

19713-655

1/28/2014

1/14



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Washington, D.C. 20460

OFFICE OF
CHEMICAL SAFETY AND
POLLUTION PREVENTION

January 28, 2014

Luz Chan
Drexel Chemical Company
P.O. Box 13327
Memphis, TN 38113-0327

Subject: Notification per PR Notice 98-10
Drexel De-Ester LV6
EPA Reg. No. 19713-655
Application Dated January 2, 2014

Dear Ms. Chan:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for the subject product. The Registration Division (RD) has conducted a review of this request and finds that the action falls within the scope of PRN 98-10. The label submitted with the application has been date-stamped "Notification" and will be placed in our records.

If you have any questions, please contact Mindy Ondish at (703)605-0723 or at ondish.mindy@epa.gov.

Sincerely,

Mindy Ondish, for

Kathryn V. Montague
Product Manager 23
Herbicide Branch
Registration Division (7505P)



United States
Environmental Protection Agency
Washington, DC 20460

<input type="checkbox"/>	Registration
<input type="checkbox"/>	Amendment
<input checked="" type="checkbox"/>	Other

OPP Identifier Number

Application for Pesticide - Section I

1. Company/Product Number 19713-655	2. EPA Product Manager Kathryn Montague	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) DREXEL DE-ESTER LV6	PM# 23/Herbicide Branch	
5. Name and Address of Applicant (Include ZIP Code) Drexel Chemical Company P.O. Box 13327 Memphis, TN 38113-0327 <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3)(b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____	

Section - II

<input type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____	NOTIFICATION JAN 28 2014
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.	
<input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.	

Explanation: Use additional page(s) if necessary. (For section I and Section II.)
 Submission of revised label per CDPR's request. Details are in the cover letter accompanying this submission.
 This notification is consistent with the provisions of PR Notice 98-10 and EPA Regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the Confidential Statement of Formula of this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under Sections 12 and 14 of FIFRA.

Section - III

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	If "Yes" Unit Packaging wgt. No. per container		<input type="checkbox"/> Metal <input type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____
* Certification must be submitted		If "Yes" Package wgt No. per container			
3. Location of Net Contents Information <input type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container		5. Location of Label Directions <input type="checkbox"/>	
6. Manner in Which Label is Affixed to Product <input type="checkbox"/> Lithograph <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled			<input type="checkbox"/> Other _____		

Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)		
Name Luz G Chan	Title Registration Manager	Telephone No. (Include Area Code) (901) 774-4370
Certification I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.		6. Date Application Received (Stamped)
2. Signature 	3. Title Registration Manager	
4. Typed Name Luz G Chan	5. Date January 2, 2014	



3/14

Drexel Chemical Company

January 2, 2014

Document Processing Desk (NOTIF)
OPP(7504P), U.S. EPA
Rm S-4900, One Potomac Yard
2777 South Crystal Drive
Arlington, VA 22202

**Re: Submission of Label with Changes per California Dept. of Pesticide Regulation (CDPR)
DREXEL DE-ESTER LV6 (EPA Reg. No. 19713-655)**

Sir/Madam:

Herewith, please find:

1. Completed EPA Form 8570-1
2. Two copies of the label (655CSP-1213*) with the following changes per CDPR's request:
 - On page 3, under the section 'Weeds Controlled', added the California use restriction for Broom snakeweed, Common mullein, Figwort, Four o'clock, Ladysthumb, Milkweed climbing, Russian knapweed, Sheep sorrel, and Speedwell. Also added an asterisk after Blue lettuce and alternative name, "Nutgrass", for Nutsedge.
 - On page 6, under Forestry Management, the typographical error that reads "10.6 pints per acre" for basal spray was corrected to read "10.6 pints per 100 gals. of spray solution". The "10.6 pints per 100 gals. of spray solution" rate is more in line with the label stated "Use Instructions" and "Use Restrictions for Forestry Management" (see page 7) for basal spray.

The above changes are highlighted for easy reference.

If you have questions/clarification regarding this submission, I can be reached at (901) 774-4370 or e-mail lchan@drexchem.com.

Thank you.

Respectfully yours,
DREXEL CHEMICAL COMPANY


Luz G Chan
Registration Manager

4/14

GROUP 4 HERBICIDE



NOTIFICATION

JAN 28 2014

De-Ester™ LV6

For selective weed control of many Broadleaf weeds in Cereal grains (Barley, Millet, Oats, Rye, Wheat); Corn (Field, Pop, Sweet); Fallow land and Crop stubble; Forestry; Non-cropland; Potatoes; Pastures and Rangeland including Conservation Reserve Program acres; Sorghum; Soybeans (Pre-plant burn-down only); Turf (Grass grown for Seed or Sod and Ornamental Turf uses).

ACTIVE INGREDIENT:

2,4-Dichlorophenoxyacetic acid,
2-ethylhexyl ester* 88.8%

OTHER INGREDIENTS: 11.2%

TOTAL: 100.0%

* Equivalent to 58.8% 2,4-D acid or 5.5 pounds per gallon. Isomer specific by AOAC Method.

This product is an emulsifiable concentrate (EC).

KEEP OUT OF REACH OF CHILDREN

CAUTION

See **FIRST AID** Below

EPA Reg. No. 19713-655
EPA Est. No. 19713-TN-8

Net Content:
2.5 Gals. (9.46 L)

FIRST AID

IF SWALLOWED:

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

IF IN EYES:

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

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For information on this pesticide product (including health concerns, medical emergencies or pesticide incidents), call the National Pesticide Information Center at 1-800-858-7378.

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

CAUTION: Harmful if swallowed. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Prolonged or frequent repeated skin contact may cause allergic reactions in some individuals.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are barrier laminate, nitrile, or viton. If you want more options, follow the instructions for category E on an EPA chemical resistance category selections chart. **(Continued)**

PRECAUTIONARY STATEMENTS (Cont.)

All mixers, loaders, applicators, flaggers, and other handlers must wear: Long-sleeved shirt and long pants; shoes and socks; chemical-resistant gloves when applying with any hand-held nozzle or equipment, mixing, loading, cleaning up spills or equipment or otherwise exposed to the concentrate; and chemical-resistant apron when mixing or loading, cleaning up spills or equipment, or otherwise exposed to the concentrate.

See Engineering Controls for additional requirements.

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

ENGINEERING CONTROLS

Pilots must use an enclosed cockpit that meets the requirements listed in the WPS for agricultural pesticides [40 CFR 170.240(d)(6)].

USER SAFETY RECOMMENDATIONS

Users should: 1) Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. 2) Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. If pesticide gets on skin, wash immediately with soap and water. 3) Remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

This pesticide may be toxic to fish and aquatic invertebrates. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift and run-off may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment washwaters or rinsate.

This chemical has properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination. Application around a cistern or well may result in contamination of drinking water or groundwater. Use of closed systems for mixing or transferring this pesticide will reduce the probability of spills. Placement of the mixing/loading equipment on an impervious pad to contain spills will help prevent groundwater contamination.

USE INFORMATION

This product is a herbicide intended for the control of many Broadleaf weeds, herbaceous Perennials and woody plants susceptible to 2,4-D in various crops including cereal grains (Barley, Millet, Oats, Rye, Wheat), Corn (Field, Pop, Sweet), fallow land and crop stubble, Potatoes, Sorghum and Soybeans (pre-plant and burn-down applications only), forests, rangeland and established pastures including Conservation Reserve Program (CRP) acres, non-cropland, grasses grown for seed or Sod and Ornamental turf.



Manufactured By:
Drexel Chemical Company

P.O. BOX 13327, MEMPHIS, TN 38113-0327

SINCE 1972

5/14

Apply this product as water or oil-water spray during warm weather when weeds, brush or woody plants are actively growing. Application under drought conditions often will give poor results. Use low spray pressure to minimize drift. Generally, the lower dosage specified on this label will be satisfactory for young, succulent growth of sensitive weed species. For less sensitive species and under conditions where control is more difficult, the higher dosage will be needed. Deep-rooted Perennial weeds such as Canada thistle and Field bindweed and many woody plants usually require repeated applications for maximum control. **Note:** If there are uncertainties concerning special local use situations or specific crop variety tolerances to 2,4-D, consult your State Agricultural Experiment Station or Local Extension Service weed specialist for advice.

WEED RESISTANCE MANAGEMENT

GROUP 4 HERBICIDE

This product is a Group 4 herbicide. Any weed population may contain or develop plants naturally resistant to this product and other Group 4 herbicides. Weed species with acquired resistance to Group 4 may eventually dominate the weed population if Group 4 herbicides are used repeatedly in the same field or in successive years as primary method of control for targeted species. This may result in partial or total loss of control of those species by this product or other Group 4 herbicides.

To delay herbicide resistance, consider:

- Avoiding the consecutive use of this product or other target site of action Group 4 herbicides that have a similar target site of action on the same weed species.
- Using tank-mixtures or pre-mixes with herbicides from different target site of action Groups as long as the involved products are all registered for the same use, have different sites of action and are both effective at the tank-mix or pre-pack rate on the weed(s) of concern.
- Basing herbicide use on a comprehensive IPM program.
- Monitoring treated weed populations for loss of field efficacy.
- Contacting your local extension specialist, certified crop advisors and/or manufacturer for herbicide resistance management and/or integrated weed management recommendations for specific crops and resistant weed biotypes.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product through any type of irrigation system. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, greenhouses and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification and emergency assistance. It also contains specific instructions and exemptions pertaining to the statements on this label about Personal Protective Equipment (PPE) and Restricted Entry Interval (REI). The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the REI of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water is: Coveralls, chemical-resistant gloves made of any waterproof material, and shoes plus socks.

NON-AGRICULTURAL USE REQUIREMENTS

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

Entry Restrictions for Non-WPS Uses: Do not enter or allow people or pets to enter the treated area until sprays have dried.

Use of this product in certain portions of California, Oregon and Washington is subject to the January 22, 2004 order for injunctive relief in *Washington Toxics Coalition, et. al. v. EPA, C01-0132C, (W.D.WA)*. For further information, please refer to <http://www.epa.gov/espp/litstatus/wtc/index.htm>.

USE RESTRICTION

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

USE PRECAUTION

Excessive amounts of 2,4-D in the soil may temporarily inhibit seed germination and plant growth.

SPRAY DRIFT MANAGEMENT

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

Droplet Size: When applying sprays that contain 2,4-D as the sole active ingredient, or when applying sprays that contain 2,4-D mixed with active ingredients that require a coarse or coarser spray, apply only as a coarse or coarser spray (ASAE standard 572) or a volume mean diameter of 385 microns or greater for spinning atomizer nozzles.

When applying sprays that contain 2,4-D mixed with other active ingredients that require a medium or more fine spray, apply only as a medium or coarser spray (ASAE standard 572) or a volume mean diameter of 300 microns or greater for spinning atomizer nozzles.

Wind Speed: Do not apply at wind speeds greater than 15 mph. Only apply this product if the wind direction favors on-target deposition and there are not sensitive areas (including, but not limited to, residential areas, bodies of water, known habitat for non-target species, non-target crops) within 250 feet downwind. If applying a medium spray, leave one swath unsprayed at the downwind edge of the treated field.

Temperature Inversions: If applying at wind speeds less than 3 mph, the applicator must determine if: a) conditions of temperature inversion exist, or b) stable atmospheric conditions exist at or below nozzle height. Do not make applications into areas of temperature inversions or stable atmospheric conditions.

Susceptible Plants: Do not apply under circumstances where spray drift may occur to food, forage, or other plantings that might be damaged or crops thereof rendered unfit for sale, use, or consumption. Susceptible crops include, but are not limited to, Beans, Cotton, Flowers, Grapes (in growing stage), Fruit trees (foliage), Okra, Ornamentals, Soybeans (vegetative state), Sunflowers, Tobacco, Tomatoes and other Vegetables. Small amounts of spray drift that might not be visible may injure susceptible Broadleaf plants.

Other State and Local Requirements: Applicators must follow all state and local pesticide drift requirements regarding application of 2,4-D herbicides. Where states have more stringent regulations, they must be observed.

Equipment: All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers or surrogates.

Additional Requirements for Aerial Application: The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter.

Release spray at the lowest height consistent with efficacy and flight safety. Do not release spray at a height greater than 10 feet above the crop canopy unless a greater height is required for aircraft safety. This requirement does not apply to forestry or rights-of-way applications.

When applications are made with a crosswind, the swath will be displaced downwind. The applicator must compensate for this by adjusting the path of the aircraft upwind.

Additional Requirements for Ground Boom Application: Do not apply with a nozzle height greater than 4 feet above the crop canopy. 2,4-D esters may volatilize during conditions of low humidity and high temperatures. Do not apply during conditions of low humidity and high temperatures.

MIXING INSTRUCTIONS

1. Fill the spray tank about one-half full with water, then add the required amount of this product with agitation and finally, the rest of the water. **Note:** This product in water forms an emulsion which tends to separate unless agitation is maintained.
2. If oil is added, first mix this product and the oil and then add this mixture to the water. However, with adequate agitation, the oil can be added after this product is mixed in the water.
3. If straight oil is used, a solution is formed and separation does not occur. Do not allow any water to get into the oil-herbicide mixture to avoid formation of an invert emulsion.

Note: Adding oil, wetting agent, or other surfactant to the spray mixture may increase effectiveness on weeds, but also may reduce selectivity in crops resulting in crop damage.

6/14

Tank-Mixes: Read carefully and follow all applicable use directions, precautions and limitations on the respective product labels. Do not exceed specified application rates. Do not tank-mix with another pesticide product that contains the same active ingredient as this product unless the label of either tank-mix partner specifies the maximum dosages that may be used.

Compatibility Testing: A jar test is recommended prior to tank-mixing to ensure compatibility of this product and other pesticides. Use a clear glass quart jar with lid and mix the tank-mix ingredients in their relative proportions. Invert the jar containing the mixture several times and observe the mixture for approximately one-half hour. If the mixture balls up, forms flakes, sludges, gels, oily films or layers, or other precipitates, it is not compatible and the tank-mix combination should not be used.

Oil Spray: Use only as directed on the label distributed for this product. Fill clean spray tank about one-half to two-thirds full with diesel oil, fuel oil, stove oil, or other suitable oil. Add required amount of product with agitation turned on. Continue agitation while adding balance of oil. The resulting mixture is a solution and will generally remain uniform without agitation once mixed. However, agitation is suggested if available. Do not allow any water to get into the spray mixture to avoid formation of an invert emulsion (mayonnaise consistency).

Water Spray with Oil: Use only as directed on the label distributed for this product. Where a combination of water and oil diluent is specified, use emulsifiable crop oil or crop oil concentrate with mild agitation. Mix in the sequence of water, product and oil. If diesel or other non-emulsified oils listed above under "Oil Spray" are desired for use with water, add no more than 1 quart of such oil per 1 gallon of water and agitate vigorously until tank is emptied. If possible, pre-mix non-emulsified oil with this product and add this pre-mix to a mostly filled spray tank with agitation on. Follow these procedures carefully to avoid formation of an invert emulsion (mayonnaise consistency).

Mixing with Liquid Nitrogen Fertilizer: This product may be combined with liquid nitrogen fertilizer suitable for foliar application to accomplish Broadleaf weed control and fertilization of Corn, small grains or pastures in a single operation. Use this product in accordance with directions for these crops provided in this label. Use liquid fertilizer at rates specified by the supplier or Extension Service Specialist. Test for mixing compatibility by mixing spray ingredients in correct proportions in a clear glass jar before mixing in spray tank. A compatibility aid may be needed in some situations. Compatibility is best with liquid fertilizer solutions containing only nitrogen. Mixing with N-P-K solutions may not be satisfactory, even with the addition of a compatibility aid. Pre-mixing this product with 1 to 4 parts water may help in situations when mixing difficulty occurs.

Adjuvants for Pre-emergence and Pre-plant Applications: A non-ionic surfactant or a crop oil concentrate may be added to the spray solution when this product is applied pre-emergence or pre-plant to increase control of large or hard-to-control weeds. Crop oil concentrate must contain at least 17% emulsifier and be used at 0.25% v/v (2 pints per 100 gallons of spray solution).

CLEANING OF SPRAY EQUIPMENT

To avoid injury to desirable plants, thoroughly clean the equipment used to apply this product before re-use or applying other chemicals as indicated below.

1. Rinse and flush application equipment thoroughly after use at least three times with water. Dispose of all rinse water by application to treatment area or apply to non-cropland area away from water supplies.
2. During the second rinse, add 1 quart of household ammonia for every 25 gallons of water. Circulate the solution through the entire system for 15 to 20 minutes so that all internal surfaces are contacted. Let the solution stand for several hours, preferably overnight.
3. Flush the solution out of the spray tank through the boom.
4. Rinse the system twice with clean water, recirculating and draining each time.
5. Remove nozzles and screens and clean separately.
6. If equipment is to be used to apply another pesticide or agricultural chemical to a 2,4-D susceptible crop, additional steps may be required to remove all traces of 2,4-D, including cleaning of disassembled parts and replacement of hoses or other fittings that may contain absorbed 2,4-D.

APPLICATION INSTRUCTIONS

Volume of Spray: Apply this product with calibrated spray equipment by ground or air using sufficient spray volume to provide adequate coverage of target weeds or as otherwise directed in specific use directions. For broadcast application, apply the specified rate of this product by air

in a minimum of 2 gallons of spray per acre and 10 gallons of spray per acre by ground. Use low-pressure sprays to minimize drift.

Where states have regulations that specify minimum spray volumes, they should be observed. In general, spray volume should be increased as crop canopy, height and weed density increase in order to obtain adequate spray coverage. Do not apply less than 2 gallons total spray volume per acre.

Rates of Application: Generally, lower rates in specified rate ranges will be satisfactory for more sensitive weeds species, when weeds are small and when environmental conditions are favorable for rapid growth. Use higher rates in the specified rate range for less sensitive species and under less favorable growing conditions. For crop uses, do not mix with oil or other adjuvants unless specifically directed on this label.

Spot Treatments: To prevent misapplication, apply spot treatments with a calibrated boom or with hand sprayers using a fixed spray volume per 1000 square feet as indicated below.

Hand-held Sprayers: This product may be applied using hand-held sprayers for spot applications. Apply the spray uniformly at a rate equivalent to a broadcast application. Rates in the below "Rate Conversion Table for Spot Treatments" are based on the application rate for an area of 1000 square feet.

Mix the amount of this product (fl. oz. or ml) corresponding to the desired broadcast rate in 1 to 3 gallons of spray. To calculate the amount of this product required for larger areas, multiply the value in the table (fl. oz. or ml) by the thousands of square feet to be treated. An area of 1000 square feet is approximately 10.5 x 10.5 yards (strides) in size.

Rate Conversion Table for Spot Treatments:

Broadcast Rate (Pint / Acre)							
0.33	0.5	0.75	1	1.33	2	2.75	5.33
Equivalent Amount of This Product per 1000 square feet							
0.125 fl. oz.* (3.7 ml)	0.2 fl. oz. (5.9 ml)	0.25 fl. oz. (7.4 ml)	0.375 fl. oz. (11 ml)	0.5 fl. oz. (15 ml)	0.75 fl. oz. (22 ml)	1 fl. oz. (30 ml)	2 fl. oz. (60 ml)

*1 fl. oz. = 29.6 (30 ml); 16 fl. ozs. = 1 pint

Band Application: This product may be applied as a band treatment. Use the formula below to determine the appropriate rate and volume per treated acre.

$$\frac{\text{Band width in inches}}{\text{Row width in inches}} \times \text{Broadcast RATE per Acre} = \text{Band RATE per Treated Acre}$$

$$\frac{\text{Band width in inches}}{\text{Row width in inches}} \times \text{Broadcast VOLUME per Acre} = \text{Band VOLUME per Treated Acre}$$

WEEDS AND WOODY PLANTS CONTROLLED

Alder	Bullnettle*	Corn gromwell*
Alfalfa*	Bulrush (Tule)	Coyotebrush
Artichoke	Burdock	Creeping Jenny
(Jerusalem)*	Bur ragweed	Croton
Aster (Many flowered)*	Burhead	Curly indigo
Aspen	Buttercup	Dandelion
Austrian fieldcress	Canyon live oak	Devil's claw
Beggarsticks*	Carpetweed	Docks*
Biden	Cattails	Dogbanes*
Bindweed	Catnip	Dogfennel
(European, Field, Hedge)**	Ceanothus	Elderberry
Birch	Cherokee rose	Evening primrose (Common)
Bittercress (Small flowered)	Cherry	Evening primrose (Cutleaf)
Bitterweed	Chamise	Fanweed
Bitter wintercress	Chaparral species	Fabane (Daisy, Rough)
Bitterwood	Chickweed	Fiddleneck
Blackeyed Susan	Chicory	Figwort
Blue lettuce*	Clover (Red)*	Flixweed
Blueweed (Texas)	Cinquefoil	Four o'clock
Boxelder	Coastal redstern sage	Florida pusley
Broom snakeweed*.1	Cockle	Frenchweed
Broomweed	Cocklebur	Galinsoga
Buckbrush	Coffee bean	Geranium (Carolina)
Buckhorn	Coffeeweed	Goatsbeard
Buckhorn plantain	Common mullein	Goldenrod*
Buckwheat (Wild)	Copperleaf (Virginia)	Goosefoot
	Cornflower	

(Continued)

7/14

(Cont.)		
Ground ivy*	Parsnip	Stinkweed
Gumweed	Pennycress	Sumac
Halogeton	(Fanweed, Field)	Sunflower
Hawkweed	Pennywort	Sweet clover
(Orange)*	Peppergrass	Tanoak
Hazel	Pepperweed (Field)	Tansymustard
Healal	Pigweed**	Tansy ragwort*
Hemp (Wild)	Plantains	Tanweed
Henbit	Poison hemlock	Tarweed
Hoary cress*	Poison ivy	Thistle (Blessed, Blue, Bull)
Honeysuckle	Pokeweed	Thistle (Canada)*
Horsetail	Poorjoe	Thistle (Musk)
Horseweed	Poplars	Thistle (Russian)
(Marestail)	Povertyweed	Toadflax
Indiana mallow	Prickly lettuce*	Tumbleweed
Indigo	Primrose	Velvetleaf
Ironweed	Puncturevine	Vervains*
Klamathweed	Purslane	Vetch
Knotweed*	Rabbitbrush	Vetch (Hairy)*
Kochia*	Radish (Wild)	Virginia creeper
Jewelweed	Ragweeds	Water plantain
Jimsonweed	Ragwort (Tansy)*	Water primrose
Ladysthumb ¹	Rape (Wild)	Water wild mustard
Lambsquarters	Redstem	Wild carrot**
Loco (Bigbend)	Russian	Wild garlic*
Locoweed	knapweed*** ¹	Wild lettuce
Lupines	Sagebrush (Big, Coastal, Sand)	Wild mustard
Madrone	Salsify	Wild onion*
Mallow (Dwarf, Little, Venice)	Salsify (Western)*	Wild parsnip
Manzanita	Sand shinnery oak	Wild radish
Maple (Vine)	Sheep sorrel ¹	Wild rape
Marijuana	Shepherdspurse	Wild strawberry
Marshelder	Sicklepod	Wild sweet potato
Mexican weed	Smartweed (Annual, Pennsylvania)*	Willow
Milkvetch	Sneezeweed (Bitter)	Witchweed
Milkweed (Climbing) ¹	Southern wild rose	Wormseed
Morningglory	Sowthistle	Wormwood
(Annual, Common, Ivy, Wooly)	(Annual, Common, Perennial, Spiny)	Yellow goatsbeard
Mousetail	Spanishneedles	Yellow sweet clover (Annual)
Musk thistle	Speedwell ¹	Yellow rocket
Mustard (except Blue)	St. Johnswort	Yellow sandthistle
Nettles*	Starthistle	Yellow plantain
Nutsedge (Nutgrass)	Stinging nettle	Yellow starthistle

* These species may require repeat treatments and/or specified higher rates.
 ** 2,4-D-resistant biotypes have been confirmed. For additional information, refer to the "WEED RESISTANCE MANAGEMENT" section of this label.
 *** Suppressed when this product is tank-mixed with other herbicides.
¹ In California, do not use this chemical to control this weed.

USE SITES

CEREAL GRAINS (Barley, Millet, Oat, Rye, Wheat) (Not Under-seeded with Legumes)

Crop / Time of Application	This Product per Acre	Use Instructions**
Barley, Millet, Rye, Wheat: • Annual and Biennial broadleaf weeds	0.33 to 1.33 pints*	Apply after crop is fully tillered, but before boot stage of growth (usually 4 to 8 inches tall) but not forming joints in the stem. Do not apply before tillering or from early boot through the milk stage of growth.
• Perennial broadleaf weeds	0.75 to 1.33 pints	

(Continued)

(Cont.)		
Crop / Time of Application	This Product per Acre	Use Instructions**
Oats: • Spring seeded	0.33 pint	Apply after crop is fully tillered, but before boot stage of growth (usually 4 to 8 inches tall) and weeds are small. Do not apply before tillering or from early boot through the milk stage of growth. Do not apply during or immediately following cold weather.
• Fall seeded (Southern)	0.5 to 1 pint*	
All Cereals: Pre-harvest application	0.7 pint	Apply by ground or air to control weeds that could interfere with harvest or to suppress Perennial weeds. Apply when grain is in dough stage. Do not apply from early boot through the milk stage of growth.

* Use the lower rate in the rate range if small Annual or Biennial weeds are the major problem. Use the higher rate if Perennial weeds or Annual or Biennial weeds are present which are considered to be hard-to-kill as determined by local experience. Higher rates increase the risk of crop injury and should be used only where weed control justifies such risk. Do not apply this product at the crop seedling stage of growth. Consult State Agricultural Experiment Station or Extension Service Weed Specialists for recommendations or suggestions to fit local conditions.
 ** Apply this product in minimum 2 gallons of spray solution per acre.

TANK-MIXTURES

This product may be used in combination with bromoxynil, chlorsulfuron, dicamba, diuron, metribuzin, metsulfuron, prosulfuron, tribenuron, triasulfuron, tribenuron-methyl, chlorsulfuron plus metsulfuron, thifensulfuron plus tribenuron and other herbicides labeled for the above use(s) to broaden the spectrum of weed control of this product. Refer to the label of the tank-mix product(s) for cautionary statements and specific restrictions. Follow the most restrictive label. Tank-mix partners must be registered for use on these crops.

USE RESTRICTIONS FOR CEREAL GRAINS:

- Pre-harvest Interval (PHI) is 14 days.
- Do not apply more than 2.5 pints of this product (1.75 lbs. a.e.) per acre per crop cycle.
- Post-emergence: Limited to 1 post-emergence application per crop cycle. Maximum of 1.8 pints of this product (1.25 lbs. a.e.) per acre per application.
- Pre-harvest: Limited to 1 pre-harvest application per crop cycle. Maximum of 0.7 pint of this product (0.5 lb. a.e.) per acre application.

CORN (Field, Pop, Sweet)

Crop / Time of Application	This Product per Acre	Use Instructions
Field Corn, Popcorn, Sweet Corn: • Pre-plant (Burndown) • Pre-emergence	0.75 to 1.33 pints	For best results, growth conditions should be favorable for active weed growth. Use high rate in rate range for less susceptible weeds, cover crops such as Alfalfa, weeds in advanced stages of development, or under less favorable growth conditions. Pre-plant: Apply 7 to 14 days before planting Corn to control emerged Broadleaf weed seedlings or existing cover crops.

(Continued)

8/14

(Cont.)		
Crop / Time of Application	This Product per Acre	Use Instructions**
Field Corn, Popcorn, Sweet Corn: • Pre-plant (Burndown) • Pre-emergence <i>(Cont.)</i>	0.75 to 1.33 pints	Pre-emergence: Apply any time after planting, but before Corn emerges to control Broadleaf weed seedlings or existing cover crops. Do not use on light sandy soils.
Field Corn, Popcorn, Sweet Corn (Post-emergence): • Annual broadleaf weeds; Crop up to 8 inches tall • Crop 8 inches tall to tasseling (Directed spray only) • Perennial broadleaf weeds	0.33 to 0.7 pint 0.7 pint 0.7 pint	Apply when weeds are small and Corn is less than 8 inches tall (to top of canopy). If Corn is more than 8 inches tall, use drop nozzles to keep spray off foliage. Treat Perennial weeds when they are in bud to bloom stage. Do not tank-mix with atrazine, oil or other adjuvants. Do not apply from tasseling to hard dough stage. Sweet Corn: To minimize potential for crop injury, use only lowest rate in rate range.
Field Corn and Popcorn Only: Pre-harvest	Up to 2 pints	Apply after Corn is in hard dough (or denting) stage. Do not apply to Sweet corn.
Use Precautions: • Pre-plant or pre-emergence applications to light sandy soils are not recommended. • Corn hybrids vary in tolerance to 2,4-D. Some are easily injured. Apply only to varieties known to be tolerant to 2,4-D. Consult the seed company or your Agricultural Experiment Station or Extension Service Weed Specialist for this information. • Corn treated with 2,4-D may exhibit temporary stem brittleness following application. During this time period, the crop is more susceptible to stem breakage from wind or cultivation.		

USE RESTRICTIONS FOR FIELD CORN AND POPCORN;

- Pre-harvest Interval (PHI) is 7 days.
- Do not use treated crop as fodder for 7 days following application.
- Do not apply more than 4.3 pints of this product (3 lbs. a.e.) per acre per crop cycle.
- Pre-plant or Pre-emergence: Limited to 1 pre-plant or pre-emergence application per crop cycle. Maximum of 1.4 pints of this product (1 lb. a.e.) per acre per application.
- Post-emergence: Limited to 1 post-emergence application per crop cycle. Maximum of 0.7 pint of this product (0.5 lb. a.e.) per acre per application.
- Pre-harvest: Limited to 1 pre-harvest application per crop cycle. Maximum of 2.1 pints (1.5 lbs. a.e.) per acre per application.

USE RESTRICTIONS FOR SWEET CORN:

- Pre-harvest Interval (PHI) is 45 days.
- Do not use treated crop as fodder for 7 days following application.
- Minimum of 21 days between applications.
- Maximum of 2.1 pints (1.5 lbs. a.e.) per acre per crop cycle.
- Pre-plant or Pre-emergence: Limited to 1 pre-plant or pre-emergence application per crop cycle. Maximum of 1.4 pints (1 lb. a.e.) per acre per application.
- Post-emergence: Limited to 1 post-emergence application per crop cycle. Maximum of 0.7 pint (0.5 lb. a.e.) per acre per application.

FALLOW LAND* AND CROP STUBBLE

Target Weeds	This Product per Acre	Use Instructions
Annual broadleaf weeds	0.75 to 1.33 pints	Use a lower rate in the rate range when weeds are small (2 to 3 inches tall) and actively growing. Use a higher rate in the rate range when weeds are larger and under less favorable growth conditions.
Biennial broadleaf weeds	1.33 to 2.66 pints	Apply when Musk thistles or other Biennial species are in the seedling to rosette stage and before development of flower stalks. The lower rate can be used in the Spring during the rosette stage. Use the highest rate in the Fall or after flower stalks have developed.
Perennial broadleaf weeds	1.33 to 2.66 pints	Apply when Perennial weeds are in bud to early bloom stage or while in good vegetative growth.
Wild garlic and Onion in crop stubble	2.66 pints	Apply to new regrowth of Wild garlic or Onion which occurs in the Fall after harvest of Small grains, Corn or Grain sorghum.

Use Precaution:
 For best weed control results, do not cultivate for at least 2 weeks after application or until top growth is dead.

Planting in Treated Areas:
Labeled Crops: Within 29 days after an application of this product, plant only those crops listed on this or other registered 2,4-D labels. Follow more stringent limitations, if any, provided in directions for specific crops. Labeled crops may be at risk of crop injury or loss if planted soon after application, especially during the first 14 days. When weighing this risk, consider the degradation factors described below.

Other Crops: All other crops may be planted 30 or more days after application without concern for illegal residues in the planted crop. However, under certain conditions, there may be a risk of injury to susceptible crops. Degradation factors described below should be considered in weighing this risk. Under normal conditions, any crop may be planted without risk of injury if at least 90 days of soil temperatures above freezing have elapsed since application.

Degradation Factors: When planting into treated areas, the risk of crop injury is less if lower rates of product were applied and conditions following application have included warm, moist soil conditions that favor rapid breakdown of 2,4-D. Risk is greater if higher rates of product were applied and soil temperatures have been cold and/or soils have been excessively wet or dry in the days following application. Consult your local Agricultural Extension Service for information about susceptible crops and typical conditions in your area.

* Fallow land is idle land, post-harvest to crops or between crops.

SPRING PLANTING OF ROW CROPS

This product may be used to kill Fall Alfalfa stands in preparation for Spring planting of row crops under conservation tillage using the specified rates in the above table. The treated Alfalfa crop cannot be grazed, fed to livestock or cut for hay.

TANK-MIXTURES

To aid in suppressing certain Perennial or Biennial broadleaf weeds (including regrowth of Cotton), this product may be applied either alone or in combination with other registered herbicides such as dicamba or picloram. Use the high rate on older plants, drought stressed plants or for hard-to-kill species. See "PLANTING IN TREATED AREAS" in the above table. Refer to the label of the tank-mix product(s) for cautionary statements and specific restrictions. Follow the most restrictive label. Tank-mix partners must be registered for these uses.

9/14

USE RESTRICTIONS FOR FALLOW LAND AND CROP STUBBLE:

- Plant only labeled crops within 29 days following application.
- Minimum of 30 days between applications.
- Do not apply more than 2.9 pints of this product (2 lbs. a.e.) per acre per application.
- Limit to 2 applications per year.

FORESTRY MANAGEMENT

Forest Site Preparation, Forest Roadsides, Brush Control, Established Conifer Release (Including Christmas Trees and Reforestation Areas)

For forestry use, follow the requirements in the "AGRICULTURAL USE REQUIREMENTS" section except when this product is applied by tree injection. When this product is applied by tree injection, follow the requirements given in the "NON-AGRICULTURAL USE REQUIREMENTS" section of this label.

Site / Application Method	This Product	Use Instructions
Annual weeds	1.33 to 2.66 pints per acre	Apply when weeds are small and growing actively before the bud stage. Apply when Biennial and Perennial species are in the seedling to rosette stage and before flower stalks appear. For difficult to control Perennial broadleaf weeds and woody species, use up to 5.33 pints of this product plus the labeled rate of triclopyr herbicide per acre. For Conifer release, make application in early Spring before budbreak of Conifers when weeds are small and actively growing.
Biennial broadleaf weeds, Perennial broadleaf weeds, Susceptible woody plants	2.66 to 5.33 pints per acre	
Spot Treatment: Broadleaf weeds	See "Use Instructions"	To control Broadleaf weeds in small areas with a hand-held sprayer, use an application rate equivalent to the specified broadcast rate. Refer to "Rate Conversion Table for Spot Treatment" and instructions for "Spot Treatment" in the "APPLICATION INSTRUCTIONS" section of this label.
Conifer Release: Species such as Balsam fir, Pines (Jack, Ponderosa, Red, White), Spruce (Black, White)	2 to 4 pints per acre	To control competing hardwood species such as Alder, Aspen, Birch, Hazel and Willow, apply from mid to late Summer when growth of Conifer trees has hardened off and woody plants are still actively growing. Apply with ground or air equipment, using sufficient spray volume to ensure complete coverage. Because this treatment may cause occasional Conifer injury, do not apply if such injury cannot be tolerated.
Directed Spray: Conifer plantations including Pines	5.33 pints per 100 gals.	Apply when brush or weeds are actively growing by directing the spray so as to avoid contact with Conifer foliage and injurious amounts of spray. Apply in oil, oil-water, or water carrier in a spray volume of 10 to 100 gallons per acre.

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Site / Application Method	This Product	Use Instructions
Basal Spray	10.6 pints per 100 gals. of spray solution	Thoroughly wet the base and root collar of all stems until the spray begins to accumulate around the root collar at the ground line. Wetting stems with the mixture may also aid in control.
Surface of Cut Stumps	1.75 fl. ozs. per gal. of water	Apply as soon as possible after cutting trees. Thoroughly soak the entire stump with the 2,4-D mixture including cut surface, bark and exposed roots.
Frill and Girdle		Cut frills (overlapping V-shaped notches cut downward through the bark in a continuous ring around the base of the tree) using an axe or other suitable tool. Treat freshly cut frills with as much of the 2,4-D mixture as they will hold.
Tree Injection	1 to 2 ml per injection site	To control and prevent re-sprouting of unwanted Hardwood trees such as Alder, Aspen, Birch, Blackgum, Cherry, Elm, Hickory, Oak, Sweetgum and Tulip poplar in forests and other non-crop areas, apply by injecting 1 ml of this product, undiluted, per inch of trunk diameter at breast height (DBH) as measured approximately 4.5 feet above the ground. Make injections as close to the root collar as possible and the injection bit must penetrate the inner bark. Applications may be made throughout the year, but for best results apply between May 15 and October 15. For hard to control species such as Ash, Maple and Dogwood, use 2 ml of this product, undiluted, per injection site or double the number of 1 ml injections. Do not treat Maples during the Spring sap flow. Note: No Worker Protection Standard worker entry restrictions or worker notification requirements apply when this product is directly injected into agricultural plants.
Use Precaution: <ul style="list-style-type: none"> • Injury may occur if spray of this product comes into contact with Conifer shoot growth (current year's new growth). Use Restrictions: <ul style="list-style-type: none"> • Do not apply to nursery seed beds. • For Conifer release, do not use on plantations where Pine or Larch are among the desired species. 		

TANK-MIXTURES

This product can be tank-mixed with atrazine to control weeds in Christmas trees and forest plantings to aid in the establishment of young transplants of Austrian pine, Bishop pine, Blue spruce, Douglas fir, Grand fir, Jeffrey pine, Knobcone pine, Loblolly pine, Lodgepole pine, Monterey pine, Nobel fir, Ponderosa pine, Scotch pine, Sitka spruce, Slash pine and White fir.

Apply the labeled rates of atrazine with 1.4 to 4 pints of this product by ground or air when weeds are no more than 1.5 inches tall between

10/14

Fall and early Spring (preferably in February or March) while trees are still dormant, or soon after transplanting. Uniform application is the key to good weed control. Use 20 to 40 gallons of water per acre for ground applications and a minimum of 5 gallons of water by air. Be sure equipment is properly calibrated. All screens in the spray system – nozzles, in-line and suction strainers – should be 15 mesh or coarser. Use a pump with capacity to maintain a nozzle pressure of 35 to 40 psi, and sufficient agitation to keep the mixture in suspension in the spray tank. If a nurse tank is used, keep the mixture agitated while awaiting transfer to the spray tank. Tank-mix partner must be registered for these uses.

USE RESTRICTIONS FOR FORESTRY MANAGEMENT:

- For broadcast applications, do not apply more than a total of 5.8 pints of this product (4 lbs. a.e.) per acre per year. Limit to 1 broadcast application per year.
- For basal spray, cut surface stumps and frill applications, do not apply more than 11.6 pints of this product (8 lbs. a.e.) per 100 gallons of spray solution. Limit to 1 basal spray or cut surface application.
- For tree injection, do not apply more than 2 ml of the 4.0 lbs. a.e. formulation of this product per injection site. Limit to 1 injection application per year.

NON-CROPLAND

(Airports, Drainage Ditches, Farmsteads, Fencerows, Guardrails, Hedgerows, Highways, Industrial Sites, Lumberyards, Medians, Pipelines, Railroads, Rights-of-Way, Roadsides, Storage Areas, Tank Farms, Transformers, Vacant Lots and Utility Power Lines)

When this product is used in non-cropland, follow re-entry requirements given in the "NON-AGRICULTURAL USE REQUIREMENTS" section of this label.

Site / Application Method	This Product per Acre	Use Instructions
Annual broadleaf weeds	1.33 to 2.66 pints	Apply when Annual weeds are small and actively growing before the bud stage. Biennial and Perennial weeds should be at the rosette to bud stage but not flowering at the time of application. For difficult to control Perennial broadleaf weeds and woody species, tank-mix up to 5.33 pints of this product with the labeled rate of triclopyr herbicide per acre. If needed, oil or wetting agent may be added to the spray for increased effectiveness.
Biennial broadleaf weeds, Perennial broadleaf weeds, Susceptible woody plants	2.66 to 5.33 pints	For ground application: (High volume) Apply a total spray volume of 100 to 400 gallons per acre; (Low volume) apply a total of 10 to 100 gallons per acre. For helicopter: Apply a total spray volume of 5 to 30 gallons per acre.
Spot treatment to control Broadleaf weeds	See "Use Instructions"	To control Broadleaf weeds in small areas with a hand-held sprayer, use an application rate equivalent to the specified broadcast rate. Spray to thoroughly wet all foliage. Refer to "Rate Conversion Table for Spot Treatment" and instructions for "Spot Treatment" in the "APPLICATION INSTRUCTIONS" section of this label.

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Site / Application Method	This Product per Acre	Use Instructions
Tree Injection Application	1 to 2 ml per injection site	See "Tree Injection" under the "FORESTRY USES" section for instructions.
Basal Spray Frill and Girdle Surface of Cut Stumps	–	See "FORESTRY USES" section for instructions for these uses.
Southern Wild Rose: Broadcast application	Up to 2.66 pints per acre	Broadcast: Apply in a spray volume of 5 or more gallons per acre by air or 10 or more gallons per acre by ground equipment.
Spot treatment	5.28 pints per 100 gallons of spray	Spot treatment: Apply when foliage is well developed. Thorough coverage is required. Use 5.2 pints of this product plus 4 to 8 fluid ounces of an agricultural surfactant per 100 gallons of spray. Two or more treatments may be required.
Use Precautions: <ul style="list-style-type: none"> • Use a minimum of 2 gallons of spray solution per acre. • Bentgrass, St. Augustine, Clover, Legumes and Dichondra may be severely injured or killed by this treatment. Use Restrictions: <ul style="list-style-type: none"> • Do not apply to newly seeded areas until grass is well established. • If grazing or haying is anticipated, do not apply more than 2.66 pints of this product per application. Do not harvest forage or hay from treated areas 7 days after application. 		

TANK-MIXTURES

This Product Plus Dicamba or Triclopyr to Control Broadleaf Weeds and Woody Plants

This product at the above rates can be tank-mixed with dicamba or with triclopyr to control Broadleaf weeds and woody plants. Apply by ground or by air. Refer to the label of the tank-mixture partner(s) for use rates and any additional use instructions or restrictions. Always follow the most restrictive label. Tank-mix partners must be approved for these uses.

This Product Plus Chlorsulfuron, Metsulfuron-methyl or Sulfometuron for Improved Control of Resistant Biotypes Weeds

This product at the above rates can be tank-mixed with chlorsulfuron, metsulfuron-methyl or sulfometuron for improved post-emergent weed control of resistant biotype weeds. Refer to the label of the tank-mixture partner(s) for use rates and any additional use instructions or restrictions. Always follow the most restrictive label. Tank-mix partners must be approved for these uses.

USE RESTRICTIONS FOR NON-CROPLAND:

- Applications to non-cropland areas are not applicable to treatment of commercial timber or other plants being grown for sale or other commercial use, or for commercial seed production, or for research purposes.
- Post-emergence (Annual and Perennial broadleaf weeds): Do not apply more than 2.9 pints of this product (2 lbs. a.e.) per acre per application. Do not make more than 2 applications per season. Do not reapply to a treated area within 30 days of a previous application.
- Post-emergence (Woody plants): Do not apply more than a total of 5.8 pints of this product (4 lbs. a.e.) per acre per year. Do not make more than 1 application per year.

11/14

PASTURES AND RANGELAND (Including Established Grass Pastures, Rangeland and Perennial Grasslands Not In Agricultural Production such as Conservation Reserve Program [CRP] Acres)

When this product is applied to Rangeland and established Pastures not harvested for hay or seed and when applied by tree injection, follow re-entry requirements given in the "NON-AGRICULTURAL USE REQUIREMENTS" section of this label.

Target / Application Method	This Product per Acre	Use Instructions
Annual broadleaf weeds Biennial broadleaf weeds, Perennial broadleaf weeds	1.33 pints 1.33 to 2.66 pints	For best results, apply when weeds are small and when growing actively before the bud stage. Apply when musk thistles or other Biennial species are in the seedling to rosette stage and before flower stalks appear. Refer to the "WEEDS CONTROLLED" section of this label for a listing of susceptible weeds and weed species that may only be partially controlled and require repeat applications and/or use of higher specified rates, even under ideal conditions of application.
Spot treatment to control Broadleaf weeds	See "Use Instructions"	To control Broadleaf weeds in small areas with a hand-held sprayer, use an application rate equivalent to the specified broadcast rate. Spray to thoroughly wet all foliage. Refer to "Rate Conversion Table for Spot Treatment" and instructions for "Spot Treatment" in the "APPLICATION INSTRUCTIONS" section of this label.
Tree Injection Application	1 to 2 ml per injection site	See "Tree Injection" under the "FORESTRY USES" section for instructions.
Basal Spray Frill and Girdle Surface of Cut Stumps	-	See "FORESTRY USES" section for instructions for these uses.
Wild garlic and Wild onion	2.66 pints	Make 3 applications (Fall-Spring-Fall or Spring-Fall-Spring) starting in late Fall or early Spring.
Broadleaf weeds control in newly sprigged coastal Bermudagrass	1.33 to 2.66 pints	Applications may be made either pre-emergence or post-emergence. Follow the above specific use directions for Annual, Biennial and Perennial broadleaf weeds control.
Sand shinnery oak Sand sagebrush	1.33 pints	Sand shinnery oak: Apply by air between May 15 and June 15. Sand sagebrush: Apply by ground or air when foliage is fully expanded and plants are actively growing. Use a 1:4 oil-water emulsion as carrier and a spray volume of 3 to 5 gallons per acre.

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Target / Application Method	This Product per Acre	Use Instructions
Big sagebrush Rabbitbrush	2.66 pints	Apply by ground or aircraft when foliage is fully expanded and plants are actively growing. Use a 1:4 oil-water emulsion as carrier and a spray volume of 3 to 5 gallons per acre. Retreatment may be needed.
Buckbrush, Chamise, Coastal sage, Coyotebrush, Chaparral species, Manzanita	2.66 pints	Apply by ground or aircraft when foliage is fully expanded and plants are actively growing. Use water or 1:4 oil-water emulsion as carrier and a spray volume of 3 to 5 gallons per acre. Retreatment may be needed.
Southern Wild Rose: Broadcast application Spot treatment	Up to 2.66 pints 6 pints per 100 gallons of spray	Broadcast: Apply in a spray volume of 5 or more gallons per acre by air or 10 or more gallons per acre by ground equipment. Spot treatment: Apply when foliage is well developed. Thorough coverage is required. Use 6 pints of this product plus 4 to 8 fluid ounces of an agricultural surfactant per 100 gallons of water. Two or more treatments may be required.
Use Precaution: • For program lands such as Conservation Reserve Program (CRP), consult program rules to determine whether grass or hay may be used. The more restrictive requirements of the program rules or this label must be followed.		

USE RESTRICTIONS FOR RANGELAND, ESTABLISHED GRASS PASTURES:

- If grass is to be cut for hay, the Agricultural Use Requirements for the Worker Protection Standard are applicable.
- Do not use on Bentgrass, Alfalfa, Clover, or other Legumes.
- Do not use on newly seeded areas until grass is well established.
- Do not use from early boot to milk stage where grass seed production is desired.
- Do not cut forage for hay within 7 days of application.
- Do not graze dairy cattle in treated areas for 7 days after application.
- Minimum of 30 days between applications.
- Post-emergence: Maximum of 2.9 pints of this product (2 lbs. a.e.) per acre per application. Limited to 2 applications per year.
- For spot treatment, use 2.9 pints of this product (2 lbs. a.e.) per acre per application.
- Maximum of 5.8 pints (4 lbs. a.e.) per acre per year.
- For susceptible Annual and Biennial broadleaf weeds: Use 1.4 pints of this product (1 lb. a.e.) per acre per application.
- For moderately susceptible Biennial and Perennial broadleaf weeds: Use 1.4 to 2.9 pints of this product (1 to 2 lbs. a.e.) per acre per application.
- For difficult to control weeds and woody plants: Use 2.9 pints of this product (2 lbs. a.e.) per acre per application.

POTATOES (FRESH MARKET ONLY)

Time of Application	This Product per Acre	Use Instructions
Post-emergence	1.6 fluid ounces	Make first application when Potatoes are in the pre-bud stage (about 7 to 10 inches high) and a second application about 10 to 14 days later.

12/14

USE RESTRICTIONS FOR POTATOES:

- Only for use on Potatoes intended for fresh market.
- Pre-harvest Interval (PHI) is 45 days.

Post-emergence:

- Limited to two applications per crop.
- Do not apply more than 0.1 pint (1.6 fl. ozs.) of this product (0.07 lb. a.e.) per acre per application.
- Do not apply more than 0.2 pint (3.2 fl. ozs.) of this product (0.14 lb. a.e.) per acre per growing season.
- Minimum of 10 days between applications.

SORGHUM

Time of Application / Growth Stage	This Product per Acre	Use Instructions
Post-emergence: • Crop 6 to 8 inches tall	0.33 to 0.7 pint	Apply when Sorghum is 6 to 15 inches tall. If Sorghum is more than 8 inches tall (to top of crop canopy), use drop nozzles and apply as a directed spray to keep spray off foliage. Use 2 or more gallons of spray solution per acre.
• Crop 8 to 18 inches tall	0.5 to 0.7 pint	

Use Precautions:

- Temporary crop injury can be expected under conditions of high soil moisture and high air temperatures. If it is necessary to apply this product under these conditions, use no more than 0.5 pint of this product per acre.
- Sorghum hybrids vary in tolerance to 2,4-D. Some are easily injured. Apply only to varieties known to be tolerant to 2,4-D. Consult the seed company or your Agricultural Experiment Station or Extension Service Weed Specialist for this information.
- Because of sensitivity of some Sorghum varieties and hybrids to 2,4-D, the use of oil with this product is not directed.

USE RESTRICTIONS FOR SORGHUM:

- Pre-harvest Interval (PHI) is 30 days.
- Do not apply during boot, flowering or dough stage.
- Do not permit meat or dairy animals to consume treated crop as fodder or forage within 30 days following application.
- Do not apply more than 1 post-emergence application per crop cycle.
- Do not apply more than a total of 0.7 pint of this product (0.5 lb. a.e.) post-emergence per crop cycle.

SOYBEANS

Time of Application	This Product per Acre	Use Instructions
Pre-plant (Burndown)	0.5 to 0.7 pint	Apply 0.5 to 0.7 pint no less than 7 days and 0.75 to 1.33 pints of this product no less than 15 days before planting Soybeans. See "Use Precautions" and "Use Restrictions for Soybeans" below. Use this product to control emerged Broadleaf weeds or existing cover crops. For best results, apply when weeds are small and actively growing. Use the higher rate in the respective rate range for larger weeds and when Perennials are present. Use 2 or more gallons of solution per acre.
	0.75 to 1.33 pints	Compatible crop oil concentrates, agricultural surfactants and fluid fertilizers approved for use on growing crops may be added to spray mixtures to increase the herbicidal effectiveness on certain weeds. Read and follow all directions and precautions on this label and on the label of each product added to the spray mixture.

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Use Precaution:

- Unacceptable injury to Soybeans planted in treated fields may occur. Whether or not Soybean injury occurs and the extent of such injury will depend on weather (temperature and rainfall) from herbicide application until Soybean emergence and agronomic factors such as the amount of weed vegetation and previous crop residue present at the time of application. Injury is more likely under cool rainy conditions and where there is less weed vegetation and crop residue present.

Use Restrictions:

- Do not disturb treated soil through tillage between application and planting of Soybeans.
- Do not use on sandy soils with less than 1% organic matter.
- In treated fields, plant Soybean seed as deep as practical, but not less than 1 inch deep. Adjust the planter, if necessary, to ensure that planted seed is adequately covered.
- **Do not pre-plant apply this product in Soybeans unless you are prepared to accept the results of Soybean injury, including possible stand loss and/or yield reduction.**
- During the growing season following application, do not replant treated fields with crops other than those labeled for use with this product.

TANK-MIXTURES

This product may be applied pre-plant to Soybeans in tank-mixtures with the active ingredients listed below and other herbicides that are registered for pre-plant use in Soybeans. Follow the most restrictive label. Tank-mix partners must be approved for use on Soybeans.

This Product Plus Metribuzin Products as Knockdown Herbicide for No-Till

This product with metribuzin alone or in combination with acetochlor, metolachlor, oryzalin, or pendimethalin may be applied as an early pre-plant surface application for the control of certain Broadleaf weeds and grasses in Soybeans in minimum or no-till products. Apply 30 days prior to planting at 1.4 pints of this product (1 lb. a.e.) per acre with labeled rates of metribuzin. Where grass herbicide is used in tank-mix, apply at the rates specified on that product's label.

This Product Plus Sethoxydim as Burndown Prior to Planting Soybeans

For broad spectrum post-emergence weed control, a tank-mix application of this product with sethoxydim may be made for control of emerged Broadleaf and grass weeds before planting Soybeans. Apply 0.7 pint of this product (0.5 lb. a.e.) per acre with labeled rates of sethoxydim.

This Product Plus Imazaquin in Pre-plant Applications in No-Till Soybeans

A tank-mix application of this product with imazaquin may be made to control emerged Broadleaf and grass weeds before planting Soybeans. Apply 0.7 pint of this product (0.5 lb. a.e.) per acre up to 7 days prior to planting, or 1.4 pints of this product (1 lb. a.e.) per acre up to 30 days prior to planting, with labeled rates of imazaquin.

USE RESTRICTIONS FOR SOYBEANS:

- Do not apply more than 1.4 pints of this product (1 lb. a.e.) per acre per crop cycle.
- One (1) or 2 pre-plant applications are allowed per crop cycle. If a single pre-plant application is made, do not apply more than 1.4 pints of this product (1 lb. a.e.) per acre per application. Apply no less than 15 days prior to planting Soybeans. If 2 pre-plant applications are made, do not apply more than 0.7 pint of this product (0.5 lb. a.e.) per acre per application. Apply no less than 7 days prior to planting Soybeans.

13/14

**TURF USES
GRASSES GROWN FOR SEED OR SOD**

Crop / Time of Application	This Product per Acre	Use Instructions
Grasses Grown for Seed: Post-emergence Use – Seedling grass (5-leaf stage or later)	0.5 to 0.66 pint	Use sufficient spray solution for thorough and uniform coverage and no less than 2 gallons per acre. Apply when weeds are small and actively growing. For best results, apply when soil moisture is adequate for active weed growth. Do not apply to newly seeded grasses until well established (5-leaf stage or later). Cool season grasses are more tolerant to higher rates. Do not apply to grass in the early boot through milk stage if seed production is desired. When grass is well established, higher rates of up to 2.75 pints per acre may be applied for control of hard-to-kill Annual or Perennial weeds. Deep-rooted Perennials such as Bindweed and Canada thistle may require repeat applications. Avoid mowing sod farms for 1 to 2 days before or after application. Delay irrigation until the day following application.
Well-established grasses	0.75 to 2.66 pints	
Sod Farms: Post-emergence	1.33 to 2.66 pints	
<p>Use Precaution:</p> <ul style="list-style-type: none"> • Reseeding: Delay reseeding at least 30 days following application. Preferably, with Spring application, reseed in the Fall and with Fall application, reseed in the Spring. <p>Use Restrictions:</p> <ul style="list-style-type: none"> • Do not use on creeping grasses such as Bentgrass except as a spot treatment. • Do not use on injury-sensitive Southern grasses such as St. Augustinegrass. • Do not use on Dichondra or other herbaceous ground covers. Legumes may be damaged or killed. • If grazing or haying is anticipated, do not apply more than 2.9 pints of this product (2 lbs. a.e.) per acre per application. Do not harvest grass for hay from treated areas for 7 days after application. 		

USE RESTRICTIONS FOR GRASSES GROWN FOR SEED OR SOD:

- Maximum of 2.9 pints of this product (2 lbs. a.e.) per acre per application.
- Limited to two applications per year.
- Minimum of 21 days between applications.

ORNAMENTAL TURF (such as Golf Courses, Parks, Cemeteries, Sports Fields, Turf Grass and other Lawn and Grass Areas)

Site	This Product per Acre	Use Instructions
Post-emergence Use – Seedling grass (5-leaf stage or later)	0.5 to 0.66 pint	Apply when weeds are small and actively growing. For best results, apply when soil moisture is adequate for active weed growth.
Well-established grasses	1.33 to 2 pints	Deep-rooted Perennial weeds such as Bindweed and Canada thistle may require repeat applications.
Biennial and Perennial broadleaf weeds	2 pints	Do not apply to newly seeded grasses until well established (5-leaf stage or later). Cool season grasses are tolerant of higher rates.
<p>Use Precaution:</p> <ul style="list-style-type: none"> • Reseeding: Delay reseeding at least 30 days following application. Preferably, with Spring application, reseed in the Fall and with Fall application, reseed in the Spring. <p>Use Restrictions:</p> <ul style="list-style-type: none"> • Do not use on creeping grasses such as Bentgrass except as a spot treatment. • Do not use on injury-sensitive Southern grasses such as St. Augustinegrass. • Do not use on Dichondra or other herbaceous ground covers. Legumes may be damaged or killed. 		

USE RESTRICTIONS FOR ORNAMENTAL TURF:

- Maximum of 2.1 pints of this product (1.5 lbs. a.e.) per acre per application.
- Limited to two applications per year.
- Maximum seasonal rate is 4.3 pints of this product (3 lbs. a.e.) per acre excluding spot treatments.

STORAGE AND DISPOSAL

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

STORAGE: Protect from freezing. If stored below 32°F and crystals form, warm to 72°F for 24 hours, periodically rolling drum to reconstitute. Do not use, pour, spill or store near heat or open flame.

PESTICIDE DISPOSAL: Pesticides are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate, is a violation of Federal law and may contaminate groundwater. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER HANDLING:

Nonrefillable Container (rigid material; less than 5 gallons): Non-refillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container one-fourth full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Nonrefillable Container (rigid material; 5 gallons up to < 250 Gals.): Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container one-fourth full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a

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STORAGE AND DISPOSAL (Cont.)

mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

Refillable Container (≥ 250 Gals. & Bulk): Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

WARRANTY – CONDITIONS OF SALE

OUR DIRECTIONS FOR USE of this product are based upon tests believed reliable. Follow directions carefully. Timing and method of application, weather and crop conditions, mixtures with other chemicals not specifically recommended, and other influencing factors in the use of this product are beyond the control of the Seller. To the extent consistent with applicable law, Buyer assumes all risks of use, storage and handling of this material not in strict accordance with directions given herewith. To the extent consistent with applicable law, in no case shall the Manufacturer or the Seller be liable for consequential, special or indirect damages resulting from the use or handling of this product when such use and/or handling is not in strict accordance with directions given herewith. To the extent consistent with applicable law, the foregoing is a condition of sale by Manufacturer and is accepted as such by the Buyer.

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14/14