

VENDOR

SIGNATURE

Area

State of West Virginia Department of Administration Purchasing Division 2019 Washington Street East Post Office Box 50130 Charleston, WV 25305-0130

# Request for Quotation

S H P

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6610C017

ADDRESS CORRESPONDENCE TO ATTENTION OF

MICHAEL AUSTIN 304-558-2402

DIVISION OF HIGHWAYS VARIOUS LOCALES AS INDICATED BY ORDER

RECEIVED MAR 0 1 2010

**\*709022308** 614-486-8994 NOXIOUS VEGETATION CONTROL INC PO BOX 21757 COLUMBUS OH 43221-0757

DATE PRIN	<u> </u>	TEF	RMS OF SAL	E	SHIP VIA	FOB	FREIGHTTERMS
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31-4444304

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

614-486-8994

29/2010

ADDRESS CHANGES TO BE NOTED ABOVE

# GENERAL TERMS & CONDITIONS REQUEST FOR QUOTATION (RFQ) AND REQUEST FOR PROPOSAL (RFP)

- 1. Awards will be made in the best interest of the State of West Virginia.
- 2. The State may accept or reject in part, or in whole, any bid.

3. Prior to any award, the apparent successful vendor must be properly registered with the Purchasing Division and have paid the required \$125 fee.

- 4. All services performed or goods delivered under State Purchase Order/Contracts are to be continued for the term of the Purchase Order/Contracts, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise available for these services or goods this Purchase Order/Contract becomes void and of no effect after June 30.
- 5. Payment may only be made after the delivery and acceptance of goods or services.
- 6. Interest may be paid for late payment in accordance with the West Virginia Code.
- 7. Vendor preference will be granted upon written request in accordance with the West Virginia Code.
- 8. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.
- 9. The Director of Purchasing may cancel any Purchase Order/Contract upon 30 days written notice to the seller.
- 10. The laws of the State of West Virginia and the Legislative Rules of the Purchasing Division shall govern the purchasing process.
- 11. Any reference to automatic renewal is hereby deleted. The Contract may be renewed only upon mutual written agreement of the parties.
- 12. BANKRUPTCY: In the event the vendor/contractor files for bankruptcy protection, the State may deem this contract null and void, and terminate such contract without further order.
- 13. HIPAA BUSINESS ASSOCIATE ADDENDUM: The West Virginia State Government HIPAA Business Associate Addendum (BAA), approved by the Attorney General, is available online at www.state.wv.us/admin/purchase/vrc/hipaa.htm and is hereby made part of the agreement. Provided that the Agency meets the definition of a Cover Entity (45 CFR §160.103) and will be disclosing Protected Health Information (45 CFR §160.103) to the vendor.
- 14. CONFIDENTIALITY: The vendor agrees that he or she will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the agency's policies, procedures, and rules. Vendor further agrees to comply with the Confidentiality Policies and Information Security Accountability Requirements, set forth in http://www.state.wv.us/admin/purchase/privacy/noticeConfidentiality.pdf.
- 15. LICENSING: Vendors must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, and the West Virginia Insurance Commission. The vendor must provide all necessary releases to obtain information to enable the director or spending unit to verify that the vendor is licensed and in good standing with the above entities.
- 16. ANTITRUST: In submitting a bid to any agency for the State of West Virginia, the bidder offers and agrees that if the bid is accepted the bidder will convey, sell, assign or transfer to the State of West Virginia all rights, title and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the State of West Virginia for price fixing and/or unreasonable restraints of trade relating to the particular commodities or services purchased or acquired by the State of West Virginia. Such assignment shall be made and become effective at the time the purchasing agency tenders the initial payment to the bidder.

I certify that this bid is made without prior understanding, agreement, or connection with any corporation, firm, limited liability company, partnership, or person or entity submitting a bid for the same material, supplies, equipment or services and is in all respects fair and without collusion or Fraud. I further certify that I am authorized to sign the certification on behalf of the bidder or this bid.

## INSTRUCTIONS TO BIDDERS

- 1. Use the quotation forms provided by the Purchasing Division. Complete all sections of the quotation form.
- 2. Items offered must be in compliance with the specifications. Any deviation from the specifications must be clearly indicated by the bidder. Alternates offered by the bidder as **EQUAL** to the specifications must be clearly defined. A bidder offering an alternate should attach complete specifications and literature to the bid. The Purchasing Division may waive minor deviations to specifications.
- 3. Unit prices shall prevail in case of discrepancy. All quotations are considered F.O.B. destination unless alternate shipping terms are clearly identified in the quotation.
- 4. All quotations must be delivered by the bidder to the office listed below prior to the date and time of the bid opening. Failure of the bidder to deliver the quotations on time will result in bid disqualifications: Department of Administration, Purchasing Division, 2019 Washington Street East, P.O. Box 50130, Charleston, WV 25305-0130
- 5. Communication during the solicitation, bid, evaluation or award periods, except through the Purchasing Division, is strictly prohibited (W.Va. C.S.R. §148-1-6.6).



\*709022308

PO BOX 21757

State of West Virginia
Department of Administration
Purchasing Division
2019 Washington Street East
Post Office Box 50130
Charleston, WV 25305-0130

614-486-8994

# Request for Quotation

6610C017

PAGE 2

ADDRESS CORRESPONDENCE TO ATTENTION OF

MICHAEL AUSTIN 304-558-2402

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COLUMBUS OH 43221-0757

NOXIOUS VEGETATION CONTROL INC

DIVISION OF HIGHWAYS
VARIOUS LOCALES AS INDICATED
BY ORDER

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Purchasing Division
2019 Washington Street East Post Office Box 50130 Charleston, WV 25305-0130

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614-486-8994 \*709022308 NOXIOUS VEGETATION CONTROL INC PO BOX 21757

COLUMBUS OH 43221-0757

DIVISION OF HIGHWAYS VARIOUS LOCALES AS INDICATED BY ORDER

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State of West Virginia
Department of Administration
Purchasing Division
2019 Washington Street East
Post Office Box 50130
Charleston WV 25205 0102 Charleston, WV 25305-0130

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State of West Virginia Department of Administration Purchasing Division 2019 Washington Street East Post Office Box 50130 Charleston, WV 25305-0130

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COLUMBUS OH

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Department of Administration
Purchasing Division
2019 Washington Street East
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RFQ NUMBER

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\*709022308 614-486-8994 NOXIOUS VEGETATION CONTROL INC PO BOX 21757

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DIVISION OF HIGHWAYS
VARIOUS LOCALES AS INDICATED
BY ORDER

ADDRESS CHANGES TO BE NOTED ABOVE

DATE PRINTED TERMS OF SALE SHIP VIA F.O.B. FREIGHT TERMS 02/23/2010 BID OPENING DATE: 03/31/2010 BID OPENING TIME 01:30PM CAT. QUANTITY UOP LINE UNIT PRICE ITEM NUMBER TRUOMA NOTE: THIS ADDENDUM ACKNOWLEDGEMENT SHOULD BE SUBMITTE WITH THE BID. REV. 09/21/2009 EXHIBIT 4 LOCAL GOVERNMENT BODIES: UNLESS THE VENDOR INDICATES IN THE BID HIS REFUSAL TO EXTEND THE PRICES, TERMS, AND CONDITIONS OF THE BID TO COUNTY, SCHOOL, MUNICIPAL AND OTHER LOCAL GOVERNMENT BODIES, THE BID SHALL EXTEND TO POLITICAL SUBDIVISIONS OF THE STATE OF WEST IF THE VENDOR DOES NOT WISH TO EXTEND THE VIRGINIA. PRICES, TERMS, AND CONDITIONS OF THE BID TO ALL POLITICAL SUBDIVISIONS OF THE STATE, THE VENDOR MUST CLEARLY INDICATE SUCH REFUSAL IN HIS BID. SUCH REFUSAL SHALL NOT PREJUDICE THE AWARD OF THIS CONTRACT IN ANY MANNER. REV. 3/88 PURCHASING CARD ACCEPTANCE: THE STATE OF WEST VIRGINIA CURRENTLY UTILIZES A VISA PURCHASING CARD PROGRAM WHIC IS ISSUED THROUGH A BANK. THE SUCCESSFUL VENDOR MUST ACCEPT THE STATE OF WEST VIRGINIA VISA PURCHASING CARD FOR PAYMENT OF ALL ORDERS PLACED BY ANY STATE AGENCY AS A CONDITION OF AWARD. SEE REVERSE SIDE FOR TERMS AND CONDITIONS 4-486-8994

31-4444304



State of West Virginia Department of Administration Purchasing Division 2019 Washington Street East Post Office Box 50130 Charleston, WV 25305-0130

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RFQ NUMBER

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AUGUATI AUGUTAN

MICHAEL AUSTIN 304-558-2402

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\*709022308 614-486-8994 NOXIOUS VEGETATION CONTROL INC PO BOX 21757

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DIVISION OF HIGHWAYS
VARIOUS LOCALES AS INDICATED
BY ORDER

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02/23/					
BID OPENING DATE:	03/31/		BID	OPENING TIME	01:30PM
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TITLE Area M	anager "	31-4444	1304	ADDRESS CH	ANGES TO BE NOTED ABOVE

# 9 4. ACCEPTANCE PLAN

With each delivery of herbicide products to the Division, the vendor shall certify that the products so delivered do conform to the properties described in the EPA Registration.

Material failing to comply with the quality requirement will not be accepted.

# 5. <u>TESTING PROCEDURES</u>

Upon award of contract, the successful vendor shall supply the Division of Highways, Materials Control, Soil and Testing Division, 312 Michigan Avenue, Charleston, West Virginia 25311, the proper testing procedures to determine the presence and concentration of the Herbicide in flowing water.

# 6. BID QUANTITIES

Vendor should base quotation on estimated herbicide use as follows:

DOH-1H	3,000	gallons
DOH-2H	6,000	gallons
DOH-3H	100	pounds
DOH-4H	250	gallons
DOH-5H	150	gallons
DOH-6H	600	gallons
DOH-7H	500	gallons
DOH-8H	250	gallons
DOH-9H	2000	pounds
DOH-10H	100	gallons
DOH-11H	25	gallons
DOH-12H	50	gallons
DOH-13H	50.	gallons
DOH-14H	150	pounds
DOH-15H	25	cases
DOH-16H	10	pounds
DOH-17H	100	gallons
DOH-18H	50	pounds
DOH-19H	25	gallons
DOH-20H	50	gallons
DOH-21H	300	gallons
DOH-22H	300	gallons
DOH-23H	100	gallons
DOH-24H	50	pounds
DOH-25H	100	pounds
DOH-26H	16	gallons
DOH-27H	16	gallons
DOH-28H	50	pounds
DOH-29H	400	ounces
DOH-30H	50	gallons
DOH-31H	100	gallons
DOH-32H	100	pounds
DOH-33H	100	pounds
DOH-34H	400	pounds
DOH-35H	50	pounds
DOH-36H	100	gallons
DOH-37H	100	gallons
DOH-38H	100	pounds

Vendors are cautioned that the above quantities are estimates only. Actual orders will be for the required needs of the Division of Highways.

1. SPECIFICATIONS

The following sections of the West Virginia Department of Transportation, Division of Highways Standard Specification Roads and Bridges, adopted 2000, as modified by the current Supplemental Specifications shall apply to the administration of this Contract: 101, 102.4, 102.5, 105.1, 105.3, 105.4, 105.10, 105.11, 105.12, 105.13, 106.3, 106.4, 106.5, 106.6, 106.7, 106.9, 107.1, 107.2, 107.3, 107.14, 107.19, 107.20, 108.8, 109.1, 109.2, and 109.20

The terms "Contractor" and "Vendor" used in the above specifications or this contract are interchangeable. Contractor shall mean Vendor and Vendor shall mean Contractor.

West Virginia Department of Transportation, Division of Highways Standard Specifications Roads and Bridges, adopted 2000 and the current Supplemental Specifications may be obtained from:

Office of the Director of Contract Administration Division Room A-729 West Virginia Division of Highways State Capitol Complex, Building 5 Charleston, West Virginia 25305

Herbicide furnished under this contract shall conform to the physical and chemical properties set out in the EPA Registration of the product provided by the Vendor.

## 2. BIDDING INSTRUCTIONS

Vendors may quote on any or all of the chemical products listed herein.

It is the intent to award a Statewide Contract for each chemical product listed herein. The contract will be awarded to the lowest compliant bidder for each item. The award for each item will be based on the bid price per gallon, pound or ounce and not the lot or container amount.

The vendor shall list the trade name and EPA Registration Number, where applicable, on the Bidding Schedule for each chemical product bid. Failure to list this information may result in the disqualification of the vendor's bid on that product.

Vendors shall not qualify bids. Any qualification of bids or any modification of the specifications or conditions governing the bids may be cause to reject bids.

The successful vendor shall furnish two product labels, for each product awarded, to the West Virginia Division of Highways. The labels shall provide pertinent information regarding product storage and handling or this information shall otherwise be provided with each shipment.

Equivalency where requested as, chemical name or equivalent, shall mean equal and not necessarily identical. Prior to award of low bid the Division of Highways may require samples for evaluation to determine equivalency when applicable. Product specifications and technical information should be submitted with bid and may also be used to determine equivalency. The final determination of equivalency will be made by the Division of Highways and award will be based upon the item providing the intended service or result and unit price.

# CONTRACT AWARD

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Qualified vendors who submit a valid low bid will be awarded a contract for those items for which their bid is low.

The State of West Virginia reserves the right to make multiple awards on this contract when it is in the best interest of the State to do so.

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7. <u>DELIVERY</u>

Materials under this contract are to be shipped prepaid F.O.B. delivery to West Virginia Division of Highways District Storerooms as follows:

District One Charleston Huntington District Two Parkersburg District Three Clarksburg District Four Burlington District Five Moundsville District Six Weston District Seven Elkins District Eight Lewisburg District Nine Princeton District Ten

Materials should be shipped to the location and in the quantity specified in State Contract Purchase Orders (SCOs) within 20 days after the SCO is issued by the Division of Highways.

# 8. VENDOR'S INVOICES

Vendor's invoices must be submitted in original and four copies and contain the following:

- Division of Highways State Contract Order (SCO) Numbers, and this Contract Number.
- b. Total quantity and unit price with the total cost of each type of material furnished.

Note: Under no circumstance will the West Virginia Division of Highways accept, or pay for, quantities of material in excess of the quantity stated on the State Contract Purchase Order.

## 9. RESTRICTED AND NON-RESTRICTED HERBICIDES

Herbicide products which have been declared RESTRICTED in their use by the Environmental Protection Agency (EPA) must be applied under the supervision of a licensed herbicide applicator. The Department reserves the right to disallow the use of RESTRICTED herbicides when non-restricted herbicides are available to achieve the same objective.

# 10. TRAINING AND TECHNICAL ASSISTANCE

In order to bid on and be awarded items on this contract the vendor must have a competent representative available to provide training and technical assistance as required or upon request by WVDOH personnel, including but not limited to, an annual West Virginia Division of Highways Vegetation Management Seminar and attend the mandatory prebid meeting. Each bidder should submit name and telephone number of representative with bid. The representative shall have a valid Category 7 certification in West Virginia and the company shall have a valid Category 12 certification in West Virginia. Copies of these certifications should be submitted with the bid.

Failure to comply will result in awarding that vendor's Items to the next lowest compliant bidder.

Michael Jennings 614 486-8994 PO Box 21757
Columbus OH 43221

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# 11. LIST OF APPROVED HERBICIDES

The Product Trade Name shown is the approved herbicide to be bid. No substitutes will be accepted.

# 12. ADJUVANTS, SAFETY EQUIPMENT AND MISCELLANEOUS

Unless a Product Trade Name is requested these Items will be awarded based on the lowest unit price bid for acceptable performance. Lowest unit price bid will be determined by comparing minimum label recommendations per 100 gallons of spray solution and unit price. Acceptable performance will be determined by District personnel assessment of desired results and may include, but is not limited to, field test evaluations.

# 13. MANDATORY PRE-BID

There will be a mandatory pre-bid meeting on March 12, 2010, at 10:00 AM.

#### Location:

Purchasing Division Conference Room 2019 Washington Street, East, Building 15 Charleston, WV 25305

# **HERBICIDES**

# CHEMICAL FORMULATION

Percent Concentration/ Pounds per Gallon of Active Ingredients

DOH-1H	WATER SOLUBLE EMULSIFIABLE CONCENTRATE CONTAININ Ammonium Salt of Fosamine with Surfactant	<u>G:</u> 4 lbs/gallor
	Product Trade Name Krenite S	
	EPA Registration Number	
	Supplied in 2 1/2 gallon containers in lots of 5 gallons.	
Α)	@ \$ per gallon (i.e. \$ per lot)	
	Supplied in 15 gallon returnable/refillable containers.	
В)	@ \$ per gallon (i.e. \$ per lot)	
DOH-2H	WATER SOLUBLE EMULSIFIABLE CONCENTRATE CONTAININ Isopropylamine Salt of Glyphosate Phosphate Ester Surfactant	<u>G:</u> 50.2%
	Product Trade Name Roundup Pro Concentrate	
	EPA Registration Number	
	Supplied in 30 gallon plastic returnable drums.	
A)	@ \$ per gallon (i.e. \$ per drum)	
	Supplied in 2.5 gallon containers in lots of 5 gallons.	
В)	@ \$ per gallon (i.e. \$ per lot)	
	Supplied in 15 gallon returnable/refillable containers.	
C)	@ \$ per gallon (i.e. \$ per lot)	
	Supplied in 150 gallon returnable/refillable shuttle.	
D)	@ \$ per gallon (i.e. \$ per shuttle)	

The <u>Bid Schedules</u> are ready for download on Purchasing's Web site at <u>www.state.wv.us/admin/purchase</u>

DOH-3H	DISPERSIBLE GRANULES CONTAINING: Sulfometuron Methyl	75%
	Product Trade Name Oust XP	
	EPA Registration Number	-
	Supplied in 3 pound containers in lots of 24 pounds.	
A)	@ \$ per pound (i.e. \$	per lot)
В)	Supplied in 3 pound jug	
	@ \$ per pound (i.e. \$	per jug)
DOH-4H	WATER SOLUBLE AQUEOUS SUSPENSION CON	NTAINING: 4 lbs/gallon
	Product Trade Name Oryzalin 4 Pro	umder bankelen verreichten.
•	EPA Registration Number	·
	Supplied in 2.5 gallon containers in lots of 5 gallons.	
A)	@ \$ per gallon (i.e. \$	per lot)
DOH-5H	AQUEOUS SOLUTION CONTAINING: Imazapyr	2 lbs/gallon
	Product Trade Name Arsenal Powerline	
	EPA Registration Number	
	Supplied in 1 quart containers in lots of 4 quarts	
A)	@ \$ per quart (i.e. \$	per lot)
	Supplied in 2.5 gallon containers in lots of 5 gallons	
В)	@ \$ per gallon (i.e. \$	per lot)
	Supplied in 15 gallon drums	
C)	@ \$ per gallon (i.e. \$	per drum)

DOH-6H	AQUEOUS CAR Pendimethalin	RIER CONTAINING:		3.8 lbs/gailon
	Product Trade Na	ame <u>Pendulum AquaCa</u>	<b>p</b>	
	EPA Registration	Number		
	Supplied in 2.5 ga	allon container in lots of 5 ga	allons	
A)	@\$	per gallon (i.e, \$	per lot)	
DOH-7H	WATER SOLUBL Triclopyr	E CONCENTRATE CONT	**************************************	lbs/gallon
	Product Trade Na	me Garion 3A		
	EPA Registration	Number <u>62719-37</u>	MANA was a Assaultan and a same and a same as a same a same as a same a same a same a same a same a same a same a sa	
	Supplied in 2.5 ga	llon containers in lots of 5 g	allons	
A)	@\$ <u>49.46</u>	per gallon (i.e. \$ <u>247.3</u>	0 per lot)	
	Supplied in 30 gal	lon containers		
В)	@\$_N/A	per gallon (i.e. \$	per container)	
	Supplied in 15 gal	on continuum returnable/re	fillable containers in pallets	of 9 containers
C)	@ \$ <u>N/A</u>	per gallon (i.e. \$	per pallet)	•
DOH-8H	WATER SOLUBL Triclopyr	E CONCENTRATE CONTA		l lbs/gallon
	Product Trade Nar	ne <u>Garlon 4 Ultra</u>		
	EPA Registration N	Number		
	Supplied in 2.5 gal	lon containers in lots of 5 ga	allons	
A)	@\$	_ per gallon (i.e. \$	per lot)	
	Supplied in 30 gallo	on containers		
B)	@\$	_ per gallon (i.e. \$	per container)	
	Supplied in 15 gallo	on continuum returnable/ref	illable containers in pallets (	of 9 containers
C)	@\$	per gallon (i.e. \$	per pallet)	

DOH-9H	A WATER SOLUBLE DISPERSIBLE GRANULE CONTAINING: Diuron 80	0.0%
	Product Trade Name Karmex XP	
	EPA Registration Number	
	Supplied in 5 pound bags in lots of 10 bags	
A)	@ \$ per pound (i.e. \$ per lot)	
	Supplied in 25 pound bags	
B)	@ \$ per pound (i.e. \$ per bag)	
DOH-10H	WATER SOLUBLE LIQUID CONTAINING: Dimethylamine Salt of 2, 4-D acid	3.8 lbs/gallon
	Product Trade NameDM A4	
	EPA Registration Number	
	Supplied in 2.5 gallon containers in lots of 5 gallons	
A)	@ \$ per gallon (i.e. \$ per lot)	
	Supplied in 30 gallon drums	
B)	@ \$ per gallon (i.e. \$ per drum)	
C)	Supplied in 15 gallon returnable/refillable containers in pallets of 9 containers	
	@ \$ per gallon (i.e. \$ per lot)	
DOH-11H	WATER SOLUBLE LIQUID CONTAINING: Diethanolamine Salt of Mefluidide Ammonium Salt of Imazethapyr Ammonium Salt of Imazapyr	21.45% 4.09% 0.15%
	Product Trade Name Stronghold	
	EPA Registration Number	
	Supplied in 1 gallon containers in lots of 4 gallons	
A)	@\$ per gallon (i.e. \$ per lot)	

DOR-12H	Ammonium Salt of Imazapic			23.6%
	Product Trade Nam	e Plateau		
	EPA Registration No	umber		
	Supplied in 1 gallon	containers in lots of 2 gallons		
A)	@\$	per gallon (i.e. \$	per lot)	
	Supplied in 2.5 gallo	on containers in lots of 5 gallons		
В)	@\$	per gallon (i.e. \$	_ per lot)	
	Supplied in 1.44 oz	packets 14 packets per lot		
C)	@\$	per packet (i.e. \$	per lot)	
	Supplied in 1 qt con	tainers 4 qts per lot		
D)	@\$	per qt (i.e. \$	per lot)	
E)	Supplied in 15 gallo	n containers		
	@\$	per gallon (i.e. \$	per lot)	
DOH-13H	A DISPERSIBLE L' Hexazinone	IQUID CONTAINING:		2 lbs/gallon
	Product Trade Nam	e <u>Velpar L</u>		
	EPA Registration N	umber	<u>.</u>	
	Supplied in 2 ½ gall	on containers in lots of 5 gallons	;	
A)	@\$	per gallon (i.e. \$	_ per container)	

DOH-14H	DRY FLOWABLE CONTAINING: Metsulfuron Methyl	60%
	Product Trade Name	
	EPA Registration Number	
	Supplied in 16 oz. containers in lots of 8 lbs. (8-16 oz. ctrs.)	
A)	@ \$ per oz. (i.e. \$ per lot)	
	Supplied in 16 oz. jug	
В)	@ \$ per oz (i.e. \$ per jug)	
C)	Supplied in 64 oz Jug returnable/refillable	
	@ \$ per oz (l.e. \$ per jug)	
DOH-15H	WATER SOLUBLE GRANULE HERBICIDE CONTAINING: Ammonium Salt of Glyphosate	71.4%
	Product Trade Name Roundup Pro dry	
	EPA Registration Name	
A)	Supplied in 23.25 lb. box	
	@ \$ per lb.)	
DOH-16H	DRY FLOWABLE CONTAINING: Chiorsulfuron	75%
	Product Trade Name	
	EPA Registration Number	
	Supplied in 8 x 16 ounce containers to a case	
A)	@ \$ per ounce (i.e. \$ per container)	

OOH-17H  A LIQUID SOLUTION CONTAINING: Isooctyl ester of 2.4 Dichlorophenoxyacetic Acid				32.48%	
	2-ethylhrxyl ester Propionic Acid	of +R-2-(2,4-Dichlorophenoxy)		15.90%	
	Dicamba (3, 6-Di	choloro-o-anísic Acid		5.38%	
	Product Trade Na	ame <u>BK-800</u>			
	EPA Registration	Number			
	Supplied in 2.5 g	allon containers in lots of 5 gallon	s		
A)	@\$	per gallon (i.e. \$	per lot)		
	Supplied in 30 ga	allon drums			
B)	@\$	per gallon (i.e. \$	per drum)		
DOH-18H	DRY FLOWABL Tebuthiuron	E CONTAINING:		80%	
	Product Trade Na	ame Spike 80 DF			
	EPA Registration	Number			
	Supplied in 4 pol	and bags in lots of 24 pounds			
A)	@\$	per pound (i.e. \$	per lot)		
	Supplied in 25 po	ound bags			
В)	@\$	per pound (i.e. \$	per lot)		
DOH-19H	A WATER SOLL Clopyralid	IBLE EMULSFIABLE CONCERT	FRATE CONTAINING:	3 lbs/gallon	
	Product Trade Na	ame <u>Transline</u>			
	EPA Registration	Number			
	Supplied in 2.5 gi	allon containers in lots of 5 gallon	s		
A)	@\$	per gallon (i.e. \$	per lot)		
В)	Supplied in .5 gal	lon containers in lots of 2 gallons			
	@\$	per gallon (l.e. \$	per lot)	•	

DOH-20H	AQUEOUS SOLUTION CONTAINING: Isopropylamine Salt of Imazapyr	27.6%
	Product Trade Name <u>Stalker</u>	
	EPA Registration Number	
	Supplied in 1 quart containers in lots of 4 quarts	. •
A)	@ \$ per quart (i.e. \$ per lot)	
DOH-21H	AQUEOUS SOLUTION CONTAINING: Diglycolamine Salt of 3, 6-Dichloro-0- Anisic Acid	4 lbs/galion
	Product Trade Name <u>Vanquish</u>	
	EPA Registration Number	
	Supplied in 2.5 gallon containers in lots of 5 gallons	
A)	@ \$ per gallon (i.e. \$ per lot)	
	Supplied in 15 gallon returnable/refillable containers in pallets of 9 containers	
В)	@ \$ per gallon (i.e. \$ per pallet)	
DOH-22H	AQUEOUS SOLUTION CONTAINING: Triclopyr	.75 lbs/gallon
	Product Trade Name Pathfinder II	
	EPA Registration Number 62719-176	
	Supplied in 2.5 gallon containers in lots of 5 gallons	
A)	@ \$ 44.80 per gallon (i.e. \$ 224.00 per lot)	
DOH-23H	WATER SOLUBLE EMULSIFIABLE CONCENTRATE CONTAINING: Isopropylamine Salt of Glyphosate	53.8%
	Product Trade Name Rodeo	
	EPA Registration Number	
	Supplied in 2.5 gallon containers in lots of 5 gallons	
A)	@ \$ per gallon (i.e. \$ per lot)	
	Supplied in 30 gallon plastic returnable drums	
R۱	@\$ per gatton (i.e. \$ per drum)	

DOH-24H	A LIQUID CONTAINING: Aminopyralid	40.6%
	Product Trade Name Milestone VM	
	EPA Registration Number 62719-537	
-	Supplied in 1 quart containers 12 containers per lot	
A)	@ \$ per quart (i.e. \$ per lot)	
	Supplied in 2.5 gallon containers 5 gallons per lot	
B)	@ \$ per gallon (i.e. \$ per lot)	
DOH-25H	WATER DISPERSIBLE GRANULAR MATERIAL CONTAINING: Prodiamine	65%
	Product Trade Name Endurance	
	EPA Registration Number	
	Supplied in 10 pound containers 50 pounds per lot	
A)	@ \$ per pound (i.e. \$ per lot)	
DOH-26H	EMULSIFIABLE CONCENTRATE CONTAINING: Quizalofop P-Ethyl	0.88 lbs/gallon
	Product Trade Name Assure II	
	EPA Registration Number	
	Supplied in 1 gallon containers in lots of 4 gallons	
A)	@ \$ per gallon (i.e. \$ per lot)	
DOH-27H	EMULSIFIABLE CONCENTRATE CONTAINING: Fluazifop-P-butyl	6.75%
	Product Trade Name Ornamec	
	EPA Registration Number	
,	Supplied in 1 gallon containers in lots of 4 gallons	
· A)	@ \$ per gallon (i.e. \$ per lot)	

DOH-28H	A DISPERSIBLE GRANULE CONTAINING:	
	lmazapyr Diuron	7.78% 62.22%
	Product Trade Name Sahara DG	
	EPA Registration Number	
·	Supplied in 10 pound bags in lots of 40 pounds.	
A)	@ \$ per pound (i.e. \$ per lot)	
DOH-29H	A WATER SOLUBLE DRY GRANULE CONTAINING: Sulfosulfuron	75%
	Product Trade Name <u>Outrider</u>	
	EPA Registration Number	
	Supplied in 20 oz bottles in lots of 200 oz	
A)	@ \$ per oz (i.e. \$ per lot)	
DOH-30H	A LIQUID CONTAINING: Diuron	40%
	Product Trade Name <u>Diuron 4L</u>	
	EPA Registration Number	
	Supplied in 2.5 gallon containers in lots of 5 gallons	
A)	@ \$ per gallon (i.e. \$ per lot)	•
DOH-31H	A LIQUID CONTAINING Fluroxypyr	26.2%
	Product Trade Name Vista XRT	
	EPA Registration Number 62719-308	
	Supplied in 2.5 gallon containers in lots of 5 gallons	
۸۱	@ \$ 162.80 per gellen (i.e. \$ 814.00 per let)	

DOH-32H	WETTABLE GRANULE FORMULATION CONTAINING Sodium salt of diflufenzopy: 2-[1-({3.5-difluorophenylamino} carbony}] hydrazono} ethyl)-3-pyridinecarboxylic acid, sodium Sodium salt of 3.6-dichloro-o-anisic acid	21.4% 55.0%
	Product Trade Name <u>Overdrive</u>	
	EPA Registration Number	
	Supplied in 7 ½ lb. jugs. 30 lbs. per case	
A)	@ \$ per lb. (i.e. \$per case)	
DOH-33H	DISPERSIBLE GRANULES CONTAINING Sulfometuron Methyl Chiorsulfuron	56.25% 18.75%
	Product Trade Name Landmark XP	
	EPA Registration Number	
	Supplied in 4 lb. jugs in lots of 32 lbs.	
A)	@ \$ per lb. (i.e. \$ per case)	
	Supplied in 64 oz jug returnable/refillable	
. B)	@ \$ per oz. (i.e. \$ per jug)	
DOH-34H	DISPERSIBLE GRANULES CONTAINING Sulfometuron Methyl Metsulfuron Methyl	56.25% 15.00%
	Product Trade Name Oust Extra	
	EPA Registration Number	
	Supplied in 4 lb. jugs in lots of 32 lbs.	
A)	@ \$ per lb. (i.e. \$ per lot)	
	Supplied in 64 oz. returnable/refillable	
B)	@ \$ per oz. (i.e. \$ per jug)	
	Supplied in 12 lb. jugs	
C)	@ \$ per lb. (i.e. \$ per jug)	

# DOH-35H A DRY FLOWABLE GRANULE CONTAINING: Bromacil

Bromacil Diuron

	Floubol Hade Name Nioval 1 DF	
	EPA Registration Number	
	Supplied in 6 lb containers in lots of 8 containers	
A)	@ \$ per lb (i.e. \$ per lot)	
DOH-36H	A LIQUID CONTAINING: Imazapic Glyphosate	8.13% 21.94%
	Product Trade Name <u>Journey</u>	
	EPA Registration Number	
	Supplied in 7 ½ lb. jugs. 30 lbs. per case	
	EPA Registration Number	
	Supplied in 2.5 gallon containers in lots of 5 gallons	
A)	@ \$ per gallon (i.e. \$ per lot)	
DOH-37H	A LIQUID CONTAINING: Dimethylamine Salt of 2,4-Dichlovophenoxyacetic Acid Dimethylamine Salt of Dicamba (3,6-Dichloro-o-Anisic Acid)	24.58% 12.82%
	Product Trade Name Veteran 720	
	EPA Registration Number	
	Supplied in 2.5 gallon containers in lots of 5 gallons	
A)	@ \$ per gallon (i.e. \$ per lot)	
	Supplied in 30 gallon drums	
B)	@ \$ per gallon (i.e. \$ per drum)	
DOH-38H	DISPERSIBLE GRANULES CONTAINING Chlorsulfuron Sulfometuron Methyl Sulfentrazone	9% 18% 48%
	Product Trade Name Throttle XP	
	EPA Registration Number	
	Supplied in 3.9 lb. containers, 8 containers per case	
A)	@ \$ per lb (i.e. \$ per case)	
	<u>ADJUVANTS</u>	
DOH-1A	A WATER SOLUBLE BLUE LIQUID SPRAY PATTERN INDICATOR	
	Product Trade Name Bullseye	

	Supplied in 2.5 ga	<u>allon</u> containe	rs in lots of5	gallons
A)	@\$	per gallon (i.	e.\$	per lot)
DOH-2A	A MISCIBLE-DISPER	RSIBLE LIQUID	DEFOAMER (30%	Active Ingredient)
	Product Trade Name			
	Supplied in	container	s in lots of	·····
A)	@\$	per (i.	e. \$	per lot)
DOH-3A	A DILUENT WITH E	VIULSIFIERS		
	Product Trade Name		or Arborchem Bas Basal Oil or Peneva	
	Supplied in	container	s in lots of	gallons
A)	@\$	per gallon (	i,e, \$	per lot)
DOH-4A	NON-IONIC SURFAC	<u>CTANT</u> (90% A	ctive Ingredient)	
	Product Trade Name		MANAGEMENT	
	Supplied in	containe	ers in lots of	gallons
A) .	@\$	per gallon (	i.e. \$	per lot)
DOH-5A	A GRANULAR/FLA	KE DRIFT CON	TROL AGENT	
	Product Trade Name			
	Supplied in	container	s in lots of	containers
A)	@\$	per	(i.e. \$	per lot)
DOH-6A	A LIQUID DRIFT CO	NTROL AGEN	<u>r</u>	
	Product Trade Name			
	Supplied in	containe	ers in lots of	
· A)	@\$	per	(i.e. \$	per lot)
DOH-7A	AQUATIC SURFACT	TANT		
	Product Trade Name		····	
<u></u>	Supplied in	containe	ers in lots of	gallons
A)	@\$	per gallon (	i.e. \$	per lot)

DOH-8A	A WATER SOLUBLE LIQUID SPRAY PATTERN INDICATOR		
	Product Trade Name	Blueprint Plus	
	Supplied in 2.5 gall	on containers in lots of	5 gallons
A)	@\$	_ per gallon (i.e. \$	per lot)
DOH-10A	A NON-IONIC STICKE	ER SPREADER	
	Product Trade Name	Nu-Film-IR	
	Supplied in 2 ½ gallon	containers in lots of	gallons
A)	@\$	per gallon (i.e. \$	per lot)
DOH-11A	A READY TO USE FO	RMULA CONTAINING PARFI	FINIC OIL EMULSIFIERS
	Product Trade Name	Thinvert RTU	
	Supplied in 2 ½ gallon	jugs. 5 gallon per case	
A)	@\$	per gallon (i.e. \$	per case)
	Supplied in 15 gallon d	rum	
B)	@ \$	_per gallon	
DOH-12A	A CONCENTRATE F AND SURFACTANT	FORMULA CONTAINING PAR S	FINNK OIL EMULSIFIERS
	Product Trade Name	Thinvert Concentrate	
	Supplied in 2 ½ gallo	n jugs. 5 gallon per case	
A)	@\$	per gallon (i.e. \$	per case)
	Supplied in 15 gallon	drum	
B)	@ <b>\$</b>	per gallon	

# SAFETY EQUIPMENT

DOH-1S	EMERGENCY SPILL KI	T CONTAINING:	
	15 Universal Plus Sorber 3 Cobra Colls 1 Pair Safety Goggles 1 Pair Latex Gloves 1 Large Refuse Bag 1 List of Environmental C 18" x 18" x 4" Vacuum Packed in Pun	Compliance Telephone Numbers	
	Product Trade Name		
A)	@\$	per each	
DOH-2S	A GRANULAR/FLAKE	SPILL ABSORBENT	
	Product Trade Name	<u> </u>	
	Supplied in	containers in lots of	containers
A)	@\$p	er pound (i.e. \$	per lot)
DOH-3S	3 LAYER FABRIC COV	ERALLS (ALL SIZES)	
	Product Trade Name _	Kleen Guard	
	Supplied in 12 ea/case		
A)	@ \$1	per each (i.e. \$	_per case)
DOH-4S	DISPOSABLE COVERA	ALLS	
	Product Trade Name _	Tyvek	
	Supplied in 25 ea/case		
A)	@\$	per each (i.e. \$	_ per case)
DOH-5S	32 OZ. EYE WASH BOT	TLE	
	Product Trade Name	•	
	Supplied per each		
A)	@\$	per each	

DOH-1M	PRESSURE RINSER	
	Product Trade Name <u>Easy Rinse</u>	
	Supplied per each	
A)	@ \$per each	
DOH-2M	HAND SOAP WITH CITRUS OIL	
	Product Trade Name Zep	
	Supplied in 32 oz. containers in lots of 20 containers per case	
A)	@ \$ per container (i.e. \$ per case)	
DOH-3M	A BIOSTIMULANT CONTAINING:	
		1.00% 0.36%
	Humic and Fulvic Acid Extract Kelp Extract	9.30% 9.00% 1.20% 0.36%
	Product Trade Name <u>Launch</u>	
	Supplied in 2.5 gallon containers in lots of 5 gallons	
A)	@ \$ per gallon (i.e. \$ per lot)	
DOH-4M	A WORK BOOT	
	Product Trade Name Iron Duke	
	Compliance EPA 40 CFR 170	
	Supplied per pair	
A)	@ Size (6–11) \$ per pair	
B)	@ Size (12 +) \$ per pair	

DOH-5M	RUBBER BOOT/SHOE COVERS		
	Compliance EPA 40 CFR 170		
	Supplied per pair		
A)	@ Size M (8-9) \$ per pai		
B)	@ Size L (10-11) \$ per pai		
C)	@ Size XL (12-13) \$ per pair		
DOH-6M	SAFETY GOGGLES - indirect vent		
	Meets ANS1 287.1-1989		
A)	@ \$per each		
DOH-7M	FACE SHIELD - positive lock headgear		
	Meets ANS1 287.1-1989 and CAN1CSA-294 3-92 Specifications		
	@ \$ per each		
DOH-8M	A 5-GALLON BACKPACK SPRAYER		
	Product Trade Name Birchmeier		
A)	@ \$ per sprayer		
	Gasket Set For Sprayer Pump		
В)	@ \$ per set		
•	Hose Valve & Wand Repair Kit		
C)	@ \$ per kit		

DOH-9M	NITRI-SOLVE 100% NITRILE GLOVES 15 mil 13" Nitrile Gloves		
	Compliance EPA 40 CFR 170		
	Sizes S, M, L, XL, or 2XL		
A)	@ \$ per pair		
DOH-10M	2-QUART HANDHELD PRESSURE SPRAYER		
	Product Trade Name <u>Tolco</u>		
A)	@ \$ per sprayer		
•			
DOH-11M	CLOSED SYSTEM BACKPACK SPRAYER		
	Product Trade Name Birchmier BCS		
A)	@ \$ per sprayer		
	Gasket set for sprayer pump		
В)	@ \$ per set		
	Hose Valve & Wand repair kit		
A)	@ \$ per kit		

# State of West Virginia

# VENDOR PREFERENCE CERTIFICATE

Certification and application\* is hereby made for Preference in accordance with *West Virginia Code*, §5A-3-37. (Does not apply to construction contracts). *West Virginia Code*, §5A-3-37, provides an opportunity for qualifying vendors to request (at the time of bid) preference for their residency status. Such preference is an evaluation method only and will be applied only to the cost bid in accordance with the *West Virginia Code*. This certificate for application is to be used to request such preference. The Purchasing Division will make the determination of the Resident Vendor Preference, if applicable.

1.	Application is made for 2.5% resident vendor preference for the reason checked:  Bidder is an individual resident vendor and has resided continuously in West Virginia for four (4) years immediately preceding the date of this certification; or,
	Bidder is a partnership, association or corporation resident vendor and has maintained its headquarters or principal place of business continuously in West Virginia for four (4) years immediately preceding the date of this certification; or 80% of the ownership interest of Bidder is held by another individual, partnership, association or corporation resident vendor who has maintained its headquarters or principal place of business continuously in West Virginia for four (4) years immediately preceding the date of this certification; or,
	Bidder is a nonresident vendor which has an affiliate or subsidiary which employs a minimum of one hundred state residents and which has maintained its headquarters or principal place of business within West Virginia continuously for the four (4) years immediately preceding the date of this certification; or,
2.	Application is made for 2.5% resident vendor preference for the reason checked: Bidder is a resident vendor who certifies that, during the life of the contract, on average at least 75% of the employees working on the project being bid are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; or,
3.	Application is made for 2.5% resident vendor preference for the reason checked: Bidder is a nonresident vendor employing a minimum of one hundred state residents or is a nonresident vendor with an affiliate or subsidiary which maintains its headquarters or principal place of business within West Virginia employing a minimum of one hundred state residents who certifies that, during the life of the contract, on average at least 75% of the employees or Bidder's affiliate's or subsidiary's employees are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; or,
4.	Application is made for 5% resident vendor preference for the reason checked:  Bidder meets either the requirement of both subdivisions (1) and (2) or subdivision (1) and (3) as stated above; or,
5.	Application is made for 3.5% resident vendor preference who is a veteran for the reason checked: Bidder is an individual resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard and has resided in West Virginia continuously for the four years immediately preceding the date on which the bid is submitted; or,
6.	Application is made for 3.5% resident vendor preference who is a veteran for the reason checked:  Bidder is a resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard, if, for purposes of producing or distributing the commodities or completing the project which is the subject of the vendor's bid and continuously over the entire term of the project, on average at least seventy-five percent of the vendor's employees are residents of West Virginia who have resided in the state continuously for the two immediately preceding years.
requirer against	understands if the Secretary of Revenue determines that a Bidder receiving preference has failed to continue to meet the ments for such preference, the Secretary may order the Director of Purchasing to: (a) reject the bid; or (b) assess a penalty such Bidder in an amount not to exceed 5% of the bid amount and that such penalty will be paid to the contracting agency cted from any unpaid balance on the contract or purchase order.
authoriz the requ deemed	mission of this certificate, Bidder agrees to disclose any reasonably requested information to the Purchasing Division and tes the Department of Revenue to disclose to the Director of Purchasing appropriate information verifying that Bidder has paid uired business taxes, provided that such information does not contain the amounts of taxes paid nor any other information If by the Tax Commissioner to be confidential.
and acc	penalty of law for false swearing (West Virginia Code, §61-5-3), Bidder hereby certifies that this certificate is true curate in all respects; and that if a contract is issued to Bidder and if anything contained within this certificate as during the term of the contract, Bidder will notify the Purchasing Division in writing immediately.
Bidder:	Noxious Vegetation Control signed: full ferres
Date:	Noxious Vegetation Control Signed: full feares  3/29/2010 Title: Area Manager

\*Check any combination of preference consideration(s) indicated above, which you are entitled to receive.

# STATE OF WEST VIRGINIA Purchasing Division

# purchasing affidavit

West Virginia Code §5A-3-10a states: No contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and the debt owed is an amount greater than one thousand dollars in the aggregate.

# DEFINITIONS:

"Debi" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Debtor" means any individual, corporation, partnership, association, limited liability company or any other form or business association owing a debt to the state or any of its political subdivisions. "Political subdivision" means any county commission; municipality; county board of education; any instrumentality established by a county or municipality; any separate corporation or instrumentality established by one or more counties or municipalities, as permitted by law; or any public body charged by law with the performance of a government function or whose jurisdiction is coextensive with one or more counties or municipalities. "Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceed five percent of the total contract amount.

EXCEPTION: The prohibition of this section does not apply where a vendor has contested any tax administered pursuant to chapter eleven of this code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

Under penalty of law for false swearing (West Virginia Code §61-5-3), it is hereby certified that the vendor affirms and acknowledges the information in this affidavit and is in compliance with the requirements as stated.

# WITNESS THE FOLLOWING SIGNATURE

Vendor's Name: Noxious Venetation Control Inc
Authorized Signature: fuel lugs Michael Jennings Date: 3/29/2010
State of Ohio
County of Franklin, to-wit:
Taken, subscribed, and sworn to before me this 29th day of March , 200.
My Commission expires Aug 11th , 2014.
AFFIX SEAL-HERE NOTARY PUBLIC SEAL-HERE
SEMMIFER L BOYER
* Notary Public, State of Ohio My Comm. Expires Aug. 11, 2014

# **Specimen Label**

# ELEMENT 3A

# **Specialty Herbicide**

For the control of woody plants, broadleaf weeds in forests and industrial non-crop areas, including manufacturing and storage sites, rights-of-way such as electrical power lines, communication lines, pipelines, roadsides, railroads, fence rows, non-irrigation ditch banks, and around farm buildings; including application to grazed areas, and establishment and maintenance of wildlife openings on these sites, and in Christmas tree plantations. Use within production forests and industrial non-crop sites (including those listed above) may include applications to control target vegetation in and around standing water sites, such as marshes, wetlands, and the banks of ponds and lakes.

For use in New York State, comply with Section 24(c) Special Local Need labeling for Element 3A, SLN NY-060002.

Active Ingredient:

triclopyr: 3,5,6-tricnioro-2-pyridinyloxyacetic acid,	
triethylamine salt	44.4%
Other Ingredients	
Total	100.0%

Acid equivalent: triclopyr - 31.8% - 3 lb/gal

EPA Reg. No. 62719-37

# Keep Out of Reach of Children

# **DANGER**

# **PELIGRO**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

## **Precautionary Statements**

# **Hazard to Humans and Domestic Animals**

Corrosive • Causes Irreversible Eye Damage • Harmful If Swallowed Or Absorbed Through Skin • Prolonged Or Frequently Repeated Skin Contact May Cause Allergic Reaction In Some Individuals

Do not get in eyes or on skin or clothing.

#### Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks
- · Protective evewear
- Chemical resistant gloves (≥14 mils) such as butyl rubber, natural rubber, neoprene rubber or nitrile rubber

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

# **Engineering Controls**

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the WPS (40 CFR 170.240(d)(4-6), the handler PPE requirements may be reduced or modified as specified in the WPS.

# **User Safety Recommendations**

Users should:

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

## **First Aid**

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

If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

If swallowed: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person. Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-992-5994 for emergency medical treatment information.

Note to Applicator: Allergic skin reaction is not expected from exposure to spray mixtures of Element 3A herbicide when used as directed.

**Note to Physician:** Probable mucosal damage may contraindicate the use of gastric lavage.

## **Environmental Hazards**

Do not contaminate water when cleaning equipment or disposing of equipment washwaters. Under certain conditions, treatment of aquatic weeds can result in oxygen depletion or loss due to decomposition of dead plants, which may contribute to fish suffocation. This loss can cause fish suffocation. Therefore, to minimize this hazard, do not treat more than one-third to one-half of the water area in a single operation and wait at least 10 to 14 days between treatments. Begin treatment along the shore and proceed outwards in bands to allow fish to move into untreated areas. Consult with the State agency for fish and game before applying to public water to determine if a permit is needed.

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.

#### **Physical or Chemical Hazards**

Combustible. Do not use or store the product near heat or open flame.

Notice: Read the entire label. Use only according to label directions. Before using this product, read Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies elsewhere on this label. If terms are unacceptable, return at once unopened.

In case of emergency endangering health or the environment involving this product, call 1-800-992-5994. If you wish to obtain additional product information, visit our web site at www.dowagro.com.

Agricultural Chemical: Do not ship or store with food, feeds, drugs or clothing.

## **Directions for Use**

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

Read all Directions for Use carefully before applying.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation

# **Agricultural Use Requirements**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 48 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls
- Shoes plus socks
- Protective eyewear
- Chemical-resistant gloves (≥14 mils) such as butyl rubber, natural rubber, neoprene rubber or nitrile rubber

#### **Non-Agricultural Use Requirements**

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for Agricultural Pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Entry Restrictions for Non-WPS Uses: For applications to noncropland areas, do not allow entry into areas until sprays have dried, unless applicator and other handler PPE is worn.

## Storage and Disposal

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

Pesticide Storage: Store above 28°F or agitate before use.
Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

# Storage and Disposal (Cont.)

# Nonrefiliable containers 5 gallons or less:

Container Reuse: Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available.

Triple rinse or pressure rinse container (or equivalent) promptly after emptying. **Triple rinse** as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. **Pressure rinse** as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

## Refillable containers 5 gallons or larger:

Container Reuse: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10% full with water and, if possible, spray all sides while adding water. If practical, agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

#### Nonrefillable containers 5 gallons or larger:

Container Reuse: Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available.

Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

# General Information for Production Forests and Industrial Non-Crop Areas

Use Element® 3A specialty herbicide for the control of woody plants and broadleaf weeds in forests and industrial non-crop areas including manufacturing and storage sites, rights-of-way such as electrical power lines, communication lines, pipelines, roadsides, railroads, fence rows, non-irrigation ditch banks, and around farm buildings, including application to grazed areas, and establishment and maintenance of wildlife openings on these sites, and in Christmas tree plantations. Use within production forests and industrial non-crop sites (including those listed above) may include applications to control target vegetation in and around standing water sites, such as marshes, wetlands, and the banks of ponds and lakes

**Obtain Required Permits:** Consult with appropriate state or local water authorities before applying this product to public waters. State or local public agencies may require permits.

#### **General Use Precautions and Restrictions**

For use in New York State, comply with Section 24(c) Special Local Need labeling for Element 3A, SLN NY-060002.

When applying this product in tank mix combination, follow all applicable use directions, precautions and limitations on each manufacturer's label.

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

Do not apply Element 3A directly to, or otherwise permit it to come into direct contact with, grapes, tobacco, vegetable crops, flowers, or other desirable broadleaf plants. Do not permit spray mists containing Element 3A to drift onto such plants.

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.

Water treated with Element 3A may not be used for irrigation purposes for 120 days after application or until residue levels of Element 3A are determined by laboratory analysis, or other appropriate means of analysis, to be 1 ppb or less.

Seasonal Irrigation Waters: Element 3A may be applied during the offseason to surface waters that are used for irrigation on a seasonable basis provided that there is a minimum of 120 days between applying Element 3A and the first use of treated water for irrigation purposes, or until residue levels of Element 3A are determined by laboratory analysis, or other appropriate means of analysis, to be 1 ppb or less.

Irrigation Canals/Ditches: Do not apply Element 3A to irrigation canals/ditches unless the 120-day restriction on irrigation water usage can be observed or residue levels of Element 3A are determined by laboratory analysis, or other appropriate means of analysis, to be 1 ppb or less.

- · Do not apply to salt water bays or estuaries.
- . Do not apply directly to un-impounded rivers or streams.
- Do not apply on ditches or canals currently being used to transport irrigation water or that will be used for irrigation within 4 months following treatment. It is permissible to treat irrigation and nonirrigation ditch banks.
- Do not apply where runoff water may flow onto agricultural land as injury to crops may result.
- When making applications to control unwanted plants on banks or shorelines of moving water sites, minimize overspray to open water.
- · The use of a mistblower is not recommended.
- Apply no more than 2 lb ae of triclopyr (2/3 gallon of Element 3A) per acre per growing season on range and pasture sites, including rights-of-way, fence rows or any area where grazing or harvesting is allowed.
- On forestry sites, Element 3A may be used at rates up to 6 lb ae of triclopyr (2 gallons of Element 3A) per acre per year.
- For all terrestrial use sites other than range, pasture, forestry sites, and grazed areas, the maximum application rate is 9 lb ae of triclopyr (3 gallons of Element 3A) per acre per year.

# Precautions for Potable Water Intakes for Emerged Aquatic Weed Control

See chart below for specific setback distances near functioning potable water intakes. **Note:** Existing potable water intakes which are no longer in use, such as those replaced by potable water wells or connections to a municipal water system, are not considered to be functioning potable water intakes. These setback restrictions do not apply to terrestrial applications made adjacent to potable water intakes.

	Element 3A Application Rate			
Area Treated	2 qt/acre	4 qt/acre	6 qt/acre	8 qt/acre
(acres)	Setback Distance (ft)			
4	0	200	400	500
>4 - 8	0	200	700	900
>8 - 16	0	200	700	1000
>16	1 0	200	900	1300

To apply Element 3A around and within the distances noted above from a functioning potable water intake, the intake must be turned off until the triclopyr level in the intake water is determined to be 0.4 parts per million (ppm) or less by laboratory analysis or immunoassay.

- Recreational Use of Water in Treatment Area: There are no restrictions on use of water in the treatment area for recreational purposes, including swimming and fishing.
- Livestock Use of Water from Treatment Area: There are no restrictions on livestock consumption of water from the treatment area.

#### **Grazing and Haying Restrictions**

Except for lactating dairy animals, there are no grazing restrictions following application of this product.

- Grazing Lactating Dairy Animals: Do not allow lactating dairy animals to graze treated areas until the next growing season following application of this product.
- Do not harvest hay for 14 days after application.
- Grazed areas of non-cropland and forestry sites may be spot treated if they comprise no more than 10% of the total grazable area.

Slaughter Restrictions: During the season of application, withdraw livestock from grazing treated grass at least 3 days before slaughter.

## **Avoiding Injurious Spray Drift**

Make applications only when there is little or no hazard from spray drift. Small quantities of spray, which may not be visible, may seriously injure susceptible plants. Do not spray when wind is blowing toward susceptible crops or ornamental plants that are near enough to be injured. It is suggested that a continuous smoke column at or near the spray site or a smoke generator on the spray equipment be used to detect air movement, lapse conditions, or temperature inversions (stable air). If the smoke layers or indicates a potential of hazardous spray drift, do not spray.

Aerial Application: For aerial application on rights-of-way or other areas near susceptible crops, apply through a Microfoil\* or Thru-Valve boom\*, or use an agriculturally labeled drift control additive. Other drift reducing systems or thickened sprays prepared by using high viscosity inverting systems may be used if they are made as drift-free as mixtures containing agriculturally labeled thickening agents or applications made with the Microfoil or Thru-Valve boom. Keep spray pressures low enough to provide coarse spray droplets. Spray boom should be no longer than 3/4 of the rotor length. Do not use a thickening agent with the Microfoil or Thru-Valve booms, or other systems that cannot accommodate thick sprays. Spray only when the wind velocity is low (follow state regulations). Avoid application during air inversions. If a spray thickening agent is used, follow all use recommendations and precautions on the product label.

Reference within this label to a particular piece of equipment produced by or available from other parties is provided without consideration for use by the reader at its discretion and subject to the reader's independent circumstances, evaluation, and expertise. Such reference by Dow AgroSciences is not intended as an endorsement of such equipment, shall not constitute a warranty (express or implied) of such equipment, and is not intended to imply that other equipment is not available and equally suitable. Any discussion of methods of use of such equipment does not imply that the reader should use the equipment other than is advised in directions available from the equipment's manufacturer. The reader is responsible for exercising its own judgment and expertise, or consulting with sources other than Dow AgroSciences, in selecting and determining how to use its equipment.

#### Spray Drift Management

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications:

- The distance of the outer most operating nozzles on the boom must not exceed 3/4 the length of the rotor.
- Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they should be observed.

The applicator should be familiar with and take into account the information covered in the 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 recommended pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- Number of Nozzles Use the minimum number of nozzles that provide uniform coverage.
- Nozzle Orientation Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- Nozzle Type Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

**Boom Length:** For some use patterns, reducing the effective boom length to less than 3/4 of the rotor length may further reduce drift without reducing swath width.

**Application Height:** Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

**Swath Adjustment:** When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.).

Wind: Drift potential is lowest between wind speeds of 2 to 10 mph. However, many factors, including droplet size and equipment type, determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. Note: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

**Temperature and Humidity:** When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

Temperature Inversions: Applications should not occur during a local, low level temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of the smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

Sensitive Areas: The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

Ground Equipment: To aid in reducing spray drift, Element 3A should be used in thickened (high viscosity) spray mixtures using an agriculturally labeled drift control additive, high viscosity invert system, or equivalent as directed by the manufacturer. With ground equipment, spray drift can be reduced by keeping the spray boom as low as possible; by applying 20 gallons or more of spray per acre; by keeping the operating spray pressures at the lower end of the manufacturer's recommended pressures for the specific nozzle type used (low pressure nozzles are available from spray equipment manufacturers); and by spraying when wind velocity is low (follow state regulations). In hand-gun applications, select the minimum spray pressure that will provide adequate plant coverage (without forming a mist). Do not apply with nozzles that produce a fine-droplet spray.

High Volume Leaf-Stem Treatment: To minimize spray drift, do not use pressure exceeding 50 psi at the spray nozzle and keep sprays no higher than brush tops. An agriculturally labeled thickening agent may be used to reduce drift.

#### **Plants Controlled**

#### **Woody Plant Species**

alder arrowwood ash aspen Australian pine bear clover (bearmat) beech birch blackberry blackgum Brazilian pepper cascara ceanothus cherry chinquapin	dogwood elderberry elm gallberry hazel hornbean kudzu' locust madrone maples mulberry oaks persimmon pine poison ivy	salt cedar²" salmonberry sassafras scotch broom sumac sweetbay magnolia sweetgum sycamore tanoak thimbleberry tulip poplar waxmyrtle western hemlock wild rose willow
		•
blackgum	maples	thimbleberry
cascara	oaks	waxmyrtie
cherry	pine	wild rose
choke cherry	poison oak	willow winged elm
cottonwood crataegus (hawthorn) Douglas fir	poplar salt-bush ( <i>Baccharis</i> spp.)	
- A M D. MA (1)	(	

Use cut surface treatments for best results.

For complete control, re-treatment may be necessary.

#### **Annual and Perennial Broadleaf Weeds**

bindweed Mexican petunia burdock plantain Canada thistle purple loosestrife ragweed chicory curly dock smartweed dandelion Spanish needles/ field bindweed common beggarthicks lambsquarter tansy ragwort

## Purple Loosestrife (Lythrum salicaria)

Purple loosestrife can be controlled with foliar applications of Element 3A. For broadcast applications, use a minimum of 4 1/2 to 6 lb ae of triclopyr (6 to 8 quarts of Element 3A) per acre. Apply Element 3A when purple loosestrife is at the bud to mid-flowering stage of growth. Follow-up applications for control of regrowth should be made the following year in order to achieve increased control of this weed species. For all applications, a non-ionic surfactant should be added to the spray mixture. Follow all directions and use precautions on the label of the surfactant. Thorough wetting of the foliage and stems is necessary to achieve satisfactory control. A minimum spray volume of 50 gallons per acre is recommended for ground broadcast applications.

If using a backpack sprayer, a spray mixture containing 1% to 1.5% Element 3A or 5 to 7.6 fl oz of Element 3A per 4 gallons of water should be used. All purple loosestrife plants should be thoroughly wetted.

## **Application Methods**

Use Element 3A at rates of 3/4 to 9 lb ae of triclopyr (1/4 to 3 gallons of Element 3A) per acre to control broadleaf weeds and woody plants. In all cases, use the amount specified in enough water to give uniform and complete coverage of the plants to be controlled. Use only water suitable for spraying. Use an agriculturally labeled non-ionic surfactant for all foliar applications. When using surfactants, follow the use directions and precautions listed on the surfactant manufacturer's label. Use the higher concentrations of surfactant in the spray mixture when applying lower spray volumes per acre. The order of addition to the spray tank is water, spray thickening agent (if used), additional herbicide (if used), and Element 3A. Surfactant should be added to the spray tank last or as recommended on the product label. If combined with emulsifiable concentrate herbicides, moderate continuous adequate agitation is required.

Before using any recommended tank mixtures, read the directions and all use precautions on both labels.

For best results, apply when woody plants and weeds are actively growing. When hard to control species such as ash, blackgum, choke cherry, elm, maples, oaks, pines, or winged elm are prevalent and during applications made in late summer when the plants are mature and during drought conditions, use the higher rates of Element 3A alone or in combination with Tordon\* 101 Mixture specialty herbicide. (Tordon 101 Mixture is a restricted use pesticide. See product label.) Tordon 101 Mixture is not registered for use in the states of California and Florida.

When using Element 3A in combination with 2,4-D 3.8 lb amine, like DMA 4 IVM, or low volatile ester herbicides, generally the higher rates should be used for satisfactory brush control.

Use the higher dosage rates when brush approaches an average of 15 feet in height or when the brush covers more than 60% of the area to be treated. If lower rates are used on hard to control species, resprouting may occur the year following treatment.

On sites where easy to control brush species dominate, rates less than those listed may be effective. Consult State or Local Extension personnel for such information.

tropical soda apple

vetch

wedelia

wild lettuce

#### **Foliage Treatment With Ground Equipment**

#### **High Volume Foliage Treatment**

For control of woody plants, use Element 3A at the rate of 3 to 9 lb ae of triclopyr (1 to 3 gallons of Element 3A) per 100 gallons of spray solution, or Element 3A at 3/4 to 3 lb ae of triclopyr (1 to 4 quarts of Element 3A) may be tank mixed with 1/4 to 1/2 gallons of 2,4-D 3.8 lb amine, like DMA 4 IVM, or low volatile ester or Tordon 101 Mixture and diluted to make 100 gallons of spray solution. Apply at a volume of 100 to 400 gallons of total spray per acre depending upon size and density of woody plants. Coverage should be thorough to wet all leaves, stems, and root collars. (See General Use Precautions and Restrictions.) Do not exceed maximum allowable use rates per acre (see table below). Tordon 101 Mixture is not registered for use in the states of California and Florida.

#### Maximum Labeled Rate versus Spray Volume per Acre

	Maximum Rate of Element 3A		
Total Spray Volume (gal/acre)	Rangeland and Pasture Sites¹ (gal/100 gai of spray)	Forestry Sites² (gal/100 gal of spray)	Other Non- Cropland Sites³ (gal/100 gal of spray)
400	Do not use	0.5	0.75
300	Do not use	0.67	1
200	Do not use	· ·	1.5
100	0.67	2	3
50	1.33	4	6
40	1.67	5	7.5
30	2.33	6.65	10
20	3.33	10	15
10	6.67	20	30

Do not exceed the maximum use rate of 2 lb ae of triclopyr (2/3 gal of Element 3A)/acre/year.

## Low Volume Foliage Treatment

To control susceptible woody plants, apply up to 15 lb ae of triclopyr (5 gallons of Element 3A) in 10 to 100 gallons of finished spray. The spray concentration of Element 3A and total spray volume per acre should be adjusted according to the size and density of target woody plants and kind of spray equipment used. With low volume sprays, use sufficient spray volume to obtain uniform coverage of target plants including the surfaces of all foliage, stems, and root collars (see General Use Precautions and Restrictions). For best results, a surfactant should be added to all spray mixtures. Match equipment and delivery rate of spray nozzles to height and density of woody plants. When treating tall, dense brush, a truck mounted spray gun with spray tips that deliver up to 2 gallons per minute at 40 to 60 psi may be required. Backpack or other types of specialized spray equipment with spray tips that deliver less than 1 gallon of spray per minute may be appropriate for short, low to moderate density brush.

**Tank Mixing:** As a low volume foliar spray, up to 9 lb ae of triclopyr (3 gallons of Element 3A) may be applied in tank mix combination with 1/2 to 1 gallon of Tordon K or 1 to 2 gallons of Tordon 101 Mixture in 10 to 100 gallons of finished spray. Tordon 101 Mixture and Tordon K are not registered for use in the states of California and Florida.

#### **Broadcast Applications With Ground Equipment**

Apply using equipment that will assure uniform coverage of the spray volumes applied. To improve spray coverage, add an agriculturally labeled non-ionic surfactant as described later under Directions for Use. See Maximum Labeled Rate versus Spray Volume per Acre table above for relationship between mixing rate, spray volume and maximum application rate.

#### **Woody Plant Control**

Foliage Treatment: Use 6 to 9 lb ae of triclopyr (2 to 3 gallons of Element 3A) in enough water to make 20 to 100 gallons of total spray per acre or 1 1/2 to 3 lb ae of triclopyr (1/2 to 1 gallon of Element 3A) may be combined with 1 to 2 gallons of 2,4-D 3.8 lb amine, like DMA 4 IVM, or low volatile esters or Tordon 101 Mixture in sufficient water to make 20 to 100 gallons of total spray per acre. Tordon 101 Mixture is not registered for use in the states of California and Florida.

#### **Broadleaf Weed Control**

Use Element 3A at rates of 1 to 4 1/2 lb ae of triclopyr (1/3 to 1 1/2 gallons of Element 3A) in a total volume of 20 to 100 gallons of water per acre. Apply any time during the growing season. Element 3A at 1 to 3 lb ae of triclopyr (1/3 to 1 gallon of Element 3A) may be tank mixed with 1/2 to 1 gallon of Tordon K, Tordon 101 Mixture or 2,4-D 3.8 lb amine, like DMA 4 IVM, or low volatile herbicides to improve the spectrum of activity. Tordon 101 Mixture and Tordon K are not registered for use in the states of California and Florida.

#### **Aerial Application (Helicopter Only)**

Aerial sprays should be applied using suitable drift control. (See General Use Precautions and Restrictions.) Add an agriculturally labeled non-ionic surfactant as described under Directions for Use. See Maximum Labeled Rate versus Spray Volume per Acre table above for relationship between mixing rate, spray volume and maximum application rate.

## Foliage Treatment (Non-Grazed Rights-of-Way)

Non-grazed areas: Use 6 to 9 lb ae of triclopyr (2 to 3 gallons of Element 3A) or 3 to 4 1/2 lb ae of triclopyr (1 to 1 1/2 gallons of Element 3A) in a tank mix combination with 1 to 2 gallons of 2,4-D 3.8 lb amine, like DMA 4 IVM, or low volatile esters or Tordon 101 Mixture, and apply in a total spray volume of 10 to 30 gallons per acre. Use the higher rates and volumes when plants are dense or under drought conditions. Tordon 101 Mixture is not registered for use in the states of California and Florida.

Interspersed areas in non-grazed rights-of-ways that may be subject to grazing may be spot treated if the treated area comprises no more than 10% of the total grazable area.

#### **Forest Management Applications**

For best control from broadcast applications of Element 3A, use a spray volume which will provide thorough plant coverage. Recommended spray volumes are usually 10 to 25 gallons per acre by air or 10 to 100 gallons per acre by ground. To improve spray coverage of spray volumes less than 50 gallons per acre, add an agriculturally labeled non-ionic surfactant as described under Directions for Use. Application systems should be used to prevent hazardous drift to off-target sites. Nozzles or additives that produce larger droplets of spray may require higher spray volumes to maintain brush control.

<sup>&</sup>lt;sup>2</sup> Do not exceed the maximum use rate of 6 lb ae of triclopyr (2 gal of Element 3A)/acre/year.

<sup>&</sup>lt;sup>3</sup> Do not exceed the maximum use rate of 9 lb ae of triclopyr (3 gal of Element 3A)/acre/year on non-cropland use sites other than rangeland, pasture, forestry, and grazed areas.

#### Forest Site Preparation (Not for Conifer Release)

Use up to 6 lb ae of triclopyr (2 gallons of Element 3A) and apply in a total spray volume of 10 to 30 gallons per acre or Element 3A at 3 to 4 1/2 lb ae of triclopyr (1 to 1 1/2 gallons of Element 3A) may be used with 1 to 2 gallons of Tordon 101 Mixture or 2,4-D 3.8 lb low volatile ester in a tank mix combination in a total spray volume of 10 to 30 gallons per acre. Use a non-ionic agricultural surfactant for all foliar applications as described under Directions for Use. Tordon 101 Mixture is not registered for use in the states of California and Florida.

Note: Conifers planted sooner than one month after treatment with Element 3A at less than 4 lb ae of triclopyr (1 1/3 gallons of Element 3A) per acre or sooner than two months after treatment at 4 to 9 lb ae of triclopyr (1 1/3 to 3 gallons of Element 3A) per acre may be injured. When tank mixtures of herbicides are used for forest site preparation, labels for all products in the mixture should be consulted and the longest recommended waiting period before planting observed.

#### **Directed Spray Applications for Conifer Release**

To release conifers from competing hardwoods such as red maple, sugar maple, striped maple, sweetgum, red and white oaks, ash, hickory, alder, birch, aspen, and pin cherry, mix 3 to 6 lb ae of triclopyr (1 to 2 gallons of Element 3A) in enough water to make 100 gallons of spray mixture. To improve spray coverage, add an agriculturally labeled non-ionic surfactant as described under Directions for Use. The spray mixture should be directed onto foliage of competitive hardwoods using knapsack or backpack sprayers with flat fan nozzles or equivalent any time after hardwoods have reached full leaf size, but before autumn coloration. The majority of treated hardwoods should be less than 6 feet in height to ensure adequate spray coverage. Care should be taken to direct spray away from contact with conifer foliage, particularly foliage of desirable pines.

**Note:** Spray may cause temporary damage and growth suppression where contact with conifers occurs; however, injured conifers should recover and grow normally. Over-the-top spray applications can kill pines.

## Broadcast Applications for Conifer Release in the Northeastern United States

To release spruce, fir, red pine and white pine from competing hardwoods, such as red maple, sugar maple, striped maple, alder, birch (white, yellow or gray), aspen, ash, pin cherry and *Rubus* spp. and perennial and annual broadleaf weeds, use Element 3A at rates of 1 1/2 to 3 lb ae of triclopyr (2 to 4 quarts of Element 3A) per acre alone or with 2,4-D amine, like DMA 4 IVM, or 2,4-D ester to provide no more than 4 lb ae per acre from both products. Apply in late summer or early fall after conifers have formed their over wintering buds and hardwoods are in full leaf and prior to autumn coloration.

## Broadcast Applications for Douglas Fir Release in the Pacific Northwest and California

To release Douglas fir from susceptible competing vegetation such as broadleaf weeds, alder, blackberry or Scotch broom, apply Element 3A at 1 to 1 1/2 lb ae of triclopyr (1 1/3 to 2 quarts of Element 3A) per acre alone or in combination with 4 lb per acre of atrazine. Mix all sprays in a water carrier with a non-ionic surfactant. Apply in early spring after hardwoods begin growth and before Douglas fir bud break ("early foliar" hardwood stage) or after Douglas fir seasonal growth has "hardened off" (set winter buds) in late summer, but while hardwoods are still actively growing. When treating after Douglas fir bud set, apply prior to onset of autumn coloration in hardwood foliage. **Note:** Treatments applied during active Douglas fir shoot growth (after spring bud break and prior to bud set) may cause injury to Douglas fir trees.

#### Cut Surface Treatments

Individual plant treatments such as basal bark and cut surface applications may be used on any use site listed on this label at a maximum use rate of 2.67 gallons of Element 3A (8 lb ae of triclopyr) per acre. These types of applications are made directly to ungrazed parts of plants and, therefore, are not restricted by the grazing maximum rate of 2/3 of a gallon of Element 3A (2 lb ae of triclopyr) per acre.

To control unwanted trees of hardwood species such as elm, maple, oak and conifers in labeled sites, apply Element 3A, either undiluted or diluted in a 1 to 1 ratio with water, as directed below.

#### With Tree Injector Method

Apply by injecting 1/2 milliliter of undiluted Element 3A or 1 milliliter of the diluted solution 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 1/2 milliliter of undiluted Element 3A or 1 milliliter of the diluted solution 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 undiluted or diluted solution.

Both of the above methods may be used successfully at any season except during periods of heavy sap flow of certain species - for example, maples.

## Stump Treatment

Spray or paint the cut surfaces of freshly cut stumps and stubs with undiluted Element 3A. The cambium area next to the bark is the most vital area to wet.

#### **Christmas Tree Plantations**

Use Element 3A for the control of woody plants and annual and perennial broadleaf weeds in established Christmas tree plantations. For best results, apply when woody plants and weeds are actively growing. Element 3A does not control weeds which have not emerged at the time of application. If lower rates are used on hard to control woody species, resprouting may occur the year following treatment. Brush over 8 feet tall is difficult to treat efficiently using hand equipment such as backpack or knapsack sprayers. When treating large brush or trees or hard to control species such as ash, blackgum, choke cherry, elm, hazel, madrone, maples, oaks or sweetgum, and for applications made during drought conditions or in late summer when the leaves are mature, use the higher rates of Element 3A or use cut surface application methods. For foliar applications, apply in enough water to give uniform and complete coverage of the plants to be controlled. Applications made under drought conditions may provide less than desirable results.

#### **Use Precautions:**

- Do not use on newly seeded grass until well established as indicated by vigorous growth and development of secondary root system and tillering
- Newly seeded turf (alleyways, etc.) should be mowed two or three times before any treatment with Element 3A.
- Do not reseed Christmas tree areas treated with Element 3A for a minimum of three weeks after application.
- Do not use Element 3A if legumes, such as clover, are present and injury cannot be tolerated.

#### Spray Preparation

The order of addition to the spray tank is water, drift control agent (if used), non-ionic agricultural surfactant and Element 3A. Continue moderate agitation while mixing and spraying. Use a non-ionic agricultural surfactant for all applications. When using surfactants, follow use directions and precautions listed on the manufacturer's label. Use the higher recommended concentrations of surfactant in the spray mixture when applying lower spray volumes per acre.

#### Application

Apply in late summer or early autumn after terminal growth of Christmas trees has hardened of, but before leaf drop of, target weeds. Apply at a rate of 3/4 to 1 3/4 lb ae of triclopyr (2 to 5 pints of Element 3A) per acre as a foliar spray directed toward the base of Christmas trees. Use sufficient spray volume to provide uniform coverage of target plants (20 to 100 gallons per acre). **Do not apply with 2,4-D.** Application rates of Element 3A recommended for Christmas trees will only suppress some well established woody plants that are greater than 2 to 3 years old (see table below). Broadcast sprays may also be applied in bands between the rows of planted trees. Use spray equipment that will assure uniform coverage of the desired spray volume.

Spray solution from Element 3A can cause needle and branch injury to Christmas trees. To minimize injury to Christmas trees, direct sprays so as to minimize contact with foliage. Blue spruce, white spruce, balsam fir and Frasier fir are less susceptible to injury than white pine and Douglas fir.

**Restriction:** Apply Element 3A only to established Christmas trees that were planted at least one full year prior to application.

#### **Application Rates and Species Controlled:**

Element 3A		
2 pints/acre	3 to 4 pints/acre	5 pints/acre
(3/4 lb ae	(1 1/2 lb ae	(1 3/4 lb ae
of triclopyr)	of triclopyr)	of triclopyr)
clover	bindweed, field (TG)	arrowwood (SDL)
dandelion	blackberry <sup>1</sup>	aspen
dock, curly	chicory (S)	beech (SDL)
lambsquarters	fireweed	birch (SDL)
lespedeza	ivy, ground	chinquapin
plantain, broadleaf	lettuce, wild	cottonwood (SDL)
plantain, buckhorn	oxalis	elderberry
ragweed, common	poison ivy	grape, wild
vetch	smartweed (TG)	mulberry (SDL)
	thistle, Canada (TG)	poplar (SDL)
	violet, wild	sassafras (SDL)
	Virginia creeper <sup>†</sup>	sumac (SDL)
	1	sycamore (SDL)

(TG) Top growth control, retreatment may be necessary

(S) Suppression

(SDL) Seedlings less than 2 to 3 years old

'Use 4 pint per acre rate

### **Directed Applications**

To control hardwoods such as red maple, sugar maple, striped maple, sweetgum, red and white oaks, ash, alder, birch, aspen, and pin cherry, mix 4 to 20 fl oz of Element 3A in enough water to make 3 gallons of spray mixture. For directed applications, do not exceed 6 lb ae of triclopyr (2 gallons of Element 3A) per acre per year. To improve coverage, add a non-ionic agricultural surfactant to the spray. This spray mixture should be directed onto foliage of competitive hardwoods using knapsack or backpack sprayers with flat fan nozzles or equivalent any time after hardwoods have reached full leaf size, but before autumn coloration (when plants are actively growing). The majority of treated hardwoods should be less than 8 feet in height to ensure adequate spray coverage. Note: To prevent Christmas tree injury, care should be taken to direct spray away from contact with Christmas tree foliage.

#### **Cut Surface Treatments**

When treating large brush or trees or hard to control species such as ash, blackgum, choke cherry, elm, hazel, madrone, maples, oaks, salt cedar or sweetgum, and for applications made during drought conditions or in late summer when the leaves are mature, use cut surface treatments. (See directions for Cut Surface Treatments in preceding section of this label.)

## Wetland Sites in Production Forests and Industrial Non-Crop Areas

Element 3A may be used within production forests and industrial non-crop sites to control target vegetation in and around standing water sites, such as marshes, wetlands, and the banks of ponds and lakes and transition areas between upland and lowland sites.

For control of woody plants and broadleaf weeds in these sites, follow use directions and application methods on this label for forestry and non-cropland sites.

### **Use Precautions:**

Minimize overspray to open water when treating target vegetation in and around non-flowing, quiescent or transient water. When making applications to control unwanted plants on banks or shorelines of flowing water, minimize overspray to open water. **Note:** Consult local public water control authorities before applying this product in and around public water. Permits may be required to treat such areas.

### **Terms and Conditions of Use**

If terms of the following Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies are not acceptable, return unopened package at once to the seller for a full refund of purchase price paid. Otherwise, use by the buyer or any other user constitutes acceptance of the terms under Warranty Disclaimer, Inherent Risks of Use and Limitations of Remedies.

### Warranty Disclaimer

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

## Inherent Risks of Use

It is impossible to eliminate all risks associated with use of this product. Plant injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperature, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of Dow AgroSciences or the seller. All such risks shall be assumed by buyer.

#### **Limitation of Remedies**

The exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability, or other legal theories), shall be limited to, at Dow AgroSciences' election, one of the following:

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

Dow AgroSciences shall not be liable for losses or damages resulting from handling or use of this product unless Dow AgroSciences is promptly notified of such loss or damage in writing. In no case shall Dow AgroSciences be liable for consequential or incidental damages or losses.

The terms of the Warranty Disclaimer, 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.

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

Label Code: D02-338-002 Replaces Label: D02-338-001 LOES Number: 010-02148

EPA accepted 01/03/06



Emergency Phone: 800-992-5994 Dow AgroSciences LLC Indianapolis, IN 46268

Effective Date: 9-Jul-07

## **ELEMENT\* 3A Herbicide**

## 1. PRODUCT AND COMPANY IDENTIFICATION:

PRODUCT: ELEMENT\* 3A Herbicide

## **COMPANY IDENTIFICATION:**

Dow AgroSciences LLC 9330 Zionsville Road Indianapolis, IN 46268-1189

## 2. HAZARDOUS IDENTIFICATIONS:

### **EMERGENCY OVERVIEW**

Light purple-pink liquid, ammonia-like odor. May cause eye irritation with corneal injury. May cause skin irritation. Toxic to aquatic organisms.

**EMERGENCY PHONE NUMBER: 800-992-5994** 

## 3. COMPOSITION/INFORMATION ON INGREDIENTS:

COMPONENT	CAS NUMBER	W/W%
Triclopyr TEA Salt	057213-69-1	44.4
Triethylamine	000121-44-8	3.0
Ethanol	000064-17-5	2.1
Balance		50.5

## 4. FIRST AID:

**EYES:** Wash immediately and continuously with flowing water for at least 30 minutes. Remove contact lenses after the first 5 minutes and continue washing. Obtain prompt medical consultation, preferably from an ophthalmologist.

**SKIN:** Wash skin with plenty of water.

**INGESTION:** Do not induce vomiting. Give one cup (8 ounces or 240 ml) of water or milk if available and transport to a medical facility. Do not give anything by mouth to an unconscious person.

**INHALATION:** No emergency medical treatment necessary.

NOTE TO PHYSICIAN: Due to irritant properties, swallowing may result in burns/ulceration of mouth, stomach & lower gastrointestinal tract with subsequent stricture. Aspiration of vomitus may cause lung injury. Suggest endotracheal/esophageal control if lavage is done. If burn is present, treat as any thermal burn, after decontamination. Exposure to amine vapors may cause minor transient edema of the corneal epithelium (glaucopsia) with blurred vision, blue haze & halos around bright objects. Effects disappear in a few hours and temporarily reduce ability to drive vehicles. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

## 5. FIRE FIGHTING MEASURES:

FLASH POINT: 110°F (43C) METHOD USED: TCC FLAMMABLE LIMITS

LFL: Not determined UFL: Not determined

**EXTINGUISHING MEDIA**: Alcohol foam and CO<sub>2</sub>.

**FIRE & EXPLOSION HAZARDS**: Toxic, irritating vapors may be formed or given off if product is involved in fire. Although product is water-based, it has a flash point due to the presence of small amounts of ethanol and triethylamine.

**FIRE-FIGHTING EQUIPMENT**: Use positive-pressure, self-contained breathing apparatus and full protective clothing.

## 6. ACCIDENTAL RELEASE MEASURES:

**ACTION TO TAKE FOR SPILLS/LEAKS**: Contain small spills and absorb with an inert material such as clay or dry sand. Report large spills to Dow AgroSciences at 800-992-5994.

### HANDLING AND STORAGE:

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: HANDLING: Keep out of reach of children. Causes irreversible eye damage. Harmful if inhaled or absorbed through skin. Prolonged or frequently repeated skin contact may cause allergic skin reaction in some individuals. Avoid contact with eyes, skin, clothing, breathing vapor, or spray mist. Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.



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## **ELEMENT\* 3A Herbicide**

**STORAGE:** Store above 28°F or agitate before use. Store in original container. See product label for handling/storage precautions relative to the end use of this product.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION:

These precautions are suggested for conditions where the potential for exposure exists. Emergency conditions may require additional precautions.

## **EXPOSURE GUIDELINE(S):**

Ethanol (ethyl alcohol): ACGIH TLV and OSHA PEL are 1000 ppm. ACGIH classification is A4.

Triclopyr TEA Salt: Dow AgroSciences Industrial Hygiene Guideline is 2 mg/M³ as acid equivalent; D-SEN. Triethylamine: ACGIH TLV is 1 ppm TWA, 3 ppm STEL, Skin. OSHA PEL is 10 ppm TWA, 15 ppm STEL.

A D-SEN notation following the exposure guideline refers to the potential to produce dermal sensitization, as confirmed by human or animal data.

**ENGINEERING CONTROLS**: Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines.

RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS:

**EYE PROTECTION**: Use chemical goggles. Eye wash fountain should be located in immediate work area. If exposure causes eye discomfort, use a full-face respirator.

**SKIN PROTECTION**: When prolonged or frequently repeated contact could occur, use chemically protective clothing resistant to this material. Selection of specific items such as face shield, gloves, boots, and apron or full-body suit will depend on operation.

**RESPIRATORY PROTECTION**: Atmospheric levels should be maintained below the exposure guideline. When respiratory protection is required for certain operations, use a NIOSH approved air-purifying respirator.

**APPLICATORS AND ALL OTHER HANDLERS:** Refer to the product label for personal protective clothing and equipment.

## 9. PHYSICAL AND CHEMICAL PROPERTIES:

BOILING POINT: Not determined VAPOR PRESSURE: Not determined VAPOR DENSITY: Not applicable SOLUBILITY IN WATER: Miscible SPECIFIC GRAVITY: 1.135 (68/68°F) APPEARANCE: Light purple/pink liquid

ODOR: Ammonia-like odor

## 10. STABILITY AND REACTIVITY:

**STABILITY: (CONDITIONS TO AVOID)** Avoid sources of ignition if temperature is near or above flash point.

**INCOMPATIBILITY: (SPECIFIC MATERIALS TO AVOID)**Any oxidizing agent. Consult manufacturer for specific cases.

**HAZARDOUS DECOMPOSITION PRODUCTS**: Nitrogen oxides and hydrogen chloride may be formed under fire conditions.

HAZARDOUS POLYMERIZATION: Not known to occur.

## 11. TOXICOLOGICAL INFORMATION:

**POTENTIAL HEALTH EFFECTS:** This section includes possible adverse effects, which could occur if this material is not handled in the recommended manner.

EYE: May cause severe irritation with corneal injury which may result in permanent impairment of vision, even blindness. Chemical burns may occur. Vapor of amines may cause swelling of the cornea resulting in visual disturbances such as blurred or hazy vision. Bright lights may appear to be surrounded by halos. Effects may be delayed and typically disappear spontaneously.



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## **ELEMENT\* 3A Herbicide**

**SKIN:** Prolonged contact may cause skin irritation with local redness. Repeated contact may cause skin burns. Symptoms may include pain, severe local redness, swelling, and tissue damage. Prolonged or frequently repeated skin contact may cause allergic skin reactions in some individuals. With the dilute mix, no allergic skin reaction is expected. Prolonged skin contact is unlikely to result in absorption of harmful amounts. The LD<sub>50</sub> for skin absorption in rabbits is >5,000 mg/kg.

**INGESTION**: Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury. Swallowing may result in gastrointestinal irritation or ulceration. The oral LD<sub>50</sub> for rats is 2,574 mg/kg (male) and 1,847 mg/kg (female).

**INHALATION**: Brief exposure (minutes) is not likely to cause adverse effects.

**SYSTEMIC (OTHER TARGET ORGAN) EFFECTS**: Effects have been reported on the following organs: liver and kidney.

**CANCER INFORMATION:** Triclopyr did not cause cancer in laboratory animal studies.

**TERATOLOGY (BIRTH DEFECTS):** Triclopyr did not cause birth defects or other effects in the fetus even at doses which caused toxic effects in the mother. Ethanol has been shown to cause birth defects and toxicity to the fetus in laboratory animal tests. It has also been shown to cause human fetotoxicity and/or birth defects when ingested during pregnancy.

**REPRODUCTIVE EFFECTS**: For triclopyr, in laboratory animal studies, effects on reproduction have been seen only at doses that produced significant toxicity to the parent animals.

**MUTAGENICITY**: For triclopyr and ethanol: in-vitro genetic toxicity studies were negative. For triclopyr: animal genetic toxicity studies were negative. For ethanol: animal genetic toxicity studies were negative in some cases and positive in other cases.

## 12. ECOLOGICAL INFORMATION:

### **ENVIRONMENTAL FATE:**

#### **MOVEMENT & PARTITIONING:**

Based largely or completely on information for triclopyr. Bioconcentration potential is low (BCF <100 or Log Pow <3).

## **DEGRADATION & PERSISTENCE:**

Biodegradation under aerobic static laboratory conditions is high (BOD20 or BOD28/ThOD >40%).

The 20-Day biochemical oxygen demand (BOD20) is 0.30 p/p.

Theoretical oxygen demand (ThOD) is calculated to be 0.75 p/p.

## **ECOTOXICOLOGY:**

Material is slightly toxic to aquatic organisms on an acute basis ( $LC_{50}$  or  $EC_{50}$  is between 10 and 100 mg/L in most sensitive species).

## 13. DISPOSAL CONSIDERATIONS:

DISPOSAL METHOD: If wastes and/or containers cannot be disposed of according to the product label directions, disposal of this material must be in accordance with your local or area regulatory authorities. This information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. If the material as supplied becomes a waste, follow all applicable regional, national and local laws and regulations.



**ELEMENT\* 3A Herbicide** 

Emergency Phone: 800-992-5994 Dow AgroSciences LLC Indianapolis, IN 46268

Effective Date: 9-Jul-07

## 14. TRANSPORT INFORMATION:

## **U.S. DEPARTMENT OF TRANSPORTATION (DOT)** INFORMATION:

For non-bulk shipments by land: This material is not regulated for transport.

For bulk shipments by land: COMBUSTIBLE LIQUID, N.O.S. (TRIETHYLAMINE, ETHANOL)/COMBUSTIBLE LIQUID/NA1993/PGIII

For shipments by air or vessel: FLAMMABLE LIQUIDS, N.O.S. (TRIETHYLAMINE, ETHANOL)/3/UN1993/PGIII

## 15. REGULATORY INFORMATION:

**NOTICE:** The information herein is presented in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ from one location to another; it is the buyer's responsibility to ensure that its activities comply with federal, state or provincial, and local laws. The following specific information is made for the purpose of complying with numerous federal, state or provincial, and local laws and regulations.

## **U.S. REGULATIONS**

SARA 313 INFORMATION: This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

CHEMICAL NAME

Triethylamine

000121-44-8

3.0%

SARA HAZARD CATEGORY: This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

An immediate health hazard A delayed health hazard A fire hazard

TOXIC SUBSTANCES CONTROL ACT (TSCA): All ingredients are on the TSCA inventory or are not required to be listed on the TSCA inventory.

STATE RIGHT-TO-KNOW: The following product components are cited on certain state lists as mentioned. Non-listed components may be shown in the composition section of the MSDS.

CHEMICAL NAME

CAS NUMBER

Ethanol Triethylamine 000064-17-5 000121-44-8

NJ1 NJ3 PA1 NJ1 NJ3 PA1

PA3

NJ1=New Jersey Special Health Hazard Substance (present at > or = to 0.1%).

NJ3=New Jersey Workplace Hazardous Substance (present at greater than or equal to 1.0%).

PA1=Pennsylvania Hazardous Substance (present at > or = to 1.0%).

PA3=Pennsylvania Environmental Hazardous Substance (present at > or = to 1.0%).

**OSHA HAZARD COMMUNICATION STANDARD: This** product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)** RATINGS:

RATING
3
2
0

CAS NUMBER CONCENTRATION COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT (CERCLA, or **SUPERFUND):** This product contains the following substance(s) listed as "Hazardous Substances" under CERCLA which may require reporting of releases:

> Chemical Name Triethylamine

CAS Number 000121-44-8

RQ

% in Product

5000 3.0%



Emergency Phone: 800-992-5994 Dow AgroSciences LLC Indianapolis, IN 46268

Effective Date: 9-Jul-07

## **ELEMENT\* 3A Herbicide**

RCRA Categorization Hazardous Code:

Triethylamine = U404

## 16. OTHER INFORMATION:

MSDS STATUS: Revised Section: 8

Reference: DR-0121-6064

Replaces MSDS dated: 17-Nov-06 Document Code: D03-101-005

Replaces Document Code: D03-101-004

The Information Herein Is Given In Good Faith, But No Warranty, Express or Implied, Is Made. Consult Dow AgroSciences for Further Information.

## Specimen Label



## **Specialty Herbicide**

\*Trademark of Dow AgroSciences LLC

For the control of woody plants, broadleaf weeds in forests and industrial non-crop areas, including manufacturing and storage sites, rights-of-way such as electrical power lines, communication lines, pipelines, roadsides, railroads, fence rows, non-irrigation ditch banks, and around farm buildings; including application to grazed areas, and establishment and maintenance of wildlife openings on these sites, and in Christmas tree plantations. Use within production forests and industrial non-crop sites (including those listed above) may include applications to control target vegetation in and around standing water sites, such as marshes, wetlands, and the banks of ponds and lakes.

For use in New York State, comply with Section 24(c) Special Local Need labeling for Garlon 3A, SLN NY-060002.

Active Ingredient:

Acid equivalent: triclopyr - 31.8% - 3 lb/gal

EPA Reg. No. 62719-37

### Keep Out of Reach of Children

## DANGER

## PELIGRO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

## **Precautionary Statements**

#### **Hazard to Humans and Domestic Animals**

Corrosive • Causes Irreversible Eye Damage • Harmful If Swallowed Or Absorbed Through Skin • Prolonged Or Frequently Repeated Skin Contact May Cause Allergic Reaction In Some Individuals

Do not get in eyes or on skin or clothing.

### Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks
- Protective eyewear
- Chemical resistant gloves (≥14 mils) such as butyl rubber, natural rubber, neoprene rubber or nitrile rubber

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

#### **Engineering Controls**

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the WPS (40 CFR 170.240(d)(4-6), the handler PPE requirements may be reduced or modified as specified in the WPS.

## **User Safety Recommendations**

Users should:

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

## First Aid

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

If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

If swallowed: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person. Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-992-5994 for emergency medical treatment information.

Note to Applicator: Allergic skin reaction is not expected from exposure to spray mixtures of Garlon 3A herbicide when used as directed.

Note to Physician: Probable mucosal damage may contraindicate the use of gastric lavage.

#### **Environmental Hazards**

Do not contaminate water when cleaning equipment or disposing of equipment washwaters. Under certain conditions, treatment of aquatic weeds can result in oxygen depletion or loss due to decomposition of dead plants, which may contribute to fish suffocation. This loss can cause fish suffocation. Therefore, to minimize this hazard, do not treat more than one-third to one-half of the water area in a single operation and wait at least 10 to 14 days between treatments. Begin treatment along the shore and proceed outwards in bands to allow fish to move into untreated areas. Consult with the State agency for fish and game before applying to public water to determine if a permit is needed.

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.

## **Physical or Chemical Hazards**

Combustible. Do not use or store the product near heat or open flame.

Notice: Read the entire label. Use only according to label directions. Before using this product, read Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies elsewhere on this label. If terms are unacceptable, return at once unopened.

In case of emergency endangering health or the environment involving this product, call 1-800-992-5994. If you wish to obtain additional product information, visit our web site at www.dowagro.com.

Agricultural Chemical: Do not ship or store with food, feeds, drugs or clothing.

### **Directions for Use**

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

Read all Directions for Use carefully before applying.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation

## **Agricultural Use Requirements**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 48 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls
- Shoes plus socks
- Protective eyewear
- Chemical-resistant gloves (≥14 mils) such as butyl rubber, natural rubber, neoprene rubber or nitrile rubber

### Non-Agricultural Use Requirements

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for Agricultural Pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Entry Restrictions for Non-WPS Uses: For applications to noncropland areas, do not allow entry into areas until sprays have dried, unless applicator and other handler PPE is worn.

#### Storage and Disposal

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

Pesticide Storage: Store above 28°F or agitate before 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 Reuse: Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available.

Triple rinse or pressure rinse container (or equivalent) promptly after emptying. **Triple rinse** as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. **Pressure rinse** as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

## Refillable containers 5 gallons or larger:

Container Reuse: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10% full with water and, if possible, spray all sides while adding water. If practical, agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

### Nonrefillable containers 5 gallons or larger:

Container Reuse: Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available.

Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

## General Information for Production Forests and Industrial Non-Crop Areas

Use Garlon® 3A specialty herbicide for the control of woody plants and broadleaf weeds in forests and industrial non-crop areas including manufacturing and storage sites, rights-of-way such as electrical power lines, communication lines, pipelines, roadsides, railroads, fence rows, non-irrigation ditch banks, and around farm buildings, including application to grazed areas, and establishment and maintenance of wildlife openings on these sites, and in Christmas tree plantations. Use within production forests and industrial non-crop sites (including those listed above) may include applications to control target vegetation in and around standing water sites, such as marshes, wetlands, and the banks of ponds and lakes.

**Obtain Required Permits:** Consult with appropriate state or local water authorities before applying this product to public waters. State or local public agencies may require permits.

### **General Use Precautions and Restrictions**

For use in New York State, comply with Section 24(c) Special Local Need labeling for Garlon 3A, SLN NY-060002.

When applying this product in tank mix combination, follow all applicable use directions, precautions and limitations on each manufacturer's label.

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

Do not apply Garlon 3A directly to, or otherwise permit it to come into direct contact with, grapes, tobacco, vegetable crops, flowers, or other desirable broadleaf plants. Do not permit spray mists containing Garlon 3A to drift onto such plants.

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.

Water treated with Garlon 3A may not be used for irrigation purposes for 120 days after application or until residue levels of Garlon 3A are determined by laboratory analysis, or other appropriate means of analysis, to be 1 ppb or less.

Seasonal Irrigation Waters: Garlon 3A may be applied during the offseason to surface waters that are used for irrigation on a seasonable basis provided that there is a minimum of 120 days between applying Garlon 3A and the first use of treated water for irrigation purposes, or until residue levels of Garlon 3A are determined by laboratory analysis, or other appropriate means of analysis, to be 1 ppb or less.

Irrigation Canals/Ditches: Do not apply Garlon 3A to irrigation canals/ditches unless the 120-day restriction on irrigation water usage can be observed or residue levels of Garlon 3A are determined by laboratory analysis, or other appropriate means of analysis, to be 1 ppb or less.

- Do not apply to salt water bays or estuaries.
- . Do not apply directly to un-impounded rivers or streams.
- Do not apply on ditches or canals currently being used to transport irrigation water or that will be used for irrigation within 4 months following treatment. It is permissible to treat irrigation and nonirrigation ditch banks.
- Do not apply where runoff water may flow onto agricultural land as injury to crops may result.
- When making applications to control unwanted plants on banks or shorelines of moving water sites, minimize overspray to open water.

- The use of a mistblower is not recommended.
- Apply no more than 2 ib ae of triclopyr (2/3 gallon of Garlon 3A) per acre per growing season on range and pasture sites, including rights-of-way, fence rows or any area where grazing or harvesting is allowed.
- On forestry sites, Garlon 3A may be used at rates up to 6 lb ae of triclopyr (2 gallons of Garlon 3A) per acre per year.
- For all terrestrial use sites other than range, pasture, forestry sites, and grazed areas, the maximum application rate is 9 lb ae of triclopyr (3 gallons of Garlon 3A) per acre per year.

## Precautions for Potable Water Intakes for Emerged Aquatic Weed Control

See chart below for specific setback distances near functioning potable water intakes. **Note:** Existing potable water intakes which are no longer in use, such as those replaced by potable water wells or connections to a municipal water system, are not considered to be functioning potable water intakes. These setback restrictions do not apply to terrestrial applications made adjacent to potable water intakes.

	Garlon 3A Application Rate			
Area Treated	2 qt/acre	4 qt/acre	6 qt/acre	8 qt/acre
(acres)	Setback Distance (ft)			
` 4	0	200	400	500
>4 - 8	0	200	700	900
>8 - 16	0	200	700	1000
>16	0	200	900	1300

To apply Garlon 3A around and within the distances noted above from a functioning potable water intake, the intake must be turned off until the triclopyr level in the intake water is determined to be 0.4 parts per million (ppm) or less by laboratory analysis or immunoassay.

- Recreational Use of Water in Treatment Area: There are no restrictions on use of water in the treatment area for recreational purposes, including swimming and fishing.
- Livestock Use of Water from Treatment Area: There are no restrictions on livestock consumption of water from the treatment area.

## Grazing and Haying Restrictions

Except for lactating dairy animals, there are no grazing restrictions following application of this product.

- Grazing Lactating Dairy Animals: Do not allow lactating dairy animals to graze treated areas until the next growing season following application of this product.
- Do not harvest hay for 14 days after application.
- Grazed areas of non-cropland and forestry sites may be spot treated if they comprise no more than 10% of the total grazable area.

Slaughter Restrictions: During the season of application, withdraw livestock from grazing treated grass at least 3 days before slaughter.

## **Avoiding Injurious Spray Drift**

Make applications only when there is little or no hazard from spray drift. Small quantities of spray, which may not be visible, may seriously injure susceptible plants. Do not spray when wind is blowing toward susceptible crops or ornamental plants that are near enough to be injured. It is suggested that a continuous smoke column at or near the spray site or a smoke generator on the spray equipment be used to detect air movement, lapse conditions, or temperature inversions (stable air). If the smoke layers or indicates a potential of hazardous spray drift, do not spray.

Aerial Application: For aerial application on rights-of-way or other areas near susceptible crops, apply through a Microfoil¹ or Thru-Valve boom¹, or use an agriculturally labeled drift control additive. Other drift reducing systems or thickened sprays prepared by using high viscosity inverting systems may be used if they are made as drift-free as mixtures containing agriculturally labeled thickening agents or applications made with the Microfoil or Thru-Valve boom. Keep spray pressures low enough to provide coarse spray droplets. Spray boom should be no longer than 3/4 of the rotor length. Do not use a thickening agent with the Microfoil or Thru-Valve booms, or other systems that cannot accommodate thick sprays. Spray only when the wind velocity is low (follow state regulations). Avoid application during air inversions. If a spray thickening agent is used, follow all use recommendations and precautions on the product label.

<sup>†</sup> Reference within this label to a particular piece of equipment produced by or available from other parties is provided without consideration for use by the reader at its discretion and subject to the reader's independent circumstances, evaluation, and expertise. Such reference by Dow AgroSciences is not intended as an endorsement of such equipment, shall not constitute a warranty (express or implied) of such equipment, and is not intended to imply that other equipment is not available and equally suitable. Any discussion of methods of use of such equipment does not imply that the reader should use the equipment other than is advised in directions available from the equipment's manufacturer. The reader is responsible for exercising its own judgment and expertise, or consulting with sources other than Dow AgroSciences, in selecting and determining how to use its equipment.

### Spray Drift Management

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications:

- The distance of the outer most operating nozzles on the boom must not exceed 3/4 the length of the rotor.
- Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they should be observed.

The applicator should be familiar with and take into account the information covered in the 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 recommended pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- Number of Nozzles Use the minimum number of nozzles that provide uniform coverage.
- Nozzle Orientation Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- Nozzle Type Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

**Boom Length:** For some use patterns, reducing the effective boom length to less than 3/4 of the rotor length may further reduce drift without reducing swath width.

**Application Height:** Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

**Swath Adjustment:** When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.).

Wind: Drift potential is lowest between wind speeds of 2 to 10 mph. However, many factors, including droplet size and equipment type, determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. Note: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

**Temperature and Humidity:** When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

Temperature Inversions: Applications should not occur during a local, low level temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of the smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

Sensitive Areas: The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

Ground Equipment: To aid in reducing spray drift, Garlon 3A should be used in thickened (high viscosity) spray mixtures using an agriculturally labeled drift control additive, high viscosity invert system, or equivalent as directed by the manufacturer. With ground equipment, spray drift can be reduced by keeping the spray boom as low as possible; by applying 20 gallons or more of spray per acre; by keeping the operating spray pressures at the lower end of the manufacturer's recommended pressures for the specific nozzle type used (low pressure nozzles are available from spray equipment manufacturers); and by spraying when wind velocity is low (follow state regulations). In hand-gun applications, select the minimum spray pressure that will provide adequate plant coverage (without forming a mist). Do not apply with nozzles that produce a fine-droplet spray.

**High Volume Leaf-Stem Treatment:** To minimize spray drift, do not use pressure exceeding 50 psi at the spray nozzle and keep sprays no higher than brush tops. An agriculturally labeled thickening agent may be used to reduce drift.

#### Plants Controlled

#### **Woody Plant Species**

salt cedar2" dogwood alder elderberry salmonberry arrowwood asn elm sassafras scotch broom aspen galiberry Australian pine ĥazei sumac sweetbay magnolia bear clover (bearmat) hornbean beech kudzu' sweetgum birch locust sycamore madrone tanoak blackberry blackgum maples thimbleberry Brazilian pepper mulberry tulip poplar waxmyrtle cascara oaks ceanothus persimmon western hemlock wild rose cherry pine chinquapin poison ivv willow winged elm choke cherry poison oak poplar cottonwood

crataegus (hawthorn) salt-bush
Douglas fir (Baccharis spp.)

'For complete control, re-treatment may be necessary.

## Annual and Perennial Broadleaf Weeds

bindweed Mexican petunia burdock plantain Canada thistle purple loosestrife chicory ragweed curly dock smartweed Spanish needles/ dandelion field bindweed common beggarthicks tansy ragwort lambsquarter

tropical soda apple vetch wedelia wild lettuce

#### Purple Loosestrife (Lythrum salicaria)

Purple loosestrife can be controlled with foliar applications of Garlon 3A. For broadcast applications, use a minimum of 4 1/2 to 6 lb ae of triclopyr (6 to 8 quarts of Garlon 3A) per acre. Apply Garlon 3A when purple loosestrife is at the bud to mid-flowering stage of growth. Follow-up applications for control of regrowth should be made the following year in order to achieve increased control of this weed species. For all applications, a non-ionic surfactant should be added to the spray mixture. Follow all directions and use precautions on the label of the surfactant. Thorough wetting of the foliage and stems is necessary to achieve satisfactory control. A minimum spray volume of 50 gallons per acre is recommended for ground broadcast applications.

If using a backpack sprayer, a spray mixture containing 1% to 1.5% Garlon 3A or 5 to 7.6 fl oz of Garlon 3A per 4 gallons of water should be used. All purple loosestrife plants should be thoroughly wetted.

#### Application Methods

Use Garlon 3A at rates of 3/4 to 9 lb ae of triclopyr (1/4 to 3 gallons of Garlon 3A) per acre to control broadleaf weeds and woody plants. In all cases, use the amount specified in enough water to give uniform and complete coverage of the plants to be controlled. Use only water suitable for spraying. Use an agriculturally labeled non-ionic surfactant for all foliar applications. When using surfactants, follow the use directions and precautions listed on the surfactant manufacturer's label. Use the higher concentrations of surfactant in the spray mixture when applying lower spray volumes per acre. The order of addition to the spray tank is water, spray thickening agent (if used), additional herbicide (if used), and Garlon 3A. Surfactant should be added to the spray tank last or as recommended on the product label. If combined with emulsifiable concentrate herbicides, moderate continuous adequate agitation is required.

Before using any recommended tank mixtures, read the directions and all use precautions on both labels.

For best results, apply when woody plants and weeds are actively growing. When hard to control species such as ash, blackgum, choke cherry, elm, maples, oaks, pines, or winged elm are prevalent and during applications made in late summer when the plants are mature and during drought conditions, use the higher rates of Garlon 3A alone or in combination with Tordon® 101 Mixture specialty herbicide. (Tordon 101 Mixture is a restricted use pesticide. See product label.) Tordon 101 Mixture is not registered for use in the states of California and Florida.

When using Garlon 3A in combination with 2,4-D 3.8 lb amine, like DMA 4 IVM, or low volatile ester herbicides, generally the higher rates should be used for satisfactory brush control.

Use the higher dosage rates when brush approaches an average of 15 feet in height or when the brush covers more than 60% of the area to be treated. If lower rates are used on hard to control species, resprouting may occur the year following treatment.

On sites where easy to control brush species dominate, rates less than those listed may be effective. Consult State or Local Extension personnel for such information.

<sup>&</sup>lt;sup>2</sup>Use cut surface treatments for best results.

#### Foliage Treatment With Ground Equipment

### High Volume Foliage Treatment

For control of woody plants, use Garlon 3A at the rate of 3 to 9 lb ae of triclopyr (1 to 3 gallons of Garlon 3A) per 100 gallons of spray solution, or Garlon 3A at 3/4 to 3 lb ae of triclopyr (1 to 4 quarts of Garlon 3A) may be tank mixed with 1/4 to 1/2 gallons of 2,4-D 3.8 lb amine, like DMA 4 IVM, or low volatile ester or Tordon 101 Mixture and diluted to make 100 gallons of spray solution. Apply at a volume of 100 to 400 gallons of total spray per acre depending upon size and density of woody plants. Coverage should be thorough to wet all leaves, stems, and root collars. (See General Use Precautions and Restrictions.) Do not exceed maximum allowable use rates per acre (see table below). Tordon 101 Mixture is not registered for use in the states of California and Florida.

#### Maximum Labeled Rate versus Spray Volume per Acre

	Maximum Rate of Garlon 3A		
Total Spray Volume (gal/acre)	Rangeland and Pasture Sites¹ (gal/100 gal of spray)	Forestry Sites <sup>2</sup> (gal/100 gal of spray)	Other Non- Cropland Sites <sup>a</sup> (gal/100 gal of spray)
400	Do not use	0.5	0.75
300	Do not use	0.67	1
200	Do not use	1	1.5
100	0.67	2	3
50	1.33	4	6
40	1.67	5	7.5
30	2.33	6.65	10
20	3.33	10	15
10	6.67	20	30

Do not exceed the maximum use rate of 2 lb ae of triclopyr (2/3 gal of Garlon 3A)/acre/year.

#### Low Volume Foliage Treatment

To control susceptible woody plants, apply up to 15 lb ae of triclopyr (5 gallons of Garlon 3A) in 10 to 100 gallons of finished spray. The spray concentration of Garlon 3A and total spray volume per acre should be adjusted according to the size and density of target woody plants and kind of spray equipment used. With low volume sprays, use sufficient spray volume to obtain uniform coverage of target plants including the surfaces of all foliage, stems, and root collars (see General Use Precautions and Restrictions). For best results, a surfactant should be added to all spray mixtures. Match equipment and delivery rate of spray nozzles to height and density of woody plants. When treating tall, dense brush, a truck mounted spray gun with spray tips that deliver up to 2 gallons per minute at 40 to 60 psi may be required. Backpack or other types of specialized spray equipment with spray tips that deliver less than 1 gallon of spray per minute may be appropriate for short, low to moderate density brush.

Tank Mixing: As a low volume foliar spray, up to 9 lb ae of triclopyr (3 gallons of Garlon 3A) may be applied in tank mix combination with 1/2 to 1 gallon of Tordon K or 1 to 2 gallons of Tordon 101 Mixture in 10 to 100 gallons of finished spray. Tordon 101 Mixture and Tordon K are not registered for use in the states of California and Florida.

#### **Broadcast Applications With Ground Equipment**

Apply using equipment that will assure uniform coverage of the spray volumes applied. To improve spray coverage, add an agriculturally labeled non-ionic surfactant as described later under Directions for Use. See Maximum Labeled Rate versus Spray Volume per Acre table above for relationship between mixing rate, spray volume and maximum application rate.

#### **Woody Plant Control**

Foliage Treatment: Use 6 to 9 lb ae of triclopyr (2 to 3 gallons of Garlon 3A) in enough water to make 20 to 100 gallons of total spray per acre or 1 1/2 to 3 lb ae of triclopyr (1/2 to 1 gallon of Garlon 3A) may be combined with 1 to 2 gallons of 2,4-D 3.8 lb amine, like DMA 4 IVM, or low volatile esters or Tordon 101 Mixture in sufficient water to make 20 to 100 gallons of total spray per acre. Tordon 101 Mixture is not registered for use in the states of California and Florida.

#### **Broadleaf Weed Control**

Use Garlon 3A at rates of 1 to 4 1/2 ib ae of triclopyr (1/3 to 1 1/2 gallons of Garlon 3A) in a total volume of 20 to 100 gallons of water per acre. Apply any time during the growing season. Garlon 3A at 1 to 3 ib ae of triclopyr (1/3 to 1 gallon of Garlon 3A) may be tank mixed with 1/2 to 1 gallon of Tordon K, Tordon 101 Mixture or 2,4-D 3.8 lb amine, like DMA 4 IVM, or low volatile herbicides to improve the spectrum of activity. Tordon 101 Mixture and Tordon K are not registered for use in the states of California and Florida.

#### **Aerial Application (Helicopter Only)**

Aerial sprays should be applied using suitable drift control. (See General Use Precautions and Restrictions.) Add an agriculturally labeled non-ionic surfactant as described under Directions for Use. See Maximum Labeled Rate versus Spray Volume per Acre table above for relationship between mixing rate, spray volume and maximum application rate.

## Foliage Treatment (Non-Grazed Rights-of-Way)

Non-grazed areas: Use 6 to 9 lb ae of triclopyr (2 to 3 gallons of Garlon 3A) or 3 to 4 1/2 lb ae of triclopyr (1 to 1 1/2 gallons of Garlon 3A) in a tank mix combination with 1 to 2 gallons of 2,4-D 3.8 lb amine, like DMA 4 IVM, or low volatile esters or Tordon 101 Mixture, and apply in a total spray volume of 10 to 30 gallons per acre. Use the higher rates and volumes when plants are dense or under drought conditions. Tordon 101 Mixture is not registered for use in the states of California and Florida.

Interspersed areas in non-grazed rights-of-ways that may be subject to grazing may be spot treated if the treated area comprises no more than 10% of the total grazable area.

### Forest Management Applications

For best control from broadcast applications of Garlon 3A, use a spray volume which will provide thorough plant coverage. Recommended spray volumes are usually 10 to 25 gallons per acre by air or 10 to 100 gallons per acre by ground. To improve spray coverage of spray volumes less than 50 gallons per acre, add an agriculturally labeled non-ionic surfactant as described under Directions for Use. Application systems should be used to prevent hazardous drift to off-target sites. Nozzles or additives that produce larger droplets of spray may require higher spray volumes to maintain brush control.

<sup>&</sup>lt;sup>2</sup> Do not exceed the maximum use rate of 6 lb ae of triclopyr (2 gal of Garlon 3A)/acre/year.

<sup>&</sup>lt;sup>3</sup> Do not exceed the maximum use rate of 9 lb ae of triclopyr (3 gal of Garlon 3A)/acre/year on non-cropland use sites other than rangeland, pasture, forestry, and grazed areas.

#### Forest Site Preparation (Not for Conifer Release)

Use up to 6 lb ae of triclopyr (2 gallons of Garlon 3A) and apply in a total spray volume of 10 to 30 gallons per acre or Garlon 3A at 3 to 4 1/2 lb ae of triclopyr (1 to 1 1/2 gallons of Garlon 3A) may be used with 1 to 2 gallons of Tordon 101 Mixture or 2,4-D 3.8 lb low volatile ester in a tank mix combination in a total spray volume of 10 to 30 gallons per acre. Use a non-ionic agricultural surfactant for all foliar applications as described under Directions for Use. Tordon 101 Mixture is not registered for use in the states of California and Florida.

Note: Conifers planted sooner than one month after treatment with Garlon 3A at less than 4 lb ae of triclopyr (1 1/3 gallons of Garlon 3A) per acre or sooner than two months after treatment at 4 to 9 lb ae of triclopyr (1 1/3 to 3 gallons of Garlon 3A) per acre may be injured. When tank mixtures of herbicides are used for forest site preparation, labels for all products in the mixture should be consulted and the longest recommended waiting period before planting observed.

## **Directed Spray Applications for Conifer Release**

To release conifers from competing hardwoods such as red maple, sugar maple, striped maple, sweetgum, red and white oaks, ash, hickory, alder, birch, aspen, and pin cherry, mix 3 to 6 lb ae of triclopyr (1 to 2 gallons of Garlon 3A) in enough water to make 100 gallons of spray mixture. To improve spray coverage, add an agriculturally labeled non-ionic surfactant as described under Directions for Use. The spray mixture should be directed onto foliage of competitive hardwoods using knapsack or backpack sprayers with flat fan nozzles or equivalent any time after hardwoods have reached full leaf size, but before autumn coloration. The majority of treated hardwoods should be less than 6 feet in height to ensure adequate spray coverage. Care should be taken to direct spray away from contact with conifer foliage, particularly foliage of desirable pines.

**Note:** Spray may cause temporary damage and growth suppression where contact with conifers occurs; however, injured conifers should recover and grow normally. Over-the-top spray applications can kill pines.

## Broadcast Applications for Conifer Release in the Northeastern United States

To release spruce, fir, red pine and white pine from competing hardwoods, such as red maple, sugar maple, striped maple, alder, birch (white, yellow or gray), aspen, ash, pin cherry and *Rubus* spp. and perennial and annual broadleaf weeds, use Garlon 3A at rates of 1 1/2 to 3 lb ae of triclopyr (2 to 4 quarts of Garlon 3A) per acre alone or with 2,4-D amine, like DMA 4 IVM, or 2,4-D ester to provide no more than 4 lb ae per acre from both products. Apply in late summer or early fall after conifers have formed their over wintering buds and hardwoods are in full leaf and prior to autumn coloration.

## Broadcast Applications for Douglas Fir Release in the Pacific Northwest and California

To release Douglas fir from susceptible competing vegetation such as broadleaf weeds, alder, blackberry or Scotch broom, apply Garlon 3A at 1 to 1 1/2 lb ae of triclopyr (1 1/3 to 2 quarts of Garlon 3A) per acre alone or in combination with 4 lb per acre of atrazine. Mix all sprays in a water carrier with a non-ionic surfactant. Apply in early spring after hardwoods begin growth and before Douglas fir bud break ("early foliar" hardwood stage) or after Douglas fir seasonal growth has "hardened off" (set winter buds) in late summer, but while hardwoods are still actively growing. When treating after Douglas fir bud set, apply prior to onset of autumn coloration in hardwood foliage. **Note:** Treatments applied during active Douglas fir shoot growth (after spring bud break and prior to bud set) may cause injury to Douglas fir trees.

#### **Cut Surface Treatments**

Individual plant treatments such as basal bark and cut surface applications may be used on any use site listed on this label at a maximum use rate of 2.67 gallons of Garlon 3A (8 lb ae of trictopyr) per acre. These types of applications are made directly to ungrazed parts of plants and, therefore, are not restricted by the grazing maximum rate of 2/3 of a gallon of Garlon 3A (2 lb ae of trictopyr) per acre.

To control unwanted trees of hardwood species such as elm, maple, oak and conifers in labeled sites, apply Garlon 3A, either undiluted or diluted in a 1 to 1 ratio with water, as directed below.

#### With Tree Injector Method

Apply by injecting 1/2 milliliter of undiluted Garlon 3A or 1 milliliter of the diluted solution 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 1/2 milliliter of undiluted Garlon 3A or 1 milliliter of the diluted solution 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 undiluted or diluted solution.

Both of the above methods may be used successfully at any season except during periods of heavy sap flow of certain species - for example, maples.

### Stump Treatment

Spray or paint the cut surfaces of freshly cut stumps and stubs with undiluted Garlon 3A. The cambium area next to the bark is the most vital area to wet.

### **Christmas Tree Plantations**

Use Garlon 3A for the control of woody plants and annual and perennial broadleaf weeds in established Christmas tree plantations. For best results, apply when woody plants and weeds are actively growing. Garlon 3A does not control weeds which have not emerged at the time of application. If lower rates are used on hard to control woody species, resprouting may occur the year following treatment. Brush over 8 feet tall is difficult to treat efficiently using hand equipment such as backpack or knapsack sprayers. When treating large brush or trees or hard to control species such as ash, blackgum, choke cherry, elm, hazel, madrone, maples, oaks or sweetgum, and for applications made during drought conditions or in late summer when the leaves are mature, use the higher rates of Garlon 3A or use cut surface application methods. For foliar applications, apply in enough water to give uniform and complete coverage of the plants to be controlled. Applications made under drought conditions may provide less than desirable results.

#### **Use Precautions:**

- Do not use on newly seeded grass until well established as indicated by vigorous growth and development of secondary root system and tillering
- Newly seeded turf (alleyways, etc.) should be mowed two or three times before any treatment with Garlon 3A.
- Do not reseed Christmas tree areas treated with Garlon 3A for a minimum of three weeks after application.
- Do not use Garion 3A if legumes, such as clover, are present and injury cannot be tolerated.

#### **Spray Preparation**

The order of addition to the spray tank is water, drift control agent (if used), non-ionic agricultural surfactant and Garlon 3A. Continue moderate agitation white mixing and spraying. Use a non-ionic agricultural surfactant for all applications. When using surfactants, follow use directions and precautions listed on the manufacturer's label. Use the higher recommended concentrations of surfactant in the spray mixture when applying lower spray volumes per acre.

#### Application

Apply in late summer or early autumn after terminal growth of Christmas trees has hardened of, but before leaf drop of, target weeds. Apply at a rate of 3/4 to 1 3/4 lb ae of triclopyr (2 to 5 pints of Garlon 3A) per acre as a foliar spray directed toward the base of Christmas trees. Use sufficient spray volume to provide uniform coverage of target plants (20 to 100 gallons per acre). **Do not apply with 2,4-D.** Application rates of Garlon 3A recommended for Christmas trees will only suppress some well established woody plants that are greater than 2 to 3 years old (see table below). Broadcast sprays may also be applied in bands between the rows of planted trees. Use spray equipment that will assure uniform coverage of the desired spray volume.

Spray solution from Garlon 3A can cause needle and branch injury to Christmas trees. To minimize injury to Christmas trees, direct sprays so as to minimize contact with foliage. Blue spruce, white spruce, balsam fir and Frasier fir are less susceptible to injury than white pine and Douglas fir.

**Restriction:** Apply Garlon 3A only to established Christmas trees that were planted at least one full year prior to application.

#### **Application Rates and Species Controlled:**

	Garlon 3A	
2 pints/acre (3/4 lb ae of triclopyr)	3 to 4 pints/acre (1 1/2 lb ae of triclopyr)	5 pints/acre (1 3/4 lb ae of triclopyr)
clover dandelion dock, curly lambsquarters lespedeza plantain, broadleaf plantain, buckhorn ragweed, common vetch	bindweed, field (TG) blackberry' chicory (S) fireweed ivy, ground lettuce, wild oxalis poison ivy smartweed (TG) thistle, Canada (TG) violet, wild Virginia creeper <sup>†</sup>	arrowwood (SDL) aspen beech (SDL) birch (SDL) chinquapin cottonwood (SDL) elderberry grape, wild mulberry (SDL) poplar (SDL) sassafras (SDL) sumac (SDL) sycamore (SDL)

(TG) Top growth control, retreatment may be necessary

(S) Suppression

(SDL) Seedlings less than 2 to 3 years old

Use 4 pint per acre rate

#### **Directed Applications**

To control hardwoods such as red maple, sugar maple, striped maple, sweetgum, red and white oaks, ash, alder, birch, aspen, and pin cherry, mix 4 to 20 fl oz of Garlon 3A in enough water to make 3 gallons of spray mixture. For directed applications, do not exceed 6 lb ae of triclopyr (2 gallons of Garlon 3A) per acre per year. To improve coverage, add a non-ionic agricultural surfactant to the spray. This spray mixture should be directed onto foliage of competitive hardwoods using knapsack or backpack sprayers with flat fan nozzles or equivalent any time after hardwoods have reached full leaf size, but before autumn coloration (when plants are actively growing). The majority of treated hardwoods should be less than 8 feet in height to ensure adequate spray coverage. **Note:** To prevent Christmas tree injury, care should be taken to direct spray away from contact with Christmas tree foliage.

#### **Cut Surface Treatments**

When treating large brush or trees or hard to control species such as ash, blackgum, choke cherry, elm, hazel, madrone, maples, oaks, salt cedar or sweetgum, and for applications made during drought conditions or in late summer when the leaves are mature, use cut surface treatments. (See directions for Cut Surface Treatments in preceding section of this label.)

## Wetland Sites in Production Forests and Industrial Non-Crop Areas

Garlon 3A may be used within production forests and industrial non-crop sites to control target vegetation in and around standing water sites, such as marshes, wetlands, and the banks of ponds and lakes and transition areas between upland and lowland sites.

For control of woody plants and broadleaf weeds in these sites, follow use directions and application methods on this label for forestry and non-cropland sites.

### **Use Precautions:**

Minimize overspray to open water when treating target vegetation in and around non-flowing, quiescent or transient water. When making applications to control unwanted plants on banks or shorelines of flowing water, minimize overspray to open water. **Note:** Consult local public water control authorities before applying this product in and around public water. Permits may be required to treat such areas.

### **Terms and Conditions of Use**

If terms of the following Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies are not acceptable, return unopened package at once to the seller for a full refund of purchase price paid. Otherwise, use by the buyer or any other user constitutes acceptance of the terms under Warranty Disclaimer, Inherent Risks of Use and Limitations of Remedies.

## **Warranty Disclaimer**

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

### Inherent Risks of Use

It is impossible to eliminate all risks associated with use of this product. Plant injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperature, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of Dow AgroSciences or the seller. All such risks shall be assumed by buyer.

### **Limitation of Remedies**

The exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability, or other legal theories), shall be limited to, at Dow AgroSciences' election, one of the following:

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

Dow AgroSciences shall not be liable for losses or damages resulting from handling or use of this product unless Dow AgroSciences is promptly notified of such loss or damage in writing. In no case shall Dow AgroSciences be liable for consequential or incidental damages or losses.

The terms of the Warranty Disclaimer, 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.

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

Label Code: D02-101-039 Replaces Label: D02-101-038 LOES Number: 010-00084

EPA accepted 01/03/06



## **GARLON\* 3A HERBICIDE**

Emergency Phone: 800-992-5994 Dow AgroSciences LLC Indianapolis, IN 46268

Effective Date: 17-Nov-06 Product Code: 38321 MSDS: 004422

### 1. PRODUCT AND COMPANY IDENTIFICATION:

PRODUCT: Garlon\* 3A Herbicide

### COMPANY IDENTIFICATION:

Dow AgroSciences LLC 9330 Zionsville Road Indianapolis, IN 46268-1189

### 2. HAZARDOUS IDENTIFICATIONS:

#### **EMERGENCY OVERVIEW**

Light purple-pink liquid, ammonia-like odor. May cause eye irritation with corneal injury. May cause skin irritation. Toxic to aquatic organisms.

EMERGENCY PHONE NUMBER: 800-992-5994

## 3. COMPOSITION/INFORMATION ON INGREDIENTS:

COMPONENT	CAS NUMBER	W/W%
Triclopyr TEA Salt	057213-69-1	44.4
Triethylamine	000121-44-8	3.0
Ethanol	000064-17-5	2.1
Balance		50.5

#### 4. FIRST AID:

**EYES:** Wash immediately and continuously with flowing water for at least 30 minutes. Remove contact lenses after the first 5 minutes and continue washing. Obtain prompt medical consultation, preferably from an ophthalmologist.

SKIN: Wash skin with plenty of water.

**INGESTION:** Do not induce vomiting. Give one cup (8 ounces or 240 ml) of water or milk if available and transport to a medical facility. Do not give anything by mouth to an unconscious person.

**INHALATION:** No emergency medical treatment necessary.

NOTE TO PHYSICIAN: Due to irritant properties, swallowing may result in burns/ulceration of mouth, stomach & lower gastrointestinal tract with subsequent stricture. Aspiration of vomitus may cause lung injury. Suggest endotracheal/esophageal control if lavage is done. If burn is present, treat as any thermal burn, after decontamination. Exposure to amine vapors may cause minor transient edema of the corneal epithelium (glaucopsia) with blurred vision, blue haze & halos around bright objects. Effects disappear in a few hours and temporarily reduce ability to drive vehicles. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

#### 5. FIRE FIGHTING MEASURES:

FLASH POINT: 110°F (43°C)
METHOD USED: TCC
FLAMMABLE LIMITS

LFL: Not determined UFL: Not determined

**EXTINGUISHING MEDIA:** Alcohol foam and CO<sub>2</sub>.

**FIRE & EXPLOSION HAZARDS**: Toxic, irritating vapors may be formed or given off if product is involved in fire. Although product is water-based, it has a flash point due to the presence of small amounts of ethanol and triethylamine.

**FIRE-FIGHTING EQUIPMENT**: Use positive-pressure, self-contained breathing apparatus and full protective clothing.

### 6. ACCIDENTAL RELEASE MEASURES:

ACTION TO TAKE FOR SPILLS/LEAKS: Contain small spills and absorb with an inert material such as clay or dry sand. Report large spills to Dow AgroSciences at 800-992-5994.

#### 7. HANDLING AND STORAGE:

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: HANDLING: Keep out of reach of children. Causes irreversible eye damage. Harmful if inhaled or absorbed through skin. Prolonged or frequently repeated skin contact may cause allergic skin reaction in some individuals. Avoid contact with eyes, skin, clothing, breathing vapor, or spray mist. Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.



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STORAGE: Store above 28°F or agitate before use. Store in RESPIRATORY PROTECTION: Atmospheric levels should original container. See product label for handling/storage precautions relative to the end use of this product.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION:

These precautions are suggested for conditions where the potential for exposure exists. Emergency conditions may require additional precautions.

### **EXPOSURE GUIDELINE(S):**

Ethanol (ethyl alcohol): ACGIH TLV and OSHA PEL are 1000 ppm. ACGIH classification is A4.

Triclopyr TEA Salt: Dow AgroSciences Industrial Hygiene

Guideline is 2 mg/M3 as acid equivalent; Skin.

Triethylamine: ACGIH TLV is 1 ppm TWA, 3 ppm STEL, Skin. OSHA PEL is 10 ppm TWA, 15 ppm STEL.

A "skin" notation following the exposure guideline refers to the potential for dermal absorption of the material including mucous membranes and the eyes either by contact with vapors or by direct skin contact. It is intended to alert the reader that inhalation may not be the only route of exposure and that measures to minimize dermal exposures should be considered.

ENGINEERING CONTROLS: Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines.

RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS:

EYE PROTECTION: Use chemical goggles. Eye wash fountain should be located in immediate work area. If exposure causes eye discomfort, use a full-face respirator.

SKIN PROTECTION: When prolonged or frequently repeated contact could occur, use chemically protective clothing resistant to this material. Selection of specific items such as face shield, gloves, boots, and apron or full-body suit will depend on operation.

be maintained below the exposure guideline. When respiratory protection is required for certain operations, use a NIOSH approved air-purifying respirator.

APPLICATORS AND ALL OTHER HANDLERS: Refer to the product label for personal protective clothing and equipment.

### PHYSICAL AND CHEMICAL PROPERTIES:

**BOILING POINT:** Not determined VAPOR PRESSURE: Not determined **VAPOR DENSITY**: Not applicable **SOLUBILITY IN WATER: Miscible** SPECIFIC GRAVITY: 1.135 (68/68°F) APPEARANCE: Light purple/pink liquid

ODOR: Ammonia-like odor

### 10. STABILITY AND REACTIVITY:

STABILITY: (CONDITIONS TO AVOID) Avoid sources of ignition if temperature is near or above flash point.

**INCOMPATIBILITY: (SPECIFIC MATERIALS TO AVOID)** Any oxidizing agent. Consult manufacturer for specific cases.

**HAZARDOUS DECOMPOSITION PRODUCTS: Nitrogen** oxides and hydrogen chloride may be formed under fire conditions.

HAZARDOUS POLYMERIZATION: Not known to occur.

## 11. TOXICOLOGICAL INFORMATION:

POTENTIAL HEALTH EFFECTS: This section includes possible adverse effects, which could occur if this material is not handled in the recommended manner.

EYE: May cause severe irritation with corneal injury which may result in permanent impairment of vision, even blindness. Chemical burns may occur. Vapor of amines may cause swelling of the cornea resulting in visual disturbances such as blurred or hazy vision. Bright lights may appear to be surrounded by halos. Effects may be delayed and typically disappear spontaneously.



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**SKIN:** Prolonged contact may cause skin irritation with local redness. Repeated contact may cause skin burns. Symptoms may include pain, severe local redness, swelling, and tissue damage. Prolonged or frequently repeated skin contact may cause allergic skin reactions in some individuals. With the dilute mix, no allergic skin reaction is expected. Prolonged skin contact is unlikely to result in absorption of harmful amounts. The LD<sub>50</sub> for skin absorption in rabbits is >5,000 mg/kg.

**INGESTION**: Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury. Swallowing may result in gastrointestinal irritation or ulceration. The oral LD<sub>50</sub> for rats is 2,574 mg/kg (male) and 1,847 mg/kg (female).

**INHALATION**: Brief exposure (minutes) is not likely to cause adverse effects.

**SYSTEMIC (OTHER TARGET ORGAN) EFFECTS**: Effects have been reported on the following organs: liver and kidney.

**CANCER INFORMATION:** Triclopyr did not cause cancer in laboratory animal studies.

**TERATOLOGY (BIRTH DEFECTS):** Triclopyr did not cause birth defects or other effects in the fetus even at doses which caused toxic effects in the mother. Ethanol has been shown to cause birth defects and toxicity to the fetus in laboratory animal tests. It has also been shown to cause human fetotoxicity and/or birth defects when ingested during pregnancy.

**REPRODUCTIVE EFFECTS**: For triclopyr, in laboratory animal studies, effects on reproduction have been seen only at doses that produced significant toxicity to the parent animals.

**MUTAGENICITY**: For triclopyr and ethanol: in-vitro genetic toxicity studies were negative. For triclopyr: animal genetic toxicity studies were negative. For ethanol: animal genetic toxicity studies were negative in some cases and positive in other cases.

### 12. ECOLOGICAL INFORMATION:

#### **ENVIRONMENTAL FATE:**

#### MOVEMENT & PARTITIONING:

Based largely or completely on information for triclopyr. Bioconcentration potential is low (BCF <100 or Log Pow <3).

#### **DEGRADATION & PERSISTENCE:**

Biodegradation under aerobic static laboratory conditions is high (BOD20 or BOD28/ThOD >40%).

The 20-Day biochemical oxygen demand (BOD20) is 0.30 p/p.

Theoretical oxygen demand (ThOD) is calculated to be 0.75 p/p.

#### **ECOTOXICOLOGY:**

Material is slightly toxic to aquatic organisms on an acute basis ( $LC_{50}$  or  $EC_{50}$  is between 10 and 100 mg/L in most sensitive species).

## 13. DISPOSAL CONSIDERATIONS:

DISPOSAL METHOD: If wastes and/or containers cannot be disposed of according to the product label directions, disposal of this material must be in accordance with your local or area regulatory authorities. This information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. If the material as supplied becomes a waste, follow all applicable regional, national and local laws and regulations.



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### 14. TRANSPORT INFORMATION:

## U.S. DEPARTMENT OF TRANSPORTATION (DOT) INFORMATION:

For non-bulk shipments by land: This material is not regulated for transport.

For bulk shipments by land: COMBUSTIBLE LIQUID, N.O.S. (TRIETHYLAMINE, ETHANOL)/COMBUSTIBLE LIQUID/NA1993/PGIII

For shipments by air or vessel: FLAMMABLE LIQUIDS, N.O.S. (TRIETHYLAMINE, ETHANOL)/3/UN1993/PGIII

### 15. REGULATORY INFORMATION:

NOTICE: The information herein is presented in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ from one location to another; it is the buyer's responsibility to ensure that its activities comply with federal, state or provincial, and local laws. The following specific information is made for the purpose of complying with numerous federal, state or provincial, and local laws and regulations.

## **U.S. REGULATIONS**

**SARA 313 INFORMATION**: This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

CHEMICAL NAME
Triethylamine

CAS NUMBER CONCENTRATION 000121-44-8 3.0%

SARA HAZARD CATEGORY: This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

An immediate health hazard A delayed health hazard A fire hazard

# TOXIC SUBSTANCES CONTROL ACT (TSCA): All ingredients are on the TSCA inventory or are not required to be listed on the TSCA inventory.

**STATE RIGHT-TO-KNOW**: The following product components are cited on certain state lists as mentioned. Non-listed components may be shown in the composition section of the MSDS.

 CHEMICAL NAME
 CAS NUMBER
 LIST

 Ethanol
 000064-17-5
 NJ1 NJ3 PA1

 Triethylamine
 000121-44-8
 NJ1 NJ3 PA1 PA3

NJ1=New Jersey Special Health Hazard Substance (present at > or = to 0.1%).

NJ3=New Jersey Workplace Hazardous Substance (present at greater than or equal to 1.0%).

PA1=Pennsylvania Hazardous Substance (present at > or = to 1.0%).

PA3=Pennsylvania Environmental Hazardous Substance (present at > or = to 1.0%).

OSHA HAZARD COMMUNICATION STANDARD: This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

## NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) RATINGS:

<b>CATEGORY</b>	RATING
Health	3
Flammability	2
Reactivity	0

COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT (CERCLA, or SUPERFUND): This product contains the following substance(s) listed as "Hazardous Substances" under CERCLA which may require reporting of releases:

Chemical NameCAS NumberRQ% in ProductTriethylamine000121-44-850003.0%



## **GARLON\* 3A HERBICIDE**

Emergency Phone: 800-992-5994 Dow AgroSciences LLC Indianapolis, IN 46268

Effective Date: 17-Nov-06 Product Code: 38321 MSDS: 004422

RCRA Categorization Hazardous Code:

Triethylamine = U404

16. OTHER INFORMATION:

MSDS STATUS: Revised Section: 2, 3, 11, 12, 13, 15

Reference: DR-0121-6064 Replaces MSDS dated: 11/24/03 Document Code: D03-101-004

Replaces Document Code: D03-101-003

The Information Herein Is Given In Good Faith, But No Warranty, Express or Implied, Is Made. Consult Dow AgroSciences for Further Information.