

19713-345

9/18/2009

10f11



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

OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES

SEP 18 2009

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

Subject: Label Notification(s) for Pesticide Registration Notice 98-10 and 2007-4  
1. Other minor changes

Dear Ms. Chan:

The Agency is in receipt of your Application(s) for Pesticide Notification under Pesticide Registration Notices (PRN) 2007-4 and 98-10 dated July 14, 2009 for:

**EPA Registration 19713-345**

**Drexel 4# Low Volatile Ester**

The Registration Division (RD) has conducted a review of this request for applicability under PR Notices 2007-4 and 98-10 and finds that the label changes requested falls within the scope of PR Notices 2007-4 and 98-10. The label has been date-stamped "Notification" and will be placed in our records.

Please be reminded that 40 CFR Part 156.140(a)(4) requires that a batch code, lot number, or other code identifying the batch of the pesticide distributed and sold be placed on nonrefillable containers. The code may appear either on the label (and can be added by non-notification/PR Notice 98-10) or durably marked on the container itself.

If you have any questions, please contact me directly at 703-305-6249 or Nicole Williams of my staff at 703-308-5551.

Sincerely,

A handwritten signature in black ink, appearing to read "Linda Arrington".

Linda Arrington  
Notifications & Minor Formulations Team Leader  
Registration Division (7505P)  
Office of Pesticide Programs

20911

Please read instructions on reverse before completing form.

Form Approved. OMF 2070-0060, Approval expires 2-28-95



United States  
Environmental Protection Agency  
Washington, DC 20460

Registration  
 Amendment  
 Other

OPP Identifier Number

Application for Pesticide - Section I

1. Company/Product Number 19713-345	2. EPA Product Manager JOANNE MILLER	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) DREXEL 4# LOW VOLATILE ESTER	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 checked="" type="checkbox"/> Final printed labels in response to Agency letter dated _____	<b>NOTIFICATION</b>  SEP 18 2009
<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 label per PR Notice 2007-4 and label update. Details are in the cover letter accompanying this submission.

Thank you.

Section - III

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input type="checkbox"/> Metal	<input checked="" type="checkbox"/> Plastic
* Certification must be submitted		If "Yes" Unit Packaging wgt. No. per container	If "Yes" Package wgt. No. per container	<input type="checkbox"/> Glass	<input type="checkbox"/> Paper
				<input type="checkbox"/> Other (Specify) _____	
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container 1, 2.5, 5, 10, 15, 30, 55 gal, Bulk, Tote		5. Location of Label Directions <input type="checkbox"/> On the label	
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 <i>Luza Chan</i> 2009.07.14 13:47:59 -05'00'	3. Title REGISTRATION MANAGER	
4. Typed Name LUZ G CHAN	5. Date July 14, 2009	

30811



**Drexel Chemical Company**

July 14, 2009

Document Processing Desk (NOTIF)  
Office of Pesticide Programs (7504P)  
U.S. Environmental Protection Agency  
Rm S-4900, One Potomac Yard  
2777 S Crystal Drive  
Arlington, VA 22202

**Re: Submission of Revised Label per PR Notices 2007-4 and 98-10 by Notification  
DREXEL 4# LOW VOLATILE ESTER (EPA Reg. No. 19713-345)**

Herewith:

1. Completed EPA Form 8570-1
2. One copy of the label (345SP-0709\*) revised PR Notice 2007-4. The storage and disposal statements were adopted from Appendices B and C of PR Notice 2007-4.

Also, "Shake Well Before Using" was deleted from the front panel as it is not necessary. This product is a true solution.

The changes were highlighted for easy reference.

3. Certification Statement

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

Thank you.

Respectfully yours,  
FOR DREXEL CHEMICAL COMPANY

*Luz G. Chan*  
Luz G Chan  
Registration Manager



40911



**Drexel Chemical Company**

July 14, 2009

***Submission of Revised Label per PR Notice 2007-4***  
**DREXEL 4# LOW VOLATILE ESTER (EPA Reg. No. 19713-345)**

This notification is consistent with the guidance of PR Notice 2007-4 and the requirements of EPA Regulations at 40 CFR 156.10, 156.140, 156.144, 156.146 and 156.156. 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 requirements of 40 CFR 156.10, 156.140, 156.144, and 156.146 and 156.156, 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.

FOR DREXEL CHEMICAL COMPANY

LUZ G CHAN

Registration Manager



50911



**Drexel Chemical Company**

July 14, 2009

***Submission of Revised Label by Notification***  
**DREXEL 4# LOW VOLATILE ESTER (EPA Reg. No. 19713-345)**

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.

FOR DREXEL CHEMICAL COMPANY

*Luiz G. Chan*



LUZ G CHAN  
Registration Manager

Handwritten marks and symbols, possibly a signature or initials, located in the bottom right corner of the page.

60 of 11



**NOTIFICATION**

**SEP 18 2009**

# 4# Low Volatile Ester

Herbicide

**ACTIVE INGREDIENT:**

Isocetyl ester of 2,4-Dichlorophenoxyacetic Acid*	65.4%
<b>OTHER INGREDIENTS**:</b>	<b>34.6%</b>
<b>TOTAL:</b>	<b>100.0%</b>

\* Equivalent to 43.4% 2,4-D acid or 3.76 pounds per gallon.  
 \*\* Contains petroleum distillates.  
 Isomer specific by AOAC Method

**KEEP OUT OF REACH OF CHILDREN**

## CAUTION

See First Aid Below

EPA Reg. No. 19713-345

EPA Est. No. 19713-XX-XXX

Net Content: \_\_\_\_\_

FIRST AID
<b>IF SWALLOWED:</b> • Call a poison control center or doctor immediately for treatment advice. • Do not give any liquid to the person. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything by mouth to an unconscious or convulsing person.
<b>IF ON SKIN OR CLOTHING:</b> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 to 20 minutes. • Call a poison control center or doctor for treatment advice.
<b>IF IN EYES:</b> • 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.
<b>IF INHALED:</b> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. 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.
<b>NOTE TO PHYSICIAN:</b> Contains petroleum distillate. Vomiting may cause aspiration pneumonia. If swallowed, stomach contents should be evacuated quickly in a manner which avoids aspiration. Otherwise treatment should be directed at the control of symptoms and clinical condition.

### PRECAUTIONARY STATEMENTS

#### Hazards to Humans and Domestic Animals

**CAUTION:** Harmful if swallowed or if absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in certain 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.

**All mixers, loaders, applicators, flaggers, and other handlers must wear:** Long sleeved shirt and long pants, shoes and socks, chemical-resistant gloves 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)]. When handlers use enclosed cabs or aircraft in a manner that meets the requirements listed in the Worker Protection standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

### USER SAFETY RECOMMENDATIONS

**Users should:** 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. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

### ENVIRONMENTAL HAZARDS

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



Manufactured By:

**Drexel Chemical Company**

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

**SINCE 1972**

345SP-0709\*

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 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 EPA web site: <http://www.epa.gov/esp>.

**MIXING AND LOADING**

Most cases of groundwater contamination involving phenoxy herbicides such as 2,4-D have been associated with mixing/loading and disposal sites. Precautions should be exercised when handling 2,4-D pesticides at such sites to prevent contamination of groundwater supplies. Use of closed systems for mixing or transferring this pesticide will reduce the probability of spills. Placement of the mixing/loading equipment on an impervious pad to contain spills will help prevent groundwater contamination.

**USE INFORMATION**

4# LOW VOLATILE ESTER is intended for the control of many broadleaf weeds, herbaceous perennials and woody plants susceptible to 2,4-D in grass pastures, certain crops and non-crop areas.

Apply this product as water or spray oil during warm weather when weeds or brush are actively growing. Application under drought conditions often will give poor results. Use low spray pressure to minimize drift. On cropland and along roadsides, do not exceed 20 psi pressure. Apply enough spray volume to provide uniform coverage of weeds and brush, usually 5 to 20 gallons per acre by ground equipment and 3 to 5 gallons by aircraft. Higher gallonage may be used if desired to improve spray coverage. Generally, the lower dosage recommended 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.

Excessive amounts of this herbicide in the soil may temporarily inhibit seed germination or plant growth. Violent wind storms may move soil particles. If 2,4-D is on soil particles and they are blown onto the susceptible plants, visible symptoms may appear. Serious injury is unlikely. The hazard of movement of 2,4-D on dust is reduced if treated fields are irrigated or if rain occurs shortly after application.

At high temperatures, vapors from this product may injure susceptible plants growing nearby.

Deep-rooted perennial weeds such as Canada thistle and field bindweed and many woody plants usually require repeated applications for maximum control. Do not apply this product where spray drift may contact nearby susceptible crops or other desirable plants or may contaminate water for irrigation or domestic use. Read and follow all use precautions given on this label.

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.

**MIXING INSTRUCTIONS**

(1) Fill the spray tank about half-full with water, then add the required amount of this product with agitation, and finally add the rest of the water.

Note: This product in water forms an emulsion which tends to separate unless the mixture is kept agitated.

(2) If oil is added, first mix the 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 with 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.

**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. Do not allow people or pets to enter the treated area until sprays have dried.

**USE PRECAUTIONS**

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

**Susceptible Crops and Other Desirable Broadleaf Plants:** Avoid contact of 2,4-D with susceptible and other desirable broadleaved crops. Do not apply directly to or otherwise permit even minute amounts to contact cotton, grapes, tobacco, fruit trees, vegetables, flowers, ornamentals or other desirable plants susceptible to 2,4-D. Do not use in or near a greenhouse.

**DO NOT APPLY IN THE VICINITY OF COTTON, GRAPES, TOMATOES OR OTHER DESIRABLE 2,4-D SUSCEPTIBLE CROPS OR PLANTS. DO NOT SPRAY WHEN WIND IS BLOWING TOWARDS SUSCEPTIBLE CROPS OR ORNAMENTAL PLANTS.**

**Application Equipment**

Do not apply with hollow cone-type insecticide or other nozzles that produce a fine-droplet spray.

To avoid injury to desirable plants, do not handle or apply other agricultural chemicals with the same equipment used for this product unless appropriately cleaned first. Local conditions may affect the use of herbicides. Consult your State Agricultural Experiment Station or Extension Service weed specialists for cleaning methods which are in compliance with local regulations and for advice in selecting treatments from this label to best fit local conditions. Be sure that use of this product conforms to all applicable regulations.

**Tankmixing:** Do not mix with oil or other adjuvants unless specifically recommended.

**Spray Drift:** Avoid spray drift. Applications should be made only when there is no hazard from spray drift since very small quantities of the spray, which may not be visible, may severely injure susceptible crops during both growing and dormant periods. Use coarse sprays to minimize drift since, under adverse weather conditions, fine spray droplets may drift a mile or more. A spray thickening agent such as NALCOTROL, may be used with this product to aid in reducing spray drift. If used, follow all use recommendations and precautions on the product label.

**Foliar Application:** Determine air movement and direction before foliar application. Use a smoke generator or other means at or near the application site for the detection of air movement, air stability or temperature inversions. Such a condition exists when there is little or no wind and air temperature is lower near the ground than at higher levels. Use appropriate drift control measures or avoid application when smoke is moving toward nearby desirable susceptible plants and sensitive areas.

**Aerial Application:** Apply as a coarse spray.

**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 appli-

80911

cator must evaluate all factors and make appropriate adjustments when applying this product.

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

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

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

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

**Susceptible Plants:** Do not apply under circumstances where spray drift may occur to food, forage, or other plantings that might be damaged or crops thereof rendered unfit for sale, use, or consumption. Susceptible crops include, but are not limited to, cotton, okra, flowers, grapes (in growing stage), fruit trees (foliage), soybeans (vegetative state), ornamentals, sunflowers, tomatoes, beans, and other vegetables, or tobacco. 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.

**WEEDS CONTROLLED**

This product is recommended for control of numerous broadleaf weeds and certain 2,4-D susceptible woody plants without injury to most established grasses. Species controlled include the following, plus many others:

Beggarsticks	Jimsonweed	Salsify
Bitterweed	Ladysthumb	Sand shinnery oak
Blueweed, Texas	Lambsquarter	Shepherdspurse
Broomweed	Loco, bigbend	Sicklepod
Buckbrush	Mallow, venice,	Smartweed (annual)
Buckwheat, wild	Manzanita	Sneezeweed, bitter
Burdock	Marshelder	Sowthistle, annual
Burhead	Milkvetch	Spanishneedles
Carpetweed	Morningglory, annual	Sumac
Catnip	Nettles	Sunflower
Chamise	Onion, wild	Sweet clover
Chicory	Pennycress (fanweed)	Thistle, bull
Cocklebur	Pepperweed, field	Thistle, musk
Coffeeweed	Pigweed*	Thistle, Russian
Cornflower	Plantains	Tumbleweed
Coyotebrush	Poorjoe	Velvetleaf
Croton	Rabbitbrush	Vervains
Dandelion	Radish, wild	Vetch
Docks	Ragweed	Water plantain

(Continued)

Dogfennel	Ragwort, tansy	Wild mustard
Elderberry	Rape, wild	Willow
Galinsoga	Redstem	Witchweed
Garlic, wild	Sage, coastal	Wormwood
Goatsbeard	Sagebrush, big	Yellow rocket
Hemp, wild	Sagebrush, sand	Yellow sandthistle
Jewelweed		

\* The control of "hybrid" Pigweeds appears to be less satisfactory from 2,4-D products than formerly experienced on "non-hybrid" varieties. Since 2,4-D herbicides are not as effective on the "hybrid" Pigweeds, it is necessary to apply higher rates of 2,4-D for control, especially later in the growing season. Higher rates injure some crops, so less than satisfactory Pigweed control may be experienced by the highest tolerated crop dosages.

**USE 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 single operation. Use this product in accordance with directions for these crops provided in this label. Use liquid fertilizer at rates recommended 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 such as MIX, Unite or Compex 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. Premixing this product with 1 to 4 parts water may help in situations when mixing difficulty occurs.

Fill the tank about half-full with the liquid fertilizer, then add the required amount of this product with agitation. Maintain agitation and complete filling the tank with liquid fertilizer. Apply immediately and continue agitation in spray tank during application. Do not store the spray mixture. Application during very cold weather (near freezing) is not advisable.

**USE INSTRUCTIONS**

**SMALL GRAINS NOT UNDERSEEDED WITH LEGUMES (Spring and Winter wheat, Barley and Rye):** Apply 0.5 to 1 pint per acre. Spray when grain is in full tiller stage (usually 4 to 8 inches tall) but before the boot stage and boot to dough stage. For improved control of difficult weeds including wild garlic and wild onion or under dry or cool conditions, apply up to 2 pints per acre. Wild garlic and wild onion may not be killed but dockage should be reduced. Do not use higher rates unless possible crop injury will be acceptable. Consult State Agricultural Experiment Station or Extension Service Weed Specialists for recommendations or suggestions to fit local conditions.

**Use Restrictions and Precautions:**

- 1) Do not apply this product within 14 days of harvest.
- 2) Do not make more than one postemergence application per crop cycle. Do not apply more than 1.25 lbs. ae (2.6 pints of this product) per acre per application.
- 3) Do not make more than one preharvest application per crop cycle. Do not apply more than 0.5 lb. ae (1 pint of this product) per acre per application.
- 4) Do not apply more than 1.75 lbs. ae (3.7 pints of this product) per acre per crop cycle.

**Spring Seeded Oats:** Apply 0.5 pint per acre at the full tiller stage, but before the early boot stage. Oats are less tolerant to 2,4-D than wheat or barley and are more likely to suffer some injury. Do not permit dairy animals or meat animals being finished for slaughter to forage or graze in treated grain fields within 2 weeks after treatment.

**Fall Seeded Oats (Southern) Grown for Grain:** Apply 0.75 to 1.25 pints per acre after full tillering but before the early boot stage. Some difficult weeds may require higher rates for maximum control but crop injury may result. Do not spray during or immediately following cold weather. Do not permit dairy animals or meat animals being finished for slaughter to forage or graze in treated grain fields within 2 weeks after treatment.

**Preharvest Treatment:** Apply 1 pint per acre when grains are in the hard dough stage to control large weeds that may interfere with harvest. Best results will be obtained when soil moisture is sufficient to cause succulent weed growth.

NOTE: Do not feed treated straw to livestock.

**Control of Wild Garlic and Wild Onion in Stubble Grain Fields:** Following harvest of small grains, soybeans, corn or grain sorghum, wild garlic and wild onion often produce new fall growth. This new growth may be treated with this product at a rate of 4 to 6 pints per acre. This treatment practice is useful as part of an overall control program. Do not forage for 7 days after application.



90411

**FIELD, POP, AND SWEET CORN**

**Use Restrictions and Precautions:**

- (1) Do not use treated crop as fodder for 7 days following application.
- (2) Do not make more than one preplant or preemergence application per crop cycle. Do not apply more than 1 lb. ae (2.1 pints of this product) per acre per application.
- (3) Do not make more than one postemergence application per crop cycle. Do not apply more than 0.5 lb. ae (1 pint of this product) per acre per application. Do not make more than one preharvest application per crop cycle. Do not apply more than 1.5 lbs. ae (3.1 pints of this product) per acre per application.
- (4) Preharvest use is only allowed on Field corn or Popcorn. Preharvest use on Sweet corn is prohibited.
- (5) For Field and Pop corn, do not apply more than 3 lbs. ae per acre (6.3 pints of this product) per crop cycle. For Sweet corn, do not apply more than 1.5 lbs. ae (3.1 pints of this product) per acre per crop cycle.
- (6) The preharvest interval (PHI) is 7 days for Field and Pop corn. The PHI for Sweet corn is 45 days.
- (7) For Sweet corn, the minimum number of days between applications is 21 days.

**Pre-emergence:** Apply 2.1 pints per acre to soil anytime after planting but before corn emerges. Only emerged broadleaf weeds are likely to be controlled. Do not use on light sandy soil.

**Emergence:** Apply 1 pint per acre just as corn plants are breaking ground.

**Post-emergence:** After emergence of corn, use 0.5 pint per acre. Application of 0.75 to 1 pint per acre may be needed for maximum control of some weeds but such rates are more likely to injure the corn. If corn is over 8 inches tall, use drop nozzles to keep the spray off the corn foliage as much as possible. Do not apply from the tasseling to dough stage. Do not use with atrazine, oil or other adjuvants. Crop injury is more likely to occur if corn is growing rapidly under high temperature and high soil moisture conditions. To reduce breakage of stalks from temporary brittleness caused by 2,4-D, delay cultivation for 8 to 10 days after treatment.

**NOTE:** Hybrids vary in response to 2,4-D and some are easily injured. Spray only varieties known to be tolerant to 2,4-D. Contact seed company or your Agricultural Experiment Station or Extension Service weed specialists for this information.

**Pre-harvest:** After the hard dough or denting stage, apply 1 to 2 pints per acre by air or ground equipment to suppress perennial weeds, decrease weed seed production and control tall weeds such as bindweed, cocklebur, dogbane, jimsonweed, ragweed, sunflower, velvetleaf and vines that interfere with harvesting. Do not forage or feed corn fodder for 7 days following application.

**SORGHUM (MILO):** Apply 0.5 pint per acre when sorghum is 5 to 15 inches tall. A higher rate of 0.75 to 1 pint per acre may be needed to control some weeds but the chance for crop injury is likewise increased. Do not use with oil. Do not treat before the sorghum is 5 inches tall nor during the boot, flowering or early dough stages. If sorghum is taller than 8 inches, use drop nozzles to keep the spray off the foliage as much as possible. Temporary crop injury may occur under conditions of high soil moisture and high air temperatures. Varieties vary in tolerance to 2,4-D and some hybrids are quite sensitive. Spray only varieties known to be tolerant to 2,4-D. Contact seed company or your Agricultural Experiment Station or Extension Service weed specialists for this information.

**Use Restrictions and Precautions:**

- (1) Do not make more than one postemergence application per crop cycle. Do not apply more than 0.5 lb. ae (1 pint of this product) per acre per application.
- (2) The preharvest interval (PHI) is 30 days.
- (3) Do not permit meat or dairy animals to consume treated crop as fodder or forage for 30 days following application.

**FALLOW LAND AND CROP STUBBLE:** Apply 1 to 2 pints per acre for control of annual and biennial broadleaf weeds. Use the higher rate on older drought stressed plants or hard to kill species. Apply 2 to 4.2 pints per acre for control of perennial broadleaf weeds. Spray weeds in the bud to bloom stage or in good vegetative growth. Do not plant treated fallow land for three months or until chemical has disappeared from soil.

**Use Restrictions and Precautions:**

- (1) Plant only labeled crops within 29 days following application.
- (2) Do not make more than 2 applications per year.
- (3) Do not apply more than 2 lbs. ae (4.2 pints of this product) per acre per application.
- (4) Minimum of 30 days between applications.

**WOODY WEEDS IN LOW-BUSH BLUEBERRY FIELDS**

**How to Use:** For spot or directed wipe treatment only. Mount a drum 8 to 10 feet long or some other suitable length, and 1.5 to 2 feet in diameter on an axle such as an old hay rake frame. Cover the drum with water-absorbent yet tough cloth which will resist rapid wear and tear. Draw the cloth-covered drum across the blueberry field and at the same time spray evenly onto the full length of the top of the cloth-covered drum a spray mixture made by diluting 2 pints of this product in 50 gallons of water per acre. Have the drum mounted so that as it revolves on its axis, it is high enough to miss most of the low brush blueberry stems, yet low enough to forcibly brush the spray-saturated cloth-covered drum against the higher woody weeds, principally sweet fern, wild cherry and poplar. Keep the cloth wet enough to provide top coverage of the weeds, yet not so wet as to allow runoff of the liquid which could cause injury to the blueberry plants.

**When to Use:** Apply only in non-bearing years. Apply during June and July when weed tops have emerged sufficiently above the blueberry stems to allow treatment of the weeds and not the blueberry plants. Apply only during the year before the first burn. To use this method of weed control, two-year burns should be extended to three years.

**NOTE:** Do not allow the spray being applied to the cloth-covered drum to be directed onto the blueberries. Do not harvest-rake field during the herbicide treatment or for a two-year interval thereafter.

**FOREST SITE PREPARATION:** For control of susceptible broadleaf weeds and brush on sites to be planted in forests, use 3 to 8 pints per acre of this product in sufficient spray volume for good plant coverage, usually 6 to 25 gallons. Application can be made by air or ground (hand gun, boom or powered knapsack sprayer). Two to 8 quarts of diesel oil per acre or a suitable surfactant or penetrant may be added to improved brush control.

**Use Restrictions and Precautions:**

- (1) Limited to one broadcast application per year. Do not apply more than 4 lbs. ae (8.5 pints of this product) per acre per broadcast application.
- (2) Limit of one basal spray or cut surface application per year. Do not apply more than 8 lbs. ae (17 pints of this product) per 100 gallons of spray solution.

**FOREST CONIFER RELEASE:** For applications in late Winter or Spring to control susceptible deciduous brush species, such as alder, willow, poplars, cascara, cherry, service cherry and vine maple during early growth and before conifer budbreak, use this product at rates up to 6 pints per acre in diesel or stove oil by air or ground in sufficient spray volume for good plant coverage, usually 6 to 25 gallons. Do not use in plantations where pine or larch are among the desired species. For treatment before conifer budbreak to control susceptible evergreen brush species, such as tanoak, mandrone, chinquapin, *Ceanothus* spp., and manzanita or deciduous brush after leafout or broadleaf weeds, use this product at rates up to 6 pints per acre alone or with 0.5 to 2 gallons per acre of diesel oil or similar oil or suggested rates of suitable surfactants or penetrants. After conifer budbreak, this product without oil, surfactant or penetrant can be used at a rate of up to 4 pints per acre, but may cause injury or suppression of conifer growth. Use sufficient volume of spray for good coverage of brush, usually 6 to 25 gallons. Some species of pine may be seriously injured by treatment at these growth stages.

After conifer species such as white pine, ponderosa pine, jack pine, red pine, black spruce, white spruce, red spruce and balsam fir cease growth and harden off and brush is still actively growing in late Summer, 3 to 6 pints of this product per acre in enough water to obtain good plant coverage may be applied by air or ground to control certain competing hardwood species such as alder, aspen, birch, hazel, and willow. Since this treatment may cause occasional conifer injury, do not use if such injury cannot be tolerated. Refer to the "Forest Site Preparation" section of this label for use restrictions and precautions.

**DIRECTED SPRAYS IN CONIFER PLANTATIONS (including pine):** Apply this product at any time brush or broadleaf weeds are susceptible by directing spray around the conifers to avoid contact of needles with injurious amounts of spray. Rates of this product are not to exceed 8.5 pints per acre in oil, oil-water or water carrier at 10 to 100 gallons per acre. Refer to the "Forest Site Preparation" section of this label for use restrictions and precautions.

**RANGELAND, PASTURE AND NON-CROP LAND:** Except if grass is to be cut for hay, the Agricultural Use Requirements for the Worker Protection Standard are applicable.

**Use Restrictions and Precautions—Postemergence Applications in Pasture and Rangeland:**

- (1) For susceptible annual and biennial broadleaf, use 1 lb. ae (2.1

10 of 11

pints of this product) per acre per application. For moderately susceptible biennial and perennial broadleaf weeds, use 1 to 2 lbs. ae (2.1 to 4.2 pints of this product) per acre per application. For difficult to control weeds and woody plants, use 2 lbs. ae (4.2 pints of this product) per acre per application. For spot treatment, use 2 lbs. ae (4.2 pints of this product) per acre per application.

- (2) Maximum of two applications per year and minimum of 30 days between applications.
- (3) Maximum of 4 lbs. ae (2.5 pints of this product) per acre per application.
- (4) Do not cut forage or hay within 7 days of application.

**Use Restrictions and Precautions—Non-Cropland:**

- (1) For postemergence of annual and perennial weeds, limit to 2 applications per year. Do not apply more than 2 lbs. ae (4.2 pints of this product) per acre per application. Minimum of 30 days between applications.
- (2) For postemergence of woody plants, limit to one application per year. Do not apply more than 4 lbs. ae (8.5 pints of this product) per acre per year.
- (3) 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.

**Rangeland, Conservation Reserve, and Grass Pastures:** For Conservation Reserve Land, follow all applicable State and Federal regulations. Follow the most severe grazing restrictions imposed either by the pesticide label or by the USDA Acreage Conservation Reserve Program, whichever is longest.

**NOTE:** Do not use on bent grass, 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.

**Control of Bitterwood, Broomweed, Croton, Docks, Kochia, Marshelder, Muskthistle, and other Broadleaf Weeds:** Use 4 pints of this product per acre in the amount of water needed for uniform application. If the weeds are young and growing actively, 2 pints per acre will provide control of some species. Deep-rooted perennial weeds may require repeated treatments in the same year or in subsequent years.

**Control of Wild Garlic and Wild Onion:** Apply no more than 4 pints per acre, starting in late Fall or early Spring.

**Control of Weeds in Newly Sprigged Coastal Bermudagrass:** Apply 2 to 4 pints per acre pre-emergence and/or postemergence.

**Control of Sand Shinnery Oak and Sand Sagebrush:** On Sand shinnery oak, use 2 pints in 5 gallons of oil or in 4 gallons of water plus 1 gallon of oil per acre. Apply by aircraft between May 15 and June 15. On Sand sagebrush, use 2 pints in 3 gallons of oil per acre and apply by aircraft when foliage is fully expanded and the brush is actively growing.

**Control of Big Sagebrush and Rabbitbrush:** Use no more than 4 pints per acre in 2 to 3 gallons of oil or in 3 to 5 gallons of oil-water emulsion spray. Brush should be leafed out and growing actively when treated. Retreatment may be needed.

**Control of Chamise, Manzanita, Buckbrush, Coastal Sage, Coyotebrush, and Certain other Chapparel Species:** Use 4 pints per acre in 5 to 10 gallons of water. One gallon of fuel oil may be included in the spray mixture for added effectiveness. Make application by aircraft or ground equipment to obtain uniform spray coverage. For effective control, the brush must be fully leafed out and growing actively when sprayed. Retreatment may be needed.

**Woody Plant Control in Non-Crop Area:** To control species susceptible to 2,4-D in non-crop areas such as rights-of-way, fencerows, roadsides and along banks, spray brush up to 5 to 8 feet tall after spring foliage is well developed using 6 to 8 pints of this product in 100 gallons of water wetting all parts of the brush including foliage, stems and bark. This may require up to 400 gallons of spray per acre for adequate coverage of solid stand of brush. Make application in such a way as to prevent drift of the spray off the area being treated. Spraying can be effective at any time up to 3 weeks before frost as long as the soil moisture is sufficient for active growth of the brush. Control will be less effective in mid-summer during hot dry weather when soil moisture is deficient and plants are not actively growing. Oil or wetting agent may be added to the spray, if needed for increased effectiveness.

**Weed Control in Non-Crop Areas, Airfields, Roadsides, Vacant Lots:** Apply 2 to 4.2 pints of this product per acre in the amount of water needed for uniform application. Usually 4 pints of this product per acre provides good weed control under average conditions. Treat

when weeds are young and growing well. Do not use on dichondra or other broadleaf herbaceous ground covers. Do not use on creeping grasses such as Bent and St. Augustine except for spot treating, nor on newly seeded turf until grass is well established. Reseeding of treated areas should be delayed following treatment. With Spring application, reseed in the fall; with fall application, reseed in the Spring. Legumes are usually damaged or killed so do not treat areas where legumes are desired. Deep-rooted perennial weeds may require repeated treatments in the same season or in subsequent years.

**Weed Control of Tule (Bulrush) and other Rushes:** Mix 4 pints of this product and 1 gallon of diesel oil or kerosene, then add this mixture to 100 gallons of water. Spray to wet all foliage (400 to 800 gallons per acre). Addition of a wetting agent may be advisable. Apply in the spring during flower head emergence. Respray if needed when regrowth is 3 to 5 feet tall.

**GRASS SEED CROPS:** Use 1 to 1.5 pints per acre in the amount of water required for uniform application by air or ground equipment to control weeds in grass seed crops. Apply to established stands in the Spring from the tiller to early boot stage. Do not spray in boot stage. New Spring seedlings may be treated with the lower rate after the grasses have at least five leaves. Perennial weed regrowth may be treated in the fall.

**TURF (Grown for Seed or Sod):**

**Use Restrictions and Precautions:**

- (1) Limit to 2 applications per year on turf grown for seed or sod.
- (2) Do not apply more than 2 lbs. ae (4.2 pints of this product) per acre per application.
- (3) Do not apply less than 21 days between applications.

**TURF (Such as Lawns, Golf Courses, Cemeteries, and Parks):**

Apply 2 to 3.1 pints of this product per acre in the amount of water needed for uniform application to control weeds in Turf. Treat when weeds are young and growing well. Do not use on golf greens nor on creeping grasses such as Bent and St. Augustine except for spot treating, nor on newly seeded turf until grass is well established. Reseeding of treated areas should be delayed following treatment. With Spring application, reseed in the Fall; with Fall application, reseed in the Spring. Legumes are usually damaged or killed so do not treat areas where legumes are desired. Deep-rooted perennial weeds may require repeated treatments in the same season or in subsequent years.

**Use Restrictions and Precautions:**

- (1) For postemergence application, limit to 2 applications per year.
- (2) Do not apply more than 1.5 lbs. ae (3.1 pints of this product) per acre per application.
- (3) Do not apply more than 3 lbs. ae (6.3 pints of this product) per acre excluding spot treatment.

**SPOT TREATMENT:** To control broadleaf weeds in small non-cropland areas with a hand sprayer, use 0.25 pint of this product in 3 gallons of water and spray to thoroughly wet all weed foliage. Keep spray mixture agitated to prevent separation.

**STORAGE AND DISPOSAL**

Do not contaminate water, food or feed by storage and disposal. **PESTICIDE 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 DISPOSAL:**

**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.

(Continued)

**STORAGE AND DISPOSAL (Continued)**

**Nonrefillable Container (rigid material; 5 gallons or greater):**

Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container one-fourth full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Dispose of empty container in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

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

**WARRANTY—CONDITIONS OF SALE**

OUR DIRECTIONS FOR USE of this product are based upon tests believed reliable. Follow directions carefully. Timing and method of application, weather and crop conditions, mixtures with other chemicals not specifically recommended, and other influencing factors in the use of this product are beyond the control of the Seller. 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.