



CENTRALBIDDING
FROM CENTRAL AUCTION HOUSE

Toggle navigation

- [Home](#)
- [Central Bidding](#)
- [My CP](#)
- [Contact Us](#)
- [Create New](#)
 - [Create New Standard Envelope](#)
- [Logout \(MCAMARD\)](#)

Central Bidding Time: Mon April 09, 2018 1:55:24 PM GMT-6

Location: **Vidalia > Louisiana > USA**
Name: **Gail Chambley**
Email: **chambleyg@helenachemical.com**
Address: **P. O. Box 1193**
Zip code: **71373**
Contact number: **3373372888128**
NIGP Codes: **95830 - Crop Management Services (Including**
(Commodity code categories) **Production, Protection, etc.)**
95838 - Farm Management Services (Including
Dairy, Pasture and Range Management)

Where To?

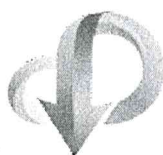


[Main Menu](#)

Home - Central Bidding - Register - Contact Us -
Renew/Upgrade Membership -



Central Auction House, LTD



CENTRALBIDDING
FROM CENTRAL AUCTION HOUSE

Toggle navigation

- [Home](#)
- [Central Bidding](#)
- [My CP](#)
- [Contact Us](#)
- [Create New](#)
 - [Create New Standard Envelope](#)
- [Logout \(MCAMARD\)](#)

Central Bidding Time: Mon April 09, 2018 1:55:41 PM GMT-6

Place a Bid for 5000122610 - FURNISH A QUANTITY OF HERBICIDES FOR THE JEFFERSON PARISH DEPARTMENT OF PARKS AND RECREATIONS

Please enter your best bid proposal for this project

Louisiana Contractor ID#

N/A

Enter all information required on the outside of the sealed envelope in the box below

<p>Helena Chemical Company 121 Seneca Court Pineville, LA 71360</p> <p>Bid # 5000122610 - Furnish a Quantity of Herbicides for the Jefferson Parish Department of Parks and Recreation</p> <p>Jefferson Parish Government Bid Due: April 9, 2018 Bid GTime: 11:00 a.m</p>	

Bid Bond #

N/A

Jefferson Parish Vendor #:

107794

Upload Attachment(s)

While this site accepts various file types, sizes and quantities, the preferred method for delivering all of the appropriate and required bid documents is one single scanned PDF file. Vendors submitting bids with multiple uploaded images/photos of bid responses are solely responsible for clarity. If uploaded images/documents are not legible, the bidder's submission will be rejected. Please note all requirements in this bid package for electronic bid submission.

Upload a file

Click the Upload button in order to upload bid related documents

[Home](#) - [Central Bidding](#) - [Register](#) - [Contact Us](#) -
[Renew/Upgrade Membership](#) -



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CENTRALBIDDING
FROM CENTRAL AUCTION HOUSE

**5000122610 - FURNISH A QUANTITY OF HERBICIDES FOR THE
JEFFERSON PARISH DEPARTMENT OF PARKS AND RECREATIONS**
Jefferson Parish Government

Project documents obtained from www.CentralBidding.com
26-Mar-2018 02:43:23 PM



Bid Number 50-00122610

**FURNISH A QUANTITY OF HERBICIDES FOR THE JEFFERSON PARISH
DEPARTMENT OF PARKS AND RECREATIONS**

BID DUE: APRIL 9, 2018 AT 11:00 AM

ATTENTION VENDORS!!!

**Please review all pages and respond accordingly, complying with all provisions
in the technical specifications and Jefferson Parish Instructions for Bidders and
General Terms and Conditions. All bids must be received in the Purchasing
Department by the bid due date and time.**

**Jefferson Parish Purchasing Department
200 Derbigny Street
General Government Building, Suite 4400
Gretna, LA 70053**

**Buyer Name: Misty A. Camardelle
Buyer Email: mcamardelle@jeffparish.net
Buyer Phone: 504-364-2683**



JEFFERSON PARISH

Department of Purchasing

Michael S. Yenni
Parish President

Renny Simno
Director

CHANGES TO JEFFERSON PARISH BIDDING PROCEDURES

The East bank Office of Purchasing is now open! We are located in the Joseph S. Yenni Building, 1221 Elmwood Park Blvd., Suite 404, Jefferson, LA 70123. Bidders may submit bid responses at this location, pending authorization in each bid package. **Bidders should carefully read and must respond accordingly per the requirements of the bid packages. NOTE: Bidders submitting bids on the day of bid opening, bidders must submit at the West Bank location only.**

Other Changes Continued:

- For all advertised sealed bids, written evidence of signature authority must be included with bid submission.
- Current W9 Forms and vendor applications may be submitted at any time; however, if your company is not registered and/or a current W-9 form is not on file, a current W-9 form must be supplied upon contract execution, should you be awarded a contract and/or issued a purchase order.
- Upon contract execution, successful bidder must produce final insurance certificates per standard Jefferson Parish insurance requirements. Proof of insurance is required for bidding purposes. Bidders must read the insurance requirements attachment included in each bid package for specific instructions.

Bidders should reference the "Additional Requirements" section of the bid instructions and/or the "Important Notice to Bidders" included in the bid package for specific requirements to respond accordingly.

For more information, please call Jefferson Parish Purchasing at 504-364-2678.

Joseph S. Yenni Building – 1221 Elmwood Park Blvd., Ste. 404, Jefferson, LA 70123
Office 504.364.2678

General Government Bldg. – 200 Derbigny St – Suite 4400 - Gretna, LA 70053
Office 504.364.2678

Email: Purchasing@jeffparish.net Website: www.jeffparish.net

DATE: 3/23/2018

INVITATION TO BID
THIS IS NOT AN ORDER

Page: 1

BID NO.: 50-00122610

JEFFERSON PARISH
PURCHASING DEPARTMENT
P.O. BOX 9
GRETN, LA. 70054-0009
504-364-2678

VENDOR: 27118 BLANK BID COPY VENDOR

BUYER: MCamardelle@jeffparish.net

Bids will be received until 11:00 AM, 4/09/2018 via online at www.jeffparishbids.net or by hand delivery, USPS mail or other courier service to Purchasing Department, 200 Derbigny Street (General Government Building), Suite 4400, Gretna, LA 70053. For convenience, bidders may also submit bids in the East Bank Purchasing Department, Suite 404, Jefferson Parish Joseph S. Yenni Building, 1221 Elmwood Park Blvd., Jefferson LA 70123. However, if submitting bids on the day of bid opening, bidders must submit at the West Bank location only.

All bids submitted are subject to these instructions and general conditions and any special conditions and specifications contained herein, all of which are made part of this bid proposal reference. By submitting a bid, vendor agrees to comply with all provisions of Louisiana Law, as well be in compliance with the Jefferson Parish Code of Ordinances, Louisiana Code of Ethics, applicable Jefferson Parish ethical standards and Jefferson Parish Resolution No. 113646 and/or Resolution No. 113647. A copy of these resolutions may be obtained from the Office of the Parish Clerk, Suite 6700, Jefferson Parish General Government Building, 200 Derbigny Street, Gretna, LA 70053. You may also obtain a copy by visiting the Purchasing Department webpage at purchasing.jeffparish.net and clicking on On-line forms.

All vendors submitting bids should register as a Jefferson Parish vendor if not already yet registered. Registration forms may be downloaded from <http://purchasing.jeffparish.net> and by clicking on Vendor Information. Current W-9 forms with respective Tax Identification numbers and vendor applications may be submitted at any time; however, if your company is not registered and/or a current W-9 form is not on file, vendor registration is mandatory. Further, a current W-9 form and respective Tax Identification number must be supplied upon contract execution, should you be awarded a contract and/or issued purchase order. Failure to do so may result in delay of payment.

As per LSA-RS 47:301 et seq., all governmental bodies are excluded from payment of sales taxes to any Louisiana taxing body. Quotations shall be based on F.O.B. Delivered, anywhere within the Parish as designated by the Purchasing Department. JEFFERSON PARISH WILL ACCEPT ONE BID ONLY FROM EACH VENDOR. Items bid must meet specifications. JEFFERSON PARISH will accept one price for each item unless otherwise indicated. Two or more prices for one item will result in bid rejection. Bidders are required to complete, sign and return the bid form and/or complete and return the associated line item pricing forms as indicated. The price quoted for work shall be stated in figures. In the event there is a difference in unit prices and totals, the unit prices shall prevail.

JEFFERSON PARISH reserves the right to award contracts or place orders on a lump sum or individual item basis, or such combination, as shall in its judgment be in the best interest of JEFFERSON PARISH. Every contract or order shall be awarded to the LOWEST RESPONSIVE and RESPONSIBLE BIDDER, taking into consideration the CONFORMITY WITH THE SPECIFICATIONS and the DELIVERY AND/OR COMPLETION DATE.

PROTESTS: Only those vendors that submitted a bid in response to this solicitation may submit a protest in writing to the Director of the Purchasing within 48 hours of bid opening. The Purchasing Director will review it in connection with the Parish Attorney's Office as appropriate and a written response will be provided as soon as possible.

JEFFERSON PARISH reserves the right to cancel all or any part of an order if not shipped promptly. No charges will be allowed for parking or cartage unless specified in the quotation. The order must not be filled at a higher price than quoted. JEFFERSON PARISH reserves the right to cancel at any time and for any reason by issuing a THIRTY (30) day written notice to the contractor.

JEFFERSON PARISH requires all products to be new (current) and all work must be performed according to standard practices for the project. Unless otherwise specified, no aftermarket parts will be accepted. Unless otherwise specified, all workmanship and materials must have at least one (1) year guaranty, in writing, from the date of delivery and/or acceptance of the project. Any deviations or alteration from the specifications must be indicated on the bid form for each item and upon request, product data for same must be submitted by the time specified by the Purchasing Department.

If this bid requires a pre-bid conference (see Additional Requirements section), bidders are advised that such conference will be held to allow bidders the opportunity to identify any discrepancies in the bid specifications and seek further clarification regarding instructions. The Purchasing Department will issue a written response to bidders' questions in the form of an Addendum.

All formal Addenda require written acknowledgment on the bid form by the bidder. Failure to acknowledge an Addendum on the bid form shall cause the bid to be rejected; JEFFERSON PARISH reserves the right to award bid to next lowest responsive and responsible bidder in this event.

USE OF BRAND NAMES AND STOCK NUMBERS: Where brand names and stock numbers are specified, it is for the purpose of establishing certain minimum standards of quality. Bids may be submitted for products of equal quality, provided brand names and stock numbers are specified. Complete product data may be required prior to award.

Quantities listed are for bidding purposes only. Actual requirements may be more or less than quantities listed.

Bidders are not to exclude from participation in, deny the benefits of, or subject to discrimination under any program or activity, any person in the United States on the grounds of race, color, national origin, or sex; nor discriminate on the basis of age under the Age Discrimination Act of 1975, or with respect to an otherwise qualified handicapped individual as provided in Section 504 of the Rehabilitation Act of 1973, or on the basis of religion, except that any exemption from such prohibition against discrimination on the basis of religion as provided in the Civil Rights Act of 1964, or Title VI and VII of the Act of April 11, 1968, shall also apply. This assurance includes compliance with the administrative requirements of the Revenue Sharing final handicapped discrimination provisions contained in Section 51.55 (c), (d), (e), and (k)(5) of the Regulations. New construction or renovation projects must comply with Section 504 of the 1973 Rehabilitation Act, as amended, in accordance with the American National Standard Institute's specifications (ANSI A117.1-1961).

Jefferson Parish and its partners as the recipients of federal funds are fully committed to awarding a contract(s) to firm(s) that will provide high quality services and that are dedicated to diversity and to containing costs. Thus, Jefferson Parish strongly encourages the involvement of minority and/or woman-owned business enterprises (DBE's, including MBE's, WBE's and SBE's) to stimulate participation in procurement and assistance programs.

INSTRUCTIONS FOR BIDDERS AND GENERAL CONDITIONS

IN ACCORDANCE WITH STATE REGULATIONS JEFFERSON PARISH OFFERS ELECTRONIC PROCUREMENT TO ALL VENDORS

This electronic procurement system allows vendors the convenience of reviewing and submitting bids online. This is a secure site and authorized personnel have limited read access only. Bidders are encouraged to submit electronically using this free service; while the website accepts various file types, one single PDF file containing all appropriate and required bid documents is preferred. Bidders submitting uploaded images of bid responses are solely responsible for clarity. If uploaded images/documents are not legible, then bidder's submission will be rejected. Please note all requirements contained in this bid package for electronic bid submission.

Please visit our E-Procurement Page at www.jeffparishbids.net to register and view Jefferson Parish solicitations. For more information, please visit the Purchasing Department page at <http://purchasing.jeffparish.net>.

ADDITIONAL REQUIREMENTS FOR THIS BID

PLEASE MATCH THE NUMBERS PRINTED IN THIS BOX WITH THE CORRESPONDING INSTRUCTIONS BELOW.

13

1. All bidders must attend the MANDATORY pre-bid conference and will be required to sign in and out as evidence of attendance. In accordance with LSA R.S. 38:2212(I), all prospective bidders shall be present at the beginning of the MANDATORY pre-bid conference and shall remain in attendance for the duration of the conference. Any prospective bidder who fails to attend the conference or remain for the duration shall be prohibited from submitting a bid for the project.
2. Attendance to this pre-bid conference is optional. However, failure to attend the pre-bid conference shall not relieve the bidder of responsibility for information discussed at the conference. Furthermore, failure to attend the pre-bid conference and inspection does not relieve the successful bidder from the necessity of furnishing materials or performing any work that may be required to complete the work in accordance with the specification with no additional cost to the owner.
3. Contractor must hold current applicable JEFFERSON PARISH licenses with the Department of Inspection and Code Enforcement. Contractor shall obtain any and all permits required by the JEFFERSON PARISH Department of Inspection and Code Enforcement. The contractor shall be responsible for the payment of these permits. All permits must be obtained prior to the start of the project. Contractor must also hold any and all applicable Federal and State licenses. Contractor shall be responsible for the payment of these permits and shall obtain them prior to the start of the project.
4. A LA State Contractor's License will be required in accordance with LSA R.S. 37-2150 et. seq. and such license number will be shown on the outside of the bid envelope. Failure to comply will cause the bid to be rejected. Additionally if submitting the bid electronically, then the license number must be entered in the appropriate field in the Electronic Procurement system. Failure to comply will cause the bid to be rejected.
5. It is the bidder's responsibility to visit the job site and evaluate the job before submitting a bid.
6. Job site must be clean and free of all litter and debris daily and upon completion of the contract. Passageways must be kept clean and free of material, equipment, and debris at all times. Flammable material must be removed from the job site daily because storage will not be permitted on the premises. Precautions must be exercised at all times to safeguard the welfare of JEFFERSON PARISH and the general public.

INSTRUCTIONS FOR BIDDERS AND GENERAL CONDITIONS

7. PUBLIC WORKS BIDS: All awards for public works in excess of \$5,000.00 will be reduced to a formal contract which shall be recorded at the contractor's expense with the Clerk of Court and Ex-Officio Recorder of Mortgages for the Parish of Jefferson. A price list of recordation costs may be obtained from the Clerk of Court and Ex-Officio Recorder of Mortgages for the Parish of Jefferson. All awards in excess of \$25,000.00 will require both a performance and a payment bond. Unless otherwise stated in the bid specifications, the performance bond requirements shall be 100% of the contract price. Unless otherwise state in the bid specifications, the payment bond requirements shall be 100% of the contract price. Both bonds shall be supplied at the signing of the contract.
8. NON-PUBLIC WORKS BIDS: A performance bond will be required for this bid. The amount of the bond will be 100% of the contract price unless otherwise indicated in the specifications. The performance bond shall be supplied at the signing of the contract.
9. NON-PUBLIC WORKS BIDS: A payment bond will be required for this bid. The amount of the bond will be 100% of the contract price unless otherwise indicated in the specifications. The payment bond shall be supplied at the signing of the contract.
10. All bidders must comply with the requirements stated in the attached "Standard Insurance Requirements" sheet attached to this bid solicitation. Prior to contract executions/purchase order issuance, the successful bidder will be required to provide final insurance certificates which shall name Jefferson Parish as an additional insured in accordance with the instructions in the aforementioned "Standard Insurance Requirements" sheet.
11. A bid bond will be required with bid submission in the amount of 5% of the total bid, unless otherwise stated in the bid specifications. Acceptable forms shall be limited to cashier's check, certified check, or surety bid bond. All sureties must be in original format (no copies). If submitting a bid online, vendors must submit an electronic bid bond through the respective online clearinghouse bond management system(s) as indicated in the electronic bid solicitation on Central Auction House. No scanned paper copies of any bid bond will be accepted as part of the electronic bid submission.
12. This is a requirements contract to be provided on an as needed basis. JEFFERSON PARISH makes no representations on warranties with regard to minimum guaranteed quantities unless otherwise stated in the bid specifications.
13. Freight charges should be included in total cost when quoting. If not quoted FOB DELIVERED, freight must be quoted as a separate item. Bid may be rejected if not quoted FOB DELIVERED or if freight charges are not indicated on bid form.
14. PUBLIC WORKS BIDS - Completed, Signed and Properly Notarized Affidavits Required; This applies to all solicitations for construction, alteration or demolition of public buildings or projects, in conformity with the provisions contained in LSA-RS 38:2212.9, LSA-RS 38:2212.10, LSA-RS 38:2224, and Sec 2-923.1 of the Jefferson Parish Code of Ordinances. For bidding purposes, all bidders must submit with bid submission COMPLETED, SIGNED and PROPERLY NOTARIZED Affidavits, including: Non-Conviction Affidavit, Non-Collusion Affidavit, Campaign Contribution Affidavit, Debt Disclosures Affidavit and E-Verify Affidavit. For the convenience of vendors, all affidavits have been combined into one form entitled PUBLIC WORKS BID AFFIDAVIT. This affidavit must be submitted in its original format, and without material alteration, in order to be compliant and for the bid to be considered responsive. A scanned copy of the completed, signed and properly notarized affidavit may be submitted with the bid, however, the successful bidder must submit the original affidavit in its original format and without material alteration upon contract execution. Failure to comply will result in the bid submission being rejected as non-responsive. The Parish reserves the right to award bid to the next lowest responsive and responsible bidder in this event.
15. NON PUBLIC WORK BIDS - Completed, Signed and Properly Notarized Affidavits Required in conformity with the provisions contained in LSA - RS 38:2224 and Sec 2-923.1 of the Jefferson Parish Code of Ordinances. For bidding purposes, all bidders must submit with bid submission COMPLETED, SIGNED and PROPERLY NOTARIZED Affidavits, including: Non-Collusion Affidavit, Debt Disclosures Affidavit and Campaign Contribution Affidavit. For the convenience of vendors, all affidavits have been combined into one form entitled NON PUBLIC WORKS BID AFFIDAVIT. This affidavit must be submitted in its original format, and without material alteration, in order to be compliant and for the bid to be considered responsive. A scanned copy of the completed, signed and properly notarized affidavit may be submitted with the bid, however, the successful bidder must submit the original affidavit in its original format and without material alteration upon contract execution. Failure to comply will result in the bid submission being rejected as non-responsive. The Parish reserves the right to award bid to the next lowest responsive and responsible bidder in this event.
16. The ensuing contract for this bid solicitation may be eligible for FEMA reimbursement and/or Federal funding/reimbursement. As such, the referenced appendix will be applicable accordingly and shall be considered a part of the bid documents. All applicable certifications must be duly completed, signed and submitted with bid submission. Failure to submit applicable certifications with bid submission will result in bid rejection.

It shall be the duty of every parish officer, employee, department, agency, special district, board, and commission; and the duty of every contractor, subcontractor, and licensee of the parish, and the duty of every applicant for certification of eligibility for a parish contract or program, to cooperate with the Inspector General in any investigation, audit, inspection, performance review, or hearing pursuant to Jefferson Parish Code of Ordinances Section 2-155.10(19). By submitting a bid, vendor acknowledges this and will abide by all provisions of the referenced Jefferson Parish Code of Ordinances.

DATE: 3/23/2018

INVITATION TO BID
THIS IS NOT AN ORDER

Page: 4

BID NO.: 50-00122610

JEFFERSON PARISH

PURCHASING DEPARTMENT
P.O. BOX 9
GRETN, LA. 70054-0009
504-364-2678

VENDOR: 107794 Helena Chemical Company

BUYER: MCamardelle

As per LSA-RS 47:301 et seq., all governmental bodies are excluded from payment of sales taxes to any Louisiana taxing body. Quotations shall be based on F.O.B. Agency warehouse or jobsite, anywhere within the Parish as designated by the Purchasing Department.

JEFFERSON PARISH reserves the right to cancel all or any part of an order if not shipped promptly. No charges will be allowed for parking or cartage unless specified in quotation. The order must not be filled at a higher price than quoted. JEFFERSON PARISH reserves the right to cancel at any time and for any reason by issuing a THIRTY (30) day written notice to the contractor.

JEFFERSON PARISH is expecting all products to be new and all work to be done in workman-like manner, according to standard practices. Any deviations or alteration from the specifications must be indicated on the bid form for each item and upon request, product data for same must be submitted by the time specified by the Purchasing Department.

DELIVERY: FOB JEFFERSON PARISH

INDICATE DELIVERY DATE ON EQUIPMENT AND SUPPLIES

3-5 days

INDICATE STARTING TIME (IN DAYS) FOR CONSTRUCTION WORK

INDICATE COMPLETION TIME (IN DAYS) FOR CONSTRUCTION WORK

In the event that addenda are issued with this bid, bidders MUST acknowledge all addenda on the bid form. Bidder must acknowledge receipt of an addendum on the bid form as indicated. Failure to acknowledge any addendum on the bid form will result in bid rejection.

Acknowledge Receipt of Addenda: NUMBER: _____

NUMBER: _____

NUMBER: _____

NUMBER: _____

LOUISIANA CONTRACTOR'S LICENSE NO.: (if applicable) _____

***** ALL BIDDERS MUST COMPLETE SECTION BELOW *****

FIRM NAME:

Helena Chemical Company

SIGNATURE:

(Must be signed here)

Gail Sloan

TITLE:

Sales Representative

PRINT OR TYPE NAME:

Gail Sloan

ADDRESS:

121 Seneca Court

CITY, STATE:

Pineville, LA

ZIP:

71360

TELEPHONE:

(337) 288-8128

FAX:

(318) 466-1589

EMAIL ADDRESS:

slsloan@helenachemical.com

TOTAL PRICE OF ALL BID ITEMS: \$ 6360.00

Page: 5

SEALED BID

BID NO.: 50-00122610

[illegible]



A Nonionic Low Foam Wetter/Spreader Adjuvant

*ACTIVE INGREDIENTS:

Alkyl Aryl Polyoxylkane ethers, alkanolamides, dimethyl siloxane, and Free Fatty Acids	90.0%
Components ineffective as adjuvant	10.0%
TOTAL	100.0%
Surfactant Content:	70.0%

*All ingredients are accepted for use under CFR 40, 180.

KEEP OUT OF REACH OF CHILDREN

WARNING

May be harmful if swallowed
May be harmful in contact with skin
May be harmful if inhaled
Causes serious eye irritation
Causes skin irritation



NET CONTENTS: □ 1 Gallon (3.785 Liters)
□ 2.5 Gallons (9.46 Liters)
□ 30 Gallons (113.55 Liters)
□ 55 Gallons (208.18 Liters)
□ 250 Gallons (946.25 Liters)

SN 031115

MANUFACTURED FOR
HELENA CHEMICAL COMPANY
225 SCHILLING BOULEVARD, SUITE 300
COLLIERVILLE, TN 38017
901-761-0050

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

WARNING

BEFORE USING THIS PRODUCT, READ ALL PRECAUTIONS, DIRECTIONS FOR USE, CONDITIONS OF SALE, LIMITED WARRANTY, AND LIMITATIONS OF LIABILITY AND REMEDIES.

May be harmful if swallowed. May be harmful in contact with skin. May be harmful if inhaled. Causes serious eye irritation. Causes skin irritation. Keep product locked up and out of the reach of children. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or smoking tobacco. Remove and wash contaminated clothing before reuse. Do not take internally. Avoid contact with or inhalation of spray application mist if present. Do not apply this product in such a manner as to directly expose workers or other persons. If product is being mixed with pesticides and or spray adjuvants, follow all precautionary statements on the accompanying product(s) labeling. Not for human or animal consumption.

PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers must wear:

- Long sleeved shirt and long pants
- Chemical-resistant gloves, such as barrier laminate, butyl rubber, nitrile rubber or viton
- Shoes plus socks
- Protective eyewear

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.

FIRST AID

IF IN EYES:

- Rinse cautiously with water for several minutes.
- Remove contact lenses, if present and easy to do. Continue rinsing.
- Call a poison control center or doctor for treatment advice.

IF SWALLOWED:

- Call a POISON CENTER or doctor immediately.
- Rinse mouth. Do NOT induce vomiting.
- Do not give anything by mouth to an unconscious person.
- Immediately call a POISON CENTER or doctor.

IF INHALED:

- Move person to fresh air and keep at rest in a position comfortable for breathing if they feel unwell.
- If not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if

Disclaimer: Always refer to the label on the product before using Helena or any other product.

possible.
• Call a POISON CENTER or doctor for treatment advice.

IF ON SKIN OR HAIR:

- Take off immediately all contaminated clothing. Rinse skin with water or shower.
- Get medical attention if irritation develops or persists.
- Wash contaminated clothing before reuse.

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.

STORAGE AND DISPOSAL

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

STORAGE: Store in original container only. Keep container tightly closed. Do not allow water to be introduced into the contents of this container. Do not store near heat or open flame. Do not store with oxidizing agents or ammonium nitrate.

PESTICIDE DISPOSAL: 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 sources by runoff from cleaning of equipment, disposal of cleaning equipment wash waters, or spray waste.

CONTAINER DISPOSAL: Do not reuse empty container. Triple rinse (or equivalent) during mixing and loading and add rinse water to spray tank. 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. Decontaminated containers may also be disposed of in a sanitary landfill.

For help in chemical emergencies involving spill, leak, fire or exposure, call toll free 1-800-424-9300.

GENERAL INFORMATION

INDUCE® is a blend of nonionic surfactants, deposition agents, humectants, and defoamers. INDUCE® incorporates the properties of a wetter/spreader surfactant when used in spray mixtures. INDUCE® is designed to quickly wet and spread a more uniform spray deposit over leaf and stem surfaces and improve spray mix deposition. INDUCE® can positively affect pesticide spray application and pesticide efficacy. INDUCE® is recommended for use with those pesticides whose label recommends a non-ionic wetter/spreader-type adjuvant.

DIRECTIONS FOR USE

FOR USE WITH PRODUCTS REGISTERED FOR: AGRICULTURAL, AQUATIC, FORESTRY, INDUSTRIAL, MUNICIPAL, NON-CROPLAND, ORNAMENTAL, RIGHTS-OF-WAY, TURF AND OTHER USES.

The addition of an adjuvant to some pesticides or pesticide tank mix combinations may cause phytotoxicity to the foliage and/or fruit of susceptible crops. Prior to the addition of INDUCE® to spray tank mixes, the user or application advisor must have experience with the combination or must have conducted a phytotoxicity trial or must take the recommendations from the labels of the products to be tank mixed.

INDUCE® may be applied by Ground, CDA, Aerial, or Aquatic spray equipment. For most applications, use enough INDUCE® to allow for uniform wetting and deposition of the spray onto leaf surfaces without undue runoff.

Ground, Aerial, CDA: Use 1-4 pints per 100 gallons of spray or 0.125-0.50% by volume.

Aquatic: Use 1-4 pints per 100 gallons of spray or 0.125-0.50% by volume.

***Note:** The above use recommendations are considered to be adequate for most uses. Some pesticides however, may require higher or lower rates for optimum effect. Follow the pesticide(s) label(s) directions when this occurs.

For improved water penetration of hard-to-wet soils and the uniform distribution of applied moisture:

Lawns and Turf: Use INDUCE® at .50% v/v concentration.

Greens and Tees: Use INDUCE® at .125-.25% v/v concentration.

Deep Feeding Trees: Use INDUCE® at .25-.50% v/v concentration.

Application of INDUCE® through irrigation systems are possible provided that recommended use rates and dilutions are maintained and local, state, and federal guidelines are followed.

MIXING

Prior to any pesticide application all spray mixing and application equipment must be cleaned. Carefully observe all cleaning directions of the pesticide(s) label(s).

Fill spray tank one-half full with water and begin agitation. Add pesticides as directed by labeling or in the following sequence:

1. Dry flowables or water dispersible granules.
2. Wettable powders
3. Flowables
4. Solutions
5. Emulsifiable concentrates

and continue filling. Add INDUCE® last and continue agitation.

**CONDITIONS OF SALE-LIMITED WARRANTY AND
LIMITATIONS OF LIABILITY AND REMEDIES**

Read the Conditions of Sale-Warranty and Limitations of Liability and Remedies before using this product. If the terms are not acceptable, return the product, unopened, and the full purchase price will be refunded.

The directions on this label are believed to be reliable and must be followed carefully. Insufficient control of pests and/or injury to the crop to which the product is applied may result from the occurrence of extraordinary or unusual weather conditions or the failure to follow the label directions or good application practices, all of which are beyond the control of Helena Chemical Company (the "Company") or seller. In addition, failure to follow label directions may cause injury to crops, animals, man or the environment. The Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purpose referred to in the directions for use subject to the factors noted above which are beyond the control of the Company. The Company makes no other warranties or representations of any kind, express or implied, concerning the product, including no implied warranty of merchantability or fitness for any particular purpose, and no such warranty shall be implied by law.

The exclusive remedy against the Company for any cause of action relating to the handling or use of this product shall be limited to, at Helena Chemical Company's election, one of the following:

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

To the extent allowed by law, the Company shall not be liable and any and all claims against the Company are waived for special, indirect, incidental, or consequential damages or expense of any nature, including, but not limited to, loss of profits or income. The Company and the seller offer this product and the buyer and user accept it, subject to the foregoing conditions of sale and limitation of warranty, liability and remedies.

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Safety Data Sheet

Report Date 04-Aug-15

Page 1 of 4

1. Identification

Product Name : INDUCE
Synonyms : None
Product Use : Nonionic Low Foam Wetter/Spreader Adjuvant
Manufacturer/Supplier : Helena Chemical Company
Address : 225 Schilling Blvd. Collierville, TN 38017
General Information : 901-761-0050
Transportation Emergency Number : CHEMTREC:800-424-9300

2. Hazard Identification



Signal Word : Warning
Skin Irritation : Moderately irritating
Eye Irritation : Severely irritating in non-washed eye (35.8); moderately irritating in washed eye (16.3); Injury was reversible.
Acute Toxicity Oral : LD50 >4,000 mg/kg (rat)
Acute Toxicity Dermal : LD50 >2,000 mg/kg (rat)
Hazard Categories : Oral/Dermal/Inhalation Toxicity - 5/5/5; Eye Irritation - 2A; Skin Irritation - 2
Hazard Statement : May be harmful if swallowed
May be harmful in contact with skin
Causes serious eye irritation
Causes skin irritation
May be harmful if inhaled

3. Composition / Information on Ingredients

Component	CAS Number	Weight %
Alkyl Aryl Polyoxylkane ethers, alkanolamides, dimethyl siloxane, and free fatty acids.	Proprietary	90.00
Components ineffective as adjuvant.	Nonhazardous	10.00

4. First Aid Measures

Eye : Immediately flush eyes with water for at least 15 minutes. See a physician.
Skin : Remove contaminated clothing and wash skin with soap and water. Call a physician if irritation persists.
Inhalation : Move victim to fresh air. Give artificial respiration if needed. See a physician.
Ingestion : Give a large amount of water to drink, induce vomiting and immediately call a physician. Do not induce vomiting or give anything by mouth to an unconscious person.
Indication of Immediate Medical Attention and Special Treatment Needed : If contact is made with the spray solution containing pesticides, refer to the "Statement of Practical Treatment/First Aid" on the pesticide label(s). Otherwise, treat symptomatically.

5. Fire Fighting Measures

Extinguishing Media : Use dry chemical, water spray, water fog, carbon dioxide, foam, or sand/earth.



Safety Data Sheet

Report Date 04-Aug-15

Page 2 of 4

Specific Hazards Arising from the Chemical : Water spray be ineffective. Cool fire-exposed containers with water. Fog nozzles are preferable. Closed containers may rupture or explode when exposed to extreme heat.

Special Fire Fight Proc : Wear self-contained breathing apparatus and full protective clothing.

6. Accidental Release Measures

Personal Precautions : Keep unprotected and unnecessary personnel out of spill area.

Protective Equipment : Splashproof goggles or face shield, chemical-resistant gloves, impervious apron and footwear. Eyewash should be available in work area. Use NIOSH-approved respirator with organic vapor cartridge if PEL exceeded.

Emergency Procedures : Prevent spreading of spilled material into any waterways, drains or sewers.

Methods and Materials for Containment and Cleanup : Absorb with an inert material such as sand, soil or vermiculite. Sweep up and dispose of in accordance with Federal, State and Local regulations.

7. Handling and Storage

Precautions for Safe Handling : Keep out of reach of children. Keep container tightly closed. Do not contaminate water sources by runoff from cleaning of equipment, disposal of equipment wash waters or spray waste.

Conditions for Safe Storage : Do not store with food, feed or other material to be used or consumed by humans or animals. Store in original container only. Do not allow water to be introduced into the contents of this container.

8. Exposure Controls / Personal Protection

TLV/PEL : PEL 100 mg/m³.

Appropriate Engineering Controls : Mechanical exhaust system

Personal Protective Equipment : Splashproof goggles or face shield, chemical-resistant gloves, impervious apron and footwear. Eyewash should be available in work area. Use NIOSH-approved respirator with organic vapor cartridge if PEL exceeded.

9. Physical and Chemical Properties

Odor/Appearance : Clear-slightly hazy colorless to yellow liquid.

Flash Point, °F : >200 Degrees F.

Boiling Point, °F : >250 Degrees F.

Melting Point(Freezing point), °C : Not applicable

Vapor Pressure, mm Hg @ 20 °C : Not established

Vapor Density : 2.1

Solubility in Water : Dispersible

Molecular Formula : Not applicable, formulated mixture.

Density, g/mL @ 25 °C : 0.956-1.033

Evaporation Rate(Butyl Acetate = 1) : Not applicable

Octanol/Water Partition Coefficient : No information found

pH : 4-5.0

Flammable Limits (approximate volume % in air) : No information found

Auto-ignition Temperature : >750 Degrees F.

Decomposition temperature : No information found



Safety Data Sheet

Report
Date 04-Aug-15

Page 3 of 4

10. Stability and Reactivity

- Reactivity : No information found
- Chemical Stability : Stable
- Hazardous Decomposition : Carbon monoxide and carbon dioxide under fire conditions.
- Products
- Hazardous Polymerization : Will not occur
- Conditions to Avoid : Excessive heat and open flames.
- Incompatible Materials : Do not mix with strong oxidizers such as hydrogen peroxide, bromine and chromic acid.

11. Toxicological Information

- Acute Toxicity (Oral LD50) : >4,000 mg/kg (rat)
- Acute Toxicity (Dermal LD50) : >2,000 mg/kg (rat)
- Acute Toxicity Inhalation LC50 : 2.02 mg/L (vapor limit)
- Likely Routes of Exposure : Eyes, skin.
- Skin Irritation : Moderately irritating.
- Eye Irritation : Severely irritating in non-washed eyes (35.8), moderately irritating in washed eyes (16.3). Injury was reversible.
- Skin Sensitization : Not listed as a sensitizer.
- Carcinogenic : Not listed by IARC, NTP or OSHA.
- Chronic Effects : None currently known.
- Other Hazards : May contain components which, in laboratory tests, have been toxic to the fetus only at doses toxic to the mother.

12. Ecological Information

- Ecotoxicity : No information found
- Persistence and Degradability : No information found
- Bioaccumulative Potential : No information found
- Mobility in Soil : No information found
- Other Adverse Effects : Contains Alcohol C-12-C-16 Poly (1-6) Ethoxylate - a marine pollutant.

13. Disposal Considerations

- Waste Disposal Method : This material must be disposed of according to Federal, State or Local procedures under the Resource Conservation and Recovery Act.

14. Transport Information

- UN Proper Shipping Name : Not regulated by DOT in non-bulk packages. Regulated in bulk or if shipped by air (IATA) or vessel (IMDG) as Environmentally Hazardous Substance, Liquid, n.o.s., (Alcohol C12-C16 Poly (1-6) Ethoxylate)
- Transport Hazard Class : Class 9 (bulk/IATA/IMDG)
- UN Identification Number : 3082(bulk/IATA/IMDG)
- Packaging Group : PG III (bulk/IATA/IMDG)
- Environmental Hazards : Marine Pollutant
- Transport in Bulk : Marine Pollutant
- Special Precautions for Transportation : No information found



Safety Data Sheet

Report
Date 04-Aug-15

Page 4 of 4

Freight Classification : Adhesives, Adjuvants, Spreaders or Stickers, N.O.I. (NMFC Item 42652, Class 60)

15. Regulatory Information

National Fire Protection :
Association Rating

Health:

1

Fire: 1

Reactivity: 0

Rating Level: (4-Extreme, 3-High, 2-Moderate, 1-Slight, 0-Minimum)

S.A.R.A Title III Hazard :
Classification (Yes/No)

Immediate(Acute) Health: Y

Delayed (Chronic) Health: N

Sudden Release of N

Pressure:

Fire: N

Reactive: N

16. Other Information

Data of Preparation/Revision : 04-August-2015

Specimen Label



Milestone®

Specialty Herbicide

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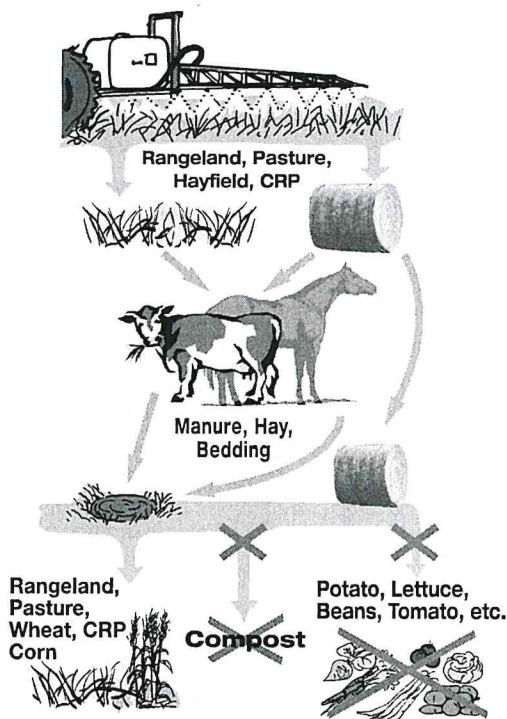
- For control of susceptible weeds and certain woody plants, including invasive and noxious weeds, on rangeland, permanent grass pastures (including grasses grown for hay*), Conservation Reserve Program (CRP) acres, non-cropland areas including industrial sites, rights-of-way (such as roadsides, electric utility and communication transmission lines, pipelines, and railroads), non-irrigation ditch banks, natural areas (such as wildlife management areas, wildlife openings, wildlife habitats, recreation areas, campgrounds, trailheads and trails), and grazed areas in and around these sites.

*Hay from grass treated with Milestone within the preceding 18-months can only be used on the farm or ranch where the product is applied unless allowed by supplemental labeling

IMPORTANT USE PRECAUTIONS AND RESTRICTIONS TO PREVENT INJURY TO DESIRABLE PLANTS

- Carefully read the section "Restrictions in Hay or Manure Use."
- It is mandatory to follow the "Use Precautions and Restrictions" section of this label.
- Manure and urine from animals consuming grass or hay treated with this product may contain enough aminopyralid to cause injury to sensitive broadleaf plants.
- Hay can only be used on the farm or ranch where product is applied unless allowed by supplemental labeling.
- Consult with a Dow AgroSciences representative if you do not understand the "Use Precautions and Restrictions". Call [1-(800) 263-1196] Customer Information Group.

Forage and Manure Management



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Not For Sale, Distribution, or Use in New York State.

GROUP	4	HERBICIDE
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Active Ingredient:

Triisopropanolammonium salt of 2-pyridine carboxylic acid, 4-amino-3,6-dichloro-	40.6%
Other Ingredients	59.4%
Total	100.0%

Acid Equivalent: aminopyralid (2-pyridine carboxylic acid, 4-amino-3,6-dichloro-) - 21.1% - 2 lb/gal

Container Use Directions

1 - Tip



Tilt container to angle as shown and fill head to desired amount - use vertical scale for measuring. Container should be closed.

2 - Level



Hold container up-right and check the amount for accuracy. Add or subtract as needed, using pour-back scale as guide.

3 - Dispense



Remove cap on head and pour into sprayer or other devices. No fluid will pour from the main container. Replace cap for storage in sealed condition.

Precautionary Statements

Hazards to Humans and Domestic Animals

EPA Reg. No. 62719-519

CAUTION

Causes Moderate Eye Irritation

Avoid contact with eyes or clothing.

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. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

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.

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.

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.

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 disposing of equipment washwater or rinsate.

This chemical 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.

Directions for Use

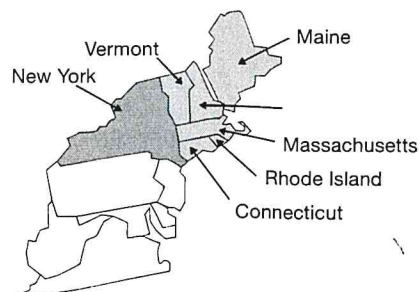
It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

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.

Not For Sale, Distribution, or Use in New York State.

Not for use on pastures in Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont. All other labeled uses are permitted in these states including grazed areas in and around these sites.



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 as polyethylene or polyvinyl chloride
- 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 does not pertain to non-agricultural use on sites, such as, rangeland, permanent grass pastures, or non-cropland. See the Agricultural Use Requirements section below for information where the WPS applies.

Entry Restrictions for Non-WPS Uses: For applications on rangeland and permanent grass pastures (not harvested for hay) and non-cropland areas, do not enter or allow worker entry into treated areas until sprays have dried.

Storage and Disposal

Do not contaminate water, food, feed or fertilizer by storage or disposal. Open dumping is prohibited.

Pesticide Storage: If this product is exposed to subfreezing temperatures, the active ingredient may crystallize and settle out of solution. Under these conditions the product should be warmed to at least 40°F and agitated well to dissolve any crystallized active ingredient prior to use.

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

Nonrefillable containers 5 gallons or less:

Container Handling: Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

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 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 Handling: 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. 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.

Storage and Disposal (Cont.)

Nonrefillable containers larger than 5 gallons:

Container Handling: Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

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 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.

Resistance Management Guidelines

- Development of plant populations resistant to this herbicide mode of action is usually not a problem on rangeland, permanent grass pastures, Conservation Reserve Program (CRP), or non-cropland sites since these sites receive infrequent pesticide applications.
- In croplands, use an effective integrated pest management (IPM) program, integrating tillage or other mechanical methods, crop rotation or other cultural control methods into weed control programs whenever practical.
- Similar looking biotypes of a given weed species occurring in a treated area may vary in their susceptibility to a herbicide. Application of a herbicide below its labeled rate may allow more tolerant weeds to survive and a shift to more tolerant biotypes within the treated area.
- Where identified, spreading of resistant weeds to other fields may be prevented by cleaning harvesting and tillage equipment before moving to other areas and by planting weed-free seed.
- Contact your extension specialist, certified crop consultant, or Dow AgroSciences representative for the latest resistance management information.

Rangeland, Permanent Grass Pastures, CRP Acres, Non-Cropland Areas, Non-Irrigation Ditch Banks, Natural Areas, and Grazed Areas In and Around These Sites

Milestone® specialty herbicide may be applied by aerial or ground equipment to control susceptible broadleaf weeds and certain woody plants, including invasive and noxious weeds on rangeland, permanent grass pastures (including grasses grown for hay*), CRP acres, non-cropland areas including industrial sites, rights-of-way (such as roadsides, electric utility and communication transmission lines, pipelines, and railroads), non-irrigation ditch banks, natural areas (such as wildlife management areas, wildlife openings, wildlife habitats, recreation areas, campgrounds, trailheads and trails), and grazed areas in and around these sites without injury to most grasses.

***Hay from grass treated with Milestone within the preceding 18-months can only be used on the farm or ranch where the product is applied unless allowed by supplemental labeling.**

It is permissible to treat non-irrigation ditch banks, seasonally dry wetlands (such as flood plains, deltas, marshes, swamps, or bogs) and transitional areas between upland and lowland sites. Milestone can be used to the waters edge. Do not apply directly to water and take precautions to minimize spray drift onto water.

Use Precautions and Restrictions

Consult with a Dow AgroSciences representative if you do not understand the "Use Precautions and Restrictions." Call (1-800-263-1196) for more information.

Pasture and Rangeland Restrictions

- **Do not use grasses treated with Milestone in the preceding 18-months for hay intended for export outside the United States.**

- **Hay from areas treated with Milestone in the preceding 18-months CAN NOT be distributed or made available for sale off the farm or ranch where harvested unless allowed by supplemental labeling.**
- **Hay from areas treated with Milestone in the preceding 18-months CAN NOT be used for silage, haylage, baylage and green chop unless allowed by supplemental labeling.**
- **Do not move hay made from grass treated with Milestone within the preceding 18-months off farm unless allowed by supplemental labeling.**
- **Do not use hay or straw from areas treated with Milestone within the preceding 18-months or manure from animals feeding on hay treated with Milestone in compost.**
- **Do not use grasses treated with Milestone in the preceding 18-months for seed production.**

Maximum Application Rate: On all labeled use sites do not broadcast apply more than 7 fl oz per acre of Milestone per year. The total amount of Milestone applied broadcast, as a re-treatment, and/or spot treatment cannot exceed 7 fl oz per acre per year. Spot treatments may be applied at an equivalent broadcast rate of up to 0.22 lb acid equivalent (14 fl oz of Milestone) per acre per annual growing season; however, not more than 50% of an acre may be treated at that rate. Do not apply more than a total of 0.11 lb acid equivalent (7 fl oz) per acre of Milestone per annual growing season as a result of broadcast, spot or repeat applications.

- **Avoiding Injury to Non-Target Plants:** Do not aerially apply Milestone within 50 feet of a border downwind (in the direction of wind movement), or allow spray drift to come in contact with, any broadleaf crop or other desirable broadleaf plants, including, but not limited to, alfalfa, cotton, dry beans, flowers, grapes, lettuce, potatoes, radishes, soybeans, sugar beets, sunflowers, tobacco, tomatoes or other broadleaf or vegetable crop, fruit trees, ornamental plants, or soil where sensitive crops are growing or will be planted. Avoid application under conditions that may allow spray drift because very small quantities of spray may seriously injure susceptible crops. Read and consider the "Precautions for Avoiding Spray Drift and Spray Drift Advisory" at the end of this label to help minimize the potential for spray drift.
- **Milestone is highly active against many broadleaf plant species.** Do not use this product on areas where loss of broadleaf plants, including legumes, cannot be tolerated.
- **Chemigation:** Do not apply this product through any type of irrigation system.
- **Do not contaminate water intended for irrigation or domestic purposes.** Do not treat inside 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 this product to lawns, turf, ornamental plantings, urban walkways, driveways, tennis courts, golf courses, athletic fields, commercial sod operations, or other high-maintenance, fine turfgrass areas, or similar areas.
- Trees adjacent to or in a treated area can occasionally be affected by root uptake of Milestone. Do not apply Milestone within the root zone of desirable trees unless such injury can be tolerated. Use special caution near roses, and leguminous trees such as locusts, redbud, mimosa, and caragana.
- Applications made during periods of intense rainfall, to soils saturated with water, surfaces paved with materials such as asphalt or concrete, or soils through which rainfall will not readily penetrate may result in runoff and movement of Milestone. Injury to crops may result if treated soil and/or runoff water containing Milestone is washed, or moved onto land used to produce crops. Exposure to Milestone may injure or kill susceptible crops and other plants, such as grapes, soybeans, tobacco, sensitive ornamentals. Do not treat frozen soil where runoff could damage sensitive plants.
- **Grass revegetation:**
 - Milestone can be used to control broadleaf plants in grass revegetation programs where desirable rangeland or reclamation grass species are being established in rangeland, permanent grass pastures, CRP, non-cropland, or other areas. Consult Dow AgroSciences' literature for more details about Milestone applications and grass stand establishment.
- **Application before seeding grasses**
 - Milestone can be applied in the spring through fall to control broadleaf weeds prior to grass planting. Grasses can be seeded as a dormant planting (in the late fall or early winter) in the year

of application or grasses can be seeded the following spring. The grasses should be planted when soil temperatures are low enough to ensure that the seeds will not germinate and emerge until the following spring.

- **Postemergence applications on grass:** During the season of establishment, Milestone should be applied only after perennial grasses are well established (have developed a good secondary root system and show good vigor. Most perennial grasses are tolerant to Milestone at this stage of development. Milestone may suppress certain established grasses, such as smooth brome (grass) (*Bromus inermis*), especially when plants are stressed by adverse environmental conditions. Plants should recover from this transient suppression with the onset of environmental conditions favorable to grass growth and upon release from weed competition.
- Grass seed germination and seedling development can be adversely effected by many factors such as seed viability and seedling vigor, soil condition (sub-optimal soil temperatures or soil water content), weather after planting, seedbed preparation and seed placement, disease, insects, or animals. Milestone applications will help to reduce competition from weeds and improve the chance for successful grass stand establishment. Some grass species are more sensitive to Milestone; consult Dow AgroSciences' literature for more details.
- **Seeding Legumes:** Do not plant forage legumes until a soil bioassay has been conducted to determine if aminopyralid concentration remaining in the soil will adversely affect the legume establishment.
 - **Grazing and Haying Restrictions:** There are no restrictions on grazing or grass hay harvest following application of Milestone at labeled rates. Cutting hay too soon after spraying weeds will reduce weed control. Wait 14 days after herbicide application to cut grass hay to allow herbicide to work. Do not transfer grazing animals from areas treated with Milestone to areas where sensitive broadleaf crops occur without first allowing 3 days of grazing on an untreated pasture. Otherwise, urine and manure may contain enough aminopyralid to cause injury to sensitive broadleaf plants.
 - **Grazing Poisonous Plants:** Herbicide application may increase palatability of certain poisonous plants. Do not graze treated areas until poisonous plants are dry and no longer palatable to livestock.
- **Restrictions in Hay or Manure Use:**
 - ◆ Do not use treated plant residues, including hay or straw from areas treated within the preceeding 18-months, in compost, mulch or mushroom spawn.
 - ◆ Do not use manure from animals that have grazed forage or eaten hay harvested from treated areas within the previous 3 days, in compost, mulch or mushroom spawn.
 - ◆ Do not spread manure from animals that have grazed or consumed forage or eaten hay from treated areas within the previous 3 days on land used for growing susceptible broadleaf crops.
 - ◆ Manure from animals that have grazed forage or eaten hay harvested from aminopyralid-treated areas within the previous 3 days may only be used on pasture grasses, grass grown for seed, wheat and corn.
 - ◆ Do not plant a broadleaf crop (including soybeans, sunflower, tobacco, vegetables, field beans, peanuts, and potatoes) in fields treated with manure from animals that have grazed forage or eaten hay harvested from aminopyralid-treated areas until an adequately sensitive field bioassay is conducted to determine that the aminopyralid concentration in the soil is at level that is not injurious to the crop to be planted.
 - ◆ Do not plant a broadleaf crop in fields treated in the previous year with manure from animals that have grazed forage or eaten hay harvested from aminopyralid-treated areas until an adequately sensitive field bioassay is conducted to determine that the aminopyralid concentration in the soil is at level that is not injurious to the crop to be planted.
 - ◆ To promote herbicide decomposition, plant residues should be evenly incorporated in the surface soil or burned. Breakdown of aminopyralid in plant residues or manure is more rapid under warm, moist soil conditions and may be enhanced by supplemental irrigation.
- **Crop Rotation:** Do not rotate to any crop from rangeland, permanent pasture or CRP acres within one year following treatment. Cereals and corn can be planted one year after treatment. Most broadleaf crops are

more sensitive and can require **at least** 2 years depending on the crop and environmental conditions. Do not plant a broadleaf crop until an adequately sensitive field bioassay shows that the level of aminopyralid present in the soil will not adversely affect that broadleaf crop.

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 in a manner to sample variability in field conditions such as soil texture, soil organic matter, soil pH, rainfall pattern or drainage. The field bioassay can be initiated at any time between harvest of the treated crop and the planting of the intended rotational crop. Observe the test crop for symptoms of 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 intended rotational crop; plant only to wheat, forage grasses, native grasses or grasses grown for hay.

Sprayer Clean-Out Instructions

It is recommended to use separate spray equipment on highly sensitive crops such as tobacco, soybeans, peanuts and tomatoes. Do not use spray equipment used to apply Milestone for other applications to land planted to, or to be planted to, broadleaf plants unless it has been determined that all residues of this herbicide have been removed by thorough cleaning of equipment.

Equipment used to apply Milestone should be thoroughly cleaned before reusing to apply any other chemicals as follows:

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 quart of household ammonia or tank cleaning agent 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. Spray nozzles and screens should be removed and cleaned separately.
- Do not apply this product with mist blower systems that deliver very fine spray droplets. Use of mist blower equipment can reduce control achieved with the herbicide and increase spray drift potential.

Application Methods

Apply the specified rate of Milestone as a coarse low-pressure spray. Do not apply this product with mist blower systems that deliver very fine spray droplets. Spray volume should be sufficient to uniformly cover foliage. Increase spray volume to ensure thorough and uniform coverage when target vegetation is tall and/or dense. To enhance foliage wetting and coverage, an approved non-ionic agricultural surfactant may be added to the spray mixture as specified by the surfactant label.

Ground Broadcast Application: Higher spray volumes (greater than 10 gallons per acre) generally provide better coverage and better control, particularly in dense and/or tall foliage.

Aerial Broadcast Application: Do not apply less than 2 gallons per acre total spray volume. Five gallons per acre or greater will generally provide better coverage and better control, particularly in dense and/or tall foliage.

High-Volume Foliar Application: High volume foliar treatments may be applied at rates equivalent to a maximum of 7 fl oz per acre per annual growing season. Use sufficient spray volume to thoroughly and uniformly wet foliage and stems.

Spot Application: Spot treatments may be applied at an equivalent broadcast rate of up to 0.22 lb acid equivalent (14 fl oz of Milestone) per acre per annual growing season; however, not more than 50% of an acre may be treated at that rate. Do not apply more than a total of 0.11 lb acid equivalent (7 fl oz) per acre of Milestone per annual growing season as a result of broadcast, spot or repeat applications.) Spray volume should be sufficient to thoroughly and uniformly wet weed foliage, but not to the point of runoff. Repeat treatments may be made, but the total amount of Milestone applied must not exceed 7 fl oz per acre per year. To prevent misapplication, spot treatments should be applied with a calibrated sprayer.

Note: Table 1 below shows mixes for various sprayer outputs in gallons per acre (GPA).

Table 1: Amount of Milestone (in mL) to mix in 1 gallon of water

Gallons per acre	Milestone amount (in mL) to mix with various application rates		
GPA	5 fl oz/a	7 fl oz/a	14 fl oz/a
20	7.5	10.5	21.0
30	5.0	7.0	14.0
40	3.8	5.3	10.5
50	3.0	4.2	8.4
60	2.5	3.5	7.0
70	2.1	3.0	6.0
80	1.9	2.6	5.3
90	1.7	2.3	4.7
100	1.5	2.1	4.2

Use a syringe to measure cc

Conversions:

1 tsp = 5 mL 30 ml = 1 fluid ounce 1 cc = 1 mL
1 tsp = 1 Tbsp 2 Tbsp = 1 fluid ounce

Table 2: Application rates in the table below are based on treating an area of 1000 sq ft. An area of 1000 sq ft is about 10.5 by 10.5 yards in size. Mix the amount of Milestone (fl oz or milliliters) corresponding to the desired broadcast rate in 0.5 to 2.5 gallons of water, depending upon the spray volume required to treat 1000 sq ft. A delivery volume of 0.5 to 2.5 gallons per 1000 sq ft is equivalent to 22 to 109 gallons per acre.

Table 2: Amount of Milestone per 1000 sq ft to Equal Broadcast Rate

Amount of Milestone per 1000 sq ft to Equal Broadcast Rate		
Broadcast Rate (fl oz/acre)	Amount of Milestone per 1000 sq ft	
	(fl oz)	(Milliliters)
3	0.069	2
5	0.115	3.4
7	0.161	4.8

Note: 1 fluid ounce (fl oz) = 29.6 milliliters (mL) = 2 tablespoons = 6 teaspoons

To calculate the amount of Milestone for areas larger than 1000 sq ft: Multiply the table value (fl oz or milliliters) by the area to be treated in "thousands" of square feet. For example, if the area to be treated is 3500 sq ft, multiply the table value by 3.5 (3500 sq ft divided by 1000 sq ft = 3.5).

Mixing Instructions

Mixing with Water: To prepare the spray, add about half the required amount of water in the spray tank. Then, with agitation, add the specified amount of Milestone and other registered tank mix herbicides. Finally, with continued agitation, add the rest of the water and additives such as surfactants or drift control and deposition aids.

Addition of Surfactants or Adjuvants on All Labeled Use Sites: The addition of a high quality non-ionic surfactant (of at least 80% active ingredient) at 0.25 to 0.5 % volume per volume (1 to 2 quarts per 100 gallons of spray) is recommended to enhance herbicide activity under adverse environmental conditions (such as, high temperature, low relative humidity, drought conditions, dusty plant surfaces) or when weeds are heavily pubescent or more mature.

Tank Mixing with Other Herbicides: Milestone at rates of up to 7 fl oz per acre may be mixed with labeled rates of other herbicides registered for application on all labeled use sites. Milestone may be applied in tank mix combination with labeled rates of other herbicides provided: (1) the tank mix product is labeled for the timing and method of application for the use site to be treated and (2) mixing is not prohibited by the label of the registered tank mixed products, and (3) that the tank mix combination is physically compatible (see tank mix compatibility testing below). When tank mixing, use only in accordance with the restrictions, precautions and limitations on the respective product labels.

- Read carefully and follow all applicable use directions, precautions, and limitations on the respective product labels.
- Do not exceed specified application rates. If products containing the same active ingredient are mixed, do not exceed the maximum allowable active ingredient use rates.
- For direct injection or other spray equipment where the product formulations will be mixed in undiluted form, special care should be taken to ensure tank mix compatibility.
- Always perform a jar test to ensure the compatibility of products to be used in tank mixture.

Tank Mix Compatibility Testing: Perform a jar test prior to mixing in a spray tank to ensure compatibility of Milestone and other pesticides or carriers. Use a clear glass jar with lid and mix ingredients in the same order and proportions as will be used in the spray tank. The mixture is compatible if the materials mix readily when the jar is inverted several times. The mixture should remain stable after standing for 1/2 hour or, if separation occurs, should readily remix if agitated. An incompatible mixture is indicated by separation into distinct layers that do not readily remix when agitated and/or the presence of flakes, precipitates, gels, or heavy oily film in the jar. Use of an appropriate compatibility aid may resolve mix incompatibility. If the mixture is incompatible do not use that tank mix partner in tank mixtures.

Mixing with Sprayable Liquid Fertilizer Solutions: Milestone is usually compatible with liquid fertilizer solutions. It is anticipated that Milestone will not require a compatibility agent for mixing with fertilizers; however, a compatibility test (jar test) should be made prior to mixing. Jar tests are particularly important when a new batch of fertilizer or pesticide is used, when water sources change, or when tank mixture ingredients or concentrations are changed. Compatibility may be determined by mixing the spray components in the desired order and proportions in a clear glass jar before large scale mixing of spray components in the spray tank.

Note: The lower the temperature of the liquid fertilizer, the greater the likelihood of mixing problems. Use of a compatibility aid may be required if Milestone is mixed with a 2,4-D-containing product and liquid fertilizer. **Mixing Milestone and 2,4-D in N-P or N-P-K liquid fertilizer solutions is more difficult than mixing with straight nitrogen fertilizer and should not be attempted without first conducting a successful compatibility jar test.** Agitation in the spray tank must be vigorous to be comparable with jar test agitation. Apply the spray mixture the same day it is prepared while maintaining continuous agitation. Rinse the spray tank thoroughly after use.

Note: Foliar-applied liquid fertilizers themselves can cause yellowing of the foliage of forage grasses and other vegetation.

Use Rates and Timing

Milestone may be applied post emergence as a broadcast spray or as a spot application to control weeds including, but not limited to, those listed on this label. When a rate range is given use the higher rate to control weeds at advanced growth stages, or under less than favorable growing conditions, or for longer residual control. Best results are obtained when spray volume is sufficient to provide uniform coverage of treated weeds. For optimum uptake and translocation of Milestone, avoid mowing, haying, shredding, burning or soil disturbance in treated areas for at least 14 days following application.

Milestone also provides preemergence control of emerging seedlings of susceptible weeds, and re-growth of certain perennial weeds following application. Preventing establishment of weeds will depend upon application rate, season of application, and environmental conditions after application.

Milestone can provide long-term control of susceptible weeds. The length of control is dependent upon the application rate, condition and growth stage of target weeds, environmental conditions at and following application, and the density and vigor of competing desirable vegetation. Long-term weed control is most effective where grass vegetation is allowed to recover from overgrazing, drought, etc., and compete with weeds.

Milestone can be an important component of integrated vegetation management programs designed to renovate or restore desired plant communities. To maximize and extend the benefits of weed control provided by Milestone, it is important that other vegetation management practices, including proper grazing management, biological control agents, replanting, fertilization, prescribed fire, etc., be used in appropriate sequences and combinations to further alleviate the adverse effects of weeds on desirable plant species and to promote development of desired plant communities. Agricultural and natural resources specialists with federal and state government agencies can provide guidance on best management practices and development of integrated vegetation management programs.

Weeds Controlled

The following weeds will be controlled with the rates of Milestone indicated below (table 3). For best results, most weeds should be treated when they are actively growing and under conditions favorable for growth. Use a higher rate in the rate range when growing conditions are less than favorable or when weed foliage is tall and dense, or when residual control is desired. Milestone also provides preemergence control of germinating seeds or seedlings of susceptible weeds following application.

Table 3: Weeds Controlled

Note: Numbers in parentheses (-) refer to specific use directions for a particular weeds species.

Common Name	Scientific Name	Rate Range (fl oz/acre)	Life Cycle	Plant Family
amaranth, spiny	<i>Amaranthus spinosus</i>	4 to 7	annual	Amaranthaceae
bedstraw	<i>Galium spp.</i>	4 to 7	perennial	Rubiaceae
beggarticks	<i>Bidens spp.</i>	4 to 7	annual	Asteraceae
blackeyed-susan	<i>Rudbeckia hirta</i>	4 to 7	Annual	Asteraceae
broomweed, annual	<i>Amphichyris dracunculoides</i>	4 to 7	annual	Asteraceae
burdock, common*, **	<i>Arctium minus</i>	4 to 7	biennial	Asteraceae
buttercup, hairy*	<i>Ranunculus sardous</i>	4 to 7	annual	Ranunculaceae
buttercup, tall*, **	<i>Ranunculus acris</i>	4 to 7	perennial	Ranunculaceae
camelthorn	<i>Alhagi pseudalhagi</i>	5 to 7	perennial	Fabaceae
cat's ear, common	<i>Hypochaeris radicata</i>	5 to 7	Perennial	Asteraceae
chamomile, scentless	<i>Matricaria inodora</i>	4 to 7	annual	Asteraceae
chicory*	<i>Cichorium intybus</i>	4 to 6	perennial	Asteraceae
chickweed	<i>Stellaria media</i>	7	annual	Caryophyllaceae
cinquefoil, sulfur (1)*, **	<i>Potentilla recta</i>	4 to 7	perennial	Rosaceae
cocklebur	<i>Xanthium strumarium</i>	3 to 5	annual	Asteraceae
clover	<i>Trifolium spp.</i>	5 to 7	perennial	Fabaceae
crazyweed	<i>Oxytropis</i>	5 to 7	perennial	Fabaceae
croton, tropic	<i>Croton glandulosus</i>	3 to 5	annual	Euphorbiaceae
crownvetch	<i>Securigera varia</i>	5 to 7	perennial	Fabaceae
cudweed, purple	<i>Gamochaeta purpurea</i>	4 to 7	annual	Asteraceae
daisy, oxeye (1)*, **	<i>Leucanthemum vulgare</i>	4 to 7	perennial	Asteraceae
dock, curly*	<i>Rumex crispus</i>	4 to 7	perennial	Polygonaceae
evening primrose, cutleaf	<i>Oenothera laciniata</i>	4 to 7	annual	Onagraceae
fiddleneck, common	<i>Amsinckia intermedia</i>	7	annual	Boraginaceae
fireweed	<i>Epilobium angustifolium</i>	5 to 7	perennial	Onagraceae
fleabane, flax-leaf	<i>Conyza bonariensis</i>	4 to 7	annual	Asteraceae
fleabane, hairy	<i>Conyza bonariensis</i>	5-7	annual/biennial	Asteraceae
hawkweed, orange (2)*, **	<i>Hieracium aurantiacum</i>	4 to 7	perennial	Asteraceae
hawkweed, yellow (2)*, **	<i>Hieracium caespitosum</i>	4 to 7	perennial	Asteraceae
henbane, black	<i>Hyoscyamus niger</i>	5 to 7	Annual/biennial	Solanaceae
henbit*	<i>Lamium amplexicaule</i>	5 to 7	annual/biennial	Lamiaceae
hogweed, giant	<i>Heracleum mantegazzianum</i>	7	perennial	Apiaceae
horsenettle, Carolina**	<i>Solanum carolinense</i>	4 to 7	perennial	Solanaceae
horseweed (marestail)	<i>Conyza canadensis</i>	4 to 7	annual	Asteraceae
ironweed, tall	<i>Vernonia gigantea</i>	5 to 7	perennial	Asteraceae
ironweed, western	<i>Vernonia baldwinii</i>	7	perennial	Asteraceae
knapweed, diffuse (3)*, **	<i>Centaurea diffusa</i>	5 to 7	biennial/perennial	Asteraceae
knapweed, Russian (4)*, **	<i>Acroptilon repens</i>	5 to 7	perennial	Asteraceae
knapweed, spotted (3)*, **	<i>Centaurea stoebe</i>	5 to 7	biennial/perennial	Asteraceae
knapweeds	<i>Centaurea spp.</i>	5 to 7	biennial/perennial	Asteraceae
knotweeds, Japanese, bohemian (11)*, **	<i>Reynoutria japonica</i>	7-14*	perennial	Polygonaceae
kudzu*, **	<i>Pueraria montana</i>	7	perennial	Fabaceae
lady's thumb*	<i>Polygonum persicaria</i>	3 to 5	annual	Polygonaceae
lambquarters	<i>Chenopodium album</i>	5 to 7	annual	Chenopodiaceae
lespedeza, annual	<i>Lespedeza striata</i>	5 to 7	annual	Fabaceae
licorice, wild	<i>Glycyrrhiza lepidota</i>	7	perennial	Fabaceae
locoweed	<i>Astragalus spp.</i>	5 to 7	Perennial	Fabaceae
locust, black	<i>Robinia pseudoacacia</i>	7	woody perennial	Fabaceae
locust, honey	<i>Gleditsia triacanthos</i>	7	woody perennial	Fabaceae
loosestrife, purple (12)*, **	<i>Lythrum salicaria</i>	7-14*	perennial	Lythraceae
mayweed, scentless*	<i>Tripleurospermum perforata</i>	4 to 7	annual	Asteraceae

Table 3: Weeds Controlled (Cont.)**Note:** Numbers in parentheses (-) refer to specific use directions for a particular weeds species.

Common Name	Scientific Name	Rate Range (fl oz/acre)	Life Cycle	Plant Family
mayweed, stinking*, **	<i>Anthemis cotula</i>	7	annual	Asteraceae
medic, black*	<i>Medicago lupulina</i>	4 to 7	perennial	Fabaceae
mimosa	<i>Albizia julibrissin</i>	7	woody perennial	Fabaceae
mullein (5)	<i>Verbascum spp.</i>	7	biennial	Scrophulariaceae
nightshade, silverleaf	<i>Solanum elaeagnifolium</i>	4-7	perennial	Solanaceae
ox tongue, bristly	<i>Picris echioides</i>	5 to 7	biennial	Asteraceae
pea, Swainson	<i>Sphaerophysa salsula</i>	5-7	perennial	Fabaceae
povertyweed	<i>Iva axillaris</i>	5-7	perennial	Asteraceae
ragweed, common**	<i>Ambrosia artemisiifolia</i>	3 to 5	annual	Asteraceae
ragweed, western	<i>Ambrosia psilostachya</i>	4 to 7	perennial	Asteraceae
ragwort, tansy*, **	<i>Senecio jacobaea</i>	5 to 7	perennial	Asteraceae
redbud	<i>Cercis Canadensis</i>	7	woody perennial	Fabaceae
rush skeletonweed	<i>Chondrilla juncea</i>	5 to 7	perennial	Asteraceae
sicklepod	<i>Cassia obtusifolia</i>	7	perennial	Fabaceae
smartweed, Pennsylvania	<i>Polygonum pennsylvanicum</i>	3 to 5	annual	Polygonaceae
sneezeweed, bitter	<i>Helenium amarum</i>	4 to 7	annual	Asteraceae
soda apple, tropical (6)*, **	<i>Solanum viarum</i>	5 to 7	perennial	Solanaceae
sowthistle, annual	<i>Sonchus oleraceae</i>	7	annual	Asteraceae
sowthistle, perennial*, **	<i>Sonchus arvensis</i>	3 to 5	perennial	Asteraceae
spanishneedles	<i>Bidens bipinnata</i>	4 to 7	annual	Asteraceae
St. Johnswort, common	<i>Hypericum perforatum</i>	5 to 7	perennial	Clusiaceae
stiltgrass, Japanese	<i>Microstegium vimineum</i>	5-7	annual	Poaceae
star-thistle, Malta (7) *, **	<i>Centaurea melitensis</i>	3 to 5	annual	Asteraceae
starthistle, purple (7) *, **	<i>Centaurea calcitrapa</i>	3 to 5	biennial	Asteraceae
star thistle, yellow (7)*, **	<i>Centaurea solstitialis</i>	3 to 5	annual	Asteraceae
sunflower, common	<i>Helianthus annuus</i>	4 to 7	annual	Asteraceae
teasel	<i>Dipsacus spp.</i>	4 to 7	biennial	Dipsacaceae
thistle, artichoke	<i>Cynara cardunculus</i>	5 to 7	perennial	Asteracea
thistle, blessed milk	<i>Silybum marianum</i>	4-7	biennial	Asteraceae
thistle, bull (8)*, **	<i>Cirsium vulgare</i>	3 to 5	biennial	Asteraceae
thistle, Canada (9)*, **	<i>Cirsium arvense</i>	5 to 7	perennial	Asteraceae
thistle, woolly distaff	<i>Carthamus lanatus</i>	4 to 7	annual	Asteraceae
thistle, Italian	<i>Carduus pycnocephalus</i>	7	annual	Asteraceae
thistle, musk (8)*, **	<i>Carduus nutans</i>	3 to 5	biennial	Asteraceae
thistle, plumeless (8)*, **	<i>Carduus acanthoides</i>	3 to 5	biennial	Asteraceae
thistle, Scotch*, **	<i>Onopordum acanthium</i>	5 to 7	biennial	Asteracea
thistle, Russian (preemergence)	<i>Salsola tragus</i>	7	annual	Chenopodiaceae
Tree of heaven	<i>Ailanthus altissima</i>	7	perennial	Simaroubaceae
vetch	<i>Vicia spp.</i>	3 to 7	perennial	Fabaceae
willowweed, panicle	<i>Epilobium brachycarpum</i>	5-7	annual	Onagraceae
wisteria	<i>Wisteria brachybotris</i>	7	woody perennial	Fabaceae
wormwood, absinth(10)*, **	<i>Artemisia absinthium</i>	6 to 7	perennial	Asteraceae
yarrow, common	<i>Achillea millefolium</i>	7	perennial	Asteraceae

*Invasive plants are introduced species that are indicated to be invasive in the USDA-NRCS, PLANTS Database (<http://plants.usda.gov/index.html>).**Plants designated as noxious weeds in at least one state (PLANTS Database, USDA-NRCS, <http://plants.usda.gov/index.html>).

- (1) **Sulfur cinquefoil or oxeye daisy:** Apply Milestone at 4 to 6 fl oz per acre to plants in the prebud stage of development.
- (2) **Orange or yellow hawkweeds:** Apply Milestone at 4 to 7 fl oz per acre to plants in the bolting stage of development.
- (3) **Diffuse and spotted knapweeds:** Apply Milestone at 5 to 7 fl oz per acre when plants are actively growing with the optimum time of application occurring from rosette to the bolting stages of development or in the fall. Plants will be controlled by mid-summer and fall applications even though plants may not show any changes in form or stature the year of application.
- (4) **Russian knapweed:** Apply Milestone at 5 to 7 fl oz per acre to plants in the spring and summer to plants from early bud to flowering stage and to dormant plants in the fall.
- (5) **Mullein:** Apply to the rosette stage
- (6) **Tropical soda apple:** Apply Milestone at 5 to 7 fl oz per acre at any growth stage, but application by flowering will reduce seed production potential.
- (7) **Malta, purple, and Yellow starthistle:** Apply Milestone at 3 to 5 fl oz per acre to plants at the rosette through bolting growth stages.
- (8) **Bull, musk, and plumeless thistles:** Apply Milestone at 3 to 5 fl oz per acre in the spring and early summer to rosette or bolting plants or in the fall to seedlings and rosettes. Apply at 4 to 5 fl oz when plants are at the late bolt through early flowering growth stages. 2,4-D at 1 lb ae/acre should be tank-mixed with Milestone starting at the late bud stages
- (9) **Canada thistle:** Apply Milestone at 5 to 7 fl oz per acre in the spring after all plants have fully emerged (some may be budding) until the oldest plants are in full flower stage. Use the higher rate when applying to the flower stage. Applications are also effective in the fall before a killing frost. Use higher rates for older/dense stands or for longer residual control.

- (10) **Absinth wormwood:** Apply 6 to 7 fl oz per acre before wormwood is 12 inches tall. When applying by air on CRP, coverage is important and a minimum of 3 GPA is specified. Remove old duff and litter by fire or mowing for best results
- (11) **Invasive knotweeds:** Japanese, Bohemian, giant knotweeds: Apply Milestone at 7 fl oz per acre broadcast using high volume per acre (100 gallons per acre) or apply as a spot treatment using 14 fl oz per acre. Optimum results for suppression of plant growth are obtained when applications are made to plants that are about 3 to 4 feet in height in early summer. Multiple applications/retreatments will be necessary for control of resprout; the total amount of Milestone applied broadcast, as a re-treatment, and/or spot treatment cannot exceed 7 fl oz per acre per year.
- (12) **Purple loosestrife:** For optimum control apply Milestone at 7 fl oz per acre plus 1 pt to 1 qt of 2,4-D amine or 1 to 2 qts of Garlon 3A. Spot treatments may also be made by applying Milestone at 14 fl oz (see Spot treatment section of the label) with or without the addition of 2,4-D or Garlon 3A.

Woody Plant Control

Milestone may be applied alone or in tank-mix combinations with labeled rates of other herbicides provided: (1) the tank mix product is labeled for the timing and method of application for the use site to be treated and (2) mixing is not prohibited by the label of the registered tank mixed products. Use as directed in the Directions of Use section of the tank-mix partner. Follow Mixing Instructions under the General Mixing and Application Instructions section.

Add Milestone to tank mixes for improved brush control on species such as aspen, conifers (pine), elm, maple, cherry, poplar, oak, Scotch broom, boxelder, hackberry, Russian olive, salt cedar, and blackberry.

FOLIAR APPLICATIONS:

For broad spectrum brush control using a foliar application, Milestone may be added to tank mixes with Accord Concentrate or Accord XRT II, Arsenal Powerline, Garlon 4 Ultra, Forestry Garlon XRT, or Garlon 3A, Rodeo, Tordon K, or other products labeled for use in industrial vegetation management programs.

LOW VOLUME BASAL BARK APPLICATIONS:

To control susceptible woody plants with stems less than 6 inches in basal diameter, apply herbicide mix (see below for rates) with a backpack or knapsack sprayer using low pressure and a solid cone or flat fan nozzle. Spray the basal parts of brush and tree trunks to a height of 12 to 15 inches from the ground in a manner that thoroughly wets the lower stems but not to the point of runoff. The use of a Spraying Systems Y2 nozzle or similar nozzle is recommended, which will narrow the spray pattern to target individual stems. Herbicide concentration should vary with tree diameter, bark thickness, volume used per acre, and susceptibility of species treated. Apply anytime, including the winter months, except when snow or water prevent spraying to the ground line or when stem surfaces are saturated with water.

Milestone may be used as a low volume basal treatment alone, for sensitive woody species in the Fabaceae family (legumes), or in combination with Garlon 4 Ultra or Forestry Garlon XRT, for broader control of other sensitive woody species. Applications should not exceed the maximum use rate per acre.

Mix Milestone at 1 to 5% v/v alone, or with Garlon 4 Ultra or Forestry Garlon XRT in a commercially available basal diluent (or other oils or basal diluents as recommended by the manufacturer); the basal oil should be compatible with a water soluble herbicide such as Milestone. Make a stable tank mixture for basal bark application by first combining each product with a compatibility agent prior to final mixing in the desired ratio. Mix Milestone and Garlon 4 Ultra or Forestry Garlon XRT (if using a tank mix) thoroughly with basal oil; if the mixture stands for more than 30 minutes, reagitation may be required. Do not store the final mixture.

Cut surface

Apply Milestone in the cut surface applications listed below for control of susceptible tree species such as legumes like Albizia, mimosa, locust, etc. Mixtures of Milestone and Garlon 3A or Garlon 4 may be effective on species other than legumes such as elm, maple, oak and conifers..

Cut surface applications may be used successfully at any season except during periods of heavy sap flow of certain species - for example, maples.

Cut-Stump Treatment

Apply Milestone as a 10% dilution v/v in water, by spraying or painting the cut surfaces of freshly cut stumps and stubs as soon as possible after cutting with undiluted Milestone. The cambium area next to the bark is the most vital area to wet.

With Tree Injector Method

Apply by injecting 1 milliliter of 10% v/v Milestone in water through the bark at intervals of 3 to 4 inches between centers 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 injected directly into plants.

With Hack and Squirt Method

Make cuts around the tree trunk at a convenient height with a hatchet or similar equipment so that the cuts overlap slightly and make a continuous circle around the trunk. Spray 1 milliliter of 10% v/v Milestone in water into the pocket created between the bark and the inner stem/trunk by each cut.

With Frill or Girdle Method

Make a single girdle through the bark completely around the tree at a convenient height. The frill should allow for the herbicide to remain next to the inner stem and absorb into the plant. Wet the cut surface with 10% v/v Milestone in water.

Precautions for Avoiding Spray Drift

Avoid application under conditions that may allow spray drift because very small quantities of spray, which may not be visible, may injure susceptible crops. This product should be applied only when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, non-target crops and other plants) is minimal (e.g., when wind is blowing away from the sensitive areas. A drift control aid may be added to the spray solution to further reduce the potential for drift. If a drift control aid is used, follow the use directions and precautions on the manufacturer's label. Do not use a thickening agent with Microfoil, Thru-Valve booms, or other spray delivery systems that cannot accommodate thickened spray solutions.

Ground Equipment: With ground equipment spray drift can be lessened by keeping the spray boom as low as possible; by applying 10 gallons or more of spray per acre; by keeping the operating spray pressures at the manufacturer's specified minimum pressures for the specific nozzle type used (low pressure nozzles are available from spray equipment manufacturers); and by spraying when the wind velocity is low (follow state regulations). Avoid calm conditions which may be conducive to thermal inversions. Direct sprays no higher than the tops of target vegetation and keep spray pressures low enough to provide coarse spray droplets to minimize drift.

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:

1. The distance of the outer most operating nozzles on the boom must not exceed 75% of wingspan or 85% of rotor diameter.
2. Nozzles should be pointed backward parallel with the air stream or not pointed downwards more than 45 degrees.

State regulations must be followed.

The applicator should be familiar with and take into account the information covered in the following **Aerial Drift Reduction Advisory**. This information is advisory in nature and does not supersede mandatory label requirements.

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 specified 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 will provide uniform coverage.
- **Nozzle Orientation** - Orient nozzles so that the spray is released parallel to the airstream to produce larger droplets than other orientations. 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: The distance of the outer most operating nozzles on the boom must not exceed 75% of wingspan or 85% of rotor diameter.

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 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 such as valleys and ravines 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.

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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Produced for
Dow AgroSciences LLC
9330 Zionsville Road
Indianapolis, IN 46268

Label Code: D02-879-005
Replaces Label: D02-879-004
LOES Number: 010-02112
EPA accepted 10/12/12

Revisions:

1. Add restrictions for Northeast states.

SAFETY DATA SHEET

DOW AGROSCIENCES LLC

Product name: MILESTONE™ Herbicide

Issue Date: 05/26/2015

Print Date: 05/26/2015

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: MILESTONE™ 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 not hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.

Other hazards

no data available

3. COMPOSITION/INFORMATION ON INGREDIENTS

This product is a mixture.

Component	CASRN	Concentration
Aminopyralid Triisopropanolamine Salt	566191-89-7	40.6%

Triisopropanolamine	122-20-3	1.5%
Balance	Not available	57.9%

4. FIRST AID MEASURES

Description of first aid measures

General advice: 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. 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: No emergency medical treatment necessary.

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.

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. 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). If protective equipment is not available or not used, fight fire from a protected location or safe distance.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: 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. 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.

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
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 local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.

Individual protection measures

Eye/face protection: Use safety glasses (with side shields).

Skin protection

Hand protection: Chemical protective gloves should not be needed when handling this material. Consistent with general hygienic practice for any material, skin contact should be minimized.

Other protection: No precautions other than clean body-covering clothing should be needed.

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, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. For most conditions no respiratory protection should be needed; however, if discomfort is experienced, use an approved air-purifying respirator. 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	Brown
Odor	Mild
Odor Threshold	no data available
pH	7.3 pH Electrode
Melting point/range	Not applicable
Freezing point	< -10 °C (< 14 °F)
Boiling point (760 mmHg)	no data available
Flash point	closed cup > 100 °C (> 212 °F) <i>Pensky-Martens Closed Cup ASTM D 93</i>
Evaporation Rate (Butyl Acetate = 1)	no data available
Flammability (solid, gas)	Not Applicable
Lower explosion limit	no data available
Upper explosion limit	no data available
Vapor Pressure	no data available
Relative Vapor Density (air = 1)	no data available
Relative Density (water = 1)	1.14 at 20 °C (68 °F)
Water solubility	Soluble
Partition coefficient: n-octanol/water	no data available
Auto-ignition temperature	none below 400 degC
Decomposition temperature	No test data available
Dynamic Viscosity	12.2 cP at 20 °C (68 °F) <i>EPA OPPTS 830.7100 (Viscosity)</i>
Kinematic Viscosity	no data available
Explosive properties	no data available
Oxidizing properties	no data available

Liquid Density	1.140 g/cm ³ at 20 °C (68 °F) <i>Digital density meter</i>
Molecular weight	no data available
Surface tension	54.4 mN/m at 20 °C (68 °F)

NOTE: The physical data presented above are typical values and should not be construed as a specification.

10. STABILITY AND REACTIVITY

Reactivity: No dangerous reaction known under conditions of normal use.

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.

Incompatible materials: Avoid contact with: 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.

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.

As product:

LD50, Rat, male and female, > 5,000 mg/kg

Acute dermal toxicity

Prolonged skin contact is unlikely to result in absorption of harmful amounts.

As product:

LD50, Rat, male and female, > 5,000 mg/kg

Acute inhalation toxicity

No adverse effects are anticipated from single exposure to mist. Based on the available data, respiratory irritation was not observed.

As product:

LC50, Rat, male and female, 4 Hour, dust/mist, > 5.79 mg/l

Skin corrosion/irritation

Essentially nonirritating to skin.

Serious eye damage/eye irritation

Essentially nonirritating to eyes.
Corneal injury is unlikely.

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)

Evaluation of available data suggests that this material is not an STOT-SE toxicant.

Specific Target Organ Systemic Toxicity (Repeated Exposure)

Based on available data, repeated exposures are not anticipated to cause significant adverse effects.

Carcinogenicity

For similar active ingredient(s). Aminopyralid. Did not cause cancer in laboratory animals.

Teratogenicity

Did not cause birth defects or any other fetal effects in laboratory animals.

Reproductive toxicity

For similar active ingredient(s). Aminopyralid. In animal studies, did not interfere with reproduction.

Mutagenicity

In vitro genetic toxicity studies were negative. Animal genetic toxicity studies were negative.

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

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, *Oncorhynchus mykiss* (rainbow trout), static test, 96 Hour, 360 mg/l, OECD Test
Guideline 203 or Equivalent

LC50, *Cyprinodon variegatus* (sheepshead minnow), static test, 96 Hour, > 100 mg/l

Acute toxicity to aquatic invertebrates

EC50, *Daphnia magna* (Water flea), static test, 48 Hour, > 460 mg/l

LC50, saltwater mysid *Mysidopsis bahia*, static test, 96 Hour, > 104 mg/l

Acute toxicity to algae/aquatic plants

ErC50, *Pseudokirchneriella subcapitata* (green algae), 72 Hour, Growth rate inhibition, > 1,000 mg/l, OECD Test Guideline 201 or Equivalent

Toxicity to Above Ground Organisms

Material is practically non-toxic to birds on an acute basis (LD50 > 2000 mg/kg).

Material is practically non-toxic to birds on a dietary basis (LC50 > 5000 ppm).

dietary LC50, *Colinus virginianus* (Bobwhite quail), > 21422mg/kg diet.

oral LD50, *Colinus virginianus* (Bobwhite quail), > 10,000 ppm

oral LD50, *Apis mellifera* (bees), > 460micrograms/bee

contact LD50, *Apis mellifera* (bees), > 460micrograms/bee

Toxicity to soil-dwelling organisms

LC50, *Eisenia fetida* (earthworms), 14 d, survival, > 10,000 mg/kg

Persistence and degradability

Aminopyralid Triisopropanolamine Salt

Biodegradability: For similar material(s): Aminopyralid. Material is not readily biodegradable according to OECD/EEC guidelines.

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

Aminopyralid Triisopropanolamine Salt

Bioaccumulation: For similar active ingredient(s). Aminopyralid. Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

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**Aminopyralid Triisopropanolamine Salt**

For similar active ingredient(s).
Aminopyralid.
Potential for mobility in soil is very high (Koc between 0 and 50).

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

Not regulated for transport

Classification for SEA transport (IMO-IMDG):

**Transport in bulk
according to Annex I or II
of MARPOL 73/78 and the
IBC or IGC Code**

Not regulated for transport
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 not 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

No SARA Hazards

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Section 313

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

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-Know Act): 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

Triisopropanolamine

122-20-3

Pennsylvania (Worker and Community Right-To-Know Act): 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: 62719-519

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

16. OTHER INFORMATION

Hazard Rating System**NFPA**

Health	Fire	Reactivity
1	1	0

Revision

Identification Number: 101209315 / A211 / Issue Date: 05/26/2015 / Version: 9.0

DAS Code: GF-871

Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

Legend

Dow IHG	Dow Industrial Hygiene Guideline
TWA	Time Weighted Average (TWA):

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.

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.

2120313-23



The complete broad-spectrum postemergence professional herbicide for industrial, turf and ornamental weed control.

Complete Directions for Use

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.

GROUP

9

HERBICIDE

EPA Reg. No. 524-529

2010-1

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.

1.0 INGREDIENT

ACTIVE INGREDIENT:

*Glyphosate, N-(phosphonomethyl)glycine, in the form of its isopropylamine salt.....	50.2%
OTHER INGREDIENTS (including 13% surfactant):	49.8%
	100.0%

*Contains 600 grams per liter or 5 pounds per U.S. gallon of the active ingredient glyphosate, in the form of its isopropylamine salt. Equivalent to 445 grams per liter or 3.7 pounds per U.S. gallon of the acid glyphosate.

This product is protected by U.S. Patent No. 4,405,531. Other patents pending. No license granted under any non-U.S. patent(s).

2.0 IMPORTANT PHONE NUMBERS

1. FOR PRODUCT INFORMATION OR ASSISTANCE IN USING THIS PRODUCT, CALL TOLL-FREE.

1-800-332-3111

2. 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 MODERATE 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 Roundup PRO® Concentrate Herbicide. EPA Registration No. 524-529.

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.

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 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.

IMPORTANT: When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "applicators and other handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.

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 can 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. Supplemental Labeling may be found on the internet at www.agrian.com, www.cdms.net or www.greenbook.net 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, 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 (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.

CONTAINER DISPOSAL:

[FOR RIGID PLASTIC 2.5 GAL CONTAINERS OR OTHERS \leq 5 GAL]

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 this container. Contact your state regulatory agency to determine allowable practices in your state.

CONTAINER HANDLING: 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.

Once cleaned, some 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 Monsanto at 1-800-768-6387. If recycling is not available, puncture and dispose of in a sanitary landfill.

[FOR RIGID PLASTIC 30 GAL CONTAINERS OR OTHERS $>$ 5 GAL]

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 this container. Contact your state regulatory agency to determine allowable practices in your state.

CONTAINER HANDLING: 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 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 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.

Once cleaned, some 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 Monsanto at 1-800-768-6387. If recycling is not available, puncture and dispose of in a sanitary landfill.

[CONTAINER LABEL LANGUAGE FOR TRANSPORT VEHICLES AS DEFINED IN 40 CFR §156.3]

CONTAINER DISPOSAL: Emptied container retains vapor and product residue. Observe all precautions stated on this label until the container is cleaned, reconditioned or destroyed.

CONTAINER HANDLING: Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, and worn-out threads and closures. Clean thoroughly before reuse for transportation of a material of different composition or before retiring this transport vehicle from service.

5.0 GENERAL INFORMATION

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 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 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.

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.

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 precautionary statements for each product in the mixture.

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 that the mixture product's 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 listed on this label may result in reduced performance.

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. See the **INGREDIENTS** section of this label for necessary product information.

Except as otherwise specified, the combined total of all treatments must not exceed 8.5 quarts of this product (8 pounds of glyphosate acid) per acre per year.

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, 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 have other unintended consequences.

5.1 Weed Resistance Management

GROUP	9	HERBICIDE
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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 application rate for the most difficult weed in the site. Avoid tank-mixtures with other herbicides that reduce this product's efficacy (through antagonism) or with ones 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 Recommendations for Glyphosate-Resistant Weed Biotypes

NOTE: Appropriate testing is critical in order to confirm weed resistance to glyphosate. Call 1-800-ROUNDUP (1-800-768-6387) or contact your Monsanto representative to determine if resistance in any particular weed biotype has been confirmed in your area or visit www.weedresistancemanagement.com or www.weedscience.org.

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.

Follow good weed management practices to avoid the spread of confirmed 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 should be mixed, stored and applied using only clean stainless steel, fiberglass, plastic or plastic-lined steel containers. Use caution to avoid siphoning back into the carrier source. Use approved anti-back-siphoning devices where required by State or local regulations.

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.

Clean sprayer parts immediately after using this product by thoroughly flushing with water.

6.1 Mixing with Water

NOTE: PRODUCT PERFORMANCE MAY BE 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.

This product mixes readily with clean water. Mix spray solutions of this product as follows: Begin filling the mixing tank 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 gently. 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

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 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.

When this label lists 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 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 and use according to the most restrictive precautionary statements for each product in the tank mixture.

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.

When a tank mixture with a generic active ingredient, such as 2,4-D, atrazine, dicamba, diuron, or pendimethalin is listed in this label, the user is responsible for ensuring that the specific application being made is included on the label of the product being used in the tank-mix.

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 precautionary statements for each product in the tank mixture.

Always predetermine the compatibility of all tank-mix products together in the carrier by mixing small proportional quantities in advance.

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

Amount of Roundup PRO Concentrate Herbicide

Desired Volume	0.4%	0.8%	1.2%	1.6%	4.0%	8.0%
1 Gallon	0.5 oz	1.0 oz	1.6 oz	2.1 oz	5.2 oz	10.5 oz
25 Gallons	13.0 oz	0.8 qt	1.2 qt	1.6 qt	4.0 qt	8.0 qt
100 Gallons	1.6 qt	0.8 gal	1.2 gal	1.6 gal	4.0 gal	8.0 gal

2 tablespoons = 1 fluid ounce

For use in backpack, knapsack or pump-up sprayers, it is suggested that the required amount of this product be mixed with water in a larger container. Fill sprayer with the mixed solution.

6.4 Colorants or Dyes

Colorants or marking dyes may be added to spray solutions of this product; however they can reduce product performance, especially at lower rates or dilution. Use colorants or dyes according to the manufacturer's directions.

7.0 APPLICATION EQUIPMENT AND TECHNIQUES

Do not apply this product through any type of irrigation system.

APPLY SPRAY SOLUTIONS IN PROPERLY MAINTAINED AND CALIBRATED EQUIPMENT CAPABLE OF DELIVERING DESIRED VOLUMES.

7.1 Aerial Equipment

DO NOT APPLY THIS PRODUCT USING AERIAL SPRAY EQUIPMENT EXCEPT UNDER THE CONDITIONS SPECIFIED WITHIN THIS LABEL.

For aerial broadcast applications, unless otherwise specified, use this product at the rate of 0.8 to 1.6 quarts per acre for annual weeds, 1.6 to 4 quarts per acre for perennial weeds and 4 to 8 quarts per acre for woody brush and trees. Use the labeled rates of this herbicide in 3 to 25 gallons of water per acre. 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.

FOR AERIAL APPLICATION IN CALIFORNIA, REFER TO THE FEDERAL SUPPLEMENTAL LABELING FOR AERIAL APPLICATIONS OF THIS PRODUCT IN THAT STATE FOR SPECIFIC INSTRUCTIONS, RESTRICTIONS AND REQUIREMENTS. This product plus dicamba tank mixtures 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.

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.

Avoid direct application to any body of water.

Drift reduction additives may be used. When a drift 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.

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 are most susceptible.

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 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 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 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

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).

7.2 Ground Broadcast Equipment

For broadcast ground applications, unless otherwise specified use this product at the rate of 0.8 to 1.6 quarts per acre for annual weeds, 1.6 to 4 quarts per acre for perennial weeds and 4 to 8 quarts 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. 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.

7.3 Backpack or 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 0.4 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 0.8 percent solution. Apply prior to seedhead formation in grass or bud formation in broadleaf weeds.

For best results, use a 1.6 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 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 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.

Application equipment 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 Porous-Plastic 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
Shattercan	

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 instructed.

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 specified in this label when applied by conventional broadcast equipment. For vehicle-mounted CDA equipment, apply 3 to 15 gallons of water per acre.

CDA 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 is likely to result.

8.0 SITE AND USE INSTRUCTIONS

This product may be used in non-crop areas such as airports, apartment complexes, commercial sites, ditch banks, driveways, dry ditches, dry canals, fencerows, golf courses, greenhouses, industrial sites, landscape areas, lumberyards, manufacturing sites, municipal sites, natural areas, office complexes, ornamentals, parks, parking areas, pastures, petroleum tank farms and pumping installations, railroads, rangeland, recreation areas, residential areas, rights-of-way, roadsides, schools, shadehouses, sports complexes, storage areas, substations, turfgrass areas, utility sites, warehouse areas and wildlife management areas.

This product may also be used in non-food crop sites such as 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.

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. 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 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 may be used for the control or partial control of woody brush, trees and herbaceous weeds in forestry or in preparing or establishing wildlife openings within these sites and maintaining logging roads.

This product may be used in site preparation prior to planting any tree species, including Christmas trees, eucalyptus, hybrid tree cultivars and silvicultural nursery sites.

Refer to the **WEEDS CONTROLLED** section of this label for specific application rates and instructions. 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 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.

Unless otherwise directed, do not apply this product as an over-the-top broadcast spray for forestry conifer or hardwood release.

TANK MIXTURES: Tank mixtures of this product may be used to increase the spectrum of vegetation controlled. 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 of all herbicides 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.

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
Escort	Oust
Escort XP	Oust XP

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.

8.3 Non-Crop Areas and Industrial Sites

Use in areas such as airports, apartment complexes, Christmas tree farms, commercial sites, Conservation Reserve Program (CRP) areas, ditch banks, driveways, dry ditches, dry canals, fencerows, golf courses, greenhouses, industrial sites, landscape areas, lumberyards, manufacturing sites, municipal sites, natural areas, office complexes, ornamentals, parks, parking areas, pastures, petroleum tank farms and pumping installations, plant nurseries, railroads, rangelands, 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.

General Weed Control, Trim-and-Edge and Bare Ground

This product may be used in general 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 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 when tank mixing with a generic active ingredient listed below.

2,4-DI	Gallery 75 DF	Ronstar 50 WP
Arsenal	Garlon 3A	Sahara DG
atrazine1	Garlon 4	Surflan AS
Banvel	Goal 2XL	Surflan WDG
Barricade 65WG	Krovar I DF	simazine1
dicamba	Oust	Telar DF
diuron	Oust XP	Transline
Endurance	Outrider	
Escort	pendimethalin1	
Escort XP	Plateau	

¹ Tank mixtures with products containing this generic active ingredient may be made provided the specific product is registered for this use.

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 0.8 to 1.6 quarts of this product plus 2 to 4 ounces of Oust XP per acre.

Bahiagrass	Dock, curly	Poorjoe
Bermudagrass	Dogfennel	Quackgrass
Broomsedge	Fescue, tall	Vaseygrass
Dallisgrass	Johnsongrass	Vervain, blue

Chemical Mowing - Perennials

This product will suppress perennial grasses listed in this section to serve as a substitute for mowing. Use 6.4 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.

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

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 greenup.

Apply 6.4 to 51 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 13 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 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 13 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 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.

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.

PRECAUTIONS: 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 translocation into underground plant parts. If application rates total 2.4 quarts per acre or less, no waiting period between treatment and feeding or livestock grazing is required. If the rate is greater than 2.4 quarts per acre, remove domestic livestock before application and wait 8 weeks after application before grazing or harvesting.

Do not feed or graze turfgrass grown for seed or sod production for 8 weeks following application.

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 Hollow Stem Injection

This product may be applied through hand-held injection devices that deliver the specified amounts of this product into targeted hollow-stem plants growing in any site specified on this label.

For control of the following hollow-stem plants, follow the use instructions below:

Castorbean, *Ricinus communis*

Inject 4 ml per 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 the root crown with 5 ml of a 5% v/v solution of this product.

Hogweed, Giant, *Hercleum mantegazzianum*

Inject one leaf cane per plant 12 inches above the 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 per stem of this product. Use a small syringe that calibrates to this rate.

Knotweed, Bohemian, *Polygonum bohemicum*

Inject 5 ml per stem of this product between the second and third internode.

Knotweed, Giant, *Polygonum sachalinense*

Inject 5 ml per stem of this product between second and third internode.

Knotweed, Japanese, *Polygonum cuspidatum*

Inject 5 ml per stem of this product between second and third internode.

Reed, Giant, *Arundo donax*

Inject 6 ml per stem of this product between second and 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 per stem of this product is injected into the stem.

NOTE: The combined total for all treatments must not exceed 7 quarts of this product per acre. At 5 ml per stem, 7 quarts should treat approximately 1300 stems per acre.

8.6 Foliar or Broadcast Application to Japanese Knotweed and Oriental Bittersweet

Japanese Knotweed

For control of Japanese knotweed (*Polygonum cuspidatum*), this product may be applied as a 2.0% v/v spray-to-wet solution. Ensure thorough coverage when using spray-to-wet treatments using hand-held equipment.

For broadcast applications, apply 3.25 quarts of this product in 3 to 40 gallons per acre as a broadcast treatment.

Late summer or fall application is ideal, while leaves are still green and after fruit formation.

Oriental Bittersweet

For control of Oriental bittersweet (*Celastrus orbiculatus*), this product may be applied as a 2.0% v/v spray-to-wet solution. Ensure thorough coverage when using spray-to-wet treatments using hand-held equipment.

For broadcast applications, apply 2.5 quarts of this product in 3 to 40 gallons per acre as a broadcast treatment.

Late summer or fall application is ideal, while leaves are still green and after fruit formation.

8.7 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 which 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 concentration of this product. For best results, application should be made during periods of active growth and after full leaf expansion.

8.8 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, poplar, oak, 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. DO NOT USE THIS PRODUCT 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 Applicators

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.

8.9 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, 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.

8.10 Railroads

The instructions in the **Non-Crop Areas and Industrial Sites** section may be used on 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.

TANK MIXTURES: This product may 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. 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.

User is responsible for ensuring that the mixture product's label allows the specific applications when tank mixing with a generic active ingredient listed below.

Arsenal	Hyvar X	simazine ¹
atrazine ¹	Hyvar X-L	Spike 80DF
dicamba ¹	Krovar I DF	Telar DF
Escort	Oust	Transline
Escort XP	Oust XP	Velpar DF
Garlon 3A	Outrider	Velpar L
Garlon 4	Sahara DG	2,4-D ¹

¹Tank mixtures with products containing this generic active ingredient may be made provided the specific product is registered for this use.

Brush Control

This product may 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 0.8 to 1.6 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. This product may be mixed with the following products for enhanced control of woody brush and trees:

Arsenal	Telar DF	Vanquish
Escort	Krenite	Velpar DF
Escort XP	Tordon K	Velpar L
Garlon 3A	Tordon 22K	
Garlon 4	Transline	

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 13 to 38 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	Johnsongrass
Bluestem, silver	Trumpet creeper
Fescue, tall	Vaseygrass

Apply 6.4 to 51 fluid ounces of this product in a tank mixture with 0.75 to 1.33 ounces of Outrider herbicide per acre. Read and follow all label directions for Outrider herbicide.

This product may be tank mixed with Oust XP. If tank mixed, use no more than 13 to 38 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	Fescue, tall
Blackberry	Johnsongrass
Bluestem, silver	Poorjoe
Broomsedge	Raspberry
Dallisgrass	Trumpet creeper
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 may cause severe injury.

8.11 Roadsides

The instructions in the **Non-Crop Areas and Industrial Sites** section may 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. 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.

User is responsible for ensuring that the mixture product's label allows the specific applications when tank mixing with a generic active ingredient listed below.

atrazine ¹	Landmark II MP	Sahara DG
Crossbow L	Landmark XP	simazine ¹
dicamba	Oust	Surflan AS
diuron	Oust XP	Surflan WDG
Escort	Outrider	Telar DF
Escort XP	pendimethalin ¹	Velpar DF
Endurance	Plateau	Velpar L
Gallery 75 DF	Plateau DG	2,4-D ¹
Krovar I DF	Poast	
Landmark MP	Ronstar 50 WSP	

¹Tank mixtures with products containing this generic active ingredient may be made provided the specific product is registered for this use.

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 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 6.4 to 51 fluid ounces of this product in a tank mixture with 0.75 to 1.33 ounces of Outrider herbicide per acre. Read and follow all label directions for Outrider herbicide.

Apply 6.4 to 51 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 may be used to control or partially control many annual and perennial weeds for effective release of actively growing Bermudagrass. Apply 13 to 38 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	Johnsongrass
Bluestem, silver	Trumpet creeper
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 label. Use 6.4 to 26 fluid 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 may be tank mixed with Oust XP. If tank mixed, use no more than 13 to 26 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	Fescue, tall
Bluestem, silver	Johnsongrass
Broomsedge	Poorjoe
Dallisgrass	Trumpet creeper
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 may cause severe injury.

Actively Growing Bahiagrass

For suppression of vegetative growth and seedhead inhibition of bahiagrass for approximately 45 days, apply 5 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 1.5 to 3 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 5 ounces of this product with 0.75 to 2.0 ounces of Outrider per acre. Use only on well-established bahiagrass.

A tank mixture of this product plus Oust XP may be used. Apply 5 fluid ounces of this product plus 0.5 to 1.0 ounce of Oust XP per acre 1 to 2 weeks following an initial spring mowing. Make only one application per year.

8.12 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 setaceus*) found in industrial, rangeland and pasture sites. Apply 6.5 to 13 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 13 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.

8.13 Utility Sites

In utilities, this product may be used 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 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 also be used 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. This product may be tank mixed with the following products. 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 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 when tank mixing with a generic active ingredient listed below.

Arsenal	Krenite	Surflan AS
atrazine ¹	Krovar I DF	Surflan WDG
dicamba ¹	Oust	Telar DF
diuron ¹	Oust XP	Transline
Endurance	Outrider	Vanquish
Escort	pendimethalin ¹	Velpar DF
Escort XP	Plateau	Velpar L
Garlon 3A	Sahara DG	2,4-D ¹
Garlon 4 ²	simazine ¹	

¹Tank mixtures with products containing this generic active ingredient may be made provided the specific product is registered for this use.

²For side trimming treatments, use this product alone or in a tank mixture with Garlon 4.

8.14 Conservation Reserve Program (CRP)

This product may be used to prepare CRP land for crop production. Refer to Federal, state or local use guides for CRP renovation guidance. For any crop not listed for treatment in this label, applications must be made at least 30 days prior to planting.

Renovation (Rotating out of CRP), Site Preparation, Postemergence Weed Control in Dormant CRP Grasses, Over-the-Top Wiper Applications

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 10 to 13 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 2.25 quarts per acre per year onto CRP grasses.

8.15 Grass Seed or Sod Production

Preplant, Preemergence, At-Planting, Renovation, Removal of Established Stands, Site Preparation

This product controls most existing vegetation prior to renovating turf or forage grass seed areas or establishing turfgrass grown for sod. It may also be used to destroy remaining undesired 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 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. Application rates up to 4 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 2.25 quarts per acre or less, no waiting period between treatment and feeding or

livestock grazing is required. If the rate is greater than 2.25 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 emergence of the crop to avoid crop injury.

Shielded Sprayers

Apply 26 fluid ounces to 2.4 quarts of this product in 10 to 20 gallons of water per acre to control weeds between grass seed 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 the protective shields.

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.

Over-the-Top Wiper Applications

Applicators should be adjusted 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. Contact of the herbicide solution with desirable vegetation may result in damage or destruction.

Spot Treatment

Use a 1.0 to 1.6 percent solution. Apply this product 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. Hand-held equipment may be used to control sod remnants or other unwanted vegetation after sod is harvested.

Creating Rows in Annual Ryegrass

Use 13 to 26 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 low-pressure nozzles, or drop nozzles designed to target the application over a narrow band.

Grower assumes all responsibility for crop losses from misapplication.

8.16 Pastures

LABELLED GRASSES: Any pasture grass (*Gramineae* family), including bahiagrass, Bermudagrass, bluegrass, brome, fescue, guineagrass, kikuyugrass, orchardgrass, pangola grass, ryegrass, timothy, wheatgrasses.

TYPES OF APPLICATIONS: Spot Treatment, Over-the-Top Wiper Applications, Preplant, Preemergence, Pasture Renovation, Postemergent Broadcast.

Preplant, Preemergence, Pasture Renovation

This product may be applied prior to planting or emergence of forage grasses including bahiagrass, Bermudagrass, bluegrass, brome, fescue, guineagrass, kikuyugrass, orchardgrass, pangola grass, ryegrass, timothy, wheatgrass.

In addition, this product may be used to control perennial pasture species listed on this label prior to replanting.

If application rates total 2.25 quarts per acre or less, no waiting period between treatment and feeding or livestock grazing is required. If the rate is greater than 2.25 quarts per acre, remove domestic livestock before application and wait 8 weeks after application before grazing.

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 2.25 quarts 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 2.25 quarts 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 may 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 10 to 13 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 2.25 quarts per acre per year onto pasture grasses except for renovation uses (see instructions above). If replanting is needed due to severe stand reduction, applications must be made at least 30 days prior to planting any crop not listed for treatment in this label.

9.0 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 (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 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 4 to 8 quarts per acre for enhanced results.

9.1 Annual Weeds

Use 26 fluid ounces per acre if weeds are less than 6 inches in height or runner length and 1.2 to 3.2 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 that the specific tank mix 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.

For spray-to-wet applications, apply a 0.4 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 0.8 to 1.6 percent solution. Use the higher rate for tough-to-control species or for weeds over 24 inches tall.

Weed Species

Anoda, spurred	Kochia
Barley*	Lamb's-quarters*
Barnyardgrass*	Little barley*
Bittercress*	London rocket*
Black nightshade*	Mayweed
Bluegrass, annual*	Medusahead*
Bluegrass, bulbous*	Morningglory (<i>Ipomoea spp.</i>)
Bassia, fivehook	Mustard, blue*
Brome, downy*	Mustard, tansy*
Brome, Japanese*	Mustard, tumble*
Browntop panicum*	Mustard, wild*
Buttercup*	Oats
Carolina foxtail*	Pigweed*
Carolina geranium	Plains/Tickseed coreopsis*
Castor bean	Prickly lettuce*
Cheatgrass*	Puncturevine
Cheeseweed (<i>Malva parviflora</i>)	Purslane, common
Chervil*	Ragweed, common*
Chickweed*	Ragweed, giant
Cocklebur*	Red rice
Copperleaf, hophornbeam	Russian thistle
Corn*	Rye*
Corn speedwell*	Ryegrass*
Crabgrass*	Sandbur, field*
Dwarf dandelion*	Shattercane*
Eastern manna grass*	Shepherd's-purse*
Eclipta*	Sicklepod
Fall panicum*	Signalgrass, broadleaf*
Falsedandelion*	Smartweed, ladythumb*
Falsellax, smallseed*	Smartweed, Pennsylvania*
Fiddleneck	Sowthistle, annual
Field pennycress*	Spanishneedles
Filaree	Speedwell, purslane*
Fleabane, annual*	Sprangletop*
Fleabane, hairy	Spurge, annual
(<i>Conyza bonariensis</i>)*	Spurge, prostrate*
Fleabane, rough*	Spurge, spotted*
Florida pusley	Spurry, umbrella*
Foxtail*	Starthistle, yellow
Goatgrass, jointed*	Stinkgrass*
Goosegrass	Sunflower*
Grain sorghum (milo)*	Teaweed/Prickly sida
Groundsel, common*	Texas panicum*
Hemp sesbania	Velvetleaf
Henbit	Virginia copperleaf
Horseweed/Marestail	Virginia pepperweed*
(<i>Conyza canadensis</i>)	Wheat*
Itchgrass*	Wild oats*
Johnsongrass, seedling	Witchgrass*
Junglerice	Woolly cupgrass*
Knotweed	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 13 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.

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 specified 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 4 to 8 percent solution of this product.

Allow 7 or more days after application before tillage.

Weed Species	Rate (QT/A)	Hand-Held % Solution
Alfalfa*	0.8	1.6
Alligatorweed*	3.2	1.2
Anise (fennel)	1.6 - 3.2	0.8 - 1.6
Bahiagrass	2.4 - 4	1.6
Beachgrass, European (<i>Ammophila arenaria</i>)	—	4
Bentgrass*	1.2	1.6
Bermudagrass	4	1.6
Bermudagrass, water (knotgrass)	1.2	1.6
Bindweed, field	3.2 - 4	1.6
Bluegrass, Kentucky	1.6	1.6
Blueweed, Texas	3.2 - 4	1.6
Brackenfern	2.4 - 3.2	0.8 - 1.2
Bromegrass, smooth	1.6	1.6
Bursage, woolly-leaf	—	1.6
Canarygrass, reed	1.6 - 2.4	1.6
Cattail	2.4 - 4	1.6
Clover, red, white	2.4 - 4	1.6
Cogongrass	2.4 - 4	1.6
Dallisgrass	2.4 - 4	1.6
Dandelion	2.4 - 4	1.6
Dock, curly	2.4 - 4	1.6
Dogbane, hemp	3.2	1.6
Fescue (except tall)	2.4 - 4	1.6
Fescue, tall	0.8 - 2.4	1.6
German ivy	1.6 - 3.2	0.8 - 1.6
Guineagrass	2.4	0.8
Horsenettle	2.4 - 4	1.6
Horseradish	3.2	1.6
Iceplant	1.6	1.2 - 1.6
Jerusalem artichoke	2.4 - 4	1.6
Johnsongrass	1.6 - 2.4	0.8
Kikuyugrass	1.6 - 2.4	1.6
Knapweed	3.2	1.6
Lantana	—	0.8 - 1
Lespedeza	2.4 - 4	1.6
Milkweed, common	2.4	1.6
Muhly, wirestem	1.6	1.6
Mullein, common	2.4 - 4	1.6
Napiergrass	2.4 - 4	1.6
Nightshade, silverleaf	1.6	1.6
Nutsedge, purple, yellow	2.4	0.8 - 1.6
Orchardgrass	1.6	1.6
Pampasgrass	2.4 - 4	1.2 - 1.6
Paragrass	2.4 - 4	1.6
Pepperweed, perennial	3.2	1.6
Phragmites*	2.4 - 4	0.8 - 1.6
Poison hemlock	1.6 - 3.2	0.8 - 1.6
Quackgrass	1.6 - 2.4	1.6
Redvine*	1.6	1.6
Reed, giant	3.2 - 4	1.6
Ryegrass, perennial	1.6 - 2.4	0.8
Smartweed, swamp	2.4 - 4	1.6
Spurge, leafy*	—	1.6
Sweet potato, wild*	—	1.6
Thistle, artichoke	1.6 - 2.4	0.8 - 1.6
Thistle, Canada	1.6 - 2.4	1.6
Timothy	1.6 - 2.4	1.6
Torpedograss*	3.2 - 4	1.6
Trumpet creeper*	1.6 - 2.4	1.6
Vaseygrass	2.4 - 4	1.6
Velvetgrass	2.4 - 4	1.6
Wheatgrass, western	1.6 - 2.4	1.6

*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 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	2.4 - 3.2	0.8 - 1.2
Ash*	1.6 - 4	0.8 - 1.6
Aspen, quaking	1.6 - 2.4	0.8 - 1.2
Bearclover (Bearnat)*	1.6 - 4	0.8 - 1.6
Beech*	1.6 - 4	0.8 - 1.6
Birch	1.6	0.8
Blackberry	2.4 - 3.2	0.8 - 1.2
Blackgum	1.6 - 4	0.8 - 1.6
Bracken	1.6 - 4	0.8 - 1.6
Broom, French, Scotch	1.6 - 4	1.2 - 1.6
Buckwheat, California*	1.6 - 3.2	0.8 - 1.6
Cascara*	1.6 - 4	0.8 - 1.6
Catsclaw*	—	0.8 - 1.2
Ceanothus*	1.6 - 4	0.8 - 1.6
Chamise*	1.6 - 4	0.8
Cherry, bitter, black, pin	1.6 - 2.4	0.8 - 1.2
Coyote brush	2.4 - 3.2	1.2 - 1.6
Deerweed	1.6 - 4	0.8
Dogwood*	1.6 - 4	0.8 - 1.6
Elderberry	1.6	0.8
Elm*	1.6 - 4	0.8 - 1.6
Eucalyptus	—	1.6
Gorse*	1.6 - 4	0.8 - 1.6
Hasardia*	1.6 - 3.2	0.8 - 1.6
Hawthorn	1.6 - 2.4	0.8 - 1.2
Hazel	1.6	0.8
Hickory*	1.6 - 4	0.8 - 1.6
Honeysuckle	2.4 - 3.2	0.8 - 1.2
Hornbeam, American*	1.6 - 4	0.8 - 1.6
Kudzu	3.2	1.6
Locust, black*	1.6 - 3.2	0.8 - 1.6
Madrone sprouts*	—	1.6
Manzanita*	1.6 - 4	0.8 - 1.6
Maple, red	1.6 - 3.2	0.8 - 1.2
Maple, sugar	—	0.8 - 1.2
Monkey flower*	1.6 - 3.2	0.8 - 1.6
Oak, black, white*	1.6 - 3.2	0.8 - 1.6
Oak, post	2.4 - 3.2	0.8 - 1.2
Oak, northern, pin	1.6 - 3.2	0.8 - 1.2
Oak, scrub*	1.6 - 3.2	0.8 - 1.2
Oak, southern red	1.6 - 2.4	0.8 - 1.2
Peppertree, Brazilian (Florida holly)*	1.6 - 4	0.8 - 1.6
Persimmon*	1.6 - 4	0.8 - 1.6
Pine	1.6 - 4	0.8 - 1.6
Poison ivy	3.2 - 4	1.6
Poison oak	3.2 - 4	1.6
Poplar, yellow*	1.6 - 4	0.8 - 1.6
Redbud, eastern	1.6 - 4	0.8 - 1.6
Rose, multiflora	1.6	0.8
Russian olive*	1.6 - 4	0.8 - 1.6
Sage, black	1.6 - 3.2	0.8
Sage, white*	1.6 - 3.2	0.8 - 1.6
Sage brush, California	1.6 - 3.2	0.8
Salmonberry	1.6	0.8
Saltcedar*	1.6 - 4	0.8 - 1.6
Sassafras*	1.6 - 4	0.8 - 1.6
Sourwood*	1.6 - 4	0.8 - 1.6
Sumac, laurel, poison, smooth, sugarbush, winged*	1.6 - 3.2	0.8 - 1.6
Sweetgum	1.6 - 2.4	0.8 - 1.2
Swordfern*	1.6 - 4	0.8 - 1.6
Tallowtree, Chinese	—	0.8

Weed Species	Broadcast Rate (QT/A)	Hand-Held Spray-to-Wet % Solution
Tan oak resprouts*	—	1.6
Thimbleberry	1.6	0.8
Tobacco, tree*	1.6 - 3.2	0.8 - 1.6
Toyon*	—	1.6
Trumpet creeper	1.6 - 2.4	0.8 - 1.2
Vine maple*	1.6 - 4	0.8 - 1.6
Virginia creeper	1.6 - 4	0.8 - 1.6
Waxmyrtle, southern*	1.6 - 4	0.8 - 1.6
Willow	2.4	0.8
Yerba Santa*	—	1.6

*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. 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.

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All other trademarks are the property of their respective owners.

This product is protected by U.S. Patent No. 4,405,531. Other patents pending. No license granted under any non-U.S. patent(s).

EPA Reg. No. 524-529

In case of an emergency involving this product,
Call Collect, day or night, (314) 694-4000.

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MONSANTO COMPANY
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El herbicida profesional post-emergencia de amplio espectro completo para control de malezas en cultivos industriales, césped y plantas ornamentales.

Instrucciones completas para el uso

EVITE EL CONTACTO DEL HERBICIDA CON EL FOLLAJE, TALLOS VERDES, RAÍCES NO LEÑOSAS EXPUESTAS O FRUTOS EXPUESTOS DE LOS CULTIVOS, PLANTAS Y ÁRBOLES DESEABLES. EN CASO CONTRARIO ES PROBABLE QUE SUFRAN GRAVES DAÑOS O SEAN DESTRUIDOS TOTALMENTE.

Registro en la EPA N° 524-529

2010-1

GRUPO	9	HERBICIDA
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Antes de usar este producto, lea la etiqueta en su totalidad.

Úselo solamente de acuerdo con las instrucciones de la etiqueta.

No todos los productos recomendados en esta etiqueta han sido registrados para su uso en California.

Verifique el estado de registro de cada producto en California antes de utilizarlo.

Antes de comprar o usar el producto, lea "LÍMITES EN LA GARANTÍA Y EN LA RESPONSABILIDAD" en la última sección de la etiqueta. Si las condiciones son inaceptables para usted, devuelva el producto inmediatamente sin abrir el recipiente.

ESTE ES UN PRODUCTO PARA USARSE TAL Y COMO ESTÁ PREPARADO. MONSANTO NO LO HA DISEÑADO NI LO HA REGISTRADO PARA QUE SEA REFORMULADO. VEA LA ETIQUETA DEL ENVASE INDIVIDUAL PARA ENTERARSE DE LAS LIMITACIONES DE REEMPAQUE.

1.0 INGREDIENTES

INGREDIENTE ACTIVO:

* Glifosato, N-(fosfonometil)glicina, en forma de su sal de isopropilamina 50.2%
OTROS INGREDIENTES (incluyendo 13% de surfactante): 49.8%
100.0%

*Contiene 600 gramos por litro o 5 libras por galón americano del ingrediente activo glifosato, en forma de su sal de isopropilamina. Equivalente a 445 gramos por litro o 3.7 libras por galón americano del ácido, glifosato.

Este producto está protegido por la patente de los Estados Unidos No. 4,405,531. Otros patentes en trámite. No se han otorgado licencias bajo ninguna patente que no sea de los Estados Unidos.

2.0 TELÉFONOS IMPORTANTES

1. PARA INFORMACIÓN SOBRE EL PRODUCTO O AYUDA PARA UTILIZAR ESTE PRODUCTO, LLAME GRATIS AL

1-800-332-3111

2. EN CASO DE QUE SE PRESENTE UNA EMERGENCIA RELACIONADA CON ESTE PRODUCTO, O PARA OBTENER AYUDA MÉDICA, LLAME POR COBRAR A CUALQUIER HORA DEL DÍA O DE LA NOCHE, AL TELÉFONO,

(314)-694-4000

3.0 DECLARACIONES PREVENTIVAS

3.1 Riesgos para seres humanos y animales domésticos

Manténgase fuera del alcance de los niños.

¡PRECAUCIÓN!

CAUSA IRRITACIÓN MODERADA A LOS OJOS

Evite el contacto con los ojos, y con la ropa.

PRIMEROS AUXILIOS: Llame al centro de envenenamientos o a un médico para que le indique el tratamiento.	
SI ENTRA EN CONTACTO CON LOS OJOS	<ul style="list-style-type: none"> Mantenga abiertos los ojos y enjuague lenta y cuidadosamente con agua durante 15 a 20 minutos. Si usa lentes de contacto, quíteselos después de los primeros 5 minutos, y continúe enjuagando los ojos.
<ul style="list-style-type: none"> Tenga a mano el envase o la etiqueta del producto cuando llame al centro de envenenamientos o al médico, o cuando vaya a procurarse tratamiento. También puede llamar por cobrar al teléfono (314) 694-4000, día o noche, para obtener información sobre el tratamiento médico de urgencia. Este producto está identificado como herbicida Roundup PRO® Concentrate, Registro de la EPA N° 524-529. 	

ANIMALES DOMÉSTICOS: Este producto se considera relativamente no tóxico para los perros y otros animales domésticos; sin embargo, la ingestión de este producto o de grandes cantidades de vegetación recientemente tratada puede resultar en una irritación gastrointestinal temporal (vómito, diarrea, cólico, etc.). Si se observan dichos síntomas, dé al animal suficiente cantidad de líquidos para evitar la deshidratación. Si los síntomas continúan por más de 24 horas, llame al veterinario.

Equipo de protección personal (PPE)

Las personas a cargo de aplicar y manipular este producto deben utilizar: camisas de mangas largas y pantalones largos, además de zapatos y calcetines. Respete las instrucciones del fabricante para limpiar y mantener los equipos de protección personal

(PPE). Si no tiene las instrucciones para productos que se pueden lavar, utilice detergente y agua caliente. Conserve y lave los equipos de protección personal separados del resto de la ropa.

Deseche la ropa y otros materiales absorbentes que se hayan empapado o que se hayan contaminado mucho con el concentrado de este producto. No vuelva a utilizarlos.

En los casos en los cuales el personal encargado de manejar el producto lo hace en ambientes cerrados, cabinas cerradas o aviones, de manera tal que se cumplan los requisitos listados en "Worker Protection Standard (WPS) for agricultural pesticides" (Normas para la Protección de los Trabajadores que trabajan con pesticidas usados en la agricultura) [40 CFR 170.240 (d) (4-6)], los requisitos para el equipo de protección personal del trabajador pueden ser reducidos o modificados de acuerdo a lo que se especifica en las normas WPS.

IMPORTANTE: En los casos en que se utilice equipo de protección personal reducido debido al uso de un sistema cerrado, se debe suministrar a los trabajadores todo el equipo de protección personal detallado más arriba para "aplicadores y otros trabajadores" y deben tener el equipo disponible de inmediato para usar en una emergencia, por ejemplo un derrame o rotura de equipo.

Recomendaciones de seguridad para el usuario

El usuario debe:

- Lavarse las manos antes de comer, beber, mascar goma, usar tabaco o de usar el servicio higiénico.
- Quitarse la ropa inmediatamente en caso de que el pesticida entre dentro de ésta. Luego debe lavarse muy bien y ponerse ropa limpia.

3.2 Riesgos al medio ambiente

No aplique directamente al agua, en áreas donde el agua superficial esté presente o en áreas donde haya mareas altas y bajas por debajo del nivel medio de mareas altas. No contamine el agua cuando lave los equipos ni cuando elimine las aguas de lavado de los mismos.

3.3 Riesgos de orden físico o químico

Para mezclar, almacenar y aplicar la solución de rocío de este producto, se deben usar solamente recipientes de acero inoxidable, fibra de vidrio, plástico o recipientes de acero recubiertos internamente con plástico.

NO MEZCLE, ALMACENE O APLIQUE ESTE PRODUCTO O SUS SOLUCIONES DE ROCÍO EN RECIPIENTES O TANQUES ROCIADORES DE ACERO GALVANIZADO O DE ACERO NO RECUBIERTO (EXCEPTO SI ES ACERO INOXIDABLE). Este producto o la solución de rocío reaccionan con el material de dichos recipientes y tanques, lo cual produce hidrógeno, que puede formar una mezcla de gases altamente combustibles. Si esta mezcla de gases entra en contacto con llamas, chispas, el soplete de un soldador, un cigarrillo encendido o cualquier otra fuente de encendido, puede inflamarse o explotar y causar heridas graves a personas.

INSTRUCCIONES PARA EL USO

El uso de este producto de cualquier manera que sea inconsistente con las instrucciones dadas en la etiqueta es una violación de las leyes federales. Este producto sólo puede utilizarse de acuerdo con las indicaciones sobre el modo de empleo que figuran en esta etiqueta o en las etiquetas o fichas técnicas adicionales de Monsanto publicadas por separado. Puede consultar las etiquetas adicionales en Internet en www.agrian.com, www.cdms.net o www.greenbook.net, o bien puede solicitarlas a su vendedor minorista autorizado de Monsanto o a su representante de Monsanto Company.

No aplique este producto de alguna manera que entre en contacto con los trabajadores u otras personas, ya sea directamente o por medio de alguna corriente de aire. Solamente las personas que los manipulen y que usen equipo protector podrán estar en el área durante su aplicación. Para verificar requisitos específicos de su tribu o estado, consulte con la agencia responsable de la regulación del uso de pesticidas.

Requisitos para el uso en la agricultura

Use este producto siguiendo estrictamente las instrucciones de la etiqueta y de acuerdo con "Worker Protection Standard", 40 CFR Sección 170. Estas normas contienen los requisitos para proteger a los trabajadores agrícolas en haciendas, bosques, viveros e invernaderos, así como a aquellos trabajadores que manejan pesticidas usados en la agricultura. Las normas contienen los requisitos para entrenar, descontaminar, para dar aviso y para asistencia de emergencia. También contienen instrucciones específicas y excepciones que tienen que ver con el contenido de esta etiqueta en lo relacionado con el equipo para la protección personal (PPE) e intervalos de entrada restringida. Los requisitos mencionados en este envase se aplican únicamente a los usos de este producto que están regulados por las Normas para la Protección de los Trabajadores (WPS).

No entre ni permita la entrada de personal a las áreas tratadas durante el intervalo de entrada restringida (REI) de 4 horas.

El equipo de protección personal (PPE) permitido por el Estándar de Protección al Trabajador necesario para una entrada prematura a lugares tratados y que implique el contacto con cualquier cosa que haya sido tratada como plantas, suelo o agua, es: overoles/monos, zapatos y calcetines y guantes resistentes a los productos químicos hechos de cualquier material impermeable.

Requisitos para usos no agrícolas

Los requisitos en este envase son para los usos de este producto que NO están cubiertos por WPS (40 CFR Sección 170) para el uso de pesticidas en la agricultura. Las regulaciones del WPS se aplican cuando el producto se usa para obtener productos agrícolas en haciendas, bosques, viveros e invernaderos.

Mantenga a las personas y a los animales domésticos fuera de las áreas tratadas hasta que la solución de rocío se haya secado.

4.0 ALMACENAMIENTO Y ELIMINACIÓN

Son fundamentales el almacenamiento y la eliminación adecuados de los pesticidas para evitar la exposición de las personas y el medio ambiente como consecuencia de pérdidas y derrames del producto, excedentes o desechos y actos de vandalismo. No permita que este producto contamine el agua, los alimentos de las personas y animales o las semillas por medio del almacenamiento y la eliminación.

ALMACENAMIENTO DEL PESTICIDA: Guarde los pesticidas lejos de los alimentos para personas, los alimentos para mascotas, los alimentos para animales, las semillas, los fertilizantes y los materiales de uso veterinario. Mantenga el envase bien cerrado para evitar derramamientos y contaminación.

ELIMINACIÓN DEL PESTICIDA: Para evitar desechos, use todo el material contenido en este envase, incluyendo los residuos del enjuague, aplicándolo según las indicaciones de la etiqueta. Si no es posible evitar los desechos, ofrezca el producto restante a una planta de eliminación de desechos o a un programa de eliminación de pesticidas. Estos programas suelen ser manejados por gobiernos estatales o locales o por la industria. Todos los desechos deben seguir los procedimientos federales, estatales y locales aplicables.

ELIMINACIÓN DEL ENVASE: [PARA ENVASES DE PLÁSTICO RÍGIDO DE 2.5 GALONES U OTROS < / = 5 GALONES]

Envase no rellenable. No vuelva a usar este envase para contener materiales que no sean pesticidas o pesticidas diluidos (residuos del enjuague). Después de vaciar y limpiar el envase, puede contener temporalmente residuos del enjuague u otros materiales relacionados con pesticidas. Contacte al organismo de reglamentación de su estado para determinar las prácticas permitidas en su estado.

MANIPULACIÓN DEL ENVASE: Enjuague tres veces o enjuague por presión el envase (o equivalente) inmediatamente una vez vacío.

Enjuague tres veces de la siguiente forma: Vacíe el contenido restante del envase en el equipo de aplicación o en un tanque de mezcla y drene durante 10 segundos después de que el flujo comience a gotear. Llene el envase con agua hasta un 1/4 de su capacidad. Vuelva a colocar la tapa y ajústela bien. Agite durante 10 segundos. Vierta los residuos del enjuague en el equipo de aplicación o tanque de mezcla o guárdelo para uso o eliminación posterior. Drene durante 10 segundos después de que el flujo comience a gotear. Repita este procedimiento dos veces más.

Enjuague por presión de la siguiente forma: Vacíe el contenido restante del envase en el equipo de aplicación o en un tanque de mezcla y continúe drenando durante 10 segundos después de que el flujo comience a gotear. Sostenga el envase en posición invertida sobre el equipo de aplicación o el tanque de mezcla o recoja los residuos del enjuague para su uso o eliminación posterior. Inserte la boquilla de enjuague por presión en la parte lateral del envase y enjuague a una presión de aproximadamente 40 PSI durante 30 segundos como mínimo. Drene durante 10 segundos después de que el flujo comience a gotear.

Una vez limpios, algunos envases de pesticida de plástico pueden llevarse a un centro de acopio de envases o ser recogidos para su reciclaje. Para encontrar el centro más cercano, póngase en contacto con su distribuidor de productos químicos o con Monsanto en el 1-800-768-6387. Si no es posible reciclar el envase, perforo el envase y deséchelo en un relleno sanitario.

[PARA ENVASES DE PLÁSTICO RÍGIDO DE 30 GALONES U OTROS ENVASES DE MÁS DE 5 GALONES]

ELIMINACIÓN DEL ENVASE: Envase no rellenable. No vuelva a usar este envase para contener materiales que no sean pesticidas o pesticidas diluidos (residuos del enjuague). Después de vaciar y limpiar el envase, puede contener temporalmente residuos del enjuague u otros materiales relacionados con pesticidas. Contacte al organismo de reglamentación de su estado para determinar las prácticas permitidas en su estado.

MANIPULACIÓN DEL ENVASE: Enjuague tres veces o enjuague por presión el envase (o equivalente) inmediatamente una vez vacío.

Enjuague tres veces de la siguiente forma: Vacíe el contenido restante del envase en el equipo de aplicación o en un tanque de mezcla. Llene el envase con agua hasta un 1/4 de su capacidad. Vuelva a colocar la tapa y ajústela bien. Inclíne el envase sobre la parte lateral y hágalo rodar hacia atrás y hacia adelante durante 30 segundos, asegurándose de que dé al menos un giro completo. Apoye el envase sobre uno de los extremos e inclínelo hacia atrás y hacia adelante varias veces. Invierta el envase apoyándolo sobre el otro extremo e inclínelo hacia adelante y hacia atrás varias veces. Vierta los residuos del enjuague en el equipo de aplicación o en un tanque de mezcla o conserve los residuos del enjuague para su uso o eliminación posterior. Repita este procedimiento dos veces más.

Enjuague por presión de la siguiente forma: Vacíe el contenido restante del envase en el equipo de aplicación o en un tanque de mezcla y continúe drenando durante 10 segundos después de que el flujo comience a gotear. Sostenga el envase en posición invertida sobre el equipo de aplicación o el tanque de mezcla o recoja los residuos del enjuague para su uso o eliminación posterior. Inserte la boquilla de enjuague por presión en la parte lateral del envase y enjuague a una presión de aproximadamente 40 PSI durante 30 segundos como mínimo. Drene durante 10 segundos después de que el flujo comience a gotear.

Una vez limpios, algunos envases de pesticida de plástico pueden llevarse a un centro de acopio de envases o ser recogidos para su reciclaje. Para encontrar el centro más cercano, póngase en contacto con su distribuidor de productos químicos o con Monsanto en el 1-800-768-6387. Si no es posible reciclar el envase, perforo el envase y deséchelo en un relleno sanitario.

[IDIOMA DE LA ETIQUETA DEL ENVASE PARA RECIPIENTES PARA TRANSPORTE SEGÚN 40 CFR §156.3]

ELIMINACIÓN DEL ENVASE: Los envases vacíos conservan vapor y residuos del producto. Respete todas las precauciones indicadas en la etiqueta hasta que el envase haya sido limpiado, reacondicionado o destruido.

MANIPULACIÓN DEL ENVASE: Antes de rellenar, inspeccione con cuidado en busca de daños tales como rajaduras, perforaciones, desgastes y roscas o tapas gastados. Limpie minuciosamente antes de volver a usar para transportar un material de composición diferente o antes de retirar de servicio este recipiente para transporte.

5.0 INFORMACIÓN GENERAL

Descripción del producto: Este producto es un herbicida sistémico de aplicación post-emergencia foliar, sin actividad residual en el suelo. Controla un amplio espectro de malezas anuales, malezas perennes, matorrales leñosos y árboles. Está formulado como un líquido soluble en agua con surfactante.

Aparición de los síntomas: Este producto se mueve dentro de la planta desde el punto de aplicación sobre el follaje hasta las raíces. Los efectos visibles en la mayoría de las malezas anuales se pueden apreciar entre los 2 y los 4 días después de la aplicación, pero en la mayoría de las malezas perennes es posible que no se observen hasta después de 7 días o más. El frío extremo o el cielo muy nublado después de la aplicación pueden retardar la actividad del producto y hacer que el efecto visual se demore. Los efectos visibles incluyen que la planta se marchita y se vuelve amarilla de forma gradual, hasta que la parte exterior se torna completamente color café y las partes de la planta que están bajo tierra se deterioran completamente.

Modo de acción en las plantas: El ingrediente activo de este producto inhibe una enzima hallada sólo en las plantas que es esencial para la formación de aminoácidos específicos.

Prácticas culturales: Se podrá observar una reducción en el efecto si se aplica el producto a malezas anuales o perennes que hayan sido segadas, que hayan servido de alimento para animales o hayan sido cortadas, y que no hubiesen crecido nuevamente hasta el nivel recomendado para el tratamiento.

Resistencia a la lluvia: La lluvia torrencial poco después de la aplicación podrá lavar el producto del follaje y se requerirá una nueva aplicación para obtener un control adecuado.

No actividad en el suelo: Las malezas deben haber emergido en el momento de la aplicación para poder ser controladas por este producto. Las malezas que germinen de semillas después de la aplicación no serán controladas. Las plantas no emergidas con rizomas o raíces subterráneas de malezas perennes no conectadas no se verán afectadas por el herbicida.

Mezcla de tanque: Este producto no proporciona control de malezas residuales. Para realizar un control posterior de malezas residuales, siga un programa de herbicida aprobado en la etiqueta. Lea y siga cuidadosamente las indicaciones y toda la información en las etiquetas de todos los herbicidas utilizados. Utilice conforme con las declaraciones preventivas más restrictivas de cada producto en la mezcla de tanque.

Cuando en esta etiqueta se recomienda una mezcla de tanque con un ingrediente activo genérico como diuron, 2,4-D, o dicamba, el usuario asume la responsabilidad de asegurarse de que la aplicación específica que está preparando está incluida en la etiqueta del producto.

El comprador y todos los usuarios son responsables de todas las pérdidas o daños en relación con el uso o la manipulación de mezclas de este producto con herbicidas, u otros materiales que no se recomiendan expresamente en esta etiqueta. La mezcla de este producto con herbicidas u otros materiales no recomendados en esta etiqueta puede dar como resultado una reducción en su rendimiento.

Cantidades de aplicación máximas: Las cantidades de aplicación o uso máximas especificadas en esta etiqueta están expresadas en unidades de volumen (onzas líquidas o cuartos de galón) de este producto por acre. No obstante, las dosis máximas de aplicación permitidas corresponden al uso de este producto en combinación con todos los herbicidas que contienen glifosato como principio activo, tanto si son aplicados como mezclas de tanque o por separado, en función de las libras totales de glifosato (libras de ácido equivalente) por acre. Si se aplica más de un producto que contiene glifosato al mismo sitio dentro del mismo año, debe asegurarse de que el uso total de glifosato (libras de ácido equivalente) no exceda el máximo permitido. Vea en la sección "INGREDIENTES" de esta etiqueta información importante sobre el producto.

Excepto como se especifica, el total combinado de todos los tratamientos no debe exceder los 8.5 cuartos de galón de este producto (8 libras de ácido de glifosato) por acre por año.

ATENCIÓN

EVITE EL CONTACTO DEL HERBICIDA CON EL FOLLAJE, TALLOS VERDES, RAÍCES NO LEÑOSAS EXPUESTAS O FRUTOS EXPUESTOS DE LOS CULTIVOS, PLANTAS Y ÁRBOLES DESEABLES. EN CASO CONTRARIO ES PROBABLE QUE SUFRAN GRAVES DAÑOS O SEAN DESTRUIDOS TOTALMENTE.

EVITE LA DISPERSIÓN. TENGA MUCHO CUIDADO CUANDO APLIQUE ESTE PRODUCTO PARA EVITAR DAÑOS A PLANTAS Y CULTIVOS DESEABLES.

No permita que la solución de herbicida pulverice, gotee, se derive o salpique sobre la vegetación deseada, ya que minúsculas cantidades de este producto pueden causar daños graves o destrucción del cultivo, plantas u otras áreas que no se pretendía tratar. Las probabilidades de daño causado por el uso de este producto aumentan cuando hay viento con ráfagas, cuando la velocidad del viento aumenta, cuando la dirección del viento cambia constantemente o cuando hay otras condiciones meteorológicas que favorecen la deriva por rocío. Al rociar, evite las combinaciones de presión y tipo de boquillas que resulten en salpicaduras o partículas finas (niebla) que es probable que se dispersen. EVITE APLICAR A UNA VELOCIDAD O PRESIÓN EXCESIVA.

NOTA: El uso de este producto de cualquier manera contraria a las indicaciones contenidas en esta etiqueta, puede resultar en lesiones a personas, animales o cultivos o pueden ocurrir otras consecuencias no deseadas.

5.1 Gestión de resistencia de malezas

GRUPO

9

HERBICIDA

El glifosato, el principio activo de este producto, es un herbicida del grupo 9 según el sistema de clasificación de efecto de la Weed Science Society of America. Todas las poblaciones

de malezas pueden contener plantas naturalmente resistentes a los herbicidas del grupo 9. Las especies de malezas resistentes a los herbicidas del grupo 9 pueden tratarse con buenos resultados utilizando herbicidas de otro grupo o adoptando otras prácticas culturales o mecánicas.

Para reducir al mínimo la incidencia de biotipos resistentes al glifosato, respete las siguientes recomendaciones generales con respecto a la gestión de malezas:

- Haga un reconocimiento del sitio de la aplicación antes y después de haber aplicado herbicidas.
- Comience a controlar las malezas cuanto antes, cuando sean todavía relativamente pequeñas.
- Incorpore otros herbicidas y prácticas de cultivo o mecánicas como parte de su sistema de control de malezas cuando sea adecuado.
- Utilice la cantidad indicada en la etiqueta para las malezas más difíciles de controlar en el sitio. Evite las mezclas de tanque con otros herbicidas que reducen la eficacia de este producto (por antagonismo) o las recomendaciones de mezclas de tanque que alientan la utilización de cantidades de este producto inferiores a las recomendaciones de esta etiqueta.
- Controle las malezas omitidas e impida que echen semilla.
- Limpie los equipos antes de trasladarse de un sitio a otro para reducir al mínimo la propagación de semillas de malezas.
- Utilice semillas comerciales nuevas con la menor cantidad posible de semillas de malezas.
- Informe todo incidente por falta de rendimiento reiterado de este producto en una maleza determinada al representante de Monsanto, vendedor minorista de su localidad o agente de extensión del condado.

5.2 Recomendaciones de gestión de biotipos de malezas resistentes al glifosato

NOTA: Es fundamental realizar las pruebas adecuadas para confirmar la resistencia de la maleza al glifosato. Llame al 1-800-ROUNDUP (1-800-768-6387) o póngase en contacto con su representante de Monsanto para determinar si se confirmó la resistencia de algún biotipo de maleza en particular en su región, o visite en Internet www.weedresistancemanagement.com o www.weedscience.org.

Las recomendaciones de control para biotipos confirmados como resistentes al glifosato se dan a conocer con la publicación de etiquetas o fichas técnicas complementarias para este producto y puede solicitarlas al vendedor minorista o a su representante de Monsanto.

Debido a que no es posible determinar la existencia de nuevas malezas resistentes al glifosato hasta que se haya utilizado el producto y se cuente con la confirmación científica correspondiente, Monsanto Company no será responsable de ninguna pérdida que pudiera tener lugar en el caso de que este producto no lograra controlar de forma eficaz los biotipos de malezas resistentes al glifosato.

Siga buenas prácticas de gestión de malezas para evitar la propagación de biotipos resistentes confirmados.

- Si en su zona existe naturalmente un biotipo resistente, para lograr su control puede mezclar este producto en un tanque o aplicarlo secuencialmente con un herbicida debidamente etiquetado con efecto diferente.
- También se pueden utilizar prácticas de control culturales y mecánicas según corresponda.
- Haga un reconocimiento de los lugares tratados después de las aplicaciones de herbicida y controle las omisiones de biotipos resistentes antes de que echen semilla.
- Limpie minuciosamente los equipos antes de abandonar los lugares que se saben que contienen biotipos resistentes.

6.0 MEZCLA

Las soluciones de rocío de este producto se deben mezclar, almacenar y aplicar utilizando únicamente envases limpios de acero inoxidable, fibra de vidrio, plástico o acero revestido con plástico. Tenga cuidado para evitar que se forme un sifón de retorno hacia la sustancia vehicular. Use dispositivos aprobados para evitar la formación de sifones de retorno cuando corresponda según las reglamentaciones estatales o locales.

NO MEZCLE, ALMACENE NI APLIQUE ESTE PRODUCTO NI SOLUCIONES DE ROCÍO DE ESTE PRODUCTO EN ENVASES DE ACERO GALVANIZADO O ACERO NO REVESTIDO (SALVO ACERO INOXIDABLE) NI EN TANQUES DE ROCÍO.

Limpie las piezas del rociador inmediatamente después de su utilización lavándolas bien con agua.

6.1 Mezcla con agua

NOTA: EL RENDIMIENTO DEL PRODUCTO PODRÍA REDUCIRSE CONSIDERABLEMENTE SI SE UTILIZA AGUA CON SEDIMENTOS DE TIERRA COMO SUSTANCIA VEHICULAR. NO MEZCLE ESTE PRODUCTO CON AGUA VISIBLEMENTE EMBARRADA O AGUA NO TRANSPARENTE DE ESTANQUES O ACEQUIAS.

Este producto se mezcla fácilmente con agua. La solución de rocío se debe mezclar de la siguiente manera: Ponga la cantidad requerida de agua en el tanque en el cual se va a preparar la mezcla o el tanque del rocío. Agregue la cantidad recomendada de este producto cuando ya está cerca de completarse el llenado con agua y mezcle con cuidado. Tenga cuidado para evitar que se forme un sifón de retorno hacia la sustancia vehicular. Use dispositivos aprobados para evitar la formación de sifones de retorno cuando corresponda.

según las reglamentaciones estatales o locales. Es posible que durante la mezcla, la solución de rocío produzca espuma. Para evitar o minimizar la formación de espuma, mezcle con cuidado, tapone las derivaciones y mangueras de retorno en el fondo del tanque y, si es necesario, use compuestos aprobados para evitar la formación de espuma o para eliminar la espuma ya formada.

6.2 Mezclas de tanque

Este producto no proporciona control de malezas residuales. Este producto puede mezclarse en un tanque con otros herbicidas para lograr el control de malezas residuales, un espectro de control de malezas más amplio o un efecto alternativo. Lea y siga siempre las indicaciones de las etiquetas de todos los productos utilizados en la mezcla de tanque. Utilice conforme con las declaraciones preventivas más restrictivas de cada producto en la mezcla.

Cuando en esta etiqueta se recomienda una mezcla de tanque con un ingrediente activo genérico como diuron, atrazina, 2,4-D, o dicamba, el usuario asume la responsabilidad de asegurarse de que la aplicación específica que está preparando está incluida en la etiqueta del producto que está utilizando en la mezcla de tanque. Consulte todas las etiquetas de cada uno de los productos, las etiquetas complementarias y las Fichas Técnicas de todos los productos de la mezcla de tanque, y respete todas las precauciones y limitaciones de la etiqueta, incluidas las restricciones de la época de aplicación, las restricciones de la tierra, y utilice conforme con las declaraciones preventivas más restrictivas de cada producto en la mezcla de tanque.

A fin de minimizar la formación de espuma, mantenga las tuberías de retorno lo más cerca del fondo del tanque. La malla de la rejilla en la boquilla o en los coladores de las mangueras no debería ser de menos de 50 hilos.

Siempre determine con anticipación la compatibilidad de todos los productos de la mezcla de tanque juntos en la sustancia vehicular, mezclando antes pequeñas cantidades proporcionales. Asegúrese de que la mezcla en tanque específica esté registrada para su aplicación en el área deseada.

Cuando en esta etiqueta se recomienda una mezcla de tanque con un ingrediente activo genérico como 2,4-D, atrazina, dicamba, diuron, o pendimethalin, el usuario asume la responsabilidad de asegurarse de que la aplicación específica que está preparando está incluida en la etiqueta del producto que está utilizando en la mezcla de tanque.

Consulte todas las etiquetas de cada uno de los productos, las etiquetas complementarias y las Fichas Técnicas de todos los productos de la mezcla de tanque, y respete todas las precauciones y limitaciones de la etiqueta, incluidas las restricciones de la época de aplicación, las restricciones de la tierra, el intervalo mínimo para volver a cosechar, y las pautas en cuanto a la rotación. Utilice conforme con las declaraciones preventivas más restrictivas de cada producto en la mezcla de tanque.

Siempre determine con anticipación la compatibilidad de todos los productos de la mezcla de tanque juntos en la sustancia vehicular, mezclando antes pequeñas cantidades proporcionales.

6.3 Mezcla para rociadores de mano

Prepare el volumen deseado de solución de rocío mezclando en agua la cantidad indicada de este producto, como se indica en la siguiente tabla:

Solución de rocío

Cantidad de herbicida Concentrado Roundup PRO

Volumen deseado	0.4%	0.8%	1.2%	1.6%	4.0%	8.0%
1 Gal	0.5 oz	1.0 oz	1.6 oz	2.1 oz	5.2 oz	10.5 oz
25 Gallons	13.0 oz	0.8 qt	1.2 qt	1.6 qt	4.0 qt	8.0 qt
100 Gallons	1.6 qt	0.8 gal	1.2 gal	1.6 gal	4.0 gal	8.0 gal

2 cucharadas soperas = 1 onza líquida

Cuando se usen rociadores tipo mochila, o para bombeo, se recomienda que este producto se mezcle con agua en un recipiente grande. Llene el rociador con la solución ya lista.

6.4 Colorantes o tinturas

Se pueden agregar colorantes o tinturas de señalización a las soluciones de rocío de este producto, sin embargo, el rendimiento del producto puede ser inferior, especialmente a bajas concentraciones del producto o a bajas diluciones. Utilice los colorantes o las tinturas según las recomendaciones del fabricante.

7.0 EQUIPOS Y TÉCNICAS PARA LA APLICACIÓN

No use ningún sistema de irrigación para aplicar este producto.

APLIQUE ESTAS SOLUCIONES DE ROCÍO UTILIZANDO EQUIPOS DEBIDAMENTE MANTENIDOS Y CALIBRADOS QUE SEAN CAPACES DE ROCIAR EL VOLUMEN DESEADO.

7.1 Equipo aéreo

NO APLIQUE ESTE PRODUCTO CON EQUIPOS AÉREOS EXCEPTO BAJO LAS CONDICIONES QUE SE ESPECIFICAN EN ESTA ETIQUETA.

Para aplicaciones áreas por difusión, a menos que se indique otra cosa, use este producto a una dosis de 0.8 a 1.6 cuartos por acre para malezas anuales, 1.6 a 4 cuartos por acre para malezas perennes y 4 a 8 cuartos por acre para matorrales leñosos y árboles. Use

las dosis que se indican en la etiqueta de este herbicida en 3 a 25 galones de agua por acre. Cuando se usa de acuerdo con las instrucciones de la etiqueta, este producto brinda control o control parcial de las malezas herbáceas, matorrales leñosos y árboles mencionados en la sección **TIPOS DE MALEZAS CONTROLADAS** de esta etiqueta.

EN CASO DE APLICACIÓN AÉREA EN CALIFORNIA, CONSULTE EN LA ETIQUETA COMPLEMENTARIA FEDERAL LAS INSTRUCCIONES, LAS RESTRICCIONES Y LOS REQUISITOS ESPECÍFICOS PARA APLICACIONES AÉREAS EN ESE ESTADO O CONDADO. Este producto, al ser mezclado en tanques con dicamba, no se puede aplicar por aire en el estado de California.

Al mezclar en tanque este producto con 2,4-D, solo se pueden utilizar formulaciones de 2,4-D amina para la aplicación aérea en California. Las mezclas de tanque con formulaciones de 2,4-D amina se pueden aplicar por aire en California sólo para los sistemas de labranza con barbecho o reducida, y aplicaciones de alfalfa y renovación de pasturas.

No permita que la solución de herbicida pulverice, gotee, se derive o salpique sobre la vegetación deseada, ya que minúsculas cantidades de este producto pueden causar daños graves o destrucción del cultivo, plantas u otras áreas que no se pretendía tratar.

Evite la aplicación directa en masas de agua.

Se pueden utilizar aditivos para el control de la deriva. Cuando utilice un aditivo para el control de la deriva, lea detenidamente y siga al pie de la letra todas las precauciones, limitaciones y el resto de la información de la etiqueta del producto.

Asegúrese de aplicar uniformemente, para evitar la aplicación en surcos, irregular o encimada, utilice dispositivos de señalización apropiados.

EL CONTACTO PROLONGADO DE ESTE PRODUCTO CON PARTES DE ACERO QUE NO ESTÁ RECUBIERTO CON ALGÚN TIPO DE PROTECCIÓN, PUEDE DAR COMO RESULTADO LA CORROSIÓN Y POSIBLEMENTE QUE LAS PARTES FALLEN. Es posible prevenir la corrosión recubriendo las partes con pintura orgánica, que cumpla con las especificaciones aero-espaciales MIL-C-38413. Al final de cada día de trabajo, para evitar la corrosión de las partes expuestas, lave muy bien el avión a fin de remover los residuos de este producto que se acumulan durante el rocío o por derramamientos. Las partes del tren de aterrizaje son extremadamente susceptibles.

MANEJO DE LA DISPERSIÓN DEL ROCÍO

EVITE LA LA DISPERSIÓN. DEBE USARSE EXTREMO CUIDADO EN LA APLICACIÓN DE ESTE PRODUCTO PARA EVITAR DAÑOS A LA VEGETACIÓN DESEADA Y A LOS CULTIVOS.

No permita que la solución de herbicida pulverice, gotee, se derive o salpique sobre la vegetación deseada, ya que minúsculas cantidades de este producto pueden causar daños graves o destrucción del cultivo, plantas u otras áreas que no se pretendía tratar.

Es la responsabilidad del aplicador evitar la deriva por rocío en el lugar de aplicación. La interacción de varios factores relacionados con el clima y el equipo determina la posibilidad de deriva por rocío. El aplicador y/o el cultivador son responsables de considerar todos estos factores al tomar decisiones.

MANEJO DE LA DISPERSIÓN DEL ROCÍO AÉREO

Deben seguirse los siguientes requerimientos de manejo de la dispersión para evitar el movimiento de ésta fuera de objetivo en aplicaciones aéreas a campos de cultivo agrícola.

1. La distancia de la boquilla más externa en el brazo no debe exceder 3/4 del largo de la envergadura o rotor.
2. Las boquillas deben siempre apuntar hacia atrás, paralelos a la corriente de aire, nunca hacia abajo más de 45 grados. En los estados con reglamentos más estrictos, éstos deben observarse.

Importancia del tamaño de la gotita

La forma más eficaz de reducir la posibilidad de deriva es la aplicación de gotitas grandes. La mejor estrategia de manejo de la deriva es la aplicación de las gotitas más grandes que provean suficiente cobertura y control. La aplicación de gotitas más grandes reduce la posibilidad de deriva, pero no la evitará si las aplicaciones se realizan inadecuadamente o bajo condiciones ambientales desfavorables (vea las secciones de **Viento, Temperatura y humedad, e Inversiones de temperatura** en esta etiqueta).

Control del tamaño de la gotita

- **Volumen:** Use boquillas de velocidad de flujo alta para aplicar el mayor volumen de rocío práctico. Las boquillas con mayores velocidades de flujo producen gotitas más grandes.
- **Presión:** Use las presiones de rocío más bajas recomendadas para la boquilla. La presión más alta reduce el tamaño de la gotita y no mejora la penetración del todo. Cuando sean necesarias velocidades de flujo mayores, use boquillas con velocidad de flujo mayor en lugar de aumentar la presión.
- **Número de boquillas:** Use el número mínimo de boquillas que provean cobertura uniforme.
- **Orientación de la boquilla:** Si orienta las boquillas de modo que liberen el rociado hacia atrás, en sentido paralelo a la circulación del aire, producirán gotas más grandes que si las orienta de otro modo. Cuanto más desviadas estén del plano horizontal, tanto más pequeñas serán las gotas y tanto mayor el potencial de dispersión.
- **Tipo de boquilla:** Use un tipo de boquilla que esté diseñada para la aplicación prevista. Con la mayoría de los tipos de boquillas, los ángulos de rocío más angostos producen gotitas más grandes. Considere el uso de boquillas de poca dispersión. Las boquillas de caudal directo orientadas directamente hacia atrás producen gotas más grandes que otros tipos de boquillas.
- **Longitud del brazo:** Para algunos esquemas de uso, la reducción de la longitud efectiva del brazo a menos de 3/4 de la envergadura o el largo del rotor puede reducir más la deriva sin reducir el ancho de la hilera.
- **Altura de la aplicación:** Las aplicaciones no deben realizarse a una altura mayor que 10 pies por encima de la copa de las plantas más grandes, a menos que se requiera mayor altura por razones de seguridad del aeroplano. La realización de las aplicaciones a la menor altura que sea segura reduce la exposición de las gotitas a la evaporación y el viento.

Ajuste de la hilera

Cuando las aplicaciones se lleven a cabo con viento lateral, la banda de aspersión se desplazará a favor del viento. Por ello, en los extremos con o contra el viento del campo, el aplicador debe compensar este desplazamiento ajustando la trayectoria del aeroplano contraria al viento. La distancia de ajuste de la hilera debe aumentar, cuando aumenta la posibilidad de deriva (mayor viento, gotitas más pequeñas, etc.).

Viento

La posibilidad de deriva es menor con velocidades del viento entre 2 y 10 mph. Sin embargo, muchos factores, incluyendo el tamaño de las gotitas y el tipo de equipo determinan la posibilidad de deriva a una velocidad determinada. Debe evitarse la aplicación menos de 2 mph debido a la dirección variable del viento y la posibilidad alta de inversión. NOTA: El terreno local puede influir en los patrones de viento. Cada aplicador debe conocer los patrones (vientos) locales y cómo éstos afectan la deriva.

Temperatura y humedad

Cuando se realizan aplicaciones con humedad relativa baja, fije el equipo para que produzca gotitas más grandes para compensar por la evaporación. La evaporación de gotitas es más grave cuando las condiciones son calurosas y secas.

Inversiones de temperatura

No deben realizarse aplicaciones durante una inversión de temperatura debido a que es alta la posibilidad de deriva. Las inversiones de temperatura restringen la mezcla de aire vertical, lo que causa que pequeñas gotitas suspendidas permanezcan en una nube concentrada. Esta nube puede moverse en direcciones no predecibles debido a los vientos variables leves que son comunes durante las inversiones. Las inversiones de temperatura están caracterizadas por temperaturas en aumento con altitud y son comunes en las noches con cobertura de nubes limitada y poco o ningún viento. Comienzan a formarse cuando se mete el sol y a menudo continúan en la mañana. Su presencia puede indicarse por neblina en el suelo; sin embargo, si la neblina no está presente, las inversiones también pueden identificarse por el movimiento del humo desde una fuente del suelo o por el generador de humo de un aeroplano. El humo en capas que se mueve lateralmente en una nube concentrada (bajo condiciones de poco viento) indica una inversión, mientras que el humo que se mueve hacia arriba y se disipa rápidamente indica buena mezcla de aire vertical.

Áreas sensibles

Este producto sólo se debe aplicar cuando la posibilidad de deriva hacia zonas adyacentes susceptibles (como por ejemplo, áreas residenciales, masas de agua, hábitat conocido de especies amenazadas o en peligro de extinción, cultivos que no sean el objetivo) sea mínima. (como por ejemplo, cuando el viento sople lejos de las áreas susceptibles).

7.2 Equipo de difusión terrestre

Para aplicaciones de difusión terrestre, a menos que se indique otra cosa, use este producto a una dosis de 0.8 a 1.6 cuartos por acre para malezas anuales, 1.6 a 4 cuartos por acre para malezas perennes y 4 a 8 cuartos por acre para matorrales leñosos y árboles. Cuando se usa de acuerdo con las instrucciones de la etiqueta, este producto brinda control o control parcial de las malezas herbáceas, matorrales leñosos y árboles mencionados en la sección **TIPOS DE MALEZAS CONTROLADAS** de esta etiqueta.

Use las proporciones recomendadas de este producto con 3 a 40 galones de agua por acre para rocíos por difusión, a menos que se indique de otra manera. A medida que la densidad de las malezas aumenta, el volumen de rocío se debe aumentar también para conseguir una cobertura completa, pero siempre dentro de los límites recomendados. A fin de evitar un rocío muy fino, seleccione la boquilla cuidadosamente. Para obtener mejores resultados con equipo a nivel del terreno, use boquillas tipo abanico plano. Asegúrese de que las gotas del rocío se distribuyan uniformemente.

7.3 Equipos de mano o mochila

Aplique al follaje de la vegetación a ser controlada. En aplicaciones donde se pulveriza hasta mojar, la cobertura del follaje debe ser completa y uniforme. No rocíe hasta el punto de escurrimiento. Use rociadores gruesos solamente.

Para control de malezas mencionadas en la sección **Malezas anuales** de **TIPOS DE MALEZAS CONTROLADAS**, aplicar una solución al 0.4 por ciento de este producto a malezas de menos de 6 pulgadas de altura o largo de los tallos. Para malezas anuales de más de 6 pulgadas de altura, o a menos que se indique otra cosa, use una solución al 0.8 por ciento. Haga la aplicación antes de la formación de semillas en caso de pastos, o la formación de yemas en caso de malezas de hoja ancha.

Para obtener los mejores resultados, utilice una solución al 1.6 por ciento en malezas perennes más difíciles de controlar, como bermudagrass, acedera, field bindweed, hemp dogbane, milkweed y cardo de Canadá (Canada thistle).

Para aplicaciones directas con rocío de bajo volumen, utilice una solución al 4 a 8 por ciento de este producto para control o control parcial de malezas anuales, malezas perennes o matorrales leñosos y árboles. La cobertura del rocío deberá ser uniforme y deberá haber contacto con al menos 50 por ciento del follaje. Es importante lograr la cobertura de la mitad superior de la planta para lograr los mejores resultados. Para asegurar una adecuada cobertura con el rocío, rocíe ambos lados de los matorrales leñosos o árboles grandes o altos, cuando el follaje sea espeso y denso o cuando haya muchos brotes.

7.4 Equipo especializado

Este producto puede ser diluido con agua y aplicado usando rociadores de recirculación, aplicadores con pantalla, rociadores con capucha, aplicadores con enjugador o barras de esponja, sobre las malezas indicadas que crecen en cualquier lugar no cultivado indicado en esta etiqueta.

Los rociadores de recirculación dirigen la solución de rocío hacia los tipos de malezas que crecen sobre vegetación deseable, mientras que la solución de rocío que no ha sido interceptada por las malezas se recoge y se retorna al tanque para volverla a usar. **EVITE EL CONTACTO DEL HERBICIDA CON LA VEGETACIÓN DESEABLE, YA QUE ES PROBABLE QUE OCURRA DAÑO GRAVE O MUERTE DE LA VEGETACIÓN.**

El equipo de aplicación que se utilice por encima de la vegetación deseable debe ajustarse de manera que el chorro de rocío o punto de contacto del enjugador esté al menos 2 pulgadas por encima de la vegetación deseable. Es probable que las gotas, niebla, espuma o salpicaduras de la solución de herbicida sobre la vegetación deseable provoquen decoloración, atrofia o destrucción.

Se obtienen mejores resultados cuando una mayor cantidad de la maleza entra en contacto con la solución de herbicida. Las malezas que no entran en contacto con la solución de herbicida no serán afectadas. Esto puede ocurrir en lugares donde las malezas están muy concentradas, cuando la infestación es grave o donde la altura de las malezas es variada, lo que no permite que todas sean tocadas por el herbicida. En estos casos puede ser necesario repetir el tratamiento.

Aplicadores con pantalla y con capucha

Los aplicadores con pantalla o con capucha aplican la solución de herbicida directamente sobre las malezas, al mismo tiempo que protegen la vegetación deseable, para que no sea tocada por el herbicida.

Use boquillas que aseguren un recubrimiento uniforme en toda el área tratada. En los rociadores con pantalla, mantenga las pantallas debidamente colocadas a fin de proteger la vegetación deseada. **SE DEBE TENER MUCHO CUIDADO PARA EVITAR EL CONTACTO DEL HERBICIDA CON LA VEGETACIÓN DESEABLE.**

Aplicadores con enjugador y barras de esponja

Los aplicadores con enjugador o de esponja aplican la solución de herbicida frotando las malezas con un material absorbente que contenga la solución de herbicida.

El equipo debe ser diseñado, mantenido y operado de manera que la solución de herbicida no haga contacto con la vegetación deseable. Opere este equipo a velocidades inferiores a las 5 millas por hora. En áreas donde la infestación de malezas es grave, se puede mejorar la eficacia reduciendo la velocidad, así se asegura que el enjugador esté siempre adecuadamente saturado. Se obtienen mejores resultados si se aplica 2 veces en direcciones opuestas.

Evite las filtraciones o el goteo en la vegetación deseable. Ajuste la altura de los aplicadores a fin de asegurar un contacto adecuado con las malezas. Mantenga limpias las superficies de enjugado. Tenga en cuenta que, en terreno en declive, la solución de herbicida puede cambiar de lugar, goteando en el extremo inferior y secando las mechas en el extremo superior del aplicador con enjugador.

No use aplicadores con enjugador cuando las malezas estén mojadas.

Mezcle solamente la cantidad de solución que se usará durante el período de un día, debido a que el uso de soluciones de días anteriores puede dar como resultado un efecto menos eficiente. Inmediatamente después de usar este producto, lave bien el aplicador usando bastante agua.

Para aplicadores de cordón o de mecha de esponja: Puede emplearse soluciones que oscilan entre 33 al 75 por ciento de este producto en agua.

Para aplicadores de plástico poroso y sistemas de alimentación por presión: Puede emplearse soluciones que oscilan entre 33 al 100 por ciento de este producto en agua.

Cuando se aplica de acuerdo a las recomendaciones, este producto **CONTROLA** las siguientes malezas:

Corn, volunteer	Sicklepod
Panicum, Texas	Spanishneedles
Rye, common	Starbur, bristly
Shattercane	

Cuando se aplica de acuerdo a las recomendaciones, este producto **SUPRIME** las siguientes malezas:

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 Sistemas por inyección

Este producto puede usarse con sistemas de rocío por inyección, ya sean aéreos o a nivel del terreno. Puede usarse como concentrado líquido o diluido antes de la inyección en el chorro de rocío. No mezcle este producto con concentraciones de otros productos sin diluir cuando use los sistemas por inyección, a menos que se indique de manera específica.

7.6 Equipo de aplicación por goteo controlado

La proporción de este producto aplicado por acre usando el equipo de aplicación por goteo controlado (CDA) no debe ser menor que la cantidad indicada en esta etiqueta cuando se usa equipo convencional para aplicaciones de difusión. Cuando se usa el

equipo aplicador por goteo controlado montado en un vehículo, use de 3 a 15 galones de agua por acre.

El equipo de aplicación por goteo controlado produce un patrón de rocío que no puede verse fácilmente. Se debe tener mucho cuidado para evitar que el rocío o la deriva entren en contacto con el follaje o con cualquier otro tejido de vegetación deseable, ya que es probable que ocurra daño o destrucción.

8.0 INSTRUCCIONES SEGÚN ÁREAS Y USO

Este producto puede usarse en áreas no cultivables como aeropuertos, conjuntos de apartamentos, sitios comerciales, orillas de acequias, caminos de entrada de automóviles, acequias secas, canales secos, filas de vallas, campos de golf, invernaderos, zonas industriales, áreas de paisaje, depósitos de madera, zonas de manufactura, solares municipales, zonas naturales, complejos de oficinas, cultivos ornamentales, parques, áreas de estacionamiento, pasturas, zonas con tanques de petróleo e instalaciones de bombeo, vías de ferrocarril, praderas, áreas recreativas, áreas residenciales, derechos de paso, bordes de carreteras, escuelas, umbráculos, complejos deportivos, áreas de almacenamiento, subestaciones, zonas de césped, zonas de servicios públicos, zonas de almacenes, y zonas en las que se realiza gestión de vida silvestre.

Este producto también puede utilizarse en sitios para cultivos no alimenticios, como plantaciones de árboles de Navidad, viveros, o sitios para la producción de tepes o semilla de césped.

A menos que se indique otra cosa, es posible realizar aplicaciones para controlar cualquier maleza mencionada en la sección TIPO DE MALEZAS CONTROLADAS de esta etiqueta.

8.1 Tocones cortados

El tratamiento de tocones cortados puede hacerse en cualquier área indicada en esta etiqueta. Este producto controla muchas especies de matorrales leñosos y árboles. Aplique este producto usando equipo adecuado para garantizar la cobertura completa del cámbium. Corte los árboles o sus brotes cerca de la superficie del suelo. Aplique una solución de este producto del 50 al 100 por ciento a la superficie recién cortada, inmediatamente después del corte. Demorar la aplicación puede reducir la eficacia del producto. Para obtener mejores resultados, la aplicación deberá hacerse durante los periodos de crecimiento activo y expansión completa de las hojas.

NO HAGA LAS APLICACIONES SOBRE TOCONES CORTADOS CUANDO LAS RAÍCES DE LOS MATORRALES LEÑOSOS O ÁRBOLES DESEABLES PUEDEN ESTAR INJERTADAS A LAS RAÍCES DE LOS TOCONES CORTADOS. Algunos brotes, tallos o árboles pueden compartir el mismo sistema radicular. Árboles que están contiguos, que tienen la misma edad, altura y separación pueden indicar raíces compartidas. Cuando se trata de uno o más árboles que tienen raíces en común, tanto si están injertados como si comparten el sistema radicular, es probable que se produzca un daño en los brotes/ árboles no tratados.

8.2 Preparación del lugar para forestación

Este producto puede ser utilizado para controlar o controlar parcialmente malezas leñosas, árboles y malezas herbáceas en forestaciones, y preparar o crear claros para la vida silvestre en estos lugares y para mantener los caminos de las explotaciones forestales.

Este producto puede ser utilizado para preparar el lugar antes de plantar cualquier especie de árbol, como árboles de Navidad, eucaliptos, cultivos de árboles híbridos y viveros dedicados a la silvicultura.

Consulte la sección **TIPOS DE MALEZAS CONTROLADAS** de esta etiqueta para informarse acerca de las proporciones e instrucciones específicas para la aplicación. Use las dosis más altas de este producto dentro del rango especificado para el control o control parcial de matorrales leñosos, árboles y malezas herbáceas perennes difíciles de controlar. Para lograr los mejores resultados, aplique a matorrales leñosos y árboles en activo crecimiento después del desarrollo total de las hojas y antes de que las hojas cambien de color y caigan en el otoño. Aumente las dosis dentro del rango especificado para controlar malezas herbáceas en cualquier momento después de la emergencia y antes de que aparezcan las semillas, flores o bayas.

Use las menores dosis de este producto dentro del rango indicado en la etiqueta para el control anual de las malezas herbáceas anuales y las malezas herbáceas perennes en activo crecimiento después de la aparición de las semillas, flores o bayas. Aplique al follaje de malezas herbáceas anuales en activo crecimiento en cualquier momento después de la emergencia.

Este producto carece de actividad herbicida o residual en la tierra.

A menos que se indique otra cosa, no aplique este producto como rocío por difusión en la parte superior en coníferas para forestación o árboles de madera dura.

MEZCLAS PARA TANQUE: Se pueden emplear mezclas de tanque con este producto para aumentar el espectro de la vegetación controlada. Este producto se puede mezclar en tanque con los siguientes productos, siempre que éstos estén aprobados para el área de uso deseada. Consulte las etiquetas de estos productos para informarse sobre las áreas de uso y las dosis de aplicación aprobadas. Lea y siga cuidadosamente las indicaciones y toda la información en las etiquetas de todos los herbicidas utilizados. Use conforme a las declaraciones preventivas más estrictas indicadas para cada producto en la mezcla.

NOTA: Para la preparación de sitios de forestación, asegúrese de que el producto para mezclar en tanque esté aprobado antes de plantar las especies deseadas. Respete las restricciones del intervalo de plantación.

Todas las proporciones recomendadas de este producto se pueden utilizar en una mezcla de tanque con los siguientes productos para la preparación de sitios de forestación.

Concentrado para aplicadores Arsenal	Garlon 3A
Chopper	Garlon 4
Escort	Oust
Escort XP	Oust XP

Para controlar malezas herbáceas, utilice las proporciones de menor concentración recomendadas para la mezcla de tanque. Para controlar grupos densos o difíciles de arbustos leñosos y árboles, utilice las proporciones de mayor concentración recomendadas en mezcla de tanque.

8.3 Áreas no cultivadas y áreas industriales

Úselo aeropuertos, conjuntos de apartamentos, plantaciones de árboles de Navidad, sitios comerciales, Programa de conservación de reservas (CRP), orillas de acequias, caminos de entrada de automóviles, acequias secas, canales secos, filas de vallas, campos de golf, invernaderos, zonas industriales, áreas de paisaje, depósitos de madera, zonas de manufactura, solares municipales, zonas naturales, complejos de oficinas, cultivos ornamentales, parques, áreas de estacionamiento, pasturas, zonas con tanques de petróleo e instalaciones de bombeo, viveros, vías de ferrocarril, praderas, áreas recreativas, áreas residenciales, derechos de paso, bordes de carreteras, escuelas, sitios para la producción de tepes o semilla de césped, complejos deportivos, áreas de almacenamiento, subestaciones, zonas de césped, zonas de servicios públicos, zonas de almacenes, y zonas en la que se realiza gestión de vida silvestre.

Control general de malezas, recortado de bordes y suelo limpio de malezas

Este producto puede utilizarse en áreas generales no cultivadas y de cultivos no alimenticios. Puede aplicarse con cualquiera de los equipos descritos en esta etiqueta. Puede usarse para el recortado de bordes alrededor de objetos en áreas no cultivadas, para tratamiento localizado de vegetación no deseable y para eliminar las malezas no deseables que crecen en lechos de arbustos establecidos y plantaciones ornamentales. Este producto puede usarse antes de plantar un área con plantas ornamentales, flores, césped (tepes o semillas), o antes de colocar asfalto o de comenzar un proyecto de construcción.

Se pueden repetir las aplicaciones de este producto, a medida que emergen las malezas, para mantener el suelo libre de malezas.

MEZCLAS DE TANQUE: Este producto se puede mezclar en un tanque con los siguientes productos, siempre que éstos estén aprobados para el área de uso deseada. Consulte las etiquetas de estos productos para informarse sobre las áreas de uso y las dosis de aplicación aprobadas. Lea y siga cuidadosamente las indicaciones y toda la información en las etiquetas de todos los herbicidas utilizados. Utilice conforme con las declaraciones preventivas más restrictivas de cada producto en la mezcla.

El usuario es responsable de garantizar que en la etiqueta del producto utilizado en la mezcla estén permitidas las aplicaciones específicas cuando se realicen mezclas de tanque con un ingrediente activo genérico de los mencionados a continuación.

2,4-D ¹	Gallery 75 DF	Ronstar 50 WP
Arsenal	Garlon 3A	Sahara DG
atrazine ¹	Garlon 4	Surflan AS
Banvel	Goal 2XL	Surflan WDG
Barricade 65WG	Krovar I DF	simazine ¹
dicamba	Oust	Telar DF
dioron	Oust XP	Transline
Endurance	Outrider	
Escort	pendimethalin ¹	
Escort XP	Plateau	

¹ Se pueden hacer mezclas de tanque con productos que contengan ese ingrediente activo genérico siempre que el producto específico esté registrado para ese uso.

Cuando se aplica como mezcla de tanque para mantener el suelo limpio de malezas, este producto brinda control de las malezas anuales emergidas y control o control parcial de las malezas perennes emergidas, matorrales leñosos y árboles.

Para control o control parcial de las siguientes malezas perennes, aplique 0.8 a 1.6 cuartos de este producto más 2 a 4 onzas de Oust XP por acre.

Bahiagrass	Dock, curly	Poorjoe
Bermudagrass	Dogfennel	Quackgrass
Broomsedge	Fescue, tall	Vaseygrass
Dallisgrass	Johnsongrass	Vervain, blue

Segado químico - Perennes

Este producto inhibe los pastos perennes indicados en esta sección para servir como sustituto de la siega. Utilice 6.4 onzas líquidas de este producto por acre para el tratamiento de plantas tall fescue, fine fescue, orchardgrass, quackgrass o reed canarygrass. Utilice 5 onzas líquidas de este producto por acre para el tratamiento de Kentucky bluegrass. Aplique los tratamientos en 10 a 40 galones de solución de rocío por acre.

Emplee sólo en los lugares donde se puede tolerar cierto daño o decoloración temporal en pastos perennes.

Segador químico - Anuales

Para suprimir el crecimiento de algunos pastos anuales, tales como ryegrass, la cebada silvestre y la avena loca anuales que crecen en céspedes agrestes al borde de las carreteras u otras áreas industriales, aplique de 3 a 4 onzas líquidas de este producto en 10 a 40 galones de solución de rocío por acre. Las aplicaciones se deben realizar cuando los pastos anuales crezcan activamente y antes de que las semillas se encuentren en la etapa de "boot" del desarrollo. Los tratamientos pueden perjudicar a los pastos deseados.

Césped latente (durmiente)

Este producto puede usarse para controlar o suprimir muchas malezas anuales de invierno y tall fescue para el alivio eficaz de céspedes de bermudagrass y bahiagrass latentes. Trate solamente cuando el césped esté latente y antes de reverdecer en la primavera.

Aplique de 6.4 a 51 onzas líquidas de este producto por acre. Aplique las dosis recomendadas en 10 a 40 galones de agua por acre. Utilícelo sólo en áreas donde bermudagrass o bahiagrass sean coberturas de terreno convenientes y donde pueda tolerarse algún daño temporal o descoloración.

Los tratamientos en exceso de 13 onzas líquidas por acre, pueden dañar o retrasar el reverdecer en las áreas donde se hace mucho mantenimiento, como campos de golf y jardines. NO aplique mezclas de tanque de este producto más Oust XP en áreas de césped donde se hace mucho mantenimiento. Para otros usos, vea la sección **Bordes de las carreteras** de esta etiqueta, que proporciona dosis para tratamientos de bermudagrass y bahiagrass latentes.

Bermudagrass de crecimiento activo

Este producto puede emplearse para controlar total o parcialmente muchas malezas anuales y perennes a fin de obtener una distribución eficaz de bermudagrass de crecimiento activo. NO aplique más de 13 onzas líquidas de este producto por acre en áreas de céspedes de alto mantenimiento. NO aplique mezclas de tanque de este producto más Oust XP en áreas de céspedes de alto mantenimiento. Para otros usos, vea la sección **Bordes de las carreteras** de esta etiqueta, que proporciona dosis para tratamientos de bermudagrass de crecimiento activo. Utilícelo sólo en áreas donde puede tolerarse algún daño temporal o descoloración.

Renovación del césped, producción de semillas o tepes

Este producto controla la mayoría de la vegetación existente antes de la renovación del césped o de establecer céspedes cultivados para semilla o tepes. Para un control máximo de la vegetación existente, demore la siembra o cobertura de césped a fin de determinar si las partes de la planta que quedaron bajo tierra vuelven a crecer. Cuando sea necesario repetir el tratamiento, permita que las plantas se desarrollen lo suficiente antes de volver a tratar. Para controlar más eficientemente los pastos de estación caliente, como bermudagrass, se debe aplicar este producto en el verano o en el otoño. En lugares donde la vegetación existente esté creciendo y el césped esté bajo un programa de siega, aplique este producto después de omitir por lo menos un corte del césped para permitir un crecimiento suficiente a fin de que el rocío sea interceptado por las plantas.

Pueden plantarse los céspedes convenientes siguiendo los procedimientos anteriormente mencionados.

Puede utilizarse equipo de mano para el tratamiento in situ de vegetación no deseada que crezca en el césped existente. Puede utilizarse equipo de difusión o de mano para controlar los restos de tepes u otra vegetación no deseada después de cosechar el tepe.

PRECAUCIONES, RESTRICCIONES: No remueva la tierra ni las partes de la planta que estén bajo tierra antes del tratamiento. La labranza o las técnicas de renovación como corte vertical, perforación o rebanado deben esperar 7 días después de la aplicación a fin de permitir la absorción adecuada en las partes de la planta que estén bajo tierra. Si las dosis de aplicación ascienden a 2.4 cuartos de galón por acre o menos, no se requiere un período de espera entre el tratamiento y la alimentación o pastoreo del ganado. Si la dosis es mayor de 2.4 cuartos por acre, retire el ganado doméstico antes de la aplicación y espere 8 semanas después de la aplicación antes de pastorear o cosechar.

No utilice el césped que se cultiva para la producción de semillas o tepes para alimentar animales durante 8 semanas después de la aplicación.

8.4 Manejo de hábitat

Restauración y mantenimiento de hábitats

Este producto puede ser usado para controlar la vegetación exótica y otras plantas indeseables en áreas de manejo de hábitats y en áreas naturales, incluyendo praderas y refugios para la fauna silvestre. Pueden hacerse aplicaciones para permitir la recuperación de las especies de plantas nativas, antes de plantar dichas especies nativas deseables, y para otros requisitos similares de control de la vegetación de amplia efectividad. A fin de eliminar selectivamente ciertas plantas indeseables, se pueden hacer aplicaciones localizadas para controlar y mejorar el hábitat.

Sitios donde se siembran alimentos para la fauna silvestre

Este producto se puede utilizar como tratamiento a fin de preparar el lugar para controlar malezas anuales y perennes antes de sembrar parcelas para alimento de la vida silvestre. Después de aplicar este producto se puede sembrar cualquier especie de alimento para la vida silvestre o bien, se puede permitir la repoblación de la zona con especies nativas. Si debe labrar para preparar un semillero, deje transcurrir 7 días de la aplicación antes de hacerlo a fin de permitir la absorción adecuada en las partes de la planta que estén bajo tierra.

8.5 Inyección en tallo hueco

Este producto puede aplicarse con dispositivos de inyección manuales para administrar las cantidades recomendables de este producto a las plantas con tallo hueco identificadas que crecen en cualquiera de los lugares especificados en esta etiqueta.

Para el control de las siguientes plantas de tallo hueco, utilice según las instrucciones:

Semilla de ricino, *Ricinus communis*

Inyecte 4 ml por planta de este producto en la parte inferior del tallo principal.

Hemlock venenoso, *Conium maculatum*

Inyecte una caña de una hoja por planta 10 a 12 pulgadas por encima de la corona de la raíz con 5 ml de una solución al 5% v/v de este producto.

Hogweed gigante, *Hercleum mantegazzianum*

Inyecte una caña de una hoja por planta 12 pulgadas por encima de la corona de la raíz con 5 ml de una solución al 5% v/v de este producto.

Equiseto o cola de caballo, *Equisetum arvense*

Inyecte un segmento por encima de la corona de la raíz con 0.5 ml de este producto por tallo. Use una jeringa pequeña que pueda medir esa dosis.

Polígono bohemio, *Polygonum bohemicum*

Inject 5 ml per stem of this product between the second and third internode.

Polígono gigante, *Polygonum sachalinense*

Inyecte 5 ml de este producto por tallo entre el segundo y el tercer entrenudo.

Polígono japonés, *Polygonum cuspidatum*

Inyecte 5 ml de este producto por tallo entre el segundo y el tercer entrenudo.

Caña brava, *Arundo donax*

Inyecte 6 m de este producto por tallo entre el segundo y el tercer entrenudo.

Cardo de Canadá, *Cirsium arvense*

Use una tijera de podar para cortar un manojito de 8 a 9 de las plantas más altas en la etapa de brotación. Utilice una aguja hueca que se introduce en el centro del tallo y luego se extrae lentamente a medida que inyecta 0.5 ml de este producto en cada tallo.

NOTA: El total de todos los tratamientos no deben superar los 7 cuartos de este producto por acre. A 5 ml por tallos, con 7 cuartos se pueden tratar aproximadamente 1300 tallos por acre.

8.6 Aplicación foliar o de difusión en polígono japonés (*Polygonum cuspidatum*) y Oriental bittersweet (*Celastrus orbiculatus*)

Polígono japonés

Para control de polígono japonés (*Polygonum cuspidatum*), este producto se puede aplicar como solución de rocío para mojar al 2% v/v. Asegúrese de que la cobertura sea a fondo cuando emplee tratamientos de rocío para mojar con equipo de mano.

Para tratamientos de difusión, aplique 3.25 cuartos de este producto en 3 a 40 galones por acre como tratamiento de difusión.

La aplicación al final del verano o en el otoño es ideal, cuando las hojas todavía están verdes y después de la formación de los frutos.

Oriental bittersweet

Para control de Oriental bittersweet (*Celastrus orbiculatus*), se puede aplicar este producto como solución de rocío para mojar al 2% v/v. Asegúrese de que la cobertura sea a fondo cuando emplee tratamientos de rocío para mojar con equipo de mano.

Para tratamientos de difusión, aplique 2.5 cuartos de este producto en 3 a 40 galones por acre como tratamiento de difusión.

La aplicación al final del verano o en el otoño es ideal, cuando las hojas todavía están verdes y después de la formación de los frutos.

8.7 Inyección y chorro (matorrales leñosos y árboles)

Este producto puede aplicarse por inyección o chorro para el control total o parcial de matorrales leñosos y árboles. Aplique este producto usando equipo adecuado, que debe ser capaz de penetrar en el tejido viviente. Aplique el equivalente a 1 mL de este producto por cada 2 ó 3 pulgadas de diámetro del tronco a la altura del pecho (DBH en inglés). La mejor forma de hacerlo es aplicando una solución a una concentración del 50 al 100 por ciento de este producto, con un chorro continuo alrededor del árbol o en cortes espaciados uniformemente alrededor del árbol y por debajo del nivel de las ramas. A medida que el diámetro del árbol aumenta, se obtienen mejores resultados con el chorro continuo alrededor del árbol o en cortes espaciados muy cerca entre sí alrededor del árbol. Evite las aplicaciones que permiten el escurrimiento de material cuando se chorrea alrededor del árbol o sobre los cortes en árboles que tienen la facilidad de exudar savia de los cortes. En especies de este tipo, haga los cortes de manera oblicua a fin de producir el efecto de copa y use el producto a una concentración del 100 por ciento. Para obtener mejores resultados, la aplicación debe tener lugar durante períodos de crecimiento activo y después de expansión completa de las hojas.

8.8 Plantas ornamentales, viveros y árboles de Navidad

Post-dirigido y recortado de bordes

Este producto puede ser utilizado como un rocío post-dirigido alrededor de especies ornamentales leñosas establecidas, como arbovitae, azalea, boxwood, crabapple, eucalyptus, euonymus, fir, douglas fir, jojoba, hollies, lilac, magnolia, maple, oak, poplar, privet, pine, spruce y yew. Este producto también puede ser utilizado para recortado de bordes alrededor de árboles, edificios, aceras y carreteras, plantas en macetas y otros objetos de viveros.

Las plantas deseables pueden ser protegidas de la solución de rocío usando pantallas o cubriéndolas con cartón o con algún otro material impermeable. ESTE PRODUCTO NO SE RECOMIENDA PARA ROCIARSE DESDE ARRIBA SOBRE PLANTAS ORNAMENTALES Y ÁRBOLES DE NAVIDAD. Se debe tener mucho cuidado para que el rocío, niebla o vapor de este producto no hagan contacto con el follaje o la corteza de las especies ornamentales establecidas.

Preparación del terreno

Este producto puede ser usado antes de plantar cualquier tipo de planta ornamental, de vivero o árboles de Navidad.

Aplicadores con enjugador

Este producto se puede usar mediante aplicadores de mecha de esponja u otro tipo de aplicadores con enjugador adecuados, para controlar total o parcialmente la vegetación indeseable alrededor de eucaliptos o álamos. Consulte la sección **Equipo especializado** de esta etiqueta para obtener mayor información sobre el uso adecuado de los aplicadores con enjugador.

Invernaderos/cobertizos

Este producto puede ser usado para controlar las malezas que estén creciendo en o alrededor de los invernaderos y cobertizos. No debe haber vegetación deseable durante la aplicación y los equipos de ventilación deben estar apagados.

8.9 Parques, áreas recreativas y residenciales

Este producto puede usarse en parques, áreas recreativas y residenciales. Puede aplicarse con cualquiera de los equipos descritos en esta etiqueta. Puede usarse para el recortado de bordes alrededor de árboles, vallas, caminos, alrededor de edificios, aceras y otros objetos en estas áreas. Puede usarse para tratamiento localizado de vegetación no deseable y para eliminar las malezas no deseables que crecen en lechos de arbustos establecidos y plantaciones ornamentales. Este producto puede usarse antes de plantar un área con plantas ornamentales, flores, césped (tepes o semillas), o antes de colocar asfalto o de comenzar un proyecto de construcción.

Todas las instrucciones de la sección **Áreas no cultivadas y áreas industriales** son válidas para los parques y áreas recreativas.

8.10 Vías de ferrocarril

Las instrucciones en la sección **Áreas no cultivadas y áreas industriales** se pueden usar en vías de ferrocarril.

Suelo vacío, balastos y bordes, cruces y tratamiento localizado

Este producto puede ser usado para mantener el suelo limpio de malezas en balastos y bordes de las vías de ferrocarril. Pueden hacerse aplicaciones repetidas de este producto, a medida que emergen las malezas, para mantener el suelo limpio de malezas. Este producto puede usarse para controlar las malezas altas y mejorar la línea visual en los cruces de ferrocarril y reducir la necesidad de segar a lo largo de las servidumbres de vía. Para aplicaciones en los cruces, pueden usarse hasta 80 galones de solución de rocío por acre.

MEZCLAS DE TANQUES: Este producto se puede mezclar en un tanque con los siguientes productos para tratamientos en balasto, bordes, tratamiento cruzado y suelo vacío, siempre que éstos estén aprobados para el área de uso deseada. Consulte las etiquetas de estos productos para informarse sobre los lugares de uso no cultivados y las dosis de aplicación aprobadas. Lea y siga cuidadosamente las indicaciones y toda la información en las etiquetas de todos los herbicidas utilizados. Utilice conforme con las declaraciones preventivas más restrictivas de cada producto en la mezcla.

El usuario es responsable de garantizar que en la etiqueta del producto utilizado en la mezcla estén permitidas las aplicaciones específicas cuando se realicen mezclas de tanque con un ingrediente activo genérico de los mencionados a continuación.

Arsenal	Hyvar X	simazine ¹
atrazine ¹	Hyvar X-L	Spike 80DF
dicamba ¹	Krovar I DF	Telar DF
Escort	Oust	Transline
Escort XP	Oust XP	Velpar DF
Garlon 3A	Outrider	Velpar L
Garlon 4	Sahara DG	2,4-D ¹

¹Se pueden hacer mezclas de tanque con productos que contengan ese ingrediente activo genérico siempre que el producto específico esté registrado para este uso.

Control de matorrales

Este producto puede ser usado para controlar matorrales leñosos y árboles en las servidumbres de vía. Aplique de 3 a 8 cuartos de galón de este producto por acre para aplicaciones diseminadas, usando boquillas tipo brazo o sin brazo. Pueden usarse hasta 80 galones de solución de rocío por acre. Aplique una solución de 0.8 a 1.6 por ciento de este producto cuando haga aplicaciones de rocío para mojar a gran escala. Aplique una solución de 4 a 8 por ciento de este producto cuando haga aplicaciones de rocío dirigido a pequeña escala para tratamientos localizados. Este producto puede ser mezclado con los siguientes productos para un mejor control de los matorrales leñosos y árboles:

Arsenal	Telar DF	Vanquish
Escort	Krenite	Velpar DF
Escort XP	Tordon K	Velpar L
Garlon 3A	Tordon 22K	
Garlon 4	Transline	

Mantenimiento del Bermudagrass

Este producto puede ser usado para controlar o controlar parcialmente muchas malezas anuales y perennes para el mantenimiento eficaz de bermudagrass que esté creciendo activamente. Aplique de 13 a 38 onzas líquidas de este producto en un máximo de 80 galones de solución de rocío por acre. Para tratar malezas anuales que tengan menos de 6 pulgadas de altura (o el largo de los tallos), use las proporciones más bajas. Use la proporción más alta a medida que las malezas aumenten de tamaño o cuando estén cerca de la floración o de la formación de semillas. Estas proporciones también controlan parcialmente las siguientes especies perennes:

Bahiagrass	Johnsongrass
Bluestem, silver	Trumpetcreeper
Fescue, tall	Vaseygrass

Aplique 6.4 a 51 onzas líquidas de este producto en una mezcla de tanque con 0.75 a 1.33 onzas del herbicida Outrider por acre. Lea y siga todas las indicaciones de la etiqueta para el herbicida Outrider.

Este producto puede ser mezclado con Oust XP. Si se mezcla en tanques, no use más de 13 a 38 onzas líquidas de este producto con 1 a 2 onzas de Oust XP por acre. Para tratar malezas anuales listadas en esta etiqueta y en la etiqueta de Oust XP, que tengan menos de 6 pulgadas de altura (o el largo de los tallos), use las proporciones más bajas de cada producto. Use la proporción más alta a medida que las malezas anuales aumenten de tamaño o cuando estén cerca de la floración o de la formación de semillas. Estas proporciones también controlan parcialmente las siguientes malezas perennes:

Bahiagrass	Fescue, tall
Blackberry	Johnsongrass
Bluestem, silver	Poorjoe
Broomsedge	Raspberry
Dallisgrass	Trumpetcreeper
Dewberry	Vaseygrass
Dock, curly	Vervain, blue
Dogfennel	

Úselo solamente en bermudagrass que esté bien establecido. Como resultado del tratamiento, el bermudagrass puede sufrir deterioro, pero volverá a crecer si se riega. No se recomienda repetir el tratamiento en la misma estación, ya que esto puede ocasionar daños graves al bermudagrass.

8.11 Bordes de las carreteras

Todas las instrucciones de la sección **Áreas no cultivadas y Áreas Industriales** son válidas para bordes de las carreteras.

Tratamiento de bordes

Este producto puede ser usado en los bordes de las carreteras. Puede aplicarse con rociadores de brazos, rociadores con brazos y pantalla, boquillas descentradas de gran volumen, equipo de mano y equipos similares.

Barandas y otros obstáculos para la siega

Este producto puede ser usado para controlar las malezas que crecen debajo de las barandas y alrededor de la señalización y otros objetos en los bordes de las carreteras.

Tratamiento localizado

Este producto puede ser usado como tratamiento localizado para controlar la vegetación no deseada que crece a lo largo de los bordes de las carreteras.

MEZCLAS DE TANQUE: Este producto puede mezclarse en tanque con los siguientes productos para tratamientos de bordes, barandas, localizados y de suelo vacío siempre y cuando dichos productos estén aprobados para su uso en dichos sitios. Consulte las etiquetas de estos productos para informarse sobre los lugares de uso no cultivados y las dosis de aplicación aprobadas. Lea y siga cuidadosamente las indicaciones y toda la información en las etiquetas de todos los herbicidas utilizados. Utilice conforme con las declaraciones preventivas más restrictivas de cada producto en la mezcla.

El usuario es responsable de garantizar que en la etiqueta del producto utilizado en la mezcla estén permitidas las aplicaciones específicas cuando se realicen mezclas de tanque con un ingrediente activo genérico de los mencionados a continuación.

atrazine ¹	Landmark II MP	Sahara DG
Crossbow L	Landmark XP	simazine ¹
dicamba	Oust	Surflan AS
diuron	Oust XP	Surflan WDG
Escort	Outrider	Telar DF
Escort XP	pendimethalin ¹	Velpar DF
Endurance	Plateau	Velpar L
Gallery 75 DF	Plateau DG	2,4-D ¹
Krovar I DF	Poast	
Landmark MP	Ronstar 50 WSP	

¹Se pueden hacer mezclas de tanque con productos que contengan ese ingrediente activo siempre que el producto específico esté registrado para este uso.

Mantenimiento del Bermudagrass y Bahiagrass

Aplicaciones cuando estén latentes (durmientes)

Este producto puede usarse para controlar o controlar parcialmente muchas malezas anuales de invierno y tall fescue para el alivio eficaz de bermudagrass y bahiagrass latentes. Trate solamente cuando el césped esté latente y antes de su reverdecer primaveral.

Este producto puede mezclarse en tanque con el herbicida Outrider o Oust XP para el control residual. Las mezclas de tanque de este producto con Oust XP pueden retrasar el reverdecer.

Para obtener mejores resultados con malezas anuales de invierno, haga el tratamiento cuando las plantas estén en una etapa temprana de su crecimiento (menos de 6 pulgadas de altura) después de que la mayoría haya germinado. Para obtener mejores resultados con tall fescue, haga el tratamiento cuando el fescue esté en o después de su etapa de 4 a 6 hojas.

Aplique de 6.4 a 51 onzas líquidas de este producto en una mezcla de tanque con 0.75 a 1.33 de onza de herbicida Outrider por acre. Lea y siga todas las instrucciones de la etiqueta del herbicida Outrider.

Aplique de 6.4 a 51 onzas líquidas de este producto por acre, solo o en mezcla de tanque con 0.25 a 1 onza de Oust XP por acre. Aplique las proporciones recomendadas en 10 a 40 galones de agua por acre. Úselo solamente en áreas donde el bermudagrass o bahiagrass son deseables y en las que puede tolerarse un poco de daño o decoloración. Para evitar que el reverdecer se retrase y para minimizar el daño, no agregue más de 1 onza de Oust XP por acre sobre bermudagrass y no más de 0.5 onzas de Oust XP por acre sobre bahiagrass, y evite el tratamiento cuando estos pastos se encuentren en estado semilente.

Bermudagrass que esté creciendo activamente

Este producto puede ser usado para controlar total o parcialmente muchas malezas anuales y perennes para el mantenimiento eficaz de bermudagrass que esté creciendo activamente. Aplique de 13 a 38 onzas líquidas de este producto en 10 a 40 galones de solución de rocío por acre. Para tratar malezas anuales que tengan menos de 6 pulgadas de altura (o el largo de los tallos), use las proporciones más bajas. Use la proporción más alta a medida que las malezas aumenten de tamaño o cuando estén cerca de la floración o de la formación de semillas. Estas proporciones también controlan parcialmente las siguientes especies perennes:

Bahiagrass	Johnsongrass
Bluestem, silver	Trumpet creeper
Fescue, tall	Vaseygrass

Este producto puede ser mezclado en tanque con el Outrider para el control o el control parcial de Sorghum halepense (Johnsongrass) y otras malezas indicadas en la etiqueta del Outrider. Use de 6.4 a 26 onzas líquidas de este producto con 0.75 a 1.33 onzas de Outrider. Utilice las proporciones más altas de ambos productos para el control de malezas perennes o anuales que tengan una altura superior a 6 pulgadas.

Este producto puede ser mezclado con Oust XP. Si se mezcla en tanques, no use más de 13 a 26 onzas líquidas de este producto con 1 a 2 onzas de Oust XP por acre. Para tratar malezas anuales listadas en esta etiqueta y en las etiquetas de Oust XP, que tengan menos de 6 pulgadas de altura (o el largo de los tallos), use las proporciones más bajas de cada producto. Use la proporción más alta a medida que las malezas anuales aumenten de tamaño o cuando estén cerca de la floración o de la formación de semillas. Estas proporciones también controlan parcialmente las siguientes malezas perennes:

Bahiagrass	Fescue, tall
Bluestem, silver	Johnsongrass
Broomsedge	Poorjoe
Dallisgrass	Trumpet creeper
Dock, curly	Vaseygrass
Dogfennel	Vervain, blue

Úselo solamente en bermudagrass que esté bien establecido. Como resultado del tratamiento, el bermudagrass puede sufrir deterioro, pero volverá a crecer si se riega. No se recomienda repetir el tratamiento con la mezcla de tanque en la misma estación, ya que esto puede ocasionar daños graves al bermudagrass.

Bahiagrass que esté creciendo activamente

Para la supresión del crecimiento vegetativo y la inhibición de la formación de semillas de bahiagrass durante aproximadamente 45 días, aplique 5 onzas líquidas de este producto en 10 a 40 galones de agua por acre. Aplique de 1 a 2 semanas después de reverdecer completo o después de cortar a una altura uniforme de 3 a 4 pulgadas. Esta aplicación debe ser hecha antes de la emergencia de las semillas.

Para la supresión durante un máximo de 120 días, aplique 3 onzas líquidas de este producto por acre, y a continuación una aplicación de 1.5 a 3 onzas líquidas por acre unos 45 días más tarde. No haga más de 2 aplicaciones al año.

Este producto se puede utilizar para el control o el control parcial de Sorghum halepense (Johnsongrass) y otras malezas indicadas en la etiqueta de Outrider, en bahiagrass en crecimiento activo. Aplique de 5 onzas de este producto con 0.75 a 2 onzas de Outrider por acre. Utilice sólo en bahiagrass bien establecido.

Se puede utilizar la mezcla de tanque de este producto con Oust XP. Aplique 5 onzas líquidas de este producto con 0.5 a 1 onza de Oust XP por acre, 1 a 2 semanas después de la primera siega de la primavera. Haga solamente una aplicación al año.

8.12 Especie *Bromus* y Medusahead en pasturas y praderas

Especies *Bromus*:

Este producto puede ser utilizado para tratar downy brome (*Bromus tectorum*), Japanese brome (*Bromus japonicus*), soft chess (*Bromus mollis*) y cheatgrass (*Bromus secalinus*) que se encuentran en lugares industriales, pasturas y praderas. Aplique por difusión, 6.5 a 13 onzas líquidas de este producto por acre.

Para obtener mejores resultados, el tratamiento debe coincidir con la emergencia temprana del epicótilo de las plantas más maduras. Demorar la aplicación hasta esta etapa del desarrollo maximizará la emergencia de otros brotes de malezas de pastos. Las aplicaciones se deben hacer todos los años sobre el mismo lugar hasta que se agoten los bancos de semilla y se puedan restablecer en el lugar los pastos perennes deseados.

Medusahead:

Para tratar medusahead, aplique 13 onzas líquidas de este producto por acre, tan pronto como las plantas se encuentren en desarrollo activo y antes de la etapa de 4 hojas. Las aplicaciones se pueden hacer en el otoño o en la primavera.

Las aplicaciones sobre brome y sobre medusahead se pueden hacer utilizando equipo terrestre o aéreo. Las aplicaciones aéreas para estos usos se pueden hacer utilizando equipos para aeronaves de ala fija o para helicóptero. Para aplicaciones aéreas, diluya en 2 a 10 galones de agua por acre. Para aplicaciones utilizando equipo terrestre, diluya en 10 a 20 galones de agua por acre. Cuando se aplica de acuerdo a las instrucciones de esta etiqueta, no hay restricciones al pastoreo.

8.13 Sitos de servicios públicos

Este producto puede ser utilizado junto a derechos de paso para alimentación eléctrica, conductos y teléfonos y en otros lugares asociados con estos derechos de paso, como subestaciones, bordes de carreteras, vías de ferrocarril o derechos de paso similares para servicios públicos.

Este producto puede ser utilizado en áreas de servicios públicos y subestaciones para el mantenimiento del suelo limpio de malezas, el recortado de bordes y el tratamiento localizado de vegetación no deseable, así como para eliminar las malezas no deseables que crecen en lechos de arbustos establecidos o plantaciones ornamentales. Este producto puede ser utilizado antes de plantar un área de servicios públicos con plantas ornamentales, flores y césped (panes de césped o semillas) o antes de comenzar un proyecto de construcción.

Pueden hacerse aplicaciones repetidas de este producto, a medida que emergen las malezas, para mantener el suelo limpio de malezas.

Este producto también puede ser utilizado para preparar o establecer zonas de reserva de vida silvestre dentro de estos sitios, manteniendo los caminos de acceso y para el recorte lateral a lo largo de los derechos de paso.

MEZCLAS DE TANQUE: Se pueden emplear mezclas de tanque con este producto para aumentar el espectro de control de malezas herbáceas, arbustos leñosos y árboles. Este producto se puede mezclar en tanque con los siguientes productos, siempre que éstos estén aprobados para el área de uso deseada. Consulte las etiquetas de estos productos para informarse sobre las áreas de uso y las dosis de aplicación aprobadas. Lea y siga cuidadosamente las indicaciones y toda la información en las etiquetas de todos los herbicidas utilizados. Use conforme a las declaraciones preventivas más estrictas indicadas para cada producto en la mezcla.

El usuario es responsable de garantizar que en la etiqueta del producto utilizado en la mezcla estén permitidas las aplicaciones específicas cuando se realicen mezclas de tanque con un ingrediente activo genérico de los mencionados a continuación.

Arsenal	Krenite	Surflan AS
atrazine ¹	Krovar I DF	Surflan WDG
dicamba ¹	Oust	Telar DF
diuron ¹	Oust XP	Transline
Endurance	Outrider	Vanquish
Escort	pendimethalin ¹	Velpar DF
Escort XP	Plateau	Velpar L
Garlon 3A	Sahara DG	2,4-D ¹
Garlon 4 ²	simazine ¹	

¹ Pueden realizarse mezclas en tanque con productos que contienen este ingrediente activo genérico siempre y cuando dichos productos estén aprobados para su aplicación.

² Para tratamientos de recorte lateral, este producto puede ser utilizado solo o en una mezcla en tanque con Garlon 4.

8.14 Programa de conservación de reservas (CRP)

Este producto se puede utilizar para preparar tierras del programa CRP para la producción de cultivos. Consulte en las guías de uso Federales, estatales o locales las recomendaciones de renovación del programa CRP. Los cultivos no clasificados en esta etiqueta se pueden sembrar 30 días después de la aplicación.

Renovación (rotación de salida de programa CRP), preparación del sitio, control post-emergencia de malezas en pastos CRP latentes, aplicaciones con enjugador por encima

Se puede usar este producto para inhibir el crecimiento competitivo y la producción de semillas de vegetación no atractiva en tierras CRP. Las aplicaciones se pueden realizar utilizando aplicaciones de enjugado o como tratamiento de difusión o localizado en pastos CRP latentes. Para aplicaciones selectivas con equipo rociador de difusión, aplique 10 a 13 onzas líquidas de este producto por acre al comenzar la primavera antes de que los pastos CRP deseados, como crested y tall wheatgrass, comiencen la actividad e inicien el crecimiento vegetativo. Se pueden efectuar aplicaciones al finalizar el otoño después de que los pastos perennes llegaron al período de inactividad.

Se producirá cierta atrofia de los pastos CRP perennes si las aplicaciones de difusión se realizan cuando las plantas no están inactivas. No se necesita período de espera entre la aplicación y el pastoreo o para cosechar como alimento. No aplique más de 2.25 cuartos de este producto por acre, por año en tierras CRP.

8.15 Producción de semillas de pasto o tepes

Antes de sembrar, preemergencia, al momento de sembrar, renovación, eliminación de grupos de plantas establecidos, preparación del lugar

Este producto controla la mayoría de la vegetación existente antes de la renovación del césped o de establecer céspedes cultivados para semilla o tepes. Se puede utilizar para destruir restos de vegetación no deseada cuando los campos de producción se convierten para especies o cultivos alternativos. Realice las aplicaciones antes, durante o después de sembrar o para renovación. Para lograr máximo control de la vegetación existente, demore la siembra para determinar si se produce algún crecimiento de partes de plantas subterráneas que no fueron alcanzadas por el tratamiento. En lugares donde la vegetación existente esté creciendo y el césped esté bajo un programa de siega, aplique este producto después de omitir por lo menos un corte del césped para permitir un crecimiento suficiente a fin de que el rocío sea interceptado por las plantas. Para pastos de estación cálida, como bermudagrass, las aplicaciones en verano u otoño brindan el mejor control. Se pueden utilizar equipos de difusión para controlar restos de tepes o de otra vegetación no deseada después de cosechar los tepes. Se pueden aplicar proporciones de hasta 4 cuartos de este producto por acre para eliminar totalmente grupos de plantas establecidos de especies de pastos difíciles de eliminar.

No remueva la tierra ni las partes de la planta que estén bajo tierra antes del tratamiento. La labranza o las técnicas de renovación como corte vertical, perforación o rebanado deben esperar 7 días después de la aplicación a fin de permitir la absorción adecuada en las partes de la planta que estén bajo tierra. Si las proporciones de aplicación equivalen a 2.25 cuartos o menos por acre, no se requiere período de espera entre el tratamiento y la utilización como alimento o pastoreo del ganado. Si la proporción es mayor a 2.25 cuartos de galón por acre, retire el ganado doméstico antes de aplicar y espere 8 semanas después de haber efectuado la aplicación para utilizar para pastoreo o para cosechar. Para todos los cultivos no indicados en esta etiqueta, las aplicaciones se deben realizar al menos 30 días antes de sembrar. Las aplicaciones deben efectuarse antes de la emergencia del cultivo para evitar daños.

Rociadores con pantalla

Aplique 26 onzas líquidas a 2.4 cuartos de este producto en 10 a 20 galones de agua por acre para controlar las malezas entre las hileras de semilla para pasto. La siembra uniforme en hileras rectas facilita las aplicaciones con rociador con pantalla. Se obtienen los mejores resultados cuando el cultivo de semilla de pasto es suficientemente pequeño como para pasar con facilidad por las pantallas protectoras.

Cualquier tipo de contacto de este producto con vegetación que no se desea incluir en el tratamiento podría causar daño. Este daño es responsabilidad exclusiva de la persona encargada de la aplicación del producto.

Aplicaciones con enjugador por la parte superior

Los aplicadores se deben ajustar de manera que el punto de contacto del enjugador esté al menos 2 pulgadas por encima de la vegetación deseable. Las malezas deben estar por lo menos 6 pulgadas por encima de la vegetación deseable. Se obtienen mejores resultados cuando una mayor cantidad de la maleza está expuesta a la solución de herbicida. Las malezas que no entren en contacto con la solución de herbicida no serán afectadas. Esto puede ocurrir en lugares donde las malezas están muy concentradas, cuando la infestación es grave o donde la altura de las malezas es variada, lo que no permite que todas entren en contacto con el herbicida. En esos casos, puede ser necesario repetir el tratamiento. El contacto de la solución de herbicida con vegetación deseable puede provocar daño o destrucción.

Tratamiento localizado

Aplique una solución del 1.0 al 1.6 por ciento. Aplique este producto antes del despunte de los pastos cultivados para semilla. Los cultivos que reciban el rocío en el área tratada morirán. Intente evitar el escurrimiento o rocío fuera del área que no sea el objetivo por la misma razón. También se pueden utilizar equipos de mano para controlar restos de tepes o de otra vegetación no deseada después de cosechar los tepes.

Creación de hileras en ryegrass anual

Utilice 13 a 26 onzas líquidas de este producto por acre. Use proporciones superiores cuando el ryegrass tiene una altura de más de 6 pulgadas. Se obtienen los mejores resultados cuando las aplicaciones se realizan antes de que las plantas de ryegrass alcancen 6 pulgadas de alto.

Configure las alturas de las boquillas de modo de permitir el espacio entre hileras deseado y al mismo tiempo evitar que gotas, nieblas o deriva del rocío entre en contacto con las plantas de ryegrass no tratado. Se recomienda utilizar boquillas de baja presión o boquillas de goteo diseñadas para concentrar la aplicación en una franja estrecha.

El cultivador asume toda la responsabilidad por la pérdida de cultivos a causa de la aplicación indebida de este producto.

8.16 Pasturas

CULTIVOS CLASIFICADOS: Todos los pastos (familia de las gramíneas), incluidos bahiagrass, Bermudagrass, Bluegrass, Brome, Fescue, Guinea grass, Kikuyugrass, Orchardgrass, Pangola grass, Ryegrass, Timothy, Wheatgrasses

TIPOS DE APLICACIONES: Tratamiento localizado, aplicaciones con enjugador por encima, antes de la siembra, preemergencia, renovación de pasturas, de difusión postemergente.

Antes de sembrar, preemergencia, renovación de pasturas

Este producto se puede aplicar para controlar malezas antes de sembrar o de que emerjan pastos forrajeros, incluidos Bahiagrass, Bermudagrass, Bluegrass, Bromus, Fescue, Guinea grass, Kikuyugrass, Orchardgrass, Pangola grass, Ryegrass, Timothy, Wheatgrass.

Además, este producto se puede utilizar para controlar especies de pasturas perennes indicadas en esta etiqueta antes de resembrar.

Si las proporciones de aplicación totales equivalen a 2.25 cuartos de este producto o menos por acre, no se requiere período de espera entre el tratamiento y la utilización como alimento opastoreo del ganado. Si la proporción es mayor a 2.25 cuartos de galón por acre, retire el ganado doméstico antes de aplicar y espere 8 semanas después de haber efectuado la aplicación para utilizar para pastoreo.

Tratamiento localizado, aplicaciones de enjugado por encima

Se puede aplicar este producto como tratamiento localizado o con aplicadores con enjugador en pasturas. Se pueden hacer aplicaciones en la misma área con intervalos de 30 días.

Para tratamientos localizados o métodos de aplicación de enjugado en los que se utilicen dosis de 2.25 cuartos por acre o menos, se puede tratar todo el campo o una parte. Cuando se realicen tratamientos localizados o con aplicadores con enjugador utilizando dosis superiores a los 2.25 cuartos por acre, no se podrá tratar más de 10 por ciento del total de la pastura por vez. Para lograr el mejor desempeño, retire los animales domésticos antes de la aplicación y espere 7 días después de la aplicación antes de permitir el pastoreo del ganado o cosechar.

Control de malezas postemergentes (tratamiento de difusión)

Este producto se puede aplicar a para inhibir el crecimiento competitivo y la producción de semillas de malezas anuales y vegetación no deseable. Para aplicaciones selectivas con equipo rociador de difusión, aplique 10 a 13 onzas líquidas de este producto por acre al comenzar la primavera antes de que los pastos perennes deseables comiencen la actividad e inicien el crecimiento vegetativo. Se pueden efectuar aplicaciones al finalizar el otoño después de que los pastos perennes llegaron al período de inactividad.

Se producirá cierta atrofia de los pastos perennes si las aplicaciones de difusión se realizan cuando las plantas están activas. No se necesita período de espera entre la aplicación y el pastoreo o para cosechar como alimento. No aplique más de 2.25 cuartos por acre por año en pastos de pastura, excepto en el caso de las renovaciones detalladas antes en esta sección. Si debe resembrar debido a una severa reducción en el grupo de plantas, espere 30 días después de la aplicación para sembrar cualquier cultivo que no esté indicado en esta etiqueta.

9.0 TIPOS DE MALEZAS CONTROLADAS

Use siempre la proporción más alta de este producto por acre, dentro de las proporciones recomendadas, cuando las malezas son densas o cuando crecen en un área no tocada (no cultivada).

Puede haber una disminución de los resultados cuando se traten malezas cubiertas con mucho polvo. Para las malezas que han sido segadas, pastadas o cortadas, permita que vuelvan a crecer antes del tratamiento.

Vea las secciones siguientes para las proporciones recomendadas para el control de malezas, matorrales leñosos y árboles anuales y perennes. Para las malezas, matorrales leñosos y árboles difíciles de controlar, donde las plantas crecen en condiciones de estrés, o donde la infestación es densa, pueden usarse 4 a 8 cuartos de galón por acre de este producto para obtener mejores resultados.

9.1 Malezas anuales

Use 26 onzas fluidas por acre si las malezas tienen menos de 6 pulgadas de altura o largo de los tallos y 1.2 a 3.2 cuartos de galón por acre si las malezas tienen más de 6 pulgadas de altura o largo de los tallos o cuando las malezas crecen en condiciones de estrés. Use la dosis más alta para las especies más difíciles de controlar, sin importar el tamaño de la maleza en el momento de la aplicación. Trate las malezas difíciles de controlar temprano, cuando son relativamente pequeñas. Este producto puede usarse en mezclas de tanque siempre que el producto específico de la mezcla de tanque esté registrado para uso en el lugar. Consulte las etiquetas de estos productos para informarse sobre las áreas de uso y las dosis de aplicación aprobadas. Lea y siga cuidadosamente las indicaciones y toda la información en las etiquetas de todos los herbicidas utilizados. Utilice conforme con las declaraciones preventivas más restrictivas de cada producto en la mezcla.

Para aplicaciones de rocío para mojar, aplique una solución de 0.4 por ciento de este producto a las malezas que tengan menos de 6 pulgadas de altura o largo de los tallos. Haga la aplicación antes de la formación de semillas para el pasto, o la formación de yemas para las malezas de hoja ancha. Para las malezas anuales que tienen más de 6 pulgadas de altura o las malezas más pequeñas que crecen en condiciones de estrés, use una solución del 0.8 al 1.6 por ciento. Use la dosis más alta para las especies difíciles de controlar o las malezas de más de 24 pulgadas de altura.

Especies de malezas

Anoda, spurred	Carolina geranium
Barley*	Castor bean
Barnyardgrass*	Cheatgrass*
Bittercress*	Cheeseweed (<i>Malva parviflora</i>)
Black nightshade*	Chervil*
Bluegrass, annual*	Chickweed*
Bluegrass, bulbous*	Cocklebur*
Bassia, fivehook	Copperleaf, hophornbeam
Brome, downy*	Corn*
Brome, Japanese*	Corn speedwell*
Browntop panicum*	Crabgrass*
Buttercup*	Dwarf dandelion*
Carolina foxtail*	Eastern mangrass*

Eclipta*	Plains/Tickseed coreopsis*
Fall panicum*	Prickly lettuce*
Falsedandelion*	Puncturevine
Falsesflax, smallseed*	Purslane, common
Fiddleneck	Ragweed, common*
Field pennycress*	Ragweed, giant
Filaree	Red rice
Fleabane, annual*	Russian thistle
Fleabane, hairy	Rye*
(<i>Conyza bonariensis</i>)*	Ryegrass*
Fleabane, rough*	Sandbur, field*
Florida pusley	Shattercane*
Foxtail*	Shepherd's-purse*
Goatgrass, jointed*	Sicklepod
Goosegrass	Signalgrass, broadleaf*
Grain sorghum (milo)*	Smartweed, ladythumb*
Groundsel, common*	Smartweed, Pennsylvania*
Hemp sesbania	Sowthistle, annual
Henbit	Spanishneedles
Horseweed/Marestail	Speedwell, purslane*
(<i>Conyza canadensis</i>)	Spangletop*
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 (<i>Ipomoea spp.</i>)	Virginia copperleaf
Mustard, blue*	Virginia pepperweed*
Mustard, tansy*	Wheat*
Mustard, tumble*	Wild oats*
Mustard, wild*	Witchgrass*
Oats	Woolly cupgrass*
Pigweed*	Yellow rocket

*Cuando use equipos de aplicación diseminada a nivel del terreno (aplicaciones aéreas o rociadores con brazos con boquillas tipo abanico, plano), estas especies serán controladas o controladas parcialmente usando 13 onzas líquidas de este producto por acre. Las aplicaciones deben hacerse usando de 3 a 10 galones de volumen de la sustancia vehicular por acre. Use boquillas que garanticen una cobertura completa del follaje y haga el tratamiento cuando las malezas estén en su etapa temprana de crecimiento.

9.2 Malezas perennes

Los mejores resultados se obtienen cuando las malezas perennes son tratadas una vez que han alcanzado la etapa reproductiva de su crecimiento (inicio de las semillas para pastos y formación de yemas para malezas de hoja ancha). Para las plantas sin flores, los mejores resultados se obtienen cuando las plantas alcanzan el estado de madurez. En muchos casos, se requiere el tratamiento antes de estas etapas del crecimiento. En estos casos, use la proporción más alta dentro de las proporciones recomendadas.

Asegúrese de que la cobertura sea a fondo cuando emplee tratamientos de rocío para mojar con equipo de mano. Cuando se utilice equipo manual para tratamientos puntuales localizados de bajo volumen, aplique una solución de 4 al 8 por ciento de este producto.

Espere 7 días o más después de la aplicación antes de labrar.

Especies de malezas	Proporción (cuartos por acre)	% de solución de mano
Alfalfa*	0.8	1.6
Alligatorweed*	3.2	1.2
Anise (fennel)	1.6 - 3.2	0.8 - 1.6
Bahiagrass	2.4 - 4	1.6
Beachgrass, European (<i>Ammophila arenaria</i>)	—	4
Bentgrass*	1.2	1.6
Bermudagrass	4	1.6
Bermudagrass, water (knotgrass)	1.2	1.6
Bindweed, field	3.2 - 4	1.6
Bluegrass, Kentucky	1.6	1.6
Blueweed, Texas	3.2 - 4	1.6
Brackenfern	2.4 - 3.2	0.8 - 1.2
Bromegrass, smooth	1.6	1.6
Bursage, woolly-leaf	—	1.6
Canarygrass, reed	1.6 - 2.4	1.6
Cattail	2.4 - 4	1.6
Clover, red, white	2.4 - 4	1.6
Cogongrass	2.4 - 4	1.6
Dallisgrass	2.4 - 4	1.6
Dandelion	2.4 - 4	1.6
Dock, curly	2.4 - 4	1.6
Dogbane, hemp	3.2	1.6
Fescue (except tall)	2.4 - 4	1.6
Fescue, tall	0.8 - 2.4	1.6

German ivy	1.6 - 3.2	0.8 - 1.6
Guineagrass	2.4	0.8
Horsenebble	2.4 - 4	1.6
Horseradish	3.2	1.6
Iceplant	1.6	1.2 - 1.6
Jerusalem artichoke	2.4 - 4	1.6
Johnsongrass	1.6 - 2.4	0.8
Kikuyugrass	1.6 - 2.4	1.6
Knapweed	3.2	1.6
Lantana	—	0.8 - 1
Lespedeza	2.4 - 4	1.6
Milkweed, common	2.4	1.6
Muhly, wirestem	1.6	1.6
Mullein, common	2.4 - 4	1.6
Napiergrass	2.4 - 4	1.6
Nightshade, silverleaf	1.6	1.6
Nutsedge, purple, yellow	2.4	0.8 - 1.6
Orchardgrass	1.6	1.6
Pampasgrass	2.4 - 4	1.2 - 1.6
Paragrass	2.4 - 4	1.6
Pepperweed, perennial	3.2	1.6
Phragmites*	2.4 - 4	0.8 - 1.6
Poison hemlock	1.6 - 3.2	0.8 - 1.6
Quackgrass	1.6 - 2.4	1.6
Redvine*	1.6	1.6
Reed, giant	3.2 - 4	1.6
Ryegrass, perennial	1.6 - 2.4	0.8
Smartweed, swamp	2.4 - 4	1.6
Spurge, leafy*	—	1.6
Sweet potato, wild*	—	1.6
Thistle, artichoke	1.6 - 2.4	0.8 - 1.6
Thistle, Canada	1.6 - 2.4	1.6
Timothy	1.6 - 2.4	1.6
Torpedograss*	3.2 - 4	1.6
Trumpet creeper*	1.6 - 2.4	1.6
Vaseygrass	2.4 - 4	1.6
Velvetgrass	2.4 - 4	1.6
Wheatgrass, western	1.6 - 2.4	1.6

*Control parcial

9.3 Matorrales leñosos y árboles

Aplique este producto después de la expansión completa de las hojas, a menos que se indique lo contrario. Utilice una proporción mayor para plantas más grandes y/o zonas de crecimiento más densas. En enredaderas, utilice la proporción máxima para plantas que han alcanzado la etapa de crecimiento leñoso. Se obtienen los mejores resultados cuando la aplicación se realiza entre el final del verano y el otoño, después de la formación de frutos.

En zonas áridas, se obtienen los mejores resultados cuando las aplicaciones se realizan entre primavera y comienzos de verano, cuando las especies de malezas tienen gran contenido de humedad y están en floración.

Cuando haga tratamientos de rocío para mojar con equipos de mano, asegúrese de que la cobertura sea total. Cuando use equipos de mano para tratamientos localizados con rociado dirigido de poco volumen, aplique una solución del 4 al 8 por ciento de este producto.

Es posible que los síntomas no aparezcan antes de las heladas o del envejecimiento con tratamientos de otoño.

Para labrar, segar o eliminar, deje transcurrir un lapso de 7 o más días después de haber aplicado el producto. Tal vez sea necesario repetir el tratamiento para controlar plantas que se regeneran de partes subterráneas o semillas. Se aceptan algunos colores otoñales en especies de hoja caduca no atractivas siempre y cuando no se haya producido una importante caída de las hojas. El rendimiento será inferior si se realizan tratamientos en otoño, después de una helada.

Especie de maleza	Proporción por difusión (cuarto de galón por acre)	% de solución de mano de rocío para mojar
Alder	2.4 - 3.2	0.8 - 1.2
Ash*	1.6 - 4	0.8 - 1.6
Aspen, quaking	1.6 - 2.4	0.8 - 1.2
Bearclover (Bearnut)*	1.6 - 4	0.8 - 1.6
Beech*	1.6 - 4	0.8 - 1.6
Birch	1.6	0.8
Blackberry	2.4 - 3.2	0.8 - 1.2
Blackgum	1.6 - 4	0.8 - 1.6
Bracken	1.6 - 4	0.8 - 1.6
Broom, French, Scotch	1.6 - 4	1.2 - 1.6
Buckwheat, California*	1.6 - 3.2	0.8 - 1.6
Cascara*	1.6 - 4	0.8 - 1.6

Especie de maleza	Proporción por difusión (cuarto de galón por acre)	% de solución de mano de roció para mojar
Catsclaw*	—	0.8 - 1.2
Ceanothus*	1.6 - 4	0.8 - 1.6
Chamise*	1.6 - 4	0.8
Cherry, bitter, black, pin	1.6 - 2.4	0.8 - 1.2
Coyote brush	2.4 - 3.2	1.2 - 1.6
Deerweed	1.6 - 4	0.8
Dogwood*	1.6 - 4	0.8 - 1.6
Elderberry	1.6	0.8
Elm*	1.6 - 4	0.8 - 1.6
Eucalyptus	—	1.6
Gorse*	1.6 - 4	0.8 - 1.6
Hasardia*	1.6 - 3.2	0.8 - 1.6
Hawthorn	1.6 - 2.4	0.8 - 1.2
Hazel	1.6	0.8*
Hickory*	1.6 - 4	0.8 - 1.6
Honeysuckle	2.4 - 3.2	0.8 - 1.2
Hornbeam, American*	1.6 - 4	0.8 - 1.6
Kudzu (Pueraria lobata)	3.2	1.6
Locust, black*	1.6 - 3.2	0.8 - 1.6
Madrone resprouts* (rebrotos)	—	1.6
Manzanita*	1.6 - 4	0.8 - 1.6
Maple, red (Acer, rojo)	1.6 - 3.2	0.8 - 1.2
Maple, sugar (Acer saccharum)	—	0.8 - 1.2
Monkey flower*	1.6 - 3.2	0.8 - 1.6
Oak, black, white*	1.6 - 3.2	0.8 - 1.6
Oak, post	2.4 - 3.2	0.8 - 1.2
Oak, northern, pin	1.6 - 3.2	0.8 - 1.2
Oak, scrub*	1.6 - 3.2	0.8 - 1.2
Oak, southern red	1.6 - 2.4	0.8 - 1.2
Peppertree, Brazilian (Florida holly)*	1.6 - 4	0.8 - 1.6
Persimmon*	1.6 - 4	0.8 - 1.6
Pine	1.6 - 4	0.8 - 1.6
Poison ivy	3.2 - 4	1.6
Poison oak	3.2 - 4	1.6
Poplar, yellow*	1.6 - 4	0.8 - 1.6
Redbud, eastern	1.6 - 4	0.8 - 1.6
Rose, multiflora	1.6	0.8
Russian olive*	1.6 - 4	0.8 - 1.6
Sage, black	1.6 - 3.2	0.8
Sage, white*	1.6 - 3.2	0.8 - 1.6
Sage brush, California	1.6 - 3.2	0.8
Salmonberry	1.6	0.8
Saltcedar*	1.6 - 4	0.8 - 1.6
Sassafra*	1.6 - 4	0.8 - 1.6
Sourwood*	1.6 - 4	0.8 - 1.6
Sumac, laurel, poison, smooth, sugarbush, winged*	1.6 - 3.2	0.8 - 1.6
Sweetgum	1.6 - 2.4	0.8 - 1.2
Swordfern*	1.6 - 4	0.8 - 1.6
Tallowtree, Chinese	—	0.8
Tan oak resprouts*	—	1.6
Thimbleberry	1.6	0.8
Tobacco, tree*	1.6 - 3.2	0.8 - 1.6
Toyon*	—	1.6
Trumpet creeper	1.6 - 2.4	0.8 - 1.2
Vine maple*	1.6 - 4	0.8 - 1.6
Virginia creeper	1.6 - 4	0.8 - 1.6
Waxmyrtle, southern*	1.6 - 4	0.8 - 1.6
Willow	2.4	0.8
Yerba Santa*	—	1.6

*Control parcial

10.0 LIMITES EN LA GARANTÍA Y EN LA RESPONSABILIDAD

Monsanto Compañía garantiza que este producto concuerda con la descripción química de la etiqueta y es razonablemente adecuado para los propósitos descritos en el librito titulado Instrucciones Completas para el Uso ("Instrucciones") cuando se usa de acuerdo con dichas Instrucciones y las condiciones que allí se detallan. NO SE HACE NINGUNA OTRA GARANTÍA EXPRESA O IMPLÍCITA ACERCA DE LA IDONEIDAD PARA UN USO PARTICULAR O COMERCIALIZACIÓN. Esta garantía está sujeta también a las condiciones y limitaciones que aquí se indican.

El comprador y todos los usuarios deberán reportar con prontitud a esta Compañía acerca de cualquier reclamo que se base en un contrato, negligencia, estricta responsabilidad, o otros actos ilícitos.

Hasta el grado máximo permitido por la ley, el comprador y todos los usuarios son responsables por todas las pérdidas o daños que resultasen por el uso o manipulación en condiciones que estén más allá del control de esta Compañía, incluyendo pero

no limitándose a: incompatibilidad con productos que no sean los señalados en las Instrucciones, aplicación o contacto con vegetación que no se quiera destruir, condiciones climáticas inusuales, condiciones de clima que estén fuera de los límites que se consideran normales en el lugar de la aplicación y para el período de tiempo en el cual se aplica, así como condiciones de clima que estén fuera de los límites indicados en las Instrucciones, aplicaciones que no estén explícitamente aconsejadas en las Instrucciones, condiciones de humedad que estén fuera de los límites establecidos en las Instrucciones, o la presencia de productos en la tierra o sobre ella, en las plantas o en la vegetación que se está tratando, diferentes a los indicados en las Instrucciones.

Esta Compañía no garantiza ninguno de los productos reformulados o reempacados de este producto, excepto de acuerdo a los requisitos de la administración de esta Compañía y con el permiso escrito expreso de esta Compañía.

SEGÚN LO ESTABLECIDO EN LA LEY VIGENTE, LA ÚNICA Y EXCLUSIVA COMPENSACIÓN AL USUARIO O COMPRADOR Y EL LÍMITE DE RESPONSABILIDAD DE ESTA COMPAÑÍA O DE CUALQUIER OTRO VENDEDOR POR CUALQUIER PERDIDA O POR TODAS LAS PERDIDAS, PERJUICIOS O DAÑOS QUE RESULTASEN DEL USO O MANEJO DE ESTE PRODUCTO (INCLUYENDO RECLAMOS QUE SE BASEN EN UN CONTRATO, NEGLIGENCIA, ESTRUCTA RESPONSABILIDAD Y OTROS ACTOS ILÍCITOS) SERÁ EL PRECIO PAGADO POR EL USUARIO O EL COMPRADOR POR LA CANTIDAD INVOLUCRADA DE ESTE PRODUCTO, O A ELECCIÓN DE ESTA COMPAÑÍA O DE OTRO VENDEDOR, EL REEMPLAZO DE DICHA CANTIDAD. O SI NO SE OBTUVO MEDIANTE COMPRA SE REEMPLAZARÁ DICHA CANTIDAD DEL PRODUCTO. EN NINGÚN CASO ESTA COMPAÑÍA U OTRO VENDEDOR SERÁN RESPONSABLES POR DAÑOS INCIDENTALES, CONSECUENTES O ESPECIALES.

En el momento de abrir y usar el producto, se asume que el comprador y todos los usuarios han aceptado las condiciones de los LÍMITES EN LA GARANTÍA Y EN LA RESPONSABILIDAD que no pueden variar por medio de ningún acuerdo verbal o escrito. Si las condiciones son inaceptables, devuelva el producto inmediatamente sin abrir el recipiente.

Outdrider, PROformance, Roundup PRO, y Monsanto y el símbolo de la enredadera es una marca comercial de la empresa Monsanto Technology LLC.

Todas las otras marcas registradas son la propiedad de sus dueños respectivos.

Este producto está protegido por la patente de los Estados Unidos Nos 4,405,531. No se han otorgado licencias bajo ninguna patente que no sea de los Estados Unidos.

EPA Reg. No. 524-529

En caso de que se presente una emergencia relacionada con este producto, llame por cobrar a cualquier hora del día o de la noche, al teléfono (314) 694-4000.



Empacado Para:
MONSANTO COMPANY
800 N. LINDBERGH BLVD.
ST. LOUIS, MISSOURI, 63167 U.S.A.
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070109

MONSANTO COMPANY

Safety Data Sheet Commercial Product

1. PRODUCT AND COMPANY IDENTIFICATION

1.1. Product identifier

Roundup PRO® Concentrate Herbicide

1.1.1. Chemical name

Not applicable.

1.1.2. Synonyms

None.

1.1.3. EPA Reg. No.

524-529

1.2. 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

1.3. 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)

Pale amber-Pale brown /Liquid, (viscous) / Slight

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)
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Isopropylamine salt of glyphosate	38641-94-0	50.2
Ethoxylated tallowamine	61791-26-2	13
Other ingredients		36.8

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.
- 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:** Causes moderate but 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), nitrogen oxides (NO_x), phosphorus oxides (P_xO_y)

- 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

Contain spillage with sand bags or other means.

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

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

Compatible materials for storage: stainless steel, fibreglass, plastic, glass lining

Incompatible materials for storage: unlined mild steel, galvanised 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.

Recommended maximum shelf life: 2 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.
Ethoxylated tallowamine	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: If repeated or prolonged contact: Wear chemical resistant gloves. Applicators and other handlers must wear: Wear long sleeved shirt, long pants and shoes with socks.

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:	Pale amber - Pale brown
Odour:	Slight
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:	1.199 @ 20 °C /@ 15.6 °C
Vapour pressure:	No significant volatility; aqueous solution.
Vapour density:	Not applicable.
Evaporation rate:	No data.
Dynamic viscosity:	No data.
Kinematic viscosity:	No data.
Density:	1.199 g/cm3
Solubility:	Water: Soluble
pH:	4.8
Partition coefficient:	log Pow: -3.2 @ 25 °C (glyphosate)

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

unlined mild steel;galvanised 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: Causes moderate but 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: > 5,000 mg/kg body weight

Practically non-toxic.

Acute dermal toxicity

Rat, LD50: > 5,000 mg/kg body weight

Practically non-toxic.

Skin irritation

Rabbit, 6 animals, OECD 404 test:

Days to heal: 10

Primary Irritation Index (PII): 1.7/8.0

Slight irritation.

Eye irritation

Rabbit, 6 animals, OECD 405 test:

Days to heal: 7

Moderate irritation.

Acute inhalation toxicity

Rat, LC50, 4 hours, aerosol:

Practically non-toxic. No 4-hr LC50 at the maximum achievable concentration.

Skin sensitization

Guinea pig, 3-induction Buehler test:

Positive incidence: 0 %

Negative.

No skin sensitization

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

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. Triple or pressure rinse empty containers. Pour rinse water into spray tank. Store for collection by approved waste disposal service. Recycle if appropriate facilities/equipment available. Emptied containers retain vapour and product residue. Observe all labeled safeguards until container is cleaned, reconditioned or destroyed. Follow all local/regional/national/international regulations. Do NOT re-use containers for any purpose other than for the storage of pesticides, if allowed by label.

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. ()
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14.2. IMDG Code

Proper Shipping Name (Technical Name if required):	Not regulated for transport under IMO Regulations ()
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14.3. IATA/ICAO

Proper Shipping Name (Technical Name if required):	Not regulated for transport under IATA/ICAO Regulations ()
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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 MODERATE 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. Skin sensitization: No skin sensitization

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.

|| Significant changes versus previous edition.

	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.

**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) HELENA CHEMICAL COMPANY	
Business name, if different from above	
Check appropriate box: <input type="checkbox"/> Individual/ Sole proprietor <input checked="" type="checkbox"/> Corporation <input type="checkbox"/> Partnership <input type="checkbox"/> Other ▶	<input checked="" type="checkbox"/> Exempt from backup withholding
Address (number, street, and apt. or suite no.) 225 Schilling Blvd., Suite 300	
City, state, and ZIP code Collierville, TN 38017	
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 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
| | | | | | | | | |

or
Employer identification number
7 1 0 2 9 3 6 8 8

Part II Certification

Under penalties of perjury, I certify that:

- 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
- 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
- I am a U.S. person (including a U.S. resident alien).

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 4.)

Sign Here	Signature of U.S. person ▶ <i>Thomas Williams</i>	Date ▶ January 5, 2009
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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, real estate transactions, mortgage interest you paid, acquisition or abandonment of secured property, cancellation of debt, or contributions you made to an IRA.

U.S. person. 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:

- Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),
- Certify that you are not subject to backup withholding, or
- Claim exemption from backup withholding if you are a U.S. exempt payee.

In 3 above, 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.

Note. If 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.

For federal tax purposes, you are considered a person if you are:

- An individual who is a citizen or resident of the United States,
 - A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States, or
 - Any estate (other than a foreign estate) or trust. See Regulations sections 301.7701-6(a) and 7(a) for additional information.
- Special rules for partnerships.** Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax on any foreign partners' share of income from such business. Further, in certain cases where a Form W-9 has not been received, a partnership is required to presume that a partner is a foreign person, and pay the 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 withholding on your share of partnership income.
- The person who gives 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 is in the following cases:
- The U.S. owner of a disregarded entity and not the entity,