices bid will be considered as being based on F.O.B. destination/delivered freight included.

17. Interpretation of Bid and/or Contract Documents

All inquiries shall be made within a reasonable time prior to the date and time fixed for the bid opening, in order that a written response in the form of an addendum, if required, can be processed before the bids are opened. Inquiries received that are not made in a timely fashion may or may not be considered.

18. Currency

Prices calculated by the bidder shall be stated in U.S. dollars.

19. Pricing

Prices shall be stated in units of quantity specified in the bid documents. In case of discrepancy in computing the amount of the bid, the unit price shall govern.

20. Notice to Proceed/Purchase Order

The successful bidder may not commence work under this contract until authorized to do so by the Purchasing Agent.

21. Certification

By signing the offer section of the Offer and Acceptance page, bidder certifies:

- The submission of the offer did not involve collusion or other anti-competitive practices.
- The bidder has not given, offered to give, nor intends to give at any time hereafter, any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor, or service to any public servant in connection with the submitted offer.
- The bidder hereby certifies that the individual signing the bid is an authorized agent for the bidder and has the authority to bind the bidder to the contract.

22. Definitions

"County" – Jefferson County, Texas.

"Contractor" – The bidder whose proposal is accepted by Jefferson County.

23. Minority-Women Business Enterprise Participation

It is the desire of Jefferson County to increase the participation of Minority (MBE) and women-owned (WBE) businesses in its contracting and procurement programs. While the County does not have any preference or set aside programs in place, it is committed to a policy of equitable participation for these firms.

General Conditions of Bidding and Terms of Contract

By execution of this document, the vendor accepts all general and special conditions of the contract as outlined below and in the specifications and plans.

1. Bidding

1.1 Bids. All bids must be submitted on the bid form furnished in this package.

1.2 Authorized Signatures. The bid must be executed personally by the vendor, duly authorized partner of the partnership, or duly authorized officer of the corporation. If executed by an agent, a power of attorney or other evidence of authority to act on behalf of the vendor shall accompany the bid to become a valid bid.

1.3 Late Bids. Bids must be in the office of the Jefferson County Purchasing Agent before or at the specified time and date bids are due. Bids received after the submission deadline shall be rejected as non-responsive and returned unopened.

1.4 Withdrawal of Bids Prior to Bid Opening. A bid may be withdrawn before the opening date by submitting a written request to the Purchasing Agent. If time allows, the bidder may submit a new bid. Bidder assumes full responsibility for submitting a new bid before or at the specified time and date bids are due. Jefferson County reserves the right to withdraw a request for bids before the opening date.

1.5 Withdrawal of Bids after Bid Opening. Bidder agrees that its offer may not be withdrawn or cancelled by the vendor for a period of ninety (90) days following the date and time designated for the receipt of bids unless otherwise stated in the bid and/or specifications.

1.6 Bid Amounts. Bids shall show net prices, extensions where applicable and net total. In case of conflict between unit price and extension, the unit price will govern. Any ambiguity in the bid as a result of omission, error, unintelligible or illegible wording shall be interpreted in the favor of Jefferson County.

1.7 Exceptions and/or Substitutions. All bids meeting the intent of the specifications and plans will be considered for award. Vendors taking exception to the specifications and plans, or offering substitutions, shall state these exceptions in the section provided. If bid is made on an article other than the one specified, which a bidder considers comparable, the name and grade of said article must be specified in the bid and sufficient specifications and descriptive data must accompany same to permit thorough evaluation. The absence of stated exceptions and/or substitutions shall indicate that the vendor has not taken any exceptions to the specifications and shall be responsible to perform in strict accordance with the specifications. As a matter of practice, Jefferson County rejects exception(s) and /or substitutions as non-responsive but reserves the right to accept any and/or all of the exception(s) and/or substitution(s) deemed to be in the best interest of Jefferson County.

1.8 Alternates. The Invitation for Bid and/or specifications may expressly allow bidder to submit an alternate bid. Presence of such an offer shall not be considered an indication of non-responsiveness.

1.9 Descriptions. Unless otherwise specified, any reference to make, manufacturer and/or model used in the bid specifications is merely descriptive and not restrictive, and is used only to indicate type, style, or quality of material desired.

1.10 Bid Alterations. Bids cannot be altered or amended after submission deadline. Any interlineations, alterations, or erasures made before opening time must be initialed by the signer of the bid, guaranteeing authenticity.

1.11 Tax Exempt Status. Jefferson County is exempt from federal excise tax and state sales tax. Unless the bid form or specifications specifically indicate otherwise, the bid price must be net, exclusive of above-mentioned taxes and will be so construed. Therefore, the bid price shall not include taxes.

1.12 Quantities. Quantities indicated are estimated quantities only and are not a commitment to buy. Approximate usage does not constitute an order, but only implies the probable quantity that will be used. Commodities will be ordered on an as-needed basis. Bidder is responsible for accurate final counts.

1.13 Bid Award. Award of contract shall be made to the most responsible, responsive bidder, whose offer is determined to be the best value, taking into consideration the relative importance of price. Jefferson County reserves the right to be the sole judge as to whether items bid will serve the purpose intended. Jefferson County reserves the right to accept or reject in part or in whole any bid submitted, and to waive any technicalities or informalities for the best interest of the County. Jefferson County reserves the right to award based upon individual line items, sections or total bid.

1.14 Silence of Specifications for Complete Units. All materials, equipment and/or parts that will become a portion of the completed work, including items not specifically stated herein but, necessary to render the service(s) complete and operational per the specifications, are to be included in the bid price. Vendor may be required to furnish evidence that the service, as bid, will meet or exceed these requirements.

1.15 Addenda. Any interpretations, corrections or changes to the specifications and plans will be made by addenda no later than forty-eight (48) hours prior to the bid opening. Addenda will be posted on the Purchasing web site. Vendors are responsible for monitoring the web site in order to remain informed on addenda. Vendors shall acknowledge receipt of all addenda with submission of bid.

1.16 General Bid Bond/Surety Requirements. Failure to furnish bid bond/surety, if requested, will result in bid being declared non-responsive. Non-responsive bids will not be considered for award.

1.17 General Insurance Requirements. Failure to furnish Affidavit of Insurance, if required in these specifications, will result in bid being declared non-responsive. Non-responsive bids will not be considered for award.

1.18 Responsiveness. A responsive bid shall substantially conform to the requirements of this Invitation to Bid and/or specifications contained herein. Bidders who substitute any other terms, conditions, specifications and/or requirements or who qualify their bids in such a manner as to nullify or limit their liability to the contracting entity shall have their bids deemed non-responsive. Also, bids containing any clause that would limit contracting authority shall be considered non-responsive. Examples of non-responsive bids include but shall not be limited to: a) bids that fail to conform to required delivery schedules as set forth in the bid request; b) bids with prices qualified in such a manner that the bid price cannot be determined, such as with vague wording that may include “price in effect at the time of delivery,” and c) bids made contingent upon award of other bids currently under consideration.

1.19 Responsible Standing of Bidder. To be considered for award, bidder must at least: have the ability to obtain adequate financial resources, be able to comply with required or proposed delivery/completion schedule, have a satisfactory record of performance; have a satisfactory record of integrity and ethics, and be otherwise qualified and eligible to receive award.

1.20 Proprietary Data. Bidder may, by written request, indicate as confidential any portion(s) of a bid that contain proprietary information, including manufacturing and/or design processes exclusive to the vendor. Jefferson County will protect from public disclosure such portions of a bid, unless directed otherwise by legal authority, including existing Open Records Acts.

1.21 Public Bid Opening. Bidders are invited to be present at the opening of bids. After the official opening of bids, a period of not less than one week is necessary to evaluate bids. The amount of time necessary for bid evaluation may vary and is determined solely by the County. Following the bid evaluation, all bids submitted are available for public review.

2. Performance

2.1 Design, Strength, and Quality. Design, strength, and quality of materials and workmanship must conform to the highest standards of manufacturing and engineering practices. The apparent silence of specifications and/or plans as to any detailed description concerning any point shall be regarded as meaning that only the best commercial practices are to prevail. All interpretations of these specifications and/or plans shall be made on the basis of this statement.

2.2 Age and Manufacture. All tangible goods being bid must be new and unused, unless otherwise specified, in first-class condition, of current manufacture, and furnished ready to use. All items not specifically mentioned that are required for a complete unit shall be furnished.

2.3 Delivery Location. All deliveries will be made to the address(es) specified on the purchase order during normal working hours of 8:00 a.m. to 4:00 p.m., Monday through Friday, unless otherwise authorized by the Purchasing Agent or designee.

2.4 Delivery Schedule. Delivery time may be an important consideration in the evaluation of best value. The maximum number of days necessary for delivery ARO shall be stated in the space, if provided, on the bid form.

2.5 Delivery Charges. All delivery and freight charges, F.O.B. destination shown on Jefferson County purchase order, as necessary to perform contract are to be included in the bid price.

2.6 Installation Charges. All charges for assembly, installation and set-up shall be included in the bid price. Unless otherwise stated, assembly, installation and set-up will be required.

2.7 Operating Instructions and Training. Clear and concise operating instructions and descriptive literature will be provided in English, if requested. On-site detailed training in the safe and efficient use and general maintenance of item(s) purchased shall be provided as needed at the request of Jefferson County. Instructions and training shall be at no additional cost to the County.

2.8 Storage. Bidder agrees to provide storage of custom ordered materials, if requested, for up to thirty (30) calendar days.

2.9 Compliance with Federal, State, County, and Local Laws. Bids must comply with all federal, state, county and local laws, including, but not limited to, all applicable standard safety, emission, and noise control requirements. Any vehicles or equipment shall contain all standard safety, emission, and noise control requirements required for the types and sizes of equipment at the time of their manufacture. The contractor agrees, during the performance of work or service, to comply with all applicable codes and ordinances of Jefferson County or the State of Texas as they may apply, as these laws may now read, or as they may hereafter be changed or amended.

2.10 OSHA. The bidder will certify all equipment complies with all regulations and conditions stipulated under the Williams-Steiger Occupational Safety and Health Act of 1971, as amended. The successful bidder will further certify that all items furnished under this project will conform and comply with federal and State of Texas OSHA standards. The successful bidder will agree to indemnify and hold harmless Jefferson County for any and all damages that may be assessed against the County.

2.11 Patents and Copyrights. The successful vendor agrees to protect the County from claims involving infringements of patents and/or copyrights.

2.12 Samples, Demonstrations and Testing. At Jefferson County's request and direction, bidder shall provide product samples and/or testing of items bid to ensure compliance with specifications. Samples, demonstrations and/or testing may be requested at any point prior to or following bid award. Samples, demonstrations and/or testing may be requested upon delivery and/or any point during the term of resulting contract. All samples (including return thereof), demonstrations, and/or testing shall be at the expense of the bidder/vendor.

2.13 Acceptability. All articles enumerated in the bid shall be subject to inspection by an officer designated for that purpose by Jefferson County. If found inferior to the quality called for, or not equal in value to the specifications, deficient in workmanship or otherwise, this fact shall be certified to the Purchasing Agent, who shall have the right to reject the whole or any part of the same. Items

and/or work determined to be contrary to specifications must be replaced at the vendor's expense. Inferior items not retrieved by the vendor within thirty (30) calendar days, or an otherwise agreed upon time, shall become the property of the County. If disposal of such items warrants an expense, an amount equal to the disposal expense will be deducted from amounts payable to the vendor.

2.14 Maintenance. Maintenance required for equipment bid should be available in Jefferson County by a manufacturer authorized maintenance facility. Cost for this service shall be shown on the bid sheet as requested or on a separate sheet, as required. If Jefferson County opts to include maintenance, it shall be so stated in the purchase order and said cost will be included. Service will commence only upon expiration of applicable warranties and should be priced accordingly.

2.15 Material Safety Data Sheets. Under the "Hazardous Communications Act," common known as the "Texas Right to Know Act," a bidder must provide the user department, with each delivery, material safety data sheets which are applicable to hazardous substances defined in the Act. Failure of the bidder to furnish this documentation, will be cause to reject any bid applying thereto.

2.16 Evaluation. Evaluation shall be used as a determinant as to which services are the most efficient and/or most economical for the County. It shall be based on all factors having a bearing on price and performance of the items in the user environment. All bids are subject to tabulation by the Jefferson County Purchasing Department and recommendation to Jefferson County Commissioners' Court. Compliance with all bid requirements and needs of the using department are considered in evaluating bids. Pricing is not the only criteria for making a recommendation. The Jefferson County Purchasing Department reserves to right to contact any bidder, at any time, to clarify, verify or requirement information with regard to this bid.

3. Purchase Orders and Payment

3.1 Purchase Orders. A purchase order(s) shall be generated by the Jefferson County Purchasing Agent to the successful vendor. The purchase order number must appear on all itemized invoices and packing slips. The County will not be held responsible for any work orders placed and/or performed without a valid current purchase order number. Payment will be made for all services rendered and accepted by the contract administrator for which a valid invoice has been received.

3.2 Invoices. All invoices shall reference the Purchase Order number. Invoices shall reference the bid item number or a detailed description for each item invoiced. If an item purchased and itemized on the invoice does not correspond to an item in any of the categories awarded to the vendor, invoice shall reference the item as "N/C" to indicate that it is a non-contract item. This requirement is to assist the County in verifying contract pricing on all invoices. Payment will be made under terms of net thirty (30) days unless otherwise agreed upon by seller and the purchasing department.

3.3 Prompt Payment. In accordance with the State of Texas Prompt Payment Act, Article 601f V.T.C.S., payment will be made after receive and acceptance by the County of the merchandise ordered and of a valid invoice. Successful bidder(s) is required to pay subcontractors within ten (10) days after the successful bidder receives payment from the County.

3.4 Funding. Jefferson County is operated and funded on an October 1 to September 30 basis; accordingly, the County reserves the right to terminate, without liability to the County, any contract for which funding is not available.

4. Contract

4.1 Contract Definition. The General Conditions of Bidding and Terms of Contract, Specifications, Plans, Bidding Forms, Addenda, and any other documents made a part of this bid shall constitute the complete bid. This bid, when duly accepted by Jefferson County, shall constitute a contract equally binding between the successful bidder and Jefferson County.

4.2 Contract Agreement. Once a contract is awarded, the unit prices offered by the successful bidder shall remain firm for the term of the contract. Contract shall commence on date of award and,

upon agreement between vendor(s) and Jefferson County, may be renewed annually for up to four (4) additional years.

4.3 Change Order. No different or additional terms will become part of this contract with the exception of a change order. No oral statement of any person shall modify or otherwise change, or affect the terms, conditions or specifications stated in the resulting contract. All change orders to the contract will be made in writing and at the discretion and approval of Jefferson County. No change order will be binding unless signed by an authorized representative of the County and the vendor.

4.4 Price Re-determination. A price re-determination may be requested at the time of annual renewal. All requests for price re-determination shall be in written form. Cause for such request, i.e., manufacturer's direct cost, postage rates, Railroad Commission rates, Federal/State minimum wage law, Federal/State unemployment taxes, F.I.C.A, Insurance Coverage Rates, etc., shall be substantiated in writing by the source of the cost increase. The bidder's past experience of honoring contracts at the bid price will be an important consideration in the evaluation of the lowest and best bid. Jefferson County reserves the right to accept or reject any/all requests for price re-determination as it deems to be in the best interest of the County.

4.5 Termination. Jefferson County reserves the right to terminate the contract for default if the bidder breached any of the terms therein, including warranties of bidder or if the bidder becomes insolvent or commits acts of bankruptcy. Such right of termination is in addition to and not in lieu of any other remedies which Jefferson County may have in law or equity. Default may be construed as, but not limited to, failure to deliver the proper goods and/or service within the proper amount of time, and/or to properly perform any and all services required to Jefferson County's satisfaction and/or to meet all other obligations and requirements. Contracts may be terminated without cause upon thirty (30) days' written notice to either party unless otherwise specified. Jefferson County reserves the right to award canceled contract to the next lowest bidder. Bidder, in submitting this bid, agrees that Jefferson County shall not be liable to prosecution for damages in the event that the County declares the bidder in default.

4.6 Conflict of Interest. Employees of the County are not permitted to maintain financial interest in, or receive payment, directly or indirectly, borrow from, lend to, invest in, or engage in any substantial financial transaction with any individual, organization, supplier, or subcontractor who does business with the County without disclosure. When conflict of interest is discovered, it shall be grounds for termination of contract.

4.7 Injuries or Damages Resulting from Negligence. Successful vendor shall defend, indemnify and save harmless Jefferson County and all its officers, agents and employees from all suits, actions, or other claims of any character, name and description brought for or on account of any injuries or damages received or sustained by any person, persons, or property on account of any negligent act or fault of the successful vendor, or of any agent, employee, subcontractor or supplier in the execution of, or performance under, any contract which may result from bid award. Successful vendor shall pay any judgment with cost which may be obtained against Jefferson County growing out of such injury or damages.

4.8 Interest by Public Officials. No public official shall have interest in this contract, in accordance with Texas Local Government Code.

4.9 Warranty. The successful vendor shall warrant that all materials utilized in the performance of this contract shall conform to the proposed specifications and/or all warranties as stated in the Uniform Commercial Code and be free from all defects in material, workmanship and title.

4.10 Uniform Commercial Code. The successful vendor and Jefferson County agree that both parties have all rights, duties, and remedies available as stated in the Uniform Commercial Code.

4.11 Venue. This agreement will be governed and construed according to the laws of the State of Texas. This agreement is performable in the County of Jefferson, Texas.

4.12 Sale, Assignment, or Transfer of Contract. The successful vendor shall not sell, assign, transfer or convey this contract, in whole or in part, without the prior written consent of Jefferson County.

4.13 Silence of Specifications. The apparent silence of these specifications as to any detailed description concerning any point, shall be regarded as meaning that only the best commercial practices are to prevail. All interpretations of these specifications shall be made on the basis of this statement.

Special Requirements/Instructions

The following requirements and instructions supersede General Requirements where applicable.

1. Bid Requirement

Each bidder shall ensure that required parts of the bid are completed with accuracy and submitted as per the requirements within this specifications packet, including any addenda.

Bidder is responsible for submitting one (1) *original* bid copy to include a completed copy of this specifications packet in its entirety; and two (2) numbered bid *hard copies* to include at a minimum all pages requiring completion and/or marked with instructions to be returned with bid submission and any other documentation requested within these specifications.

All bids shall be tightly sealed in an opaque envelope or box and plainly marked "SEALED BID." The outside of the envelope or box shall also include: Bid Number, Bid Name, Bid Due Date, Bidder's Name and Address; and shall be addressed to the Purchasing Agent.

Jefferson County shall not be responsible for any effort or cost expended in the preparation of a response to this IFB. All protests should be coordinated through the Purchasing Office prior to award recommendation to Commissioners' Court.

2. Vendor Registration: SAM (System for Award Management).

Vendors doing business with Jefferson County are **required** to be registered with The System for Award Management (SAM), with an "active" status. The System for Award Management (SAM) is the Official U.S. Government system that consolidated the capabilities of CCR/FedReg, ORCA, and EPLS. There is NO fee to register for this site. Entities may register at no cost directly from the SAM website at: https://www.sam.gov

Bid Respondents are strongly encouraged to review their firm's SAM (System for Award Management) status prior to Bid Submission.

3. Awarded Vendor(s): Submission of FORM 1295 (Texas Ethics Commission)

As of January 1, 2016, per House Bill 1295, the Texas Ethics Commission (TEC) requires **all awarded vendors** to complete a Certificate of Interested Parties (FORM 1295) at time of notification of award. **Awarded Vendors** must visit the TEC website link below, enter the required information on Form 1295, and print a copy of the completed form. The form will include a certification of filing that will contain a unique certification number.

At the time of award, the Jefferson County Purchasing Department will submit a request to the Awarded Vendor to both:

1. Submit FORM 1295 online via the Texas Ethics Commission website link below.

2. Submit a printed copy of FORM 1295, signed by an Authorized Agent of the Awarded Vendor and notarized to the Jefferson County Purchasing Department.

FORM 1295, Completion Instructions, and Login Instructions are available via the Texas Ethics Commission Website at: https://www.ethics.state.tx.us/whatsnew/elf_info_form1295.htm

4. Multiple Vendor Award

Jefferson County reserves the right to award this contract to more than one vendor at the County's discretion.

5. Delivery

If delivery is required, all items must be packaged so as to be protected from damage during shipping and handling. Any item(s) damaged in shipping must be replaced in kind, or repaired, by the contractor, at the discretion of, and at no additional charge to, Jefferson County.

6. Payment

Jefferson County will pay original invoices that clearly itemize the goods and/or services provided as to quantity, part number, description, price, applicable discount (if any), labor charges showing time differential, if applicable and if previously agreed to, and delivery, installation, and set-up costs, if applicable and if previously agreed to. Only charges as stated on the Bid Form(s) submitted as a part of the bid will be considered.

Invoices must indicate Jefferson County as applicable, the address to which the product(s) and/or service(s) were delivered, and the applicable purchase order number. Invoices will be matched to delivery tickets prior to payment; therefore, all delivery tickets should have an accurate description of the product(s) and/or service(s).

Invoices shall be submitted to: Jefferson County Auditing Department, Attention: Accounts Payable, 1149 Pearl Street, 7th floor, Beaumont, TX 77701.

7. Usage Reports

Jefferson County reserves the right to request, and receive at no additional cost, up to two (2) times during the contract period, a usage report detailing the products and/or services furnished to date under a contract resulting from this IFB. The reports must be furnished no later than five (5) working days after written request and itemize all purchases to date by Jefferson County department, description of each item purchased, including manufacturer, quantity of each item purchased, per unit and extended price of each item purchased, and total amount and price of all items purchased.

8. Insurance

The contractor (including any and all subcontractors as defined in Section 9.1.3 below) shall, at all times during the term of this contract, maintain insurance coverages with not less than the type and requirements shown below. Such insurance is to be provided at the sole cost of the contractor. These requirements do not establish limits of the contractor's liability.

All policies of insurance shall waive all rights of subrogation against the County, its officers, employees and agents; a copy of the policy wording or endorsement is required.

Contractor shall furnish Jefferson County with Certificate of Insurance naming Jefferson County as additional insured and will provide the actual policy wording or endorsement showing as such.

All insurance must be written by an insurer licensed to conduct business in the State of Texas.

Minimum Insurance Requirements

Public Liability, including Products & Completed Operations	$1,000,000
Excess Liability	$1,000,000

Property Insurance (policy below that is applicable to this project)**:**
- Improvements & Betterments Policy: Improvements/Remodeling (for Lease Tenants)
- Builder's Risk Policy: Structural Coverage for Construction Projects
- Installation Floater Policy: Improvements/Alterations to Existing Structure

Workers' Compensation	Statutory Coverage (see attached)

9. Workers' Compensation Insurance

9.1 Definitions:

9.1.1 **Certificate of coverage ("Certificate")** – A copy of a certificate of insurance, a certificate of authority to self-insure issued by the commission, or a coverage agreement, DWC-81, DWC-82, DWC-83, or DWC-84 showing statutory workers' compensation insurance coverage for the person's or entity's employees providing services on a project, for the duration of the project.

9.1.2 **Duration of the project** – Includes the time from the beginning of the work on the project until the contractor's/person's work on the project has been completed and accepted by the governmental entity.

9.1.3 **Persons providing services on the project ("subcontractor") in article 406.096** – Includes all persons or entities performing all or part of the services under the contractor has undertaken to perform on the project, regardless of whether that person contracted directly

with the contractor and regardless of whether that person has employees. This includes, without limitation, independent contractors, subcontractor, leasing companies, motor carriers, owner-operators, employees of any such entity, or employees of any entity which furnishes persons to provide services on the project. "Services" includes, without limitation, providing, hauling or delivering equipment or materials, or providing labor, transportation, or other service related to a project. "Services" does not include activities unrelated to the project, such as food/beverage vendors, office supply deliveries, and delivery of portable toilets.

9.2 The Contractor shall provide coverage, based on proper reporting of classification code and payroll amounts and filing any coverage agreements, which meets the statutory requirements of Texas Labor Code, Section 401.011(44) for all employees of the contractor providing services on the project, for the duration of the project.

9.3 The Contractor must provide a certificate of coverage to the governmental entity prior to being awarded the contract – refer to Section 8 above.

9.4 If the coverage period shown on the Contractor's current certificate of coverage ends during the duration of the project, the Contractor must, prior to the end of the coverage period, file a new certificate of coverage with the governmental entity showing that coverage has been extended.

9.5 The Contractor shall obtain from each person providing services on a project, and provide to the governmental entity:

9.5.1 A certificate of coverage, prior to that person beginning work on the project, so the governmental entity will have on file certificates of coverage showing coverage for all persons providing services on the project; and

9.5.2 No later than seven (7) days after receipt by the Contractor, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate ends during the duration of the project.

9.6 The Contractor shall retain all required certificates of coverage for the duration of the project and for one (1) year thereafter.

9.7 The Contractor shall notify the governmental entity in writing by certified mail or personal delivery, within ten (10) days after the contractor knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project.

9.8 The Contractor shall post on each project site a notice, in the text, form and manner prescribed by the Texas Department of Workers' Compensation, informing all persons providing services on the project that they are required to be covered, and stating how a person may verify coverage and report lack of coverage.

9.9 The Contractor shall contractually require each person with whom it contracts to provide services on a project to:

9.9.1 Provide coverage, based on reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of Texas Labor Code, Section 401.011(44) for all its employees providing services on the project, for the duration of the project.

9.9.2 Provide to the Contractor, prior to that person beginning work on the project a certificate of coverage showing that coverage is being provided for all employees of the person providing services on the project, for the duration of the project.

9.9.3 Provide the Contractor, prior to the end of coverage period, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the project.

9.9.4 Obtain from each person with whom it contracts, and provide to the Contractor:

9.9.4.1 A certificate of coverage, prior to the other person beginning work on the project; and

9.9.4.2 the coverage period, if the coverage period shown on the current certificate of a new certificate of coverage showing extension of coverage, prior to the end of coverage ends during the duration of the project.

9.9.5 Retain all required certificates of coverage on file for the duration of the project and for one (1) year thereafter.

9.9.6 Notify the governmental entity in writing by certified mail or personal delivery, within ten (10) days after the person knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project; and

9.9.7 Contractually require each person with whom it contracts to perform as required by paragraphs 9.1. – 9.7., with the certificates of coverage to be provided to the person for whom they are providing services.

9.10 By signing this contract or providing or causing to be provided a certificate of coverage, the Contractor is representing to the governmental entity that all employees of the contractor who will provide services of the project will be covered by workers' compensation coverage for the duration of the project, that the coverage will be based on proper reporting of classification codes and payroll amounts, and that all coverage agreements will be filed with the appropriate insurance carrier or, in the case of a self-insured, with the commission's Division of Self-Insurance Regulation. Providing false or misleading information may subject the contractor to administrative penalties, criminal penalties, civil penalties, or other civil actions.

9.11 The Contractor's failure to comply with any of these provisions is a breach of contract by the Contractor which entitles the governmental entity to declare the contract void if the Contractor does not remedy the breach within ten (10) days after receipt of notice of breach from the governmental entity.

Minimum Specifications

The following requirements and specifications supersede General Requirements where applicable. Contact Yea-Mei Sauer, Contract Specialist (e-mail: ysauer@co.jefferson.tx.us; phone: 409-835-8593), regarding any questions or comments. Please reference bid number IFB 17-010/YS.

Scope

Vendor shall provide Crushed Slag and Asphalt Products for Jefferson County subject to the terms and conditions stated herein for a period of one (1) year with an option to renew for four (4) additional years beginning on or about Date of Award.

This bid, when properly accepted by Jefferson County Commissioners' Court, shall constitute a contract equally binding between the successful bidder and Jefferson County. No different or additional terms will become part of this contract.

Before award successful bidder must submit third party laboratory testing to prove the material they are to be awarded meets Jefferson County specifications.

Prices may be adjusted only to reflect increases or decreases in rail rates, or as indicated on bid blank. The County shall require written verification on any increase in rail rates. Orders will be placed on an **as-needed basis** for the duration of the contract. Purchase orders will be released to the successful bidder(s) as required. **MINIMUM ORDERS ARE NOT ACCEPTABLE.**

The County shall reserve the right to waive bid informalities, to reject any or all bids, to award material by line item or by Precinct by line item, and to award to the bidder or bidders making the offer most beneficial to the County. Jefferson County reserves the right to cancel this contract with 15 days' written notification.

F.O.B. point shall be strictly as indicated on bid blanks. Rail delivery material shall be quoted F.O.B. shipping point with separate rate for prepaid rail delivery to the various points in Jefferson County. Truck delivery material shall be quoted F.O.B. Jefferson County delivery zones, as required, with delivery prepaid. Bidder bears freight charges. **Bidder shall supply material from the location closest to the County project site.** Hopper pickup material and other shipping point purchases shall be quoted F.O.B. trucks, shipping point, with freight for the County's account.

LOAD LIMITS. Any vehicle used to deliver materials shall comply with the State law concerning the gross weight of such vehicle load, unless authorized by permit to exceed the legal weight.

The County shall reserve the right to reject the bid of any bidder who does not have certified scales, which shall be certified by the Weights and Measures Division of the Department of Agriculture of the State of Texas, or certified by a company duly registered with the said Department of Agriculture. Each load of material sold on a unit weight basis shall be weighed on certified scales and weigh tickets for each truck shall be presented at time of delivery. Reference is made to TxDOT Standard Specifications for measurement of the various items bid. For those items which require measurement by the ton of 2000 pounds dry weight or require a not-to-exceed moisture and/or light hydrocarbon volatiles content in the mixture, the bidder shall determine at the time of weighing, the amount of moisture and/or light hydrocarbon volatiles to be deducted from the net weight to determine the quantity of actual material for which payment is to be made.

Alternate bids are not solicited. **Add nothing to this bid**; unsolicited attachments may be discarded and have no bearing on this bid.

If a problem develops with Crushed Slag and Asphalt Products during the year, samples shall be taken by a third party laboratory representative in the presence of representatives from both the County and the successful bidder. If the results of such test reveal the samples submitted do not meet the specifications, the cost of the test shall be at the expense of the successful bidder. The successful bidder shall make satisfactory adjustment for all products delivered which do not comply with Jefferson County's specifications. If the results of the test reveal the samples submitted meet Jefferson County's specification, the County will bear the cost of the test.

Manufacturer's Safety Data Sheets (MSDS) must be provided on all applicable deliveries.

Quantities to be purchased will be on an as-needed basis and may be affected by weather conditions or available funds. The County's previous annual purchases of Crushed Slag and Asphalt Products are listed below.

Flexible Base – Crushed Limestone Base (Supplier shall provide loose weight in lbs./c.y.). These items, which are published in the TXDOT Standard Specifications, shall be defined as "Crushed Limestone Base."	Type A Gr 1 CL2 (minimum P.I. 4; maximum P.I. 10)	5,210.80 tons
Asphaltic Products	Grade RS-2 (HVRS)	130,115 gallons
	Grade SSI	2,032 gallons
	Grade AE-P	5,303 gallons

These figures are shown solely as basis for bidders to determine the past history of these items, and do not imply any promise that these quantities will be purchased.

Materials shall be measured by normal stockpile weight, that is, by the ton of 2000 pounds at optimum moisture content, or by cubic yard or by gallon, as indicated on the bid blank.

Rail Car Weights. County shall randomly check rail car weights. If rail car weight is less than car billed weight the supplier will be back charged for the difference in the weight, as well as the cost of weighing the cars.

Truck Delivery. Quote delivery via tandem dump truck or by trailer as may be required. It will be the decision of each precinct how materials are delivered. Price for delivery to the five (5) county delivery points listed below shall be price per ton, per mile.

Precinct 1 Stockpile	China Service Center
Precinct 2 Stockpile	Viterbo Road
Precinct 2 Storage Yard	LaBelle Road & Hwy. 365
Precinct 3 Stockpile	Hwy. 124, Hamshire
Precinct 4 Stockpile	Boyt Road

Hopper bids shall list city and address of hopper location as well as hours of operation. Bidders desiring to quote materials loaded onto trucks from barges may list their locations under the Hopper pickup caption.

Texas State Department of Transportation Standard Specification (1995), with the exceptions noted below, shall define the materials in this specification.

If after bid award is made, vendor is unable to supply Jefferson County with materials ordered, vendor shall fax a letter within two (2) hours of request stating why the material cannot be delivered. Jefferson County will then be able to go out on the open market for the materials that are needed until the vendor faxes another letter informing the County the materials are available again.

Items which are not published in the TXDOT Standard Specification or which modify State Specifications are listed as follows:

Crushed Slag Gr. 1, Type D, Class 2 - Supplier shall provide loose weight in lbs./c.y.
This item, published in TXDOT Standard Specification, shall be defined as “Crushed Slag” (1½” x 0).

Bidder Information Form

Instructions: Complete the form below. Please provide legible, accurate, and complete contact information. PLEASE PRINT.

Bid Name & Number: IFB 17-010/YS, Term Contract Crushed Slag (Gr. 1, Type D, Class 2) and Asphalt Products for Jefferson County

Bidder's Company/Business Name: _____

Bidder's TAX ID Number: _____

Contact Person: _____ **Title:** _____

Phone Number (with area code): _____

Alternate Phone Number if available (with area code):_____

Fax Number (with area code):_____

Email Address: _____

Mailing Address (Please provide a physical address for bid bond return, if applicable):

_____
Address

_____
City, State, Zip Code

OFFER AND ACCEPTANCE FORM

OFFER TO CONTRACT

To Jefferson County:

We hereby offer and agree to furnish the materials or service in compliance with all terms, conditions, specifications, and amendments in the Invitation for Bid and any written exceptions in the offer. We understand that the items in this Invitation for Bid, including, but not limited to, all required certificates are fully incorporated herein as a material and necessary part of the contract.

The undersigned hereby states, under penalty of perjury, that all information provided is true, accurate, and complete, and states that he/she has the authority to submit this bid, which will result in a binding contract if accepted by Jefferson County.

We acknowledge receipt of the following amendment(s): _____, _____, _____, _____.

I certify, under penalty of perjury, that I have the legal authorization to bind the firm hereunder:

_____
Company Name

_____
Address

_____
City State Zip

_____
Signature of Person Authorized to Sign

_____
Printed Name

_____
Title

For clarification of this offer, contact:

_____
Name

_____
Phone Fax

_____
E-mail

Bidder Shall Return Completed Form with Offer.

Acceptance of Offer

The Offer is hereby accepted for the following items: Crushed Slag (Gr. 1, Type D, Class 2) and Asphalt Products for Jefferson County. Contract Term: One (1) year from date of award with an option to renew for four (4) additional years.

The Contractor is now bound to sell the materials or services listed by the attached contract and based upon the Invitation for Bid, including all terms, conditions, specifications, amendments, etc., and the Contractor's Offer as accepted by Jefferson County.

This contract shall henceforth be referred to as Contract No. IFB 17-010/YS, Term Contract for Crushed Slag (Gr. 1, Type D, Class 2) and Asphalt Products for Jefferson County. The Contractor has not been authorized to commence any billable work or to provide any material or service under this contract until Contractor receives a purchase order and/or a notice to proceed from the Jefferson County Purchasing Agent.

Countersigned:

Jeff R. Branick
County Judge

Date

Attest:

Carolyn L. Guidry
County Clerk

<u>Bidder Shall Return Completed Form with Offer.</u>

Bid Form

I. Crushed Slag – Gr 1, Type D, Class 2			
A.	Truck Delivery – Price F.O.B. delivered with freight prepaid and allowed by type of equipment indicated.		
Crushed Slag – price per ton delivered from vendor's hopper to job site		Price per Ton Tandem Dump	Price per Ton Trailer
1. 1-10 miles			
2. 11-20 miles			
3. 32-30 miles			
4. 31+ miles			
B.	Hopper Pickup	Price Per Ton F.O.B. Truck Shipping Point	
	Location:		
	Hours of Hopper Operation:		

II. Asphalt Products – Hopper Pick Up		
A.	Anionic – Hopper must be within Jefferson County	Price Per Gallon F.O.B. Truck
	1. Grade RS-2 (HVRS)	
	2. Grade SS-1	
B.	Cationic Emulsions	
	1. Grade AE-P	
	Vendor's Shipping Point Address:	
	Hours of Hopper Operation:	

Acknowledgment of Addenda (if any):

Addendum 1 _____ Date Received_____

Addendum 2 _____ Date Received_____

Addendum 3 _____ Date Received_____

Bidder Shall Return Completed Form with Offer.

Vendor References

Please list at least three (3) companies or governmental agencies (preferably a municipality) where the same or similar products and/or services as contained in this specification package were recently provided.

THIS FORM MUST BE RETURNED WITH YOUR BID.

REFERENCE ONE

Government/Company Name: _____

Address: _____

Contact Person and Title: _____

Phone: _____ Fax: _____

Contract Period: _____ Scope of Work: _____

REFERENCE TWO

Government/Company Name: _____

Address: _____

Contact Person and Title: _____

Phone: _____ Fax: _____

Contract Period: _____ Scope of Work: _____

REFERENCE THREE

Government/Company Name: _____

Address: _____

Contact Person and Title: _____

Phone: _____ Fax: _____

Contract Period: _____ Scope of Work: _____

Bidder Shall Return Completed Form with Offer.

Signature Page

As permitted under Article 4413 (32c) V.A.C.S., other governmental entities may wish to participate under the same terms and conditions contained in this contract (i.e., piggyback). In the event any other entity participates, all purchase orders will be issued directly from and shipped directly to the entity requiring supplies/services. Jefferson County shall not be held responsible for any orders placed, deliveries made or payment for supplies/services ordered by another entity. Each entity reserves the right to determine their participation in this contract.

Would bidder be willing to allow other governmental entities to piggyback off this contract, if awarded, under the same terms and conditions? ..... **Yes** ☐ **No** ☐

This bid shall remain in effect for ninety (90) days from bid opening and shall be exclusive of federal excise and state and local sales tax (exempt).

The undersigned agrees, if this bid is accepted, to furnish any and all items upon which prices are offered, at the price and upon the terms and conditions contained in the Invitation for Bid, Conditions of Bidding, Terms of Contract, and Specifications and all other items made a part of the accepted contract.

The undersigned affirms that they are duly authorized to execute the contract, that this company, corporation, firm, partnership or individual has not prepared this bid in collusion with any other bidder, and that the contents of this bid as to prices, terms or conditions of said bid have not been communicated by the undersigned nor by any employee or agent to any other bidder or to any other person(s) engaged in this type of business prior to the official opening of this bid. And further, that neither the bidder nor their employees nor agents have been for the past six (6) months directly nor indirectly concerned in any pool or agreement or combination to control the price of goods or services on, nor to influence any person to bid or not to bid thereon.

Bidder (Entity Name)	Signature
Street & Mailing Address	Print Name
City, State & Zip	Date Signed
Telephone Number	Fax Number
E-mail Address	

<u>Bidder Shall Return Completed Form with Offer.</u>

Conflict of Interest Questionnaire

CONFLICT OF INTEREST QUESTIONNAIRE — FORM CIQ

For vendor doing business with local governmental entity

This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session.

This questionnaire is being filed in accordance with Chapter 176, Local Government Code, by a vendor who has a business relationship as defined by Section 176.001(1-a) with a local governmental entity and the vendor meets requirements under Section 176.006(a).

By law this questionnaire must be filed with the records administrator of the local governmental entity not later than the 7th business day after the date the vendor becomes aware of facts that require the statement to be filed. *See* Section 176.006(a-1), Local Government Code.

A vendor commits an offense if the vendor knowingly violates Section 176.006, Local Government Code. An offense under this section is a misdemeanor.

OFFICE USE ONLY

Date Received

1 **Name of vendor who has a business relationship with local governmental entity.**

2 ☐ **Check this box if you are filing an update to a previously filed questionnaire.**

(The law requires that you file an updated completed questionnaire with the appropriate filing authority not later than the 7th business day after the date on which you became aware that the originally filed questionnaire was incomplete or inaccurate.)

3 **Name of local government officer about whom the information in this section is being disclosed.**

_____
Name of Officer

This section (item 3 including subparts A, B, C, & D) must be completed for each officer with whom the vendor has an employment or other business relationship as defined by Section 176.001(1-a), Local Government Code. Attach additional pages to this Form CIQ as necessary.

A. Is the local government officer named in this section receiving or likely to receive taxable income, other than investment income, from the vendor?

☐ Yes ☐ No

B. Is the vendor receiving or likely to receive taxable income, other than investment income, from or at the direction of the local government officer named in this section AND the taxable income is not received from the local governmental entity?

☐ Yes ☐ No

C. Is the filer of this questionnaire employed by a corporation or other business entity with respect to which the local government officer serves as an officer or director, or holds an ownership interest of one percent or more?

☐ Yes ☐ No

D. Describe each employment or business and family relationship with the local government officer named in this section.

4

_____ _____
Signature of vendor doing business with the governmental entity Date

Adopted 8/7/2015

Bidder Shall Return Completed Form with Offer.

Local Government Officer
Conflicts Disclosure Statement - OFFICE USE ONLY

LOCAL GOVERNMENT OFFICER CONFLICTS DISCLOSURE STATEMENT

FORM CIS

This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session.

This is the notice to the appropriate local governmental entity that the following local government officer has become aware of facts that require the officer to file this statement in accordance with Chapter 176, Local Government Code.

OFFICE USE ONLY

Date Received

1 **Name of Local Government Officer**

2 **Office Held**

3 **Name of vendor described by Sections 176.001(7) and 176.003(a), Local Government Code**

4 **Description of the nature and extent of employment or other business relationship with vendor named in item 3**

5 **List gifts accepted by the local government officer and any family member, if aggregate value of the gifts accepted from vendor named in item 3 exceeds $100 during the 12-month period described by Section 176.003(a)(2)(B).**

Date Gift Accepted _____ Description of Gift _____

Date Gift Accepted _____ Description of Gift _____

Date Gift Accepted _____ Description of Gift _____

(attach additional forms as necessary)

6 **AFFIDAVIT**

I swear under penalty of perjury that the above statement is true and correct. I acknowledge that the disclosure applies to each family member (as defined by Section 176.001(2), Local Government Code) of this local government officer. I also acknowledge that this statement covers the 12-month period described by Section 176.003(a)(2)(B), Local Government Code.

_____
Signature of Local Government Officer

AFFIX NOTARY STAMP / SEAL ABOVE

Sworn to and subscribed before me, by the said _____, this the _____ day of _____, 20 _____, to certify which, witness my hand and seal of office.

_____ _____ _____
Signature of officer administering oath | Printed name of officer administering oath | Title of officer administering oath

Adopted 8/7/2015

Good Faith Effort (GFE) Determination Checklist

This information must be submitted with your bid.

Bidder intends to utilize subcontractors/subconsultants in the fulfillment of this contract (if awarded).
☐ Yes ☐ No

Instructions: In order to determine if a "Good Faith Effort" was made in soliciting HUBs for subcontracting opportunities, the following checklist and supporting documentation shall be completed by the Prime Contractor/Consultant, and returned with the Prime Contractor/ Consultant's bid. This list contains the **minimum** efforts that should be put forth by the Prime Contractor/Consultant when attempting to achieve or exceed the goals of HUB Subcontractor participation. The Prime Contractor/Consultant may extend his/her efforts in soliciting HUB Subcontractor participation beyond what is listed below.

Did the Prime Contractor/Consultant . . .

☐ Yes ☐ No 1. To the extent practical, and consistent with standard and prudent industry standards, divide the contract work into the smallest feasible portions, to allow for maximum HUB Subcontractor participation?

☐ Yes ☐ No 2. **Notify** in writing a reasonable number of HUBs, allowing sufficient time for effective participation of the planned work to be subcontracted?

☐ Yes ☐ No 3. **Provide** HUBs that were genuinely interested in bidding on a subcontractor, adequate information regarding the project (i.e., plans, specifications, scope of work, bonding and insurance requirements, and a point of contract within the Prime Contractor/Consultant's organization)?

☐ Yes ☐ No 4. **Negotiate** in good faith with interested HUBs, and not reject bids from HUBs that qualify as lowest and responsive bidders?

☐ Yes ☐ No 5. **Document** reasons HUBs were rejected? Was a written rejection notice, including the reason for rejection, provided to the rejected HUBs?

☐ Yes ☐ No 6. If Prime Contractor/Consultant has zero (0) HUB participation, **please explain the reasons why.**

If "No" was selected, please explain and include any pertinent documentation with your bid.
If necessary, please use a separate sheet to answer the above questions.

Printed Name of Authorized Representative	Signature
Title	Date

Bidder Shall Return Completed Form with Offer.

Notice of Intent (NOI) to Subcontract with Historically Underutilized Business (HUB)

This information must be submitted with your bid.

Bidder intends to utilize subcontractors/subconsultants in the fulfillment of this contract (if awarded).
☐ Yes ☐ No

Instructions for Prime Contractor/Consultant: Bidder shall submit this form with the bid; however, the information below may be submitted after contract award, but prior to beginning performance on the contract. Please submit one form for each HUB Subcontractor/Subconsultant with proper signatures, per the terms and conditions of your contract.

Contractor Name: _____ HUB: p Yes p No

Address: _____
Street City State Zip

Phone (with area code): _____ Fax (with area code): _____

Project Title & No.: _____

Prime Contract Amount: $ _____

HUB Subcontractor Name: _____

HUB Status (Gender & Ethnicity): _____

Certifying Agency: ☐ Tx. Bldg & Procurement Comm. ☐ Jefferson County ☐ Tx Unified Certification Prog.

Address: _____
Street City State Zip

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

_____

Printed Name of Contractor Representative	Signature of Representative	Date
Printed Name of HUB	Signature of Representative	Date

NOTE: NOTHING ON THIS NOTICE OF INTENT FORM IS INTENDED TO CONFER ANY RIGHTS, EXPRESSED OR IMPLIED, TO ANY THIRD PARTIES.

Pre-Approval for Subcontractor Substitutions must be obtained from the Jefferson County Purchasing Agent's Representative. The "HUB Subcontractor/Subconsultant Change Form" must be completed and faxed to 409-835-8456.

Bidder Shall Return Completed Form with Offer.

Historically Underutilized Business (HUB) Subcontracting Participation Declaration Form

This information must be submitted with your bid.

Bidder intends to utilize subcontractors/subconsultants in the fulfillment of this contract (if awarded).
☐ Yes ☐ No

Prime Contractor: _____ HUB: ☐ Yes ☐ No

HUB Status (Gender & Ethnicity): _____

Address: _____
Street City State Zip

Phone (with area code): _____ Fax (with area code): _____

Project Title & No.: _____ IFB/RFP No.: _____

Total Contract: $ _____ Total HUB Subcontract(s): $ _____

Construction HUB Goals: 12.8% MBE:: _____ % 12.6% WBE: _____ %

Sub-goals: 1.7 African-American, 9.7% Hispanic, 0.7% Native American, 0.8% Asian American.
Use these goals as a guide to diversify.

FOR HUB OFFICE USE ONLY:

Verification date HUB Program Office reviewed and verified HUB Sub information Date: _____ Initials: _____

PART I. HUB SUCONTRACTOR DISCLOSURE

HUB Subcontractor Name: _____

HUB Status (Gender & Ethnicity): _____

Certifying Agency: ☐ Texas Bldg & Procurement Comm. ☐ Texas Unified Certification Prog.

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

Bidder Shall Return Completed Form with Offer.

Historically Underutilized Business (HUB)
Subcontracting Participation Declaration Form

HUB SUBCONTRACTOR DISCLOSURE

PART I: Continuation Sheet **(Duplicate as Needed)**

HUB Subcontractor Name: _____

HUB Status (Gender & Ethnicity): _____

Certifying Agency: ☐ Tx. Bldg & Procurement Comm. ☐ Jefferson County ☐ Tx Unified Certification Prog.

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

_____

HUB Subcontractor Name: _____

HUB Status (Gender & Ethnicity): _____

Certifying Agency: ☐ Tx. Bldg & Procurement Comm. ☐ Jefferson County ☐ Tx Unified Certification Prog.

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

_____

All HUB Subcontractor Participation may be verified with the HUB Subcontractor(s) listed on Part I.

Bidder Shall Return Completed Form with Offer.

Historically Underutilized Business (HUB)
Subcontracting Participation Declaration Form

PART II: STATEMENT OF NON-COMPLIANCE FOR NOT MEETING HUB SUBCONTRACTING GOALS

Please complete Good Faith Effort (GFE) Checklist and attach any supporting documentation.

Our firm was unable to meet the HUB goals for this project for the following reasons:

- ☐ All subcontractors to be utilized are "Non-HUBs." *(Complete Part III)*
- ☐ HUBs were solicited but did not respond.
- ☐ HUBs solicited were not competitive.
- ☐ HUBs were unavailable for the following trade(s):
- ☐ Other: _____

Was the Jefferson County HUB Office contacted for assistance in locating HUBs? ☐ Yes ☐ No

PART III: DISCLOSURE OF OTHER "NON-HUB" SUBCONTRACTS

The bidder shall use this area to provide a listing of all "Non-HUB" Subcontractors, including suppliers, that will perform under this project. A list of those "Non-HUB" Subcontractors the bidder selects, after bid submission, shall be provided to the Purchasing Office not later than five (5) calendar days after being notified that bidder is the apparent low bidder. A list of those "Non-HUB" Subcontractors that are selected after contract award must be provided **immediately** after their selection.

Subcontractor Name: _____

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

Subcontractor Name: _____

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

Bidder Shall Return Completed Form with Offer.

Historically Underutilized Business (HUB)
Subcontracting Participation Declaration Form

PAGE 4 OF 4

Subcontractor Name: _____

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

Subcontractor Name: _____

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

I hereby certify that I have read the *HUB Program Instructions and Information*, truthfully completed all applicable parts of this form, and **attached any necessary support documentation as required**. I fully understand that intentionally falsifying information on this document may result in my not receiving a contract award or termination of any resulting contract.

Name (print or type): _____

Title: _____

Signature: _____

Date: _____

E-mail address: _____

Contact person that will be in charge of invoicing for this project:

Name (print or type): _____

Title: _____

Date: _____

E-mail address: _____

Bidder Shall Return Completed Form with Offer.

Residence Certification/Tax Form

Pursuant to Texas Government Code §2252.001 *et seq*., as amended, Jefferson County requests Resident Certification. §2252.001 *et seq*. of the Government Code provides some restrictions on the awarding of governmental contracts; pertinent provisions of §2252.001 are stated below:

(3) "Nonresident bidder" refers to a person who is not a resident.

(4) "Resident bidder" refers to a person whose principal place of business is in this state, including a contractor whose ultimate parent company or majority owner has its principal place of business in this state.

☐ I certify that _____ [company name] is a Resident Bidder of Texas as defined in Government Code §2252.001.

☐ I certify that _____ [company name] is a Nonresident Bidder as defined in Government Code §2252.001 and our principal place of business is _____ _____ (city and state).

Taxpayer Identification Number (T.I.N.):	
Company Name submitting bid/proposal:	
Mailing address:	
If you are an individual, list the names and addresses of any partnership of which you are a general partner:	

Property: List all taxable property owned by you or above partnerships in Jefferson County.

Jefferson County Tax Acct. No.*	Property address or location**

* This is the property amount identification number assigned by the Jefferson County Appraisal District.

** For real property, specify the property address or legal description. For business property, specify the address where the property is located. For example, office equipment will normally be at your office, but inventory may be stored as a warehouse or other location.

<u>Bidder Shall Return Completed Form with Offer.</u>

Bid Affidavit

The undersigned certifies that the bid prices contained in this bid have been carefully reviewed and are submitted as correct and final. Bidder further certifies and agrees to furnish any and/or all commodities upon which prices are extended at the price offered, and upon the conditions contained in the specifications and the Notice to Bidders.

STATE OF_____ COUNTY OF_____

BEFORE ME, the undersigned authority, a Notary Public in and for the State of _____,

on this day personally appeared _____, who
(name)
after being by me duly sworn, did depose and say:

"I, _____ am a duly authorized officer of/agent
(name)
for _____ and have been duly authorized to execute the
(name of firm)
foregoing on behalf of the said_____.
(name of firm)

I hereby certify that the foregoing bid has not been prepared in collusion with any other bidder or other person or persons engaged in the same line of business prior to the official opening of this bid. Further, I certify that the bidder is not now, nor has been for the past six (6) months, directly or indirectly concerned in any pool or agreement or combination, to control the price of services/commodities bid on, or to influence any person or persons to bid or not to bid thereon."

Name and address of bidder:_____

_____

Fax: _____ Telephone#_____

by: _____ Title:_____
(print name)

Signature:_____

SUBSCRIBED AND SWORN to before me by the above-named
_____ on

this the _____ day of_____, 2017.

_____
Notary Public in and for
the State of _____

Bidder Shall Return Completed Form with Offer.

CONTRACT RENEWAL FOR IFB 14-010/JW
TERM CONTRACT FOR ARMORED CAR SERVICES FOR JEFFERSON COUNTY

The County entered into a contract with Rochester Armored Car Co., Inc. for one (1) year, from April 21, 2014 to April 20, 2015, with an option to renew the contract for up to a five (5) year period.

Pursuant to the contract, Jefferson County hereby exercises its third one-year option to renew the contract for one (1) additional year from April 18, 2017 to April 17, 2018.

ATTEST:

Carolyn L. Guidry, County Clerk

JEFFERSON COUNTY, TEXAS

Jeff Branick, County Judge

CONTRACTOR:
Rochester Armored Car Co., Inc.

(Name)

JEFFERSON COUNTY PURCHASING DEPARTMENT

Deborah L. Clark, Purchasing Agent

1149 Pearl Street, 1st Floor, Beaumont, TX 77701 409-835-8593 Fax 409-835-8456

PRICE EXTENSION REQUEST

March 2, 2017

Martin Asphalt Company
Three Riverway, Suite 400
Houston TX 77056
Attention: Mr. Jack Nimmo

Re: (IFB 12-010/KJS), Term Contract for Crushed Slag (Gr. 1, Type D, Class 2) and Asphalt Products for Jefferson County

Dear Mr. Nimmo :

Please be advised the above-referenced contract for Jefferson County will expire on **April 25, 2017**. It is requested that your company extend your current contract prices, as shown on the attachment, for thirty (30) days until a new award may be finalized by Jefferson County Commissioners' Court.

Please sign the acknowledgment below to indicate your agreement and return to our office by Wednesday, **March 8, 2017.** Jefferson County appreciates your cooperation with this extension.

Best regards,

Sincerely,

Deborah Clark

Deborah L. Clark
Purchasing Agent
Jefferson County, Texas

DC: ys

Price Extension Received and Accepted: 3/9/2017
Date

Project Number: IBF 12-010/KJS (SS-1 & CRS-2)

Contractor: Martin Asphalt Company

Signature: J. N—

Print Name and Title: Jack Nimmo / Asphalt Sales

ATTEST: **JEFFERSON COUNTY, TEXAS**

Carolyn L. Guidry, County Clerk **Jeff R. Branick, County Judge**

AIA® Document G704™ – 2000

Certificate of Substantial Completion

PROJECT:
(Name and address)
Jefferson County, Courthouse Emergency Fire Alarm Replacement - Jail
1001 Pearl
Beaumont, TX 77701

PROJECT NUMBER: BAI 13018-X1/ SBRA (4806.002)
CONTRACT FOR: General Construction - JOC 14-050/DC
CONTRACT DATE: October 28, 2014

OWNER: ☐
ARCHITECT: ☐
CONTRACTOR: ☐
FIELD: ☐
OTHER: ☐

TO OWNER:
(Name and address)
Jefferson County, Texas
1149 Pearl Street
Beaumont, Texas 77701

TO CONTRACTOR:
(Name and address)
Construction Zone of Texas, LLC
231 N. Twin City Hwy
Nederland,TX 77627

PROJECT OR PORTION OF THE PROJECT DESIGNATED FOR PARTIAL OCCUPANCY OR USE SHALL INCLUDE:

Entire Scope

The Work performed under this Contract has been reviewed and found, to the Architect's best knowledge, information and belief, to be substantially complete. Substantial Completion is the stage in the progress of the Work when the Work or designated portion is sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work for its intended use. The date of Substantial Completion of the Project or portion designated above is the date of issuance established by this Certificate, which is also the date of commencement of applicable warranties required by the Contract Documents, except as stated below:

Warranty

Date of Commencement
08-18-2016

Shepley Bulfinch.
ARCHITECT **BY**

03-13-17
DATE OF ISSUANCE

A list of items to be completed or corrected is attached hereto. The failure to include any items on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents. Unless otherwise agreed to in writing, the date of commencement of warranties for items on the attached list will be the date of issuance of the final Certificate of Payment or the date of final payment.

Cost estimate of Work that is incomplete or defective: $0.00

The Contractor will complete or correct the Work on the list of items attached hereto within Zero (0) days from the above date of Substantial Completion.

CONSTRUCTION ZONE OF TEXAS LLC James A. Engle 3-13-17
CONTRACTOR **BY** **DATE**

The Owner accepts the Work or designated portion as substantially complete and will assume full possession at (time) on (date).

Jefferson County, Texas
OWNER **BY** **DATE**

The responsibilities of the Owner and Contractor for security, maintenance, heat, utilities, damage to the Work and insurance shall be as follows:
(Note: Owner's and Contractor's legal and insurance counsel should determine and review insurance requirements and coverage.)

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User Notes:
(1298346595)

Account Executive: Victoria Smith
Phone: (972) 537-5370 ext:
Cell Phone: (972) 841-9020
Fax:
Email: victoria.smith@charter.com

Spectrum Customer Service Order

Order # 8225050

Customer Information: Customer Code		
Business Name	Jack Brooks Regional Airport (HQ)	**Customer Type:**
Federal Tax ID	**Tax Exempt Status**	**Tax Exempt Certificate #**
Billing Address		
Attention To:		**Account Number**
5000 JERRY WARE DR BEAUMONT TX 77705		
Billing Contact	**Billing Contact Phone**	**Billing Contact Email Address**
Alex Rupp	(409) 719-4900	arupp@co.jefferson.tx.us
Authorized Contact	**Authorized Contact Phone**	**Authorized Contact Email Address**
Alex Rupp	(409) 719-4900	arupp@co.jefferson.tx.us
Technical Contact	**Technical Contact Phone**	**Technical Contact Email Address**

Internet and TV Services Order Information For 5000 Jerry Ware Dr North Maintenance Bldg Beaumont TX 77705
Service Type
High Speed Internet (HSD)

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New and Revised Services and Monthly Charges At 5000 Jerry Ware Dr Unit North Maintenance Bldg, Beaumont TX 77705

Description	Quantity	Sales Price	Monthly Recurring Total	Contract Term
Business WiFi (LAN)	1	$4.99	$4.99	Month to Month
Spectrum Business Internet Plus - 60Mbps	1	$79.99	$79.99	Month to Month
***Total**			**$84.98**	

*Prices do not include taxes and fees.

One Time fees At 5000 Jerry Ware Dr Unit North Maintenance Bldg, Beaumont TX 77705

Description	Quantity	Sales Price	Total
One-Time Installation Charge	1	$99.00	$99.00
Total			**$99.00**

*Prices do not include taxes and fees.

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Spectrum

Special Terms

Electronic Signature Disclosure

By signing and accepting below you are acknowledging that you have read and agree to the terms and conditions outlined in this document.

Authorized Signature for Customer

Printed Name and Title

Date Signed

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SERVICE AGREEMENT

This Spectrum Service Agreement, including all Service Orders entered into hereunder and the Commercial Terms of Service that are incorporated herein by this reference ("Service Agreement"), executed and effective upon the date of the signature set forth in the signature block below (the "Effective Date"), is between customer identified below ("Customer") and Charter Communications Operating, LLC on behalf of those operating subsidiaries providing the Service(s) hereunder ("Spectrum").

Spectrum Information

Spectrum
Street: 750 Canyon Dr
City: Coppell
State: TX
Zip Code: 75019

Contact: Victoria Smith
Phone: (972) 537-5370
Facsimile:

Customer Information

Customer Name (Exact Legal Name): Jack Brooks Regional Airport (HQ)			Federal Tax ID:	
Billing Address: 5000 JERRY WARE DR	Suite:	City: BEAUMONT	State: TX	Zip Code: 77705
Billing Contact Name: Alex Rupp		Phone: (409) 719-4900	Email: arupp@co.jefferson.tx.us	
Authorized Contact Name: Alex Rupp		Phone: (409) 719-4900	Email: arupp@co.jefferson.tx.us	

Service Agreement

THIS SPECTRUM SERVICE AGREEMENT IS SUBJECT TO THE COMMERCIAL TERMS OF SERVICE AVAILABLE AT WWW.CHARTER.COM, A COPY OF WHICH WILL BE PROVIDED TO CUSTOMER UPON REQUEST. SUCH TERMS AND CONDITIONS ARE INCOPORATED HEREIN BY THIS REFERENCE. BY EXECUTING THIS SPECTRUM SERVICE AGREEMENT WHERE INDICATED BELOW, CUSTOMER ACKNOWLEDGES THAT (1) CUSTOMER ACCEPTS AND AGREES TO BE BOUND BY ALL SUCH TERMS AND CONDITIONS, INCLUDING THE ARBITRATION SECTION THEREOF, WHICH PROVIDES THAT THE PARTIES DESIRE TO RESOLVE DISPUTES RELATING TO THE SPECTRUM SERVICE AGREEMENT THROUGH ARBITRATION; AND (2) BY AGREEING TO ARBITRATION, CUSTOMER IS GIVING UP VARIOUS RIGHTS, INCLUDING THE RIGHT TO TRIAL BY JURY.

(Authorized Customer Signature) (Date Signed)

(Printed Name) (Title)

©2016 Charter Communications

Account Executive: Victoria Smith
Phone: (972) 537-5370 ext:
Cell Phone: (972) 841-9020
Fax:
Email: victoria.smith@charter.com

Spectrum Customer Service Order

Order # 8427084

Customer Information: Customer Code		
Business Name	Jack Brooks Regional Airport (HQ)	**Customer Type:**
Federal Tax ID	**Tax Exempt Status**	**Tax Exempt Certificate #**
Billing Address		
Attention To:		**Account Number**
5000 JERRY WARE DR BEAUMONT TX 77705		
Billing Contact	**Billing Contact Phone**	**Billing Contact Email Address**
Alex Rupp	(409) 719-4900	arupp@co.jefferson.tx.us
Authorized Contact	**Authorized Contact Phone**	**Authorized Contact Email Address**
Alex Rupp	(409) 719-4900	arupp@co.jefferson.tx.us
Technical Contact	**Technical Contact Phone**	**Technical Contact Email Address**

Internet and TV Services Order Information For 5000 Jerry Ware Dr Admin Bldg Beaumont TX 77705
Service Type
Video

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Spectrum

New and Revised Services and Monthly Charges At 5000 Jerry Ware Dr Unit Admin Bldg, Beaumont TX 77705

Description	Quantity	Sales Price	Monthly Recurring Total	Contract Term
Business TV w/ HD Converter	1	$61.98	$61.98	Month to Month
***Total**			**$61.98**	

*Prices do not include taxes and fees.

One Time fees At 5000 Jerry Ware Dr Unit Admin Bldg, Beaumont TX 77705

Description	Quantity	Sales Price	Total
BC Vid Instl	1	$99.00	$99.00
Total			**$99.00**

*Prices do not include taxes and fees.

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Spectrum

Special Terms

Electronic Signature Disclosure

By signing and accepting below you are acknowledging that you have read and agree to the terms and conditions outlined in this document.

Authorized Signature for Customer

Printed Name and Title

Date Signed

©2016 Charter Communications CONFIDENTIAL 161111 v.1 Commercial

SERVICE AGREEMENT

This Spectrum Service Agreement, including all Service Orders entered into hereunder and the Commercial Terms of Service that are incorporated herein by this reference ("Service Agreement"), executed and effective upon the date of the signature set forth in the signature block below (the "Effective Date"), is between customer identified below ("Customer") and Charter Communications Operating, LLC on behalf of those operating subsidiaries providing the Service(s) hereunder ("Spectrum").

Spectrum Information

Spectrum
Street: 750 Canyon Dr
City: Coppell
State: TX
Zip Code: 75019

Contact: Victoria Smith
Phone: (972) 537-5370
Facsimile:

Customer Information

Customer Name (Exact Legal Name): Jack Brooks Regional Airport (HQ)			Federal Tax ID:	
Billing Address: 5000 JERRY WARE DR	Suite:	City: BEAUMONT	State: TX	Zip Code: 77705
Billing Contact Name: Alex Rupp		Phone: (409) 719-4900	Email: arupp@co.jefferson.tx.us	
Authorized Contact Name: Alex Rupp		Phone: (409) 719-4900	Email: arupp@co.jefferson.tx.us	

Service Agreement

THIS SPECTRUM SERVICE AGREEMENT IS SUBJECT TO THE COMMERCIAL TERMS OF SERVICE AVAILABLE AT WWW.CHARTER.COM, A COPY OF WHICH WILL BE PROVIDED TO CUSTOMER UPON REQUEST. SUCH TERMS AND CONDITIONS ARE INCOPORATED HEREIN BY THIS REFERENCE. BY EXECUTING THIS SPECTRUM SERVICE AGREEMENT WHERE INDICATED BELOW, CUSTOMER ACKNOWLEDGES THAT (1) CUSTOMER ACCEPTS AND AGREES TO BE BOUND BY ALL SUCH TERMS AND CONDITIONS, INCLUDING THE ARBITRATION SECTION THEREOF, WHICH PROVIDES THAT THE PARTIES DESIRE TO RESOLVE DISPUTES RELATING TO THE SPECTRUM SERVICE AGREEMENT THROUGH ARBITRATION; AND (2) BY AGREEING TO ARBITRATION, CUSTOMER IS GIVING UP VARIOUS RIGHTS, INCLUDING THE RIGHT TO TRIAL BY JURY.

(Authorized Customer Signature) (Date Signed)

(Printed Name) (Title)

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JEFFERSON COUNTY PURCHASING DEPARTMENT
Deborah Clark, Purchasing Agent

1149 Pearl Street, Beaumont, TX 77701 Phone: 409-835-8593 Fax: 409-835-8456

MEMORANDUM

To: Commissioners' Court

From: Deborah Clark
Purchasing Agent

Date: March 7, 2017

Re: Surplus Property Auction

Consider and possibly approve an auction of surplus property as authorized by Local Government Code §263.152 (a) (1) to be auctioned by Horn's Auction Inc. The auction is scheduled for Saturday, April 1, 2017 at 9:00 A.M.

Thank you.

JEFFERSON COUNTY, TEXAS
1149 PEARL STREET
BEAUMONT, TX 77701

SURPLUS PROPERTY SALE
HORN AUCTION

April 1, 2017

DEPARTMENT	DESCRIPTION OF PROPERTY	SERIAL NO.	ASSET NO.
COUNTY CLERK	4-DRAWER METAL FILE CABINET		8808
COUNTY CLERK	4-DRAWER METAL FILE CABINET		8809
contact person: Jessica Grammer			
DISTRICT ATTORNEY	BROWN METAL BOOK SHELF		12039
DISTRICT ATTORNEY	GREY CLOTH SEAT SECRETARIAL CHAIR		12362
DISTRICT ATTORNEY	BROWN LEATHER CHAIR W/ METAL FRAME		12445
DISTRICT ATTORNEY	GREY CLOTH SEAT SECRETARIAL CHAIR		12250
DISTRICT ATTORNEY	BROWN BOOK SHELF		12024
DISTRICT ATTORNEY	BROWN BOOK SHELF		1922
DISTRICT ATTORNEY	BROWN BOOK SHELF		12087
contact person: Dan'na Vincent			
SHERIFF	UNINTERRUPTIBLE POWER SUPPLY	FE7K25237	
SHERIFF	5-DRAWER LATERAL FILE CABINET		18030
SHERIFF	2-DRAWER LATERAL FILE CABINET		18116
SHERIFF	(2) 4-DRAWER LEGAL DARK GREY FILE CABINET		
SHERIFF	2-DRAWER LATERAL PUTTY FILE CABINET		
SHERIFF	2-DRAWER LATERAL BROWN FILE CABINET		
SHERIFF	(4) 4-DRAWER LETTER PUTTY FILE CABINET		
SHERIFF	3-DRAWER LEGAL PUTTY FILE CABINET		
SHERIFF	2-DRAWER LEGAL PUTTY FILE CABINET		
SHERIFF	SMALL TABLE		
SHERIFF	LARGE CORK BULLETIN BOARD		
SHERIFF	SMALL ROLLING CART		
SHERIFF	BOOK SHELF		18061

Approved by Commissioners' Court: _____

JEFFERSON COUNTY, TEXAS
1149 PEARL STREET
BEAUMONT, TX 77701

SURPLUS PROPERTY SALE
HORN AUCTION

April 1, 2017

DEPARTMENT	DESCRIPTION OF PROPERTY	SERIAL NO.	ASSET NO.
SHERIFF	HEAVY DUTY STAPLER		
SHERIFF	PREMIER PAPER CUTTER		18096
SHERIFF	FISKARS PAPER CUTTER		
contact person: Dana Aguillard			

Approved by Commissioners' Court: _____

JEFFERSON COUNTY PURCHASING DEPARTMENT
Deborah Clark, Purchasing Agent

1149 Pearl Street, Beaumont, TX 77701 Phone: 409-835-8593 Fax: 409-835-8456

MEMORANDUM

To: Commissioners' Court

From: Deborah Clark
Purchasing Agent

Date: March 14, 2017

Re: Donation of Salvage Property – Computers & Equipment

Consider and possibly approve donation of salvage property as authorized by Local Government Code §263.152 (a) (4), by donating it to a charitable organization, Goodwill Industries.

Thank you.

Jefferson County Surplus
to be
Donated to Goodwill

DEPARTMENT	DESCRIPTION OF PROPERTY	SERIAL NO.	DEPARTMENT	ASSET NO.
	PERSONAL COMPUTERS			
MIS	ITRONIX GB XR-1	ZZGEG7200ZZ6951	59BT	32158
MIS	ITRONIX GB XR-1	ZZGEG7200ZZ6948	59BT	32159
MIS	ITRONIX GB XR-1	ZZGEG7200ZZ6938	59BT	32160
MIS	ITRONIX GB XR-1	ZZGEG7200ZZ6921	59BT	32165
MIS	GATEWAY E-6610D	0040454257	75PA	32347
MIS	GATEWAY E-6610D	0040525137	34BT	32512
MIS	GATEWAY E-6610D	0040586505	34BT	32648
MIS	ITRONIX GB XR1	ZZGEG8016ZZ3735	59BT	32662
MIS	ITRONIX GB III	ZZGEG6313ZZ2401	59BT	32643
MIS	ITRONIX GB III	ZZGEG6313ZZ2400	59BT	32645
MIS	GATEWAY E-475M	0004499245	59BT	32821
MIS	ITRONICS GOBOOK XR1	ZZGEG8067ZZ8066	59BT	32853
MIS	ITRONICS GOBOOK XR1	ZZGEG8056ZZ6624	59BT	32854
MIS	GATEWAY E-6610D	0004500430	97VA	32856
MIS	TOSHIBA SAT PRO L300	68198317Q	59BT	33022
MIS	ITRONIX GB XR1	ZZGEG8263ZZ8924	59BT	33039
MIS	ITRONIX GB XR-1	ZZGEG9029ZZ3745	59BT	33242
MIS	DELL LATITUDE E5500	J6PK0L1	65BT	33489
MIS	DELL LATITUDE E5500	H7PK0L1	65BT	33492
MIS	DELL PRECISION T3400	BKQPVL1	25BT	33608
MIS	DELL PRECISION T3400	CKQPVL1	25BT	33609
MIS	DELL PRECISION T3500	GCYGCP1	80BT	33875
MIS	DELL POWEREDGE T410	1BVPKS1	63BT	34167
MIS	DELL OPTIPLEX 5040 W	J0ZQXG2	59BT	35860
contact person: Andrae Thierry				

Approved by Commissioners' Court _____

Jefferson County Surplus
to be
Donated to Goodwill

DEPARTMENT	DESCRIPTION OF PROPERTY	SERIAL NO.	DEPARTMENT	ASSET NO.
	PERSONAL COMPUTERS			
MIS	GATEWAY E4000	0027603425	NRSO	26886
MIS	GATEWAY E4000	0028833415	59BT	27665
MIS	GATEWAY E-4000	0029519360	59BT	27699
MIS	GATEWAY E-4000	0030051594	59BT	27123
MIS	GATEWAY E-4000	0030124400	59BT	27790
MIS	GATEWAY E-4000 DELUX	0031535448	59BT	29775
MIS	GATEWAY E4100C DELUX	0033226423	124	28588
MIS	GATEWAY	0034957753	59BT	28904
MIS	GATEWAY E-4100	0032198246	59BT	29360
MIS	E6500	0036464448	62BT	29568
MIS	M460E	0036579021	65BT	29738
MIS	GATEWAY E-6500D SB	0036578633	124	29933
MIS	GATEWAY M255-G	0037247460	59BT	30484
MIS	GATEWAY E-6610D SB	0037234488	30BT	30498
MIS	GATEWAY E-6610D SB	0037234459	74BT	30529
MIS	GATEWAY E-6610D SB	0037234509	124	30655
MIS	GATEWAY E-6610D SB	0037234472	59PA	30670
MIS	GATEWAY E-6610D SB	0039007815	62BT	31115
MIS	ITRONIX GB XR-1	ZZGEG7200ZZ6982	59BT	32124
MIS	ITRONIX GB XR-1	ZZGEG7200ZZ6992	59BT	32128
MIS	ITRONIX GB XR-1	ZZGEG7200ZZ6952	59BT	32142
MIS	ITRONIX GB XR-1	ZZGEG7200ZZ6926	59BT	32143
MIS	ITRONIX GB XR-1	ZZGEG7200ZZ6941	59BT	32144
MIS	ITRONIX GB XR-1	ZZGEG7200ZZ6932	59BT	32148
MIS	ITRONIX GB XR-1	ZZGEG7200ZZ6928	59BT	32149
MIS	ITRONIX GB XR-1	ZZGEG7200ZZ6922	59BT	32150
MIS	ITRONIX GB XR-1	ZZGEG7200ZZ6946	59BT	32152
MIS	ITRONIX GB XR-1	ZZGEG7200ZZ6924	59BT	32154
MIS	ITRONIX GB XR-1	ZZGEG7200ZZ6937	59BT	32155
contact person: Andrae Thierry				

Approved by Commissioners' Court _____

Jefferson County Surplus
to be
Donated to Goodwill

DEPARTMENT	DESCRIPTION OF PROPERTY	SERIAL NO.	DEPARTMENT	ASSET NO.
	PRINTERS			
MIS	HP DJ 950c	MY05C1B0SZ	59pa	30670
MIS	HP DJ 950c	MY0AC1128Z		25673
MIS	HP PRINTER			29566
MIS	HP PRINTER			27740
MIS	CANON PRINTER			32224
MIS	HP DESKJET 5650	MY5A55P06F		29373
MIS	HP DESKJET 5650	MY5CD5P10M	52BT	
MIS	HP DJ 950c	MY03M1911C	NURSE	25433
MIS	HP LJ 8000N			25183
MIS	HP DJ 960C		34BT	26482
MIS	HP DJ 5950	M5CG5P03S		
MIS	HP DJ 5650	MY6AH0R1JS		
MIS	A BOX OF MISC CABLES, WIRES, PLUGS SPEAKERS, KEYBOARDS, AND MICE			
MIS	MONITORS			
MIS	Portable A/C Unit 25BT-33987		25BT	33987
contact person: Andrae Thierry				

Approved by Commissioners' Court _____

AGENDA ITEM **March 20, 2017**

Consider and possibly approve out of state travel for Terrie Looney, Coastal and Marine Resources Agent and Regional coordinator for Texas, to attend the National Ocean Sciences Bowl Finals in Corvallis, OR. April18-April 14, 2017.
(Registration and travel costs are being paid by the Ocean Leadership consortium.)

OFFICE OF JEFFERSON COUNTY

TEXAS A&M AGRILIFE EXTENSION

MEMORANDUM

TO: **Fred Jackson**
County Judge's Office

FROM: **Starla B. Garlick,**
Agriculture Department

RE: **Agenda Item for March 20, 2017**

DATE: **March 1, 2017**

Request and possibly approve out of state travel for Terrie Looney, Coastal and Marine Resources Agent, to attend the National Ocean Sciences Bowl Finals. Ms. Looney serves as the Regional Coordinator for our state. The contest will take place in Corvallis, OR, April 18 through April 24, 2017. Registration and travel costs are being paid by the Ocean Leadership consortium.

Thank you.

:mbl

Texas A&M AgriLife Extension Service
1225 Pearl Street, Suite 200, Beaumont, TX 77701

Tel. 409.835.8461 | Fax. 409.839.2310 | Jefferson.AgriLife.org

Educational programs of the Texas A&M AgriLife Extension Service are open to all people without regard to race, color, religion, sex, national origin, age, disability, genetic information or veteran status.
The Texas A&M University System, U.S. Department of Agriculture, and the County Commissioners Courts of Texas Cooperating

1. Is the trip budgeted? If not, how is the trip to be funded?

   No, all costs to be paid by National Ocean Sciences Bowl Consortium.

2. Is the training mandatory or does the training directly impact the employee's assigned job duties?

   The event impacts my job duties since I serve as the Regional Coordinator for National Ocean Science bowl.

3. Does the benefit appear to be worth the cost?

   Yes.

4. Is the training available locally or within Texas at a lower cost?

   No.

AGENDA ITEM **March 20, 2017**

Consider, possibly approve, and authorize the County Judge to execute an Office Lease Agreement between Jefferson County and Neches Helicopter Training for office space at Jack Brooks Regional Airport.

THE STATE OF TEXAS }

COUNTY OF JEFFERSON }

OFFICE MONTH TO MONTH

LEASE AGREEMENT

THIS AGREEMENT entered into by and between Jefferson County, Texas, a subdivision of the State of Texas and **Neches Helicopter Training**, doing business in the State of Texas, made and entered into this **20th** day of **March, 2017**.

WHEREAS, Jefferson County, hereinafter called "Lessor", owns and operates the Jack Brooks Regional Airport located in Jefferson County, Texas and

WHEREAS, **Neches Helicopter Training**, hereinafter called "Lessee", is qualified to do business in the State of Texas and desires to enter an Office Rental Agreement with the Lessor for the purpose of leasing an office with the understanding that the scope of business operations permitted by this agreement is limited to the use of an office. Nothing in this agreement may be construed as conferring any rights to the exclusion of any other tenant of the Airport.

WHEREAS, Jefferson County represents that it has the right to grant the lease, together with all the facilities, rights, licenses, services, and privileges in the manner and to the extent hereinafter set forth:

NOW, THEREFORE, in consideration of the foregoing and of the mutual covenants hereinafter contained, the parties agree for themselves, their successors, legal representatives and assignees, as follows:

SECTION I

LETTING AND TERMS

1.01 Premises. Lessor hereby leases to the Lessee space as depicted on the attached Exhibit "A" for the operation of an office. The space is more fully described as follows:

1.01.1 For and in consideration of the rent and covenants herein contained, Lessor agrees to lease space as follows: **"Old Fuel Service Building"** containing **600** square feet, more or less, of office space (as shown on Exhibit "A" attached hereto) at a rate of **$ 400.00/month**.

1.01.2 Terms. This agreement shall become effective **March 20th, 2017**, and shall be a month-to-month lease subject to adjustment of rental described in Section 1.05.

1.01.3 Rentals. Lessee covenants and agrees to pay to Lessor rental as described in paragraph 1.01.1 above. Lessee agrees to abide by all rules and regulations of the Federal Aviation Administration, State of Texas, Jack Brooks Regional Airport, Jefferson County Commissioner's Court, and any other duly constituted public authority having jurisdiction over the office space, its use or occupancy.

1.04 Due Date. All rent shall be payable monthly, in advance, and shall be due on the first day of the month and shall be considered past due on the tenth day of each month. Rental installments not paid before the tenth of the month following its due date shall bear interest at the highest rate allowed by law from the date it is due until paid.

1.05 Adjustment of Rental. Commencing on **January 1, 2018**, and at the expiration of each subsequent calendar year, the rental price may be adjusted to reflect current economic conditions, to include, but not limited to, existing rental rates in the area, cost of utilities, and other relevant factors.

1.06 Taxes. Lessee agrees to pay any taxes or special assessments that may be levied against the leased premises, or against the leasehold interest, or against the Airport because of this lease, by any taxing unit or entity, whether levied against Lessor or Lessee, and Lessee further agrees to hold Lessor harmless from any claims or liens in connection with any such tax or special assessment.

SECTION II

PROHIBITED USES

2.01 Prohibited Uses. Without first obtaining Lessor's written consent, Lessee shall not use the demised premises for (a) any non-aeronautically related use; (b) the sale of aircraft fuels, lubricants, or propellants; or (c) the operating of any public restaurant, cafeteria, kitchen stand, or game machines.

2.02 Fueling Facility. LESSEE may not install and operate its own fueling facility for any purpose. LESSEE shall not sell fuel to the public or operate a fueling operation as a fixed base operator in competition with LESSOR or any other fixed base operator approved by the LESSOR.

SECTION III

UTILITIES

3.01 Lessee shall be responsible for any and all deposits, fees, and monthly charges from the utility providers, including but not limited to electricity, water, sewer, and telephone, for the use of all utilities.

SECTION IV

CONDITION, MAINTENANCE, AND SURRENDER

4.01 Lessor's Responsibilities. Lessor shall, at its expense and risk, maintain the roof, foundation, heat and air conditioning, exterior walls and weight-bearing interior walls, the exterior walls (excluding windows, window glass, plate glass, and doors leading into the exclusive space), and reasonable care of landscaping and the regular mowing of grass and maintenance of paving outside the building. Lessor shall further maintain, paint, and keep in reasonable repair the exterior area.

4.02 Lessee's Responsibilities. Lessee shall, at its own expense and risk, maintain the exclusive space, including interior walls, floors, ceiling, windows, window glass, plate glass, doors, light fixtures, and shall be responsible for painting and repairing the exclusive space. Lessee shall further furnish, at its own expense and risk, any heat and air conditioning units, electrical wiring, and electrical fixtures necessitated by alterations to the exclusive space made by Lessee**. Lessee shall, at its own expense, change and replace, on a monthly basis, the HVAC filters**. Lessee shall maintain the premises and keep it free from waste and nuisance, and shall deliver up the premises in a clean and sanitary condition at the termination of this lease in good repair and condition, reasonable wear and tear and damage by fire, tornado or other casualty accepted. In the event Lessee should neglect to reasonably maintain the premises, Lessor shall have the right, but not the obligation, after written notice and a reasonable opportunity to correct the alleged condition, to cause repairs or corrections to be made, and any reasonable costs, shall be payable by Lessee to Lessor as additional rental on the next rental installment date.

4.03 Janitorial Service. Lessee shall provide its own janitorial service as needed.

4.04 Alterations. Lessee shall make no additions or alterations to the buildings and improvements of the leased premises without the written permission of the Airport Manager of Lessor.

4.05 Condition and Surrender. By execution of this lease agreement, Lessee acknowledges that it has inspected the leased premises, including the common area, and accepts the same in an "as is" condition.

Lessee shall, throughout the lease term, maintain the exclusive space as stated in Section I and keep it free from waste and nuisance, and shall deliver up the premises in a clean and sanitary condition at the termination of this lease in good repair and condition; reasonable wear and tear and damage by fire, tornado or other casualty excepted. In the event Lessee should neglect to reasonably maintain the exclusive space, Lessor shall have the right, but not the obligation, to cause repairs or corrections to be made, and any reasonable costs, therefore, shall be payable by Lessee to Lessor as additional rental on the next rental installment date.

SECTION V

5.01 Hold Harmless Covenant. Lessee covenants and agrees to hold Lessor free and harmless from loss from each and every claim and demand of whatever nature, made on behalf of or by any third person or persons, for any wrongful act or omission on the part of Lessee, his agents, servants, officers, directors, and employees, and from all loss and damages to any third person or persons by reason of such acts or omissions.

SECTION VI

DEFAULT

6.01 Events of Default. If Lessee shall allow the rent to be in arrears more than fifteen (15) days after written notice of such delinquency, or shall remain in default under any other condition of this lease for a period of fifteen (15) days after written notice from Lessor, or should any other person than Lessee secure possession of the premises or any part thereof, by reason of any receivership, bankruptcy proceedings, or other operation of law in any manner whatsoever, any such event shall be deemed to be an event of default by Lessee under this lease.

6.02 Remedies. Upon the occurrence of any event of default specified in Section 6.01 hereof, Lessor shall have the option to pursue any one or more of the following remedies without any notice or demand whatsoever:

(a) Terminate this lease in which event Lessee shall immediately surrender the premises to Lessor, and if Lessee fails to do so, Lessor may, without prejudice to any other remedy which it may have for possession or arrearages in rent, enter upon and take possession and expel or remove Lessee and any other person who may be occupying said premises or any part thereof, by force if necessary, without being liable for prosecution or any claim of damages therefore; and Lessee agrees to pay to Lessor on demand the amount of all loss and damage which Lessor may suffer by reason of such termination.

(b) Enter upon the premises by force if necessary, without being liable for prosecution or any claim for damages therefore, and do whatever Lessee is obligated to do under the terms of this lease; and Lessee agrees to reimburse Lessor on demand for any expenses which Lessor may incur in thus effecting compliance with Lessee's obligations under this lease, and Lessee further agrees that Lessor shall not be liable for any damages resulting to Lessee from such action.

No reentry or taking possession of the premises by Lessor shall be construed as an election on its part to terminate this lease, unless a written notice of such intention be given to Lessee. Notwithstanding any such re-letting or reentry or taking possession, Lessor may at any time thereafter elect to terminate this lease for a previous default. Pursuit of any of the foregoing remedies shall not preclude pursuit of any of the other remedies herein provided or any other remedies provided by law, nor shall pursuit of any remedy herein provided constitute a forfeiture or waiver of any rent due to Lessor hereunder or of damages occurring to Lessor by reason of the violation of any of the terms, provisions, and covenants herein contained. Lessor's acceptance of rent following an event of default hereunder shall not be construed as Lessor's waiver of such event of default. No waiver by Lessor of any violation or breach of any of the terms, provisions, and covenants herein contained shall be deemed or construed to constitute a waiver of any violation or breach of any of the terms, provisions, and covenants herein contained. Forbearance by Lessor to enforce one or more of the remedies herein provided upon an event of default shall not be deemed or construed to constitute a waiver of such default. The loss or damage that Lessor may suffer by reason of termination of this lease as provided for above shall include the expense of repossession and any repairs or remodeling undertaken by Lessor following possession. Should Lessor at any time terminate this lease for any default, in addition to any other remedy Lessor may have, Lessor may recover from Lessee all damages Lessor may incur by reason of such default, including cost of recovering the premises and the worth at the time of such termination of the excess, if any, of the amount of rent and charges equivalent to rent reserved in this lease for the remainder of the stated term over the reasonable rental value of the premises for the remainder of the said term, all of which amounts shall be immediately payable from Lessee to Lessor.

SECTION VII

CANCELLATION BY LESSEE

7.01 Lessee shall have the right to cancel this lease in its entirety, to be effective at the end of any

specified month, provided it gives not less than thirty (30) days written notice to Lessor of its interest to cancel this lease. Upon the effective date of such cancellation this lease shall be considered null and void as to any subsequent obligations by and between the parties. Lessee shall vacate the premises before the effective date of such cancellation. After the effective date of cancellation, if Lessee has not vacated the premises, he shall be construed to be a tenant at the will of Lessor.

SECTION VIII

ASSIGNMENT OR SUBLEASE

8.01 Lessee agrees not to assign the premises leased, any part thereof, or any right or privilege connected therewith, or to allow any other person, except Lessee's agents and employees, to occupy the premises or any part thereof, without first obtaining the Lessor's written consent which shall not be unreasonably withheld. Lessee's interest in this lease is not assignable by operation of law, nor is any assignment of his interest herein, without Lessor's written consent, and Lessor's consent shall not be unreasonably withheld. Lessee shall have no right to sublease any part of this lease or of the lease premises.

SECTION IX

RIGHT OF ENTRY

9.01 Lessor reserves the right to enter upon the premises at any reasonable time for the purpose of making any inspection it may deem expedient to the proper enforcement of any of the covenants or conditions of this agreement. Lessor shall provide Lessee reasonable advanced notice except in the case of an emergency.

SECTION X

STANDARD ASSURANCES

10.01 Lessee covenants and agrees to comply with all rules and regulations of the Federal Aviation Administration, including FAA approved Certification Manual, and all Federal, State and Local laws and ordinances now in effect or hereafter promulgated, and the same are made a part of this agreement by reference as though they were set forth herein.

10.02 Airport Regulations. The Lessee covenants and agrees to observe and obey the rules and regulations of the Airport, as promulgated by governmental authority, in the conduct of its operations at the demised premises.

10.03 Air Operations Area Security. Lessee shall provide for the security of the Air Operations Area (AOA) to prevent ground entry or movement of unauthorized persons from or through the leased premises in accordance with any regulations imposed upon Lessor by the Federal Aviation Administration. Lessee will indemnify and hold harmless Lessor, its officers and employees, from any charges, fines, or penalties that may be levied by any agency of the United States or the State of Texas by reason of Lessee's failure to comply with this requirement.

10.04 Airport Hazard. The Lessee and its successors and assigns, will not make or permit any use of the property which would interfere with landing or taking-off of aircraft at the Airport, or otherwise constitute an airport hazard, including such items as electrical and electronic interference with communications, electrical or electronic equipment, creation of dust or glaring or misleading lights.

10.05 The Lessee assures that it will undertake an affirmative action program as required by 14 CFR Part 152, Subpart E, to insure that no person shall on the grounds of race, creed, color, national origin, or sex be excluded from participating in any employment activities covered in 14 CFR Part 152, Subpart E. The Lessee assures that no person shall be excluded on these grounds from participating in or receiving the services or benefits of any program or activity covered by this subpart. The Lessee assures that it will require that its covered sub-organizations provide assurances to the Lessee that they similarly will undertake affirmative action programs and that they will require assurances from their sub-organizations, as required by 14 CFR Part 152, Subpart E, to the same effect.

SECTION XI

NOTICES

11.01 Notices to Lessor provided for herein shall be sufficient if sent by certified mail, return receipt requested addressed to:

AIRPORT MANAGER
Jack Brooks Regional Airport
5000 Jerry Ware Drive
Beaumont, Texas 77705

and notices to said Lessee, if sent by certified mail, return receipt requested, addressed to:

Neches Helicopter Training
6652 Ben D. Smith Rd
Silsbee, TX 77656
1 Tel. 409.299.2232
Email: cspearsd@flyhhs.com

or to such other addresses as the parties may designate to each other in writing from time to time.

JEFFERSON COUNTY, TEXAS LESSOR

BY:_____

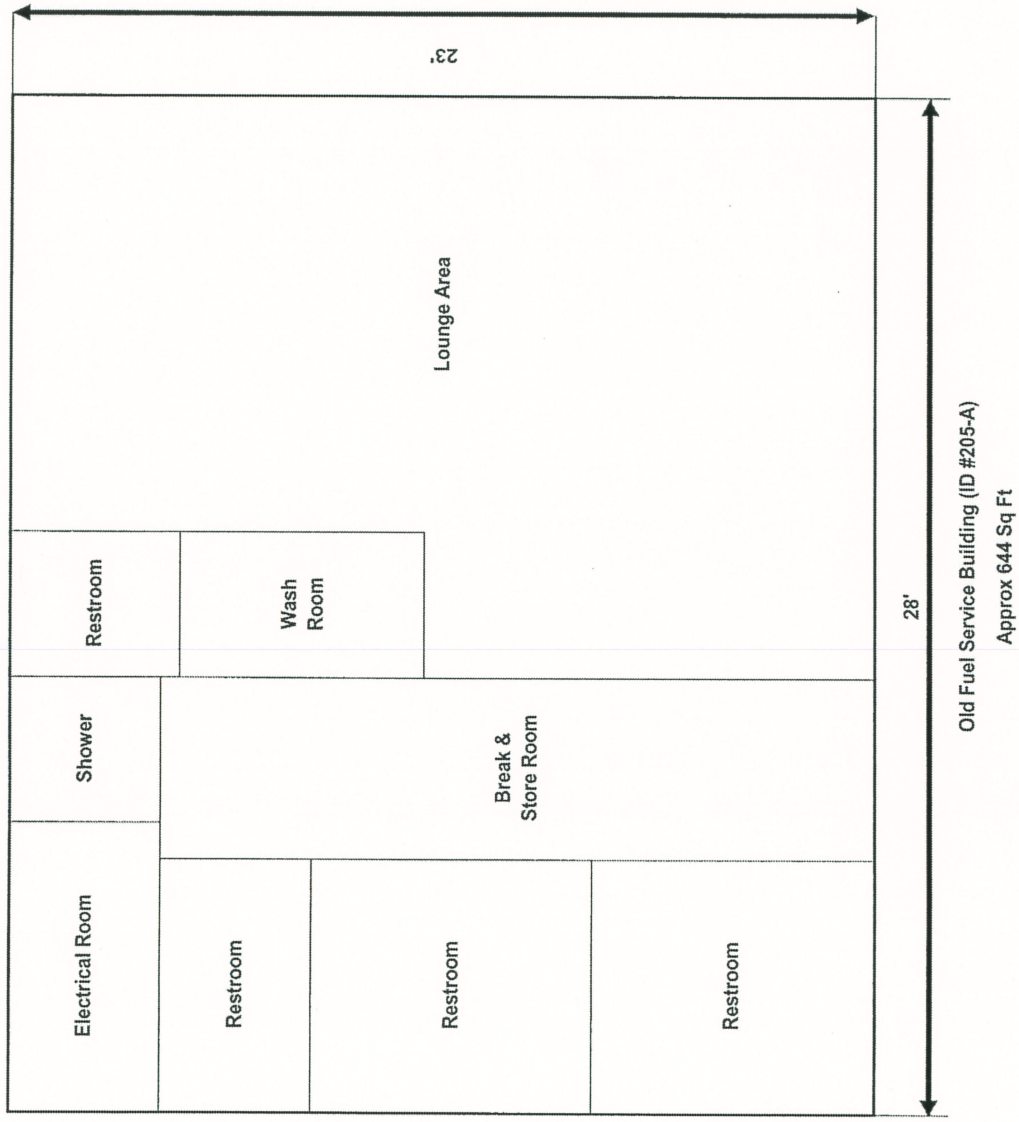
Jeff R. Branick
County Judge

LESSEE

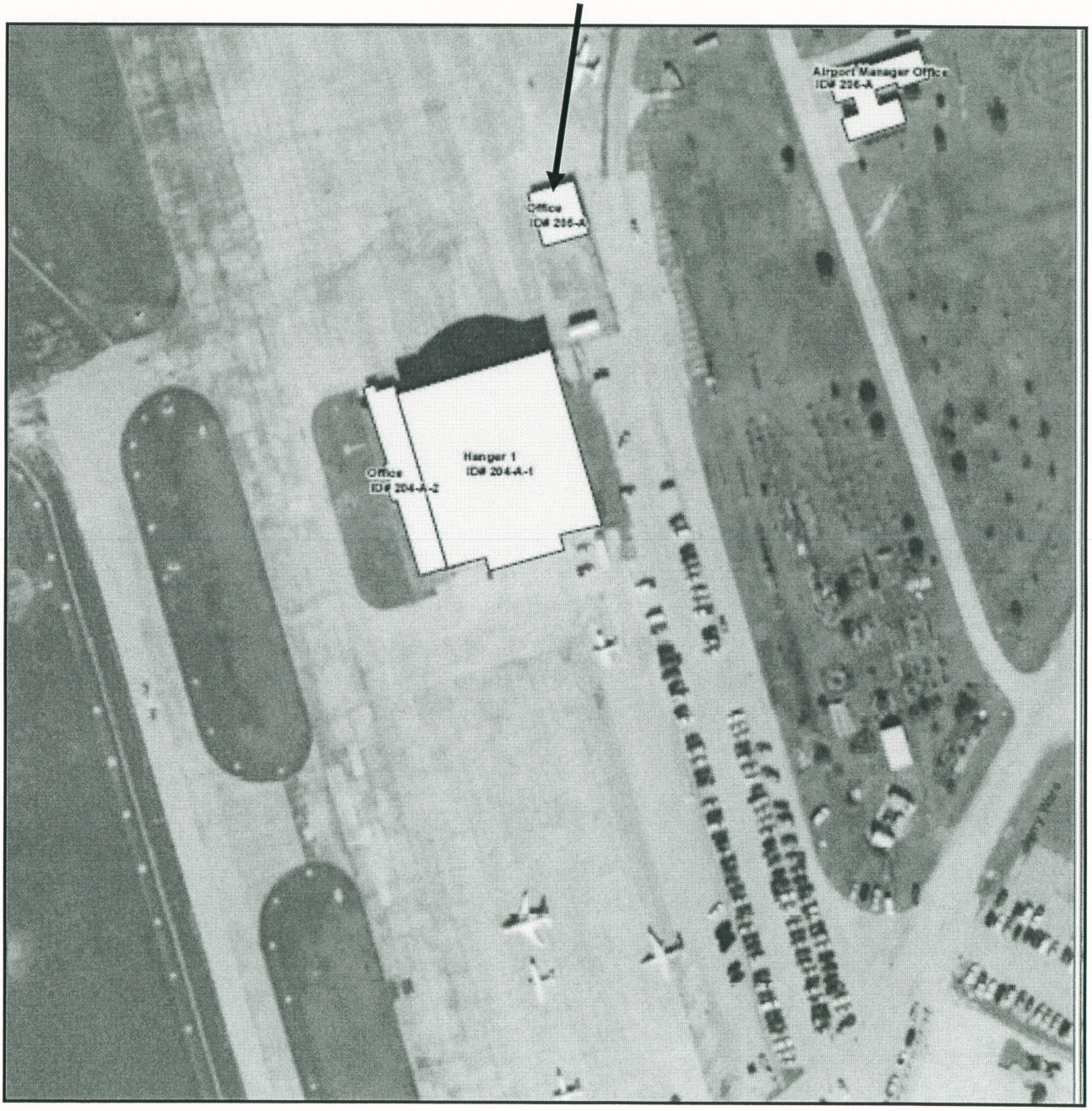
BY:_____

Curtis Spears – Authorized Representative
Neches Helicopter Training

EXHIBIT A


23'
28'
Lounge Area
Restroom
Wash Room
Shower
Break & Store Room
Electrical Room
Restroom
Restroom
Restroom
Old Fuel Service Building (ID #205-A)
Approx 644 Sq Ft

Leased Premises



EARL WHITE
Jefferson County Constable
Precinct 1
1085 Pearl Street
Beaumont, TX 77701

Memo

Date: **March 9, 2017**

To: Fran Lee, Financial Manager **Fax #:** (409) 839-2369

From: Constable's Office Precinct 1 **Fax #:** *(409) 839-2350*

RE: Transfer Line Item

Priority: [Urgent]

Line-item Transfer Amendment

DATE: March 9, 2017

Honorable Commissioners Court of Jefferson County:

I submit to you for your consideration the following line-item transfers:

	FUND	DEPT.	FROM	TO
From:	OVERTIME	120 3065 425 10-98	$13651	13651-430=13221
To:	MINOR EQUIPMENT	120 3065 425 30-84	$45.00	$45.00 +$430=$475.00
Reason:	To cover costs of open requisition for portable printers w/case for use in vehicles.			

E. O White

Department Head /Chief Clerk-Administrative Assistant

Approved: County Judge for Commissioners Court

Attest: County Clerk

Jefferson County

Everette "Bo" Alfred
Commissioner

Precinct Four

P.O. Box 4025
Beaumont, Texas 77704-4025
409-835-8443 phone
www.co.jefferson.tx.us/prct4/index.html

MEMO

To: Ms. Fran Lee, Auditing

From: Commissioner Everette Alfred, Precinct #4

Date: March 14, 2017

RE: Transfer Funds

Please transfer **$5,000** from account # 114-0402-431.30-79 (Crushed Stone) into account # 114-0405-431-40-08 (Automobiles and Trucks); and

Please transfer **$15,000** from account # 114-0402-431.30-79 (Crushed Stone) into account # 114-0405-431-40-18 (Road Machinery) for additional cost of equipment repairs.

Thank you.

EA/nr

PRECINCT 7
(409)719-5900
(409) 724-2148 FAX

BRAD BURNETT
JUSTICE OF THE PEACE

7933 VITERBO ROAD,
SUITE 1
BEAUMONT, TEXAS 77705

March 14, 2017

Hon. Brad Burnett
Justice of the peace Pct.7
7933 Viterbo Road
Beaumont, Texas

Dear Fran,

$140

Would you please transfer the amount of $139.75 from the "Postage " account (120-2048-412-40-52) To Dues and Subscriptions account (120-2048-412-50-21) to cover the yearly subscription of the Port Arthur News.

Thanks

Brad Burnett

JEFFERSON COUNTY SHERIFF'S OFFICE

SHERIFF ZENA STEPHENS

To: Auditing

Attn: Fran Lee

Date: March 14, 2017

From: Major John Shauberger

RE: Budget Transfer

We are currently in the process of purchasing Body Worn Cameras through the OOG program. Part of this purchase is a server upgrade to handle the additional video provided by these cameras. An initial amount of $5000.00 was placed in Capital-Computer Equipment (120-3059-421-6002) to upgrade this server. I would like to transfer that amount to Participation (120-1024-491-5097) to cover a portion of the match. Thank you for your assistance.

Major John Shauberger

1001 Pearl Street • Beaumont, Texas 77701 • (409) 835-8411

JEFFERSON COUNTY SHERIFF'S OFFICE

SHERIFF ZENA STEPHENS

To: Commissioner's Court

From: Sheriff Zena Stephens

Date: March 7, 2017

Re: Cell Phone Allowance

Dear Sirs,

I would like to address an issue with cell phone allowances for the Sheriff's Office. There are currently two rates of allowances $75.00 and $40.00. This has caused some confusion in the past and I would like to correct it. It was found, that after reassignments I needed 4 additional allowances. I am proposing that the allowances are changed to the current rate of $40.00 across the board for the Sheriff's Office. This would produce a significant savings of **$15,593.00** a year, including the four additional allowances. This proposal also makes all allowances equal avoiding confusion within the ranks. The Auditor's Office has reviewed this proposal and these values have been confirmed by them. Thank you for supporting my efforts to be a good steward of the Sheriff's Office budget.

Sincerely,

Sheriff Zena Stephens

Cell Phone Proposal

Remove $75 cell phone allowance and replace all with $40 cell phone allowance. Currently there are a mix of the two allowances plus there are 12 individuals on the inmate phone contract reimbursement.

	Annual Budget	#	Inmate Phone Contract*	Annual Budget	#	Savings	Difference in #
Sheriff	$ 36,015.00	50	11	$ 30,960.00	64.5	$ 5,055.00	3.5
Crime Lab	-		1	480.00	1.0	(480.00)	0
Jail	3,405.00	5		2,640.00	5.5	765.00	0.5
Courthouse Security	480.00	1		480.00	1.0	-	0
Auto Theft Task Force	900.00	1		480.00	1.0	420.00	0
Marine Division	14,400.00	16		7,680.00	16.0	6,720.00	0
Total Allowance	$ 55,200.00			$ 42,720.00		$ 12,480.00	
Fringes	13,772.40			10,658.64		3,113.76	
Total	$ 68,972.40	73	12	$ 53,378.64	89	$ 15,593.76	4

* When FCC changed the regulations on the inmate phone calls, the commission contract was revised and the vendor no longer reimburses the county for these cell phone allowances.

JEFFERSON COUNTY SHERIFF'S OFFICE

SHERIFF ZENA STEPHENS

To: Commissioner's Court

From: Sheriff Zena Stephens

Date: March 7, 2017

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To: Fran Lee
From: Mike Trahan
Re: Budget Transfer
Date: February 28, 2017

Fran,

I would like to request this be put on the next agenda.

Consider and approve downgrade of a Senior Equipment operator position with an annual budget of $49,002 to an Equipment Operator position with an annual budget of $44,720 or 110% of salary range and increase the budgeted salary for two other Equipment Operator position by $1,244 each to an annual budget of $44,720 or 110% of the salary range. This will result in an annual savings of $2,242 including benefits.
I do understand that this has to be approved by Commissioner's Court.

Thanks,
Mike Trahan
Superintendent, Road and Bridge Precinct 2

NAME	AMOUNT	CHECK NO.	TOTAL
JURY FUND			
TRI-CITY COFFEE SERVICE	141.65	430923	
DAWN DONUTS	85.00	431074	
			226.65**
ROAD & BRIDGE PCT.#1			
M&D SUPPLY	246.46	430885	
MUNRO'S	29.65	430891	
SMART'S TRUCK & TRAILER, INC.	63.97	430912	
AT&T	64.46	430915	
TAC - TEXAS ASSN. OF COUNTIES	230.00	430918	
WHEELER TRUCK BODY EQUIPMENT	12.30	430927	
SOUTHERN TIRE MART, LLC	156.00	430931	
ATTABOY TERMITE & PEST CONTROL	30.00	431012	
ADVANCE AUTO PARTS	56.22	431043	
GULF COAST	312.55	431090	
			1,201.61**
ROAD & BRIDGE PCT.#2			
ENTERGY	106.30	430872	
MUNRO'S	40.00	430891	
SETZER HARDWARE, INC.	14.59	430909	
ROSS RIDGE SAND COMPANY LP	240.00	430994	
GULF COAST	1,112.76	431090	
ENTERGY	106.30	431097	
			1,619.95**
ROAD & BRIDGE PCT. # 3			
A&B OUTDOOR EQUIPMENT	8.00	430837	
GULF COAST AUTOMOTIVE, INC.	260.42	430871	
LOUIS' YAZOO SALES & SERVICE, LLC	24.95	430884	
OIL CITY TRACTORS, INC.	49.21	430896	
SMART'S TRUCK & TRAILER, INC.	176.83	430912	
AT&T	71.99	430915	
TRACTOR SUPPLY CO	60.97	430986	
DTNY DIGITAL IMPRESSIONS INC	875.00	431094	
			1,527.37**
ROAD & BRIDGE PCT.#4			
SPIDLE & SPIDLE	4,931.39	430844	
CITY OF BEAUMONT - WATER DEPT.	19.60	430858	
BEAUMONT ENTERPRISE	163.78	430865	
ENTERGY	885.19	430872	
CASH ADVANCE ACCOUNT	514.95	430878	
MUNRO'S	71.21	430891	
SMART'S TRUCK & TRAILER, INC.	59.40	430912	
CDW COMPUTER CENTERS, INC.	106.12	430936	
UNITED STATES POSTAL SERVICE	3.01	430957	
ASCO	294.52	431044	
SOUTHEAST TEXAS PARTS AND EQUIPMENT	287.50	431052	
ZACHRY PUBLICATIONS	76.50	431080	
CINTAS CORPORATION	138.61	431083	
ENTERGY	885.19	431097	
			8,436.97**
ENGINEERING FUND			
FED EX	31.71	430867	
UNITED STATES POSTAL SERVICE	.40	430957	
			32.11**
PARKS & RECREATION			
BEAUMONT TRACTOR COMPANY	1,450.00	430855	
ENTERGY	398.34	430872	
M&D SUPPLY	47.98	430885	
INNOVRA INC	503.49	431055	
MARTIN MARIEETA MATERIALS	214.62	431070	
ENTERGY	398.34	431097	
			3,012.77**
GENERAL FUND			

NAME	AMOUNT	CHECK NO.	TOTAL
TOTAL PETROCHEMICALS USA INC	693,388.00	431029	693,388.00*
TAX OFFICE			
ACE IMAGEWEAR	21.70	430910	
UNITED STATES POSTAL SERVICE	565.74	430957	
ROCHESTER ARMORED CAR CO INC	352.00	431021	939.44*
COUNTY HUMAN RESOURCES			
PINNACLE EMPLOYEE TESTING	360.00	430900	
OUTSOLVE LLC	2,800.00	430941	
UNITED STATES POSTAL SERVICE	4.84	430957	
SOUTHEAST TEXAS OCCUPATIONAL MEDICI	240.00	431081	
CONCENTRA MEDICAL CENTERS	59.00	431096	3,463.84*
AUDITOR'S OFFICE			
OFFICE DEPOT	554.31	430895	
UNITED STATES POSTAL SERVICE	16.17	430957	570.48*
COUNTY CLERK			
FED EX	6.97	430867	
OFFICE DEPOT	85.98	430895	
UNITED STATES POSTAL SERVICE	284.77	430957	377.72*
COUNTY JUDGE			
OFFICE DEPOT	178.41	430895	
PENGAD	22.55	430899	
UNITED STATES POSTAL SERVICE	2.03	430957	
THE YOES LAW FIRM, LLP	500.00	430981	
JEFF R BRANICK	813.41	430988	
DUNHAM HALLMARK PLLC	500.00	431027	
WILLIAM FORD DISHMAN	200.00	431051	2,216.40*
RISK MANAGEMENT			
UNITED STATES POSTAL SERVICE	1.73	430957	1.73*
COUNTY TREASURER			
SOUTHERN COMPUTER WAREHOUSE	136.69	430850	
OFFICE DEPOT	152.25	430895	
UNITED STATES POSTAL SERVICE	82.44	430957	371.38*
PRINTING DEPARTMENT			
OLMSTED-KIRK PAPER	1,121.03	430897	
CIT TECHNOLOGY FINANCING SERVICE	499.00	430998	1,620.03*
PURCHASING DEPARTMENT			
UNITED PARCEL SERVICE	8.62	430924	
UNITED STATES POSTAL SERVICE	.40	430957	9.02*
GENERAL SERVICES			
CASH ADVANCE ACCOUNT	30.00	430878	
TIME WARNER COMMUNICATIONS	2,442.76	430919	
ALLISON, BASS & ASSOCIATES, LLP	2,184.19	430964	
CROWN CASTLE INTERNATIONAL	1,456.22	430970	
ROCHESTER ARMORED CAR CO INC	3,775.42	431021	
NETCJCA	175.00	431024	
SPOK INC	3.00	431061	10,066.59*
DATA PROCESSING			
TODD L. FREDERICK	363.88	430959	
SPOK INC	12.06	431061	375.94*
VOTERS REGISTRATION DEPT			

NAME	AMOUNT	CHECK NO.	TOTAL
UNITED STATES POSTAL SERVICE	131.05	430957	
			131.05*
ELECTIONS DEPARTMENT			
TALLY LLC	5,940.00	431087	
			5,940.00*
DISTRICT ATTORNEY			
FED EX	55.44	430867	
CASH ADVANCE ACCOUNT	768.26	430878	
OFFICE DEPOT	359.69	430895	
HOLLY GIFFIN	288.00	430930	
CDW COMPUTER CENTERS, INC.	90.96	430936	
UNITED STATES POSTAL SERVICE	267.31	430957	
MCM ELEGANTE HOTEL	395.60	430982	
THOMSON REUTERS-WEST	2,145.39	431046	
MATT TURNER	1,009.50	431084	
CIOX HEALTH	46.44	431095	
			5,426.59*
DISTRICT CLERK			
UNITED STATES POSTAL SERVICE	224.96	430957	
			224.96*
CRIMINAL DISTRICT COURT			
DAVID W BARLOW	500.00	430853	
DAVID W BARLOW	4,375.00	430854	
MARSHA NORMAND	8,750.00	430893	
KEVIN S. LAINE	1,700.00	430933	
UNITED STATES POSTAL SERVICE	13.30	430957	
			15,338.30*
58TH DISTRICT COURT			
UNITED STATES POSTAL SERVICE	.81	430957	
			.81*
60TH DISTRICT COURT			
KIRKSEY'S SPRINT PRINTING	49.90	430883	
			49.90*
136TH DISTRICT COURT			
CDW COMPUTER CENTERS, INC.	65.82	430936	
UNITED STATES POSTAL SERVICE	.81	430957	
TND WORKWEAR CO LLC	270.00	431092	
			336.63*
252ND DISTRICT COURT			
DAVID W BARLOW	4,375.00	430854	
KEVIN PAULA SEKALY PC	3,487.50	430908	
MIKE VAN ZANDT	8,750.00	430925	
KEVIN S. LAINE	1,600.00	430933	
UNITED STATES POSTAL SERVICE	142.89	430957	
SUMMER TANNER	865.70	430989	
KIMBERLY R. BROUSSARD	945.75	431003	
ANITA U SEPEDA	100.00	431019	
JAMES R. MAKIN, P.C.	817.18	431025	
			21,084.02*
279TH DISTRICT COURT			
DAVID GROVE	2,062.50	430845	
PHILLIP DOWDEN	575.00	430849	
TRAVIS EVANS	510.00	430866	
MARVA PROVO	1,050.00	430901	
ANITA F. PROVO	1,125.00	430902	
CHARLES ROJAS	150.00	430939	
LEXIS-NEXIS	56.00	430958	
JOEL WEBB VAZQUEZ	150.00	430974	
WILLIAM MARCUS WILKERSON	225.00	431038	
TERRENCE ALLISON	75.00	431041	
WILLIAM FORD DISHMAN	75.00	431051	
MATUSKA LAW FIRM	500.00	431054	
MELANIE AIREY	150.00	431067	
GORDON D FRIESZ	318.75	431071	

NAME	AMOUNT	CHECK NO.	TOTAL
ASHLEY CEDILLO	150.00	431082	
			7,172.25*
317TH DISTRICT COURT			
JACK LAWRENCE	325.00	430846	
PHILLIP DOWDEN	375.00	430849	
TRACEY D. BURK	220.65	430857	
MARVA PROVO	510.00	430901	
BRACK JONES JR.	325.00	430932	
KEVIN S. LAINE	650.00	430933	
CHARLES ROJAS	975.00	430939	
JOHN D WEST	75.00	430942	
JOEL WEBB VAZQUEZ	75.00	430974	
JUDY PAASCH	2,323.90	430978	
MICHAEL WALZEL	500.00	431008	
WILLIAM FORD DISHMAN	150.00	431051	
MATUSKA LAW FIRM	825.00	431054	
TARA SHELANDER	1,075.00	431059	
MELANIE AIREY	675.00	431067	
LAW OFFICE OF J SCOTT FREDERICK	150.00	431068	
GORDON D FRIESZ	262.50	431071	
			9,492.05*
JUSTICE COURT-PCT 1 PL 1			
KIRKSEY'S SPRINT PRINTING	61.71	430883	
UNITED STATES POSTAL SERVICE	20.04	430957	
			81.75*
JUSTICE COURT-PCT 6			
OFFICE DEPOT	415.60	430895	
UNITED STATES POSTAL SERVICE	28.78	430957	
			444.38*
JUSTICE COURT-PCT 7			
OFFICE DEPOT	69.96	430895	
AT&T	31.12	430915	
			101.08*
COUNTY COURT AT LAW NO.1			
OFFICE DEPOT	57.70	430895	
TND WORKWEAR CO LLC	20.00	431092	
			77.70*
COUNTY COURT AT LAW NO. 2			
BRUCE W. COBB	250.00	430862	
UNITED STATES POSTAL SERVICE	4.09	430957	
JONATHAN VERNON	250.00	431077	
			504.09*
COUNTY COURT AT LAW NO. 3			
TRAVIS EVANS	250.00	430866	
OFFICE DEPOT	28.66	430895	
UNITED STATES POSTAL SERVICE	15.77	430957	
MATUSKA LAW FIRM	250.00	431054	
SAMUEL & SON LAW FIRM PLLC	250.00	431063	
HIGGINBOTHAM INSURANCE AGENCY INC	213.00	431066	
			1,007.43*
COURT MASTER			
OFFICE DEPOT	21.92	430895	
			21.92*
MEDIATION CENTER			
MARKET BASKET	170.22	430886	
TRIANGLE BLUE PRINT CO., INC.	23.10	430922	
UNITED STATES POSTAL SERVICE	5.64	430957	
KARA HAWTHORN	605.41	431026	
			804.37*
SHERIFF'S DEPARTMENT			
HERNANDEZ OFFICE SUPPLY, INC.	34.99	430875	
JEFFERSON CTY. SHERIFF'S DEPARTMENT	2,208.00	430876	
CASH ADVANCE ACCOUNT	182.35	430878	

NAME	AMOUNT	CHECK NO.	TOTAL
OFFICE DEPOT	100.99	430895	
AT&T	267.06	430915	
KEESHA GUILLORY	300.00	430934	
UNITED STATES POSTAL SERVICE	606.51	430957	
BEAUMONT OCCUPATIONAL SERVICE, INC.	263.60	430960	
LOWE'S HOME CENTERS, INC.	1,465.15	430961	
FIVE STAR FEED	203.95	430967	
ARMOR SHRED	764.35	431000	
RITA HURT	275.00	431031	
MAYES WOOD FLOORING	1,700.00	431049	
SOUTHEAST TEXAS OCCUPATIONAL MEDICI	200.00	431081	
			8,571.95*
CRIME LABORATORY			
FED EX	149.52	430867	
VERIZON WIRELESS	113.97	430954	
LIPOMED	99.00	431018	
SIRCHIE FINGER PRINT LABORATORIES	992.17	431023	
ASSOC OF FIREARMS&TOOLMARK EXAMINER	135.00	431032	
AFTE HOST COMMITTE ACCOUNT	570.00	431079	
			2,059.66*
JAIL - NO. 2			
ACTION AUTO GLASS	3,231.00	430842	
BOB BARKER CO., INC.	1,402.00	430852	
COBURN'S, BEAUMONT BOWIE (1)	393.96	430863	
HERNANDEZ OFFICE SUPPLY, INC.	165.60	430875	
JACK BROOKS REGIONAL AIRPORT	1,317.84	430877	
KAY ELECTRONICS, INC.	465.00	430880	
KINSEL FORD MAZDA	400.50	430881	
M&D SUPPLY	314.00	430885	
MCNEILL INSURANCE AGENCY	20.00	430888	
METAL DEPOT CORP.	412.90	430889	
MOORE SUPPLY, INC.	4.45	430890	
OFFICE DEPOT	595.32	430895	
OLMSTED-KIRK PAPER	258.60	430897	
SANITARY SUPPLY, INC.	4,118.90	430907	
SETZER HARDWARE, INC.	6.38	430909	
SHERWIN-WILLIAMS	249.26	430911	
AT&T	956.78	430915	
WHOLESALE ELECTRIC SUPPLY CO.	139.57	430929	
ADVANCED SYSTEMS & ALARM SERVICES,	75.00	430938	
LOWE'S HOME CENTERS, INC.	183.23	430961	
BAKER DISTRIBUTING COMPANY	53.98	430968	
OTIS ELEVATOR COMPANY	330.00	430969	
BUMPER TO BUMPER	42.84	430976	
INTERCONTINENTAL JET CORP	216.00	430979	
AIRPORT GULF TOWING LLC	95.00	430983	
BELT SOURCE	30.24	430985	
ICS	1,665.00	430992	
WORLD FUEL SERVICES	403.12	431014	
FIVE STAR CORRECTIONAL SERVICE	15,326.78	431016	
INDUSTRIAL & COMMERCIAL MECHANICAL	21,442.00	431036	
MATERA PAPER COMPANY INC	5,006.84	431045	
THOMSON REUTERS-WEST	3,725.68	431046	
FROGWASH PRESSURE WASHING	800.00	431047	
WASTEWATER TRANSPORT SERVICES LLC	2,003.00	431057	
ENTERPRISE RENT A CAR COMPANY	109.96	431060	
LONE STAR UNIFORMS	124.83	431072	
TEXAS PRISONER TRANSPORTATION SERVI	1,225.50	431085	
HERC RENTALS INC	1,046.35	431086	
IMPACT WASTE LLC	360.00	431089	
ENTERPRISE RENT-A-CAR COMPANY	57.52	431093	
			68,774.93*
JUVENILE PROBATION DEPT.			
FED EX	154.51	430867	
SAM HOUSTON STATE UNIVERSITY	830.00	430904	
UNITED STATES POSTAL SERVICE	4.20	430957	
SHANNA CITIZEN	111.82	430962	
LYNN BIERHALTER	124.66	430984	
BRIA LYNCH	11.24	431001	
JOSH CUYOS	253.06	431056	

NAME	AMOUNT	CHECK NO.	TOTAL
SPOK INC	48.24	431061	
			1,537.73*
JUVENILE DETENTION HOME			
AAA LOCK & SAFE	75.00	430835	
BALBOA CO., INC.	870.00	430851	
EPS	80.00	430864	
OVERHEAD DOOR CO.	270.00	430898	
SOUTHWEST BUILDING SYSTEMS	511.94	430913	
FLOWERS FOODS	318.60	430971	
BEN E KEITH FOODS	2,700.04	430972	
VANSCHECA SANDERS-CHEVIS	500.00	430990	
FIRETROL PROTECTION SYSTEMS, INC.	293.00	431004	
KAREN ROBERTS	300.00	431009	
ATTABOY TERMITE & PEST CONTROL	80.00	431012	
A1 FILTER SERVICE COMPANY	183.79	431030	
			6,182.37*
CONSTABLE PCT 1			
UNITED STATES POSTAL SERVICE	77.51	430957	
			77.51*
CONSTABLE-PCT 2			
OFFICE DEPOT	56.18	430895	
			56.18*
CONSTABLE-PCT 4			
GT DISTRIBUTORS, INC.	386.55	430868	
TEXAS STATE UNIVERSITY SAN MARS	150.00	430914	
ALAN ROBERTS	12.20	431078	
			548.75*
CONSTABLE-PCT 6			
UNITED STATES POSTAL SERVICE	10.07	430957	
			10.07*
CONSTABLE PCT. 8			
OFFICE DEPOT	130.06	430895	
			130.06*
COUNTY MORGUE			
SALAM INTERNATIONAL	6,085.23	430940	
			6,085.23*
HEALTH AND WELFARE NO. 1			
CLAYBAR FUNERAL HOME, INC.	3,250.00	430861	
ENTERGY	54.45	430873	
UNITED STATES POSTAL SERVICE	32.34	430957	
SPOK INC	22.85	431061	
DISPENSARY OF HOPE LLC	600.00	431064	
			3,959.64*
HEALTH AND WELFARE NO. 2			
BROUSSARD'S MORTUARY	1,500.00	430856	
CITY OF PORT ARTHUR - WATER DEPT.	40.00	430860	
GABRIEL FUNERAL HOME, INC.	1,500.00	430869	
ENTERGY	70.00	430874	
AT&T	31.12	430915	
TEXAS GAS SERVICE	70.00	430966	
AMERICAN CORPORATE SERVICES	268.48	430996	
HEB - PORT ARTHUR	116.18	430997	
AISHA DAVIS	22.95	431042	
SPOK INC	7.70	431061	
DISPENSARY OF HOPE LLC	600.00	431064	
			4,226.43*
NURSE PRACTITIONER			
MCKESSON MEDICAL-SURGICAL INC	1,700.78	430937	
			1,700.78*
CHILD WELFARE UNIT			
BEAUMONT OCCUPATIONAL SERVICE, INC.	568.35	430960	
			568.35*
ENVIRONMENTAL CONTROL			

NAME	AMOUNT	CHECK NO.	TOTAL
AT&T	31.15	430915	
			31.15*
INDIGENT MEDICAL SERVICES			
CARDINAL HEALTH 110 INC	23,736.45	431048	
LAGNIAPPE PHARMACY SERVICES LLC	56.88	431058	
DANA JOHNSON	1,200.00	431065	
			24,993.33*
EMERGENCY MANAGEMENT			
VERIZON WIRELESS	150.00	430954	
			150.00*
MAINTENANCE-BEAUMONT			
CITY OF BEAUMONT - WATER DEPT.	217.97	430858	
W.W. GRAINGER, INC.	180.24	430870	
ENTERGY	5,790.96	430872	
AT&T	5,060.97	430915	
OTIS ELEVATOR COMPANY	2,756.00	430969	
ENTERGY	5,790.96	431097	
			19,797.10*
MAINTENANCE-PORT ARTHUR			
GUARDIAN FORCE	56.00	430841	
CITY OF PORT ARTHUR - WATER DEPT.	1,083.62	430859	
NOACK LOCKSMITH	6.00	430892	
OFFICE DEPOT	157.55	430895	
AT&T	1,341.99	430915	
TEXAS GAS SERVICE	469.20	430965	
PARKER LUMBER	149.29	431017	
			3,263.65*
MAINTENANCE-MID COUNTY			
A&A EQUIPMENT	137.44	430836	
ACE GLASS & MIRROR, INC.	33.00	430838	
ENTERGY	441.29	430872	
ACE IMAGEWEAR	61.52	430910	
ENTERGY	441.29	431097	
			1,114.54*
SERVICE CENTER			
SPIDLE & SPIDLE	6,553.60	430844	
KINSEL FORD, INC.	230.04	430882	
MUNRO'S	78.90	430891	
JEFFERSON CTY. TAX OFFICE	7.50	430943	
JEFFERSON CTY. TAX OFFICE	7.50	430944	
JEFFERSON CTY. TAX OFFICE	7.50	430945	
JEFFERSON CTY. TAX OFFICE	16.75	430946	
JEFFERSON CTY. TAX OFFICE	7.50	430947	
JEFFERSON CTY. TAX OFFICE	7.50	430948	
JEFFERSON CTY. TAX OFFICE	7.50	430949	
JEFFERSON CTY. TAX OFFICE	7.50	430950	
JEFFERSON CTY. TAX OFFICE	7.50	430951	
JEFFERSON CTY. TAX OFFICE	7.50	430952	
JEFFERSON CTY. TAX OFFICE	7.50	430953	
PETROLEUM SOLUTIONS, INC.	157.75	430973	
BUMPER TO BUMPER	250.02	430976	
MIGHTY OF SOUTHEAST TEXAS	230.09	431028	
SPANKY'S WRECKER SERVICE INC	150.00	431035	
MIDNIGHT AUTO	79.95	431088	
			7,822.10*
			943,301.36**
MOSQUITO CONTROL FUND			
SUPERIOR TIRE & SERVICE	25.64	430848	
JACK BROOKS REGIONAL AIRPORT	67.24	430877	
MUNRO'S	164.40	430891	
OFFICE DEPOT	96.30	430895	
RITTER @ HOME	89.99	430903	
JOHN W HOCK COMPANY	192.66	431005	
INTERSTATE ALL BATTERY CENTER - BMT	103.95	431011	
PARKER LUMBER	39.12	431017	
AERO PERFORMANCE	531.74	431053	
			1,311.04**
J.C. FAMILY TREATMENT			

NAME	AMOUNT	CHECK NO.	TOTAL
BEAUMONT OCCUPATIONAL SERVICE, INC.	271.80	430960	
JUDY PAASCH	99.37	430977	
JUDY PAASCH	50.00	430978	
PATRICIA VELASCO	1,225.00	431075	
			1,646.17**
LAW LIBRARY FUND			
STATE BAR OF TEXAS	93.75	430916	
THOMSON REUTERS-WEST	298.70	431046	
O'CONNOR'S	225.00	431076	
			617.45**
EMPG GRANT			
VERIZON WIRELESS	119.87	430954	
			119.87**
GRANT A STATE AID			
SAM HOUSTON STATE UNIVERSITY	830.00	430904	
SPOK INC	19.76	431061	
			849.76**
COMMUNITY SUPERVISION FND			
CORRECTIONAL COUNSELING, INC.	1,285.72	430839	
CASH ADVANCE ACCOUNT	1,210.90	430878	
OFFICE DEPOT	494.00	430895	
SAM HOUSTON STATE UNIVERSITY	1,650.00	430905	
TEXAS PROBATION ASSOCIATION	1,350.00	430921	
UNITED STATES POSTAL SERVICE	110.98	430957	
REDWOOD TOXICOLOGY LABORATORY	82.95	430991	
JCCSC	460.00	431022	
TX TAG	20.14	431073	
			6,664.69**
JEFF. CO. WOMEN'S CENTER			
CITY OF BEAUMONT - WATER DEPT.	1,535.76	430858	
KIM MCKINNEY, LPC, LMFT	300.00	430887	
OFFICE DEPOT	362.14	430895	
SYSCO FOOD SERVICES, INC.	1,152.10	430917	
BEN E KEITH FOODS	1,279.33	430972	
ROCHESTER ARMORED CAR CO INC	114.75	431021	
MATERA PAPER COMPANY INC	390.85	431045	
WASTEWATER TRANSPORT SERVICES LLC	248.00	431057	
SPOK INC	16.41	431061	
			5,399.34**
COUNTY CLERK - RECORD MGT			
MANATRON	7,535.64	430993	
PCM-G	7,033.25	431010	
			14,568.89**
HOTEL OCCUPANCY TAX FUND			
THERMACON SERVICE	475.00	430847	
CITY OF BEAUMONT - WATER DEPT.	106.21	430858	
CASH ADVANCE ACCOUNT	864.52	430878	
OFFICE DEPOT	65.16	430895	
TIME WARNER COMMUNICATIONS	110.53	430920	
TEXAS TRAVEL COUNSELORS CONFERENCE	45.00	431007	
SAM'S CLUB DIRECT	132.60	431037	
MASS MARKETING INC	330.00	431040	
			1,998.70**
1957 ROAD BOND FUND			
LJA ENGINEERING INC	330.00	431034	
			330.00**
CAPITAL PROJECTS FUND			
ALLCO, INC.	244,710.50	430955	
SE TEX CONSTRUCTION CORPORATION	8,676.35	430987	
SHEPLEY BULFINCH	2,644.93	431069	
			256,031.78**
AIRPORT FUND			
ALLIED ELECTRIC, INC.	149.00	430843	

NAME	AMOUNT	CHECK NO.	TOTAL
SPIDLE & SPIDLE	783.68	430844	
SUPERIOR TIRE & SERVICE	613.86	430848	
W.W. GRAINGER, INC.	236.01	430870	
LOUIS' YAZOO SALES & SERVICE, LLC	8,739.98	430884	
METAL DEPOT CORP.	3,497.81	430889	
OFFICE DEPOT	55.08	430895	
RITTER @ HOME	315.51	430903	
SAMPSON STEEL CORP.	294.28	430906	
SANITARY SUPPLY, INC.	286.27	430907	
TRI-CITY COFFEE SERVICE	282.80	430923	
VULCAN MATERIALS CO.	539.08	430926	
WHITE TUCKER COMPANY INC	165.36	430928	
MOTOROLA SOLUTIONS INC	3,544.20	430935	
AIR SOLUTIONS	291.28	430975	
BLUE GLOBES	1,990.82	430995	
ROSENBAUER FIREFIGHTING TECHOLOGY	2,250.00	430999	
ROBERT'S TEXACO XPRESS LUBE	7.00	431002	
ALLIED ELECTRICAL SYSTEMS&SOLUTIONS	2,366.00	431006	
INTERSTATE ALL BATTERY CENTER - BMT	115.95	431011	
ATTABOY TERMITE & PEST CONTROL	224.52	431012	
UNIFIRST HOLDINGS INC	259.89	431013	
EAGLE TUGS	232.01	431033	
CRAWFORD ELECTRIC SUPPLY COMPANY	100.08	431039	
ADVANCE AUTO PARTS	46.18	431043	
MEMBER'S BUILDING MAINTENANCE LLC	4,340.22	431050	
SOUTHEAST TEXAS PARTS AND EQUIPMENT	259.29	431052	
EASTERN AVIATION FUELS INC	47,137.52	431062	
			79,123.68**
AIRPORT IMPROVE. GRANTS			
GARVER LLC	25,770.00	431015	
			25,770.00**
SE TX EMP. BENEFIT POOL			
GROUP ADMINISTRATIVE CONCEPTS INC	119,891.23	431020	
			119,891.23**
SETEC FUND			
JOHNSON CONTROLS, INC.	13,588.80	430879	
INDUSTRIAL & COMMERCIAL MECHANICAL	345.00	431036	
			13,933.80**
WORKER'S COMPENSATION FD			
TRISTAR RISK MANAGEMENT	3,722.50	430980	
			3,722.50**
SHERIFF'S FORFEITURE FUND			
AERO PRODUCTS	111.62	430963	
			111.62**
GUARDIANSHIP FEE			
WILLIAM FORD DISHMAN	200.00	431051	
			200.00**
MARINE DIVISION			
ACTION OIL SERVICE, INC.	590.00	430840	
JACK BROOKS REGIONAL AIRPORT	647.10	430877	
LJ'S HYDRAULIC & AIR REPAIR	314.95	431091	
			1,552.05**
			1,493,201.36***

NAME	AMOUNT	CHECK NO.	TOTAL
JURY FUND			
TRI-CITY COFFEE SERVICE	542.38	431223	
			542.38**
ROAD & BRIDGE PCT.#1			
DE LAGE LANDEN PUBLIC FINANCE	70.00	431311	
REPUBLIC SERVICES	45.00	431361	
REPUBLIC SERVICES	45.00	431362	
FUNCTION 4 LLC	19.41	431378	
			179.41**
ROAD & BRIDGE PCT.#2			
SPIDLE & SPIDLE	4,463.64	431132	
EASTEX RUBBER & GASKET	139.52	431156	
ENTERGY	6.57	431165	
MUNRO'S	20.00	431182	
PHILPOTT MOTORS, INC.	94.99	431191	
SALADIN PUMP & EQUIPMENT	375.00	431235	
BUMPER TO BUMPER	155.71	431272	
MARTIN PRODUCT SALES LLC	231.83	431285	
NEW WAVE WELDING TECHNOLOGY	69.34	431293	
INTERSTATE ALL BATTERY CENTER - BMT	219.90	431297	
ATTABOY TERMITE & PEST CONTROL	54.00	431298	
DE LAGE LANDEN PUBLIC FINANCE	90.00	431311	
ASCO	453.42	431329	
REPUBLIC SERVICES	72.60	431361	
REPUBLIC SERVICES	72.60	431362	
BOSCO INDUSTRIES	650.00	431369	
GULF COAST	2,284.22	431373	
FUNCTION 4 LLC	24.96	431378	
			9,478.30**
ROAD & BRIDGE PCT. # 3			
ENTERGY	361.26	431165	
OFFICE DEPOT	211.72	431186	
W. JEFFERSON COUNTY M.W.D.	27.14	431227	
TEXAS GAS SERVICE	186.58	431263	
DE LAGE LANDEN PUBLIC FINANCE	140.00	431311	
FUNCTION 4 LLC	38.82	431378	
			965.52**
ROAD & BRIDGE PCT.#4			
SPIDLE & SPIDLE	482.95	431132	
COASTAL WELDING SUPPLY	50.40	431150	
ENTERGY	12.61	431165	
MUNRO'S	71.21	431182	
SMART'S TRUCK & TRAILER, INC.	108.58	431204	
SOUTHEAST TEXAS WATER	71.60	431208	
UNITED STATES POSTAL SERVICE	.81	431247	
DE LAGE LANDEN PUBLIC FINANCE	229.79	431311	
SOUTHEAST TEXAS PARTS AND EQUIPMENT	347.67	431338	
REPUBLIC SERVICES	72.60	431361	
REPUBLIC SERVICES	72.60	431362	
FUNCTION 4 LLC	63.73	431378	
			1,584.55**
ENGINEERING FUND			
DE LAGE LANDEN PUBLIC FINANCE	460.94	431311	
FUNCTION 4 LLC	212.96	431378	
			673.90**
PARKS & RECREATION			
CITY OF PORT ARTHUR - WATER DEPT.	40.36	431146	
AT&T	29.04	431210	
W. JEFFERSON COUNTY M.W.D.	54.28	431227	
			123.68**
GENERAL FUND			
TAX OFFICE			
OFFICE DEPOT	381.82	431186	
POSTMASTER	1,190.00	431194	

NAME	AMOUNT	CHECK NO.	TOTAL
SOUTHEAST TEXAS WATER	271.00	431206	
AT&T	105.36	431210	
CDW COMPUTER CENTERS, INC.	160.55	431234	
UNITED STATES POSTAL SERVICE	663.97	431247	
UNITED STATES POSTAL SERVICE	45.13	431248	
JEFFERSON COUNTY CREDIT CARDS	270.00	431305	
DE LAGE LANDEN PUBLIC FINANCE	370.00	431311	
FUNCTION 4 LLC	102.60	431378	
			3,560.43*
COUNTY HUMAN RESOURCES			
PRE CHECK, INC.	41.25	431238	
UNITED STATES POSTAL SERVICE	3.28	431247	
JEFFERSON COUNTY CREDIT CARDS	279.00	431305	
DE LAGE LANDEN PUBLIC FINANCE	70.00	431311	
SOUTHEAST TEXAS OCCUPATIONAL MEDICI	310.00	431367	
FUNCTION 4 LLC	19.41	431378	
			722.94*
AUDITOR'S OFFICE			
LYNDON B. JOHNSON SCHOOL OF PUBLIC	295.00	431136	
SOUTHEAST TEXAS WATER	29.95	431207	
UNITED STATES POSTAL SERVICE	6.08	431247	
DE LAGE LANDEN PUBLIC FINANCE	70.00	431311	
FUNCTION 4 LLC	19.41	431378	
			420.44*
COUNTY CLERK			
M&D SUPPLY	.92	431176	
OFFICE DEPOT	122.07	431186	
UNITED STATES POSTAL SERVICE	261.63	431247	
UNITED STATES POSTAL SERVICE	50.27	431248	
DE LAGE LANDEN PUBLIC FINANCE	1,052.82	431311	
GERALD GORDON	3.79	431354	
FUNCTION 4 LLC	291.99	431378	
			1,783.49*
COUNTY JUDGE			
ANITA F. PROVO	500.00	431195	
UNITED STATES POSTAL SERVICE	8.91	431247	
DE LAGE LANDEN PUBLIC FINANCE	70.00	431311	
DUNHAM HALLMARK PLLC	500.00	431313	
JAN GIROUARD & ASSOCIATES LLC	400.00	431366	
FUNCTION 4 LLC	19.41	431378	
			1,498.32*
RISK MANAGEMENT			
UNITED STATES POSTAL SERVICE	1.27	431247	
DE LAGE LANDEN PUBLIC FINANCE	70.00	431311	
FUNCTION 4 LLC	19.41	431378	
			90.68*
COUNTY TREASURER			
UNITED STATES POSTAL SERVICE	234.44	431247	
LEXISNEXIS- ACCURINT	115.00	431299	
DE LAGE LANDEN PUBLIC FINANCE	331.89	431311	
FUNCTION 4 LLC	92.04	431378	
			773.37*
PRINTING DEPARTMENT			
DE LAGE LANDEN PUBLIC FINANCE	1,200.00	431311	
FUNCTION 4 LLC	724.11	431378	
			1,924.11*
PURCHASING DEPARTMENT			
BEAUMONT ENTERPRISE	2,227.85	431157	
PORT ARTHUR NEWS, INC.	574.73	431192	
UNITED STATES POSTAL SERVICE	2.82	431247	
TPASS(TEXAS COMPTROLLER OF PUBLIC	400.00	431296	
DE LAGE LANDEN PUBLIC FINANCE	70.00	431311	
FUNCTION 4 LLC	19.41	431378	
			3,294.81*
GENERAL SERVICES			

NAME	AMOUNT	CHECK NO.	TOTAL
JEFFERSON CTY. TAX DEPARTMENT	100.00	431169	
JEFFERSON CTY. APPRAISAL DISTRICT	250,609.29	431170	
CASH ADVANCE ACCOUNT	60.00	431171	
OLMSTED-KIRK PAPER	1,300.40	431187	
TIBH INDUSTRIES, INC.	843.84	431216	
TEXAS WILDLIFE DAMAGE MGMT FUND	2,700.00	431219	
INTERFACE EAP	1,358.10	431231	
VERIZON WIRELESS	304.38	431243	
TOWER COMMUNICATIONS, INC.	2,435.00	431245	
GOWAN INC	4,750.57	431286	
JEFFERSON COUNTY CREDIT CARDS	4.12	431305	
SAM'S CLUB DIRECT	17.94	431323	
DYNAMEX INC	200.45	431333	
COLIN'S KITCHEN LLC	129.64	431356	
			264,813.73*
DATA PROCESSING			
BOSWORTH PAPER	484.80	431142	
OFFICE DEPOT	56.04	431186	
CDW COMPUTER CENTERS, INC.	160.90	431234	
LEXISNEXIS- ACCURINT	115.00	431299	
DE LAGE LANDEN PUBLIC FINANCE	70.00	431311	
FUNCTION 4 LLC	19.41	431378	
			906.15*
VOTERS REGISTRATION DEPT			
UNITED STATES POSTAL SERVICE	162.95	431247	
DE LAGE LANDEN PUBLIC FINANCE	70.00	431311	
100 PLUS BLACK WOMEN COALITION OF	100.00	431328	
FUNCTION 4 LLC	19.41	431378	
			352.36*
ELECTIONS DEPARTMENT			
OFFICE DEPOT	67.98	431186	
DE LAGE LANDEN PUBLIC FINANCE	271.65	431311	
FUNCTION 4 LLC	75.34	431378	
			414.97*
DISTRICT ATTORNEY			
HERNANDEZ OFFICE SUPPLY, INC.	2,568.00	431167	
KIRKSEY'S SPRINT PRINTING	24.95	431174	
JOHN NELSON	1,404.93	431183	
OFFICE DEPOT	664.12	431186	
TDCAA BOOK ORDERS	78.00	431213	
TEXAS DISTRICT & COUNTY ATTY ASSN.	60.00	431220	
TEXAS DIV. INT'L ASSN. IDENT.	25.00	431221	
WAYLN G. THOMPSON	375.00	431222	
UNITED STATES POSTAL SERVICE	369.19	431247	
MCM ELEGANTE HOTEL	104.65	431278	
LUKE NICHOLS	119.84	431283	
SUMMER TANNER	272.40	431287	
LEXISNEXIS- ACCURINT	345.00	431299	
DE LAGE LANDEN PUBLIC FINANCE	480.00	431311	
TRANSUNION RISK AND ALTERNATIVE	118.00	431347	
FUNCTION 4 LLC	133.11	431378	
			7,142.19*
DISTRICT CLERK			
OFFICE DEPOT	203.12	431186	
POSTMASTER	1,190.00	431193	
ULINE SHIPPING SUPPLY SPECIALI	132.63	431224	
UNITED STATES POSTAL SERVICE	288.80	431247	
JEFFERSON COUNTY CREDIT CARDS	112.30	431305	
DE LAGE LANDEN PUBLIC FINANCE	70.00	431311	
AERIALINK INC	123.93	431371	
FUNCTION 4 LLC	19.41	431378	
			2,140.19*
CRIMINAL DISTRICT COURT			
DAVID GROVE	8,750.00	431133	
DONALD W. DUESLER & ASSOC.	8,750.00	431155	
TRAVIS EVANS	700.00	431158	
KIRKSEY'S SPRINT PRINTING	24.95	431174	

NAME	AMOUNT	CHECK NO.	TOTAL
OFFICE DEPOT	363.02	431186	
WENDELL RADFORD	800.00	431196	
BRUCE N. SMITH	900.00	431205	
RENE MULHOLLAND	1,041.60	431225	
JOHN D WEST	800.00	431237	
JOEL WEBB VAZQUEZ	900.00	431270	
DUSTIN R. GALMOR	750.00	431307	
DE LAGE LANDEN PUBLIC FINANCE	441.64	431311	
C. HADEN CRIBBS JR., PC	8,750.00	431317	
FUNCTION 4 LLC	122.48	431378	
			33,093.69*
58TH DISTRICT COURT			
SOUTHEAST TEXAS WATER	29.95	431206	
DE LAGE LANDEN PUBLIC FINANCE	70.00	431311	
JOHN WOOLDRIDGE	127.86	431344	
FUNCTION 4 LLC	19.41	431378	
			247.22*
60TH DISTRICT COURT			
UNITED STATES POSTAL SERVICE	.81	431247	
DE LAGE LANDEN PUBLIC FINANCE	70.00	431311	
FUNCTION 4 LLC	19.41	431378	
			90.22*
136TH DISTRICT COURT			
UNITED STATES POSTAL SERVICE	2.91	431247	
LEXIS-NEXIS	69.00	431249	
DE LAGE LANDEN PUBLIC FINANCE	70.00	431311	
FUNCTION 4 LLC	19.41	431378	
			161.32*
172ND DISTRICT COURT			
UNITED STATES POSTAL SERVICE	.40	431247	
DE LAGE LANDEN PUBLIC FINANCE	70.00	431311	
FUNCTION 4 LLC	19.41	431378	
			89.81*
252ND DISTRICT COURT			
GAYLYN COOPER	800.00	431130	
OFFICE DEPOT	144.87	431186	
BRACK JONES JR.	8,750.00	431232	
UNITED STATES POSTAL SERVICE	20.15	431247	
OLEN UNDERWOOD	492.37	431250	
LANGSTON ADAMS	2,300.00	431258	
SUMMER TANNER	56.35	431287	
ALLEN PARKER	8,750.00	431300	
DE LAGE LANDEN PUBLIC FINANCE	70.00	431311	
M.K. HAMZA, PHD, P.A.	800.00	431325	
FUNCTION 4 LLC	19.41	431378	
			22,203.15*
279TH DISTRICT COURT			
GAYLYN COOPER	1,050.00	431130	
CIVIC RESEARCH INSTITUTE, INC.	179.95	431148	
LANGSTON ADAMS	500.00	431258	
ANTOINE FREEMAN	500.00	431292	
P DEAN BRINKLEY	75.00	431304	
DE LAGE LANDEN PUBLIC FINANCE	70.00	431311	
WILLIAM FORD DISHMAN	75.00	431332	
FUNCTION 4 LLC	19.41	431378	
			2,469.36*
317TH DISTRICT COURT			
UNITED STATES POSTAL SERVICE	2.30	431247	
JUDY PAASCH	2,323.90	431273	
DE LAGE LANDEN PUBLIC FINANCE	70.00	431311	
WILLIAM FORD DISHMAN	150.00	431332	
FUNCTION 4 LLC	19.41	431378	
			2,565.61*
JUSTICE COURT-PCT 1 PL 1			
OFFICE DEPOT	53.48	431186	

NAME	AMOUNT	CHECK NO.	TOTAL
UNITED STATES POSTAL SERVICE	55.50	431247	
LEXISNEXIS- ACCURINT	115.00	431299	
DE LAGE LANDEN PUBLIC FINANCE	90.00	431311	
FUNCTION 4 LLC	24.96	431378	
			338.94*
JUSTICE COURT-PCT 1 PL 2			
LEXISNEXIS- ACCURINT	115.00	431299	
DE LAGE LANDEN PUBLIC FINANCE	70.00	431311	
FUNCTION 4 LLC	19.41	431378	
			204.41*
JUSTICE COURT-PCT 2			
CASH ADVANCE ACCOUNT	737.95	431171	
LEXISNEXIS- ACCURINT	115.00	431299	
			852.95*
JUSTICE COURT-PCT 4			
OFFICE DEPOT	40.23	431186	
TEXAS STATE UNIVERSITY SAN MARS	150.00	431209	
LEXISNEXIS- ACCURINT	115.00	431299	
DE LAGE LANDEN PUBLIC FINANCE	90.00	431311	
INDEPENDENT STATIONERS	70.14	431312	
FUNCTION 4 LLC	24.96	431378	
			490.33*
JUSTICE COURT-PCT 6			
UNITED STATES POSTAL SERVICE	31.58	431247	
LEXISNEXIS- ACCURINT	115.00	431299	
DE LAGE LANDEN PUBLIC FINANCE	70.00	431311	
FUNCTION 4 LLC	19.41	431378	
			235.99*
JUSTICE COURT-PCT 7			
LEXISNEXIS- ACCURINT	115.00	431299	
			115.00*
JUSTICE OF PEACE PCT. 8			
UNITED STATES POSTAL SERVICE	161.65	431248	
LEXISNEXIS- ACCURINT	115.00	431299	
DE LAGE LANDEN PUBLIC FINANCE	70.00	431311	
FUNCTION 4 LLC	19.41	431378	
			366.06*
COUNTY COURT AT LAW NO.1			
OFFICE DEPOT	28.97	431186	
UNITED STATES POSTAL SERVICE	.86	431247	
DE LAGE LANDEN PUBLIC FINANCE	245.92	431311	
FUNCTION 4 LLC	68.20	431378	
			343.95*
COUNTY COURT AT LAW NO. 2			
JOHN E MACEY	250.00	431177	
ELIZABETH PARKS	441.35	431188	
UNITED STATES POSTAL SERVICE	5.24	431247	
LANGSTON ADAMS	600.00	431258	
JOEL WEBB VAZQUEZ	250.00	431270	
DE LAGE LANDEN PUBLIC FINANCE	70.00	431311	
JARED GILTHORPE	250.00	431341	
SAMUEL & SON LAW FIRM PLLC	250.00	431343	
AMY TOMLINSON	1,450.00	431359	
JENNIFER MATTINGLY	250.00	431370	
FUNCTION 4 LLC	19.41	431378	
			3,836.00*
COUNTY COURT AT LAW NO. 3			
A. MARK FAGGARD	250.00	431159	
UNITED STATES POSTAL SERVICE	8.46	431247	
DE LAGE LANDEN PUBLIC FINANCE	70.00	431311	
MATUSKA LAW FIRM	250.00	431339	
FUNCTION 4 LLC	19.41	431378	
			597.87*
COURT MASTER			

NAME	AMOUNT	CHECK NO.	TOTAL
UNITED STATES POSTAL SERVICE	1.21	431247	
DE LAGE LANDEN PUBLIC FINANCE	70.00	431311	
FUNCTION 4 LLC	19.41	431378	
			90.62*
MEDIATION CENTER			
UNITED STATES POSTAL SERVICE	8.87	431247	
DE LAGE LANDEN PUBLIC FINANCE	70.00	431311	
FUNCTION 4 LLC	19.41	431378	
			98.28*
COMMUNITY SUPERVISION			
OFFICE DEPOT	449.94	431186	
DE LAGE LANDEN PUBLIC FINANCE	280.00	431311	
FUNCTION 4 LLC	77.64	431378	
			807.58*
SHERIFF'S DEPARTMENT			
TEEX	100.00	431135	
CITY OF NEDERLAND	38.74	431147	
FED EX	95.98	431161	
GT DISTRIBUTORS, INC.	123.70	431162	
KAY ELECTRONICS, INC.	350.00	431172	
KIRKSEY'S SPRINT PRINTING	49.90	431174	
MCNEILL INSURANCE AGENCY	142.00	431179	
OFFICE DEPOT	1,286.19	431186	
SHERWIN-WILLIAMS	301.69	431203	
AT&T	64.94	431210	
CDW COMPUTER CENTERS, INC.	4,955.68	431234	
UNITED STATES POSTAL SERVICE	1,134.21	431247	
BEAUMONT OCCUPATIONAL SERVICE, INC.	164.75	431253	
LOWE'S HOME CENTERS, INC.	446.94	431256	
FIVE STAR FEED	300.96	431265	
ENFORCEMENT TECHNOLOGY GROUP INC	282.71	431282	
ICS	156.00	431290	
DE LAGE LANDEN PUBLIC FINANCE	800.00	431311	
RITA HURT	275.00	431315	
SOUR LAKE VETERINARY CLINIC	84.00	431324	
SILSBEE FORD INC	7,249.46	431334	
DARE AMERICA	336.00	431340	
TRANSUNION RISK AND ALTERNATIVE	475.25	431347	
KATANA FORESNICS INC	1,000.00	431348	
GALLS LLC	4,690.10	431352	
REPUBLIC SERVICES	45.00	431361	
REPUBLIC SERVICES	45.00	431362	
3L PRINTING COMPANY	275.00	431365	
FUNCTION 4 LLC	221.84	431378	
			25,491.04*
CRIME LABORATORY			
ALLOMETRICS INC.	755.00	431131	
HENRY SCHEIN, INC.	253.80	431200	
SOUTHEAST TEXAS WATER	79.90	431206	
CDW COMPUTER CENTERS, INC.	86.76	431234	
CLINIQA CORPORATION	447.00	431271	
IMADA INC	215.40	431301	
DE LAGE LANDEN PUBLIC FINANCE	90.00	431311	
CALIBRATE INC	540.00	431349	
FUNCTION 4 LLC	24.96	431378	
AFC URGENT CARE	75.00	431379	
			2,567.82*
JAIL - NO. 2			
AAA LOCK & SAFE	228.20	431128	
BOB BARKER CO., INC.	57.00	431140	
BELL FENCE MFG. CO.	65.31	431141	
CITY OF BEAUMONT - WATER DEPT.	16.00	431145	
COASTAL WELDING SUPPLY	41.85	431150	
COBURN'S, BEAUMONT BOWIE (1)	467.36	431151	
W.W. GRAINGER, INC.	356.36	431164	
ENTERGY	41,102.14	431165	
M&D SUPPLY	8.45	431176	
OFFICE DEPOT	232.89	431186	

NAME	AMOUNT	CHECK NO.	TOTAL
SUTHERLAND LUMBER CO.	399.80	431211	
WHOLESALE ELECTRIC SUPPLY CO.	267.20	431228	
LOWE'S HOME CENTERS, INC.	275.96	431256	
REXEL	332.11	431260	
INTERCONTINENTAL JET CORP	70.00	431274	
FIVE STAR CORRECTIONAL SERVICE	15,389.66	431302	
DE LAGE LANDEN PUBLIC FINANCE	1,280.00	431311	
INDEPENDENT STATIONERS	2,539.75	431312	
EPIC CARD SERVICES LLC	378.00	431321	
TROOP INDUSTRIAL	175.65	431322	
CONSTELLATION NEWENERGY - GAS DIVIS	4,429.85	431327	
REPUBLIC SERVICES	2,490.00	431361	
REPUBLIC SERVICES	2,090.00	431362	
SOUTHERN SUPPLY	1,913.90	431368	
IMPACT WASTE LLC	360.00	431372	
FUNCTION 4 LLC	354.97	431378	
			75,322.41*
JUVENILE PROBATION DEPT.			
LARONDA TURNER	98.44	431189	
CHERYL TARVER	96.30	431230	
UNITED STATES POSTAL SERVICE	11.14	431247	
SHANNA CITIZEN	46.00	431257	
LATASHA DILL	401.25	431280	
KESHA NIXON	119.00	431284	
DE LAGE LANDEN PUBLIC FINANCE	140.00	431311	
TANISHA GRIFFIN	388.95	431346	
ROXANA MITCHELL	330.63	431355	
CHRISTAL CHANNELL	185.65	431357	
KAREN RIGGS	102.72	431360	
FUNCTION 4 LLC	38.82	431378	
			1,958.90*
JUVENILE DETENTION HOME			
ALL STAR PLUMBING	195.00	431137	
ENTERGY	6,467.03	431165	
AT&T	687.40	431210	
CHARMTEX INC.	628.89	431266	
FLOWERS FOODS	81.48	431267	
BEN E KEITH FOODS	208.95	431268	
VACUUM CITY	224.90	431288	
DE LAGE LANDEN PUBLIC FINANCE	229.79	431311	
EXCEL MEDICAL WASTE LLC	70.00	431353	
REPUBLIC SERVICES	455.00	431361	
REPUBLIC SERVICES	455.00	431362	
FUNCTION 4 LLC	580.67	431378	
			10,284.11*
CONSTABLE PCT 1			
OFFICE DEPOT	221.70	431186	
TDCJ - CJAD TRAINING & STAFF DEVEL	570.00	431217	
UNITED STATES POSTAL SERVICE	64.94	431247	
THE PRODUCTIVITY CENTER	317.00	431251	
LEXISNEXIS- ACCURINT	115.00	431299	
DE LAGE LANDEN PUBLIC FINANCE	323.13	431311	
FUNCTION 4 LLC	89.62	431378	
			1,701.39*
CONSTABLE-PCT 2			
LEXISNEXIS- ACCURINT	115.00	431299	
			115.00*
CONSTABLE-PCT 4			
DE LAGE LANDEN PUBLIC FINANCE	70.00	431311	
TRANSUNION RISK AND ALTERNATIVE	70.00	431347	
FUNCTION 4 LLC	19.41	431378	
			159.41*
CONSTABLE-PCT 6			
FAST SIGNS, INC.	1,325.00	431160	
CASH ADVANCE ACCOUNT	728.98	431171	
UNITED STATES POSTAL SERVICE	11.28	431247	
LEXISNEXIS- ACCURINT	115.00	431299	

NAME	AMOUNT	CHECK NO.	TOTAL
DE LAGE LANDEN PUBLIC FINANCE	70.00	431311	
FUNCTION 4 LLC	19.41	431378	
			2,269.67*
CONSTABLE PCT. 7			
CASH ADVANCE ACCOUNT	449.55	431171	
			449.55*
CONSTABLE PCT. 8			
CARPENTER'S TIME CENTER INC.	85.00	431144	
OFFICE DEPOT	68.37	431186	
DE LAGE LANDEN PUBLIC FINANCE	322.93	431311	
FUNCTION 4 LLC	89.56	431378	
			565.86*
COUNTY MORGUE			
BJ TRANSPORT SERVICE, INC.	8,800.00	431139	
FMMS HOLDINGS OF TEXAS LLC	43,750.00	431319	
			52,550.00*
AGRICULTURE EXTENSION SVC			
DE LAGE LANDEN PUBLIC FINANCE	200.00	431311	
FUNCTION 4 LLC	55.47	431378	
			255.47*
HEALTH AND WELFARE NO. 1			
CITY OF BEAUMONT	80.00	431138	
ENTERGY	114.69	431166	
PETTY CASH - N C WELFARE	90.00	431190	
AUSTIN CECIL WALKES MD PA	2,932.58	431226	
UNITED STATES POSTAL SERVICE	77.92	431247	
CENTERPOINT ENERGY RESOURCES CORP	76.15	431276	
TINA CHAMPAGNE	64.20	431294	
LEXISNEXIS- ACCURINT	115.00	431299	
JEFFERSON COUNTY CREDIT CARDS	141.64	431305	
DE LAGE LANDEN PUBLIC FINANCE	372.43	431311	
FUNCTION 4 LLC	103.29	431378	
			4,167.90*
HEALTH AND WELFARE NO. 2			
BROUSSARD'S MORTUARY	1,750.00	431143	
CLAYBAR FUNERAL HOME, INC.	999.00	431149	
O.W. COLLINS APARTMENTS	117.63	431152	
GABRIEL FUNERAL HOME, INC.	1,500.00	431163	
LEVINGSTON FUNERAL HOME	1,500.00	431175	
THE MEDICAL LETTER	220.00	431180	
MOODY-HARRIS FUNERAL HOME	1,500.00	431181	
OFFICE DEPOT	90.31	431186	
AUSTIN CECIL WALKES MD PA	2,932.58	431226	
UNITED STATES POSTAL SERVICE	266.91	431248	
LEXISNEXIS- ACCURINT	115.00	431299	
JEFFERSON COUNTY CREDIT CARDS	141.64	431305	
DE LAGE LANDEN PUBLIC FINANCE	140.00	431311	
FUNCTION 4 LLC	38.82	431378	
			11,311.89*
NURSE PRACTITIONER			
MCKESSON MEDICAL-SURGICAL INC	335.47	431236	
DE LAGE LANDEN PUBLIC FINANCE	70.00	431311	
LESLIE LITTLE	125.00	431345	
FUNCTION 4 LLC	19.41	431378	
			549.88*
CHILD WELFARE UNIT			
DISA, INC.	98.00	431154	
BEAUMONT OCCUPATIONAL SERVICE, INC.	709.25	431253	
J.C. PENNEY'S	983.52	431254	
SEARS COMMERICAL CREDIT	177.81	431255	
			1,968.58*
ENVIRONMENTAL CONTROL			
CASH ADVANCE ACCOUNT	193.62	431171	
OFFICE DEPOT	114.99	431186	

NAME	AMOUNT	CHECK NO.	TOTAL
DE LAGE LANDEN PUBLIC FINANCE	323.13	431311	
FUNCTION 4 LLC	89.62	431378	
			721.36*
MAINTENANCE-BEAUMONT			
JOHNSTONE SUPPLY	201.92	431134	
ALL STAR PLUMBING	356.95	431137	
W.W. GRAINGER, INC.	66.41	431164	
ENTERGY	41,072.33	431165	
HERNANDEZ OFFICE SUPPLY, INC.	834.00	431167	
RALPH'S INDUSTRIAL ELECTRONICS	585.00	431198	
SANITARY SUPPLY, INC.	1,579.00	431199	
ACE IMAGEWEAR	392.43	431202	
AT&T	1,018.03	431210	
CENTERPOINT ENERGY RESOURCES CORP	3,280.10	431275	
DE LAGE LANDEN PUBLIC FINANCE	70.00	431311	
REPUBLIC SERVICES	1,365.00	431361	
REPUBLIC SERVICES	1,365.00	431362	
AT&T	12,419.51	431364	
FUNCTION 4 LLC	19.41	431378	
			64,625.09*
MAINTENANCE-PORT ARTHUR			
DE LAGE LANDEN PUBLIC FINANCE	140.00	431311	
FUNCTION 4 LLC	38.82	431378	
			178.82*
MAINTENANCE-MID COUNTY			
CITY OF NEDERLAND	77.48	431147	
ALL-PHASE ELECTRIC SUPPLY	68.04	431153	
RITTER @ HOME	113.96	431197	
ACE IMAGEWEAR	30.72	431202	
AT&T	696.65	431210	
W. JEFFERSON COUNTY M.W.D.	54.17	431227	
BUBBA'S AIR CONDITIONING	186.75	431229	
ATTABOY TERMITE & PEST CONTROL	54.00	431298	
DE LAGE LANDEN PUBLIC FINANCE	70.00	431311	
FRED MILLER'S OUTDOOR EQUIPMENT LLC	188.80	431350	
REPUBLIC SERVICES	109.00	431361	
REPUBLIC SERVICES	109.00	431362	
FUNCTION 4 LLC	19.41	431378	
			1,777.98*
SERVICE CENTER			
SPIDLE & SPIDLE	15,205.11	431132	
J.K. CHEVROLET CO.	420.80	431168	
KINSEL FORD, INC.	81.17	431173	
MUNRO'S	39.45	431182	
PHILPOTT MOTORS, INC.	542.19	431191	
JEFFERSON CTY. TAX OFFICE	7.50	431239	
JEFFERSON CTY. TAX OFFICE	7.50	431240	
JEFFERSON CTY. TAX OFFICE	7.50	431241	
JEFFERSON CTY. TAX OFFICE	7.50	431242	
BUMPER TO BUMPER	243.55	431272	
AMERICAN TIRE DISTRIBUTORS	539.86	431295	
DE LAGE LANDEN PUBLIC FINANCE	70.00	431311	
MIGHTY OF SOUTHEAST TEXAS	92.20	431314	
EASTEX PRESSURE WASHERS	396.00	431318	
REPUBLIC SERVICES	72.60	431361	
REPUBLIC SERVICES	72.60	431362	
FUNCTION 4 LLC	19.41	431378	
			17,824.94*
VETERANS SERVICE			
UNITED STATES POSTAL SERVICE	10.62	431247	
UNITED STATES POSTAL SERVICE	4.37	431248	
US POSTAL SERVICE	196.00	431252	
HILARY GUEST	113.33	431261	
DE LAGE LANDEN PUBLIC FINANCE	240.00	431311	
FUNCTION 4 LLC	66.56	431378	
			630.88*
			636,584.49**

MOSQUITO CONTROL FUND

NAME	AMOUNT	CHECK NO.	TOTAL
CITY OF NEDERLAND	45.89	431147	
PHILPOTT MOTORS, INC.	154.72	431191	
SANITARY SUPPLY, INC.	136.10	431199	
SETZER HARDWARE, INC.	9.17	431201	
AT&T	31.15	431210	
FASTENAL	31.32	431233	
INTERSTATE ALL BATTERY CENTER - BMT	103.95	431297	
PARKER LUMBER	49.94	431303	
JEFFERSON COUNTY CREDIT CARDS	64.00	431305	
DE LAGE LANDEN PUBLIC FINANCE	70.00	431311	
REPUBLIC SERVICES	72.60	431361	
REPUBLIC SERVICES	72.60	431362	
FUNCTION 4 LLC	19.41	431378	
			860.85**
FAMILY GROUP CONFERENCING			
DE LAGE LANDEN PUBLIC FINANCE	70.00	431311	
FUNCTION 4 LLC	19.41	431378	
			89.41**
J.C. FAMILY TREATMENT			
BEAUMONT OCCUPATIONAL SERVICE, INC.	370.75	431253	
PATRICIA VELASCO	1,085.00	431363	
			1,455.75**
LAW LIBRARY FUND			
DE LAGE LANDEN PUBLIC FINANCE	70.00	431311	
THOMSON REUTERS-WEST	4,177.42	431331	
FUNCTION 4 LLC	19.41	431378	
			4,266.83**
EMPG GRANT			
JEFFERSON COUNTY CREDIT CARDS	475.00	431305	
FUNCTION 4 LLC	10.43	431378	
			485.43**
GRANT A STATE AID			
CASH ADVANCE ACCOUNT	864.22	431171	
TEXAS PROBATION ASSOCIATION	750.00	431218	
			1,614.22**
279 JUVENILE DRUG COURT			
IEA - INSPIRE, ENCOURAGE, ACHIEVE	5,602.98	431244	
			5,602.98**
COMMUNITY SUPERVISION FND			
CASH ADVANCE ACCOUNT	296.00	431171	
OFFICE DEPOT	503.32	431186	
OLMSTED-KIRK PAPER	293.50	431187	
TIME WARNER COMMUNICATIONS	84.60	431215	
UNITED STATES POSTAL SERVICE	98.30	431247	
UNITED STATES POSTAL SERVICE	251.59	431248	
JCCSC	1,513.00	431306	
TX TAG	8.69	431358	
			3,049.00**
JEFF. CO. WOMEN'S CENTER			
ALL STAR PLUMBING	736.51	431137	
HERNANDEZ OFFICE SUPPLY, INC.	459.87	431167	
CASH ADVANCE ACCOUNT	54.00	431171	
M&D SUPPLY	30.18	431176	
MARKET BASKET	11.96	431178	
OFFICE DEPOT	126.52	431186	
SYSCO FOOD SERVICES, INC.	1,122.53	431212	
TIME WARNER COMMUNICATIONS	35.04	431214	
BEN E KEITH FOODS	1,175.46	431268	
CENTERPOINT ENERGY RESOURCES CORP	387.54	431275	
REDWOOD TOXICOLOGY LABORATORY	138.00	431289	
DE LAGE LANDEN PUBLIC FINANCE	140.00	431311	
SAM'S CLUB DIRECT	251.40	431323	
MATERA PAPER COMPANY INC	170.63	431330	
REPUBLIC SERVICES	91.00	431361	
REPUBLIC SERVICES	91.00	431362	

NAME	AMOUNT	CHECK NO.	TOTAL
FUNCTION 4 LLC	38.82	431378	
			5,060.46**
COMMUNITY CORRECTIONS PRG			
DE LAGE LANDEN PUBLIC FINANCE	90.00	431311	
FUNCTION 4 LLC	24.96	431378	
			114.96**
DRUG DIVERSION PROGRAM			
DE LAGE LANDEN PUBLIC FINANCE	80.00	431311	
FUNCTION 4 LLC	22.19	431378	
			102.19**
JAG GRANTS			
OFFICE DEPOT	119.99	431186	
			119.99**
LAW OFFICER TRAINING GRT			
CASH ADVANCE ACCOUNT	430.70	431171	
OFFICE DEPOT	511.25	431186	
			941.95**
COUNTY CLERK - RECORD MGT			
MANATRON	3,508.00	431291	
			3,508.00**
COUNTY RECORDS MANAGEMENT			
CDW COMPUTER CENTERS, INC.	94.79	431234	
UNITED STATES POSTAL SERVICE	6.65	431247	
BRUCE HAMILTON	502.27	431262	
TYRRELL HISTORICAL LIBRARY	50.00	431264	
JEFFERSON COUNTY CREDIT CARDS	470.00	431305	
PAUL PROSPERIE	152.44	431326	
			1,276.15**
HOTEL OCCUPANCY TAX FUND			
M&D SUPPLY	92.66	431176	
MUNRO'S	81.85	431182	
TRI-CITY COFFEE SERVICE	100.00	431223	
UNITED STATES POSTAL SERVICE	13.50	431247	
JEFFERSON COUNTY CREDIT CARDS	840.76	431305	
DE LAGE LANDEN PUBLIC FINANCE	315.00	431311	
REPUBLIC SERVICES	72.60	431361	
REPUBLIC SERVICES	210.10	431362	
FUNCTION 4 LLC	145.39	431378	
			1,871.86**
DISTRICT CLK RECORDS MGMT			
DE LAGE LANDEN PUBLIC FINANCE	140.00	431311	
FUNCTION 4 LLC	38.82	431378	
			178.82**
CAPITAL PROJECTS FUND			
CONSTRUCTION ZONE OF TEXAS LLC	41,301.24	431335	
			41,301.24**
CETRZ GRANT			
BRYSTAR CONTRACTING, INC.	159,451.50	431129	
			159,451.50**
AIRPORT FUND			
CITY OF NEDERLAND	540.65	431147	
COASTAL WELDING SUPPLY	84.22	431150	
RITTER @ HOME	26.99	431197	
SANITARY SUPPLY, INC.	68.61	431199	
UNITED STATES POSTAL SERVICE	1.84	431247	
LOWE'S HOME CENTERS, INC.	49.80	431256	
JEFFERSON COUNTY CREDIT CARDS	391.95	431305	
DE LAGE LANDEN PUBLIC FINANCE	140.00	431311	
EASTERN AVIATION FUELS INC	31,347.70	431342	
REPUBLIC SERVICES	582.80	431361	
REPUBLIC SERVICES	582.80	431362	
ADVANTAGE CONSULTING LLC	1,495.00	431374	

NAME	AMOUNT	CHECK NO.	TOTAL
FUNCTION 4 LLC	38.82	431378	
			35,351.18**
SE TX EMP. BENEFIT POOL			
STANDARD INSURANCE COMPANY	22,148.77	431279	
RELIANCE STANDARD LIFE INSURANCE	5,721.37	431281	
COMPASS PROFESSIONAL HEALTH SERVICE	6,180.00	431336	
SA BENEFITS SERVICES LLC	28,712.28	431337	
			62,762.42**
SETEC FUND			
REPUBLIC SERVICES	447.80	431361	
REPUBLIC SERVICES	1,177.80	431362	
			1,625.60**
LIABILITY CLAIMS ACCOUNT			
STEVENS BALDO FREEMAN & LIGHTY LLP	245.00	431316	
			245.00**
WORKER'S COMPENSATION FD			
TRISTAR RISK MANAGEMENT	10,203.87	431277	
			10,203.87**
SHERIFF'S FORFEITURE FUND			
HERNANDEZ OFFICE SUPPLY, INC.	1,650.39	431167	
AERO PRODUCTS	217.87	431259	
SILSBEE FORD INC	16,861.49	431334	
			18,729.75**
D. A. HOT CHECK FUND			
JEFFERSON COUNTY CREDIT CARDS	192.27	431305	
			192.27**
PAYROLL FUND			
JEFFERSON CTY. - FLEXIBLE SPENDING	13,507.25	431098	
CLEAT	288.00	431099	
JEFFERSON CTY. TREASURER	16,829.84	431100	
RON STADTMUELLER - CHAPTER 13	530.00	431101	
INTERNAL REVENUE SERVICE	475.00	431102	
JEFFERSON CTY. ASSN. OF D.S. & C.O.	4,560.00	431103	
JEFFERSON CTY. COMMUNITY SUP.	9,469.12	431104	
JEFFERSON CTY. TREASURER - HEALTH	459,882.24	431105	
JEFFERSON CTY. TREASURER - GENERAL	35.00	431106	
JEFFERSON CTY. TREASURER - PAYROLL	1,632,604.61	431107	
JEFFERSON CTY. TREASURER - PAYROLL	647,946.19	431108	
MONY LIFE INSURANCE OF AMERICA	126.84	431109	
POLICE & FIRE FIGHTERS' ASSOCIATION	2,954.48	431110	
TGSLC	696.42	431111	
UNITED WAY OF BEAUMONT& N JEFFERSON	18.00	431112	
JEFFERSON CTY. TREASURER - TCDRS	607,887.46	431113	
OPPENHEIMER FUNDS DISTRIBUTOR, INC	1,581.65	431114	
JEFFERSON COUNTY TREASURER	2,577.51	431115	
JEFFERSON COUNTY - TREASURER -	6,831.65	431116	
NECHES FEDERAL CREDIT UNION	53,043.61	431117	
JEFFERSON COUNTY - NATIONWIDE	51,545.13	431118	
TENNESSEE CHILD SUPPORT	115.38	431119	
SBA - U S DEPARTMENT OF TREASURY	168.49	431120	
CALIFORNIA STATE DISBURSEMENT UNIT	155.53	431121	
U S DEPARTMENT OF TREASURY	153.17	431122	
WILLIAM E HEITKAMP	755.01	431123	
JOHN TALTON	1,872.31	431124	
IL DEPT OF HEALTCARD AND FAMILY SER	49.85	431125	
BELINDA M ZURITA	230.77	431126	
UNITED STATES TREASURY	2,446.30	431127	
			3,519,336.81**
GUARDIANSHIP FEE			
WILLIAM FORD DISHMAN	200.00	431332	
			200.00**
MARINE DIVISION			
VERIZON WIRELESS	531.86	431243	
AERO PRODUCTS	6,551.50	431259	

NAME	AMOUNT	CHECK NO.	TOTAL
PETROLEUM SOLUTIONS, INC.	191.94	431269	
JEFFERSON COUNTY CREDIT CARDS	1,211.10	431305	
			8,486.40**
2015 PORT SECURITY GRANT			
LJA ENGINEERING INC	3,058.00	431320	
			3,058.00**
			4,541,675.12***

NAME	AMOUNT	CHECK NO.	TOTAL
JURY FUND			
DAWN DONUTS	85.00	431608	
			85.00**
ROAD & BRIDGE PCT.#1			
SPIDLE & SPIDLE	2,527.46	431405	
BEAUMONT FRAME & FRONT END	99.66	431414	
ENTERGY	713.88	431430	
M&D SUPPLY	136.21	431445	
NEFF BROS. AUTO SERVICE	2,900.00	431450	
SANITARY SUPPLY, INC.	278.84	431462	
SMART'S TRUCK & TRAILER, INC.	157.08	431466	
SOUTHEAST TEXAS WATER	14.00	431467	
SOUTHERN TIRE MART, LLC	195.00	431493	
EDDIE ARNOLD	1,261.48	431525	
PAUL TRUAX	67.00	431532	
ADVANCE AUTO PARTS	364.23	431573	
CINTAS CORPORATION	102.85	431615	
GULF COAST	2,711.84	431621	
FUNCTION 4 LLC	19.41	431625	
			11,548.94**
ROAD & BRIDGE PCT.#2			
CITY OF NEDERLAND	48.59	431420	
EASTEX RUBBER & GASKET	75.50	431424	
ENTERGY	506.81	431430	
RITTER @ HOME	91.32	431460	
SETZER HARDWARE, INC.	13.90	431463	
AT&T	93.36	431470	
BUMPER TO BUMPER	125.29	431524	
GULF COAST	2,836.89	431621	
FUNCTION 4 LLC	24.96	431625	
			3,816.62**
ROAD & BRIDGE PCT. # 3			
A&A EQUIPMENT	533.99	431402	
SPIDLE & SPIDLE	1,537.44	431405	
CERTIFIED LABORATORIES	158.24	431418	
CITY OF PORT ARTHUR - WATER DEPT.	28.88	431419	
FAST SIGNS, INC.	400.00	431425	
CASH ADVANCE ACCOUNT	1,180.98	431441	
MUNRO'S	84.45	431449	
OIL CITY TRACTORS, INC.	76.38	431453	
SMART'S TRUCK & TRAILER, INC.	50.50	431466	
TIME WARNER COMMUNICATIONS	86.91	431477	
AUTO ZONE	47.99	431489	
HOWARD'S AUTO SUPPLY	153.04	431496	
SUPERIOR SUPPLY & STEEL	150.00	431501	
WALMART COMMUNITY BRC	44.76	431507	
CENTERPOINT ENERGY RESOURCES CORP	33.92	431526	
WINDSTREAM	45.35	431534	
BILL WILLIAMS	200.00	431543	
C & I OIL COMPANY INC	4,330.21	431551	
NETCJCA	225.00	431561	
PRO CHEM INC	183.87	431568	
SAM'S CLUB DIRECT	182.88	431569	
ACTION OVERHEAD DOOR	357.50	431572	
MARTIN MARIEETA MATERIALS	1,125.18	431603	
FELIX AAA AUTO & TRUCK PARTS LLC	47.97	431605	
TRANSIT & LEVEL CLINIC LLC	187.50	431610	
TRINITY VALLEY TRACTORS INC	685.49	431619	
FUNCTION 4 LLC	38.82	431625	
RBJ'S EATERY & CATERING	350.00	431631	
			12,527.25**
ROAD & BRIDGE PCT.#4			
SPIDLE & SPIDLE	4,608.08	431405	
CASH ADVANCE ACCOUNT	983.80	431441	
M&D SUPPLY	116.05	431445	
MUNRO'S	71.21	431449	
POSTMASTER	147.00	431457	
SMART'S TRUCK & TRAILER, INC.	75.89	431466	

NAME	AMOUNT	CHECK NO.	TOTAL
AT&T	76.36	431470	
TEXAS STATE DIRECTORY	117.35	431483	
LESTER SMITH INSURANCE	71.00	431580	
SOUTHEAST TEXAS PARTS AND EQUIPMENT	840.72	431585	
FUNCTION 4 LLC	63.73	431625	
			7,171.19**
ENGINEERING FUND			
VERIZON WIRELESS	242.30	431505	
FUNCTION 4 LLC	127.84	431625	
			370.14**
PARKS & RECREATION			
ENTERGY	1,163.06	431430	
SUPPLYWORKS	114.34	431598	
			1,277.40**
GENERAL FUND			
JEFFERSON CTY. CLERK	200.00	431403	
			200.00*
TAX OFFICE			
ACE IMAGEWEAR	21.70	431464	
TAC - TEXAS ASSN. OF COUNTIES	800.00	431475	
UNITED STATES POSTAL SERVICE	1,924.67	431509	
ALLISON GETZ	108.00	431597	
FUNCTION 4 LLC	102.60	431625	
			2,956.97*
COUNTY HUMAN RESOURCES			
MOORMAN & ASSOCIATES, INC.	750.00	431448	
UNITED STATES POSTAL SERVICE	.40	431509	
FUNCTION 4 LLC	19.41	431625	
			769.81*
AUDITOR'S OFFICE			
GOVERNMENT FINANCE OFFICERS ASSOC.	580.00	431407	
UNITED STATES POSTAL SERVICE	19.21	431509	
FUNCTION 4 LLC	19.41	431625	
			618.62*
COUNTY CLERK			
OFFICE DEPOT	54.17	431452	
COUNTY & DISTRICT CLERK ASSN. OF TX	35.00	431490	
COUNTY & DISTRICT CLERK ASSN. OF TX	35.00	431491	
DECISION ONE CORPORATION	228.60	431492	
UNITED STATES POSTAL SERVICE	355.29	431509	
RICOH USA INC	397.72	431571	
FUNCTION 4 LLC	291.99	431625	
			1,397.77*
COUNTY JUDGE			
OFFICE DEPOT	152.48	431452	
UNITED STATES POSTAL SERVICE	3.63	431509	
THE BYRD LAW FIRM PC	500.00	431529	
KIMBERLY PHELAN, P.C.	500.00	431530	
MICHELLE R BRISTER	500.00	431531	
JEFF R BRANICK	903.14	431536	
HARVEY L WARREN III	500.00	431556	
KENDALL COCKRELL	500.00	431586	
JAN GIROUARD & ASSOCIATES LLC	200.00	431611	
FUNCTION 4 LLC	19.41	431625	
			3,473.70*
RISK MANAGEMENT			
FUNCTION 4 LLC	19.41	431625	
			19.41*
COUNTY TREASURER			
UNITED STATES POSTAL SERVICE	113.27	431509	
LEXISNEXIS- ACCURINT	118.45	431555	

NAME	AMOUNT	CHECK NO.	TOTAL
FUNCTION 4 LLC	92.04	431625	
			323.76*
PRINTING DEPARTMENT			
OLMSTED-KIRK PAPER	1,314.21	431454	
FUNCTION 4 LLC	333.16	431625	
			1,647.37*
PURCHASING DEPARTMENT			
UNITED STATES POSTAL SERVICE	1.59	431509	
FUNCTION 4 LLC	19.41	431625	
			21.00*
GENERAL SERVICES			
GUARDIAN FORCE	37.00	431404	
B&L MAIL PRESORT SERVICE	1,415.32	431413	
CASH ADVANCE ACCOUNT	50.00	431441	
OLMSTED-KIRK PAPER	2,345.20	431454	
TIME WARNER COMMUNICATIONS	204.86	431479	
LEXISNEXIS- ACCURINT	58.65	431555	
DYNAMEX INC	400.90	431582	
			4,511.93*
DATA PROCESSING			
OFFICE DEPOT	225.15	431452	
CDW COMPUTER CENTERS, INC.	588.31	431498	
LEXISNEXIS- ACCURINT	118.45	431555	
FUNCTION 4 LLC	19.41	431625	
			951.32*
VOTERS REGISTRATION DEPT			
OFFICE DEPOT	54.83	431452	
UNITED STATES POSTAL SERVICE	163.38	431509	
FUNCTION 4 LLC	19.41	431625	
			237.62*
ELECTIONS DEPARTMENT			
SIERRA SPRING WATER CO. - BT	7.68	431511	
FUNCTION 4 LLC	75.34	431625	
			83.02*
DISTRICT ATTORNEY			
CRISTY SMITH	325.00	431416	
JEFFERSON CTY. BAR ASSOCIATION	56.00	431439	
CASH ADVANCE ACCOUNT	27.27	431441	
OFFICE DEPOT	462.31	431452	
CLERK - SUPREME COURT OF TEXAS	6,094.00	431471	
UNITED STATES POSTAL SERVICE	185.73	431509	
SETAP	65.00	431550	
LEXISNEXIS- ACCURINT	355.35	431555	
THOMSON REUTERS-WEST	2,712.30	431577	
KATHLEEN KENNEDY	248.47	431588	
MARCELO MOLFINO	940.50	431616	
FUNCTION 4 LLC	133.11	431625	
CIOX HEALTH	330.67	431629	
ROBIN RIOS	100.00	431632	
			12,035.71*
DISTRICT CLERK			
ART SIGNS & DECALS	60.00	431412	
OFFICE DEPOT	268.39	431452	
TRI-CITY COFFEE SERVICE	65.20	431484	
UNITED STATES POSTAL SERVICE	205.52	431509	
RICOH USA INC	25.37	431571	
ENGINEERING INNOVATION	288.44	431620	
FUNCTION 4 LLC	19.41	431625	
			932.33*
CRIMINAL DISTRICT COURT			
UNITED STATES POSTAL SERVICE	47.58	431509	
FUNCTION 4 LLC	122.48	431625	
			170.06*
58TH DISTRICT COURT			

NAME	AMOUNT	CHECK NO.	TOTAL
FUNCTION 4 LLC	19.41	431625	
			19.41*
60TH DISTRICT COURT			
OFFICE DEPOT	50.80	431452	
FUNCTION 4 LLC	19.41	431625	
			70.21*
136TH DISTRICT COURT			
FUNCTION 4 LLC	19.41	431625	
			19.41*
172ND DISTRICT COURT			
FUNCTION 4 LLC	19.41	431625	
			19.41*
252ND DISTRICT COURT			
WENDELL RADFORD	900.00	431459	
UNITED STATES POSTAL SERVICE	36.00	431509	
JOEL WEBB VAZQUEZ	800.00	431523	
SUMMER TANNER	1,319.20	431537	
SAMUEL & SON LAW FIRM PLLC	8,750.00	431592	
FUNCTION 4 LLC	19.41	431625	
			11,824.61*
279TH DISTRICT COURT			
DAVID GROVE	75.00	431406	
BRACK JONES JR.	325.00	431494	
UNITED STATES POSTAL SERVICE	7.89	431509	
LANGSTON ADAMS	75.00	431519	
KIMBERLY PHELAN, P.C.	325.00	431530	
JONATHAN L. STOVALL	75.00	431560	
WILLIAM MARCUS WILKERSON	75.00	431570	
THE DAWS LAW FIRM PLLC	75.00	431584	
LAW OFFICE OF J SCOTT FREDERICK	150.00	431595	
ASHLEY CEDILLO	262.50	431613	
FUNCTION 4 LLC	19.41	431625	
			1,464.80*
317TH DISTRICT COURT			
FUNCTION 4 LLC	19.41	431625	
			19.41*
JUSTICE COURT-PCT 1 PL 1			
CASH ADVANCE ACCOUNT	496.20	431441	
TEXAS STATE UNIVERSITY SAN MARS	300.00	431469	
UNITED STATES POSTAL SERVICE	54.17	431509	
LEXISNEXIS- ACCURINT	118.45	431555	
FUNCTION 4 LLC	24.96	431625	
			993.78*
JUSTICE COURT-PCT 1 PL 2			
LEXISNEXIS- ACCURINT	118.45	431555	
FUNCTION 4 LLC	19.41	431625	
			137.86*
JUSTICE COURT-PCT 2			
LEXISNEXIS- ACCURINT	118.45	431555	
			118.45*
JUSTICE COURT-PCT 4			
AT&T	76.36	431470	
LEXISNEXIS- ACCURINT	118.45	431555	
FUNCTION 4 LLC	24.96	431625	
			219.77*
JUSTICE COURT-PCT 6			
CASH ADVANCE ACCOUNT	451.26	431441	
UNITED STATES POSTAL SERVICE	37.97	431509	
LEXISNEXIS- ACCURINT	118.45	431555	
FUNCTION 4 LLC	19.41	431625	
FUNCTION 4 LLC	218.00	431626	
			845.09*
JUSTICE COURT-PCT 7			

NAME	AMOUNT	CHECK NO.	TOTAL
CASH ADVANCE ACCOUNT	721.99	431441	
LEXISNEXIS- ACCURINT	118.45	431555	
			840.44*
JUSTICE OF PEACE PCT. 8			
LEXISNEXIS- ACCURINT	118.45	431555	
THOMSON REUTERS-WEST	295.50	431576	
FUNCTION 4 LLC	19.41	431625	
			433.36*
COUNTY COURT AT LAW NO.1			
UNITED STATES POSTAL SERVICE	1.21	431509	
LEXIS-NEXIS	52.00	431510	
SIERRA SPRING WATER CO. - BT	88.00	431513	
GERALD EDDINS	672.75	431574	
FUNCTION 4 LLC	68.20	431625	
			882.16*
COUNTY COURT AT LAW NO. 2			
JACK LAWRENCE	250.00	431408	
TERRENCE HOLMES	60.00	431437	
UNITED STATES POSTAL SERVICE	4.09	431509	
LANGSTON ADAMS	900.00	431519	
JOEL WEBB VAZQUEZ	250.00	431523	
ANTOINE FREEMAN	250.00	431546	
SAMUEL & SON LAW FIRM PLLC	250.00	431591	
AMY TOMLINSON	250.00	431607	
JANSON ELLIOTT BAILEY	250.00	431612	
ASHLEY CEDILLO	250.00	431613	
FUNCTION 4 LLC	19.41	431625	
THE MAYO LAW FIRM PLLC	250.00	431630	
			2,983.50*
COUNTY COURT AT LAW NO. 3			
UNITED STATES POSTAL SERVICE	10.08	431509	
LAURIE PEROZZO	1,850.00	431553	
ANITA U SEPEDA	100.00	431558	
JARED GILTHORPE	350.00	431589	
SEAN NGUYEN	250.00	431614	
FUNCTION 4 LLC	19.41	431625	
			2,579.49*
COURT MASTER			
OFFICE DEPOT	408.65	431452	
UNITED STATES POSTAL SERVICE	2.59	431509	
FUNCTION 4 LLC	19.41	431625	
			430.65*
MEDIATION CENTER			
SOUTHEAST TEXAS WATER	29.80	431468	
UNITED STATES POSTAL SERVICE	3.22	431509	
FUNCTION 4 LLC	19.41	431625	
			52.43*
COMMUNITY SUPERVISION			
FUNCTION 4 LLC	77.64	431625	
			77.64*
SHERIFF'S DEPARTMENT			
ENTERGY	994.57	431430	
CASH ADVANCE ACCOUNT	955.86	431441	
OFFICE DEPOT	608.43	431452	
AT&T	124.60	431470	
UNITED STATES POSTAL SERVICE	1,107.70	431509	
SPANKY'S WRECKER SERVICE INC	250.00	431566	
FUNCTION 4 LLC	221.84	431625	
			4,263.00*
CRIME LABORATORY			
OFFICE DEPOT	99.93	431452	
SANITARY SUPPLY, INC.	128.85	431462	
RDB SERVICES	500.00	431564	
EXCEL MEDICAL WASTE LLC	140.00	431600	

NAME	AMOUNT	CHECK NO.	TOTAL
TRI-TECH FORENSICS	155.07	431609	
FUNCTION 4 LLC	24.96	431625	
			1,048.81*
JAIL - NO. 2			
JOHNSTONE SUPPLY	131.33	431409	
TEEX	250.00	431410	
COBURN'S, BEAUMONT BOWIE (1)	89.05	431421	
ECOLAB	399.90	431423	
W.W. GRAINGER, INC.	2,786.23	431428	
HERNANDEZ OFFICE SUPPLY, INC.	313.96	431435	
JACK BROOKS REGIONAL AIRPORT	1,537.14	431440	
M&D SUPPLY	214.30	431445	
OFFICE DEPOT	819.59	431452	
PETTY CASH - SHERIFF'S OFFICE	542.00	431456	
RALPH'S INDUSTRIAL ELECTRONICS	329.31	431461	
SANITARY SUPPLY, INC.	3,955.61	431462	
SHERWIN-WILLIAMS	398.58	431465	
AT&T	1,353.92	431470	
WORTH HYDROCHEM	327.00	431486	
SERVICE GRAPHICS	285.38	431495	
TEXAS GAS SERVICE	459.90	431520	
AIRGAS SOUTHWEST	365.67	431548	
WORLD FUEL SERVICES	207.00	431554	
MATERA PAPER COMPANY INC	4,194.19	431575	
THOMSON REUTERS-WEST	903.00	431576	
LONE STAR UNIFORMS	182.09	431606	
FUNCTION 4 LLC	354.97	431625	
			20,400.12*
JUVENILE PROBATION DEPT.			
FED EX	62.60	431426	
CASH ADVANCE ACCOUNT	358.56	431441	
UNITED STATES POSTAL SERVICE	8.19	431509	
SHARON STREETMAN	32.10	431533	
LATONYA DOUCET	50.83	431549	
FUNCTION 4 LLC	38.82	431625	
			551.10*
JUVENILE DETENTION HOME			
FLOWERS FOODS	117.01	431521	
BEN E KEITH FOODS	3,978.01	431522	
FUNCTION 4 LLC	63.73	431625	
			4,158.75*
CONSTABLE PCT 1			
TDCJ - CASHIER'S OFFICE	570.00	431417	
CASH ADVANCE ACCOUNT	964.10	431441	
TAC - TEXAS ASSN. OF COUNTIES	35.00	431473	
UNITED STATES POSTAL SERVICE	28.68	431509	
LEXISNEXIS- ACCURINT	118.45	431555	
GALLS LLC	150.00	431596	
FUNCTION 4 LLC	89.62	431625	
			1,955.85*
CONSTABLE-PCT 2			
LEXISNEXIS- ACCURINT	118.45	431555	
			118.45*
CONSTABLE-PCT 4			
CASH ADVANCE ACCOUNT	462.55	431441	
OFFICE DEPOT	232.19	431452	
AT&T	38.18	431470	
TAC - TEXAS ASSN. OF COUNTIES	70.00	431476	
DISH NETWORK	56.50	431539	
FUNCTION 4 LLC	19.41	431625	
			878.83*
CONSTABLE-PCT 6			
GT DISTRIBUTORS, INC.	21.70	431427	
UNITED STATES POSTAL SERVICE	8.67	431509	
LEXISNEXIS- ACCURINT	118.45	431555	
HIGGINBOTHAM INSURANCE AGENCY INC	71.00	431594	

NAME	AMOUNT	CHECK NO.	TOTAL
FUNCTION 4 LLC	19.41	431625	
			239.23*
CONSTABLE PCT. 8			
FUNCTION 4 LLC	89.56	431625	
TND WORKWEAR CO LLC	116.00	431628	
			205.56*
AGRICULTURE EXTENSION SVC			
TEXAS DEPT OF AGRICULTURE	112.50	431482	
WALMART COMMUNITY BRC	161.70	431507	
ALLEN HOMANN	29.96	431618	
FUNCTION 4 LLC	55.47	431625	
			359.63*
HEALTH AND WELFARE NO. 1			
BROUSSARD'S MORTUARY	2,056.05	431415	
ENTERGY	70.00	431433	
MUNRO'S	57.35	431449	
OFFICE DEPOT	139.98	431452	
MCKESSON MEDICAL-SURGICAL INC	411.19	431499	
UNITED STATES POSTAL SERVICE	28.95	431509	
LEXISNEXIS- ACCURINT	118.45	431555	
SAM'S CLUB DIRECT	62.52	431569	
EXCEL MEDICAL WASTE LLC	70.00	431600	
FUNCTION 4 LLC	103.29	431625	
			2,295.40*
HEALTH AND WELFARE NO. 2			
ENTERGY	145.59	431434	
MCKESSON MEDICAL-SURGICAL INC	527.08	431499	
LEXISNEXIS- ACCURINT	118.45	431555	
FUNCTION 4 LLC	38.82	431625	
			829.94*
NURSE PRACTITIONER			
SIERRA SPRING WATER CO. - BT	14.70	431512	
EXCEL MEDICAL WASTE LLC	35.00	431600	
FUNCTION 4 LLC	19.41	431625	
			69.11*
CHILD WELFARE UNIT			
BEAUMONT OCCUPATIONAL SERVICE, INC.	437.45	431515	
J.C. PENNEY'S	974.85	431516	
S&M FAMILY OUTLET	550.00	431518	
			1,962.30*
ENVIRONMENTAL CONTROL			
FUNCTION 4 LLC	89.62	431625	
			89.62*
INDIGENT MEDICAL SERVICES			
OFFICE DEPOT	560.40	431452	
LOCAL GOVERNMENT SOLUTIONS LP	3,773.00	431547	
CARDINAL HEALTH 110 INC	55,641.26	431579	
LAGNIAPPE PHARMACY SERVICES LLC	2,730.00	431587	
			62,704.66*
MAINTENANCE-BEAUMONT			
AAA LOCK & SAFE	880.05	431401	
JOHNSTONE SUPPLY	131.71	431409	
CITY OF BEAUMONT - LANDFILL	71.50	431411	
CERTIFIED LABORATORIES	665.75	431418	
COBURN'S, BEAUMONT BOWIE (1)	233.58	431421	
ECOLAB	209.95	431423	
W.W. GRAINGER, INC.	124.11	431428	
SANITARY SUPPLY, INC.	615.20	431462	
ACE IMAGEWEAR	96.91	431464	
WORTH HYDROCHEM	250.00	431486	
A1 FILTER SERVICE COMPANY	732.70	431563	
INDUSTRIAL & COMMERCIAL MECHANICAL	220.50	431567	
MEMBER'S BUILDING MAINTENANCE LLC	22,687.76	431581	
CINTAS CORPORATION	87.10	431615	

NAME	AMOUNT	CHECK NO.	TOTAL
FUNCTION 4 LLC	19.41	431625	
FUNCTION 4 LLC	4,304.32	431627	
			31,330.55*
MAINTENANCE-PORT ARTHUR			
ENTERGY	3,778.26	431430	
TIME WARNER COMMUNICATIONS	71.40	431478	
TIME WARNER COMMUNICATIONS	300.57	431481	
FUNCTION 4 LLC	38.82	431625	
			4,189.05*
MAINTENANCE-MID COUNTY			
CITY OF NEDERLAND	25.68	431420	
COBURN'S GROVES (5)	87.30	431422	
ENTERGY	1,968.83	431430	
HIGHTECH SIGNS	65.00	431436	
ACE IMAGEWEAR	30.76	431464	
W. JEFFERSON COUNTY M.W.D.	27.14	431485	
FUNCTION 4 LLC	19.41	431625	
			2,224.12*
SERVICE CENTER			
AT&T	62.24	431470	
JEFFERSON CTY. TAX OFFICE	7.50	431502	
JEFFERSON CTY. TAX OFFICE	7.50	431503	
JEFFERSON CTY. TAX OFFICE	7.50	431504	
TEXAS DEPARTMENT OF MOTOR VEHICLES	7.50	431601	
FUNCTION 4 LLC	19.41	431625	
			111.65*
VETERANS SERVICE			
UNITED STATES POSTAL SERVICE	26.72	431509	
FUNCTION 4 LLC	66.56	431625	
			93.28*
			194,461.29**
MOSQUITO CONTROL FUND			
CERTIFIED LABORATORIES	176.28	431418	
ENTERGY	527.84	431430	
JACK BROOKS REGIONAL AIRPORT	146.83	431440	
MUNRO'S	82.20	431449	
PARKER LUMBER	15.70	431557	
FUNCTION 4 LLC	19.41	431625	
			968.26**
FAMILY GROUP CONFERENCING			
FUNCTION 4 LLC	19.41	431625	
			19.41**
SECURITY FEE FUND			
KWP TELECOM LLC	1,550.00	431604	
			1,550.00**
LAW LIBRARY FUND			
THOMSON REUTERS-WEST	262.96	431576	
FUNCTION 4 LLC	19.41	431625	
			282.37**
EMPG GRANT			
CASH ADVANCE ACCOUNT	497.48	431441	
SOUTHEAST TEXAS WATER	9.95	431467	
JEFFERSON COUNTY CREDIT CARDS	700.00	431559	
			1,207.43**
JUVENILE PROB & DET. FUND			
MICHAEL CATT	300.00	431617	
			300.00**
GRANT A STATE AID			
CASH ADVANCE ACCOUNT	358.56	431441	
BI INCORPORATED	850.64	431500	
VERIZON WIRELESS	40.59	431505	
GRAYSON COUNTY DEPT OF JUVENILE	4,202.00	431593	
			5,451.79**
COMMUNITY SUPERVISION FND			

NAME	AMOUNT	CHECK NO.	TOTAL
JEFFERSON CTY. COMMUNITY SUP.	1,595.67	431438	
CASH ADVANCE ACCOUNT	374.39	431441	
TIME WARNER COMMUNICATIONS	160.02	431480	
SASSI INSTITUTE	973.00	431488	
UNITED STATES POSTAL SERVICE	56.94	431509	
LOCAL GOVERNMENT SOLUTIONS LP	6,965.00	431547	
KALEIGH ABSHIRE	40.20	431599	
EXCEL MEDICAL WASTE LLC	175.00	431600	
			10,340.22**
JEFF. CO. WOMEN'S CENTER			
ECOLAB	82.95	431423	
KAY ELECTRONICS, INC.	13.60	431442	
LUBE SHOP	44.48	431444	
KIM MCKINNEY, LPC, LMFT	150.00	431446	
OFFICE DEPOT	192.98	431452	
SYSCO FOOD SERVICES, INC.	1,345.26	431472	
PETTY CASH - RESTITUTION I	104.59	431487	
TOWER COMMUNICATIONS, INC.	60.00	431506	
BEN E KEITH FOODS	1,224.82	431522	
REDWOOD TOXICOLOGY LABORATORY	1,705.00	431542	
MATERA PAPER COMPANY INC	467.82	431575	
EXCEL MEDICAL WASTE LLC	35.00	431600	
FUNCTION 4 LLC	38.82	431625	
			5,465.32**
COMMUNITY CORRECTIONS PRG			
FUNCTION 4 LLC	24.96	431625	
			24.96**
DRUG DIVERSION PROGRAM			
FUNCTION 4 LLC	22.19	431625	
			22.19**
COUNTY CLERK - RECORD MGT			
CDW COMPUTER CENTERS, INC.	1,829.76	431498	
			1,829.76**
COUNTY RECORDS MANAGEMENT			
PORT ARTHUR HISTORICAL SOCIETY	100.00	431538	
GMO GLOBAL SIGN INC	1,510.00	431602	
			1,610.00**
HOTEL OCCUPANCY TAX FUND			
MUNRO'S	32.10	431449	
AT&T	178.88	431470	
DISH NETWORK	120.51	431541	
STARS OVER TEXAS SOFTBALL	3,750.00	431544	
MATERA PAPER COMPANY INC	106.67	431575	
FUNCTION 4 LLC	87.36	431625	
			4,275.52**
DISTRICT CLK RECORDS MGMT			
FUNCTION 4 LLC	38.82	431625	
			38.82**
CAPITAL PROJECTS FUND			
LJA ENGINEERING INC	3,742.25	431565	
			3,742.25**
AIRPORT FUND			
COBURN'S GROVES (5)	375.13	431422	
W.W. GRAINGER, INC.	746.79	431428	
ENTERGY	14,767.84	431432	
LOUIS' YAZOO SALES & SERVICE, LLC	180.20	431443	
AT&T	598.78	431470	
UNITED STATES POSTAL SERVICE	4.06	431509	
LOWE'S HOME CENTERS, INC.	33.20	431517	
DISH NETWORK	98.01	431540	
BLUE GLOBES	129.63	431545	
DELTA INDUSTRIAL SERVICE & SUPPLY	1,608.70	431562	
EASTERN AVIATION FUELS INC	40,078.93	431590	
FUNCTION 4 LLC	38.82	431625	
			58,660.09**
SE TX EMP. BENEFIT POOL			

NAME	AMOUNT	CHECK NO.	TOTAL
CHLIC-CHICAGO	62,250.10	431552	
			62,250.10**
SETEC FUND			
MARTIN PRODUCT SALES LLC	960.78	431535	
INDUSTRIAL & COMMERCIAL MECHANICAL	1,652.00	431567	
MARTIN MARIEETA MATERIALS	4,045.86	431603	
			6,658.64**
LIABILITY CLAIMS ACCOUNT			
MEHAFFY & WEBER	3,691.49	431447	
			3,691.49**
WORKER'S COMPENSATION FD			
TRISTAR RISK MANAGEMENT	4,116.34	431527	
TRISTAR RISK MANAGEMENT	1,199.00	431528	
			5,315.34**
SHERIFF'S FORFEITURE FUND			
HERNANDEZ OFFICE SUPPLY, INC.	220.17	431435	
OFFICE DEPOT	493.98	431452	
			714.15**
DISTRICT CRT RECORDS TECH			
FRED PRYOR SEMINARS & CAREER TRACK	398.00	431458	
TAC - TEXAS ASSN. OF COUNTIES	640.00	431474	
			1,038.00**
MARINE DIVISION			
CERTIFIED LABORATORIES	149.28	431418	
ENTERGY	476.67	431430	
JACK BROOKS REGIONAL AIRPORT	329.62	431440	
AT&T	81.78	431470	
TED'S UPHOLSTERY	350.00	431497	
PUMP TEX, INC.	342.40	431514	
SILSBEE FORD INC	35,551.39	431583	
			37,281.14**
			443,995.08***

ELECTION SERVICES CONTRACT AND LEASE AGREEMENT
BETWEEN JEFFERSON COUNTY CLERK
AND
City of Beaumont and Beaumont Independent School District

This agreement made and entered into, by and between Jefferson County, hereinafter referred to as "County", acting herein by and through its **County Election Officer, Carolyn Guidry, County Clerk**, and **City of Beaumont and Beaumont Independent School District** hereinafter referred to as "Political Subdivision", acting herein by and through its Board. **WHEREAS**, Political Subdivision is required to conduct an election on **May 6, 2017**;

THIS CONTRACT is made this 20TH day of MARCH, 2017 by and between the Political Subdivision of **City of Beaumont and Beaumont Independent School District** , hereinafter called "Political Subdivision" and Jefferson County, Texas, by its County Elections Officer, **Carolyn Guidry**, hereinafter called "Contracting Officer," pursuant to Texas Election Code Section 31.092. The parties agree to enter into a joint election agreement with each other in accordance with Chapter 271 of the Texas Election Code and this Agreement. This Agreement is entered into in consideration of the mutual covenants and promises hereinafter set out:

1. **RECITALS.** Contracting Officer is the County Clerk of Jefferson County, Texas, and is the County Officer in charge of election duties. Political Subdivision is a political entity situated wholly or partially within Jefferson County, Texas. Political Subdivision and Contracting Officer have determined that it is in the public interest of Jefferson County voters that the following contract be made and entered into for the purpose of having Contracting Officer furnish to Political Subdivision certain election services and equipment needed by Political Subdivision in connection with the holding of its May 6, 2017, Election. Jefferson County's certified Hart InterCivic electronic voting equipment is to be used in this Political Subdivision Election.

2. **DUTIES AND SERVICES OF CONTRACTING OFFICER.** Contracting Officer shall be responsible for performing the following duties and shall furnish the following services and equipment:

(a) Prepare and test all electronic voting equipment, format ballot styles, secure audio, oversee all equipment and voter registration database programming, assure compliance with equipment security requirements. Arrange for transport of equipment to and from polling locations.

(b) Procure election kits and supplies and distribute to the precinct judges and early voting deputies. Obtain from the Tax -Assessor /Voter Registrar lists of registered voters to be used in conducting the election in conformity with the boundaries of Political Subdivision and the election precincts established for the election. The Election Day list of registered voters shall be arranged in alphabetical order.

(c) Publish legal notice of the date, time and place of the public logic and accuracy test. Prepare

test materials and conduct internal election testing, public logic and accuracy test, and tests of tabulation equipment.

(d) Arrange for tabulation personnel, and all equipment and supplies needed at central counting station. Tabulate early voting, election night, paper mail ballots and provisional ballots. Tabulate unofficial returns and assist in preparing the tabulation for the official canvass. Provide Political Subdivision its voter history report following the election if requested.

(e) Any requests for early voting ballots to be voted by mail received by Contracting Officer must be hand delivered or faxed to Political Subdivision on the day of receipt. If the application is faxed, the original application must be mailed to Political Subdivision. Political Subdivision will process applications, mail appropriate ballots, and assemble for processing by the Early Voting Ballot Board.

(f) Maintain accurate records of all expenses incurred in connection with the responsibilities under this Agreement and provide Political Subdivision a final invoice after the conduct of the election. Provide any detailed backup to such invoice, if requested, reflecting the charges or components of the costs set forth on the invoice submitted to Political Subdivision.

(g) The Contracting Office is responsible for Counting Station staffing and payroll. The Contracting Officer will also pay the aforementioned for their services and time in accordance with their rate of pay policy.

(h) Contracting Officer shall conduct a manual count as prescribed by Section 127.201 of the Texas Election Code, unless waived by the Secretary of State. A written report shall be submitted to the Secretary of State as required by Section 127.201(E) of the aforementioned Election Code. If requested, Contracting Officer shall provide a written report to Political Subdivision in a timely manner.

(i) The Contracting Officer shall place the funds paid by Political Subdivision hereunder in a "contract fund" as prescribed by Section 31.100 of the Texas Election Code.

3. **DUTIES AND SERVICES OF POLITICAL SUBDIVISION**. Political Subdivision shall be responsible for performing the following duties:

(a) Prepare all election orders, resolutions, notices, and other pertinent documents for adoption and execution by the appropriate Political Subdivision officer or body. Take all actions necessary for calling the Political Subdivision Election which are required by the Texas Election Code and/or the Political Subdivision's governing body, charter, ordinances, or other applicable laws. Execute an Election Services Contract Agreement with Jefferson County Clerk for the purpose of election administration. Serve as Custodian of Records for all election records in its possession as provided by law.

(b) Political Subdivision shall be responsible for the legal sufficiency of any order calling their election. Political Subdivision shall be responsible for all substantive and procedural legal

issues governing the conduct of their election. Political Subdivision understands and agrees that Contracting Officer provides no legal advice to Political Subdivision.

(c) Adopt the county voting precincts for this election. Political Subdivision shall adopt any of the early voting locations used by the county located in the Political Subdivision's jurisdictional boundaries and may add any additional locations and adopt all early voting dates, and hours recommended by the Contracting Officer in accordance with the Texas Election Code as listed on **Exhibit A – Early Voting Locations**. Political Subdivision shall adopt the Election Day Vote Center polling locations on the attached **Exhibit B – Election Day Vote Centers** for each county voting precinct that is within its jurisdictional boundaries. All twenty (20) locations must be adopted in order to maintain status as Vote Centers. Political Subdivision shall confirm the accuracy of its jurisdictional boundaries and precincts.

(d) Notify and coordinate presiding election judges, alternate judges, and all other election officials required to administer this Election with the exception of the Counting station personnel. Make emergency appointments of election workers if necessary.

(e) Arrange for poll worker training through a third party or conduct necessary training. Notify all Early Voting and Election Day officials of the date, time and place thereof.

(f) Arrange for the use of Early Voting locations and Election Day polling locations. If emergency replacement polling locations are needed, Political Subdivision shall make necessary alternate arrangements to locate another public place (or if unavailable, a private building).

(g) Serve as Early Voting Clerk for this Joint Election and process mail ballots for any eligible voter, who applies for a ballot by mail including all eligible FPCA applicants. Supervise the conduct of early voting in person and appoint sufficient personnel to serve as deputy early voting clerks. Maintain and provide copies of all annual mail ballot applications for the County elections.

(h) Prepare, post and publish all required election notices for Political Subdivision. In addition, if this election's polling locations are different than Political Subdivision's previous election, Political Subdivision shall post notice at the entrance to any previous polling places in its jurisdiction stating that the location has changed and provide the polling location and address for those voters for this election, pursuant to Texas Election Code Section 43.062. Educate the voters in Political Subdivision on early voting times and places and Election Day polling locations.

(i) Political Subdivision shall confirm with Tax-Assessor/Voter Registrar its boundaries, county voting precincts and street details within those boundaries. Political Subdivision will validate all boundaries are defined properly within Jefferson County voter registration database, maps and street lists with block ranges and odd/even/both indicators before the coding and programming of the ballot begins. If changes are necessary after programming has begun, the Political Subdivision responsible will incur the cost of re-programming for all entities involved. Political Subdivision must proof and approve all programming work done for the jurisdiction according to the attached **Exhibit C- CALENDAR**

(j) Deliver to Contracting Officer, according to the attached **Exhibit C - CALENDAR,** ballot language with Spanish translations, candidate names or measures, the order in which they are to be printed on the ballot with the exact form and spelling. Provide pronunciation for difficult names or words to use on the audio recording. Timely review and sign off on ballot proofs.

(k) Provide information services for voters and election officers.

(l) Pay prorated additional costs incurred by Contracting Officer if a recount for said election is required, the election is contested in any manner, or a runoff is required.

(m) Canvass the returns and declare the election results for Political Subdivision. Political Subdivision is responsible for filing any precinct reports required by the Secretary of State.

(n) Serve as Custodian of Records for election records and provide for the retention of said election records as provided by law.

(o) The deposit will be waived for this Election Agreement for all Political Subdivisions. All costs will be assessed according to attached schedule on **Exhibit D – Contract Costs** and a detailed billed will be rendered within 30 days after the canvassing of the election or the receipt of all invoices needed to validate the billing. Any discrepancies in billing should be addressed immediately.

(p) **City of Beaumont and Beaumont Independent School District** agree to enter into a Joint Election Agreement in compliance with SECTION 11.0581. Subchapter C, Chapter 11, Education Code if said entities call for an election on May 6, 2017.

4. **COST OF SERVICES.** Political Subdivision shall share some expenses for the above services, supplies and equipment. Only the actual expenses directly attributable to this Agreement and any prorated shared expenses may be charged to Political Subdivision, plus a 10% administrative fee.

5. **GENERAL CONDITIONS.**

(a) The parties agree that the timing is critical on all duties in this Agreement. Lack of adherence to any deadline in the CALENDAR without prior agreement of Contracting Officer may result in cancellation of Contracting Officer's duties and obligations to conduct Political Subdivision's election under this Agreement or, at the discretion of Contracting Officer, a late penalty surcharge in an amount not to exceed 10% of the final election cost. Adherence to the CALENDAR is critical because of Jefferson County's obligation to complete all programming and testing and to process, and print/order the mail military and overseas ballots by state/federal deadlines to be provided to the Early Voting Clerk.
(b) In accordance with Section 31.098 of the Texas Election Code, Contracting Officer is authorized to contract with third persons for election services and supplies and is authorized to

hire necessary temporary personnel to perform contracted duties. Part-time personnel will be compensated at the hourly rate set by Jefferson County.

(c) Political Subdivision acknowledges that electronic voting equipment is highly technical and it is conceivable that, despite the best effort of the parties and technical assistance, it might fail during the election. Contracting Officer will do whatever is possible to remedy the situation, but Political Subdivision agrees that should such equipment fail, it will not make any claim for damages of any kind.

(d) Any qualified voter in the Joint Election may vote early by personal appearance at any of the joint early voting locations or at any Vote Center/Polling Location on Election Day.

(e) Jefferson County Elections Department may contract with numerous political entities for the Joint Election, and the parties agree that all ballot styles will be programmed into one electronic voting system. Each voter will receive one ballot which contains all races and issues in the Joint Election for which the voter is eligible at the address and in the precinct in which the voter is currently registered. One joint voter sign in process consisting of a common list of registered voters and common signature rosters shall be used in precincts in which the county polling locations are used.

(f) The Contracting Officer shall file copies of this Agreement with the Auditor and Treasurer of Jefferson County not later than the 10th day from receipt of the fully executed contract by Contracting Officer.

(g) Jefferson County is self-insured for personal liability issues. Should Political Subdivision desire insurance for injuries during this election or other liabilities, entity shall make such arrangements separate from this Agreement.

(h) In the event that the performance by Contracting Officer of any of its obligations hereunder shall be interrupted or delayed by any occurrence not occasioned by its own conduct, whether such occurrence be an act of God or the result of war, riot, civil commotion, sovereign conduct, or the act or condition of any persons not a party thereof, then it shall be excused from such performance for such period of time as is reasonably necessary after such occurrence to remedy the effects thereof.

(i) The parties to this Agreement agree that Political Subdivision may cancel this Agreement in the event that it has no need to conduct an election by 60th day before Election Day. If Political Subdivision's election is cancelled after deadline, a $200 contract preparation and processing fee will be due in addition to any costs incurred by Contracting Officer on behalf of Political Subdivision prior to said cancellation.

(j) The Political Subdivision has the option of extending the terms of this Agreement through its runoff election, if applicable. Political Subdivision may reduce the number of the adopted early voting locations and/or Election Day voting locations in which precincts are not involved in a runoff election. In the event of a runoff which Political Subdivision wants Contracting Officer to conduct, Political Subdivision agrees to attempt to coordinate the date with other

entities participating in this Joint Election. If Political Subdivision elects to have Contracting Officer conduct a runoff election, the cost will be determined by the number of entities participating and the actual costs plus administrative fees. Political Subdivision will be responsible for all orders, notices, and publications required for their runoff except the publication of the public logic and accuracy test which Contracting Officer will publish.

6. DISPUTE RESOLUTION PROCEDURE

The parties agree to use dispute resolution process provided for in Chapter 2260 of the Texas Government Code to attempt to resolve all disputes arising under this Agreement. Either party must give written notice to the other party of a claim for breach of this Agreement not later than the 180th day after the date of the event, giving rise to the claim. By their execution of their Agreement, the parties acknowledge and knowingly and voluntarily agree that neither the execution of this Agreement; nor the conduct, act or inaction by any person in the execution, administration, or performance of this Agreement constitutes or is intended to constitute a waiver of the party's immunity from suit with respect to claims of third parties.

7. ENTIRE AGREEMENT/AMENDMENT

This Agreement constitutes the entire agreement between the **City of Beaumont, Beaumont Independent School District** and Contracting Officer. This Agreement may be amended only in writing and signed by the parties.

8. NOTICES

Except as otherwise provided in this section, all notices, consents, approvals, demands, request, or other communications provided for or permitted to be given under any of the provisions of this Agreement shall be in writing and shall be deemed to have duly given or served when delivered by hand delivery or when deposited in the U.S. mail by registered or certified mail, return receipt requested, postage prepaid, and addressed as set forth below or to such other person or address as may be given in writing by either party to the other in accordance with this section:

City of Beaumont, Texas**:**

Tina Broussard, City Clerk
801 main Beaumont
Beaumont, Texas 77701

IN WITNESS WHEREOF, each of the parties agrees to the terms of this Agreement and has caused this Agreement to be executed on the 7th day of February, 2017.

City of Beaumont, Texas

By: _____

Name: Kyle Hayes

Title: City Manager

Attest: Tina Broussard

(seal)

IN WITNESS WHEREOF, each of the parties agrees to the terms of this Agreement and has caused this Agreement to be executed on the _____ day of _____, 2017.

Jefferson County, Texas

By _____

Name: Jeff Branick

Title: County Judge

Attest _____

(seal)

IN WITNESS WHEREOF, each of the parties agrees to the terms of this Agreement and has caused this Agreement to be executed on the 20th day of MARCH, 2017.

Jefferson County, Texas

By: _____

Name: Carolyn L. Guidry

Title: County Clerk

Attest: _____

(seal)

IN WITNESS WHEREOF, each of the parties agrees to the terms of this Agreement and has caused this Agreement to be executed on the 17th day of February, 2017.

Beaumont Independent School District

By: _____
Name: Jimmy Simmons
Title: Board President

Attest: Georgia C. Antoine

GEORGIA C. ANTOINE
Notary Public, State Of Texas
My Commission Expires
08-03-2018
(Seal)

IN WITNESS WHEREOF, each of the parties agrees to the terms of this Agreement and has caused this Agreement to be executed on the 20TH day of MARCH, 2017.

Jefferson County, Texas

By _____
Name: Jeff Branick
Title: County Judge

Attest Carolyn L Guidry

COMMISSIONERS COURT
JEFFERSON COUNTY, TEXAS
(seal)

IN WITNESS WHEREOF, each of the parties agrees to the terms of this Agreement and has caused this Agreement to be executed on the 20TH day of MARCH, 2017.

Jefferson County, Texas

By: Carolyn L Guidry
Name: Carolyn L. Guidry
Title: County Clerk

Attest: _____

COUNTY COURT OF
JEFFERSON COUNTY, TEXAS
(seal)

9

EXHIBIT A

NOTICE OF EARLY VOTING LOCATIONS
FOR MAY 6, 2017, JOINT POLITICAL SUBDIVISIONS ELECTION
[City of Beaumont, and Beaumont Independent School District]

(AVISO de LOCALIZACIONES Y de HORAS de VOTACIÓN ADELANTADA
PARA EL 17 DE MAYO DE 2017, ELECCIÓN DE SUBDIVISIÓN POLÍTICA CONJUNTA

[Incluye la ciudad de Beaumont, y Escuela Independiente del Distrito Beaumont]

EARLY VOTING LOCATIONS:
(Localizaciones de Votaciones Adelantada):

Beaumont City Hall-Main location	**801 Main St., Beaumont, Texas**
Rogers Park Recreation Center	**6540 Gladys, Beaumont, Texas**
Theodore Johns Library	**4255 Fannett Rd., Beaumont, Texas**
North End Community Center	**3580 E Lucas, Beaumont, Texas**
BISD Administration Bldg.	**3395 Harrison, Beaumont, Texas**

DATES AND HOURS FOR ALL ABOVE LOCATIONS:
(Fechas y Horas para todas las localizaciones):

April 24 – 28 *(Abril 29 – 28)*	Monday - Friday *(Lunes* - Viernes*)*	8:00 a.m. - 5:00 p.m. *8:00 a.m. – 5:00 p.m.*
April 29 *(Abril 29)*	*Saturday* *Sábado*	7:00 a.m. - 7:00 p.m. *7:00 a.m. - 7:00 p.m*
April 30 *(Abril 30)*	Sunday *Domingo*	12:00p.m. – 5:00 p.m. *12:00p.m. – 5:00 p.m.*
May 1 - 2 (*Mayo 1 – 2*)	Monday - Tuesday (*Lunes – Martes*)	7:00 a.m. - 7:00 p.m. *7:00 a.m. - 7:00 p.m.*

EXHIBIT B

Precincts (precintos)	Election Day Polling Places (Localizaciones)	ADDRESS (Dirección)	City, State Zip code
ALL (todos)	Amelia Elementary School	565 S. Major Dr	Beaumont, TX 77707
ALL (todos)	Beaumont Municipal Airport	455 Keith Rd.	Beaumont, TX 77713
ALL (todos)	Bevil Oaks Civic Center	7390 Sweetgum Rd.	Bevil Oaks, TX 77713
ALL (todos)	BISD Administration Building	3395 Harrison Ave.	Beaumont, TX 77706
ALL (todos)	Wesley United Methodist Church	3810 N Major Dr.	Beaumont, TX 77713
ALL (todos)	Dishman Elementary	3475 Champions Dr.	Beaumont, TX 77707
ALL (todos)	O.C. Mike Taylor Career Center	2330 North St.	Beaumont, TX 77702
ALL (todos)	Rogers Park Community Center	6540 Gladys Ave.	Beaumont, TX 77706
ALL (todos)	Roy Guess Elementary	8055 Voth Rd.	Beaumont, TX 77708
ALL (todos)	Jerry Ware Airport Terminal	5000 Jerry Ware Dr.	Beaumont, TX 77705
ALL (todos)	LaBelle-Fannett VFD	12880 FM 365	Beaumont, TX 77705
ALL (todos)	Memorial 9th Grade Academy	2441 61st St.	Port Arthur, TX 77642
ALL (todos)	Alice Keith Park Recreation Center	4075 Highland Ave.	Beaumont, TX 77705
ALL (todos)	Charlton-Pollard Elementary	825 Jackson St.	Beaumont, TX 77701
ALL (todos)	Dr. Mae Jones-Clark Elementary	3525 Cleveland St.	Beaumont, TX 77703
ALL (todos)	Jefferson County Courthouse	1001 Pearl St.	Beaumont, TX 77701
ALL (todos)	MLK Middle School	1400 Avenue A	Beaumont, TX 77701
ALL (todos)	John Paul Davis Community Center	3580 E. Lucas Dr.	Beaumont, TX 77703
ALL (todos)	Precinct 4 Service Center	7780 Boyt Rd.	Beaumont, TX 77713
ALL (todos)	Sterling Pruitt Center	2930 Gulf St.	Beaumont, TX 77703
ALL (todos)	Theodore Johns Library	4255 Fannett Rd.	Beaumont, TX 77705

EXHIBIT C
CALENDAR

The Political Subdivision agrees that timing is critical, and lack of adherence to this CALENDAR without prior agreement of Contracting Officer may result in additional charges or cancellation of Contracting Officer's duties and obligations to conduct Political Subdivision's election under this Contract.

School Districts must adhere to all deadlines, even if on Spring Break.

Please refer to the Texas Secretary of State's website for a complete calendar of events including citations to the Texas Election Code and for information specific to entity type. Confer with your attorney on any statutes that govern your entity. Please comply with all orders, postings and notices as required for your Political Subdivision. Contracting Officer will provide the publication of one Notice of Public Test in English and Spanish.

JANUARY 1, 2017

Prior to January 1, 2017, each Political Subdivision is responsible for validating with the Voter Registrar that the boundaries for their voting precincts are correct and supplying the Contracting Officer with a map of such boundaries.

Monday, February 27, 2017
68th day before Election Day

Recommended date to conduct ballot position drawing
Notice of ballot position drawing must be posted for 72 hours immediately preceding time of drawing.
**Please schedule ballot drawing as soon as possible and email the BALLOT FORMAT AND ORDER OF CANDIDATES ON BALLOT to Contracting Officer at guidry@co.jefferson.tx.us. AND CC ndoyle@co.jefferson.tx.us **

Tuesday, March 7, 2017
60th day before Election Day

Last day for the governing body of a political subdivision to deliver notice of the election to the county clerk/elections administrator and voter registrar of each county in which the political subdivision is wholly or partly located (Sec. 4.008)

Deadline to notify Contracting Officer via email of the following items:

- if Political Subdivision has a **contested election**.
- **candidate names**, including **write-in candidates**.
- any **candidate withdrawals** or **election cancellation**.

- **order of candidates on ballot**. (We prefer to receive it sooner if it is available.)
- **Spanish translations** of all ballot titles, contests, and ballot language.
- **phonetic pronunciations** of all candidate names which will be used for the ballot audio recording.

Tuesday, March 7, 2017
60th day before Election Day - Continued

Deadline to **cancel election** and incur **no fees** under the Election Services Agreement

Deadline to receive executed **Election Services Agreement** by mail, personal delivery, or email.

Deadline to receive copy of **Order of Election**

Contracting Officer contact information:	
Email:	guidry@co.jefferson.tx.us
Mail:	P. O. Box 1151, Beaumont, TX 77704-1151
Hand Delivery:	1085 Pearl Street, First Floor, Beaumont, Texas 77701

If additional time is needed because of meeting schedules, please notify us.

****Deadlines for ballot proofing and ballot approval will be emailed with ballot proofs. The parties must adhere to deadlines of 24 hour turnaround time, even if they occur during Spring Break, in order for our office to meet the State and Federal deadlines to produce mail military and overseas ballots for the Early Voting Clerk.****

Wednesday, March 22, 2017
45th day before Election Day
Deadline to mail ballots to military or overseas voters who submitted their ballot request via a federal postcard application (FPCA) or via a standard application for ballot by mail and indicated that they are outside the United States. Ballots must be mailed by this date or the 7th day after the clerk receives the application. If the early voting clerk cannot meet this 45th-day deadline, the clerk must notify the Secretary of State within 24 hours. (Sec. 86.004(b)).

Thursday, April 6, 2017
30th day before Election Day
Last day to register to vote or make a change of address effective for the May 7, 2016 election (Secs. 13.143, 15.025)
First day of period during which notice of election must be published if the method of giving notice is **not** specified by a law outside the Election Code, and **publication** is the selected method of giving notice. (Sec. 4.003(a)(1)). The notice of election ordered by an authority of a

city or school district must be given by publication in a newspaper in addition to any other method specified. (Secs. 4.003(c) and (d))

Monday, April 17, 2017
19th day before Election Day
Last day to post notice of election on bulletin board used for posting notices of meetings of governing body (Sec. 4.003(b)). A Record of Posting Notice of Election (PDF) should be completed at the time of posting. (Sec. 4.005)

Monday, April 24, 2017
12th day before Election Day
First day to vote early in person (Sec. 85.001(a))

NOTE - Political Subdivisions Other than Cities and Counties: Early voting in person must be conducted at least eight (8) hours each weekday that is not a legal state holiday unless the political subdivision has fewer than 1,000 registered voters, in which case early voting in person must be conducted at least three (3) hours per day. (Sec. 85.005(b)).
NOTE – Cities and counties: Early voting in person must be conducted on the weekdays of the early voting period and during the hours that the county clerk's or city secretary's main business office is regularly open for business. (Sec. 85.005(a)). However, because cities and counties must have office hours for election-related business at least three (3) hours every business day for this type of election, we harmonize these requirements with the result that, if a city or county is not regularly open for business on one or more weekdays, on those "closed" days, a city or county must conduct early voting for at least three (3) hours a day at the main early voting location (except for a city's two 12-hour days, when it must be open for the full 12 hours).
NOTE - Cities: Cities **must** choose two (2) weekdays for the main early voting polling place location to be open for 12 hours during the regular early voting period. City council must choose the two weekdays. (Sec. 85.005(d)).
NOTE - Independent School Districts: Despite the change in state law that allows an ISD to be closed on school holidays during the mandatory office hours period, you are **required** to be open during the entire early voting period, except on legal state and national holidays.
NOTE - Joint Elections: If entities are conducting early voting by personal appearance jointly, we *recommend* a unified schedule covering all requirements; i.e., no entity's requirements should be neglected or subtracted as a result of a joint agreement.

Wednesday, April 26, 2017
10th day before Election Day
Last day of period during which notice of election must be published if method of giving notice is not specified by a law outside the Election Code and publication is the selected method of giving notice. (Sec. 4.003(a)(1)). The notice of election ordered by a commissioners court or by an authority of a city or school district, must be given by publication in a newspaper in addition to any other method specified. (Secs. 4.003(c) and (d))

Last day to mail a copy of the notice of election to each registered voter in the county if method of giving notice is not specified by a law outside the Election Code and this method of giving notice is selected. (Secs. 1.006, 4.003(a)(3)).

Cities and Counties – Weekend Early Voting Hours - Notice Requirement: Last day to post notice on bulletin board used for posting notice of city council or commissioners court, if early voting will be conducted on Saturday (Sec. 85.007). Notice must be posted at least 72 hours before early voting begins on a Saturday or Sunday. Notice must also be posted to the political subdivision's website, if one is maintained.

NOTE - NEW LAW: Section 85.007, as amended by House Bill 2721 (2015), requires that the election notice, which includes the days and hours of early voting be posted on the political subdivision's website, if the political subdivision maintains a website.

Tuesday, May 2, 2017
4th day before Election Day
Last day to vote early by personal appearance (Sec. 85.001(a)).

Saturday, May 6, 2017
Election Day

NOTE - NEW LAW – House Bill 2354 (2015) changed the date of the May uniform election from the second Saturday in May to the first Saturday in May.

30 days from date of final invoice
Pay balance due for election services. Please make checks payable to:

Jefferson County Treasurer
P O Box 1151,
Beaumont, Texas 77704-1151

EXHIBIT D

CONTRACT COSTS

Voting Equipment	
Judge's Booth Controller	$330.00
eSlate	$330.00
Disable Access Unit (DAU)	$396.00
Privacy Booth	$20.00
Ballot Box	$5.00

Communication Devices	
EA Tablet + WIFI	$119.50
Cell Phone	$30.00

Mandatory Signs	
Large A-Frame (ID Required)	$10.00
Large A-Frame (Notices)	$10.00

PROGRAMMING	COUNTY COST
1 - 5 RACES	$1,125.00
6 - 10 RACES	$1,898.00
11-20 RACES	$2,475.00
21-40 RACES	$3,135.00
41-75 RACES	$3,960.00
76-100 RACES	$4,704.00

BALLOT PRINTING	COUNTY COST
8.5 X 11	$0.23
8.5 X 14	$0.25
8.5 X 17	$0.28
Sample Ballots	$0.06

SUPPLIES	
ELECTION KITS / w Seals EV & ED	$40.00
Mail Ballots (Per Set)	$0.75
Supply Bag Consumables (per location)	$20.00

REVISED 07/19/16

ELECTION SERVICES CONTRACT AND LEASE AGREEMENT
BETWEEN JEFFERSON COUNTY CLERK
AND
City of Beaumont and Beaumont Independent School District

This agreement made and entered into, by and between Jefferson County, hereinafter referred to as "County", acting herein by and through its **County Election Officer, Carolyn Guidry, County Clerk**, and **City of Beaumont and Beaumont Independent School District** hereinafter referred to as "Political Subdivision", acting herein by and through its Board.
WHEREAS, Political Subdivision is required to conduct an election on **May 6, 2017**;

THIS CONTRACT is made this 20TH day of MARCH, 2017 by and between the Political Subdivision of **City of Beaumont and Beaumont Independent School District** , hereinafter called "Political Subdivision" and Jefferson County, Texas, by its County Elections Officer, **Carolyn Guidry**, hereinafter called "Contracting Officer," pursuant to Texas Election Code Section 31.092. The parties agree to enter into a joint election agreement with each other in accordance with Chapter 271 of the Texas Election Code and this Agreement. This Agreement is entered into in consideration of the mutual covenants and promises hereinafter set out:

1. **RECITALS.** Contracting Officer is the County Clerk of Jefferson County, Texas, and is the County Officer in charge of election duties. Political Subdivision is a political entity situated wholly or partially within Jefferson County, Texas. Political Subdivision and Contracting Officer have determined that it is in the public interest of Jefferson County voters that the following contract be made and entered into for the purpose of having Contracting Officer furnish to Political Subdivision certain election services and equipment needed by Political Subdivision in connection with the holding of its May 6, 2017, Election. Jefferson County's certified Hart InterCivic electronic voting equipment is to be used in this Political Subdivision Election.

2. **DUTIES AND SERVICES OF CONTRACTING OFFICER.** Contracting Officer shall be responsible for performing the following duties and shall furnish the following services and equipment:

(a) Prepare and test all electronic voting equipment, format ballot styles, secure audio, oversee all equipment and voter registration database programming, assure compliance with equipment security requirements. Arrange for transport of equipment to and from polling locations.

(b) Procure election kits and supplies and distribute to the precinct judges and early voting deputies. Obtain from the Tax -Assessor /Voter Registrar lists of registered voters to be used in conducting the election in conformity with the boundaries of Political Subdivision and the election precincts established for the election. The Election Day list of registered voters shall be arranged in alphabetical order.

(c) Publish legal notice of the date, time and place of the public logic and accuracy test. Prepare

test materials and conduct internal election testing, public logic and accuracy test, and tests of tabulation equipment.

(d) Arrange for tabulation personnel, and all equipment and supplies needed at central counting station. Tabulate early voting, election night, paper mail ballots and provisional ballots. Tabulate unofficial returns and assist in preparing the tabulation for the official canvass. Provide Political Subdivision its voter history report following the election if requested.

(e) Any requests for early voting ballots to be voted by mail received by Contracting Officer must be hand delivered or faxed to Political Subdivision on the day of receipt. If the application is faxed, the original application must be mailed to Political Subdivision. Political Subdivision will process applications, mail appropriate ballots, and assemble for processing by the Early Voting Ballot Board.

(f) Maintain accurate records of all expenses incurred in connection with the responsibilities under this Agreement and provide Political Subdivision a final invoice after the conduct of the election. Provide any detailed backup to such invoice, if requested, reflecting the charges or components of the costs set forth on the invoice submitted to Political Subdivision.

(g) The Contracting Office is responsible for Counting Station staffing and payroll. The Contracting Officer will also pay the aforementioned for their services and time in accordance with their rate of pay policy.

(h) Contracting Officer shall conduct a manual count as prescribed by Section 127.201 of the Texas Election Code, unless waived by the Secretary of State. A written report shall be submitted to the Secretary of State as required by Section 127.201(E) of the aforementioned Election Code. If requested, Contracting Officer shall provide a written report to Political Subdivision in a timely manner.

(i) The Contracting Officer shall place the funds paid by Political Subdivision hereunder in a "contract fund" as prescribed by Section 31.100 of the Texas Election Code.

3. **DUTIES AND SERVICES OF POLITICAL SUBDIVISION**. Political Subdivision shall be responsible for performing the following duties:

(a) Prepare all election orders, resolutions, notices, and other pertinent documents for adoption and execution by the appropriate Political Subdivision officer or body. Take all actions necessary for calling the Political Subdivision Election which are required by the Texas Election Code and/or the Political Subdivision's governing body, charter, ordinances, or other applicable laws. Execute an Election Services Contract Agreement with Jefferson County Clerk for the purpose of election administration. Serve as Custodian of Records for all election records in its possession as provided by law.

(b) Political Subdivision shall be responsible for the legal sufficiency of any order calling their election. Political Subdivision shall be responsible for all substantive and procedural legal

issues governing the conduct of their election. Political Subdivision understands and agrees that Contracting Officer provides no legal advice to Political Subdivision.

(c) Adopt the county voting precincts for this election. Political Subdivision shall adopt any of the early voting locations used by the county located in the Political Subdivision's jurisdictional boundaries and may add any additional locations and adopt all early voting dates, and hours recommended by the Contracting Officer in accordance with the Texas Election Code as listed on **Exhibit A – Early Voting Locations**. Political Subdivision shall adopt the Election Day Vote Center polling locations on the attached **Exhibit B – Election Day Vote Centers** for each county voting precinct that is within its jurisdictional boundaries. All twenty (20) locations must be adopted in order to maintain status as Vote Centers. Political Subdivision shall confirm the accuracy of its jurisdictional boundaries and precincts.

(d) Notify and coordinate presiding election judges, alternate judges, and all other election officials required to administer this Election with the exception of the Counting station personnel. Make emergency appointments of election workers if necessary.

(e) Arrange for poll worker training through a third party or conduct necessary training. Notify all Early Voting and Election Day officials of the date, time and place thereof.

(f) Arrange for the use of Early Voting locations and Election Day polling locations. If emergency replacement polling locations are needed, Political Subdivision shall make necessary alternate arrangements to locate another public place (or if unavailable, a private building).

(g) Serve as Early Voting Clerk for this Joint Election and process mail ballots for any eligible voter, who applies for a ballot by mail including all eligible FPCA applicants. Supervise the conduct of early voting in person and appoint sufficient personnel to serve as deputy early voting clerks. Maintain and provide copies of all annual mail ballot applications for the County elections.

(h) Prepare, post and publish all required election notices for Political Subdivision. In addition, if this election's polling locations are different than Political Subdivision's previous election, Political Subdivision shall post notice at the entrance to any previous polling places in its jurisdiction stating that the location has changed and provide the polling location and address for those voters for this election, pursuant to Texas Election Code Section 43.062. Educate the voters in Political Subdivision on early voting times and places and Election Day polling locations.

(i) Political Subdivision shall confirm with Tax-Assessor/Voter Registrar its boundaries, county voting precincts and street details within those boundaries. Political Subdivision will validate all boundaries are defined properly within Jefferson County voter registration database, maps and street lists with block ranges and odd/even/both indicators before the coding and programming of the ballot begins. If changes are necessary after programming has begun, the Political Subdivision responsible will incur the cost of re-programming for all entities involved. Political Subdivision must proof and approve all programming work done for the jurisdiction according to the attached **Exhibit C- CALENDAR**

(j) Deliver to Contracting Officer, according to the attached **Exhibit C - CALENDAR,** ballot language with Spanish translations, candidate names or measures, the order in which they are to be printed on the ballot with the exact form and spelling. Provide pronunciation for difficult names or words to use on the audio recording. Timely review and sign off on ballot proofs.

(k) Provide information services for voters and election officers.

(l) Pay prorated additional costs incurred by Contracting Officer if a recount for said election is required, the election is contested in any manner, or a runoff is required.

(m) Canvass the returns and declare the election results for Political Subdivision. Political Subdivision is responsible for filing any precinct reports required by the Secretary of State.

(n) Serve as Custodian of Records for election records and provide for the retention of said election records as provided by law.

(o) The deposit will be waived for this Election Agreement for all Political Subdivisions. All costs will be assessed according to attached schedule on **Exhibit D – Contract Costs** and a detailed billed will be rendered within 30 days after the canvassing of the election or the receipt of all invoices needed to validate the billing. Any discrepancies in billing should be addressed immediately.

(p) **City of Beaumont and Beaumont Independent School District** agree to enter into a Joint Election Agreement in compliance with SECTION 11.0581. Subchapter C, Chapter 11, Education Code if said entities call for an election on May 6, 2017.

4. **COST OF SERVICES.** Political Subdivision shall share some expenses for the above services, supplies and equipment. Only the actual expenses directly attributable to this Agreement and any prorated shared expenses may be charged to Political Subdivision, plus a 10% administrative fee.

5. **GENERAL CONDITIONS.**

(a) The parties agree that the timing is critical on all duties in this Agreement. Lack of adherence to any deadline in the CALENDAR without prior agreement of Contracting Officer may result in cancellation of Contracting Officer's duties and obligations to conduct Political Subdivision's election under this Agreement or, at the discretion of Contracting Officer, a late penalty surcharge in an amount not to exceed 10% of the final election cost. Adherence to the CALENDAR is critical because of Jefferson County's obligation to complete all programming and testing and to process, and print/order the mail military and overseas ballots by state/federal deadlines to be provided to the Early Voting Clerk.
(b) In accordance with Section 31.098 of the Texas Election Code, Contracting Officer is authorized to contract with third persons for election services and supplies and is authorized to

hire necessary temporary personnel to perform contracted duties. Part-time personnel will be compensated at the hourly rate set by Jefferson County.

(c) Political Subdivision acknowledges that electronic voting equipment is highly technical and it is conceivable that, despite the best effort of the parties and technical assistance, it might fail during the election. Contracting Officer will do whatever is possible to remedy the situation, but Political Subdivision agrees that should such equipment fail, it will not make any claim for damages of any kind.

(d) Any qualified voter in the Joint Election may vote early by personal appearance at any of the joint early voting locations or at any Vote Center/Polling Location on Election Day.

(e) Jefferson County Elections Department may contract with numerous political entities for the Joint Election, and the parties agree that all ballot styles will be programmed into one electronic voting system. Each voter will receive one ballot which contains all races and issues in the Joint Election for which the voter is eligible at the address and in the precinct in which the voter is currently registered. One joint voter sign in process consisting of a common list of registered voters and common signature rosters shall be used in precincts in which the county polling locations are used.

(f) The Contracting Officer shall file copies of this Agreement with the Auditor and Treasurer of Jefferson County not later than the 10th day from receipt of the fully executed contract by Contracting Officer.

(g) Jefferson County is self-insured for personal liability issues. Should Political Subdivision desire insurance for injuries during this election or other liabilities, entity shall make such arrangements separate from this Agreement.

(h) In the event that the performance by Contracting Officer of any of its obligations hereunder shall be interrupted or delayed by any occurrence not occasioned by its own conduct, whether such occurrence be an act of God or the result of war, riot, civil commotion, sovereign conduct, or the act or condition of any persons not a party thereof, then it shall be excused from such performance for such period of time as is reasonably necessary after such occurrence to remedy the effects thereof.

(i) The parties to this Agreement agree that Political Subdivision may cancel this Agreement in the event that it has no need to conduct an election by 60th day before Election Day. If Political Subdivision's election is cancelled after deadline, a $200 contract preparation and processing fee will be due in addition to any costs incurred by Contracting Officer on behalf of Political Subdivision prior to said cancellation.

(j) The Political Subdivision has the option of extending the terms of this Agreement through its runoff election, if applicable. Political Subdivision may reduce the number of the adopted early voting locations and/or Election Day voting locations in which precincts are not involved in a runoff election. In the event of a runoff which Political Subdivision wants Contracting Officer to conduct, Political Subdivision agrees to attempt to coordinate the date with other

entities participating in this Joint Election. If Political Subdivision elects to have Contracting Officer conduct a runoff election, the cost will be determined by the number of entities participating and the actual costs plus administrative fees. Political Subdivision will be responsible for all orders, notices, and publications required for their runoff except the publication of the public logic and accuracy test which Contracting Officer will publish.

6. DISPUTE RESOLUTION PROCEDURE

The parties agree to use dispute resolution process provided for in Chapter 2260 of the Texas Government Code to attempt to resolve all disputes arising under this Agreement. Either party must give written notice to the other party of a claim for breach of this Agreement not later than the 180th day after the date of the event, giving rise to the claim. By their execution of their Agreement, the parties acknowledge and knowingly and voluntarily agree that neither the execution of this Agreement; nor the conduct, act or inaction by any person in the execution, administration, or performance of this Agreement constitutes or is intended to constitute a waiver of the party's immunity from suit with respect to claims of third parties.

7. ENTIRE AGREEMENT/AMENDMENT

This Agreement constitutes the entire agreement between the **City of Beaumont, Beaumont Independent School District** and Contracting Officer. This Agreement may be amended only in writing and signed by the parties.

8. NOTICES

Except as otherwise provided in this section, all notices, consents, approvals, demands, request, or other communications provided for or permitted to be given under any of the provisions of this Agreement shall be in writing and shall be deemed to have duly given or served when delivered by hand delivery or when deposited in the U.S. mail by registered or certified mail, return receipt requested, postage prepaid, and addressed as set forth below or to such other person or address as may be given in writing by either party to the other in accordance with this section:

City of Beaumont, Texas**:**

Tina Broussard, City Clerk
801 main Beaumont
Beaumont, Texas 77701

IN WITNESS WHEREOF, each of the parties agrees to the terms of this Agreement and has caused this Agreement to be executed on the 7th day of February, 2017.

City of Beaumont, Texas

By: _____
Name: Kyle Hayes
Title: City Manager

Attest: Tina Broussard

THE CITY OF BEAUMONT, JEFFERSON COUNTY, TEXAS
BEAUMONT, TEXAS
(seal)

IN WITNESS WHEREOF, each of the parties agrees to the terms of this Agreement and has caused this Agreement to be executed on the _____ day of _____, 2017.

Jefferson County, Texas

By _____
Name: Jeff Branick
Title: County Judge

Attest _____

COMMISSIONERS COURT
JEFFERSON COUNTY, TEXAS
(seal)

IN WITNESS WHEREOF, each of the parties agrees to the terms of this Agreement and has caused this Agreement to be executed on the 20th day of March, 2017.

Jefferson County, Texas

By: _____
Name: Carolyn L. Guidry
Title: County Clerk

Attest: _____

COUNTY COURT OF
JEFFERSON COUNTY, TEXAS
(seal)

IN WITNESS WHEREOF, each of the parties agrees to the terms of this Agreement and has caused this Agreement to be executed on the 17th day of February, 2017.

Beaumont Independent School District

By: _____
Name: Jimmy Simmons
Title: Board President

Attest: Georgia C. Antoine

GEORGIA C. ANTOINE
Notary Public, State Of Texas
My Commission Expires
08-03-2018
(Seal)

IN WITNESS WHEREOF, each of the parties agrees to the terms of this Agreement and has caused this Agreement to be executed on the 20TH day of MARCH, 2017.

Jefferson County, Texas

By _____
Name: Jeff Branick
Title: County Judge

Attest Carolyn L Guidry

COMMISSIONERS COURT
JEFFERSON COUNTY, TEXAS
(seal)

IN WITNESS WHEREOF, each of the parties agrees to the terms of this Agreement and has caused this Agreement to be executed on the 20TH day of MARCH, 2017.

Jefferson County, Texas

By: Carolyn L Guidry
Name: Carolyn L. Guidry
Title: County Clerk

Attest: _____

COUNTY COURT OF
JEFFERSON COUNTY, TEXAS
(seal)

9

EXHIBIT A

NOTICE OF EARLY VOTING LOCATIONS
FOR MAY 6, 2017, JOINT POLITICAL SUBDIVISIONS ELECTION
[City of Beaumont, and Beaumont Independent School District]

(AVISO de LOCALIZACIONES Y de HORAS de VOTACIÓN ADELANTADA
PARA EL 17 DE MAYO DE 2017, ELECCIÓN DE SUBDIVISIÓN POLÍTICA CONJUNTA

[Incluye la ciudad de Beaumont, y Escuela Independiente del Distrito Beaumont]

EARLY VOTING LOCATIONS:
(Localizaciones de Votaciones Adelantada):

Beaumont City Hall-Main location	**801 Main St., Beaumont, Texas**
Rogers Park Recreation Center	**6540 Gladys, Beaumont, Texas**
Theodore Johns Library	**4255 Fannett Rd., Beaumont, Texas**
North End Community Center	**3580 E Lucas, Beaumont, Texas**
BISD Administration Bldg.	**3395 Harrison, Beaumont, Texas**

DATES AND HOURS FOR ALL ABOVE LOCATIONS:
(Fechas y Horas para todas las localizaciones):

April 24 – 28 *(Abril 29 – 28)*	Monday - Friday *(Lunes* - Viernes*)*	8:00 a.m. - 5:00 p.m. *8:00 a.m. – 5:00 p.m.*
April 29 *(Abril 29)*	*Saturday* *Sábado*	7:00 a.m. - 7:00 p.m. *7:00 a.m. - 7:00 p.m*
April 30 *(Abril 30)*	Sunday *Domingo*	12:00p.m. – 5:00 p.m. *12:00p.m. – 5:00 p.m.*
May 1 - 2 (*Mayo 1 – 2*)	Monday - Tuesday (*Lunes – Martes*)	7:00 a.m. - 7:00 p.m. *7:00 a.m. - 7:00 p.m.*

EXHIBIT B

Precincts (precintos)	Election Day Polling Places (Localizaciones)	ADDRESS (Dirección)	City, State Zip code
ALL (todos)	Amelia Elementary School	565 S. Major Dr	Beaumont, TX 77707
ALL (todos)	Beaumont Municipal Airport	455 Keith Rd.	Beaumont, TX 77713
ALL (todos)	Bevil Oaks Civic Center	7390 Sweetgum Rd.	Bevil Oaks, TX 77713
ALL (todos)	BISD Administration Building	3395 Harrison Ave.	Beaumont, TX 77706
ALL (todos)	Wesley United Methodist Church	3810 N Major Dr.	Beaumont, TX 77713
ALL (todos)	Dishman Elementary	3475 Champions Dr.	Beaumont, TX 77707
ALL (todos)	O.C. Mike Taylor Career Center	2330 North St.	Beaumont, TX 77702
ALL (todos)	Rogers Park Community Center	6540 Gladys Ave.	Beaumont, TX 77706
ALL (todos)	Roy Guess Elementary	8055 Voth Rd.	Beaumont, TX 77708
ALL (todos)	Jerry Ware Airport Terminal	5000 Jerry Ware Dr.	Beaumont, TX 77705
ALL (todos)	LaBelle-Fannett VFD	12880 FM 365	Beaumont, TX 77705
ALL (todos)	Memorial 9th Grade Academy	2441 61st St.	Port Arthur, TX 77642
ALL (todos)	Alice Keith Park Recreation Center	4075 Highland Ave.	Beaumont, TX 77705
ALL (todos)	Charlton-Pollard Elementary	825 Jackson St.	Beaumont, TX 77701
ALL (todos)	Dr. Mae Jones-Clark Elementary	3525 Cleveland St.	Beaumont, TX 77703
ALL (todos)	Jefferson County Courthouse	1001 Pearl St.	Beaumont, TX 77701
ALL (todos)	MLK Middle School	1400 Avenue A	Beaumont, TX 77701
ALL (todos)	John Paul Davis Community Center	3580 E. Lucas Dr.	Beaumont, TX 77703
ALL (todos)	Precinct 4 Service Center	7780 Boyt Rd.	Beaumont, TX 77713
ALL (todos)	Sterling Pruitt Center	2930 Gulf St.	Beaumont, TX 77703
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EXHIBIT C
CALENDAR

The Political Subdivision agrees that timing is critical, and lack of adherence to this CALENDAR without prior agreement of Contracting Officer may result in additional charges or cancellation of Contracting Officer's duties and obligations to conduct Political Subdivision's election under this Contract.

School Districts must adhere to all deadlines, even if on Spring Break.

Please refer to the Texas Secretary of State's website for a complete calendar of events including citations to the Texas Election Code and for information specific to entity type. Confer with your attorney on any statutes that govern your entity. Please comply with all orders, postings and notices as required for your Political Subdivision. Contracting Officer will provide the publication of one Notice of Public Test in English and Spanish.

JANUARY 1, 2017

Prior to January 1, 2017, each Political Subdivision is responsible for validating with the Voter Registrar that the boundaries for their voting precincts are correct and supplying the Contracting Officer with a map of such boundaries.

Monday, February 27, 2017
68th day before Election Day

Recommended date to conduct ballot position drawing
Notice of ballot position drawing must be posted for 72 hours immediately preceding time of drawing.
**Please schedule ballot drawing as soon as possible and email the BALLOT FORMAT AND ORDER OF CANDIDATES ON BALLOT to Contracting Officer at guidry@co.jefferson.tx.us. AND CC ndoyle@co.jefferson.tx.us **

Tuesday, March 7, 2017
60th day before Election Day

Last day for the governing body of a political subdivision to deliver notice of the election to the county clerk/elections administrator and voter registrar of each county in which the political subdivision is wholly or partly located (Sec. 4.008)

Deadline to notify Contracting Officer via email of the following items:

- if Political Subdivision has a **contested election**.
- **candidate names**, including **write-in candidates**.
- any **candidate withdrawals** or **election cancellation**.

- **order of candidates on ballot**. (We prefer to receive it sooner if it is available.)
- **Spanish translations** of all ballot titles, contests, and ballot language.
- **phonetic pronunciations** of all candidate names which will be used for the ballot audio recording.

Tuesday, March 7, 2017
60th day before Election Day - Continued

Deadline to **cancel election** and incur **no fees** under the Election Services Agreement

Deadline to receive executed **Election Services Agreement** by mail, personal delivery, or email.

Deadline to receive copy of **Order of Election**

Contracting Officer contact information:	
Email:	guidry@co.jefferson.tx.us
Mail:	P. O. Box 1151, Beaumont, TX 77704-1151
Hand Delivery:	1085 Pearl Street, First Floor, Beaumont, Texas 77701

If additional time is needed because of meeting schedules, please notify us.

****Deadlines for ballot proofing and ballot approval will be emailed with ballot proofs. The parties must adhere to deadlines of 24 hour turnaround time, even if they occur during Spring Break, in order for our office to meet the State and Federal deadlines to produce mail military and overseas ballots for the Early Voting Clerk.****

Wednesday, March 22, 2017
45th day before Election Day
Deadline to mail ballots to military or overseas voters who submitted their ballot request via a federal postcard application (FPCA) or via a standard application for ballot by mail and indicated that they are outside the United States. Ballots must be mailed by this date or the 7th day after the clerk receives the application. If the early voting clerk cannot meet this 45th-day deadline, the clerk must notify the Secretary of State within 24 hours. (Sec. 86.004(b)).

Thursday, April 6, 2017
30th day before Election Day
Last day to register to vote or make a change of address effective for the May 7, 2016 election (Secs. 13.143, 15.025)
First day of period during which notice of election must be published if the method of giving notice is **not** specified by a law outside the Election Code, and **publication** is the selected method of giving notice. (Sec. 4.003(a)(1)). The notice of election ordered by an authority of a

city or school district must be given by publication in a newspaper in addition to any other method specified. (Secs. 4.003(c) and (d))

Monday, April 17, 2017
19th day before Election Day
Last day to post notice of election on bulletin board used for posting notices of meetings of governing body (Sec. 4.003(b)). A Record of Posting Notice of Election (PDF) should be completed at the time of posting. (Sec. 4.005)

Monday, April 24, 2017
12th day before Election Day
First day to vote early in person (Sec. 85.001(a))

NOTE - Political Subdivisions Other than Cities and Counties: Early voting in person must be conducted at least eight (8) hours each weekday that is not a legal state holiday unless the political subdivision has fewer than 1,000 registered voters, in which case early voting in person must be conducted at least three (3) hours per day. (Sec. 85.005(b)).
NOTE – Cities and counties: Early voting in person must be conducted on the weekdays of the early voting period and during the hours that the county clerk's or city secretary's main business office is regularly open for business. (Sec. 85.005(a)). However, because cities and counties must have office hours for election-related business at least three (3) hours every business day for this type of election, we harmonize these requirements with the result that, if a city or county is not regularly open for business on one or more weekdays, on those "closed" days, a city or county must conduct early voting for at least three (3) hours a day at the main early voting location (except for a city's two 12-hour days, when it must be open for the full 12 hours).
NOTE - Cities: Cities **must** choose two (2) weekdays for the main early voting polling place location to be open for 12 hours during the regular early voting period. City council must choose the two weekdays. (Sec. 85.005(d)).
NOTE - Independent School Districts: Despite the change in state law that allows an ISD to be closed on school holidays during the mandatory office hours period, you are **required** to be open during the entire early voting period, except on legal state and national holidays.
NOTE - Joint Elections: If entities are conducting early voting by personal appearance jointly, we *recommend* a unified schedule covering all requirements; i.e., no entity's requirements should be neglected or subtracted as a result of a joint agreement.

Wednesday, April 26, 2017
10th day before Election Day
Last day of period during which notice of election must be published if method of giving notice is not specified by a law outside the Election Code and publication is the selected method of giving notice. (Sec. 4.003(a)(1)). The notice of election ordered by a commissioners court or by an authority of a city or school district, must be given by publication in a newspaper in addition to any other method specified. (Secs. 4.003(c) and (d))

Last day to mail a copy of the notice of election to each registered voter in the county if method of giving notice is not specified by a law outside the Election Code and this method of giving notice is selected. (Secs. 1.006, 4.003(a)(3)).

Cities and Counties – Weekend Early Voting Hours - Notice Requirement: Last day to post notice on bulletin board used for posting notice of city council or commissioners court, if early voting will be conducted on Saturday (Sec. 85.007). Notice must be posted at least 72 hours before early voting begins on a Saturday or Sunday. Notice must also be posted to the political subdivision's website, if one is maintained.

NOTE - NEW LAW: Section 85.007, as amended by House Bill 2721 (2015), requires that the election notice, which includes the days and hours of early voting be posted on the political subdivision's website, if the political subdivision maintains a website.

Tuesday, May 2, 2017
4th day before Election Day
Last day to vote early by personal appearance (Sec. 85.001(a)).

Saturday, May 6, 2017
Election Day

NOTE - NEW LAW – House Bill 2354 (2015) changed the date of the May uniform election from the second Saturday in May to the first Saturday in May.

30 days from date of final invoice
Pay balance due for election services. Please make checks payable to:

Jefferson County Treasurer
P O Box 1151,
Beaumont, Texas 77704-1151

EXHIBIT D

CONTRACT COSTS

Voting Equipment	
Judge's Booth Controller	$330.00
eSlate	$330.00
Disable Access Unit (DAU)	$396.00
Privacy Booth	$20.00
Ballot Box	$5.00

Communication Devices	
EA Tablet + WIFI	$119.50
Cell Phone	$30.00

Mandatory Signs	
Large A-Frame (ID Required)	$10.00
Large A-Frame (Notices)	$10.00

PROGRAMMING	COUNTY COST
1 - 5 RACES	$1,125.00
6 - 10 RACES	$1,898.00
11-20 RACES	$2,475.00
21-40 RACES	$3,135.00
41-75 RACES	$3,960.00
76-100 RACES	$4,704.00

BALLOT PRINTING	COUNTY COST
8.5 X 11	$0.23
8.5 X 14	$0.25
8.5 X 17	$0.28
Sample Ballots	$0.06

SUPPLIES	
ELECTION KITS / w Seals EV & ED	$40.00
Mail Ballots (Per Set)	$0.75
Supply Bag Consumables (per location)	$20.00

REVISED 07/19/16

AGENDA ITEM **March 20, 2017**

Consider and possibly approve a Professional Services Agreement by and Between Jefferson County and Texas Property Assessed Clean Energy Authority for the Pace Program in Jefferson County, Texas pursuant to Texas Local Government code Chapter 399 (the PACE Act.)

PROFESSIONAL SERVICES AGREEMENT
BY AND BETWEEN JEFFERSON COUNTY AND
TEXAS PROPERTY ASSESSED CLEAN ENERGY AUTHORITY

THIS AGREEMENT is made and entered by and between **Jefferson County**, hereinafter referred to as "**County**", and **TEXAS PROPERTY ASSESSED CLEAN ENERGY (PACE) AUTHORITY (dba Texas PACE Authority)**, a Texas non-profit business association, hereinafter referred to as "**Services Provider**" to be effective from and after the date as provided herein.

W I T N E S S E T H:

WHEREAS, The County desires to engage the services of a qualified consultant to administer a Texas Property Assessed Clean Energy program for the **County** of Jefferson pursuant to the Property Assessed Clean Energy Act ("**PACE Act**"), Texas Local Government Code Chapter 399, hereinafter referred to as the "**Project**"; and

WHEREAS, Services Provider desires to render such services for Jefferson County upon the terms and conditions provided herein –

NOW, THEREFORE, for and in consideration of the covenants contained herein, and for the mutual benefits to be obtained hereby, the parties hereto agree as follows:

I. ENGAGEMENT

Jefferson County hereby agrees to retain Services Provider to serve as administrator of Jefferson County's PACE program and Services Provider agrees to perform such services in accordance with the terms and conditions of this Agreement.

II. SCOPE OF SERVICES

The parties agree that Services Provider shall perform such services as are further described in **Exhibit "A"** hereto (collectively "**Scope of Services**"). The parties understand and agree that deviations or modifications in the Scope of Services may be authorized from time to time by Jefferson County, but said authorization must be made in writing.

III. TERM OF AGREEMENT

The initial term of this Agreement shall commence upon the complete execution of the Agreement by Jefferson County and Services Provider and it shall be reviewed bi-annually unless sooner terminated as provided herein. This Agreement contemplates administration by Services Provider of agreements between third parties for periods of time exceeding the Initial Term and any Renewal Term. Notwithstanding the expiration or earlier termination of this Agreement, Services Provider shall be permitted to continue administration of any third party agreements under the PACE program commenced prior to expiration or termination of this Agreement, and to recover any compensation due Services Provider for services performed in accordance with Section IV of this Agreement.

IV. COMPENSATION/EXPENSES

Services Provider shall be paid for performance of the Scope of Services in accordance with the compensation schedule set forth in Exhibit "A" hereto. Services Provider is entitled to payment in accordance with Exhibit "B"; however, Jefferson County shall have no obligation to pay Services Provider for performance of the Scope of Services. All payments to Services Provider shall be made by participants in the PACE program in accordance with the PACE Act.

V. INSURANCE

Services Provider agrees to meet all insurance requirements, and to require all consultants who perform work for Services Provider to meet all insurance requirements, as set forth in **Exhibit "C"** to this Agreement.

VI. INDEMNIFICATION

SERVICES PROVIDER AGREES TO INDEMNIFY AND HOLD JEFFERSON COUNTY AND ITS RESPECTIVE OFFICERS, AGENTS AND EMPLOYEES, HARMLESS AGAINST ANY AND ALL CLAIMS, LAWSUITS, JUDGMENTS, FINES, PENALTIES, COSTS AND EXPENSES FOR PERSONAL INJURY (INCLUDING DEATH), PROPERTY DAMAGE OR OTHER HARM OR VIOLATIONS FOR WHICH RECOVERY OF DAMAGES, FINES, OR PENALTIES IS SOUGHT FROM JEFFERSON COUNTY TO THE EXTENT ARISING OUT OF OR OCCASIONED BY SERVICES PROVIDER 'S BREACH OF ANY OF THE TERMS OR PROVISIONS OF THIS AGREEMENT, VIOLATIONS OF LAW BY SERVICES PROVIDER, OR BY ANY NEGLIGENT, GROSSLY NEGLIGENT, INTENTIONAL, OR STRICTLY LIABLE ACT OR OMISSION OF THE SERVICES PROVIDER, ITS OFFICERS, AGENTS, EMPLOYEES, INVITEES, SUBCONTRACTORS, OR SUB-SUBCONTRACTORS AND THEIR RESPECTIVE OFFICERS, AGENTS, OR REPRESENTATIVES, OR ANY OTHER PERSONS OR ENTITIES FOR WHICH THE SERVICES PROVIDER IS LEGALLY RESPONSIBLE IN THE PERFORMANCE OF THIS AGREEMENT. THE INDEMNITY PROVIDED FOR IN THIS PARAGRAPH SHALL NOT APPLY TO ANY LIABILITY TO THE EXTENT RESULTING FROM THE NEGLIGENCE OF JEFFERSON COUNTY, AND ITS OFFICERS, AGENTS, EMPLOYEES OR SEPARATE CONTRACTORS. JEFFERSON COUNTY DOES NOT WAIVE ANY GOVERNMENTAL IMMUNITY OR OTHER DEFENSES AVAILABLE TO IT UNDER TEXAS OR FEDERAL LAW. THE PROVISIONS OF THIS PARAGRAPH ARE SOLELY FOR THE BENEFIT OF THE PARTIES HERETO AND ARE NOT INTENDED TO CREATE OR GRANT ANY RIGHTS, CONTRACTUAL OR OTHERWISE, TO ANY OTHER PERSON OR ENTITY.

VII. INDEPENDENT CONTRACTOR

Services Provider covenants and agrees that it is an independent contractor and not an officer, agent, servant or employee of Jefferson County; that it shall have exclusive control of and exclusive right to control the details of the work performed hereunder and all persons performing same, and shall be responsible for the acts and omissions of its officers, agents, employees, contractors, subcontractors and consultants; that the doctrine of respondeat superior shall not apply as between Jefferson County and Services Provider, its officers, agents, employees, contractors, subcontractors and consultants, and nothing herein shall be

construed as creating a partnership or joint enterprise between Jefferson County and Services Provider .

VIII. ASSIGNMENT AND SUBLETTING

Services Provider agrees that this Agreement shall not be assigned without the prior written consent of Jefferson County, except to an Affiliate of Services Provider. Affiliate shall mean (1) any corporation or other entity controlling, controlled by, or under common control with (directly or indirectly) Services Provider, including, without limitation, any parent corporation controlling Services Provider or any subsidiary that Services Provider controls; (2) the surviving corporation resulting from the merger or consolidation of Services Provider ; or (3) any person or entity which acquires all of the assets of Services Provider as a going concern. Services Provider shall be permitted to enter into subcontracts for performance of portions of the Scope of Services; however, Services Provider shall not subcontract the entirety of the Scope of Services to a single subcontractor without Jefferson County consent. Services Provider further agrees that the assignment or subletting of any portion or feature of the work or materials required in the performance of this Agreement shall not relieve the Services Provider from its full obligations to Jefferson County as provided by this Agreement.

IX. AUDITS AND RECORDS

Services Provider agrees that Jefferson County or its duly authorized representatives shall, until the expiration of three (3) years after final payment under this Agreement, have access to and the right to examine and photocopy any and all books, documents, papers and records of Services Provider which are directly pertinent to the services to be performed under this Agreement for the purposes of making audits, examinations, excerpts, and transcriptions. Services Provider agrees that Jefferson County shall have access during normal working hours to all necessary Services Provider's facilities and shall be provided adequate and appropriate work space in order to conduct audits in compliance with the provisions of this section. Jefferson County shall give Services Provider reasonable advance notice of intended audits.

XI. CONTRACT TERMINATION

The parties agree that Jefferson County shall have the right to terminate this Agreement with cause upon thirty (30) days written notice to Services Provider. In the event of such termination, Services Provider shall deliver to Jefferson County all finished or unfinished documents, data, studies, surveys, drawings, maps, models, reports, photographs or other items prepared by Services Provider in connection with this Agreement. In the event of termination by Jefferson County, Services Provider shall be compensated in accordance with Section III of this Agreement with respect to any third party agreements under administration by Services Provider at the time of termination.

XII. COMPLETE AGREEMENT

This Agreement, including the Exhibits lettered "A" through "C", constitute the entire agreement by and between the parties regarding the subject matter hereof and supersedes all

prior or contemporaneous written or oral understandings. This Agreement may only be amended, supplemented, modified or canceled by a duly executed written instrument.

XIII. AMENDMENTS (Added)

Amendments to this agreement may be made at any time upon agreement by Jefferson County and Services Provider.

XIV. MAILING OF NOTICES

Unless instructed otherwise in writing, Services Provider agrees that all notices or communications to Jefferson County permitted or required under this Agreement shall be addressed to Jefferson at the following address:

County of Jefferson, Texas
Attn: Jeff R. Branick, County Judge
P.O. box 4025
Beaumont, TX 77704

Jefferson County agrees that all notices or communications to Services Provider permitted or required under this Agreement shall be addressed to Services Provider at the following address:

Texas Property Assessed Clean Energy Authority
Attn: Charlene Heydinger
98 San Jacinto Blvd., Suite 1900
Austin TX 78701

All notices or communications required to be given in writing by one party or the other shall be considered as having been given to the addressee on the date such notice or communication is posted by the sending party.

XV. AUTHORITY TO SIGN

The undersigned officers and/or agents of the parties hereto are the properly authorized officials and have the necessary authority to execute this Agreement on behalf of the parties hereto.

XVI. MISCELLANEOUS

A. This is a contract for the purchase of personal or professional services, and is therefore exempt from any competitive bidding requirements of Jefferson County.

B. Paragraph Headings:

The paragraph headings contained herein are for convenience only and are not intended to define or limit the scope of any provision in this Agreement.

C. Agreement Interpretation:

This is a negotiated Agreement, should any part be in dispute, the parties agree that the terms of the Agreement shall not be construed more favorably for either party.

D. Venue/Governing Law:

The parties agree that the laws of the State of Texas shall govern this Agreement, and that it is performable in Jefferson County Texas. Exclusive venue shall lie in Jefferson County, Texas.

E. Successors and Assigns:

Jefferson County and Services Provider and their partners, successors, subcontractors, executors, legal representatives, and administrators are hereby bound to the terms and conditions of this Agreement.

F. Severability:

In the event a term, condition, or provision of this Agreement is determined to be void, unenforceable, or unlawful by a court of competent jurisdiction, then that term, condition, or provision, shall be deleted and the remainder of the Agreement shall remain in full force and effect.

G. Effective Date:

This Agreement shall be effective from and after the date of execution by the last signatory hereto as evidenced below.

SIGNED on the date indicated below.

TEXAS PROPERTY ASSESSED CLEAN ENERGY AUTHORITY

DATE: _____

BY:_____
Name: _____
Title:
_____

ACKNOWLEDGMENTS

STATE OF TEXAS §
§
COUNTY OF _____ §

This instrument was acknowledged before me on the ___ day of _____, 2016 by _____, *(Authorized representative)* _____ *(Title)* of **TEXAS PROPERTY ASSESSED CLEAN ENERGY AUTHORITY**, on behalf of said entity.

_____
Notary Public, State of _____

County of Jefferson, TEXAS

DATE: _____

BY:_____
Jeff. R. Branick
County Judge

APPROVED AS TO FORM:

_____
Kathleen Kennedy, Chief of the Civil Division
District Attorney, Jefferson County, TX

STATE OF TEXAS §
§
COUNTY OF _____ §

This instrument was acknowledged before me on the _____ day of _____, 2016 by _____, (Authorized Representative) _____ (Title) of _____, on behalf of said County.

_____
Notary Public, State of Texas

Exhibit "A"
Scope of Services

The Program Administrator will perform the following services in the administration of the Jefferson County Pace Program (the "Program"):

Community Outreach

Maintain a website and database;

Respond to inquiries from property owners, vendors, contractors, consultants, and the general public;

Publish the Technical Standards Manual on the Program website;

List interested, qualified lenders on the Program website or link to another neutral non-profit directory of lenders to enable property owners to identify potential sources of private third-party financing;

Arrange for training of contractors and independent third-party reviewers on how to apply for PACE financing and comply with the PACE-in-a-Box Technical Standards Manual; and

Establish quality assurance measures.

Application and Approval Process

Publish a Project Application Form based on PACE-in-a-Box model application form on the Program website;

Review submitted Application forms for administrative completeness and notify the applicants of any missing information;

Maintain the confidentiality of confidential owner information;

Maintain the PACE application process, including:

- Draft and distribute the PACE application, as well as accept and review the property owner's completed application;
- If the project meets eligibility requirements, provide written indication that the project meets PACE standards at this stage (subject to verification of all requirements at closing).
- Inform the property owner of his or her responsibilities in the process, including hiring a third-party reviewer, obtaining a lender, determining final project scope and completing and submitting a closing verification package.
- Conduct a Pre-Closing Verification, which will confirm the statutorily required eligibility requirements of the owner including that the property owner:
    - Is the legal property owner of the benefited property;
    - Is current on mortgage and tax payments;
    - Is not insolvent or the subject of bankruptcy proceedings;
    - Holds a title to the property to be subject to a PACE assessment that is not in dispute; and
    - Has consent of any pre-existing mortgagee to the proposed PACE assessment through a written contract.

Require independent third-party verification of expected energy or water savings resulting from a project (provided by engineer or consultant retained by applicant), according to the PACE-in-a-Box Technical Standards Manual; this review will include a:

- Site visit,
- Report stating the savings (energy, demand, and/or water) and expected project life are reasonable and in compliance with PACE in a Box program guidelines; and
- Letter from the ITPR certifying that he/she has no financial interest in the project and is an independent reviewer.

Require independent third-party verification, according to the PACE-in-a-Box Technical Services Manual, that the period of an assessment does not exceed the expected life of the improvements or thoroughly review waiver application and justification (provided by engineer or consultant retained by applicant);

Require lender to confirm in writing its determination, based on underwriting factors established by the lender, that the owner has demonstrated the financial ability to repay the financial obligations to be repaid through assessment.

Require the owner to notify the holder of any mortgage lien on the property of the owner's intention to participate in the Program and obtain the lienholder's written consent prior to the imposition of the PACE assessment;

Review and finalize the terms of every Owner Contract and Lender Contract prior to execution; The Contract must contain:

- Amount of the assessment;
- The legal description of the property;
- The name of the property owner; and

A reference to the statutory assessment lien provided under the PACE Act.

Collect and retain owner application fees as compensation for administrative services;

Perform closing verification reviews and schedule assessment transaction closings when all requirements are met; such closing verification must include:

- The report conducted by a qualified independent third-party reviewer of water or energy baseline conditions and the projected water or energy savings attributable to the project;
- Such financial information about the owner and the property as the lender chosen by the owner deems necessary to determine that the owner has demonstrated the financial ability to fulfill the financial obligations to be paid through assessments; and

All other information required by the Program Administrator.

Coordinate and take part in assessment transaction closings.

Execute contracts under the Program as authorized on behalf of Jefferson County.

Arrange for recordation of a Notice of Contractual Assessment Lien for each approved project in the Official Public Records of the county where the project is located; The Notice must contain:

- Amount of the assessment;
- The legal description of the property;
- The name of the property owner; and
- A reference to the statutory assessment lien provided under the PACE Act.

Require independent post-closing third-party verification (by engineer or consultant retained by Applicant) that each project was properly completed and is operating as intended; and

Collect and retain administration fees collected by lenders from owners that receive PACE financing

Management and Reporting

Manage communications with lenders regarding assessment servicing, payment, and default;

Upon notification by a lender of an owner's default in payment of an assessment and the lender's compliance with the requirements of the Lender Contract on collection after default, notify the Local Government to enforce the assessment lien in accordance with law and the agreements between the parties;

Receive and store owner reports on energy and water savings;

At the request of property owners, prepare annual notices of assessment to be issued by Jefferson County to the owners, stating the total amount of the payments due on each assessment in the coming calendar year according to the owner contract and the financing documents;

Determine the amounts of the application and administration fees to be paid by owners;

Report annually to Jefferson County on Program usage and the resulting energy and water savings enabled through PACE Assessments.

Exhibit "B"
Compensation and Fees

The Texas PACE Authority shall determine the amounts of the uniform application and administration fees to be paid by property Owners participating in the Program. Such fees will not exceed the fees below:

- An application fee of $2,500.00 or 2% of the total amount of the assessment, whichever is greater, to be paid as follows:
  - $500.00 per project at the time of application submittal;
  - the balance of the full remaining application fee at closing; and

- A recurring administration fee of 0.25%of the outstanding principal balance, which amount shall be collected by lender and paid to the Services Provider as provided in the owner contract and the financing documents. This fee can also be capitalized and paid at closing. If paid under a negotiated regular schedule to the lender by the property owner, the lender shall pay this fee to the Texas PACE Authority at the time of each payment by the property owner in accordance with the financing documents.

- No amounts shall be due by Jefferson County to the Texas PACE Authority.

Exhibit "C"
Insurance Requirements

COVERAGE	LIMIT OF LIABILITY
Employer's Liability	$500,000 per occurrence
General Liability	Bodily Injury and Property Damage, Combined Limits of $500,000 each Occurrence, and $1,000,000 aggregate

AGENDA ITEM **March 20, 2017**

Receive and file executed Limited English Proficiency Sample Plan A1010 for Texas Department of Agriculture Community Development Block Grant Fund Contract for first- time sewer service.

A1010

Limited English Proficiency Sample Plan

Name Grantee:	*JEFFERSON COUNTY*
Community Population:	*252,872*
LEP population:	*13,807 (5.9% Speaks English less than "very well"*
Languages spoken by more than 5% of population per ACS:	*SPANISH 8.4%* *English 88%*

Program activities to be accessible to LEP persons:	
X	Public Notices and hearings regarding applications for grant funding, amendments to project activities, and completion of grant-funded project
X	Publications regarding TxCDBG application, grievance procedures, *complaint procedures, complaint procedures, answers to complaints, notices, notices of rights and disciplinary action*, and other vital hearings, documents, and program requirements
☐	Other program documents: _____ _____

Resources available to Grant Recipient:	
x	Translation services: __*Staff Member from Human Services is available to assist in translating documents. Official business that requires translation will require the County to hire a translator.*
x	Interpreter services: *Staff Member from Human Services is available to assist in interpreting. County will hire a professional interpreter for official Public Hearing and County business when required by persons with limited English* /.
☐	Other resources: _____ _____ _____

Language Assistance to be provided:	
x	Translation (oral and/or written) of advertised notices and vital documents for: *Civil Rights and Fair Housing Notices will be published in both English and Spanish.* _____ _____

A1010

Limited English Proficiency Sample Plan

x	Referrals to community liaisons proficient in the language of LEP persons *Citizens with limited English proficiency wil be referred to community liasions proficient in the language of LEP persons in order to better assist the needs.*
x	Public meetings conducted in multiple languages: *Arrangement will be made to have an interpreter available if the LEP person request an interpreter at least 3 days prior to the Public Hearing Meeting.*
x	Notices to recipients of the availability of LEP services: *For direct participation such as owner occuppied household application for water or sewer services, the application will be translated.*
☐	Other services: _____

_____
Signature - Chief Elected Official or Civil Rights Officer

Jeff R. Branick, County Judge

See also:
http://www.lep.gov/resources/2011_Language_Access_Assessment_and_Planning_Tool.pdf

AGENDA ITEM **March 20, 2017**

Consider and possibly approve a Proclamation for the Julie Rogers "Gift of Life" Program 2017 National Kick Butts Day.

PROCLAMATION

STATE OF TEXAS § COMMISSIONERS' COURT
§
COUNTY OF JEFFERSON § OF JEFFERSON COUNTY, TEXAS

BE IT REMEMBERED at a meeting of Commissioners' Court of Jefferson County, Texas, held on the 20th day of March, 2017, on motion made by Everette D. Alfred, Commissioner of Precinct No. 4, and seconded by Eddie Arnold, Commissioner of Precinct No. 1, the following Proclamation was adopted:

Gift of Life Youth Advisory Council Takes a Stand Against Tobacco For National Kick Butts Day

WHEREAS, March 15, 2017 is **National Kick Butts Day,** and the **Gift of Life Youth Advisory Council** members are joining thousands of students across the country who are taking part in the national initiative as anti-tobacco advocates; and

WHEREAS, Gift of Life youth leaders representing 20 Southeast Texas schools will implement "peer-to-peer" awareness activities to combat the tobacco industry's marketing efforts that target young people as their "replacement smokers" to take the place of smokers who die or quit; and

WHEREAS, the Gift of Life's youth tobacco educational initiatives will help give kids a fighting chance against tobacco use as the vast majority of smokers start as children, and in the U.S., 90 percent of all smokers start before the age of 19; and

WHEREAS, although traditional tobacco use, such as smoking cigarettes, is declining among youth, findings from a 2016 Surgeon General's report show that current e-cigarette use among high school students increased 900 percent, with more teens now using e-cigarettes than cigarettes; and

WHEREAS, most e-cigarettes contain nicotine, which can cause addiction, may harm brain development, and could lead to continued tobacco product use among youth; and

WHEREAS, it is estimated that more than 250 million children and young people alive today will ultimately die from tobacco-related diseases unless rates decline; and

WHEREAS, tobacco use, involving smoking and exposure to secondhand smoke, is the number one cause of preventable death in the United States, and one-third of all cancer deaths are attributed to tobacco products; and

WHEREAS, to address the public health epidemic from tobacco usage, the Gift of Life implemented the ***Don't Smoke Your Life Away*** Tobacco Program to educate Southeast Texans on the economic impact and healthcare hazards of tobacco, and

WHEREAS, the Gift of Life Tobacco Control Coalition of Southeast Texas strives to reduce the appeal and acceptability of tobacco products; implement tobacco cessation initiatives; and reduce secondhand smoke exposure, which will help reduce tobacco-related disease; and

WHEREAS, smoking kills more people than alcohol, AIDS, car accidents, illegal drugs, homicides and suicides combined, with thousands more dying from smokeless tobacco use; and

WHEREAS, tobacco costs the United States are more than $151 billion in lost productivity and $170 billion in healthcare expenditures each year; and

NOW, THEREFORE, **BE IT RESOLVED** that the Commissioners Court of Jefferson County, Texas does hereby proclaim Monday March 20 as the **Gift of Life Youth Anti-Tobacco Day** in observance of National Kick Butts Day in Jefferson County.

SIGNED this 20th day of March, 2017.

JUDGE JEFF R. BRANICK
County Judge

COMMISSIONER EDDIE ARNOLD
Precinct No. 1

COMMISSIONER MICHAEL S. SINEGAL
Precinct No. 3

COMMISSIONER BRENT A. WEAVER
Precinct No. 2

COMMISSIONER EVERETTE D. ALFRED
Precinct No. 4

PROCLAMATION

STATE OF TEXAS § COMMISSIONERS COURT

§

COUNTY OF JEFFERSON § OF JEFFERSON COUNTY, TEXAS

BE IT REMEMBERED at a meeting of Commissioners' Court of Jefferson County, Texas, held on the 20TH day of March, 2017, on motion made by Everette D. Alfred, Commissioner of Precinct No. 4, and seconded by Brent Weaver, Commissioner of Precinct No. 2, the following Proclamation was adopted:

AMERICAN RED CROSS

Whereas, in Jefferson County, we have a long history of helping our neighbors in need. American Red Cross Month is a special time to recognize and thank our heroes – those Red Cross volunteers and donors who give of their time and resources to help community members; and

Whereas, these heroes help families find shelter after a home fire, give blood to help trauma victims and cancer patients, deliver comfort items to military members in the hospital, use their lifesaving skills to save someone from a heart attack, drowning or choking and enable children around the globe to be vaccinated against measles and rubella; and

Whereas, the American Red Cross depends on local heroes to deliver help and hope during a disaster. We applaud our heroes here who give of themselves to assist their neighbors when they need a helping hand; ans

Whereas, across the country and around the world, the American Red Cross responds to disasters big and small, every eight minutes to respond to a community disaster, provide shelter, food, emotional support and other necessities to those affected and collects nearly 40 percent of the nation's blood supply; provides 24-hour support to military members, veterans and their families; teaches millions lifesaving skills, such as lifeguarding and CPR; and through its Restoring Family Links program, connects family members separated by crisis, conflict or migration; and

Whereas, 2017 marks one hundred years of the great work of the American Red Cross of Southeast and Deep East Texas when, a century ago, visionary businesses, organizations, institutions, and community leaders came together to bring the vital services that the American Red Cross to the people in our communities and, because of the support of our volunteers and donors, we are poised to be able to continue to be a resource for our neighbors in times of needs for the next 100 years; and

Whereas the month of March is dedicated to all those who support the American Red Cross mission to prevent and alleviate human suffering in the face of emergencies.

NOW, THEREFORE, BE IT PROCLAIMED by the Commissioners Court of Jefferson County that March, 2017 is American Red Cross Month and we encourage all Americans to support this organization and its noble humanitarian mission.

Signed this 20TH day of March, 2017

JUDGE JEFF R. BRANICK
County Judge

COMMISSIONER EDDIE ARNOLD
Precinct No. 1

MICHAEL S. SINEGAL
Precinct No. 3

COMMISSIONER BRENT A. WEAVER
Precinct No. 2

COMMISSIONER EVERETTE D.ALFRED
Precinct No. 4

AGENDA ITEM **March 20, 2017**

Receive and file executed Resolution supporting the establishment of the PACE Program for Jefferson County, TX and Required Report.

AGENDA ITEM **February 27, 2017**

Consider and possibly approve a Resolution supporting establishment of the PACE Program for Jefferson County and authorize the County Judge to execute the Required Report publication of the required report for same pursuant to Texas Local Government Code, Chapter 399 (the PACE Act).

Resolution

STATE OF TEXAS	§	COMMISSIONERS' COURT
	§	
COUNTY OF JEFFERSON	§	OF JEFFERSON COUNTY, TEXAS

BE IT REMEMBERED at a meeting of Commissioners' Court of Jefferson County, Texas, held on the 27 day of February, 2017, on motion made by Everette Alfred Commissioner of Precinct No. 4, and seconded by Michael Sinegal, Commissioner of Precinct No. 3, the following RESOLUTION was adopted:

PACE RESOLUTION

WHEREAS, The 83rd Regular Session of the Texas Legislature enacted the Property Assessed Clean Energy Act, Texas Local Government Code Chapter 399 (the "PACE Act"), which allows the governing body of a local government, including a County, to designate an area of the territory of the local government as a region within which an authorized local government official and the record owners of commercial, industrial, and large multifamily residential (5 or more dwelling units) real property may enter into written contracts to impose assessments on the property to repay the financing by the owners of permanent improvements fixed to the property intended to decrease water or energy consumption or demand; and

WHEREAS, the installation or modification by property owners of qualified energy or water saving improvements to commercial, industrial, agricultural, and large multifamily residential real property in Jefferson County will further the goals of energy and water conservation without cost to the public; and

WHEREAS, the Commissioners Court finds that financing energy and water conserving projects through contractual assessments ("PACE financing") furthers essential government purposes, including but not limited to, economic development, reducing energy consumption and costs, and conserving water resources; and

WHEREAS, the Commissioners Court, subject to the public hearing scheduled as provided below, at which the public may comment on the proposed program and the report issued contemporaneously with this resolution, finds that it is convenient and advantageous to establish a program under the PACE Act and designate the entire geographic area within the County's jurisdiction as a region within which a designated Jefferson County representative and the record owners of qualified real property may enter into PACE financing arrangements:

THEREFORE, BE IT RESOLVED by the Commissioners Court of Jefferson County that:

1. The Recitals to this Resolution are true and correct and are incorporated into this Order for all purposes.

2. Jefferson County hereby adopts this Resolution of Intent and finds that financing qualified projects through contractual assessments pursuant to the PACE Act is a valid public purpose.

3. Jefferson County intends to make contractual assessments to repay PACE financing for qualified energy or water conserving projects available to owners of commercial, industrial, agricultural, and large multifamily residential real property. The program is to be called Jefferson County Property Assessed Clean Energy ("Jefferson County PACE").

4. The following types of projects are qualified projects for PACE financing that may be subject to such contractual assessments: Projects that (a) involve the installation or modification of a permanent improvement fixed to privately owned commercial, industrial, or agricultural real property or residential real property with five (5) or more dwelling units, and (b) are intended to decrease energy or water consumption or demand, including a product, device, or interacting group of products or devices on the customer's side of the meter that uses energy technology to generate electricity, provide thermal energy, or regulate temperature.

   An assessment may not be imposed to repay the financing of facilities for undeveloped lots or lots undergoing development at the time of the assessment or the purchase or installation of products or devices not permanently fixed to real property.

5. The boundaries of the entire geographic area within Jefferson County's jurisdiction are the boundaries of the region where PACE financing and assessments can occur.

6. Financing for qualified projects under the PACE program will be provided by qualified third-party lenders chosen by the owners. Such lenders will execute written contracts with Jefferson County's representative to service the assessments, as required by the PACE Act. The contracts will provide for the lenders to determine the financial ability of owners to fulfill the financial obligations to be repaid through assessments, advance the funds to owners on such terms as are agreed between the lenders and the owners for the installation or modification of qualified projects, and service the debt secured by the assessments, directly or through a servicer, by collecting payments from the owners pursuant to contracts executed between the lenders and the owners. The lender contracts will provide that Jefferson County will maintain and continue the assessments for the benefit of such lenders and enforce the assessment lien for the benefit of a lender in the event of a default by an owner. Jefferson County will not, at this time, provide financing of any sort for the PACE program.

7. Jefferson County will contract with a qualified non-profit organization to be the independent third-party Authorized Representative.

8. Jefferson County will consult with the County Tax Assessor/Collector for the Jefferson County.

9. The report on the proposed PACE program prepared as provided by Tex. Local Gov't Code Sec. 399.009, is available for public inspection on the Internet Website of Jefferson County and is incorporated in this resolution and made a part hereof for all purposes.

10. The County Commissioners Court will hold a public hearing on the proposed PACE program and report on [~~date~~] at 3/20/17 at 1:30PM .m. in the Commissioners' Courtroom, Jefferson County Courthouse, 1149 Pearl Street, Beaumont, TX 77701.

SIGNED this 27th day of FEBRUARY, 2017.

JUDGE JEFF R. BRANICK
County Judge

COMMISSIONER EDDIE ARNOLD
Precinct No. 1

COMMISSIONER MICHAEL S. SINEGAL
Precinct No. 3

COMMISSIONER BRENT A. WEAVER
Precinct No. 2

COMMISSIONER EVERETTE D. ALFRED
Precinct No. 4

REPORT REQUIRED BY TEXAS LOCAL GOVERNMENT CODE SECTION 399.009

FOR PROPOSED JEFFERSON COUNTY

PROPERTY ASSESSED CLEAN ENERGY (PACE) PROGRAM

This Report is adopted by Jefferson County Commissioners Court for the Jefferson County Property Assessed Clean Energy (PACE) Program (**the "program")** in accordance with the requirements of the Property Assessed Clean Energy Act (**the "PACE Act"**) as set forth in Texas Local Government Code Chapter 399.

Jefferson County and its constituents benefit when older existing buildings are modified with new technology and equipment that increases energy efficiency and reduces water consumption. As described in this Report, Jefferson County is establishing the commercial PACE Program to encourage private sector investment in energy efficiency and water conservation. The PACE program will be offered to property owners on a strictly voluntary basis and will not require the use of any public funds or resources.

Authorized under the PACE Act enacted in 2013, the PACE program is an innovative financing program that enables private sector owners of privately owned commercial, industrial, and multi-family residential properties with five or more dwelling units to obtain low-cost, long-term loans to pay for water conservation, energy-efficiency improvements, and renewable energy retrofits. PACE loans provide up to 100% financing of all project costs, with little or no up-front out-of-pocket cost to the owner. The 2015 legislative session streamlined the process.

Loans made under the PACE Program will be secured by assessments on the property that are voluntarily imposed by the owner. Assessments may be amortized over the projected life of the improvements. The annual utility cost savings derived from improvements financed with PACE loans are expected to exceed the amount of the annual assessment payments. In turn, these improvements are able to generate positive cash flow upon installation because the debt service will be less than the savings.

PACE assessments are tied to the property and follow title from one owner to the next. Each owner is responsible only for payment of the assessments accruing during its period of ownership. When the property is sold, the payment obligation for the remaining balance of the assessment is transferred automatically to the next owner. As a result, the program will help property owners overcome market barriers which often discourage investment in energy efficiency and water conservation improvements.

1. Eligible Properties

The Jefferson County PACE program is a strictly voluntary program. All private sector owners of Eligible Properties located within the County PACE region may participate in PACE

financing. ***"Eligible Properties"*** include commercial, industrial, and multi-family residential properties with five or more dwelling units. Government, residential[1], and undeveloped property and property undergoing development at the time of the assessment are not Eligible Properties.

2. Qualified Improvements

PACE financing may be used to pay for Qualified Improvements to Eligible Properties. ***"Qualified Improvements"*** are permanent improvements intended to decrease water or energy consumption or demand, including a product, device, or interacting group of products or devices on the customer's side of the meter that use energy technology to generate electricity, provide thermal energy, or regulate temperature. Under the PACE Act, products or devices that are not permanently fixed to real property are not considered to be Qualified Improvements.

The following items may constitute Qualified Improvements:

- High efficiency heating, ventilating and air conditioning ("HVAC") systems
- High efficiency chillers, boilers, and furnaces
- High efficiency water heating systems
- Energy management systems and controls
- Distributed generation systems
- High efficiency lighting system upgrades
- Building enclosure and envelope improvements
- Water conservation and wastewater recovery and reuse systems
- Combustion and burner upgrades
- Heat recovery and steam traps
- Water management systems and controls (indoor and outdoor)
- High efficiency irrigation equipment

3. Benefits of PACE to Property Owners

The PACE program will enable owners of Eligible Properties to overcome traditional barriers to capital investments in energy efficiency and water conservation improvements, such as unattractive returns on investment, split incentives between landlords and tenants, and uncertainty of recouping the investment upon sale of the property.

By financing Qualified Improvements through the program, property owners may achieve utility cost savings that exceed the amount of the assessment and reduce their exposure to utility price volatility. As a result, the value of the property will be enhanced, and the owner will only be obligated to pay the assessment installments that accrue during its period of ownership of the property. Additionally, by investing in energy efficiency and water conservation with PACE financing, property owners may also qualify for various rebate, tax credit, and incentive programs offered by utility providers and state or federal governmental authorities to encourage these types of investments.

4. Benefits of PACE to the County

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[1] This encompasses single family residential and any multi-family properties less than five units.

Several commercial, agricultural and industrial buildings, plants and multifamily buildings require alterations to make them more energy efficient, water efficient and environmentally friendly to reduce the growing drain on our energy and water supplies and to improve air and water quality. They and many residential occupants may benefit from the financing options available through PACE to enable them to proceed with long range plans now rather than have to wait for other financing availability.

Among other things, projects financed through PACE will:

- Enable property owners and occupants to save substantial amounts in utility costs
- Reduce demand on the electricity grid
- Mitigate greenhouse gas emissions associated with energy generation
- Enhance the value and efficiency of existing buildings
- Boost the local economy by creating new job opportunities for laborers and new business opportunities for contractors, engineers, commercial lenders, professionals, and equipment vendors and manufactures
- Increase business retention and expansion in the PACE region by enabling cost effective energy and water saving updates to existing property
- Improve productivity through optimized energy usage
- Support the State's water conservation plan
- Better enable the County to meet its water conservation goals

Finally, there are multiple regulatory schemes being promulgated by EPA that will have significant impacts on air quality in Texas. For example, the recent adjustment in the NAAQS to a lower standard increased the difficulty for the County to maintain its attainment status. Being non-attainment for priority pollutants in the Clean Air Act endangers federal transportation funding. Through the reduction in energy consumption, as a result of the PACE program, there will be a decreased demand for power resulting in lower emissions from power plants.

The PACE program requires minimal support from the County. It is designed to be self-sustaining. Furthermore, because the PACE program is tax neutral, it achieves all of the benefits listed in this Report without imposing a burden on the County's general fund.

The 84th Texas Legislature added a provision that explicitly shields the County and its employees from liability resulting from administering a PACE program.[2]

5. The Benefits of PACE to Lenders

PACE loans are attractive to lenders because they are very secure investments. Like a property tax lien, the assessment lien securing the PACE loan has priority over other liens on the property. Therefore, the risk of loss from non-payment of a PACE loan is low compared to most other types of loans. PACE assessments provide lenders with an attractive new product to assist existing and new customers in addressing an almost universal pent-up demand for needed commercial and industrial property equipment modernization. In order to protect the interests of

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[2] TX. Local Gov't Code §399.019.

holders of existing mortgage loans on the property, the PACE Act requires their written consent to the PACE assessment as a condition to obtaining a PACE loan.

6. The Benefits of PACE to Contractors, Engineers, and Manufacturers

PACE loans provide attractive sources of financing for water and energy saving retrofits and upgrades, thereby encouraging property owners to make substantial investments in existing commercial and industrial buildings. As a result, PACE will unlock business opportunities for contractors, engineers, and manufacturers throughout the commercial and industrial sectors.

7. Administration of the PACE Program

Under the PACE Act, the establishment and operation of the program are considered to be governmental functions. The PACE Act further authorizes the County to enter into a contract with a third party to provide administrative services for the PACE program (the ***"Authorized Representative"***). Jefferson County may delegate administration of the PACE program to a qualified, non-profit organization that can administer the program at no cost to the County. The Authorized Representative will be funded by transaction fees paid by the parties, charitable grants or other sources of revenue. The Authorized Representative will not receive compensation or reimbursement from the County.

8. Eligible Lenders

The PACE Act does not set criteria for financial institutions or investors to be PACE lenders. The County will follow best practices of other PACE programs by recommending that lenders be:

- Any federally insured depository institution such as a bank, savings bank, savings and loan association and federal or state credit union;
- Any insurance company authorized to conduct business in one or more states;
- Any registered investment company, registered business development company, or a Small Business
- Small business investment company;
- Any publicly traded entity; or
- Any private entity that:
  - Has a minimum net worth of $5 million; and
  - Has at least three years' experience in business or industrial lending or commercial real estate lending (including multifamily lending), or has a lending officer that has at least three years' experience in business or industrial lending or commercial real estate lending; and
  - Can provide independent certification as to availability of funds; and
- All lenders must have the ability to carry out, either directly or through a servicer, the bookkeeping and customer service work necessary to manage the assessment accounts.

Any lender can participate in the PACE program as long as it is a financially stable entity with the ability to carry out, either directly or through a servicer, the bookkeeping and customer

service work necessary to manage the assessment accounts. The property owner, not the County or the Authorized Representative, selects the lender.

The PACE administrator will not guarantee or imply that funding will automatically be provided from a third-party lender, imply or create any approval, endorsement or certification of, or responsibility for, any lender; or create any type of express or implied favoritism for any eligible lender.

9. Components of the PACE Program

As required under Section 399.009 of the PACE Act, the following describes all aspects of the PACE Program:

a. Map of Region. A map of the boundaries of the region included in the program is attached to this Report as Exhibit 1. The region encompasses the Jefferson County limits.

b. Form Contract with Owner. A form contract between Jefferson County and the record owner of the Eligible Property is attached as Exhibit 2. It specifies the terms of the assessment under the PACE program and the financing to be provided by an Eligible Lender of the property owner's choosing.

c. Form Contract with Lender. A form contract between Jefferson County and the Eligible Lender chosen by a property owner is attached to this Report as Exhibit 3. It specifies the financing and servicing of the debt through assessments.

d. Qualified Improvement. The following types of projects are qualified improvements that may be subject to contractual assessments under the PACE program:

> Projects that (a) involve the installation or modification of a permanent improvement fixed to privately owned commercial, industrial or residential real property with five (5) or more dwelling units;[3] and (b) are intended to decrease energy or water consumption or demand by installing a product, device, or interacting group of products or devices on the customer's side of the meter that uses energy technology to generate electricity, provide thermal energy, or regulate temperature.[4]

A sample list of potential Qualified Improvements appears in Section 2 above.

The PACE program may not be used to finance improvements to undeveloped lots or lots undergoing development at the time of the assessment, or for the

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3 TX. Local Gov't Code §399.002(5).

4 TX. Local Gov't Code §399.002(3).

purchase or installation of products or devices not permanently fixed to real property.[5]

e. Authorized Representative. HB 3187 was signed into law on June 16, 2015. It authorizes Jefferson County to delegate administration of the PACE program to a third-party "representative." Jefferson County may delegate all official administrative responsibilities, like the execution of individual contracts with property owners and lenders, to an Authorized Representative. This relationship will be monitored and maintained by the County Judge or his designee.

f. Plans for Insuring Sufficient Capital. Lenders will extend loans to finance Qualified Improvements. Financing documents executed between owners and lenders will impose a contractual assessment on Eligible Property to repay the owner's financing of the Qualified Improvements. The lenders will ensure that property owners demonstrate the financial ability to fulfill the financial obligations to be repaid through contractual assessments.

g. No Use of Bonds or Public Funds. Jefferson County does not intend to issue bonds or use any other public monies to fund PACE projects. Property owners will obtain all financing from the Eligible Lenders they choose.

h. Limit on Length of Loan. One of the statutory criteria of a PACE loan is that the assessment payment period cannot exceed the useful life of the Qualified Improvement that is the basis for the loan and assessment. As part of the application process, the property owners will submit a third-party review showing the water or energy baseline conditions and the projected water or energy savings. This review will aid the Authorized Representative in making a determination that the period of the requested assessment does not exceed the useful life of the Qualified Improvement.

i. Application Process. The Authorized Representative will accept applications from property owners seeking to finance Qualified Improvements under the program. Each application must be accompanied by the required application fee and must include:

(1) A description of the specific Qualified Improvements to be installed or modified on the property,
(2) A description of the specific real property to which the qualified improvements will be permanently fixed, and
(3) The total amount of financing, including any transaction costs, to be repaid through assessments.

Based on this information, the Authorized Representative may issue a preliminary letter indicating that, subject to verification of all requirements at closing, the proposed project appears to meet program requirements. Based on this

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[5] TX. Local Gov't Code §399.004.

preliminary letter, the property owner may initiate an independent third-party review of the project and submit the project to Eligible Lenders for approval of financing.

Once the above processes are completed, the property owner will submit the application to the Authorized Representative to obtain preliminary approval. The property owner is expected to produce the following documentation prior to closing on the PACE loan:

(1) A Report conducted by a qualified, independent third party, showing water or energy baseline conditions and the projected water or energy savings, or the amount of renewable energy generated attributable to the project;
(2) Such financial information about the owner and the property as the lender chosen by the owner deems necessary to determine that the owner has demonstrated the financial ability to fulfill the financial obligations to be paid through assessments; and
(3) All other information required by the Authorized Representative.

j. Financial Eligibility Requirements. The Authorized Representative will determine whether the owner, the property and the improvements are eligible for financing under the program. The Eligible Lender chosen by the owner will determine whether the owner has demonstrated the financial ability to repay the financial obligations to be collected through contractual assessments. The statutory method[6] for ensuring such a demonstration of financial ability must be based on appropriate underwriting factors, including the following:

(1) verification that the person requesting to participate in the program is the legal record owner of the benefitted property,
(2) the applicant is current on mortgage and property tax payments,
(3) the applicant is not insolvent or in bankruptcy proceedings,
(4) the title of the benefitted property is not in dispute; and
(5) there is an appropriate ratio of the amount of the assessment to the assessed value of the property.

k. Mortgage Holder Notice and Consent. As a condition to the execution of a written contract between the Authorized Representative and the property owner imposing an assessment under the program, the holder of any mortgage lien on the property must be given notice of the owner's intention to participate in the program on or before the 30th day before the date the contract is executed, and the owner must obtain the written consent of all mortgage holders.[7]

l. Imposition of Assessment. The Authorized Representative will enter into a written contract with the property owner, only after:

(1) The property owner delivers to the Authorized Representative written consent of all mortgage lien holders;

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6 TX. Local Gov't Code §399.009(b).
7 TX. Local Gov't Code §399.010.

(2) The Authorized Representative's determination that the owner and the property are eligible to participate in the program, that the proposed improvements are reasonably likely to decrease energy or water consumption or demand, and that the period of the requested assessment does not exceed the useful life of the Qualified Improvements; and
(3) The Eligible Lender notifies the Authorized Representative that the owner has demonstrated the financial ability to fulfill the financial obligations to be repaid through contractual assessments.

The contract will impose a contractual assessment on the owner's Eligible Property to repay the lender's financing of the Qualified Improvements. The Eligible Lender will file "A Notice of Contractual Assessment Lien," in substantially the form in Exhibit 4 in the Official Public Records of Jefferson County, depending on where the Eligible Property is located, as notice to the public of the assessment, from the date of filing. The contract and the notice must contain the amount of the assessment, the legal description of the property, the name of the property owner, and a reference to the statutory assessment lien provided under the PACE Act.

m. Collection of Assessments. The execution of the written contract between the Authorized Representative and the property owner and recording of the Notice of Contractual Assessment Lien incorporate the terms of the financing documents executed between the property owner and with the lender to repay the financing secured by the assessment. The third-party lender will advance financing to the owner, and the terms for repayment will be such terms as are agreed between the lender and the owner. Under the form lender contract attached as Exhibit 3, the lender or a designated servicer will agree to service the debt secured by the assessment.[8]

With funds from the lender, the property owner can purchase directly the equipment and materials for the Qualified Improvement and contract directly, including through lease, power purchase agreement, or other service contract, for the installation or modification of the Qualified Improvements. Alternatively, the lender may make progress payments to the property owner as the Qualified Improvement is installed.

The lender will receive the owner's assessment payments to repay the debt and remit to the Authorized Representative any administrative fees. The lender will have the right to assign or transfer the right to receive the installments of the debt secured by the assessment, provided all of the following conditions are met:
(1) The assignment or transfer is made to an Eligible Lender, as defined above; and
(2) The property owner and the Authorized Representative are notified in writing of the assignment or transfer and the address to which payment of

[8] The servicer will be responsible for maintaining payment records, account balances, and reporting to the PACE administrator as required.

the future installments should be mailed at least 30 days before the next installment is due according to the schedule for repayment of the debt; and (3) The assignee or transferee of the right to receive the payments executes an explicit written assumption of all of lender's obligations under the lender contract.

n. Verification Review. After a Qualified Improvement is completed, the Authorized Representative will require the property owner to provide verification by a qualified independent third-party reviewer that the Qualified Improvement was properly completed and is operating as intended.[9] The verification report conclusively establishes that the improvement is a Qualified Improvement and the project is qualified under the PACE program.

o. Marketing and Education Services. Jefferson may subsequently enter into agreements with one or more other local governments or non-profit organizations that promote energy and water conservation and/or economic development to provide marketing and education services for the PACE program.

p. Quality Assurance and Antifraud Measures. The Authorized Representative will institute quality assurance and antifraud measures for the Program. The Authorized Representative will review each PACE application for completeness and supporting documents through independent review and verification procedures. The application and required attachments will identify and supply the information necessary to ensure that the property owner, the property itself, and the proposed project all satisfy PACE program underwriting and technical standard requirements. Measures will be put in place to provide safeguards, including a review of the energy and water savings baseline and certification of compliance with the technical standards manual from an independent third-party reviewer (ITPR), who must be a registered professional engineer, before the project can proceed. This review will include a site visit, report, and a letter from the ITPR certifying that he or she has no financial interest in the project and is an independent reviewer. After the construction of the project is complete, an ITPR will conduct a final site inspection and determine whether the project was completed and is operating properly. The reviewer's certification will also include a statement that the reviewer is qualified and has no financial interest in the project.

q. Delinquency. Under the terms of the form lender contract attached as Exhibit 3, if a property owner fails to pay an agreed installment when due on the PACE assessment, the lender will agree to take at least the following steps to collect the delinquent installment:

(1) Mail to the owner a written notice of delinquency and demand for payment by both certified mail (return receipt requested) and first class mail, and

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[9] TX. Local Gov't Code §399.011.

(1) Mail to the owner a written notice of delinquency and demand for payment by both certified mail (return receipt requested) and first class mail, and
(2) Mail to the owner a second notice of delinquency and demand for payment by both certified mail (return receipt requested) and first class mail, at least 30 days after the date of the first notice if the delinquency is continuing.

If the owner fails to cure the delinquency within 30 days after mailing the second notice of delinquency, the lender may notify the Authorized Representative of the owner's default. Pursuant to Texas Local Government Code Section 399.014(c), the Authorized Representative will initiate steps for the County to enforce the assessment lien in the same manner as a property tax lien against real property may be enforced, to the extent the enforcement is consistent with Section 50, Article XVI, of the Texas Constitution. Delinquent installments will incur penalties and interest in the same manner and at the same rate as delinquent property taxes, according to Texas Local Government Code Section 399.014(d), and such statutory penalties and interest will be due to the County to offset the cost of collection.

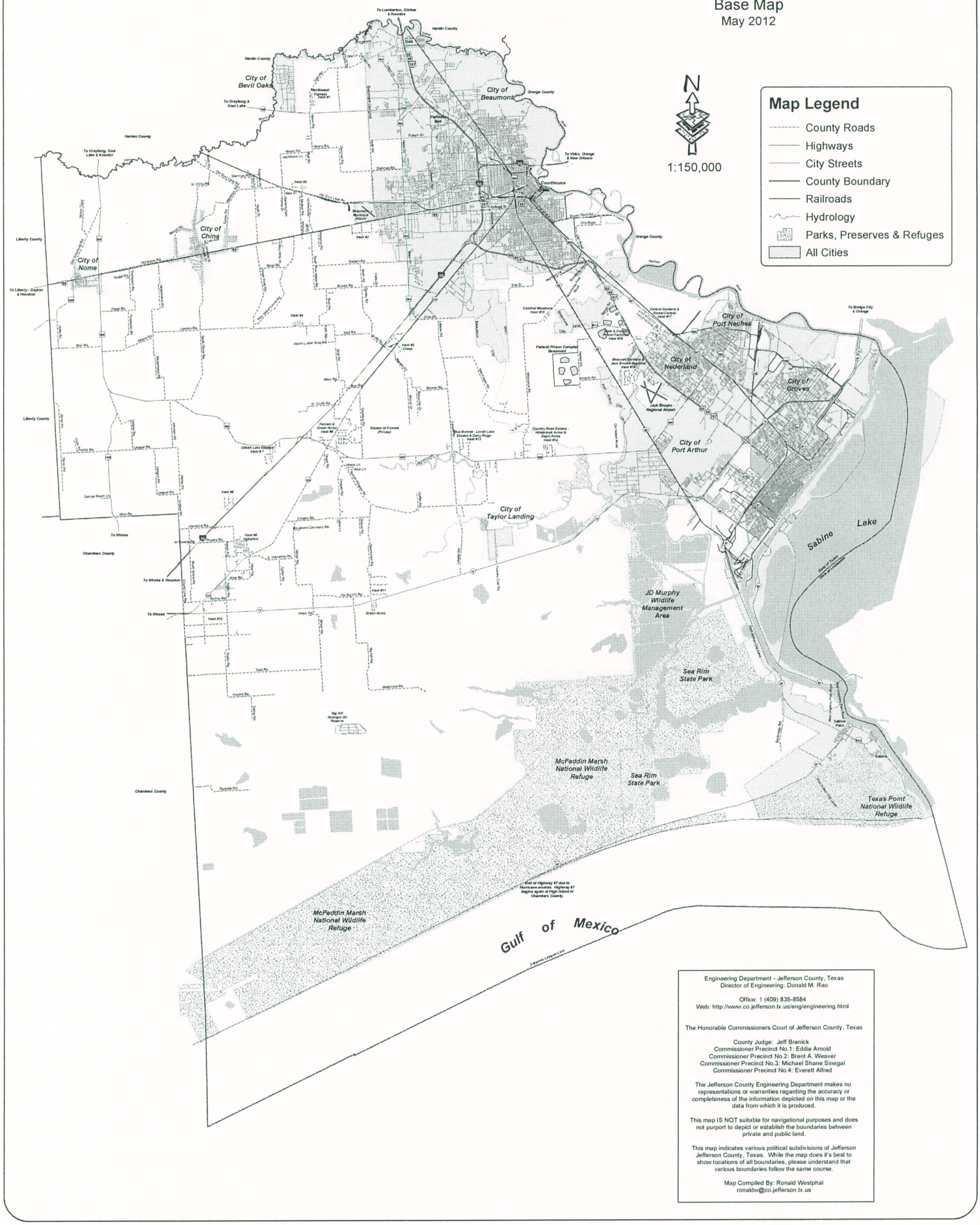
If the County files suit to enforce collection, the County may also recover costs and expenses, including attorney's fees, in a suit to collect a delinquent installment of an assessment in the same manner and at the same rate as in suit to collect a delinquent property tax. If a delinquent installment of an assessment is collected after the filing of a suit, the County will remit to the lender the net amount of the delinquent installments and contractual interest collected and remit to the Authorized Representative the amount of any administrative fees collected but will retain any statutory penalties, interest, and attorney's fees collected.

EXHIBIT 1

MAP OF COUNTY PACE REGION

Jefferson County, Texas

Base Map
May 2012



Engineering Department - Jefferson County, Texas
Director of Engineering: Donald M. Rao

Office: 1 (409) 835-8584
Web: http://www.co.jefferson.tx.us/eng/engineering.html

The Honorable Commissioners Court of Jefferson County, Texas

County Judge: Jeff Branick
Commissioner Precinct No.1: Eddie Arnold
Commissioner Precinct No.2: Brent A. Weaver
Commissioner Precinct No.3: Michael Shane Sinegal
Commissioner Precinct No.4: Everett Alfred

The Jefferson County Engineering Department makes no representations or warranties regarding the accuracy or completeness of the information depicted on this map or the data from which it is produced.

This map IS NOT suitable for navigational purposes and does not purport to depict or establish the boundaries between private and public land.

This map indicates various political subdivisions of Jefferson Jefferson County, Texas. While the map does it's best to show locations of all boundaries, please understand that various boundaries follow the same course.

Map Compiled By: Ronald Westphal
ronaldw@co.jefferson.tx.us

EXHIBIT 2

PACE OWNER CONTRACT

THIS PROPERTY ASSESSED CLEAN ENERGY ("PACE") OWNER CONTRACT ("**Owner Contract**") is made as of the _____ day of _____, _____, by and between Jefferson County, Texas ("**Local Government**"), and _____ ("**Property Owner**").

RECITALS

The Property Assessed Clean Energy Act ("**PACE Act**"), Texas Local Government Code Chapter 399, authorizes the governing body of a local government to establish a program and designate a region within the local government's jurisdiction within which an authorized representative of the local government may enter into written contracts with the record owners of commercial, industrial, agricultural, and large multifamily residential (5 or more dwelling units) real property to impose assessments on the property to finance the cost of permanent improvements fixed to the property intended to decrease water or energy consumption or demand.

Local Government has established a program under the PACE Act pursuant to a resolution dated _____, adopted by the Jefferson County Commissioners Court (the "**PACE Program**"), and has designated _____ ("**Authorized Representative**") as the representative authorized to enter into the Assessment, Owner Contract and Lender Contract described herein, and has designated the entire territory within the Jefferson County's jurisdiction as a region ("Region") within which the Authorized Representative and the record owners of such real property may enter into written contracts to impose assessments to repay the financing by owners of qualified improvements on the owner's property pursuant to the PACE Program.

Property Owner is the legal and record owner of the qualified "real property," as defined in Section 399.002 of the PACE Act, within the Region located at _____, _____, Texas, _____ (the "**Property**").

Pursuant to Application number _____, Property Owner has applied to Local Government to participate in the PACE Program by installing or modifying on the Property certain permanent improvements which are intended to decrease water or energy consumption or demand, and which are or will be fixed to the Property as "qualified improvements", as defined in Section 399.002 of the PACE Act (the "**Qualified Improvements**"). The installation or modification of such Qualified Improvements on the Property will be a "qualified project" as defined in Section 399.002 of the PACE Act (the "**Project**"). Property Owner has requested that Local Government enter into this Owner Contract pursuant to the PACE Act and the PACE Program and has requested Local Government to impose an assessment (the "**Assessment**") on the Property as set forth in the Notice Of Contractual Assessment Lien Pursuant To Property Assessed Clean Energy Act to be filed in the in the Official Public Records of Jefferson County, Texas (the "**Notice of Contractual**

Assessment Lien"), a copy of which is attached hereto as Exhibit A and made a part hereof, to repay the financing of such Qualified Improvements. The Property, Qualified Improvements and Assessment are more fully described in the Notice of Contractual Assessment Lien.

The financing of such Qualified Improvements will be provided to Property Owner by _____ ("**Lender**"), a qualified lender selected by Property Owner, pursuant to a written contract executed by Lender and Local Government as required by Section 399.006(c) of the PACE Act and by the PACE Program (the "**Lender Contract**"). The financing will include only those costs and fees for which an assessment may be imposed under the PACE Act. Local Government has agreed to maintain and continue the Assessment for the benefit of Lender until such financing is repaid in full and to release the Assessment upon notice from Lender of such payment, or foreclose the lien securing the Assessment for the benefit of Lender upon notice from Lender of a default by Property Owner.

As required by Section 399.010 of the PACE Act, Property Owner notified the holder(s) of any mortgage liens on the Property at least thirty (30) days prior to the date of this Owner Contract of Property Owner's intention to participate in the PACE Program. The written consent of each mortgage holder to the Assessment was obtained prior to the date of this Owner Contract and is attached hereto as Exhibit B and made a part hereof.

AGREEMENT

The parties agree as follows:

Imposition of Assessment. In consideration for the financing advanced or to be advanced to Property Owner by Lender for the Project under the PACE Program pursuant to the Lender Contract, Property Owner hereby requests and agrees to the imposition by Local Government of the Assessment in the amount of $_____, as set forth in the Notice of Contractual Assessment Lien, including all interest, fees, penalties, costs, and other sums due under and/or authorized by the PACE Act, PACE Program and the financing documents between Property Owner and Lender (the "**Financing Documents**") which are described or listed on Exhibit C attached hereto and made a part hereof by reference. Property Owner promises and agrees to pay such amount and interest to Local Government, in care of or as directed by Lender, in satisfaction of the Assessment imposed pursuant to the Owner Contract and the PACE Act. Accordingly, Local Government hereby imposes the Assessment on the Property to secure the payment of such amount, in accordance with the requirements of the PACE Program and the provisions of the PACE Act.

Maintenance and Enforcement of Assessment. In consideration for Lender's agreement to advance financing to Property Owner for the Project pursuant to the Financing Documents, Local Government agrees to maintain and continue the Assessment on the Property for the benefit of Lender until the Assessment, including all interest, fees, penalties, costs, and other sums due under and/or authorized by the PACE Act, PACE Program and the Financing Documents are paid in full, and to release the Assessment upon notice from Lender of such payment. Local Government agrees to undertake reasonable efforts to enforce the Assessment against the Property for the benefit of Lender in the event of a default by Property Owner. Local Government agrees to send an annual notice of assessment to the property owner with the annual property tax notice each year

there is a PACE lien balance. This notification can be listed on page one of said tax notice or as a separate page two (2) notification.

Installments. The Assessment, including the amount financed and contractual interest, is due and payable in installments as set forth in the Notice of Contractual Assessment Lien and the Financing Documents. The Assessment shall include: (1) an application fee paid by Property Owner to Authorized Representative at loan closing, and (2) a recurring administration fee paid by Property Owner to the Authorized Representative. The recurring administration fee amount shall be collected by Lender and paid to the Authorized Representative within thirty (30) days of receipt by Lender. The amounts due to the Authorized Representative are identified in Exhibit C hereto. As required by Section 399.009(a) (8) of the PACE Act, the period during which such installments are payable does not exceed the useful life of the Project. When the Assessment together with any prepayment premium, and/or default penalties and interest, if any, has been paid in full, Local Government's rights under this Owner Contract will cease and terminate. Upon notice from Lender that all amounts owing have been paid in full, Local Government will execute a release of the Assessment and this Owner Contract. Thereafter, the Authorized Representative will record the release.

Assignment of Right to Receive Installments. Lender will have the right to assign or transfer the right to receive the installments of the financing secured by the Assessment, provided all of the following conditions are met:

The assignment or transfer is made to a qualified lender as defined in the Lender Contract;

Property Owner and Authorized Representative are notified in writing of the assignment or transfer and the address to which payment of the future installments should be mailed at least 30 days before the next installment is due according to the payment schedule included in the Notice of Contractual Assessment Lien and the Financing Documents; and

The assignee or transferee of the right to receive the payments executes an explicit written assumption of all of Lender's obligations under Lender Contract.

Upon written notice to Property Owner and Authorized Representative of an assignment or transfer of the right to receive the installments that meets all of these conditions, the assignor shall be released of all of the obligations of the Lender under such Lender Contract accruing after the date of the assignment assumed by and transferred to such assignee or transferee and all of such obligations shall be assumed by and transferred to the assignee. Any attempt to assign or transfer the right to receive the installments that does not meet all of these conditions is void.

Lien Priority and Enforcement. Pursuant to Section 399.014 of the PACE Act,

Delinquent installments of the Assessment will incur interest and penalties in the same manner and in the same amount as delinquent property taxes, viz., a delinquent installment incurs a penalty of 6% of the amount of the installment for the first calendar month it is delinquent plus 1% for each additional month or portion of a month the installment remains unpaid prior to July 1 of the year in which it becomes delinquent.

However, an installment delinquent on July 1 incurs a total penalty of 12% of the amount of the delinquent installment without regard to the number of months it has been delinquent. A delinquent installment will also accrue interest at the rate of 1% for each month or portion of a month that the installment remains unpaid. Statutory penalties and statutory interest payable under this paragraph will be retained by Local Government to compensate it for the cost of enforcing the Assessment. Additional interest at any default rate imposed by Lender pursuant to the Financing Documents, along with any other fees and charges that become due pursuant to the Financing Documents may be assessed by Lender and retained by Lender.

The Assessment, together with any penalties and interest thereon,

is a first and prior lien against the Property from the date on which the Notice of Contractual Assessment Lien is filed in the Official Public Records of Jefferson County as provided by Section 399.014 of the PACE Act, until the financing secured by the Assessment and any penalties and interest are paid; and

such lien has the same priority status as a lien for any other ad valorem tax, pursuant to Section 399.014(a)(2) of the PACE Act.

The lien created by the Assessment runs with the land, and according to Section 399.014(b) of the PACE Act, any portion of the Assessment that has not yet become due is not eliminated by foreclosure of: (i) a property tax lien, or (ii) the lien for any past due portion of the Assessment. In the event of a sale or transfer of the Property by Property Owner, the obligation for the Assessment and the Property Owner's obligations under the Financing Documents will be transferred to the succeeding owner without recourse on Local Government or Authorized Representative.

In the event of a default by Property Owner in payment of the installments called for by the Financing Documents, the lien created by the Assessment will be enforced by Local Government in the same manner according to Texas Tax Code Secs. 33.41 to 34.23 that a property tax lien against real property may be enforced by a local government, to the extent the enforcement is consistent with Section 50, Article XVI, Texas Constitution.

In a suit to collect a delinquent installment of the Assessment, Local Government will be entitled to recover costs and expenses, including attorney's fees in the amount of 15% of the total amount of the delinquent installment, penalties, and interest due, in the same manner according to Texas Tax Code Sec. 33.48 as in a suit to collect a delinquent property tax. Lender shall be entitled to any additional sums due to it under the Financing Documents in connection with a suit to collect a delinquent installment of the Assessment.

After written notice of the Assessment is recorded in the real property records of the county in which the Property is located as provided under Section 399.013 of the PACE Act, the lien created by the Assessment may not be contested on the basis that the improvement is not a "qualified improvement" or the project is not a "qualified project", as such terms are defined in Section 399.002 of the PACE Act.

Written Contract Required by PACE Act. This Owner Contract constitutes a written contract for the Assessment between the Property Owner and Local Government as required by Section 399.005 of the PACE Act. The Notice of Contractual Assessment Lien will be recorded in the Official Public Records of Jefferson County as notice of the contractual Assessment, in accordance with the requirements of Section 399.013 of the PACE Act.

Qualified Improvements. Property Owner agrees that all improvements purchased, constructed and/or installed through financing obtained pursuant to this Owner Contract shall be permanently affixed to the Property and will transfer with the Property to the transferee in the event of and sale or assignment of the Property.

Water or Energy Savings. For so long as the Assessment encumbers the Property, Property Owner agrees on or before January 31st of each year, to report to Authorized Representative the water or energy savings realized through the Project in accordance with the reporting requirements established by the Local Government.

Construction and Definitions. This Owner Contract is to be construed in accordance with and with reference to the PACE Program and PACE Act. Terms used herein, and not otherwise defined herein, shall have the meanings ascribed to them in: (1) the PACE Program, and/or (2) the PACE Act.

Binding Effect. This Owner Contract inures to the benefit of Local Government and is binding upon Property Owner, its heirs, successors, and assigns.

Notices. All notices and other communications required or permitted by this Owner Contract shall be in writing and mailed by certified mail, return receipt requested, addressed to the other party at its address shown below the signature of such party or at such other address as such party may from time to time designate in writing to the other party, and shall be effective from the date of receipt.

Governing Law. This Owner Contract shall in all respects be governed by and construed in accordance with the laws of the State of Texas.

Entire Agreement. This Owner Contract constitutes the entire agreement between Local Government and Property Owner with respect to the subject matter hereof and may not be amended or altered in any manner except by a document in writing executed by both parties.

Further Assurances. Property Owner further covenants and agrees to do, execute and deliver, or cause to be done, executed, and delivered all such further acts for implementing the intention of this Owner Contract as may be reasonably necessary or required.

Captions. Paragraph and section titles are for convenience of reference only and shall not be of any legal effect.

Interest. Interest and penalties in the event of default, as provided above, are explicitly authorized by Section 399.014(d) of the PACE Act. However, in no event will the total amount of interest on the Assessment, including statutory interest payable to Local Government and contractual interest payable to Lender under the Financing Documents, exceed the maximum

amount or rate of nonusurious interest that may be contracted for, charged, or collected under Texas law (the "usury limit"). If the total amount of interest payable to Local Government and Lender exceeds the usury limit, the interest payable to Local Government will be reduced and any interest in excess of the usury limit will be credited to the amount payable to Local Government or refunded. This provision overrides any conflicting provisions in this Owner Contract.

Counterparts. This Owner Contract may be executed in any number of counterparts, each counterpart may be delivered originally or by electronic transmission, all of which when taken together shall constitute one agreement binding on the parties, notwithstanding that all parties are not signatories to the same counterpart.

Costs. No provisions of this Owner Contract will require Local Government to expend or risk its own funds or otherwise incur any financial liability in the performance of any of its duties hereunder.

Construction Terms. If the Lender Contract includes requirements related to construction of the Project and disbursement of Financing, such requirements are set forth in Exhibit D attached hereto and incorporated herein by reference. Such requirements may include, among other things, (1) the disbursement schedule and (2) any holdback amount to be funded following verification of final project completion.

PROPERTY OWNER:

_____

By:_____

Name: _____

Title: _____

Address: _____

_____

LOCAL GOVERNMENT:

Jefferson County, Texas

By:_____
AUTHORIZED REPRESENTATIVE
Pursuant to Tex. Local Gov't Code §399.006(b)

Name: _____

Title: _____

Address: _____

_____

EXHIBIT A

NOTICE OF CONTRACTUAL ASSESSMENT LIEN
PURSUANT TO
PROPERTY ASSESSED CLEAN ENERGY ACT

STATE OF TEXAS §
§
COUNTY OF JEFFERSON §

RECITALS

The Property Assessed Clean Energy Act ("**PACE Act**"), Texas Local Government Code Chapter 399, authorizes the governing body of a local government to establish a program and designate a region within the local government's jurisdiction within which an authorized representative of the local government may enter into written contracts with the record owners of commercial, industrial, agricultural, and large multifamily residential (5 or more dwelling units) real property to impose assessments on the property to finance the cost of permanent improvements fixed to the property intended to decrease water or energy consumption or demand. Unless otherwise expressly provided herein, all terms used herein have the same meanings ascribed to them in the PACE Act.

Jefferson County ("**Local Government**") has established a program under the PACE Act pursuant to a resolution dated _____, adopted by the Jefferson County Commissioners Court (the "**PACE Program**"), and has designated _____ ("**Authorized Representative**") as the representative authorized to enter into and enforce the Assessment, Owner Contract and Lender Contract described herein, and has designated the entire territory within the County of Jefferson jurisdiction as a region ("**Region**") within which the Authorized Representative and the record owners of such real property may enter into written contracts to impose assessments to repay the financing by owners of qualified improvements on the owner's property pursuant to the PACE Program.

_____ ("**Property Owner**") is the legal and record owner of the qualified "real property," as defined in Section 399.002 of the PACE Act, within the Region located at _____, _____, Texas, and more fully described in Exhibit A attached hereto and made a part hereof (the "**Property**").

Property Owner has applied to Local Government to participate in the PACE Program by installing or modifying on the Property certain permanent improvements described in Exhibit B attached hereto and made a part hereof, which are intended to decrease water or energy consumption or demand, and which are or will be fixed to the Property as "qualified improvements", as defined in Section 399.002 of the PACE Act (the "**Qualified Improvements**"). The installation or modification of such Qualified Improvements on the Property will be a "qualified project" as defined in Section 399.002 of the PACE Act. Property

Owner has entered into a written contract (the "**Owner Contract**") with Local Government pursuant to the PACE Act and the PACE Program and has requested Local Government to impose an assessment on the Property to repay the financing of such Qualified Improvements.

The financing of such Qualified Improvements will be provided to Property Owner by _____ ("**Lender**"), a qualified lender selected by Property Owner, pursuant to a written contract executed by Lender and Local Government as required by Section 399.006(c) of the PACE Act and by the PACE Program (the "**Lender Contract**"). Lender will be responsible for all servicing duties other than those specifically undertaken by Local Government in the Lender Contract.

THEREFORE, Local Government hereby gives notice to the public pursuant to Section 399.013 of the PACE Act that it has imposed an assessment on the Property in the amount of $_____, as set forth on Exhibit C attached hereto, which together with all interest, fees, penalties, costs and other sums due under and/or authorized by the PACE Act, PACE Program and the financing documents between Property Owner and Lender (the "**Financing Documents**") is herein referred to as the "**Assessment**".

Pursuant to Section 399.014 of the PACE Act,

The Assessment, including interest and any penalties, costs, or fees accrued thereon,

(i) is a first and prior lien on the Property from the date that this Notice of Contractual Assessment Lien is recorded in the Official Public Records of Jefferson County Texas, until such Assessment, interest, penalties, costs, and fees are paid in full; and

(ii) such lien has the same priority status as a lien for any other ad valorem tax, pursuant to Section 399.014(a)(2) of the PACE Act.

The lien created by the Assessment runs with the land, and according to Section 399.014(b) of the PACE Act, any portion of the Assessment that has not yet become due is not eliminated by foreclosure of: (i) a property tax lien, or (ii) the lien for any past due portion of the Assessment. Additionally, in the event of a sale or transfer of the Property by Property Owner (excluding a transfer as part of a foreclosure sale for a past due portion of the Assessment), the obligations under the Financing Documents, including, without limitation, any unpaid installments of the Assessment then due and owing and the portion of the Assessment that has not yet become due, will be transferred to the succeeding owner without recourse on Local Government or Authorized Representative.

After this Notice of Contractual Assessment Lien is recorded in the real property records of the county in which the Property is located as provided under Section 399.013 of the PACE Act, the lien created by the Assessment may not be contested on the basis that the improvement is not a "qualified improvement" or the project is not a "qualified project", as such terms are defined in Section 399.002 of the PACE Act.

EXECUTED on _____, _____.

LOCAL GOVERNMENT:
Jefferson County, Texas

By: _____

Name: _____

Title: _____

AUTHORIZED REPRESENTATIVE
Pursuant to Tex. Local Gov't Code §399.006(b)

ACKNOWLEDGEMENT

STATE OF TEXAS §

COUNTY OF JEFFERSON §

This Notice of Contractual Assessment Lien pursuant to Property Assessed Clean Energy Act was acknowledged before me on _____, _____ by _____, _____, on behalf of _____, Texas.

_____

_____(print name)

NOTARY PUBLIC, STATE OF TEXAS

EXHIBIT A

PROPERTY DESCRIPTION

EXHIBIT B

QUALIFIED IMPROVEMENTS

EXHIBIT C

ASSESSMENT

Assessment Payment Schedule

Assessment Total:
Payment Frequency:
Interest Rate:

Payment Date	Total Payment	Principal Paid	Interest Paid	Administration Fee	Remaining Balance

EXHIBIT B

MORTGAGE HOLDER(S) CONSENT

EXHIBIT C

FINANCING DOCUMENTS

Assessment Payment Schedule

Assessment Total:
Payment Frequency:
Interest Rate:

Payment Date	Total Payment	Principal Paid	Interest Paid	Administration Fee	Remaining Balance

Financing Documents

Document Title	Parties	Date Executed

EXHIBIT D

CONSTRUCTION TERMS

[if applicable]

Date	Draw down Amount	Purpose

EXHIBIT 3

PACE LENDER CONTRACT

THIS PROPERTY ASSESSED CLEAN ENERGY ("PACE") LENDER CONTRACT (the "**Lender Contract**") is made as of the _____ day of _____, _____, by and between Jefferson County ("**Local Government**") and _____ ("**Lender**").

RECITALS

The Property Assessed Clean Energy Act ("**PACE Act**"), Texas Local Government Code Chapter 399, authorizes the governing body of a local government to establish a program and designate a region within the local government's jurisdiction within which an authorized representative of the local government may enter into written contracts with the record owners of commercial, industrial, agricultural, and large multifamily residential (5 or more dwelling units) real property to impose assessments on the property to finance the cost of permanent improvements fixed to the property intended to decrease water or energy consumption or demand.

Local Government has established a program under the PACE Act pursuant to a resolution dated _____, adopted by the Jefferson County Commissioners Court (the "**PACE Program**"), and has designated _____ ("**Authorized Representative**") as the representative authorized to enter into the Assessment, Owner Contract and Lender Contract described herein, and has designated the entire territory within the Jefferson County's jurisdiction as a region ("**Region**") within which the Authorized Representative and the record owners of such real property may enter into written contracts to impose assessments to repay the financing by owners of qualified improvements on the owner's property pursuant to the PACE Program.

Pursuant to Application number _____, _____ ("**Property Owner**") has applied to Local Government to participate in the PACE Program with respect to certain real property located at _____, _____, Texas, _____ (the "**Property**") by installing or modifying on the Property certain permanent improvements which are intended to decrease water or energy consumption or demand, and which are or will be fixed to the Property as "qualified improvements", as defined in Section 399.002 of the PACE Act (the "**Qualified Improvements**"). The installation or modification of such Qualified Improvements on the Property will be a "qualified project" as defined in Section 399.002 of the PACE Act (the "**Project**").

Property Owner and Local Government have entered into a written contract as required by Section 399.005 of the PACE Act, a copy of which is attached hereto as Exhibit A and made a part hereof (the "**Owner Contract**"), in which Property Owner has requested that Local Government impose an assessment (the "**Assessment**") on the Property as set forth in the Notice Of Contractual Assessment Lien Pursuant To Property Assessed Clean Energy Act to be filed in the in the Official Public Records of Jefferson County, Texas (the "**Notice of Contractual Assessment Lien**"), a

copy of which is attached to the Owner Contract as Exhibit A, to repay the financing of such Qualified Improvements. The Property, Qualified Improvements and Assessment are more fully described in the Notice of Contractual Assessment Lien.

Financing for the Project (the "**Financing**") will be provided to Property Owner by Lender in accordance with financing documents which are described or listed on Exhibit B attached hereto and made a part hereof (the "**Financing Documents**"). Such Financing includes only those costs and fees for which an assessment may be imposed under the PACE Act. This Lender Contract is entered into between Local Government and Lender as required by Section 399.006(c) of the PACE Act to provide for repayment of the Financing secured by the Assessment.

As required by Section 399.010 of the PACE Act, Property Owner notified the holder(s) of any mortgage liens on the Property at least thirty (30) days prior to the date of the Owner Contract of Property Owner's intention to participate in the PACE Program. The written consent of each mortgage lien holder to the Assessment was obtained prior to the date of the Owner Contract, as shown by the copy of such consent(s) attached as Exhibit B to the Owner Contract.

AGREEMENT

The parties agree as follows:

Maintenance and Enforcement of Assessment. Lender agrees to provide the Financing for the Project in the total amount of $_____, according to the terms set out in the Financing Documents attached hereto as Exhibit B. In consideration for the Financing provided or to be provided by Lender for the Project, and subject to the terms and conditions of this Lender Contract, Local Government agrees to maintain and continue the Assessment for the benefit of Lender until the Financing, all contractual interest, any prepayment premium, additional penalties and interest imposed by the Lender under the Financing Documents according to the Financing Documents, and any statutory penalties, interest, attorney's fees, or costs accrued in the event of default are paid in full. Local Government will not release the Assessment until which time Lender notifies Local Government that all amounts owing have been paid in full. Local Government shall not sell, assign or transfer the Assessment or the assessment lien against the Property to any third party without the prior written consent of the Lender. Local Government agrees to enforce the assessment lien against the Property for the benefit of Lender in the event of a default by Property Owner in accordance with the provisions set forth in paragraph 6. Local Government shall have no obligation to repurchase the assessment and no liability to Lender should there be a default or an event of default in the payment thereof or should there be any other loss or expense suffered by Lender or under any other circumstances.

Installments. The Assessment, including the amount financed and contractual interest, is due and payable to Lender in installments as set forth in the Notice of Contractual Assessment Lien and Financing Documents. The Assessment shall include: (1) an application fee paid by Property Owner to Authorized Representative at loan closing, and (2) a recurring administration fee paid by Property Owner to the Authorized Representative. The recurring administration fee amount shall be collected by Lender and paid to the Authorized Representative within thirty (30) days of receipt by Lender. The amounts due to the Authorized Representative are identified in

Exhibit B hereto. As required by Section 399.009(a)(8) of the PACE Act, the period during which such installments are payable does not exceed the useful life of the Project. When the Assessment together with any prepayment premium, and/or default penalties and interest, if any, has been paid in full, Local Government's rights under this Lender Contract will cease and terminate. Upon notice from Lender that all amounts owing have been paid in full, Local Government will execute a release of the Assessment and this Lender Contract. Thereafter, the Authorized Representative will record the release.

Assignment of Right to Receive Installments. Lender will have the right to assign or transfer the right to receive the installments of the Assessment, provided all of the following conditions are met:

The assignment or transfer is made to a qualified lender, which may be one of the following:

Any federally insured depository institution such as a bank, savings bank, savings and loan association and federal or state credit union;

Any insurance company authorized to conduct business in one or more states;

Any registered investment company, registered business development company, or a Small Business Administration small business investment company;

Any publicly traded entity; or

Any private entity that:

(i) Has a minimum net worth of $5 million;

(ii) Has at least three years' experience in business or industrial lending or commercial real estate lending (including multifamily lending), or has a lending officer that has at least three years' experience in business or industrial lending or commercial real estate lending;

(iii) Can provide independent certification as to availability of funds; and

(iv) Has the ability to carry out, either directly or through a servicer, the bookkeeping and customer service work necessary to manage the assessment accounts

Property Owner and Authorized Representative are notified in writing of the assignment or transfer and the address to which payment of the future installments should be mailed at least 30 days before the next installment is due according to the payment schedule included in the Financing Documents; and

The assignee or transferee of the right to receive the installments executes an explicit written assumption of all of Lender's obligations under this Lender Contract.

Upon written notice to Property Owner and Authorized Representative of an assignment or transfer of the right to receive the installments that meets all of these conditions, the assignor shall be released of all of the obligations of the Lender under this Lender Contract accruing after the date of the assignment and all of such obligations shall be assumed by and transferred to the assignee. Any attempt to assign or transfer the right to receive the installments of the Assessment that does not meet all of these conditions is void.

Financing Responsibility. Lender assumes full responsibility for determining the financial ability of the Property Owner to repay the Financing and for advancing the funds as set forth in the Financing Documents and performing Lender's obligations and responsibilities thereunder.

Lien Priority and Enforcement. As provided in the Owner Contract and Section 399.014 of the PACE Act:

Delinquent installments of the Assessment incur interest and penalties in the same manner and in the same amount as delinquent property taxes, viz., a delinquent installment incurs a penalty of 6% of the amount of the installment for the first calendar month it is delinquent plus 1% for each additional month or portion of a month the installment remains unpaid prior to July 1 of the year in which it becomes delinquent. However, an installment delinquent on July 1 incurs a total penalty of 12% of the amount of the delinquent installment without regard to the number of months it has been delinquent. A delinquent installment also accrues interest at the rate of 1% for each month or portion of a month the installment remains unpaid. Statutory penalties and statutory interest payable under this paragraph will be retained by Local Government to compensate it for the cost of enforcing the Assessment. Additional interest at any default rate imposed by Lender pursuant to the Financing Documents, along with any other fees and charges that become due pursuant to the Financing Documents may be assessed by Lender and retained by Lender.

The Assessment, together with any penalties and interest thereon,

is a first and prior lien against the Property from the date on which the Notice of Contractual Assessment Lien is filed in the Official Public Records of Jefferson County, as provided by Section 399.014 of the PACE Act, until the Assessment and any penalties and interest are paid; and

such lien has the same priority status as a lien for any other ad valorem tax, pursuant to Section 399.014(a)(2) of the PACE Act.

The lien created by the Assessment runs with the land, and any portion of the Assessment that has not yet become due is not eliminated by foreclosure of a property tax lien, according to Section 399.014(b) of the PACE Act. In the event of a sale or transfer of the Property by Property Owner, the obligation for the Assessment and the Property

Owner's obligations under the Financing Documents will be transferred to the succeeding owner without recourse on Local Government or the Authorized Representative.

In the event of a default by Property Owner in payment of the installments called for by the Financing Documents, the lien created by the Assessment will be enforced by Local Government in the same manner according to Texas Tax Code Secs. 33.41 to 34.23 that a property tax lien against real property may be enforced by a local government, to the extent the enforcement is consistent with Section 50, Article XVI, Texas Constitution.

In a suit to collect a delinquent installment of the Assessment, Local Government will be entitled to recover costs and expenses, including attorney's fees in the amount of 15% of the total amount of the delinquent installment, penalties, and interest due, in the same manner according to Texas Tax Code Sec. 33.48 as in a suit to collect a delinquent property tax. Lender shall be entitled to any additional sums due to it under the Financing Documents in connection with a suit to collect a delinquent installment of the Assessment.

After written notice of the Assessment is recorded in the real property records of the county in which the Property is located as provided under Section 399.013 of the PACE Act, the lien created by the Assessment may not be contested on the basis that the improvement is not a "qualified improvement" or the project is not a "qualified project", as such terms are defined in Section 399.002 of the PACE Act.

Servicing and Enforcement of Assessment.

Servicing. The Assessment payments will be billed, collected, received, and disbursed in accordance with the procedures set out in the Financing Documents. Lender will be responsible for all servicing duties other than those specifically undertaken by Local Government in this Lender Contract. Local Government agrees to send an annual notice of assessment to the property owner with the annual property tax notice each year there is a PACE lien balance. This notification can be listed on page one of said tax notice or as a separate page two (2) notification.

Remittances. Each of the parties covenants and agrees to promptly remit to the other party any payments incorrectly received by such party with respect to the Assessment after the execution of this Lender Contract.

Default and Enforcement. In the event of a default in payment of any installment of the Assessment as specified in the Financing Documents, Lender agrees to take at least the following steps to collect the delinquent installment:

Mail a written notice of delinquency and demand for payment to the Property Owner by both certified mail, return receipt requested, and first class mail; and

Mail a second notice of delinquency to the Property Owner by both certified mail, return receipt requested, and first class mail at least 30 days after the date of the first notice if the delinquency is continuing.

If the Property Owner fails to cure the delinquency within 30 days after the mailing of the second notice of delinquency, the Lender or its designated servicer may notify the Authorized Representative who will certify to the Local Government in writing of a default by the Property Owner, and upon receipt of such certification and after doing its own due diligence, Local Government will enforce the assessment lien for the benefit of Lender pursuant to Tex. Local Gov't Code Sec. 399.014(c), in the same manner as a property tax lien against real property may be enforced, to the extent the enforcement is consistent with Section 50, Article XVI, Texas Constitution.

Final Payment and Release. When the Assessment has been satisfied and paid in full, together with all interest and prepayment premiums, if any, provided under the Financing Documents and all costs, fees, penalties, and interest applicable under the PACE Act and payable to Lender or Local Government, Local Government's rights under the Owner Contract will cease and terminate. Upon notice from Lender that all amounts owing have been paid in full, Local Government will execute a release of the Assessment and the Owner Contract. Thereafter, the Authorized Representative will record the Release.

Limitations on Local Government's Actions. Without the prior written consent of Lender, Local Government will not enter into any amendment or modification of or deviation from the Owner Contract. Local Government will not institute any legal action with respect to the Owner Contract, the Assessment, or the assessment lien without the prior written request of Lender.

Limitations of Local Government's Obligations. Local Government undertakes to perform only such duties as are specifically set forth in this Lender Contract, and no implied duties on the part of Local Government are to be read into this Lender Contract. Local Government will not be deemed to have a fiduciary or other similar relationship with Lender. Local Government may request written instructions for action from Lender and refrain from taking action until it receives satisfactory written instructions. Local Government will have no liability to any person for following such instructions, regardless of whether they are to act or refrain from acting.

Costs. No provisions of this Lender Contract will require Local Government to expend or risk its own funds or otherwise incur any financial liability in the performance of any of its duties hereunder.

Lender's Warranties and Representations. With respect to this Lender Contract, Lender hereby warrants and represents that on the date on which Lender executes this Lender Contract:

Lender is a qualified lender under the PACE Program, as defined in paragraph 3(a) above, and is fully qualified under the PACE Program to enter into this Lender Contract and the Financing Documents;

Lender has independently and without reliance upon Local Government conducted its own credit evaluation, reviewed such information as it has deemed adequate and appropriate, and made its own analysis of the Owner Contract, the Project, and Property

Owner's financial ability to perform the financial obligations set out in the Financing Documents; and

Lender has not relied upon any investigation or analysis conducted by, advice or communication from, or any warranty or representation by Local Government or any agent or employee of Local Government, express or implied, concerning the financial condition of the Property Owner or the tax or economic benefits of an investment in the Assessment.

Written Contract Required by the PACE Act. This Lender Contract constitutes a written contract between Local Government and Lender, as required under Section 399.006 (c) of the PACE Act.

Construction and Definitions. This Lender Contract is to be construed in accordance with and with reference to the PACE Program and PACE Act. Terms used herein, and not otherwise defined herein, shall have the meanings ascribed to them in: (1) the Notice of Contractual Assessment Lien, (2) the Owner Contract, (3) the PACE Program, and/or (4) the PACE Act.

Binding Effect. This Lender Contract is binding upon and shall inure to the benefit of the parties hereto and their respective heirs, representatives, successors, and assigns.

Notices. All notices and other communications required or permitted hereunder shall be in writing and mailed by certified mail, return receipt requested, addressed to the other party at the address stated below the signature of such party or at such other address as such party may from time to time designate in writing to the other party, and shall be effective from the date of receipt.

Governing Law. This Lender Contract shall in all respects be governed by and construed in accordance with the laws of the State of Texas.

Entire Agreement. This Lender Contract constitutes the entire agreement between the parties with respect to the subject matter hereof and shall not be amended or altered in any manner except by a document in writing executed by both parties.

Captions. Paragraph and section titles are for convenience of reference only and shall not be of any legal effect.

Counterparts. This Lender Contract may be executed in any number of counterparts, each counterpart may be delivered originally or by electronic transmission, all of which when taken together shall constitute one agreement binding on the parties, notwithstanding that all parties are not signatories to the same counterpart.

Interest. Interest and penalties in the event of default, as provided above, are explicitly authorized by Section 399.014(d) of the PACE Act. However, in no event will the total amount of interest on the Assessment, including statutory interest payable to Local Government and contractual interest payable to Lender under the Financing Documents, exceed the maximum amount or rate of nonusurious interest that may be contracted for, charged, or collected under Texas law (the "usury limit"). If the total amount of interest payable to Local Government and Lender exceeds the usury limit, interest payable to Local Government will be reduced and any

interest in excess of the usury limit will be credited to the amount payable to Local Government or refunded. This provision overrides any conflicting provisions in this Lender Contract.

Certification. Local Government certifies that the PACE Program has been duly adopted and is in full force and effect on the date of this Lender Contract. Property Owner has represented to Lender and Local Government that the Project is a "qualified project" as defined in the PACE Program and Section 399.002 of the PACE Act. The Assessment has been imposed on the Property as a lien in accordance with the PACE Owner Contract and the PACE Act. Local Government has not assigned or transferred any interest in the Assessment or the PACE Owner Contract.

Construction Terms. If this Lender Contract includes requirements related to construction of the Project and disbursement of Financing, such requirements are set forth in Exhibit C attached hereto and incorporated herein by reference. Such requirements may include, among other things, (1) the disbursement schedule and (2) any holdback amount to be funded following verification of final project completion.

LENDER:

_____

By:_____

Name: _____

Title: _____

Address: _____

LOCAL GOVERNMENT:

Jefferson County, Texas

By:_____
AUTHORIZED REPRESENTATIVE
Pursuant to Tex. Local Gov't Code §399.006(b)

Name: JEFF R. BRANICK

Title: COUNTY JUDGE

Address: P.O. BOX 4025, BEAUMONT, TX 77704

EXHIBIT A

OWNER CONTRACT

EXHIBIT B

FINANCING DOCUMENTS

Assessment Payment Schedule

Assessment Total:
Payment Frequency:
Interest Rate:

Payment Date	Total Payment	Principal Paid	Interest Paid	Administration Fee	Remaining Balance

Financing Documents

Document Title	Parties	Date Executed

EXHIBIT C

CONSTRUCTION TERMS

[if applicable]

Date	Draw down Amount	Purpose

EXHIBIT 4

FORM NOTICE OF CONTRACTUAL ASSESSMENT LIEN PURSUANT TO PROPERTY ASSESSED CLEAN ENERGY ACT

STATE OF TEXAS §
§
COUNTY OF JEFFERSON §

RECITALS

The Property Assessed Clean Energy Act ("**PACE Act**"), Texas Local Government Code Chapter 399, authorizes the governing body of a local government to establish a program and designate a region within the local government's jurisdiction within which an authorized representative of the local government may enter into written contracts with the record owners of commercial, industrial, agricultural, and large multifamily residential (5 or more dwelling units) real property to impose assessments on the property to finance the cost of permanent improvements fixed to the property intended to decrease water or energy consumption or demand. Unless otherwise expressly provided herein, all terms used herein have the same meanings ascribed to them in the PACE Act.

Jefferson County ("**Local Government**") has established a program under the PACE Act pursuant to a resolution dated _____, adopted by the Jefferson County Commissioners Court (the "**PACE Program**"), and has designated _____ ("**Authorized Representative**") as the representative authorized to enter into and enforce the Assessment, Owner Contract and Lender Contract described herein, and has designated the entire territory within the County of Jefferson jurisdiction as a region ("**Region**") within which the Authorized Representative and the record owners of such real property may enter into written contracts to impose assessments to repay the financing by owners of qualified improvements on the owner's property pursuant to the PACE Program.

_____ ("**Property Owner**") is the legal and record owner of the qualified "real property," as defined in Section 399.002 of the PACE Act, within the Region located at _____, _____, Texas, and more fully described in Exhibit A attached hereto and made a part hereof (the "**Property**").

Property Owner has applied to Local Government to participate in the PACE Program by installing or modifying on the Property certain permanent improvements described in Exhibit B attached hereto and made a part hereof, which are intended to decrease water or energy consumption or demand, and which are or will be fixed to the Property as "qualified improvements", as defined in Section 399.002 of the PACE Act (the "**Qualified Improvements**"). The installation or modification of such Qualified Improvements on the Property will be a "qualified project" as defined in Section 399.002 of the PACE Act. Property Owner has entered into a written contract (the "**Owner Contract**") with Local Government pursuant to the PACE Act and the PACE Program and has requested Local Government to impose an assessment on the Property to repay the financing of such Qualified Improvements.

The financing of such Qualified Improvements will be provided to Property Owner by _____ ("**Lender**"), a qualified lender selected by Property Owner, pursuant to a written contract executed by Lender and Local Government as required by Section 399.006(c) of the PACE Act and by the PACE Program (the "**Lender Contract**"). Lender will be responsible for all servicing duties other than those specifically undertaken by Local Government in the Lender Contract.

THEREFORE, Local Government hereby gives notice to the public pursuant to Section 399.013 of the PACE Act that it has imposed an assessment on the Property in the amount of $_____, as set forth on Exhibit C attached hereto, which together with all interest, fees, penalties, costs and other sums due under and/or authorized by the PACE Act, PACE Program and the financing documents between Property Owner and Lender (the "**Financing Documents**") is herein referred to as the "**Assessment**".

Pursuant to Section 399.014 of the PACE Act,

The Assessment, including interest and any penalties, costs, or fees accrued thereon,

(i) is a first and prior lien on the Property from the date that this Notice of Contractual Assessment Lien is recorded in the Official Public Records of Jefferson County Texas, until such Assessment, interest, penalties, costs, and fees are paid in full; and

(ii) such lien has the same priority status as a lien for any other ad valorem tax, pursuant to Section 399.014(a)(2) of the PACE Act.

The lien created by the Assessment runs with the land, and according to Section 399.014(b) of the PACE Act, any portion of the Assessment that has not yet become due is not eliminated by foreclosure of: (i) a property tax lien, or (ii) the lien for any past due portion of the Assessment. Additionally, in the event of a sale or transfer of the Property by Property Owner (excluding a transfer as part of a foreclosure sale for a past due portion of the Assessment), the obligations under the Financing Documents, including, without limitation, any unpaid installments of the Assessment then due and owing and the portion of the Assessment that has not yet become due, will be transferred to the succeeding owner without recourse on Local Government or Authorized Representative.

After this Notice of Contractual Assessment Lien is recorded in the real property records of the county in which the Property is located as provided under Section 399.013 of the PACE Act, the lien created by the Assessment may not be contested on the basis that the improvement is not a "qualified improvement" or the project is not a "qualified project", as such terms are defined in Section 399.002 of the PACE Act.

EXECUTED on _____, _____.

LOCAL GOVERNMENT:
Jefferson County, Texas

By: _____

Name: _____

Title: _____

AUTHORIZED REPRESENTATIVE
Pursuant to Tex. Local Gov't Code §399.006(b)

ACKNOWLEDGEMENT

STATE OF TEXAS §

COUNTY OF JEFFERSON §

This Notice of Contractual Assessment Lien pursuant to Property Assessed Clean Energy Act was acknowledged before me on _____, _____ by _____, _____, on behalf of _____, Texas.

_____

_____(print name)

NOTARY PUBLIC, STATE OF TEXAS

EXHIBIT A

PROPERTY DESCRIPTION

EXHIBIT B

QUALIFIED IMPROVEMENTS

EXHIBIT C

ASSESSMENT

Assessment Payment Schedule

Assessment Total:
Payment Frequency:
Interest Rate:

Payment Date	Total Payment	Principal Paid	Interest Paid	Administration Fee	Remaining Balance

AGENDA ITEM **March 20, 2017**

Consider and possibly approve a Resolution to Establish Pace Program in Jefferson County, Texas pursuant to Texas Local Government code Chapter 399 (the PACE Act.)

Resolution

STATE OF TEXAS § COMMISSIONERS' COURT

§

COUNTY OF JEFFERSON § OF JEFFERSON COUNTY, TEXAS

BE IT REMEMBERED at a meeting of Commissioners' Court of Jefferson County, Texas, held on the 20 day of March, 2017, on motion made by Michael S. Sinegal, Commissioner of Precinct No. 3, and seconded by Brent Weaver, Commissioner of Precinct No. 2, the following Resolution was adopted:

RESOLUTION TO ESTABLISH PACE PROGRAM IN JEFFERSON COUNTY

WHEREAS, the 83rd Regular Session of the Texas Legislature enacted the Property Assessed Clean Energy Act, Texas Local Government Code Chapter 399 (the "PACE Act"), which allows the governing body of a local government, including a County, to designate an area of the territory of the local government as a region within which an authorized local government official and the record owners of commercial, industrial, and large multifamily residential (5 or more dwelling units) real property may enter into written contracts to impose assessments on the property to repay the financing by the owners of permanent improvements fixed to the property intended to decrease energy or water consumption or demand;

WHEREAS, the installation or modification by property owners of qualified energy or water saving improvements to commercial, industrial, agricultural, and large multifamily residential real property in Jefferson County will further the goals of energy and water conservation without cost to the public;

WHEREAS, the Commissioners Court finds that third-party financing of energy and water conserving projects through contractual assessments maintained by Jefferson County ("PACE financing") furthers essential government purposes, including but not limited to, economic development, reducing energy consumption and costs, conserving water resources, and reducing greenhouse gas emissions;

WHEREAS, the Commissioners Court adopted a Resolution of Intent to establish a PACE program for Jefferson County on February 27, 2017, including a reference to the report on the proposed program prepared as required by Section 399.009 of the PACE Act and made the report available to the public on the Jefferson County website and for inspection in the County office;

WHEREAS, The Commissioners Court finds that the administration of the PACE program by a qualified non-profit organization as an independent third-party Authorized Representative contracted by Jefferson County and compensated by application and administration fees paid by the participating property owners, will enable the program to be administered without use of County resources, will assure the objectives of impartiality and confidentiality of owner information, and will be convenient and advantageous to Jefferson County; and

WHEREAS, the Commissioners Court also finds that because no County funds will be expended for PACE financing of the Authorized Representative's services, the selection of such an independent third-party Authorized Representative is not subject to the Professional Services Procurement Act or other County purchasing requirements; and

WHEREAS, the Commissioners Court held a public hearing on March 20, 20127 at 1;30 p.m. in the County Commissioners Courtroom, Jefferson County Courthouse, 1149 Pearl Street, Beaumont, TX 77701, at which the public hearing could comment on the proposed program, including the report available for public inspection as mentioned above and as required by Section 399.008(a)(2):

NOW THEREFORE, BE IT RESOLVED by the Commissioners Court of Jefferson County that:

1. Recitals. The recitals to this Resolution are true and correct and are incorporated into this resolution for all purposes.

2. Establishment of Program. Jefferson County hereby adopts this Resolution Establishing the Jefferson County Property Assessed Clean Energy Program ("Jefferson County PACE").

herein called "the Program," and finds that financing qualified projects through contractual assessments pursuant to the PACE Act is a valid public purpose and is convenient and advantageous to Jefferson County and its citizens.

3. Contractual Assessments. Jefferson County will, at the property owner's request, impose contractual assessments on the property to repay PACE financing for qualified energy and water conserving projects available to owners of privately owned commercial, industrial, and large multifamily property.

4. Qualified Projects. The following types of projects are qualified projects for PACE financing that may be subject to such contractual assessments:

   Projects that (a) involve the installation or modification of a permanent improvement fixed to privately owned commercial, industrial, or agricultural real property or residential real property with five (5) or more dwelling units, and (b) are intended to decrease energy or water consumption or demand, including a product, device, or interacting group of products or devices on the customer's side of the meter that uses energy technology to generate electricity, provide thermal energy, or regulate temperature.

   An assessment may not be imposed to repay the financing of facilities for undeveloped lots or lots undergoing development at the time of the assessment or the purchase or installation of products or devices not permanently fixed to real property.

5. Region. The boundaries of the entire geographic area within Jefferson County's jurisdiction are included in the boundaries of the region where PACE financing and assessments can occur.

6. Third- Party Financing. Financing for qualified projects under the Program will be provided by qualified third-party lenders chosen by the owners. Such lenders will execute written contracts with the Authorized Representative to service the debt through assessments, as required by the PACE Act. The contracts will provide for the lenders to determine the financial ability of owners to fulfill the financial obligations to be repaid through assessments, advance the funds to owners on such terms as are agreed between the lenders and the owners for the installation or modification of qualified projects, and service the debt secured by the assessments, directly or through a servicer, by collecting payments from the owners pursuant to financing documents executed between the lenders and the owners. Jefferson County will maintain and continue the assessments for the benefit of such lenders and will enforce the assessment lien for the benefit of a lender in the event of a default by an owner. Jefferson County will not, at this time, provide financing of any sort for the Jefferson County PACE program.

7. Authorized Representative. The Commissioners Court will designate a non-profit organization to act as the Authorized Representative with authority to enter into written contracts with the record owners of real property in Jefferson County to impose assessments pursuant to the PACE Act to repay the financing of qualified projects on the owners' property and enter into written contracts with the parties that provide third-party financing for such projects to service the debts through assessments. The Jefferson County Judge or his designee will be the liaison with the Authorized Representative.

8. Enforcement. The County will enforce the collection of past due assessments and may contract with a qualified law firm to assist in collection efforts.

9. Report. The final report on the - PACE program, prepared in accordance with Section 399 of the Texas Local Government Code is attached and incorporated into this resolution. The County will post the resolution and report on the County website.

10. Amendment of Program. The Commissioners Court may amend the Jefferson County PACE Program by resolution. However, another public hearing is required before the Program may be amended to provide for County financing of qualified improvements through assessments.

FINAL REPORT attached as Exhibit "A"

Signed this 20 day of March, 2017.

Jeff R. Branick, County Judge

Eddie Arnold
Commissioner, Precinct 1

Brent A. Weaver
Commissioner, Precinct 2

Michael Shane Sinegal
Commissioner, Precinct 3

Everette "Bo" Alfred
Commissioner, Precinct 4



REPORT REQUIRED BY TEXAS LOCAL GOVERNMENT CODE SECTION 399.009

FOR PROPOSED JEFFERSON COUNTY

PROPERTY ASSESSED CLEAN ENERGY (PACE) PROGRAM

This Report is adopted by Jefferson County Commissioners Court for the Jefferson County Property Assessed Clean Energy (PACE) Program (**the "program")** in accordance with the requirements of the Property Assessed Clean Energy Act (**the "PACE Act"**) as set forth in Texas Local Government Code Chapter 399.

Jefferson County and its constituents benefit when older existing buildings are modified with new technology and equipment that increases energy efficiency and reduces water consumption. As described in this Report, Jefferson County is establishing the commercial PACE Program to encourage private sector investment in energy efficiency and water conservation. The PACE program will be offered to property owners on a strictly voluntary basis and will not require the use of any public funds or resources.

Authorized under the PACE Act enacted in 2013, the PACE program is an innovative financing program that enables private sector owners of privately owned commercial, industrial, and multi-family residential properties with five or more dwelling units to obtain low-cost, long-term loans to pay for water conservation, energy-efficiency improvements, and renewable energy retrofits. PACE loans provide up to 100% financing of all project costs, with little or no up-front out-of-pocket cost to the owner. The 2015 legislative session streamlined the process.

Loans made under the PACE Program will be secured by assessments on the property that are voluntarily imposed by the owner. Assessments may be amortized over the projected life of the improvements. The annual utility cost savings derived from improvements financed with PACE loans are expected to exceed the amount of the annual assessment payments. In turn, these improvements are able to generate positive cash flow upon installation because the debt service will be less than the savings.

PACE assessments are tied to the property and follow title from one owner to the next. Each owner is responsible only for payment of the assessments accruing during its period of ownership. When the property is sold, the payment obligation for the remaining balance of the assessment is transferred automatically to the next owner. As a result, the program will help property owners overcome market barriers which often discourage investment in energy efficiency and water conservation improvements.

1. Eligible Properties

The Jefferson County PACE program is a strictly voluntary program. All private sector owners of Eligible Properties located within the County PACE region may participate in PACE

financing. ***"Eligible Properties"*** include commercial, industrial, and multi-family residential properties with five or more dwelling units. Government, residential[1], and undeveloped property and property undergoing development at the time of the assessment are not Eligible Properties.

2. Qualified Improvements

PACE financing may be used to pay for Qualified Improvements to Eligible Properties. ***"Qualified Improvements"*** are permanent improvements intended to decrease water or energy consumption or demand, including a product, device, or interacting group of products or devices on the customer's side of the meter that use energy technology to generate electricity, provide thermal energy, or regulate temperature. Under the PACE Act, products or devices that are not permanently fixed to real property are not considered to be Qualified Improvements.

The following items may constitute Qualified Improvements:

- High efficiency heating, ventilating and air conditioning ("HVAC") systems
- High efficiency chillers, boilers, and furnaces
- High efficiency water heating systems
- Energy management systems and controls
- Distributed generation systems
- High efficiency lighting system upgrades
- Building enclosure and envelope improvements
- Water conservation and wastewater recovery and reuse systems
- Combustion and burner upgrades
- Heat recovery and steam traps
- Water management systems and controls (indoor and outdoor)
- High efficiency irrigation equipment

3. Benefits of PACE to Property Owners

The PACE program will enable owners of Eligible Properties to overcome traditional barriers to capital investments in energy efficiency and water conservation improvements, such as unattractive returns on investment, split incentives between landlords and tenants, and uncertainty of recouping the investment upon sale of the property.

By financing Qualified Improvements through the program, property owners may achieve utility cost savings that exceed the amount of the assessment and reduce their exposure to utility price volatility. As a result, the value of the property will be enhanced, and the owner will only be obligated to pay the assessment installments that accrue during its period of ownership of the property. Additionally, by investing in energy efficiency and water conservation with PACE financing, property owners may also qualify for various rebate, tax credit, and incentive programs offered by utility providers and state or federal governmental authorities to encourage these types of investments.

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[1] This encompasses single family residential and any multi-family properties less than five units.

4. Benefits of PACE to the County

Among other things, projects financed through PACE will:

- Enable property owners and occupants to save substantial amounts in utility costs
- Reduce demand on the electricity grid
- Mitigate greenhouse gas emissions associated with energy generation
- Enhance the value and efficiency of existing buildings
- Boost the local economy by creating new job opportunities for laborers and new business opportunities for contractors, engineers, commercial lenders, professionals, and equipment vendors and manufactures
- Increase business retention and expansion in the PACE region by enabling cost effective energy and water saving updates to existing property
- Improve productivity through optimized energy usage
- Support the State's water conservation plan
- Better enable the County to meet its water conservation goals

Finally, there are multiple regulatory schemes being promulgated by EPA that will have significant impacts on air quality in Texas. For example, the recent adjustment in the NAAQS to a lower standard increased the difficulty for the County to maintain its attainment status. Being non-attainment for priority pollutants in the Clean Air Act endangers federal transportation funding. Through the reduction in energy consumption, as a result of the PACE program, there will be a decreased demand for power resulting in lower emissions from power plants.

The PACE program requires minimal support from the County. It is designed to be self-sustaining. Furthermore, because the PACE program is tax neutral, it achieves all of the benefits listed in this Report without imposing a burden on the County's general fund.

The 84th Texas Legislature added a provision that explicitly shields the County and its employees from liability resulting from administering a PACE program.[2]

5. The Benefits of PACE to Lenders

PACE loans are attractive to lenders because they are very secure investments. Like a property tax lien, the assessment lien securing the PACE loan has priority over other liens on the property. Therefore, the risk of loss from non-payment of a PACE loan is low compared to most other types of loans. PACE assessments provide lenders with an attractive new product to assist existing and new customers in addressing an almost universal pent-up demand for needed commercial and industrial property equipment modernization. In order to protect the interests of holders of existing mortgage loans on the property, the PACE Act requires their written consent to the PACE assessment as a condition to obtaining a PACE loan.

6. The Benefits of PACE to Contractors, Engineers, and Manufacturers

PACE loans provide attractive sources of financing for water and energy saving retrofits and upgrades, thereby encouraging property owners to make substantial investments in existing

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[2] TX. Local Gov't Code §399.019.

commercial and industrial buildings. As a result, PACE will unlock business opportunities for contractors, engineers, and manufacturers throughout the commercial and industrial sectors.

7. Administration of the PACE Program

Under the PACE Act, the establishment and operation of the program are considered to be governmental functions. The PACE Act further authorizes the County to enter into a contract with a third party to provide administrative services for the PACE program (the ***"Authorized Representative"***). Jefferson County may delegate administration of the PACE program to a qualified, non-profit organization that can administer the program at no cost to the County. The Authorized Representative will be funded by transaction fees paid by the parties, charitable grants or other sources of revenue. The Authorized Representative will not receive compensation or reimbursement from the County.

8. Eligible Lenders

The PACE Act does not set criteria for financial institutions or investors to be PACE lenders. The County will follow best practices of other PACE programs by recommending that lenders be:

- Any federally insured depository institution such as a bank, savings bank, savings and loan association and federal or state credit union;
- Any insurance company authorized to conduct business in one or more states;
- Any registered investment company, registered business development company, or a Small Business
- Small business investment company;
- Any publicly traded entity; or
- Any private entity that:
  - Has a minimum net worth of $5 million; and
  - Has at least three years' experience in business or industrial lending or commercial real estate lending (including multifamily lending), or has a lending officer that has at least three years' experience in business or industrial lending or commercial real estate lending; and
  - Can provide independent certification as to availability of funds; and
- All lenders must have the ability to carry out, either directly or through a servicer, the bookkeeping and customer service work necessary to manage the assessment accounts.

Any lender can participate in the PACE program as long as it is a financially stable entity with the ability to carry out, either directly or through a servicer, the bookkeeping and customer service work necessary to manage the assessment accounts. The property owner, not the County or the Authorized Representative, selects the lender.

The PACE administrator will not guarantee or imply that funding will automatically be provided from a third-party lender, imply or create any approval, endorsement or certification of, or responsibility for, any lender; or create any type of express or implied favoritism for any eligible lender.

9. Components of the PACE Program

As required under Section 399.009 of the PACE Act, the following describes all aspects of the PACE Program:

a. Map of Region. A map of the boundaries of the region included in the program is attached to this Report as Exhibit 1. The region encompasses the Jefferson County limits.

b. Form Contract with Owner. A form contract between Jefferson County and the record owner of the Eligible Property is attached as Exhibit 2. It specifies the terms of the assessment under the PACE program and the financing to be provided by an Eligible Lender of the property owner's choosing.

c. Form Contract with Lender. A form contract between Jefferson County and the Eligible Lender chosen by a property owner is attached to this Report as Exhibit 3. It specifies the financing and servicing of the debt through assessments.

d. Qualified Improvement. The following types of projects are qualified improvements that may be subject to contractual assessments under the PACE program:

> Projects that (a) involve the installation or modification of a permanent improvement fixed to privately owned commercial, industrial or residential real property with five (5) or more dwelling units;[3] and (b) are intended to decrease energy or water consumption or demand by installing a product, device, or interacting group of products or devices on the customer's side of the meter that uses energy technology to generate electricity, provide thermal energy, or regulate temperature. [4]

A sample list of potential Qualified Improvements appears in Section 2 above.

The PACE program may not be used to finance improvements to undeveloped lots or lots undergoing development at the time of the assessment, or for the purchase or installation of products or devices not permanently fixed to real property.[5]

e. Authorized Representative. HB 3187 was signed into law on June 16, 2015. It authorizes Jefferson County to delegate administration of the PACE program to a third-party "representative." Jefferson County may delegate all official administrative responsibilities, like the execution of individual contracts with

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3 TX. Local Gov't Code §399.002(5).
4 TX. Local Gov't Code §399.002(3).
5 TX. Local Gov't Code §399.004.

property owners and lenders, to an Authorized Representative. This relationship will be monitored and maintained by the County Judge or his designee.

f. Plans for Insuring Sufficient Capital. Lenders will extend loans to finance Qualified Improvements. Financing documents executed between owners and lenders will impose a contractual assessment on Eligible Property to repay the owner's financing of the Qualified Improvements. The lenders will ensure that property owners demonstrate the financial ability to fulfill the financial obligations to be repaid through contractual assessments.

g. No Use of Bonds or Public Funds. Jefferson County does not intend to issue bonds or use any other public monies to fund PACE projects. Property owners will obtain all financing from the Eligible Lenders they choose.

h. Limit on Length of Loan. One of the statutory criteria of a PACE loan is that the assessment payment period cannot exceed the useful life of the Qualified Improvement that is the basis for the loan and assessment. As part of the application process, the property owners will submit a third-party review showing the water or energy baseline conditions and the projected water or energy savings. This review will aid the Authorized Representative in making a determination that the period of the requested assessment does not exceed the useful life of the Qualified Improvement.

i. Application Process. The Authorized Representative will accept applications from property owners seeking to finance Qualified Improvements under the program. Each application must be accompanied by the required application fee and must include:

(1) A description of the specific Qualified Improvements to be installed or modified on the property,
(2) A description of the specific real property to which the qualified improvements will be permanently fixed, and
(3) The total amount of financing, including any transaction costs, to be repaid through assessments.

Based on this information, the Authorized Representative may issue a preliminary letter indicating that, subject to verification of all requirements at closing, the proposed project appears to meet program requirements. Based on this preliminary letter, the property owner may initiate an independent third-party review of the project and submit the project to Eligible Lenders for approval of financing.

Once the above processes are completed, the property owner will submit the application to the Authorized Representative to obtain preliminary approval. The property owner is expected to produce the following documentation prior to closing on the PACE loan:

(1) A Report conducted by a qualified, independent third party, showing water or energy baseline conditions and the projected water or energy savings, or the amount of renewable energy generated attributable to the project;
(2) Such financial information about the owner and the property as the lender chosen by the owner deems necessary to determine that the owner has demonstrated the financial ability to fulfill the financial obligations to be paid through assessments; and
(3) All other information required by the Authorized Representative.

j. Financial Eligibility Requirements. The Authorized Representative will determine whether the owner, the property and the improvements are eligible for financing under the program. The Eligible Lender chosen by the owner will determine whether the owner has demonstrated the financial ability to repay the financial obligations to be collected through contractual assessments. The statutory method[6] for ensuring such a demonstration of financial ability must be based on appropriate underwriting factors, including the following:
(1) verification that the person requesting to participate in the program is the legal record owner of the benefitted property,
(2) the applicant is current on mortgage and property tax payments,
(3) the applicant is not insolvent or in bankruptcy proceedings,
(4) the title of the benefitted property is not in dispute; and
(5) there is an appropriate ratio of the amount of the assessment to the assessed value of the property.

k. Mortgage Holder Notice and Consent. As a condition to the execution of a written contract between the Authorized Representative and the property owner imposing an assessment under the program, the holder of any mortgage lien on the property must be given notice of the owner's intention to participate in the program on or before the 30th day before the date the contract is executed, and the owner must obtain the written consent of all mortgage holders.[7]

l. Imposition of Assessment. The Authorized Representative will enter into a written contract with the property owner, only after:
(1) The property owner delivers to the Authorized Representative written consent of all mortgage lien holders;
(2) The Authorized Representative's determination that the owner and the property are eligible to participate in the program, that the proposed improvements are reasonably likely to decrease energy or water consumption or demand, and that the period of the requested assessment does not exceed the useful life of the Qualified Improvements; and
(3) The Eligible Lender notifies the Authorized Representative that the owner has demonstrated the financial ability to fulfill the financial obligations to be repaid through contractual assessments.

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6 TX. Local Gov't Code §399.009(b).
7 TX. Local Gov't Code §399.010.

The contract will impose a contractual assessment on the owner's Eligible Property to repay the lender's financing of the Qualified Improvements. The Eligible Lender will file "A Notice of Contractual Assessment Lien," in substantially the form in Exhibit 4 in the Official Public Records of Jefferson County, depending on where the Eligible Property is located, as notice to the public of the assessment, from the date of filing. The contract and the notice must contain the amount of the assessment, the legal description of the property, the name of the property owner, and a reference to the statutory assessment lien provided under the PACE Act.

m. Collection of Assessments. The execution of the written contract between the Authorized Representative and the property owner and recording of the Notice of Contractual Assessment Lien incorporate the terms of the financing documents executed between the property owner and with the lender to repay the financing secured by the assessment. The third-party lender will advance financing to the owner, and the terms for repayment will be such terms as are agreed between the lender and the owner. Under the form lender contract attached as Exhibit 3, the lender or a designated servicer will agree to service the debt secured by the assessment.[8]

With funds from the lender, the property owner can purchase directly the equipment and materials for the Qualified Improvement and contract directly, including through lease, power purchase agreement, or other service contract, for the installation or modification of the Qualified Improvements. Alternatively, the lender may make progress payments to the property owner as the Qualified Improvement is installed.

The lender will receive the owner's assessment payments to repay the debt and remit to the Authorized Representative any administrative fees. The lender will have the right to assign or transfer the right to receive the installments of the debt secured by the assessment, provided all of the following conditions are met:

(1) The assignment or transfer is made to an Eligible Lender, as defined above; and

(2) The property owner and the Authorized Representative are notified in writing of the assignment or transfer and the address to which payment of the future installments should be mailed at least 30 days before the next installment is due according to the schedule for repayment of the debt; and

(3) The assignee or transferee of the right to receive the payments executes an explicit written assumption of all of lender's obligations under the lender contract.

n. Verification Review. After a Qualified Improvement is completed, the Authorized Representative will require the property owner to provide verification

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[8] The servicer will be responsible for maintaining payment records, account balances, and reporting to the PACE administrator as required.

by a qualified independent third-party reviewer that the Qualified Improvement was properly completed and is operating as intended.[9] The verification report conclusively establishes that the improvement is a Qualified Improvement and the project is qualified under the PACE program.

o. Marketing and Education Services. Jefferson may subsequently enter into agreements with one or more other local governments or non-profit organizations that promote energy and water conservation and/or economic development to provide marketing and education services for the PACE program.

p. Quality Assurance and Antifraud Measures. The Authorized Representative will institute quality assurance and antifraud measures for the Program. The Authorized Representative will review each PACE application for completeness and supporting documents through independent review and verification procedures. The application and required attachments will identify and supply the information necessary to ensure that the property owner, the property itself, and the proposed project all satisfy PACE program underwriting and technical standard requirements. Measures will be put in place to provide safeguards, including a review of the energy and water savings baseline and certification of compliance with the technical standards manual from an independent third-party reviewer (ITPR), who must be a registered professional engineer, before the project can proceed. This review will include a site visit, report, and a letter from the ITPR certifying that he or she has no financial interest in the project and is an independent reviewer. After the construction of the project is complete, an ITPR will conduct a final site inspection and determine whether the project was completed and is operating properly. The reviewer's certification will also include a statement that the reviewer is qualified and has no financial interest in the project.

q. Delinquency. Under the terms of the form lender contract attached as Exhibit 3, if a property owner fails to pay an agreed installment when due on the PACE assessment, the lender will agree to take at least the following steps to collect the delinquent installment:

(1) Mail to the owner a written notice of delinquency and demand for payment by both certified mail (return receipt requested) and first class mail, and

(2) Mail to the owner a second notice of delinquency and demand for payment by both certified mail (return receipt requested) and first class mail, at least 30 days after the date of the first notice if the delinquency is continuing.

If the owner fails to cure the delinquency within 30 days after mailing the second notice of delinquency, the lender may notify the Authorized Representative of the owner's default. Pursuant to Texas Local Government Code Section 399.014(c), the Authorized Representative will initiate steps for the County to enforce the

[9] TX. Local Gov't Code §399.011.

assessment lien in the same manner as a property tax lien against real property may be enforced, to the extent the enforcement is consistent with Section 50, Article XVI, of the Texas Constitution. Delinquent installments will incur penalties and interest in the same manner and at the same rate as delinquent property taxes, according to Texas Local Government Code Section 399.014(d), and such statutory penalties and interest will be due to the County to offset the cost of collection.

If the County files suit to enforce collection, the County may also recover costs and expenses, including attorney's fees, in a suit to collect a delinquent installment of an assessment in the same manner and at the same rate as in suit to collect a delinquent property tax. If a delinquent installment of an assessment is collected after the filing of a suit, the County will remit to the lender the net amount of the delinquent installments and contractual interest collected and remit to the Authorized Representative the amount of any administrative fees collected but will retain any statutory penalties, interest, and attorney's fees collected.

EXHIBIT 1

MAP OF COUNTY PACE REGION

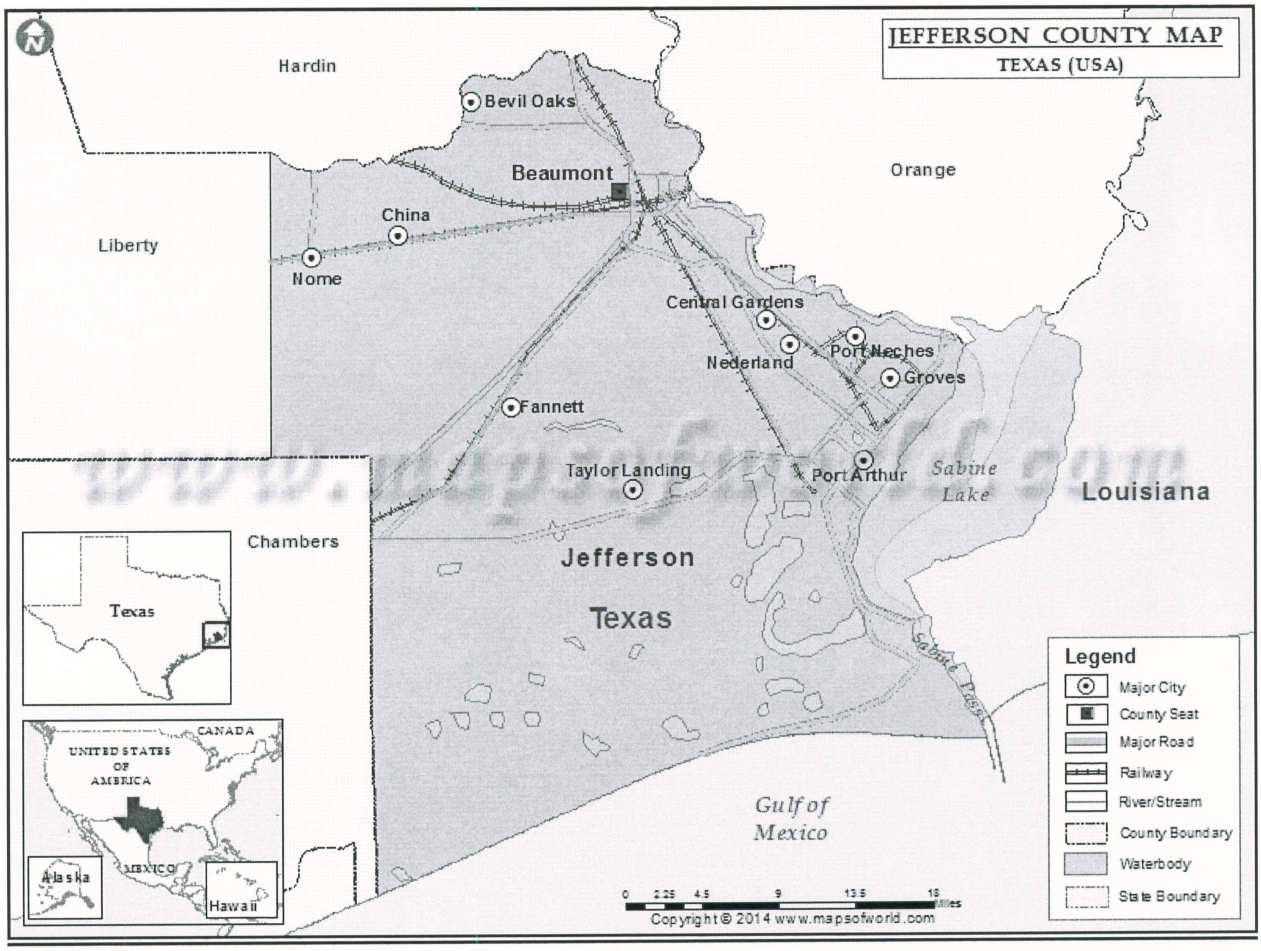


EXHIBIT 2

PACE OWNER CONTRACT

THIS PROPERTY ASSESSED CLEAN ENERGY ("PACE") OWNER CONTRACT ("**Owner Contract**") is made as of the _____ day of _____, _____, by and between Jefferson County, Texas ("**Local Government**"), and _____ ("**Property Owner**").

RECITALS

The Property Assessed Clean Energy Act ("**PACE Act**"), Texas Local Government Code Chapter 399, authorizes the governing body of a local government to establish a program and designate a region within the local government's jurisdiction within which an authorized representative of the local government may enter into written contracts with the record owners of commercial, industrial, agricultural, and large multifamily residential (5 or more dwelling units) real property to impose assessments on the property to finance the cost of permanent improvements fixed to the property intended to decrease water or energy consumption or demand.

Local Government has established a program under the PACE Act pursuant to a resolution dated _____, adopted by the Jefferson County Commissioners Court (the "**PACE Program**"), and has designated _____ ("**Authorized Representative**") as the representative authorized to enter into the Assessment, Owner Contract and Lender Contract described herein, and has designated the entire territory within the Jefferson County's jurisdiction as a region ("Region") within which the Authorized Representative and the record owners of such real property may enter into written contracts to impose assessments to repay the financing by owners of qualified improvements on the owner's property pursuant to the PACE Program.

Property Owner is the legal and record owner of the qualified "real property," as defined in Section 399.002 of the PACE Act, within the Region located at _____, _____, Texas, _____ (the "**Property**").

Pursuant to Application number _____, Property Owner has applied to Local Government to participate in the PACE Program by installing or modifying on the Property certain permanent improvements which are intended to decrease water or energy consumption or demand, and which are or will be fixed to the Property as "qualified improvements", as defined in Section 399.002 of the PACE Act (the "**Qualified Improvements**"). The installation or modification of such Qualified Improvements on the Property will be a "qualified project" as defined in Section 399.002 of the PACE Act (the "**Project**"). Property Owner has requested that Local Government enter into this Owner Contract pursuant to the PACE Act and the PACE Program and has requested Local Government to impose an assessment (the "**Assessment**") on the Property as set forth in the Notice Of Contractual Assessment Lien Pursuant To Property

Assessed Clean Energy Act to be filed in the in the Official Public Records of Jefferson County, Texas (the "**Notice of Contractual Assessment Lien**"), a copy of which is attached hereto as Exhibit A and made a part hereof, to repay the financing of such Qualified Improvements. The Property, Qualified Improvements and Assessment are more fully described in the Notice of Contractual Assessment Lien.

The financing of such Qualified Improvements will be provided to Property Owner by _____ ("**Lender**"), a qualified lender selected by Property Owner, pursuant to a written contract executed by Lender and Local Government as required by Section 399.006(c) of the PACE Act and by the PACE Program (the "**Lender Contract**"). The financing will include only those costs and fees for which an assessment may be imposed under the PACE Act. Local Government has agreed to maintain and continue the Assessment for the benefit of Lender until such financing is repaid in full and to release the Assessment upon notice from Lender of such payment, or foreclose the lien securing the Assessment for the benefit of Lender upon notice from Lender of a default by Property Owner.

As required by Section 399.010 of the PACE Act, Property Owner notified the holder(s) of any mortgage liens on the Property at least thirty (30) days prior to the date of this Owner Contract of Property Owner's intention to participate in the PACE Program. The written consent of each mortgage holder to the Assessment was obtained prior to the date of this Owner Contract and is attached hereto as Exhibit B and made a part hereof.

AGREEMENT

The parties agree as follows:

Imposition of Assessment. In consideration for the financing advanced or to be advanced to Property Owner by Lender for the Project under the PACE Program pursuant to the Lender Contract, Property Owner hereby requests and agrees to the imposition by Local Government of the Assessment in the amount of $_____, as set forth in the Notice of Contractual Assessment Lien, including all interest, fees, penalties, costs, and other sums due under and/or authorized by the PACE Act, PACE Program and the financing documents between Property Owner and Lender (the "**Financing Documents**") which are described or listed on Exhibit C attached hereto and made a part hereof by reference. Property Owner promises and agrees to pay such amount and interest to Local Government, in care of or as directed by Lender, in satisfaction of the Assessment imposed pursuant to the Owner Contract and the PACE Act. Accordingly, Local Government hereby imposes the Assessment on the Property to secure the payment of such amount, in accordance with the requirements of the PACE Program and the provisions of the PACE Act.

Maintenance and Enforcement of Assessment. In consideration for Lender's agreement to advance financing to Property Owner for the Project pursuant to the Financing Documents, Local Government agrees to maintain and continue the Assessment on the Property for the benefit of Lender until the Assessment, including all interest, fees, penalties, costs, and other sums due under and/or authorized by the PACE Act, PACE Program and the Financing Documents are paid in full, and to release the Assessment upon notice from Lender of such payment. Local Government agrees to undertake reasonable efforts to enforce the Assessment

against the Property for the benefit of Lender in the event of a default by Property Owner. Local Government agrees to send an annual notice of assessment to the property owner with the annual property tax notice each year there is a PACE lien balance. This notification can be listed on page one of said tax notice or as a separate page two (2) notification.

Installments. The Assessment, including the amount financed and contractual interest, is due and payable in installments as set forth in the Notice of Contractual Assessment Lien and the Financing Documents. The Assessment shall include: (1) an application fee paid by Property Owner to Authorized Representative at loan closing, and (2) a recurring administration fee paid by Property Owner to the Authorized Representative. The recurring administration fee amount shall be collected by Lender and paid to the Authorized Representative within thirty (30) days of receipt by Lender. The amounts due to the Authorized Representative are identified in Exhibit C hereto. As required by Section 399.009(a) (8) of the PACE Act, the period during which such installments are payable does not exceed the useful life of the Project. When the Assessment together with any prepayment premium, and/or default penalties and interest, if any, has been paid in full, Local Government's rights under this Owner Contract will cease and terminate. Upon notice from Lender that all amounts owing have been paid in full, Local Government will execute a release of the Assessment and this Owner Contract. Thereafter, the Authorized Representative will record the release.

Assignment of Right to Receive Installments. Lender will have the right to assign or transfer the right to receive the installments of the financing secured by the Assessment, provided all of the following conditions are met:

The assignment or transfer is made to a qualified lender as defined in the Lender Contract;

Property Owner and Authorized Representative are notified in writing of the assignment or transfer and the address to which payment of the future installments should be mailed at least 30 days before the next installment is due according to the payment schedule included in the Notice of Contractual Assessment Lien and the Financing Documents; and

The assignee or transferee of the right to receive the payments executes an explicit written assumption of all of Lender's obligations under Lender Contract.

Upon written notice to Property Owner and Authorized Representative of an assignment or transfer of the right to receive the installments that meets all of these conditions, the assignor shall be released of all of the obligations of the Lender under such Lender Contract accruing after the date of the assignment assumed by and transferred to such assignee or transferee and all of such obligations shall be assumed by and transferred to the assignee. Any attempt to assign or transfer the right to receive the installments that does not meet all of these conditions is void.

Lien Priority and Enforcement. Pursuant to Section 399.014 of the PACE Act,

Delinquent installments of the Assessment will incur interest and penalties in the same manner and in the same amount as delinquent property taxes, viz., a delinquent installment incurs a penalty of 6% of the amount of the installment for the first calendar

month it is delinquent plus 1% for each additional month or portion of a month the installment remains unpaid prior to July 1 of the year in which it becomes delinquent. However, an installment delinquent on July 1 incurs a total penalty of 12% of the amount of the delinquent installment without regard to the number of months it has been delinquent. A delinquent installment will also accrue interest at the rate of 1% for each month or portion of a month that the installment remains unpaid. Statutory penalties and statutory interest payable under this paragraph will be retained by Local Government to compensate it for the cost of enforcing the Assessment. Additional interest at any default rate imposed by Lender pursuant to the Financing Documents, along with any other fees and charges that become due pursuant to the Financing Documents may be assessed by Lender and retained by Lender.

The Assessment, together with any penalties and interest thereon,

is a first and prior lien against the Property from the date on which the Notice of Contractual Assessment Lien is filed in the Official Public Records of Jefferson County as provided by Section 399.014 of the PACE Act, until the financing secured by the Assessment and any penalties and interest are paid; and

such lien has the same priority status as a lien for any other ad valorem tax, pursuant to Section 399.014(a)(2) of the PACE Act.

The lien created by the Assessment runs with the land, and according to Section 399.014(b) of the PACE Act, any portion of the Assessment that has not yet become due is not eliminated by foreclosure of: (i) a property tax lien, or (ii) the lien for any past due portion of the Assessment. In the event of a sale or transfer of the Property by Property Owner, the obligation for the Assessment and the Property Owner's obligations under the Financing Documents will be transferred to the succeeding owner without recourse on Local Government or Authorized Representative.

In the event of a default by Property Owner in payment of the installments called for by the Financing Documents, the lien created by the Assessment will be enforced by Local Government in the same manner according to Texas Tax Code Secs. 33.41 to 34.23 that a property tax lien against real property may be enforced by a local government, to the extent the enforcement is consistent with Section 50, Article XVI, Texas Constitution.

In a suit to collect a delinquent installment of the Assessment, Local Government will be entitled to recover costs and expenses, including attorney's fees in the amount of 15% of the total amount of the delinquent installment, penalties, and interest due, in the same manner according to Texas Tax Code Sec. 33.48 as in a suit to collect a delinquent property tax. Lender shall be entitled to any additional sums due to it under the Financing Documents in connection with a suit to collect a delinquent installment of the Assessment.

After written notice of the Assessment is recorded in the real property records of the county in which the Property is located as provided under Section 399.013 of the PACE Act, the lien created by the Assessment may not be contested on the basis that the

improvement is not a "qualified improvement" or the project is not a "qualified project", as such terms are defined in Section 399.002 of the PACE Act.

Written Contract Required by PACE Act. This Owner Contract constitutes a written contract for the Assessment between the Property Owner and Local Government as required by Section 399.005 of the PACE Act. The Notice of Contractual Assessment Lien will be recorded in the Official Public Records of Jefferson County as notice of the contractual Assessment, in accordance with the requirements of Section 399.013 of the PACE Act.

Qualified Improvements. Property Owner agrees that all improvements purchased, constructed and/or installed through financing obtained pursuant to this Owner Contract shall be permanently affixed to the Property and will transfer with the Property to the transferee in the event of and sale or assignment of the Property.

Water or Energy Savings. For so long as the Assessment encumbers the Property, Property Owner agrees on or before January 31st of each year, to report to Authorized Representative the water or energy savings realized through the Project in accordance with the reporting requirements established by the Local Government.

Construction and Definitions. This Owner Contract is to be construed in accordance with and with reference to the PACE Program and PACE Act. Terms used herein, and not otherwise defined herein, shall have the meanings ascribed to them in: (1) the PACE Program, and/or (2) the PACE Act.

Binding Effect. This Owner Contract inures to the benefit of Local Government and is binding upon Property Owner, its heirs, successors, and assigns.

Notices. All notices and other communications required or permitted by this Owner Contract shall be in writing and mailed by certified mail, return receipt requested, addressed to the other party at its address shown below the signature of such party or at such other address as such party may from time to time designate in writing to the other party, and shall be effective from the date of receipt.

Governing Law. This Owner Contract shall in all respects be governed by and construed in accordance with the laws of the State of Texas.

Entire Agreement. This Owner Contract constitutes the entire agreement between Local Government and Property Owner with respect to the subject matter hereof and may not be amended or altered in any manner except by a document in writing executed by both parties.

Further Assurances. Property Owner further covenants and agrees to do, execute and deliver, or cause to be done, executed, and delivered all such further acts for implementing the intention of this Owner Contract as may be reasonably necessary or required.

Captions. Paragraph and section titles are for convenience of reference only and shall not be of any legal effect.

Interest. Interest and penalties in the event of default, as provided above, are explicitly authorized by Section 399.014(d) of the PACE Act. However, in no event will the total amount of interest on the Assessment, including statutory interest payable to Local Government and contractual interest payable to Lender under the Financing Documents, exceed the maximum amount or rate of nonusurious interest that may be contracted for, charged, or collected under Texas law (the "usury limit"). If the total amount of interest payable to Local Government and Lender exceeds the usury limit, the interest payable to Local Government will be reduced and any interest in excess of the usury limit will be credited to the amount payable to Local Government or refunded. This provision overrides any conflicting provisions in this Owner Contract.

Counterparts. This Owner Contract may be executed in any number of counterparts, each counterpart may be delivered originally or by electronic transmission, all of which when taken together shall constitute one agreement binding on the parties, notwithstanding that all parties are not signatories to the same counterpart.

Costs. No provisions of this Owner Contract will require Local Government to expend or risk its own funds or otherwise incur any financial liability in the performance of any of its duties hereunder.

Construction Terms. If the Lender Contract includes requirements related to construction of the Project and disbursement of Financing, such requirements are set forth in Exhibit D attached hereto and incorporated herein by reference. Such requirements may include, among other things, (1) the disbursement schedule and (2) any holdback amount to be funded following verification of final project completion.

PROPERTY OWNER:

_____

By:_____

Name: _____

Title: _____

Address: _____

_____

LOCAL GOVERNMENT:

Jefferson County, Texas

By:_____
AUTHORIZED REPRESENTATIVE
Pursuant to Tex. Local Gov't Code §399.006(b)

Name: _____

Title: _____

Address: _____

_____

EXHIBIT A

NOTICE OF CONTRACTUAL ASSESSMENT LIEN PURSUANT TO PROPERTY ASSESSED CLEAN ENERGY ACT

STATE OF TEXAS §
§
COUNTY OF JEFFERSON §

RECITALS

The Property Assessed Clean Energy Act ("**PACE Act**"), Texas Local Government Code Chapter 399, authorizes the governing body of a local government to establish a program and designate a region within the local government's jurisdiction within which an authorized representative of the local government may enter into written contracts with the record owners of commercial, industrial, agricultural, and large multifamily residential (5 or more dwelling units) real property to impose assessments on the property to finance the cost of permanent improvements fixed to the property intended to decrease water or energy consumption or demand. Unless otherwise expressly provided herein, all terms used herein have the same meanings ascribed to them in the PACE Act.

Jefferson County ("**Local Government**") has established a program under the PACE Act pursuant to a resolution dated _____, adopted by the Jefferson County Commissioners Court (the "**PACE Program**"), and has designated _____ ("**Authorized Representative**") as the representative authorized to enter into and enforce the Assessment, Owner Contract and Lender Contract described herein, and has designated the entire territory within the County of Jefferson jurisdiction as a region ("**Region**") within which the Authorized Representative and the record owners of such real property may enter into written contracts to impose assessments to repay the financing by owners of qualified improvements on the owner's property pursuant to the PACE Program.

_____ ("**Property Owner**") is the legal and record owner of the qualified "real property," as defined in Section 399.002 of the PACE Act, within the Region located at _____, _____, Texas, and more fully described in Exhibit A attached hereto and made a part hereof (the "**Property**").

Property Owner has applied to Local Government to participate in the PACE Program by installing or modifying on the Property certain permanent improvements described in Exhibit B attached hereto and made a part hereof, which are intended to decrease water or energy consumption or demand, and which are or will be fixed to the Property as "qualified improvements", as defined in Section 399.002 of the PACE Act (the "**Qualified Improvements**"). The installation or modification of such Qualified Improvements on the Property will be a "qualified project" as defined in Section 399.002 of the PACE Act. Property

Owner has entered into a written contract (the "**Owner Contract**") with Local Government pursuant to the PACE Act and the PACE Program and has requested Local Government to impose an assessment on the Property to repay the financing of such Qualified Improvements.

The financing of such Qualified Improvements will be provided to Property Owner by _____ ("**Lender**"), a qualified lender selected by Property Owner, pursuant to a written contract executed by Lender and Local Government as required by Section 399.006(c) of the PACE Act and by the PACE Program (the "**Lender Contract**"). Lender will be responsible for all servicing duties other than those specifically undertaken by Local Government in the Lender Contract.

THEREFORE, Local Government hereby gives notice to the public pursuant to Section 399.013 of the PACE Act that it has imposed an assessment on the Property in the amount of $_____, as set forth on Exhibit C attached hereto, which together with all interest, fees, penalties, costs and other sums due under and/or authorized by the PACE Act, PACE Program and the financing documents between Property Owner and Lender (the "**Financing Documents**") is herein referred to as the "**Assessment**".

Pursuant to Section 399.014 of the PACE Act,

The Assessment, including interest and any penalties, costs, or fees accrued thereon,

(i) is a first and prior lien on the Property from the date that this Notice of Contractual Assessment Lien is recorded in the Official Public Records of Jefferson County Texas, until such Assessment, interest, penalties, costs, and fees are paid in full; and

(ii) such lien has the same priority status as a lien for any other ad valorem tax, pursuant to Section 399.014(a)(2) of the PACE Act.

The lien created by the Assessment runs with the land, and according to Section 399.014(b) of the PACE Act, any portion of the Assessment that has not yet become due is not eliminated by foreclosure of: (i) a property tax lien, or (ii) the lien for any past due portion of the Assessment. Additionally, in the event of a sale or transfer of the Property by Property Owner (excluding a transfer as part of a foreclosure sale for a past due portion of the Assessment), the obligations under the Financing Documents, including, without limitation, any unpaid installments of the Assessment then due and owing and the portion of the Assessment that has not yet become due, will be transferred to the succeeding owner without recourse on Local Government or Authorized Representative.

After this Notice of Contractual Assessment Lien is recorded in the real property records of the county in which the Property is located as provided under Section 399.013 of the PACE Act, the lien created by the Assessment may not be contested on the basis that the improvement is not a "qualified improvement" or the project is not a "qualified project", as such terms are defined in Section 399.002 of the PACE Act.

EXECUTED on _____, _____.

LOCAL GOVERNMENT:
Jefferson County, Texas

By: _____

Name: _____

Title: _____

AUTHORIZED REPRESENTATIVE
Pursuant to Tex. Local Gov't Code §399.006(b)

ACKNOWLEDGEMENT

STATE OF TEXAS §

COUNTY OF JEFFERSON §

This Notice of Contractual Assessment Lien pursuant to Property Assessed Clean Energy Act was acknowledged before me on _____, _____ by _____, _____, on behalf of _____, Texas.

_____

_____(print name)

NOTARY PUBLIC, STATE OF TEXAS

EXHIBIT A

PROPERTY DESCRIPTION

EXHIBIT B

QUALIFIED IMPROVEMENTS

EXHIBIT C

ASSESSMENT

Assessment Payment Schedule

Assessment Total:
Payment Frequency:
Interest Rate:

Payment Date	Total Payment	Principal Paid	Interest Paid	Administration Fee	Remaining Balance

EXHIBIT B

MORTGAGE HOLDER(S) CONSENT

EXHIBIT C

FINANCING DOCUMENTS

Assessment Payment Schedule

Assessment Total:
Payment Frequency:
Interest Rate:

Payment Date	Total Payment	Principal Paid	Interest Paid	Administration Fee	Remaining Balance

Financing Documents

Document Title	Parties	Date Executed

EXHIBIT D

CONSTRUCTION TERMS

[if applicable]

Date	Draw down Amount	Purpose

EXHIBIT 3

PACE LENDER CONTRACT

THIS PROPERTY ASSESSED CLEAN ENERGY ("PACE") LENDER CONTRACT (the "**Lender Contract**") is made as of the _____ day of _____, _____, by and between Jefferson County ("**Local Government**") and _____ ("**Lender**").

RECITALS

The Property Assessed Clean Energy Act ("**PACE Act**"), Texas Local Government Code Chapter 399, authorizes the governing body of a local government to establish a program and designate a region within the local government's jurisdiction within which an authorized representative of the local government may enter into written contracts with the record owners of commercial, industrial, agricultural, and large multifamily residential (5 or more dwelling units) real property to impose assessments on the property to finance the cost of permanent improvements fixed to the property intended to decrease water or energy consumption or demand.

Local Government has established a program under the PACE Act pursuant to a resolution dated _____, adopted by the Jefferson County Commissioners Court (the "**PACE Program**"), and has designated _____ ("**Authorized Representative**") as the representative authorized to enter into the Assessment, Owner Contract and Lender Contract described herein, and has designated the entire territory within the Jefferson County's jurisdiction as a region ("**Region**") within which the Authorized Representative and the record owners of such real property may enter into written contracts to impose assessments to repay the financing by owners of qualified improvements on the owner's property pursuant to the PACE Program.

Pursuant to Application number _____, _____ ("**Property Owner**") has applied to Local Government to participate in the PACE Program with respect to certain real property located at _____, _____, Texas, _____ (the "**Property**") by installing or modifying on the Property certain permanent improvements which are intended to decrease water or energy consumption or demand, and which are or will be fixed to the Property as "qualified improvements", as defined in Section 399.002 of the PACE Act (the "**Qualified Improvements**"). The installation or modification of such Qualified Improvements on the Property will be a "qualified project" as defined in Section 399.002 of the PACE Act (the "**Project**").

Property Owner and Local Government have entered into a written contract as required by Section 399.005 of the PACE Act, a copy of which is attached hereto as Exhibit A and made a part hereof (the "**Owner Contract**"), in which Property Owner has requested that Local Government impose an assessment (the "**Assessment**") on the Property as set forth in the Notice Of Contractual Assessment Lien Pursuant To Property Assessed Clean Energy Act to be filed in

the in the Official Public Records of Jefferson County, Texas (the "**Notice of Contractual Assessment Lien**"), a copy of which is attached to the Owner Contract as Exhibit A, to repay the financing of such Qualified Improvements. The Property, Qualified Improvements and Assessment are more fully described in the Notice of Contractual Assessment Lien.

Financing for the Project (the "**Financing**") will be provided to Property Owner by Lender in accordance with financing documents which are described or listed on Exhibit B attached hereto and made a part hereof (the "**Financing Documents**"). Such Financing includes only those costs and fees for which an assessment may be imposed under the PACE Act. This Lender Contract is entered into between Local Government and Lender as required by Section 399.006(c) of the PACE Act to provide for repayment of the Financing secured by the Assessment.

As required by Section 399.010 of the PACE Act, Property Owner notified the holder(s) of any mortgage liens on the Property at least thirty (30) days prior to the date of the Owner Contract of Property Owner's intention to participate in the PACE Program. The written consent of each mortgage lien holder to the Assessment was obtained prior to the date of the Owner Contract, as shown by the copy of such consent(s) attached as Exhibit B to the Owner Contract.

AGREEMENT

The parties agree as follows:

Maintenance and Enforcement of Assessment. Lender agrees to provide the Financing for the Project in the total amount of $_____, according to the terms set out in the Financing Documents attached hereto as Exhibit B. In consideration for the Financing provided or to be provided by Lender for the Project, and subject to the terms and conditions of this Lender Contract, Local Government agrees to maintain and continue the Assessment for the benefit of Lender until the Financing, all contractual interest, any prepayment premium, additional penalties and interest imposed by the Lender under the Financing Documents according to the Financing Documents, and any statutory penalties, interest, attorney's fees, or costs accrued in the event of default are paid in full. Local Government will not release the Assessment until which time Lender notifies Local Government that all amounts owing have been paid in full. Local Government shall not sell, assign or transfer the Assessment or the assessment lien against the Property to any third party without the prior written consent of the Lender. Local Government agrees to enforce the assessment lien against the Property for the benefit of Lender in the event of a default by Property Owner in accordance with the provisions set forth in paragraph 6. Local Government shall have no obligation to repurchase the assessment and no liability to Lender should there be a default or an event of default in the payment thereof or should there be any other loss or expense suffered by Lender or under any other circumstances.

Installments. The Assessment, including the amount financed and contractual interest, is due and payable to Lender in installments as set forth in the Notice of Contractual Assessment Lien and Financing Documents. The Assessment shall include: (1) an application fee paid by Property Owner to Authorized Representative at loan closing, and (2) a recurring administration fee paid by Property Owner to the Authorized Representative. The recurring administration fee

amount shall be collected by Lender and paid to the Authorized Representative within thirty (30) days of receipt by Lender. The amounts due to the Authorized Representative are identified in Exhibit B hereto. As required by Section 399.009(a)(8) of the PACE Act, the period during which such installments are payable does not exceed the useful life of the Project. When the Assessment together with any prepayment premium, and/or default penalties and interest, if any, has been paid in full, Local Government's rights under this Lender Contract will cease and terminate. Upon notice from Lender that all amounts owing have been paid in full, Local Government will execute a release of the Assessment and this Lender Contract. Thereafter, the Authorized Representative will record the release.

Assignment of Right to Receive Installments. Lender will have the right to assign or transfer the right to receive the installments of the Assessment, provided all of the following conditions are met:

The assignment or transfer is made to a qualified lender, which may be one of the following:

Any federally insured depository institution such as a bank, savings bank, savings and loan association and federal or state credit union;

Any insurance company authorized to conduct business in one or more states;

Any registered investment company, registered business development company, or a Small Business Administration small business investment company;

Any publicly traded entity; or

Any private entity that:

(i) Has a minimum net worth of $5 million;

(ii) Has at least three years' experience in business or industrial lending or commercial real estate lending (including multifamily lending), or has a lending officer that has at least three years' experience in business or industrial lending or commercial real estate lending;

(iii) Can provide independent certification as to availability of funds; and

(iv) Has the ability to carry out, either directly or through a servicer, the bookkeeping and customer service work necessary to manage the assessment accounts

Property Owner and Authorized Representative are notified in writing of the assignment or transfer and the address to which payment of the future installments should

be mailed at least 30 days before the next installment is due according to the payment schedule included in the Financing Documents; and

The assignee or transferee of the right to receive the installments executes an explicit written assumption of all of Lender's obligations under this Lender Contract.

Upon written notice to Property Owner and Authorized Representative of an assignment or transfer of the right to receive the installments that meets all of these conditions, the assignor shall be released of all of the obligations of the Lender under this Lender Contract accruing after the date of the assignment and all of such obligations shall be assumed by and transferred to the assignee. Any attempt to assign or transfer the right to receive the installments of the Assessment that does not meet all of these conditions is void.

Financing Responsibility. Lender assumes full responsibility for determining the financial ability of the Property Owner to repay the Financing and for advancing the funds as set forth in the Financing Documents and performing Lender's obligations and responsibilities thereunder.

Lien Priority and Enforcement. As provided in the Owner Contract and Section 399.014 of the PACE Act:

Delinquent installments of the Assessment incur interest and penalties in the same manner and in the same amount as delinquent property taxes, viz., a delinquent installment incurs a penalty of 6% of the amount of the installment for the first calendar month it is delinquent plus 1% for each additional month or portion of a month the installment remains unpaid prior to July 1 of the year in which it becomes delinquent. However, an installment delinquent on July 1 incurs a total penalty of 12% of the amount of the delinquent installment without regard to the number of months it has been delinquent. A delinquent installment also accrues interest at the rate of 1% for each month or portion of a month the installment remains unpaid. Statutory penalties and statutory interest payable under this paragraph will be retained by Local Government to compensate it for the cost of enforcing the Assessment. Additional interest at any default rate imposed by Lender pursuant to the Financing Documents, along with any other fees and charges that become due pursuant to the Financing Documents may be assessed by Lender and retained by Lender.

The Assessment, together with any penalties and interest thereon,

is a first and prior lien against the Property from the date on which the Notice of Contractual Assessment Lien is filed in the Official Public Records of Jefferson County, as provided by Section 399.014 of the PACE Act, until the Assessment and any penalties and interest are paid; and

such lien has the same priority status as a lien for any other ad valorem tax, pursuant to Section 399.014(a)(2) of the PACE Act.

The lien created by the Assessment runs with the land, and any portion of the Assessment that has not yet become due is not eliminated by foreclosure of a property tax lien, according to Section 399.014(b) of the PACE Act. In the event of a sale or transfer of the Property by Property Owner, the obligation for the Assessment and the Property Owner's obligations under the Financing Documents will be transferred to the succeeding owner without recourse on Local Government or the Authorized Representative.

In the event of a default by Property Owner in payment of the installments called for by the Financing Documents, the lien created by the Assessment will be enforced by Local Government in the same manner according to Texas Tax Code Secs. 33.41 to 34.23 that a property tax lien against real property may be enforced by a local government, to the extent the enforcement is consistent with Section 50, Article XVI, Texas Constitution.

In a suit to collect a delinquent installment of the Assessment, Local Government will be entitled to recover costs and expenses, including attorney's fees in the amount of 15% of the total amount of the delinquent installment, penalties, and interest due, in the same manner according to Texas Tax Code Sec. 33.48 as in a suit to collect a delinquent property tax. Lender shall be entitled to any additional sums due to it under the Financing Documents in connection with a suit to collect a delinquent installment of the Assessment.

After written notice of the Assessment is recorded in the real property records of the county in which the Property is located as provided under Section 399.013 of the PACE Act, the lien created by the Assessment may not be contested on the basis that the improvement is not a "qualified improvement" or the project is not a "qualified project", as such terms are defined in Section 399.002 of the PACE Act.

Servicing and Enforcement of Assessment.

Servicing. The Assessment payments will be billed, collected, received, and disbursed in accordance with the procedures set out in the Financing Documents. Lender will be responsible for all servicing duties other than those specifically undertaken by Local Government in this Lender Contract. Local Government agrees to send an annual notice of assessment to the property owner with the annual property tax notice each year there is a PACE lien balance. This notification can be listed on page one of said tax notice or as a separate page two (2) notification.

Remittances. Each of the parties covenants and agrees to promptly remit to the other party any payments incorrectly received by such party with respect to the Assessment after the execution of this Lender Contract.

Default and Enforcement. In the event of a default in payment of any installment of the Assessment as specified in the Financing Documents, Lender agrees to take at least the following steps to collect the delinquent installment:

Mail a written notice of delinquency and demand for payment to the Property Owner by both certified mail, return receipt requested, and first class mail; and

Mail a second notice of delinquency to the Property Owner by both certified mail, return receipt requested, and first class mail at least 30 days after the date of the first notice if the delinquency is continuing.

If the Property Owner fails to cure the delinquency within 30 days after the mailing of the second notice of delinquency, the Lender or its designated servicer may notify the Authorized Representative who will certify to the Local Government in writing of a default by the Property Owner, and upon receipt of such certification and after doing its own due diligence, Local Government will enforce the assessment lien for the benefit of Lender pursuant to Tex. Local Gov't Code Sec. 399.014(c), in the same manner as a property tax lien against real property may be enforced, to the extent the enforcement is consistent with Section 50, Article XVI, Texas Constitution.

Final Payment and Release. When the Assessment has been satisfied and paid in full, together with all interest and prepayment premiums, if any, provided under the Financing Documents and all costs, fees, penalties, and interest applicable under the PACE Act and payable to Lender or Local Government, Local Government's rights under the Owner Contract will cease and terminate. Upon notice from Lender that all amounts owing have been paid in full, Local Government will execute a release of the Assessment and the Owner Contract. Thereafter, the Authorized Representative will record the Release.

Limitations on Local Government's Actions. Without the prior written consent of Lender, Local Government will not enter into any amendment or modification of or deviation from the Owner Contract. Local Government will not institute any legal action with respect to the Owner Contract, the Assessment, or the assessment lien without the prior written request of Lender.

Limitations of Local Government's Obligations. Local Government undertakes to perform only such duties as are specifically set forth in this Lender Contract, and no implied duties on the part of Local Government are to be read into this Lender Contract. Local Government will not be deemed to have a fiduciary or other similar relationship with Lender. Local Government may request written instructions for action from Lender and refrain from taking action until it receives satisfactory written instructions. Local Government will have no liability to any person for following such instructions, regardless of whether they are to act or refrain from acting.

Costs. No provisions of this Lender Contract will require Local Government to expend or risk its own funds or otherwise incur any financial liability in the performance of any of its duties hereunder.

Lender's Warranties and Representations. With respect to this Lender Contract, Lender hereby warrants and represents that on the date on which Lender executes this Lender Contract:

Lender is a qualified lender under the PACE Program, as defined in paragraph 3(a) above, and is fully qualified under the PACE Program to enter into this Lender Contract and the Financing Documents;

Lender has independently and without reliance upon Local Government conducted its own credit evaluation, reviewed such information as it has deemed adequate and appropriate, and made its own analysis of the Owner Contract, the Project, and Property Owner's financial ability to perform the financial obligations set out in the Financing Documents; and

Lender has not relied upon any investigation or analysis conducted by, advice or communication from, or any warranty or representation by Local Government or any agent or employee of Local Government, express or implied, concerning the financial condition of the Property Owner or the tax or economic benefits of an investment in the Assessment.

Written Contract Required by the PACE Act. This Lender Contract constitutes a written contract between Local Government and Lender, as required under Section 399.006 (c) of the PACE Act.

Construction and Definitions. This Lender Contract is to be construed in accordance with and with reference to the PACE Program and PACE Act. Terms used herein, and not otherwise defined herein, shall have the meanings ascribed to them in: (1) the Notice of Contractual Assessment Lien, (2) the Owner Contract, (3) the PACE Program, and/or (4) the PACE Act.

Binding Effect. This Lender Contract is binding upon and shall inure to the benefit of the parties hereto and their respective heirs, representatives, successors, and assigns.

Notices. All notices and other communications required or permitted hereunder shall be in writing and mailed by certified mail, return receipt requested, addressed to the other party at the address stated below the signature of such party or at such other address as such party may from time to time designate in writing to the other party, and shall be effective from the date of receipt.

Governing Law. This Lender Contract shall in all respects be governed by and construed in accordance with the laws of the State of Texas.

Entire Agreement. This Lender Contract constitutes the entire agreement between the parties with respect to the subject matter hereof and shall not be amended or altered in any manner except by a document in writing executed by both parties.

Captions. Paragraph and section titles are for convenience of reference only and shall not be of any legal effect.

Counterparts. This Lender Contract may be executed in any number of counterparts, each counterpart may be delivered originally or by electronic transmission, all of which when taken together shall constitute one agreement binding on the parties, notwithstanding that all parties are not signatories to the same counterpart.

Interest. Interest and penalties in the event of default, as provided above, are explicitly authorized by Section 399.014(d) of the PACE Act. However, in no event will the total amount of interest on the Assessment, including statutory interest payable to Local Government and contractual interest payable to Lender under the Financing Documents, exceed the maximum amount or rate of nonusurious interest that may be contracted for, charged, or collected under Texas law (the "usury limit"). If the total amount of interest payable to Local Government and Lender exceeds the usury limit, interest payable to Local Government will be reduced and any interest in excess of the usury limit will be credited to the amount payable to Local Government or refunded. This provision overrides any conflicting provisions in this Lender Contract.

Certification. Local Government certifies that the PACE Program has been duly adopted and is in full force and effect on the date of this Lender Contract. Property Owner has represented to Lender and Local Government that the Project is a "qualified project" as defined in the PACE Program and Section 399.002 of the PACE Act. The Assessment has been imposed on the Property as a lien in accordance with the PACE Owner Contract and the PACE Act. Local Government has not assigned or transferred any interest in the Assessment or the PACE Owner Contract.

Construction Terms. If this Lender Contract includes requirements related to construction of the Project and disbursement of Financing, such requirements are set forth in Exhibit C attached hereto and incorporated herein by reference. Such requirements may include, among other things, (1) the disbursement schedule and (2) any holdback amount to be funded following verification of final project completion.

LENDER:

_____

By:_____

Name: _____

Title: _____

Address: _____

LOCAL GOVERNMENT:

Jefferson County, Texas

By:_____
AUTHORIZED REPRESENTATIVE
Pursuant to Tex. Local Gov't Code §399.006(b)

Name: JEFF R. BRANICK

Title: COUNTY JUDGE

Address: P.O. BOX 4025, BEAUMONT, TX 77704

EXHIBIT A

OWNER CONTRACT

EXHIBIT B

FINANCING DOCUMENTS

Assessment Payment Schedule

Assessment Total:
Payment Frequency:
Interest Rate:

Payment Date	Total Payment	Principal Paid	Interest Paid	Administration Fee	Remaining Balance

Financing Documents

Document Title	Parties	Date Executed

EXHIBIT C

CONSTRUCTION TERMS

[if applicable]

Date	Draw down Amount	Purpose

EXHIBIT 4

FORM NOTICE OF CONTRACTUAL ASSESSMENT LIEN PURSUANT TO PROPERTY ASSESSED CLEAN ENERGY ACT

STATE OF TEXAS §
§
COUNTY OF JEFFERSON §

RECITALS

The Property Assessed Clean Energy Act ("**PACE Act**"), Texas Local Government Code Chapter 399, authorizes the governing body of a local government to establish a program and designate a region within the local government's jurisdiction within which an authorized representative of the local government may enter into written contracts with the record owners of commercial, industrial, agricultural, and large multifamily residential (5 or more dwelling units) real property to impose assessments on the property to finance the cost of permanent improvements fixed to the property intended to decrease water or energy consumption or demand. Unless otherwise expressly provided herein, all terms used herein have the same meanings ascribed to them in the PACE Act.

Jefferson County ("**Local Government**") has established a program under the PACE Act pursuant to a resolution dated _____, adopted by the Jefferson County Commissioners Court (the "**PACE Program**"), and has designated _____ ("**Authorized Representative**") as the representative authorized to enter into and enforce the Assessment, Owner Contract and Lender Contract described herein, and has designated the entire territory within the County of Jefferson jurisdiction as a region ("**Region**") within which the Authorized Representative and the record owners of such real property may enter into written contracts to impose assessments to repay the financing by owners of qualified improvements on the owner's property pursuant to the PACE Program.

_____ ("**Property Owner**") is the legal and record owner of the qualified "real property," as defined in Section 399.002 of the PACE Act, within the Region located at _____, _____, Texas, and more fully described in Exhibit A attached hereto and made a part hereof (the "**Property**").

Property Owner has applied to Local Government to participate in the PACE Program by installing or modifying on the Property certain permanent improvements described in Exhibit B attached hereto and made a part hereof, which are intended to decrease water or energy consumption or demand, and which are or will be fixed to the Property as "qualified improvements", as defined in Section 399.002 of the PACE Act (the "**Qualified Improvements**"). The installation or modification of such Qualified Improvements on the Property will be a "qualified project" as defined in Section 399.002 of the PACE Act. Property Owner has entered into a written contract (the "**Owner Contract**") with Local Government pursuant to the PACE Act and the PACE Program and has requested Local Government to impose an assessment on the Property to repay the financing of such Qualified Improvements.

The financing of such Qualified Improvements will be provided to Property Owner by _____ ("**Lender**"), a qualified lender selected by Property Owner, pursuant to a written contract executed by Lender and Local Government as required by Section 399.006(c) of the PACE Act and by the PACE Program (the "**Lender Contract**"). Lender will be responsible for all servicing duties other than those specifically undertaken by Local Government in the Lender Contract.

THEREFORE, Local Government hereby gives notice to the public pursuant to Section 399.013 of the PACE Act that it has imposed an assessment on the Property in the amount of $_____, as set forth on Exhibit C attached hereto, which together with all interest, fees, penalties, costs and other sums due under and/or authorized by the PACE Act, PACE Program and the financing documents between Property Owner and Lender (the "**Financing Documents**") is herein referred to as the "**Assessment**".

Pursuant to Section 399.014 of the PACE Act,

The Assessment, including interest and any penalties, costs, or fees accrued thereon,

(i) is a first and prior lien on the Property from the date that this Notice of Contractual Assessment Lien is recorded in the Official Public Records of Jefferson County Texas, until such Assessment, interest, penalties, costs, and fees are paid in full; and

(ii) such lien has the same priority status as a lien for any other ad valorem tax, pursuant to Section 399.014(a)(2) of the PACE Act.

The lien created by the Assessment runs with the land, and according to Section 399.014(b) of the PACE Act, any portion of the Assessment that has not yet become due is not eliminated by foreclosure of: (i) a property tax lien, or (ii) the lien for any past due portion of the Assessment. Additionally, in the event of a sale or transfer of the Property by Property Owner (excluding a transfer as part of a foreclosure sale for a past due portion of the Assessment), the obligations under the Financing Documents, including, without limitation, any unpaid installments of the Assessment then due and owing and the portion of the Assessment that has not yet become due, will be transferred to the succeeding owner without recourse on Local Government or Authorized Representative.

After this Notice of Contractual Assessment Lien is recorded in the real property records of the county in which the Property is located as provided under Section 399.013 of the PACE Act, the lien created by the Assessment may not be contested on the basis that the improvement is not a "qualified improvement" or the project is not a "qualified project", as such terms are defined in Section 399.002 of the PACE Act.

EXECUTED on _____, _____.

LOCAL GOVERNMENT:
Jefferson County, Texas

By: _____

Name: _____

Title: _____

AUTHORIZED REPRESENTATIVE
Pursuant to Tex. Local Gov't Code §399.006(b)

ACKNOWLEDGEMENT

STATE OF TEXAS §

COUNTY OF JEFFERSON §

This Notice of Contractual Assessment Lien pursuant to Property Assessed Clean Energy Act was acknowledged before me on _____, _____ by _____, _____, on behalf of _____, Texas.

_____

_____(print name)

NOTARY PUBLIC, STATE OF TEXAS

EXHIBIT A

PROPERTY DESCRIPTION

EXHIBIT B

QUALIFIED IMPROVEMENTS

EXHIBIT C

ASSESSMENT

Assessment Payment Schedule

Assessment Total:
Payment Frequency:
Interest Rate:

Payment Date	Total Payment	Principal Paid	Interest Paid	Administration Fee	Remaining Balance

Jefferson County Courthouse
P.O. Box 4025
Beaumont, Texas 77704

Office (409) 835-8442
Fax (409) 835-8628
eddiearnold@co.jefferson.tx.us

Eddie Arnold
Jefferson County
Commissioner Pct. #1

March 13, 2017

Loma George
Judge Branick's Office

RE: Commissioners' Court Agenda Items

Please place the following item on the agenda for Jefferson County Commissioners' Court meeting scheduled for March 20, 2017.

Consider and possibly approve exempting the following group from paying for security. Reaud Honors College at Lamar University, Great Plains Honors Council – 2017 Annual Conference scheduled for April 1, 2017. They are requesting a guided courthouse tour estimated attendance 50 participants between 2:30pm and 4:00pm. The security expense will be paid via budgeted funds.

Thank you,

Eddie Arnold
County Commissioner, Pct. #1

AGENDA ITEM **March 20, 2017**

Consider, possibly approve, receive and file Certificate of Appointment and Oath of Office for Austin Cecil Walkes MD as the Health Authority for Jefferson County, Texas, pursuant to Texas Health and Safety Code, Sec. 121.024.

RECEIVED MAR 14 2017

TEXAS DEPARTMENT OF STATE HEALTH SERVICES

P.O. Box 149347
Austin, Texas 78714-9347
1-888-963-7111
TTY: 1-800-735-2989
www.dshs.state.tx.us

JOHN HELLERSTEDT, M.D.
COMMISSIONER

March 8, 2017

Austin Cecil Walkes, MD
Jefferson County Health Authority
1295 Pearl Street
Beaumont, Texas 77701

Dear Dr. Walkes,

Your Local Health Authority certificate expired on October 26, 2016. The Texas Department of State Health Services (DSHS) provides support for the appointment of Health Authorities in Texas and maintains the database of appointments. Other DSHS responsibilities include coordination of training activities and availability of reference tools to ensure Health Authorities understand the roles and responsibilities of their office to serve their local communities.

In accordance with Texas Health and Safety Code § 121.021, a Health Authority is a physician appointed to administer state and local laws relating to public health within the appointing body's jurisdiction. A Health Authority serves for a term of two years and may be appointed to successive terms.

Health authorities can be appointed by the following:

- Commissioners courts
- Governing bodies of municipalities
- Local health department directors who are not physicians
- Public health district directors who are not physicians

Under Texas Health and Safety Code § 121.024, a Health Authority is a state officer when performing duties prescribed by state law. A Health Authority shall perform each duty necessary to implement and enforce a law to protect the public health or prescribed by DSHS. Duties include (1) establishing, maintaining, and enforcing quarantine in the Health Authority's jurisdiction; (2) aiding DSHS in relation to local quarantine, inspection, disease prevention and suppression, birth and death statistics, and general sanitation in the Health Authority's jurisdiction; (3) reporting the presence of contagious, infectious, and dangerous epidemic diseases in the Health Authority's jurisdiction as prescribed by DSHS; (4) reporting on any subject on which it is proper for DSHS to direct that a report be made; and (5) aiding DSHS in the enforcement of proper rules, requirements, and ordinances; sanitation laws; quarantine rules; and vital statistics collections.

Each newly appointed Health Authority must file copies of three forms with the Regional Medical Director for the respective DSHS Health Service Region immediately after appointment

to office:

1. **Statement of Appointed/Elected Officer:** Constitutional oath that the Health Authority did not give or promise any material, financial, or other reward in return for the appointment.
2. **Oath of Office:** Constitutional oath to execute the duties of the office of Health Authority.
3. **Certificate of Appointment.** Statutory certification from the appointing entity.

Periodically, my regional staff and I contact Local Health Authorities to share health information and to discuss important public health issues. The Texas Department of State Health Services (DSHS) will be a resource for your Local Health Authority for training in epidemiology, communicable diseases, disaster preparedness, health inspections, the investigation of outbreaks, and other public health issues.

Please find enclosed four forms which will need to be completed when the appointment to office is made. Instructions for the proper completion and filing of these documents are included**. Once completed, please send by regular mail the originals of the Certificate of Appointment, Statement of Elected/Appointed Officer, Oath of Office, and Contact Information form, to my office at the address below.**

I look forward to working with your Local Health Authority and your local governing body to ensure a healthier and more productive Southeast Texas. Please contact me with any questions or concerns at (713) 767-3020.

Sincerely,

Julie Graves

Julie Graves, MD, MPH, PhD, FAAFP
Regional Medical Director
Texas Department of State Health Services
Health Services Region 6/5 South
5425 Polk Street, Mail Code 1906
Houston, TX 77023
Enclosure (4)

TEXAS
Department of
State Health Services

APPOINTMENT OF HEALTH AUTHORITY
General Instructions

The Texas Department of State Health Services (DSHS) provides support for the appointment of Health Authorities in Texas and maintains the database of appointments. Other DSHS responsibilities include coordination of training activities and availability of reference tools to ensure Health Authorities understand the roles and responsibilities of their office to serve their local communities.

Definition and Term of Office
In accordance with Texas Health and Safety Code § 121.021, a Health Authority is a physician appointed to administer state and local laws relating to public health within the appointing body's jurisdiction. A Health Authority serves for a term of two years and may be appointed to successive terms.

Health authorities can be appointed by the following:

- Commissioners courts
- Governing bodies of municipalities
- Local health department directors who are not physicians
- Public health district directors who are not physicians

Duties
Under Texas Health and Safety Code § 121.024, a Health Authority is a state officer when performing duties prescribed by state law. A Health Authority shall perform each duty necessary to implement and enforce a law to protect the public health or prescribed by DSHS. Duties include (1) establishing, maintaining, and enforcing quarantine in the Health Authority's jurisdiction; (2) aiding DSHS in relation to local quarantine, inspection, disease prevention and suppression, birth and death statistics, and general sanitation in the Health Authority's jurisdiction; (3) reporting the presence of contagious, infectious, and dangerous epidemic diseases in the Health Authority's jurisdiction as prescribed by DSHS; (4) reporting on any subject on which it is proper for DSHS to direct that a report be made; and (5) aiding DSHS in the enforcement of proper rules, requirements, and ordinances; sanitation laws; quarantine rules; and vital statistics collections.

Required Forms
Each newly appointed Health Authority must file copies of three forms with the Regional Medical Director for the respective DSHS Health Service Region immediately after appointment to office:

1. **Statement of Appointed/Elected Officer:** Constitutional oath that the Health Authority did not give or promise any material, financial, or other reward in return for the appointment.
2. **Oath of Office:** Constitutional oath to execute the duties of the office of Health Authority.
3. **Certificate of Appointment.** Statutory certification from the appointing entity.

Questions
If you have questions regarding the Health Authority appointment process or about completing the forms, please contact your DSHS Health Service Region office or the DSHS Division for Regional & Local Health Services office in Austin at (512) 776-7770. See links below for contact information:

Texas Department of State Health Services Health Service Region Offices. This site includes the information to locate the Regional Medical Director for the appropriate Health Service Region, including addresses, telephone numbers, FAX numbers, and maps of the DSHS Health Service Region Offices.

Map of DSHS Health Service Regions. This page provides a map showing the regional boundaries.

Certificate of Appointment
For a
Health Authority

The Health Authority has been appointed and approved by the:

(Check the appropriate designation below)

✓ **Commissioners Court for** JEFFERSON **County**

_____ **Governing Body for the Municipality of** _____

_____ **Director,** _____ **Health Department**

_____ **Director,** _____ **Public Health District**

I, JEFF R. BRANICK **, acting in my capacity as:**
(*Check the appropriate designation below*)

✓ **County Judge or Designee**
_____ **Mayor or Designee**
_____ **Non-physician and the Local Health Department Director**
_____ **Non-physician and the Public Health District Director**

do hereby certify the physician, AUSTIN CECIL WACKES M.D. **, who is licensed by the Texas Board of Medical Examiners, was duly appointed as the (check as applicable),**

✓ **Health Authority**
_____ **Health Authority Designee**

for the jurisdiction of JEFFERSON COUNTY **, Texas.**

Date term of office begins TO CONTINUE 10/26 **, 20**16

Date term of office ends 10/26 **, 20**18**, unless removed by law.**

I certify to the above information on this the _____ **day of** _____**, 20**__**.**

_____
Signature of Appointing Official

Instructions for Completing and Filing the Oath of Office

EXECUTION OF THE OATH OF OFFICE

Pursuant to Texas Constitution art. XVI, § 1 (b) and (c), the Oath of Office may not be taken until a signed Statement of Elected/Appointed Officer has been completed and filed.

ADMINISTRATION OF THE OATH OF OFFICE

The Oath of Office may be administered by anyone authorized under the provisions of Texas Government Code § 602.002. Commonly used officials include notaries public and judges.

The seal of the person administering the Oath should be visible. If the person is a notary public, Texas Government Code § 406.013 requires that the seal be affixed in a way "that legibly reproduces the required elements of the seal under photographic methods."

COMPLETION OF THE OATH OF OFFICE FORM

After the Oath of Office has been administered by a properly designated official, the newly appointed Health Authority should enter his/her name in the appropriate area of the form, sign the form and enter his/her mailing address and telephone number. The person administering the oath should then enter the date on which the oath was administered, enter his/her signature, printed name and title. The seal of the person administering the oath should be affixed in the designated area of the form.

FILING OF THE OATH OF OFFICE

Once the Oath of Office form has been completed and signed by both the Health Authority and the administering official, a copy should be mailed to the Regional Medical Director for the respective Health Service Region of the Texas Department of State Health Services.

Please direct any questions regarding the Oath of Office form and instructions to your DSHS Health Service Region office or to the DSHS Division for Regional & Local Health Services office in Austin at (512) 776-7770.

OATH OF OFFICE
For Health Authorities in the State of Texas

I, Austin Cecil Walkes, do solemnly swear (or affirm), that I will faithfully execute the duties of the office of Health Authority of the State of Texas and will to the best of my ability, preserve, protect, and defend the Constitution and laws of the United States and of this State, so help me God.

Austin Cecil Walkes
Affiant

3807 Platt Avenue, Port Arthur, TX 77640
Mailing Address ZIP

409-293-8595
(Area Code) Phone Number (day and evening)

austin@co.jefferson.tx.us
Email Address

SWORN TO and subscribed before me this _____ day of _____, 20___.

_____
Signature of Person Administering Oath

(Seal)

_____
Printed Name

_____
Title

Revised by DSHS Division for Regional and Local Health Services, June 3, 2016

Instructions for Completing and Filing the Statement of Elected/Appointed Officer

NOTE: This form must be completed and signed by the newly appointed Health Authority BEFORE the Oath of Office and Certificate of Appointment forms can be completed and filed.

GENERAL INFORMATION

ALL information must be typed or written legibly.

This document may be sworn to before anyone authorized by Texas Government Code § 602.002 to administer oaths and affidavits. Commonly used officials include notaries public and judges. The seal of the person administering the oath should be visible. If the person is a notary public, Texas Government Code § 406.013 requires that the seal be affixed in a way "that legibly reproduces the required elements of the seal under photographic methods."

COMPLETION OF THE STATEMENT OF ELECTED/APPOINTED OFFICER FORM

Upon making the sworn statement, the newly appointed Health Authority must enter his full name on the appropriate line, and enter the required signature, office to which appointed, and city/county to be served. The official witnessing the oath should complete the date the sworn statement is taken, and then enters his/her signature, printed name and title. The seal of the appointing official should be affixed in the area designated.

FILING OF THE STATEMENT OF ELECTED/APPOINTED OFFICER

Once the Statement of Elected/Appointed Officer has been completed and signed by both the Health Authority and the administering official, a copy should be mailed to the Regional Medical Director for the respective Health Service Region of the Texas Department of State Health Services.

Please direct any questions regarding this Statement of Elected/Appointed Officer form and instructions to your DSHS Health Service Region office or to the DSHS Division for Regional and Local Health Services office in Austin at (512) 776-7770.

THE STATE OF TEXAS

Statement of Elected/Appointed Officer

(Please type or print legibly)

I Austin Cecil Walkes do solemnly swear (or affirm) that I have not directly or indirectly paid, offered, promised to pay, contributed, or promised to contribute any money or thing of value, or promised any public office or employment for the giving or withholding of a vote at the election at which I was elected or as a reward to secure my appointment or confirmation, whichever the case may be, so help me God.

_____
Affianced Signature

Austin Cecil Walkes
Printed Name

Health Authority
Position to Which Elected/Appointed

Jefferson County
City and/or County

SWORN TO and subscribed before me by affiant on this ____ day of _____ 20___.

_____
Signature of Person Authorized to Administer Oaths/Affidavits

(Seal)

_____
Printed Name

_____
Title

Pursuant to Tex. Const. Art. XVI, §1(b). Revised by DSHS Division for Regional and Local Health Services, June 3, 2016

RECEIVED MAR 09 2017

Jefferson County

Precinct Four

Everette "Bo" Alfred
Commissioner

P.O. Box 4025
Beaumont, Texas 77704-4025
409-835-8443 phone
www.co.jefferson.tx.us/prct4/index.html

MEMO

TO: Ms. Loma George
Hon. Jeff Branick's Office

FROM: Commissioner Everette Alfred

DATE: March 1, 2017

RE: Agenda Item

Please place this item on the Agenda for Monday, March 20, 2017:

Consider and possibly approve the re-appointment of Mr. Charles "Chuck" Guillory and Mr. Bart L. Owens to the Drainage District #6 Board of Directors, effective March 13, 2017. This is an appointment of Commissioner Alfred.

Thank you.

EA/nr

AGENDA ITEM **March 20, 2017**

Consider, possibly approve and authorize the County Judge to execute an Amendment to Management Agreement between Jefferson County, Texas and SMG regarding management of Ford Park Entertainment Complex.

AMENDMENT NO. 2 TO MANAGEMENT AGREEMENT

THIS AMENDMENT NO. 2 TO MANAGEMENT AGREEMENT (this "Amendment") is dated as of the ____ day of March, 2017, by and between Jefferson County, Texas, organized and existing pursuant to the laws of the State of Texas (the "County"), and SMG, a Pennsylvania general partnership, whose current address is 300 Conshohocken State Road, Suite 770, West Conshohocken, PA, 19428 ("SMG").

BACKGROUND

The County and SMG are parties to that certain management Agreement effective as of April 1, 2007 (as amended, the "Management Agreement"), pursuant to which SMG provides management services for the Facility (as defined therein).

The Management Agreement expires as of March 31, 2017, but the parties wish hereby to extend the term of the Management Agreement through April 2, 2017.

NOW, THEREFORE, in consideration of the mutual premises, covenants and agreements herein contained, the parties hereto, intending to be legally bound, hereby agree as follows:

1. Extension of Management Term. The following sentence is added to the end of Section 3.1:

   > The Management Term is extended through and including April 2, 2017, at which time the Management Agreement shall expire with the effect set forth in Section 12.3.

2. Ratification. This Amendment supplements and amends the Management Agreement, but only to the extent expressly set forth herein. All other terms, provisions, representations, warranties and covenants of the Management Agreement are hereby confirmed, ratified and remain in full force and effect. Any inconsistencies between this Amendment and the Management Agreement shall be governed by this Amendment. The Management Agreement, as amended by this Amendment, contains the entire agreement of the parties with respect to the matters covered thereby and hereby and no other prior promises, negotiations or discussions, oral or written, made by any party or its employees, officers or agents shall be valid and binding against either party.

3. Counterparts/Signatures. This Amendment may be executed in one or more counterparts, each of which shall be deemed to be an original, but all of which shall be considered one and the same instrument. This Amendment, to the extent signed and delivered by means of a facsimile machine or electronic mail, shall be treated in all manners and respects as an original agreement and shall be considered to have the same binding legal effect as if it were the original executed version thereof delivered in person.

[Signatures on Following Page]

IN WITNESS THEREOF, this Amendment has been duly executed by the parties hereto on this _____ day of March, 2017.

JEFFERSON COUNTY, TEXAS

By:_____
Name:
Title:

SMG

By:_____
Name: John F. Burns
Title: Executive Vice President and CFO

AGENDA ITEM **March 20, 2017**

Consider, possibly approve and authorize the County Judge to execute an Amendment to Management Agreement between Jefferson County, Texas and Global Spectrum, LP regarding management of Ford Park Entertainment Complex.

AMENDMENT TO MANAGEMENT AGREEMENT

This Amendment to Management Agreement (this "Amendment") is entered into as of March __, 2017 ("Effective Date") between Jefferson County, Texas, organized under the laws of the State of Texas ("County"), and Global Spectrum, LP, a Delaware limited partnership d/b/a Spectra Venue Management ("Manager").

WHEREAS, County and Manager are parties to a certain Management Agreement, effective as of April 1, 2017 (the "Management Agreement"), pursuant to which the County is engaging Manager to manage and operate the Ford Park Entertainment Complex, consisting of Ford Fields, Ford Pavilion, Ford Arena, Ford Exhibit Hall, Ford Midway, and two (2) barns; and

WHEREAS, the County and Manager now desire to amend the Management Agreement to modify the Effective Date of the Management Agreement.

NOW, THEREFORE, in consideration of the mutual covenants and premises contained herein and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties, intending to be legally bound, do hereby agree as follows:

1. Capitalized terms used in this Amendment and not otherwise defined in this Amendment shall have the meaning given to such terms in the Management Agreement.

2. The parties agree that the Effective Date, as such term is used in the Management Agreement, shall be amended to be April 3, 2017. The parties hereby confirm that the Term of the Management Agreement shall commence on the Effective Date, as amended by the preceding sentence. The end of the Initial Term shall remain September 30, 2022.

3. All references to the Management Agreement in the Management Agreement or in any other document referencing the Management Agreement shall be deemed to refer to the Management Agreement as amended hereby. Except for the modifications set forth above, all of the provisions of the Management Agreement shall remain unmodified and in full force and effect. All other terms, provisions, representations, warranties and covenants of the Management Agreement are hereby confirmed, ratified and remain in full force and effect. Any inconsistencies between this Amendment and the Management Agreement shall be governed by this Amendment.

4. This Amendment shall be governed by and construed in accordance with the laws of the State of Texas, without regard to conflicts of law.

5. This Amendment may be executed in counterparts, each of which shall constitute an original, and all of which together shall constitute one and the same document. This Amendment may be executed by the parties and transmitted by facsimile or electronic transmission, and if so executed and transmitted, shall be effective as if the parties had delivered an executed original of this Amendment.

IN WITNESS WHEREOF, each party hereto has caused this Amendment to be executed on behalf of such party by an authorized representative as of the date first set forth above.

JEFERSON COUNTY

By: _____
Name:
Its:

GLOBAL SPECTRUM, L.P.,
d/b/a Spectra Venue Management

By: Global Spectrum, LLC, its general partner

By:_____
Name:
Its:

Resolution

STATE OF TEXAS § COMMISSIONERS COURT
§
COUNTY OF JEFFERSON § OF JEFFERSON COUNTY, TEXAS

BE IT REMEMBERED at a meeting of Commissioners Court of Jefferson County, Texas, held on the 20TH day of March, 2017 on motion made by Eddie Arnold, Commissioner of Precinct No. 1, and seconded by Brent Weaver, Commissioner of Precinct No. 2, the following Resolution was adopted:

WHEREAS, Section 34.05(a) of the Texas Property Tax Code states "If property is sold to a taxing unit that is a party to the judgment, the taxing unit may sell the property at any time, subject to any right of redemption existing at the time of sale;" and,

WHEREAS, Section 34.05(c) of the Texas Property Tax Code states in part "If the purchasing taxing unit has not sold the property within six months after the date on which the owner's right of redemption terminates, any taxing unit that is entitled to receive proceeds of the sale by resolution of its governing body, may request the sheriff in writing to sell the property at a public sale;" and,

WHEREAS, the deed to the property on the attached list has been held by Jefferson County and the entities for whom it collects taxes and has been determined to meet the criteria set out in one of the paragraphs above; and,

WHEREAS, Jefferson County and the entities for whom it collects taxes will receive the benefit from the proceeds from the sale and additional tax revenue once these properties are placed on the current tax roll.

NOW THEREFORE, be it resolved that the Jefferson County Commissioners Court does hereby request the Jefferson County Sheriff to sell the listed properties on the first Tuesday of May, 2017.

SIGNED this 20TH day of March, 2017.

JUDGE JEFF BRANICK
County Judge

COMMISSIONER EDDIE ARNOLD
Precinct No. 1

COMMISSIONER MICHAEL S. SINEGAL
Precinct No. 3

COMMISSIONER BRENT A. WEAVER
Precinct No. 2

COMMISSIONER EVERETTE D. ALFRED
Precinct No. 4

Joleen E. Fregia
Chief Deputy
E-Mail
joleen@co.jefferson.tx.us

Tim Funchess
County Treasurer
1149 Pearl Street – Basement
Beaumont, Texas 77701

Office (409) 835-8509
Fax (409) 839-2347
E-Mail
tfunchess@co.jefferson.tx.us

March 8, 2017

Judge Jeff R. Branick and
Commissioners Court
Jefferson County Courthouse
Beaumont, Texas 77701

Gentlemen:

Enclosed is the Investment Schedule as of February 28, 2017, including interest earnings.

The weighted average yield to maturity on the County's investments is 1.480%. The interest rate on funds invested in an investment account at Wells Fargo is currently .10%.

The 90 day Treasury interest rate on February 28, 2017 was 0.523% and the interest on your checking accounts for the month of February was .10%

Included in the attached report are the balances for the County's pledged collateral.

This report meets the requirements for investment officers in compliance with the Texas Government Code. Title 10, Section 2256.023.

This should be on the agenda March 13, 2017, to be received and filed.

Sincerely,

Tim Funchess

Tim Funchess, CCT, CIO
Enclosure

Agenda should read:
Receive and File Investment Schedule for February, 2017,
including the year to date total earnings on County funds.

1154

JEFFERSON COUNTY
MONTH END FEBRUARY 28, 2017 INVESTMENT SCHEDULE

SECURITY DESCRIPTION	SETTLEMENT DATE	PAR AMOUNT	AMOUNT PAID	PRICE PAID	EXP. YIELD	MATURITY Date	CALL DATE	# Days to mat.	# Days Invested	CUSIP/C.D. NUMBER	BROKER DEALER	CURRENT VALUE	Current Price	ACCRUED FROM PURCHASE/COUPON	Coupon paid TO DATE	BOOK VALUE ACCRUED INT.)
POOLED CASH ACCOUNT																
INVESTMENT ACCT	01-Feb-17	$7,729.48	$7,729.48	100	0.100%	28-Feb-17	NONE	28	28	7580310386	WELLS FARGO	$7,729.48				$7,729.48
CDs and Securities																
FNMA 1.375%	21-Jun-16	$2,000,000.00	$2,000,000.00	100	1.375%	21-Jun-19	21-Dec-16	843	1095	3136G3RD9	WELLS SECURITIES	$1,995,460.00	$99.77	$5,347.22	$13,750.00	$2,000,807.22
FNMA 1.40%	21-Jun-16	$2,000,000.00	$2,000,000.00	100	1.400%	21-Jun-19	21-Dec-16	843	1095	3136G3RM9	NATIONAL ALLIANCE	$1,984,120.00	$99.21	$5,444.44	$14,000.00	$1,989,564.44
FHLMC 1.25%	30-Sep-16	$2,000,000.00	$2,000,000.00	100	1.250%	30-Sep-19	30-Mar-16	944	1095	3134GAHW7	NATIONAL ALLIANCE	$1,971,180.00	$98.56	$10,486.11	$0.00	$1,981,666.11
FHLMC 1.30%	18-Oct-16	$2,000,000.00	$2,000,000.00	100	1.300%	18-Oct-19	18-Jan-17	962	1095	3134GAPF5	NATIONAL ALLIANCE	$1,972,780.00	$98.64	$9,605.56	$0.00	$1,982,385.56
FHLMC 1.30%	23-Aug-16	$4,000,000.00	$4,000,000.00	100	1.300%	23-Aug-19	23-Jan-17	906	1095	3134GAAF1	COASTAL SECURITIES	$3,981,200.00	$99.53	$9,822.22	$26,000.00	$3,991,022.22
FNMA 1.55%	27-Dec-16	$2,000,000.00	$2,000,000.00	100	1.550%	27-Dec-19	27-Jun-17	1032	1095	3136G4JK0	NATIONAL ALLIANCE	$1,991,740.00	$99.59	$5,511.11	$0.00	$1,997,251.11
FNMA 1.75%	30-Dec-16	$2,000,000.00	$2,000,000.00	100	1.750%	30-Dec-19	30-Jun-17	1035	1095	3136G4KJ1	NATIONAL ALLIANCE	$2,000,340.00	$100.02	$5,930.56	$0.00	$2,006,270.56
FHLMC 1.75%	27-Jan-17	$2,000,000.00	$2,000,000.00	100	1.750%	27-Jan-20	30-Jun-17	1063	1095	3134GAJ21	COASTAL SECURITIES	$2,000,080.00	$100.00	$3,208.33	$0.00	$2,003,288.33
FHLMC 1.80%	28-Feb-17	$2,000,000.00	$2,000,000.00	100	1.800%	28-Feb-20	28-Aug-17	1095	1095	3134GAV50	COASTAL SECURITIES	$1,998,880.00	$99.94	$300.00	$0.00	$1,999,180.00
ICD-BMW Bank 1.35%*	12-Feb-16	$248,000.00	$248,000.00	100	1.350%	12-Feb-19	None	714	1096	05580ADT8	WELLS SECURITIES	$248,000.00	$100.00	$146.76	$3,357.17	$248,146.76
ICD-Discover Bk 1.60%*	13-Nov-15	$248,000.00	$248,010.87	100	1.600%	13-Nov-18	None	623	1096	254672WL8	WELLS SECURITIES	$248,000.00	$100.00	$1,163.22	$3,978.87	$249,163.22
ICD-Ally Bank 1.60%*	13-Nov-15	$248,000.00	$248,010.87	100	1.600%	13-Nov-18	None	623	1096	02006LVQ3	WELLS SECURITIES	$248,000.00	$100.00	$1,163.22	$3,978.87	$249,163.22
ICD-Goldman S. 1.65%*	13-Nov-15	$248,000.00	$248,011.21	100	1.650%	13-Nov-18	None	623	1096	38148JZ53	WELLS SECURITIES	$248,000.00	$100.00	$1,199.57	$4,103.21	$249,199.57
* (Investment CD's)														$59,328.32		

		TOTAL PAR	AMT. INVESTED		WEIGHTED AVG. YLD	EQUIVALENT TREAS. RATE	WEIGHTED AVG.	MATURITY		TOTAL MARKET VALUE			TOTAL BOOK VALUE
INVESTMENT ACCT		$7,729.48	$7,729.48							$7,729.48			
CDs and Securities		$20,992,000.00	$20,992,032.95		1.480%	1.373%			948 DAYS	$20,887,780.00			
TOTALS ALL ACCTS:		**$20,999,729.48**	**$20,999,762.43**							**$20,895,509.48**			**$20,954,837.80**

PLEDGE COLLATERAL REPORT WELLS FARGO
ALL COUNTY FUNDS
AS OF FEBRUARY 28, 2017

MARKET VALUE OF PLEDGE SECURITIES	**$224,217,318.41**
BALANCE IN ALL ACCOUNTS:	**$110,483,592.37**
OVER OR (UNDER) AMOUNT:	**$113,733,726.04**
	202.94%

COMPLIANCE STATEMENT

This in an unaudited statement made in accordance with provisions of Government Code Title 10 Section 2256.023 The Public Funds Investment Act
The investment portfolios of Jefferson County comply with the strategies in the Jefferson County Investment Policy and Procedures.

Tim Funchess

Tim Funchess, Jefferson County Investment Officer

FEBRUARY, 2017, JEFFERSON COUNTY INVESTMENT MATURITIES
MATURED SECURITIES AND INTEREST EARNED

SECURITY DESCRIPTION	PURCHASE DATE	PAR AMOUNT	AMOUNT INVESTED	PRICE PAID	EXPECT. YIELD	MATURITY DATE	Coupon Pay DATE	# DAYS INVEST.		CUSIP/C.D. NUMBER	BROKER DEALER	INTEREST EARNINGS	
POOLED CASH ACCOUNT													
INVESTMENT ACCT	01-Feb-17	$7,729.48	$7,729.48		0.100%	28-Feb-17			28	7580310386	WELLS FARGO	$0.54	
FHLMC 1.30%	23-Aug-16	$4,000,000.00	$4,000,000.00	100	1.300%	23-Aug-19	23-Jan-17	43700	1095	3134GAAF1	COASTAL SECURITIES	$26,000.00	COUPON
ICD-BMW Bank 1.35%*	12-Feb-16	$248,000.00	$248,000.00	100	1.350%	12-Feb-19	None	43508	1096	05580ADT8	WELLS SECURITIES	$1,687.76	COUPON
													$27,688.30
CHECKING INTEREST													
POOLED CASH ACCT		FEBRUARY INTEREST			0.100%						WELLS FARGO	$6,538.82	
OTHER COUNTY ACCTS		FEBRUARY INTEREST			0.100%						WELLS FARGO	$1,619.97	
TAX LICENSE ACCT		JANUARY INTEREST			0.100%						WELLS FARGO	$36.48	$8,195.27
TOTAL 3/8/2017		**$4,255,729.48**	**$4,255,729.48**									**$35,883.57**	**$35,883.57**

FISCAL YEAR 2016-2017

YIELD TO MATURITY AND INTEREST EARNINGS

MONTH	90 DAY T. BILL YIELD	INVESTMENT INTEREST EARNED	CHECKING ACCOUNT YIELD
OCTOBER	0.366%	$3,646.03	0.100%
NOVEMBER	0.480%	$23,545.66	0.100%
DECEMBER	0.500%	$32,407.80	0.100%
JANUARY	0.523%	$7,122.83	0.100%
FEBRUARY	0.523%	$35,883.57	0.100%
MARCH			
APRIL			
MAY			
JUNE			
JULY			
AUGUST			
SEPTEMBER			
ANNUAL TOTALS		**$ 102,605.89**	

Pepe Dominguez

From: Pepe Dominguez <peped@co.jefferson.tx.us>
Sent: Monday, February 27, 2017 9:28 AM
To: 'Commissioner Weaver'
Cc: Don Rao (drao@co.jefferson.tx.us); 'Commissioner Arnold'; 'Commissioner Sinegal'; 'Commissioner Alfred'; 'Judge Branick'; 'Jody Jannise'; 'Mike Trahan'; 'Mark Redwine'; 'Kenneth Minkins'; 'Ronda Conlin'; Steve Stafford [sstafford@co.jefferson.tx.us] (sstafford@co.jefferson.tx.us)
Subject: A Replat Of Lot 5 and the North Half of Lot 4, Block 2 Orange Farms Subdivision-Precinct #2
Attachments: Replat L5 & N Half L4 B2 Orange Farms Faust 2-27-2017.pdf

Commissioner Weaver ,

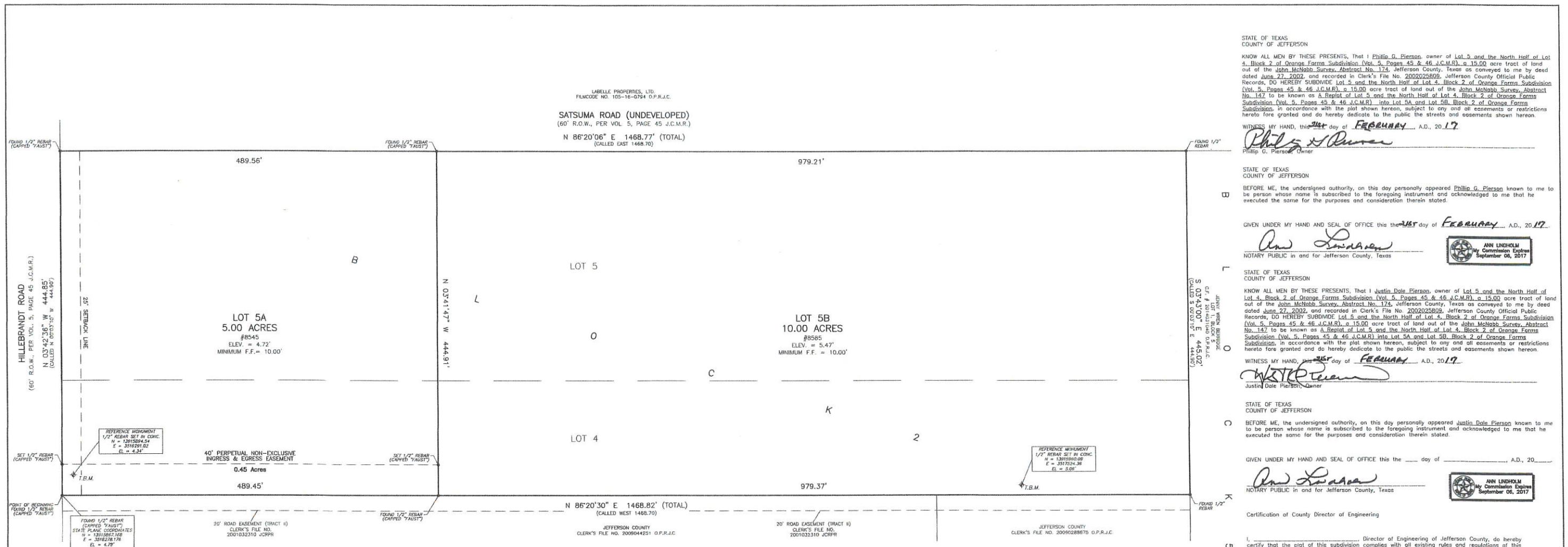
Attached is a PDF of a Replat of Lot 5 and the North Half of Lot 4, Block 2 Orange Farms Subdivision into Lot 5A and Lot 5B, Block 2 Orange Farms Subdivision, located off of Hillebrandt Road in Precinct #2. This plat is not within any ETJ and has met all of our platting requirements.

I will be placing this plat on the Agenda for Monday, March 6, 2017.

If you have any questions please contact either Don or myself.

Pepe Dominguez

Pepe Dominquez
Jefferson County Engineering
1149 Pearl 5th Floor
Beaumont, TX 77701
Offc. 409 835-8584
Fax. 409 835-8718
email: peped@co.jefferson.tx.us



A REPLAT OF
LOT 5 AND THE NORTH HALF OF LOT 4, BLOCK 2 ORANGE FARMS SUBDIVISION VOLUME 5, PAGE 45 & 46 J.C.M.R. INTO LOT 5A AND LOT 5B, BLOCK 2 ORANGE FARMS SUBDIVISION JEFFERSON COUNTY, TEXAS

Faust
ENGINEERING AND SURVEYING, INC.
PROFESSIONAL ENGINEERS AND PROFESSIONAL SURVEYORS
2525 CALDER STREET * BEAUMONT, TEXAS 77702 * (409) 813-3410
ENGINEERING FIRM NO. 4800 * SURVEYING FIRM NO. 100024-00

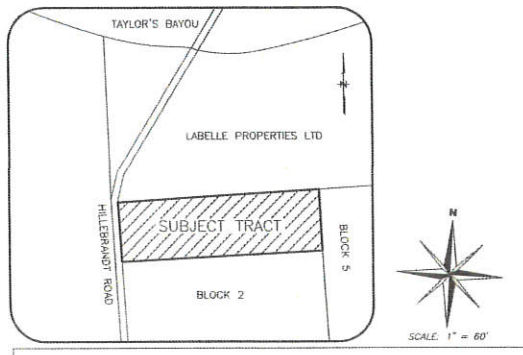
SURVEYOR NOTES:

1. ALL PROPERTY CORNERS ARE MARKED WITH SET 1/2" REBAR CAPPED "FAUST" UNLESS SHOWN OTHERWISE.
2. IN ACCORDANCE WITH THE FLOOD RATE INSURANCE MAP OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY, THE SUBJECT TRACT IS LOCATED IN ZONE "A15" AS SHOWN ON COMMUNITY PANEL NUMBER 480385-0290, DATED JUNE 1, 2002. THE LOCATION OF THE PROPERTY WAS DETERMINED BY SCALE AND FAUST ENGINEERING AND SURVEYING, INC. DOES NOT WARRANT OR SUBSCRIBE THE ACCURACY OF SAID MAP. ZONE "A15" ARE AREAS DETERMINED TO BE INSIDE THE 100-YEAR FLOOD-PLAIN. BASE FLOOD ELEVATION IS 9.00'. BASE FLOOD ELEVATION IS 9.00'. BASE FLOOD ELEVATION IS 9.00'.
3. BEARINGS SHOWN HEREON ARE REFERENCED TO THE TEXAS COORDINATE SYSTEM OF 1983, TEXAS SOUTH CENTRAL ZONE, AND ARE BASED ON THE NORTH AMERICAN DATUM OF 1983, ADJUSTMENT 2011.
4. NO PORTION OF THIS SUBDIVISION LIES WITHIN THE BOUNDARIES OF ANY MUNICIPALITY'S CORPORATE CITY LIMITS OR EXTRA TERRITORIAL JURISDICTION
5. ELEVATIONS SHOWN ARE NAVD 1988.
6. NEW CONSTRUCTION OR OTHER DEVELOPMENT WITHIN THIS SUBDIVISION MAY NOT BEGIN UNTIL ALL JEFFERSON COUNTY DEVELOPMENT REQUIREMENTS HAVE BEEN MET.
7. NEW STRUCTURE IN THIS SUBDIVISION SHALL NOT BE OCCUPIED UNTIL CONNECTED TO AN ON-SITE WASTEWATER SYSTEM, WHICH HAS BEEN APPROVED AND PERMITTED BY JEFFERSON COUNTY.
8. NEW STRUCTURE IN THIS SUBDIVISION SHALL NOT BE OCCUPIED UNTIL CONNECTED TO AN INDIVIDUAL WATER SUPPLY, STATE APPROVED COMMUNITY WATER SYSTEM, OR ENGINEERED RAINWATER COLLECTION SYSTEM.
9. ALL DRAINAGE EASEMENTS SHOWN HEREON SHALL BE KEPT CLEAR OF FENCES, BUILDINGS, PLANTING, AND OTHER OBSTRUCTIONS TO THE OPERATION AND MAINTENANCE OF THE DRAINAGE FACILITIES.
10. THIS SUBDIVISION IS WITHIN THE BOUNDARIES OF THE HAMSHIRE-FANNETT INDEPENDENT SCHOOL DISTRICT
11. ALL EXISTING PIPELINE EASEMENTS WITHIN THE LIMITS OF THE SUBDIVISION HAVE BEEN SHOWN.
12. A TOTAL OF 2 LOTS WILL BE IN THE SUBDIVISION
13. ALL LOTS ARE SINGLE FAMILY.
14. NO MORE THAN ONE (1) SINGLE FAMILY RESIDENCE SHALL BE LOCATED ON EACH LOT. THIS RESTRICTION SHALL ALSO BE PLACED ON ALL DEEDS AND CONTRACTS FOR DEED FOR ANY LOT SOLD WITHIN THE SUBDIVISION.

Electric utility service will be provided by: ENTERGY
Telephone utility service will be provided by: AT&T
Gas utility service will be provided by: NA
Water utility service will be provided by: WEST JEFFERSON COUNTY MUNICIPAL WATER DISTRICT
Sewer utility service will be provided by: NA
Cable utility service will be provided by: NA

West Jefferson County Municipal Water District, an approved public water supply system, has adequate capacity to supply the subdivision and provisions have been made to provide service to each lot in accordance with the policies of the water supply system.

Water Supply Representative



Required Clear Space for an OSSF (On-site Sewerage Facility)

Type of Facility	Usage Rate - Gallons per day (without water-saving devices)	Required Clear Area for OSSF (sqft)	Usage Rate - Gallons per day (without water-saving devices)	Required Clear Area for OSSF (sqft)
Single Family less than 1500 sqft	225	6428	180	5143
Single Family less than 2500 sqft	300	8571	240	6857
Single Family less than 3500 sqft	375	10714	300	8571
Single Family less than 4500 sqft	450	12857	360	10286
Single Family less than 5500 sqft	525	12857	420	10286
Greater than 5500 sqft each additional 1500 sqft or increment	75		60	

STATE OF TEXAS
COUNTY OF JEFFERSON

KNOW ALL MEN BY THESE PRESENTS, That I Phillip G. Pierson, owner of Lot 5 and the North Half of Lot 4, Block 2 of Orange Farms Subdivision (Vol. 5, Pages 45 & 46 J.C.M.R), a 15.00 acre tract of land out of the John McNabb Survey, Abstract No. 174, Jefferson County, Texas as conveyed to me by deed dated June 27, 2002, and recorded in Clerk's File No. 2002025809, Jefferson County Official Public Records, DO HEREBY SUBDIVIDE Lot 5 and the North Half of Lot 4, Block 2 of Orange Farms Subdivision (Vol. 5, Pages 45 & 46 J.C.M.R), a 15.00 acre tract of land out of the John McNabb Survey, Abstract No. 147 to be known as A Replat of Lot 5 and the North Half of Lot 4, Block 2 of Orange Farms Subdivision (Vol. 5, Pages 45 & 46 J.C.M.R) into Lot 5A and Lot 5B, Block 2 of Orange Farms Subdivision, in accordance with the plat shown hereon, subject to any and all easements or restrictions hereto fore granted and do hereby dedicate to the public the streets and easements shown hereon.

WITNESS MY HAND, this 21st day of FEBRUARY, A.D., 2017

Phillip G. Pierson, Owner

STATE OF TEXAS
COUNTY OF JEFFERSON

BEFORE ME, the undersigned authority, on this day personally appeared Phillip G. Pierson known to me to be person whose name is subscribed to the foregoing instrument and acknowledged to me that he executed the same for the purposes and consideration therein stated.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this the 21st day of FEBRUARY, A.D., 2017.

NOTARY PUBLIC in and for Jefferson County, Texas

ANN LINDHOLM
My Commission Expires
September 06, 2017

STATE OF TEXAS
COUNTY OF JEFFERSON

KNOW ALL MEN BY THESE PRESENTS, That I Justin Dale Pierson, owner of Lot 5 and the North Half of Lot 4, Block 2 of Orange Farms Subdivision (Vol. 5, Pages 45 & 46 J.C.M.R), a 15.00 acre tract of land out of the John McNabb Survey, Abstract No. 174, Jefferson County, Texas as conveyed to me by deed dated June 27, 2002, and recorded in Clerk's File No. 2002025809, Jefferson County Official Public Records, DO HEREBY SUBDIVIDE Lot 5 and the North Half of Lot 4, Block 2 of Orange Farms Subdivision (Vol. 5, Pages 45 & 46 J.C.M.R), a 15.00 acre tract of land out of the John McNabb Survey, Abstract No. 147 to be known as A Replat of Lot 5 and the North Half of Lot 4, Block 2 of Orange Farms Subdivision (Vol. 5, Pages 45 & 46 J.C.M.R) into Lot 5A and Lot 5B, Block 2 of Orange Farms Subdivision, in accordance with the plat shown hereon, subject to any and all easements or restrictions hereto fore granted and do hereby dedicate to the public the streets and easements shown hereon.

WITNESS MY HAND, this 21st day of FEBRUARY, A.D., 2017

Justin Dale Pierson, Owner

STATE OF TEXAS
COUNTY OF JEFFERSON

BEFORE ME, the undersigned authority, on this day personally appeared Justin Dale Pierson known to me to be person whose name is subscribed to the foregoing instrument and acknowledged to me that he executed the same for the purposes and consideration therein stated.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this the ___ day of _____, A.D., 20___.

NOTARY PUBLIC in and for Jefferson County, Texas

ANN LINDHOLM
My Commission Expires
September 06, 2017

Certification of County Director of Engineering

I, _____ Director of Engineering of Jefferson County, do hereby certify that the plat of this subdivision complies with all existing rules and regulations of this office as adopted by the Commissioner's Court of Jefferson County, Texas

Director of Engineering

Certification of Surveyor:

I, Richard F. Faust, a Registered Professional Land Surveyor in the state of Texas certify that this plat has been prepared from and actual survey on the ground, that all corners were found or set as noted and that this plat correctly represents said survey by me and is in accordance with the Subdivision Regulations of Jefferson County.

Richard F. Faust, P.E., R.P.L.S.
Registered Professional Land Surveyor No. 4782
Engineering Firm Registration No. 4800
Surveying Firm Registration No. 100024-00

STATE OF TEXAS
REGISTERED
RICHARD F. FAUST
4782
PROFESSIONAL
LAND SURVEYOR

Certificate of County Approval, to-wit:

STATE OF TEXAS
COUNTY OF JEFFERSON

Approved by the Commissioners Court of Jefferson County, Texas on the ___ day of _____, A.D. 20____, authorizing the filing for record of this plat. Jefferson County assumes no obligations for the maintenance of streets, roads, drainage or any other improvements

Commissioner Precinct No. 1
Jefferson County, Texas

Commissioner Precinct No. 2
Jefferson County, Texas

Commissioner Precinct No. 3
Jefferson County, Texas

Commissioner Precinct No. 4
Jefferson County, Texas

County Judge
Jefferson County, Texas

Certificate of Recording, to wit:

STATE OF TEXAS
COUNTY OF JEFFERSON

I, _____, County Clerk of Jefferson County, Texas, do hereby certify that the foregoing instrument of writing with its certificate of authentication was filed for record in my office on the ____ day of _____, 20____, at ____ o'clock ____m., and duly recorded on the ____ day of _____, 20____, at ____ o'clock ____m., in the Plat Records of Jefferson County, Texas, in Book ____, Page ____.

COUNTY CLERK, JEFFERSON COUNTY, TEXAS

Date: JANUARY 26, 2017
Census Tract: 113.04
Project No. 170026

Permit No. 03-U-17

Precinct No. 3

NOTICE OF PROPOSED PLACEMENT OF
PUBLIC UTLITY LINE/COMMON CARRIER PIPELINE WITHIN
JEFFERSON COUNTY RIGHT-OF-WAY
(2003 REVISION)

Date MARCH 1, 2017

HONORABLE COMMISSIONERS' COURT
JEFFERSON COUNTY
BEAUMONT, TEXAS 77701

Gentlemen:

Trinity Bay Conservation District (Company) does hereby made application to use lands belonging to Jefferson County, for the purpose of constructing, maintaining or repairing a utility or common carrier pipeline for the distribution of SANITARY SEWER FORCE MAIN, location of which is fully described as follows: SEE ATTACHED PROJECT LETTER.
2" PVC SANITARY SEWER FORCE MAIN
COMMENCING at KIKER Rd and along GLEN RD For 600Ft.

6 pages of drawings attached.

Construction will begin on or after MARCH 15, 20 17.

It is understood that all work will comply with the requirements of the Utility and Common Carrier Pipeline Policy adopted by Jefferson County Commissioners' Court on 2003, and all subsequent revisions thereof to date.

Company Trinity Bay Conservation District

By Jerry Shadden

Title General Manager

Address P.O. Box 599

Stowell, Texas 77661

Telephone 409-296-3602

Fax No. 409-296-1055

FOR COMMON CARRIER PIPELINE COMPANY ONLY

1. Common Carrier Determination form must be attached to application.
2. Corporation/Person product is to be purchased from/delivered to:

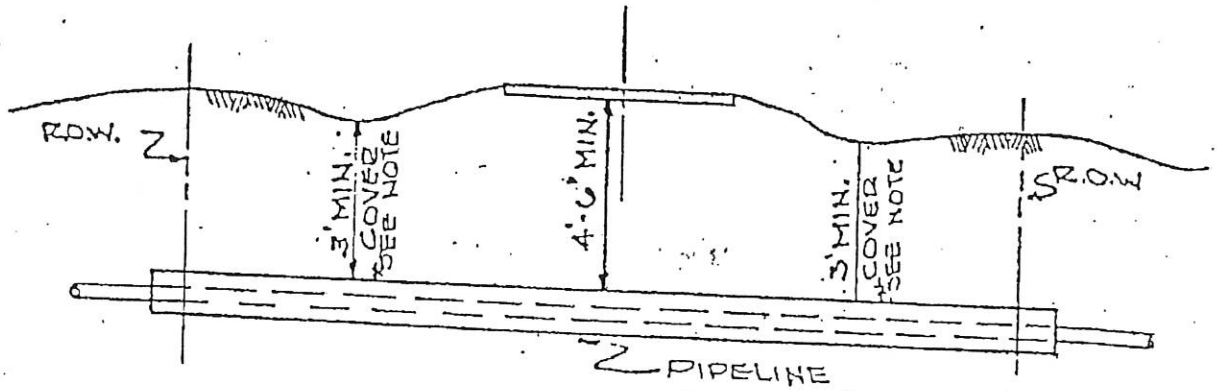
Enclosed, please find the required application fee:

N/A road crossing @ $100.00 _____ $ N/A

N/A miles parallel @ $150.00/mile or fraction _____ $ N/A

TOTAL _____ $ N/A

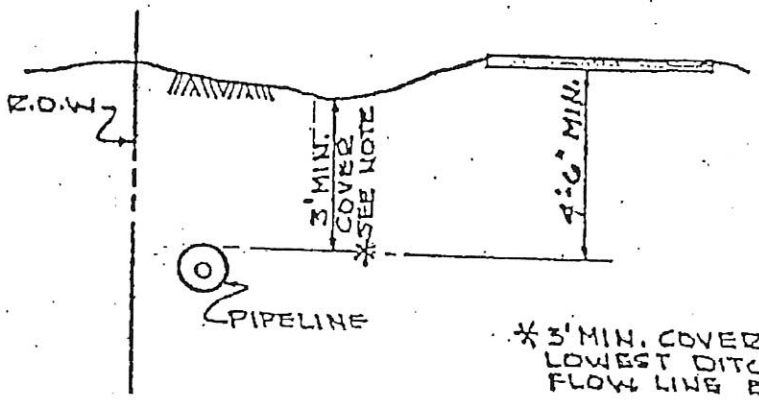
We understand that a Performance Bond will be required to protect against damage to Jefferson County's property. This will be $5,000.00 per crossing and $50,000.00 per mile or fraction thereof for parallel construction unless a special hazard to Jefferson County's property is judged to exist. No work will begin until the County Engineer has been furnished such bonds as Jefferson County Commissioners' Court may choose to require.



*3' MIN. COVER AT LOWEST DITCH FLOW LINE ELEV.

NOTE: CASING TO EXTEND 1'-0' OUTSIDE R.O.W EACH SIDE OF ROAD.

1. STANDARD PIPELINE CROSSING



*3' MIN. COVER AT LOWEST DITCH FLOW LINE ELEV.

2. STANDARD PARALLEL LINE

JEFFERSON COUNTY ENGINEERING DEPARTMENT.		
PIPELINE DETAILS (STD.)		
12-7-79	NO SCALE	SCHEDULE

ENGINEERING ACTION FORM

The minimum standard bond required is $ N/A

Director of Engineering

03/06/17
Date

COMMISSIONERS COURT ORDER

On this date the attached application of a utility or common carrier pipeline came on for the Courts consideration, and the Court having considered the application is of the opinion that the applicant is a utility or common carrier pipeline company meeting all the requirements of County Policy for installation of a line in County roads and that the plans or details presented with said application did not appear to violate the County Regulations. It is ORDERED that said applicant shall comply with all provisions of the Pipe Line Policy adopted by this Court, and all subsequent revisions. The bond required shall be $ N/A. Special conditions of construction (are/are not) attached hereto.

COMMISSIONERS COURT

By _____
County Judge

LJA Engineering, Inc.

3120 Fannin Street
Beaumont, Texas 77701
www.ljaengineering.com

Phone 409.833.3363
Fax 409.833.0317
TBPE № F-1386

March 1, 2017

Don Rao, Director
Jefferson County Engineering Department
1149 Pearl Street
5th Floor
Beaumont, TX 77701

Re: Trinity Bay Conservation District
Request of Approval
Sanitary Sewer Line along Glen Road

Dear Mr. Rao:

This letter is written on the behalf of Jerry Shadden, General Manger of the Trinity Bay Conservation District (TBCD). TBCD is requesting approval from Jefferson County to install a 2" PVC sanitary sewer force main within Jefferson County's public road right-of-way (ROW). This sewer line will be installed as to provide sanitary sewer service along Glen Road from Kiker Road to the east along Glen Road approximately 600 feet.

The proposed construction of the 2" PVC sanitary sewer force main shall adhere to the specifications as shown in Jefferson County's "Utility and Common Carrier Pipeline Policy". The proposed utilities to be installed shall be constructed with a minimum of three (3) feet of cover.

If you should have any questions or comments, please contact LJA Engineering, Inc. to discuss.

Sincerely,

LJA ENGINEERING, INC.

Consulting Engineers – Planners - Surveyors

Jeff Scogin

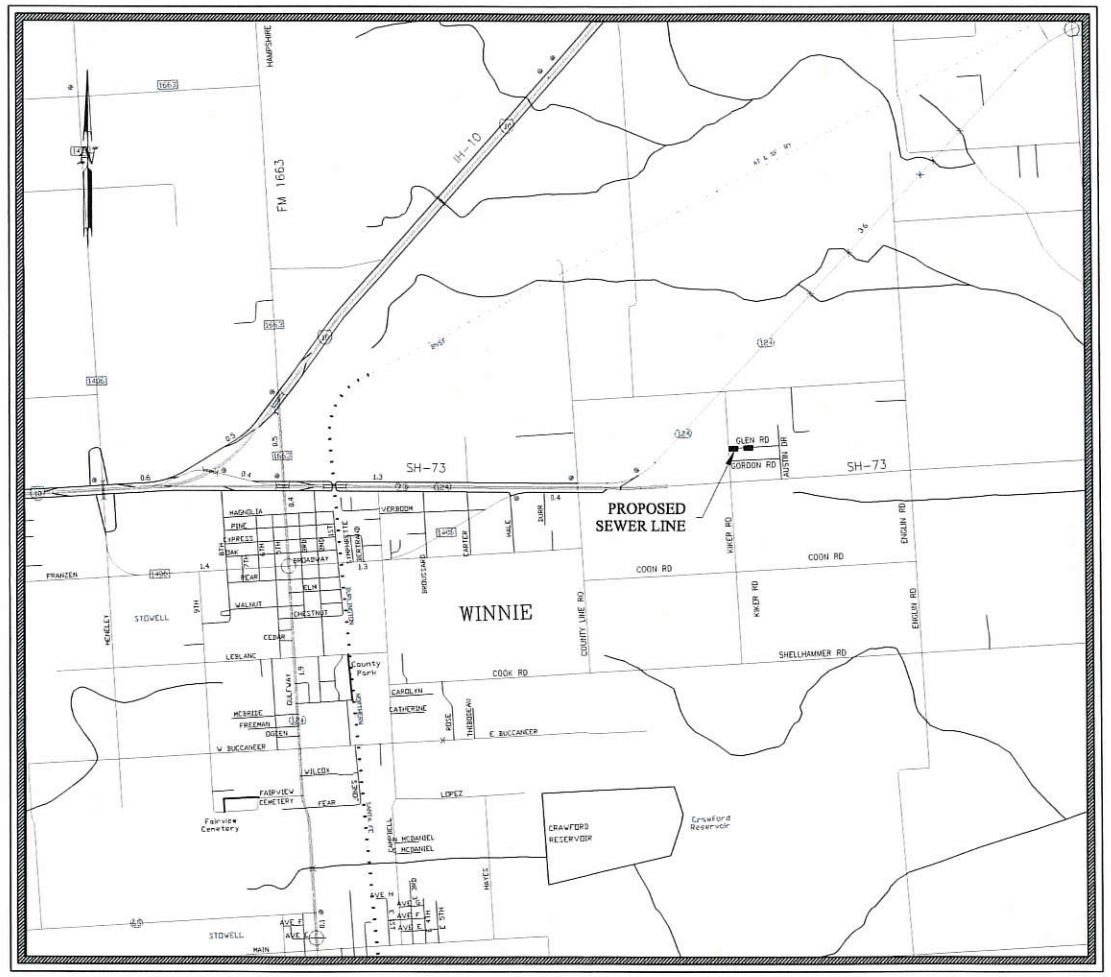
Project Manager

TRINITY BAY CONSERVATION DISTRICT

GLEN ROAD SEWER IMPROVEMENTS

INDEX TO DRAWINGS

TITLE	SHEET NO.
TITLE SHEET	1
LOCATION MAP	2
GENERAL NOTES	3
PROPOSED PLAN SHEETS	4
MISCELLANEOUS DETAILS	5
TRENCH DETAILS	6



PROJECT LOCATION
NTS

PREPARED BY:

LJA ENGINEERING, INC.
CONSULTING ENGINEERS
BEAUMONT, TEXAS
Texas Registered Engineering Firm F-001054

FEBRUARY 2017

TRINITY BAY CONSERVATION DISTRICT

BOARD OF DIRECTORS:

JEFFREY JENKINS	PRESIDENT
GREG TURNER	VICE PRESIDENT
DOROTHY HAMILTON	SECRETARY
TOMMY GILBERT	MEMBER
MICHAEL WINZER	MEMBER
JERRY SHADDEN	GENERAL MANAGER

APPROVED

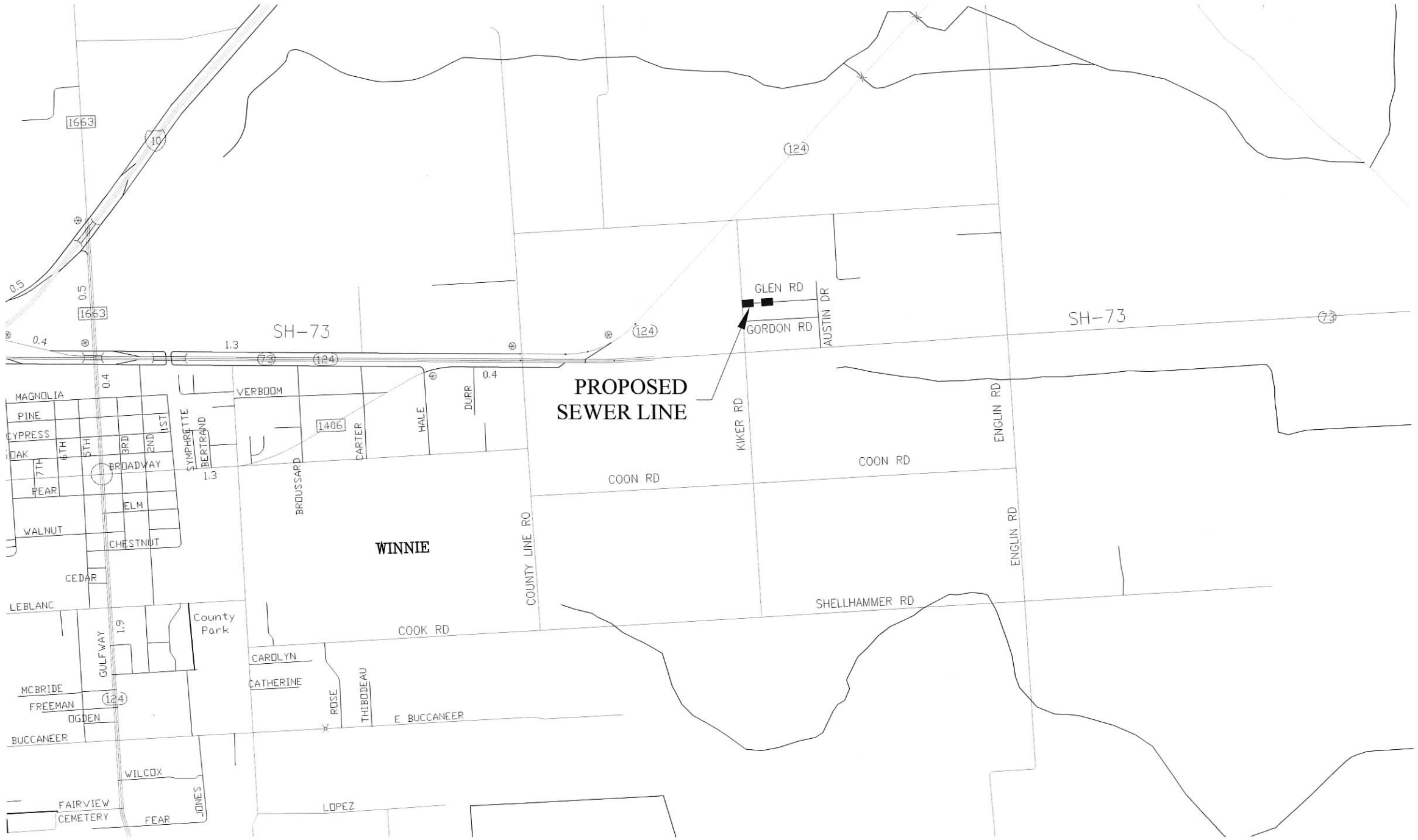
LJA ENGINEERING, INC.

BY: _____ 2/23/17

JEFFREY D. LEAVINS, P.E. NO. 111537 — DATE

STATE OF TEXAS
JEFFREY D. LEAVINS
111537
REGISTERED
PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY JEFFREY D. LEAVINS, P.E. 111537, ON 2/23, 2017



D:\PROJECTS 6000 6499\6400\6442\GLEN ROAD TO KIKER ROAD - SEWER FORCE MAIN\2-LOCATION MAP.DWG

Date : 06/2016
File Name : CAD
File Drawer No. : 6442

STATE OF TEXAS
JEFFREY D. LEAVINS
111537
REGISTERED
PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY JEFFREY D. LEAVINS, P.E. 111537, ON 2/13, 2017

No.	Revisions	By	Checked	Date

LJA Engineering, Inc.
3120 Fannin Street
Beaumont, Texas 77701
Phone 409.833.3363
Fax 409.833.0317
FRN - F-1386

TRINITY BAY CONSERVATION DISTRICT
GLEN RD SEWER IMPROVEMENTS

LOCATION MAP

Action	Name	Date
Design	JDL	2/17
Drawn	JRT	2/17
Checked	JBS	2/17
Approved	JDL	2/17
Scale	NTS	
Sheet	2 Of 6	

GENERAL NOTES

1. In all construction, the Contractor shall be responsible for providing all fittings and appurtenances necessary for a complete installation even if not specifically mentioned.

2. The Contractor shall verify all dimensions and existing conditions of the job site. Any variation from dimensions or details as shown on the structural drawings shall be reported to the Engineer.

3. The Contractor shall confine his operations to the indicated easements and rights of ways. He shall keep all work sites in a neat, orderly, and safe manner during the course of the construction. All excess soils and materials shall be disposed of on a regular basis or whenever, in the opinion of the Engineer, they constitute a hazard or nuisance. Disposal of excess soils shall be in accordance with all local, state, and federal laws at the Contractor's expense. All litter and temporary trash disposal facilities shall be removed, all materials designated to be salvaged to the Owner shall be deposited in an Owner approved site, and all surface restoration, including seeding shall be completed prior to the Contract being considered complete.

4. All work areas, surfaces, and ditches disturbed by the Contractor shall be cleaned and restored to their original condition or better in the time frame established in the specifications.

5. The location of all utilities (water, telephone, cable, electrical, gas, etc.) is the responsibility of the Contractor. The utilities shown on the plans are for informational purposes only and are not intended to show the exact location of the utilities. The Contractor shall give each utility Owner the required notice prior to beginning construction near each utility. The Contractor shall be responsible for resolving any disputes with the utility Owners regarding damage to the utilities. The owner shall not be responsible for damage to existing utilities.

6. The contractor shall be responsible for the control of ground water. The contractor shall submit to the engineer his plan for keeping the ground water out of trenches and excavations. At no time shall ground water be allowed in the excavation while pouring concrete.

7. The Contractor shall be responsible for the restoration of all property markers disturbed during construction.

8. The Contractor shall take necessary precautions to prevent large amounts of soil, rock, and other excavation materials from being washed into the ditches and drainage ways. The streets shall be kept free of dirt and mud that results from the Contractor's work. The Engineer and Owner shall have the right to require that the Contractor immediately remedy any situation which they consider detrimental to public health, safety, the environment, and any other problematic disturbances that are caused by the Contractor's work.

9. In the Road R.O.W.'s and where indicated on the plans, disturbed soil areas shall be broadcast seeded after surface restoration, in accordance with the specifications.

10. Megalug restraining flanges shall be used at all mechanical joint ductile iron fittings. Transition gaskets shall be used where necessary to connect to existing piping. Payment shall be subsidiary to appropriate bid items.

11. The slopes of any ditches or any surfaces that are disturbed shall be returned to their original condition or better. Any ditches that the main crosses and that are open cut shall have their slopes backfilled immediately to its original condition.

12. The Contractor shall coordinate with TBCD a minimum of 48 hours prior to making connections to any existing water lines or sewer lines.

13. Trench protection in accordance with the specifications shall be used where excavations are deeper than five (5) feet deep or if the trench is less than (5) feet deep and in a dangerous condition. The contractor shall be responsible for all shoring of open pits as required by OSHA and the specifications.

14. The contractor shall keep all work sites in a neat, orderly and safe manner during the course of the construction. All excess materials shall be disposed of on a regular basis or whenever, in the opinion of the engineer, they constitute a hazard or nuisance. Disposal of excess soils shall be the responsibility of the contractor and shall be in accordance with all local, state, and federal laws. All work areas and surfaces disturbed by the contractor shall be restored to their original condition or better.

15. The Contractor shall dispose of all materials and rubbrush removed from the project site at an off site disposal area in accordance with all local, state, and federal laws.

16. The Contractor shall be responsible for removing any trees, stumps, and brush in the areas of construction and where indicated on the plans as necessary to construct the improvements in this project in accordance with all local, state, and federal laws and the scope of work. The Contractor shall dispose of all refuge at an off site facility at his own expense. Payment for clearing and disposal will be incidental to the line work.

17. The Contractor shall be responsible for keeping all state and county roads free of dirt, debris, or any other nuisance conditions caused by his activities. The Contractor shall be responsible for the repair of any damage to county or city roads resulting from his operations.

GENERAL LINEWORK NOTES

1. If unstable or wet soil conditions are encountered in the trench bottom, the Contractor shall cease work and stabilize the unstable area according to the method called for in the specifications. The Contractor must obtain the approval of the Engineer prior to placement of such material. There will be no additional payment for trench bottom stabilizing or dewatering, regardless of the method used.

2. All underground fittings shall be ductile iron according to the specification. The Contractor shall construct thrust blocks at all bends and tees as approved by the Engineer. See thrust block details.

3. All proposed underground mains shall have a minimum cover as shown in the plans and details, including ditch crossings and bores.

4. The Contractor shall maintain adequate drainage throughout the limits of the project during all construction phases.

5. All drainage structures shall be cleaned and outfall channels unobstructed on a daily basis.

6. All existing signs and sign posts within the limits of construction are to be removed during construction and replaced upon completion to prevent damage. Any signs or posts damaged by the Contractor shall be replaced at his entire expense. There will be no direct expense for this work, but it shall be considered subsidiary to the various bid items of the contract.

7. If an open pit is to be left unbackfilled overnight, all open pipes in the pit shall be plugged. Open pits shall be barricaded and roped off and warning signs shall be placed directing pedestrian traffic around the pit. If an open pit is left overnight in the roadway, lighted signs shall be used in accordance with the "Manual on Uniform Traffic Control Devices" as adopted by TxDot. No driveway or intersection shall be left blocked overnight by the Contractor's operations. The Contractor shall be responsible for all maintenance of the travelway and appurtenances within the barricades for the duration of the project.

8. The Contractor shall follow the alignments as shown on the plans. Deviations shall only be allowed in order to avoid existing facilities and then only with the approval of the Engineer. All deviations from the plan sheets shall be shown on the "As Built" plans.

9. The Owner shall supply water for the testing and sterilization of the water lines. If the line fails and a retest or additional sterilization is necessary the Contractor will pay the Owner for water to refill the line the second time.

10. If applicable, the Contractor shall submit his proposed method of connection for HDPE pipe to PVC pipe to the Engineer for approval.

11. All PVC sewer line pipe shall be SDR 21 pressure pipe.

12. All signage and safety markings for construction purposes shall be in accordance with TxDots "Manual on Uniform Traffic Control Devices".

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Date : 02/17
File Name : CAD
File Drawer No. : 6442

STATE OF TEXAS · JEFFREY D. LEAVINS · 111537 · REGISTERED PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY JEFFREY D. LEAVINS, P.E. 111537, ON 1/23, 2017

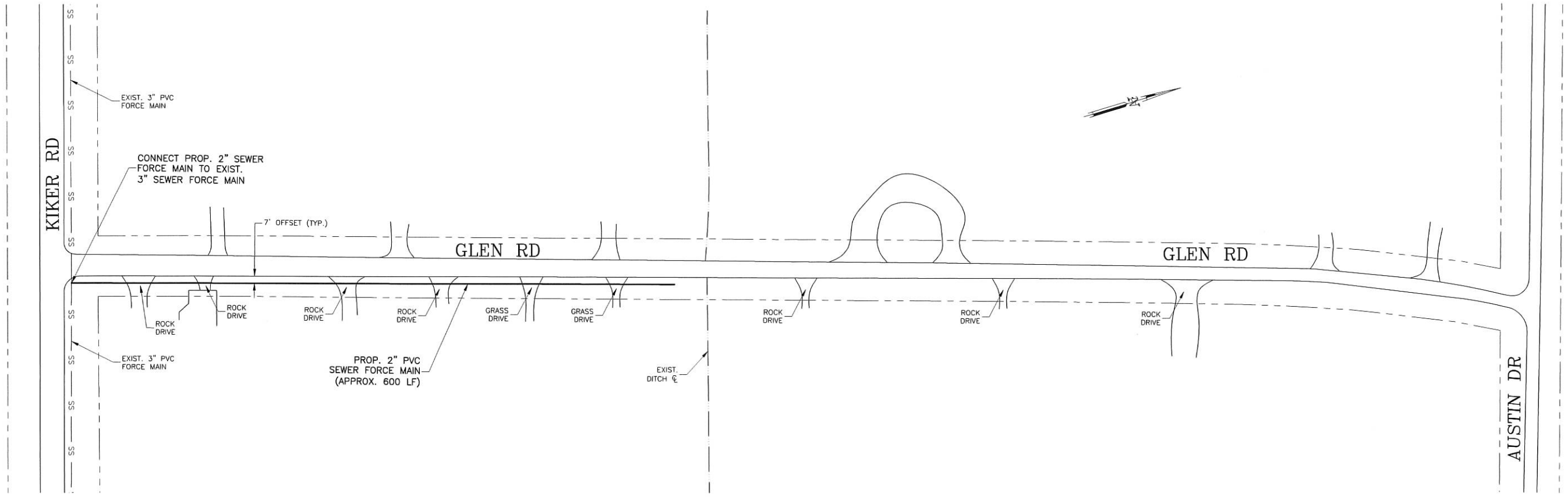
No.	Revisions	By	Checked	Date

LJA Engineering, Inc.
3120 Fannin Street
Beaumont, Texas 77701
Phone 409.833.3363
Fax 409.833.0317
FRN - F-1386

TRINITY BAY CONSERVATION DISTRICT
GLEN RD SEWER IMPROVEMENTS

GENERAL NOTES

Action	Name	Date
Design	JDL	2/17
Drawn	DWS	2/17
Checked	JBS	2/17
Approved	JDL	2/17
Scale	AS SHOWN	
Sheet	3 Of 6	



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Date : 2/17
File Name :
File Drawer No. : 6442

STATE OF TEXAS
JEFFREY D. LEAVINS
111537
REGISTERED PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY JEFFREY D. LEAVINS, P.E. 111537, ON 2/23, 2017

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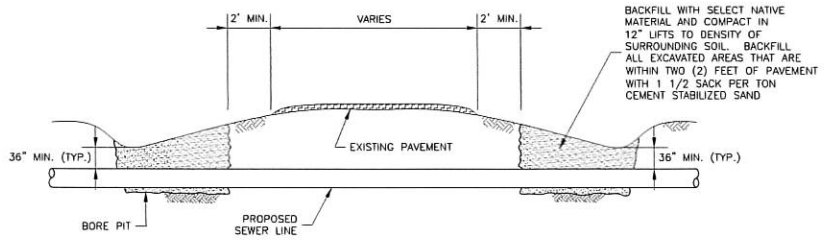
LJA Engineering, Inc.
3120 Fannin Street
Beaumont, Texas 77701
Phone 409.833.3363
Fax 409.833.0317
FRN - F-1386

TRINITY BAY CONSERVATION DISTRICT
GLEN ROAD SEWER IMPROVEMENTS

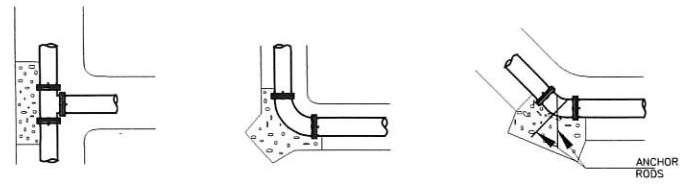
PROPOSED SEWER
PLAN SHEET

Action	Name	Date
Design	JDL	2/17
Drawn	JRT	2/17
Checked	JBS	2/17
Approved	JDL	2/17
Scale	1" = 50'	
Sheet	4 of 6	



TYPICAL ROAD BORE AND DRIVEWAY BORES

NTS



TEE FITTING 90° FITTING 45° FITTING

FITTING	PIPE SIZE (IN)	BEARING SURFACE (SF)	SIZE
90° BEND	2 & 3	.59	.8' x .8'
45° BEND	2 & 3	.32	.6' x .6'
22.5° BEND	2 & 3	.16	.4' x .4'
TEE, VALVE, OR PLUG	2 & 3	.42	.6' x .6'

1. Areas shown are based on a soil bearing value of 1500 psf and a pipe thrust with 200 psi test pressure.
2. The Contractor shall be responsible for verifying the soil bearing value for the soil encountered.
3. Thrust blocks shall be cast against undisturbed soil using 2500 psi concrete.
4. Joints shall not be encased in concrete.
5. All anchor rods, mechanical joint nuts and bolts, and restraining flange nuts and bolts shall be coated with coal tar epoxy.
6. Underground pipe clamps in conjunction with concrete thrust blocking shall be used where encroachment of adjacent piping prevents normal thrust blocking methods. Such clamps shall be at no extra cost to owner.

TYPICAL THRUST BLOCKING

NTS

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Date : 2/17
File Name : CAD
File Drawer No. : 6442

STATE OF TEXAS
JEFFREY D. LEAVINS
111537
REGISTERED PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY JEFFREY D. LEAVINS, P.E. 111537, ON 2/23, 2017

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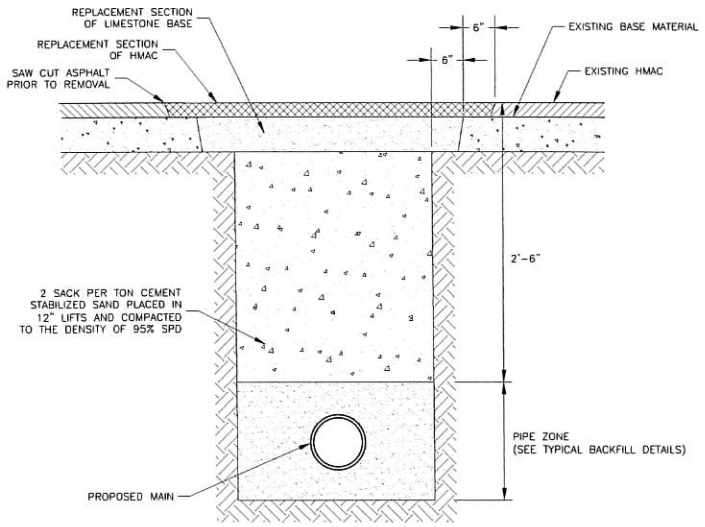
LJA Engineering, Inc.
3120 Fannin Street
Beaumont, Texas 77701
Phone 409.833.3363
Fax 409.833.0317
FRN - F-1386

TRINITY BAY CONSERVATION DISTRICT
GLEN RD SEWER IMPROVEMENTS

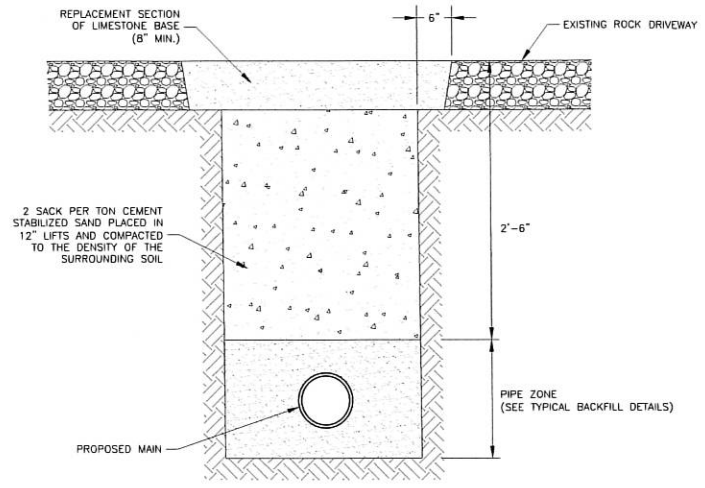
MISCELLANEOUS DETAILS

Action	Name	Date
Design	JDL	2/17
Drawn	JRT	2/17
Checked	JBS	2/17
Approved	JDL	2/17
Scale	AS SHOWN	
Sheet	5 Of 6	



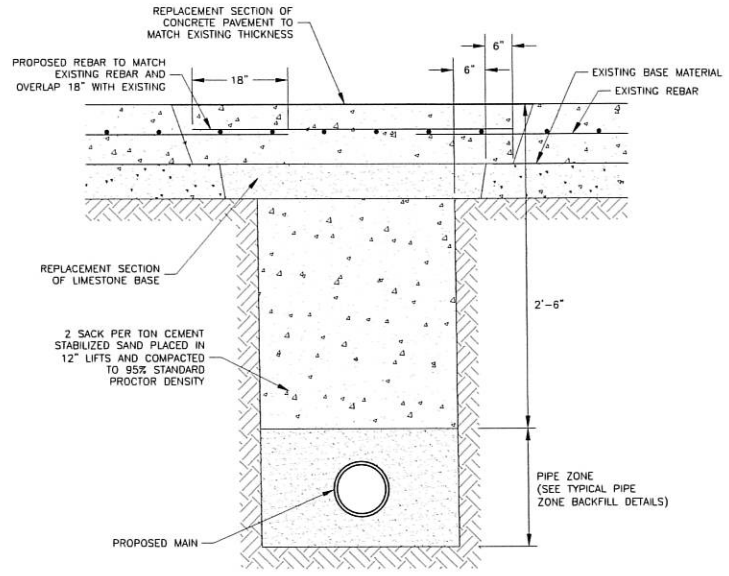
TYPICAL SURFACE RESTORATION
IN ASPHALT PAVEMENT

NTS



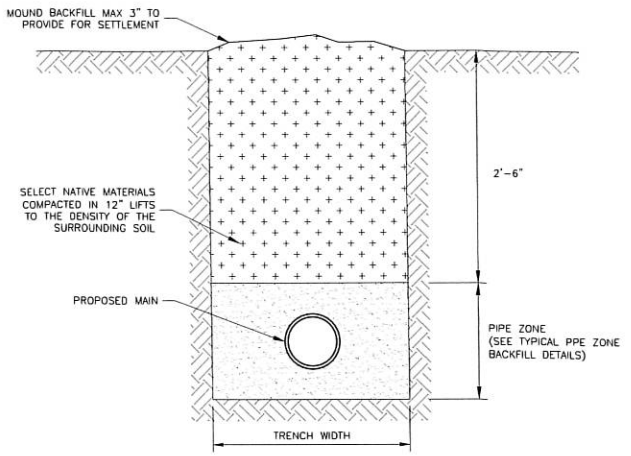
TYPICAL SURFACE RESTORATION
IN ROCK DRIVEWAY

NTS



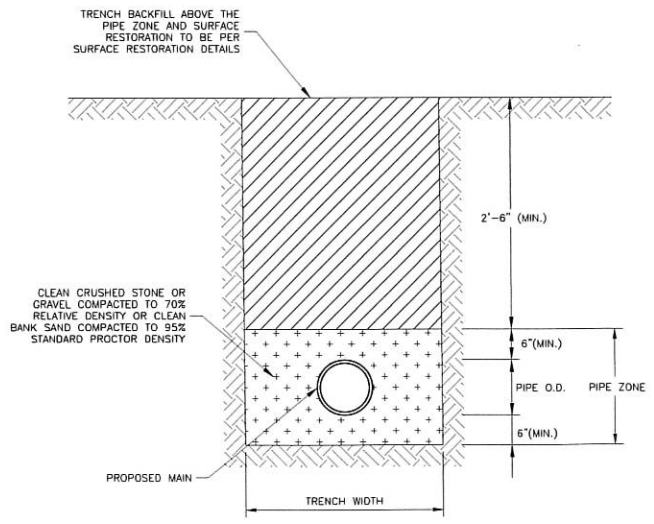
TYPICAL SURFACE RESTORATION
IN CONCRETE PAVEMENT

NTS



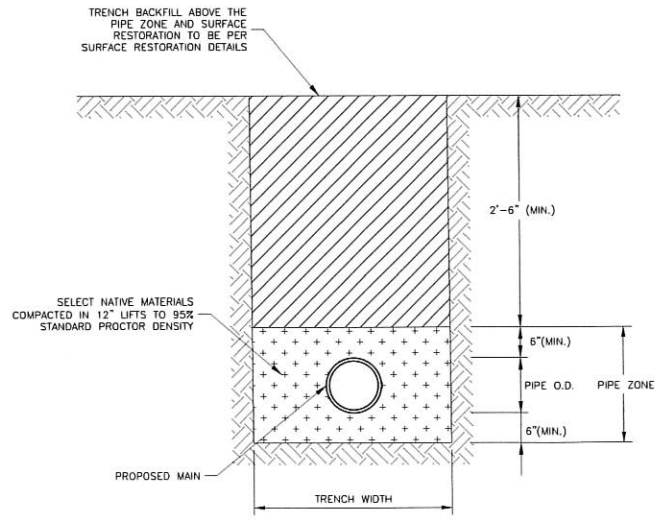
TYPICAL SURFACE RESTORATION
OUTSIDE OF PAVEMENT

NTS



TYPICAL PIPE ZONE BACKFILL
FOR MAINS INSIDE OF PAVEMENT

NTS



TYPICAL PIPE ZONE BACKFILL
FOR MAINS OUTSIDE OF PAVEMENT

NTS

O:\PROJECTS 6000 6499\6400\6442\GLEN ROAD TO KIKER ROAD - SEWER FORCE MAIN\5-DETAILS.DWG

Date : 06/2016
File Name : CAD
File Drawer No. : 6442-BUC

STATE OF TEXAS · JEFFREY D. LEAVINS · 111537 · REGISTERED · PROFESSIONAL ENGINEER

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY JEFFREY D. LEAVINS, P.E. 111537, ON 1/23 . 2017

No.	Revisions	By	Checked	Date

LJA Engineering, Inc.
3120 Fannin Street
Beaumont, Texas 77701
Phone 409.833.3363
Fax 409.833.0317
FRN - F-1386

TRINITY BAY CONSERVATION DISTRICT
GLEN RD SEWER IMPROVEMENTS

TRENCH DETAILS

Action	Name	Date
Design	JDL	2/17
Drawn	JRT	2/17
Checked	JBS	2/17
Approved	JDL	2/17
Scale	AS SHOWN	
Sheet	6 of 6	

Permit No. 04-U-17

Precinct No. 4

NOTICE OF PROPOSED PLACEMENT OF
PUBLIC UTILITY LINE/COMMON CARRIER PIPELINE WITHIN
JEFFERSON COUNTY RIGHT-OF-WAY
(2003 REVISION)

Date 3-1-17

HONORABLE COMMISSIONERS' COURT
JEFFERSON COUNTY
BEAUMONT, TEXAS 77701

Gentlemen:

West Jefferson County MWD (Company) does hereby made application to use lands belonging to Jefferson County, for the purpose of constructing, maintaining or repairing a utility or common carrier pipeline for the distribution of Sewer Force Main (2" PVC), location of which is fully described as follows: Cheek Community Sewer Improvement Project. Phase V. See attached construction plans.

6 pages of drawings attached.

Construction will begin on or after May, 2017

It is understood that all work will comply with the requirements of the Utility and Common Carrier Pipeline Policy adopted by Jefferson County Commissioners' Court on 7/20/2011, and all subsequent revisions thereof to date.

Company West Jefferson County MWD

By Daniel Hidalgo

Title General Manager

Address 7824 Glenbrook Dr.

Telephone 409-794-2338

Fax No. 409-794-1258

MAR 2017
Received
Jefferson County
Engineer's Office

FOR COMMON CARRIER PIPELINE COMPANY ONLY

1. Common Carrier Determination form must be attached to application.
2. Corporation/Person product is to be purchased from/delivered to:

Enclosed, please find the required application fee:

_____ road crossing @ $100.00 _____ $ N/A

_____ miles parallel @ $150.00/mile or fraction _____ $ N/A

TOTAL _____ $ N/A

We understand that a Performance Bond will be required to protect against damage to Jefferson County's property. This will be $5,000.00 per crossing and $50,000.00 per mile or fraction thereof for parallel construction unless a special hazard to Jefferson County's property is judged to exist. No work will begin until the County Engineer has been furnished such bonds as Jefferson County Commissioners' Court may choose to require. WEST JEFFERSON COUNTY MUD

ENGINEERING ACTION FORM

The minimum standard bond required is $ N/A

Daniel M. Ross
Director of Engineering

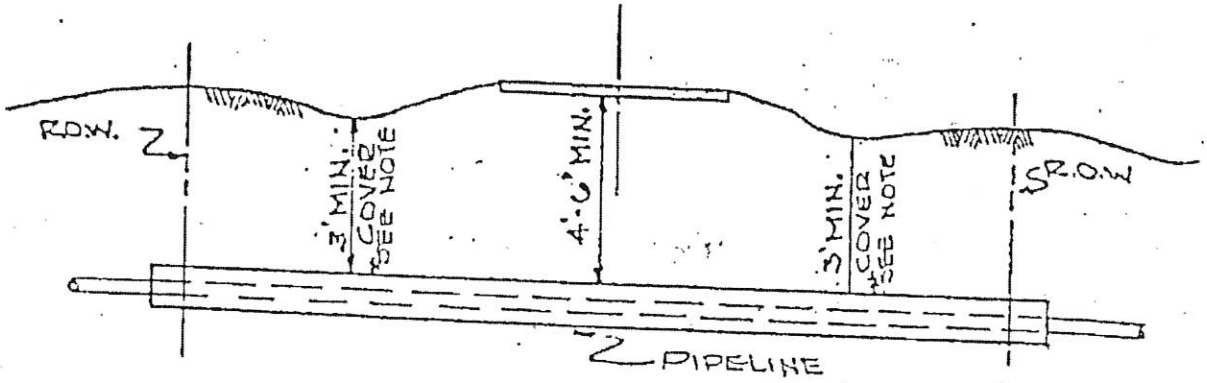
03/06/17
Date

COMMISSIONERS COURT ORDER

On this date the attached application of a utility or common carrier pipeline came on for the Courts consideration, and the Court having considered the application is of the opinion that the applicant is a utility or common carrier pipeline company meeting all the requirements of County Policy for installation of a line in County roads and that the plans or details presented with said application did not appear to violate the County Regulations. It is ORDERED that said applicant shall comply with all provisions of the Pipe Line Policy adopted by this Court, and all subsequent revisions. The bond required shall be $ N/A . Special conditions of construction (are/are not) attached hereto.

COMMISSIONERS COURT

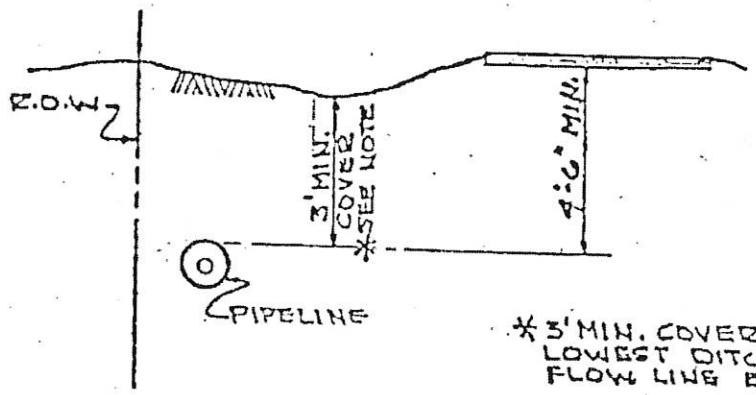
By _____
County Judge



*3' MIN. COVER AT LOWEST DITCH FLOW LINE ELEV.

NOTE: CASING TO EXTEND 1'-0' OUTSIDE R.O.W EACH SIDE OF ROAD.

1. STANDARD PIPELINE CROSSING



*3' MIN. COVER AT LOWEST DITCH FLOW LINE ELEV.

2. STANDARD PARALLEL LINE

JEFFERSON COUNTY ENGINEERING DEPARTMENT.		
PIPELINE DETAILS (STD.)		
12-7-79	NO SCALE	SCHMEN

CONSTRUCTION PLANS
FOR
JEFFERSON COUNTY
CHEEK COMMUNITY SEWER IMPROVEMENT PROJECT

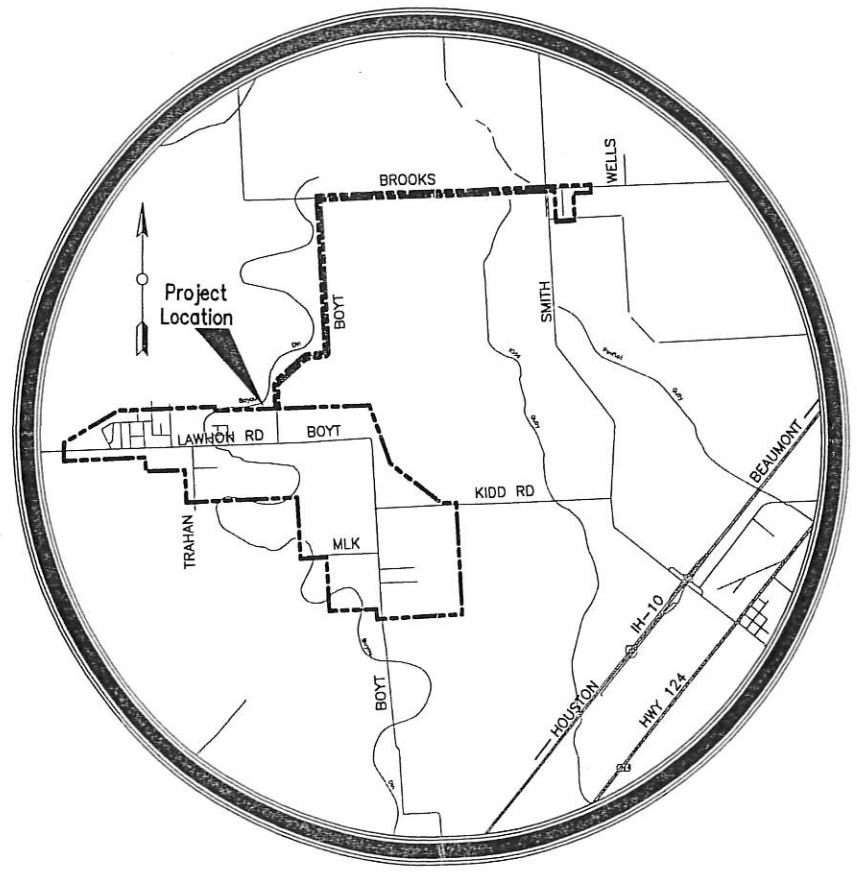
CHEEK PHASE V

JEFFERSON COUNTY, TEXAS

"Texas Community
Development Block Grant
Program"

TXCDBG Contract No. 7216231
ACE Job No. 115-02

SHEET	DRAWING NAME
1	TITLE SHEET
2	OVERALL PROJECT LAYOUT
3	PLAN - DENLEY ROAD
4	GRINDER PUMP DETAILS
5	DETAILS
6	PROJECT SIGN



Vicinity Map
N.T.S.

JEFFERSON COUNTY

COMMISSIONERS COURT:

JEFF BRANICK, COUNTY JUDGE

EDDIE ARNOLD, COMMISSIONER PRECINCT 1

BRENT WEAVER, COMMISSIONER PRECINCT 2

MICHAEL SINEGAL. COMMISSIONER PRECINCT 3

EVERETT "BO" ALFRED, COMMISSIONER PRECINCT 4

Prepared by:

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P.O. BOX DRAWER 2110
PORT ARTHUR, TX 77642
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FAX: (409) 983 - 6265
EMAIL: ace@acecivilengineers.com

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STATE OF TEXAS
WILLIAM V. LARRAIN
51953
REGISTERED
PROFESSIONAL ENGINEER

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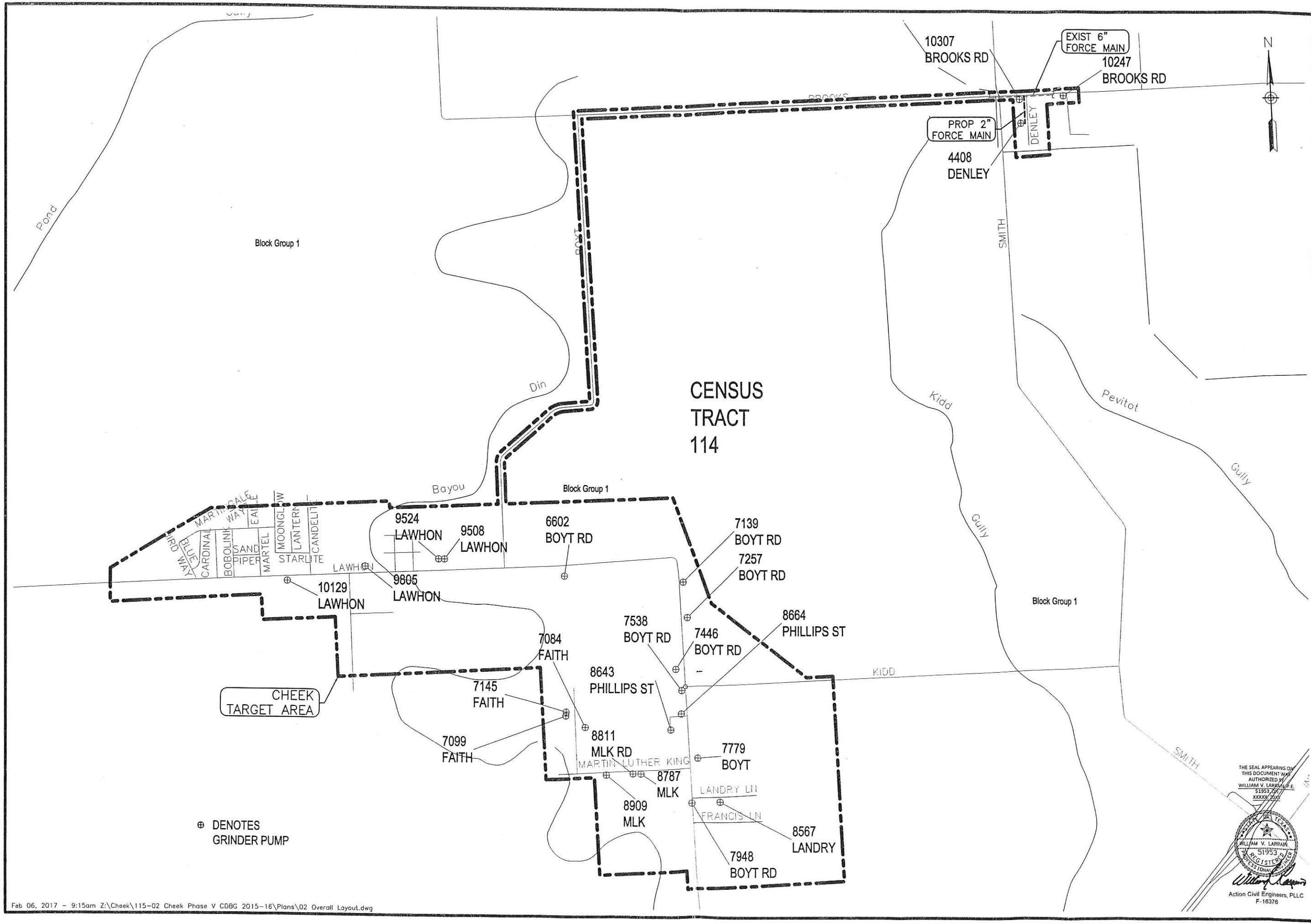
CHEEK COMMUNITY SEWER IMPROVEMENTS PROJECT
LOW PRESSURE SEWER SYSTEM - PHASE V
JEFFERSON COUNTY, TEXAS

TITLE

REVISIONS
4. .....
3. .....
2. .....
1. .....
DATE: FEB 2017
JOB NUMBER: 115-02
SCALE: NTS
DRAWN BY: RJC
CHECKED BY: WVL
SHEET: 1
OF: 6



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CHEEK COMMUNITY SEWER IMPROVEMENTS PROJECT
LOW PRESSURE SEWER SYSTEM - PHASE V
JEFFERSON COUNTY, TEXAS

OVERALL PROJECT LAYOUT

REVISIONS
4. .....
3. .....
2. .....
1. .....
DATE: FEB 2017
JOB NUMBER: 115-02
SCALE: NTS
DRAWN BY: RJC
CHECKED BY: WVL
SHEET: 2
OF: 6

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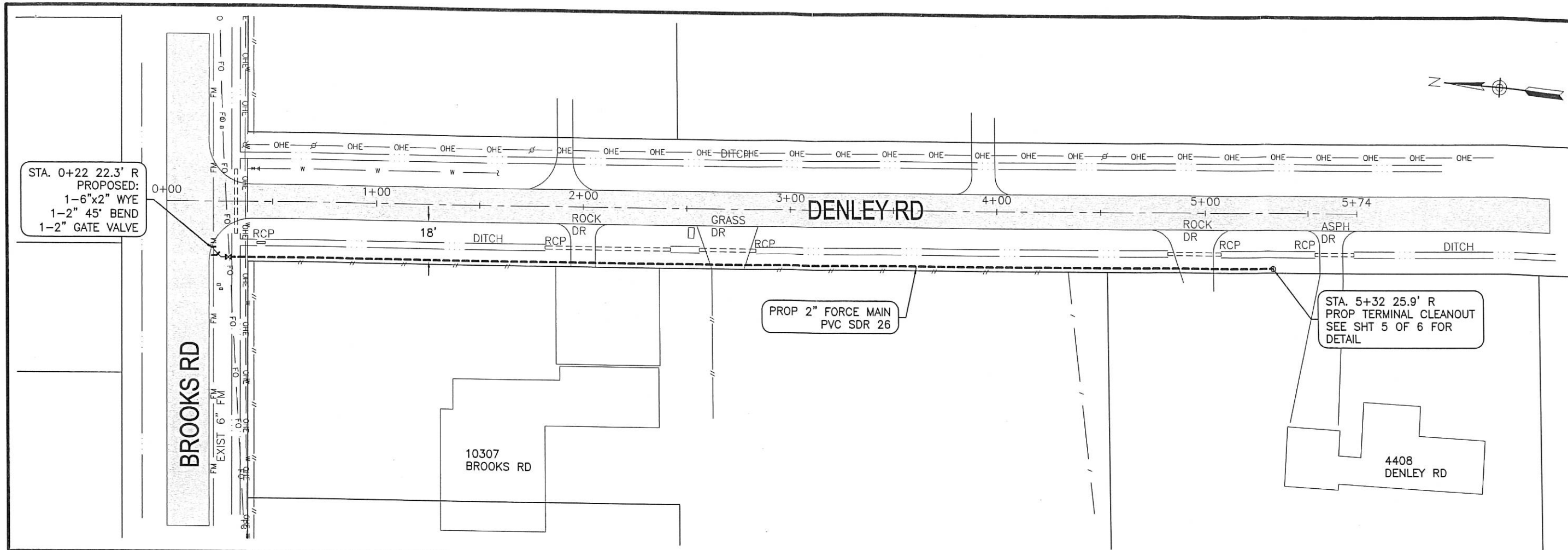

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CHEEK COMMUNITY SEWER IMPROVEMENTS PROJECT
LOW PRESSURE SEWER SYSTEM - PHASE V
JEFFERSON COUNTY, TEXAS

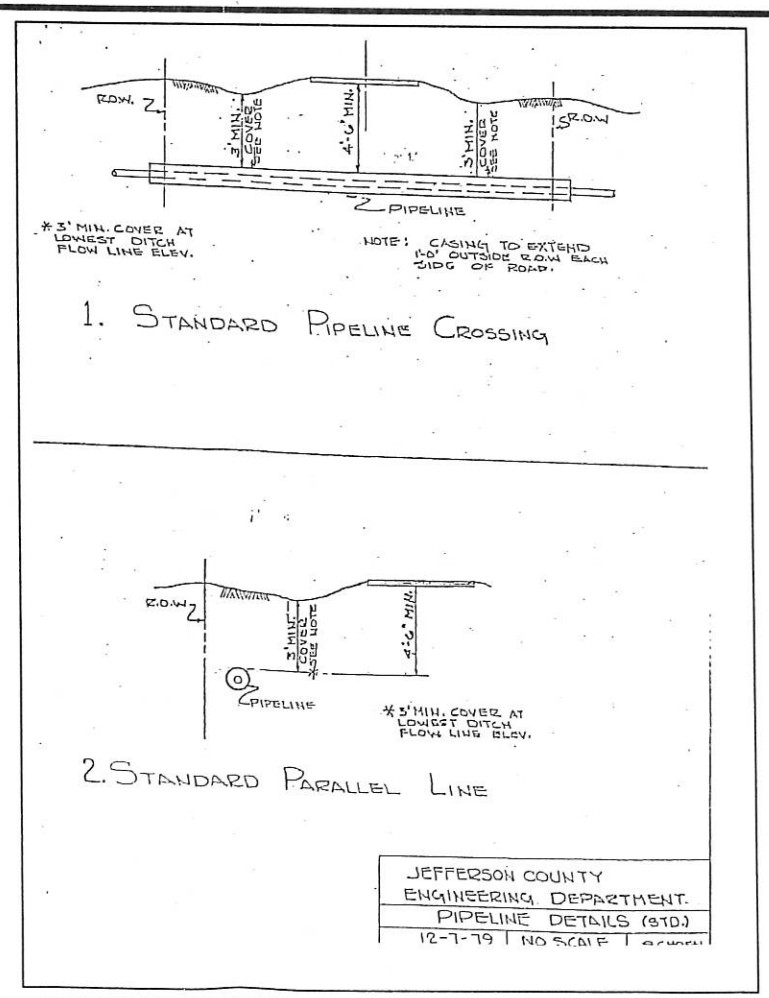
DENLEY RD
STA 0+00 TO END

CONTRACTOR NOTE:

1. CONTRACTOR IS TO VERIFY EXISTING PIPELINE OR UTILITY HORIZONTAL AND VERTICAL LOCATION PRIOR TO INITIATION OF CONSTRUCTION.
2. CONTRACTOR TO FOLLOW THE MINIMUM CLEARANCE FROM EXISTING UTILITIES BASED ON TCEQ GUIDELINES 217/317 DESIGN CRITERIA FOR SEWERAGE SYSTEM.
3. CONTRACTOR TO USE THE DISTANCE FROM THE EDGE OF ASPHALT TO LOCATE THE PROPOSED FORCE MAIN.

LEGEND

- PIPELINE
- GAS LINE — G —
- FIBER OPTIC LINE — FO —
- OVERHEAD ELECTRIC — OHE —
- SANITARY SEWER FORCE MAIN — FM —
- WATER LINE
- ⋈ = WATER VALVE
- = FIRE HYDRANT
- ● = WATER METER
- = GUY ANCHOR
- = POWER POLE
- = LIGHT POLE
- = SIGN
- MB = MAILBOX



NOTE:

CONTRACTOR TO FOLLOW JEFFERSON COUNTY PIPELINE DETAILS (STD) FOR FORCE MAIN CROSSING.

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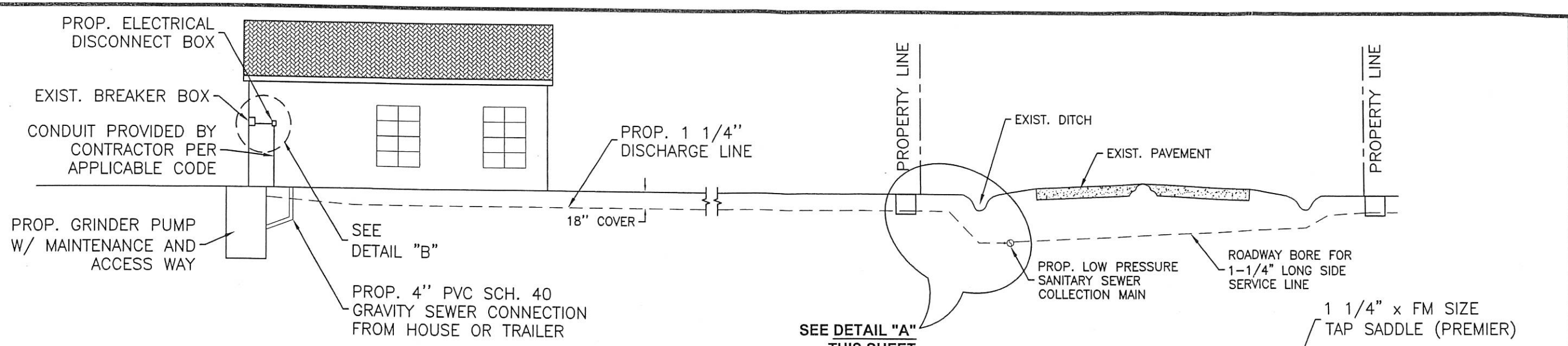
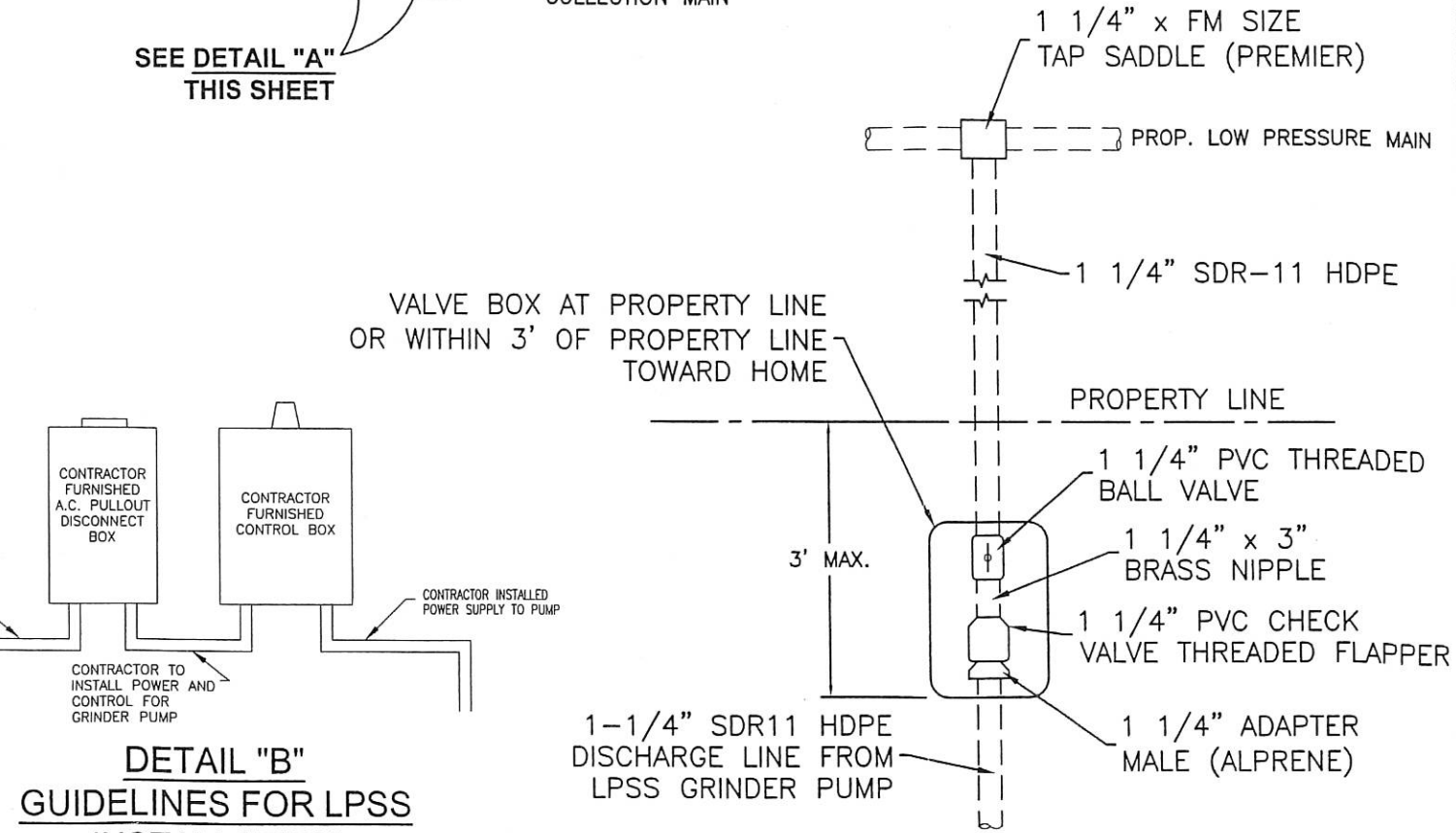
F-16376

REVISIONS
4. .....
3. .....
2. .....
1. .....
DATE: FEB 2017
JOB NUMBER: 115-02
SCALE: 1" = 50'
DRAWN BY: RJC
CHECKED BY: WVL
SHEET: 3
OF: 6

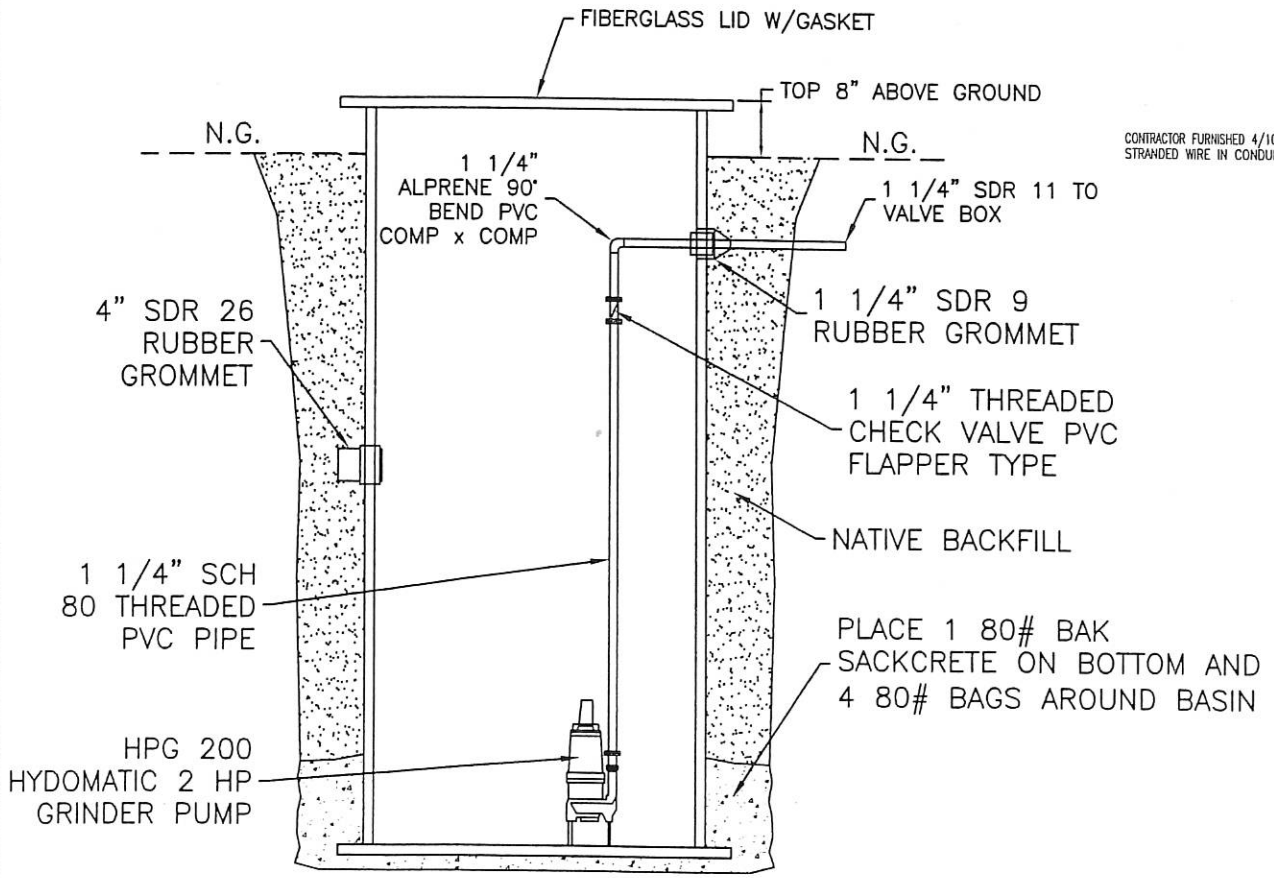


TYPICAL RESIDENTIAL INSTALLATION TANK, PUMP, AND APPURTENANCES

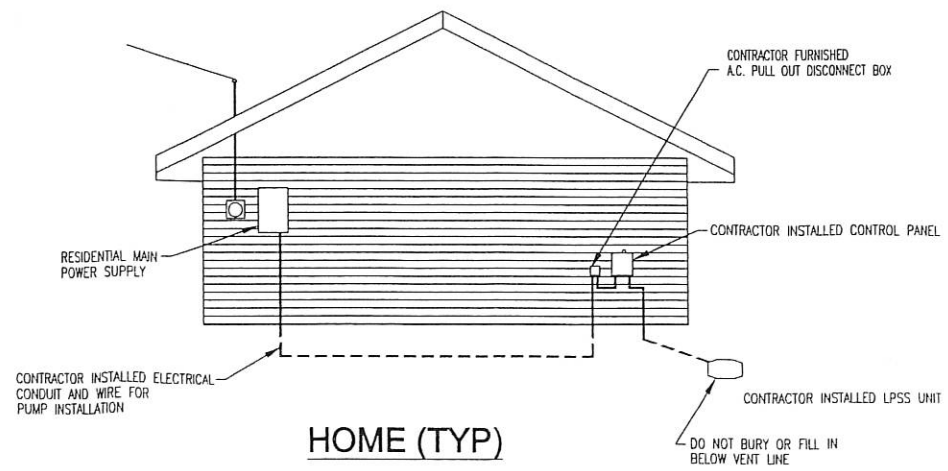


DETAIL "A"

DETAIL "B" GUIDELINES FOR LPSS INSTALLATION



24" x 60" FIBERGLASS BASIN



HOME (TYP)

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F-16376

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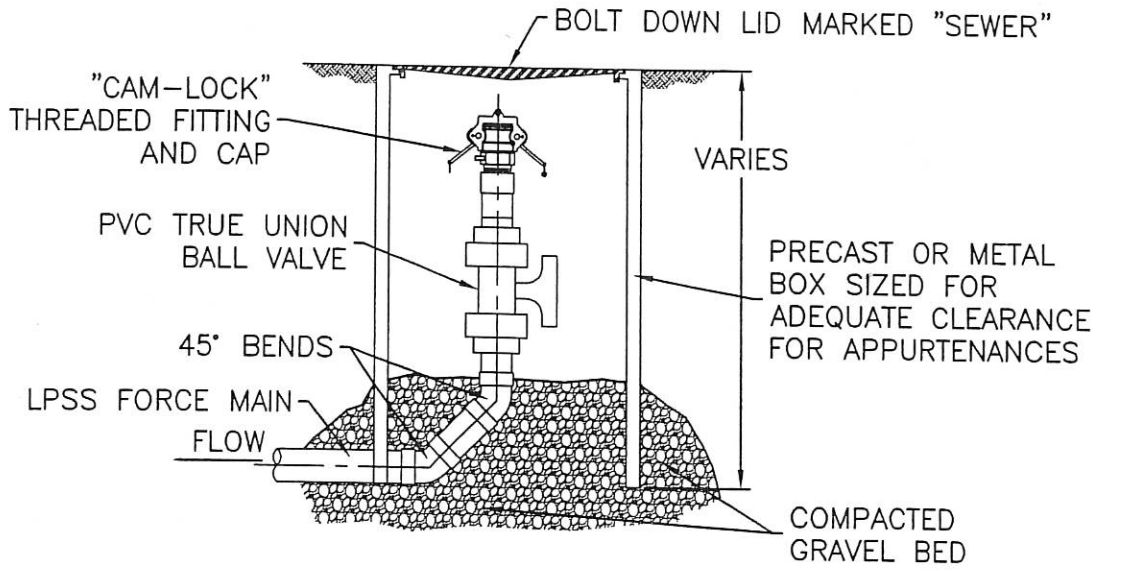
CHEEK COMMUNITY SEWER IMPROVEMENTS PROJECT
LOW PRESSURE SEWER SYSTEM - PHASE V
JEFFERSON COUNTY, TEXAS

GRINDER PUMP DETAILS

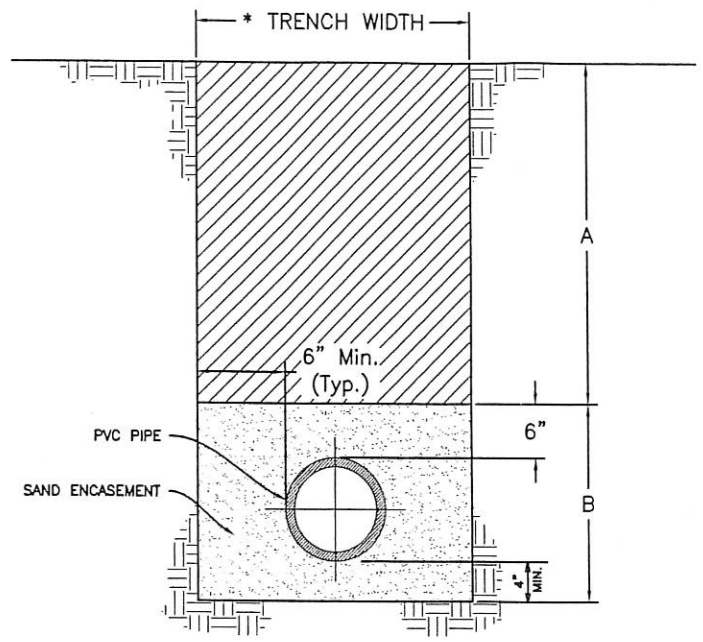
REVISIONS
4. .....
3. .....
2. .....
1. .....
DATE: FEB 2017
JOB NUMBER: 115-02
SCALE: NTS
DRAWN BY: RJC
CHECKED BY: WVL
SHEET: 4
OF: 6



TERMINAL CLEANOUT FOR SEWER FORCE MAIN

NOTE:

- PVC FITTINGS SHALL BE OF THE SAME SIZE AND SPECIFICATIONS OF PROPOSED FORCE MAIN.
- PVC FITTINGS SHALL BE SOLVENT WELD.



CLASS "B" BEDDING
(FOR USE WITH PVC PIPE)

NOTES

A – NATIVE BACKFILL IN ACCORDANCE WITH SEWER CONSTRUCTION SPECIFICATIONS

B – BACKFILL WITH FIRMLY TAMPED SAND

* PIPE LESS THAN 30-INCH
MAX. 1'-6"+ø
MIN. 1'-0"+ø
PIPE 30-INCH AND LARGER
MAX. 2'-0"+ø
MIN. 1'-4"+ø

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CHEEK COMMUNITY SEWER IMPROVEMENTS PROJECT
LOW PRESSURE SEWER SYSTEM - PHASE V
JEFFERSON COUNTY, TEXAS

DETAILS

REVISIONS
4. .....
3. .....
2. .....
1. .....

DATE
FEB 2017

JOB NUMBER
115-02

SCALE
1" = 50'

DRAWN BY
RJC

CHECKED BY
WVL

SHEET
5

OF
6

JEFFERSON COUNTY
TEXAS

AN EQUAL EMPLOYMENT OPPORTUNITY PROJECT

CHEEK COMMUNITY SEWER IMPROVEMENTS PROJECT

This project is funded by the Texas Department of Agriculture of the State of Texas, to strengthen and enhance the quality of life in smaller and rural communities with funds allocated by the United States Department of Housing and Urban Development through the Community Development Block Grant Program.

4'-0"
8'-0"
1"
2"
7"
2"
3"
2"
1 1/4"
1 1/2"
1 1/4"

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Feb 06, 2017 - 9:27am Z:\Cheek\115-02 Cheek Phase V CDBG 2015-16\Plans\06 Project Sign.dwg

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CHEEK COMMUNITY SEWER IMPROVEMENTS PROJECT
LOW PRESSURE SEWER SYSTEM - PHASE V
JEFFERSON COUNTY, TEXAS

PROJECT SIGN

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SHEET: 6
OF: 6

Special, March 20, 2017

There being no further business to come before the Court at this time, same is now here adjourned on this date, March 20, 2017