

34704-1032

12-22-2009

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**U.S. ENVIRONMENTAL PROTECTION AGENCY**  
**Office of Pesticide Programs**  
**Registration Division (7505P)**  
**Ariel Rios Building**  
**1200 Pennsylvania Ave., NW**  
**Washington, D.C. 20460**

EPA Reg. Number:  
 34704-1032

Date of Issuance:  
 DEC 22 2009

NOTICE OF PESTICIDE:  
 Registration  
 Reregistration  
 (under FIFRA, as amended)

Term of Issuance: conditional

Name of Pesticide Product:  
 Whiteout 2,4-D

Name and Address of Registrant (include ZIP Code):

Loveland Products, Inc  
 P.O. Box 1286  
 Greeley, CO 80632-1286

~~Note: Changes in labeling, differing in substance from that accepted in connection with this registration, must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.~~

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act. Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA provided that you:

1. Submit and/or cite all data required for registration review/reregistration of your product when the Agency requires all registrants of similar products to submit data.
2. Submit the data listed below:
  - a. Within one year of the date on this registration notice, Storage Stability (830.6317) and Corrosion Characteristics (830.6320) studies must be submitted. It is recommended that the observations be made at 0, 3, 6, 9, and 12 month intervals.
  - b. The data contained in MRID # 477696-01 (common name of the a.i. on page 5) must be revised and the entire study must be resubmitted to the Agency.
3. Make the following label revisions:
  - a. Revise "EPA REG. NO. 34704-" to "EPA REG. NO. 34704-1032"

Continued on Page 2

Signature of Approving Official:

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

Date:

DEC 22 2009

- b. Include the appropriate EPA Est. No. and Net Contents.
- c. Per the acute toxicity review, revise the 'Hazards to Humans and Domestic Animals' section to read as follows:  
  
"CAUTION: Harmful if swallowed."
- d. Per the 2,4-D RED, add the word "exist" after "If no such instructions for washables..." in the paragraph before the Engineering Controls Statements.
- e. Per the 2,4-D RED, the mechanical engineering text, "If this container contains...modified as specified in the WPS." Is not required and may be removed from the label.

- f. Per the 2,4-D RED, revise the User Safety Recommendations to read as follows (additions are in bold type):

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

- g. Per the 2,4-D RED, revise first paragraph of the Environmental Hazards statement to read as follows:

"This pesticide *is* toxic to fish and aquatic invertebrates. Do not apply directly to water, or 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."

Move "Apply this product only as directed on this label." To the 'Directions for Use' section.

- h. Per the 2,4-D RED, revise the 'Non-Agricultural Use Requirements' statement to read as follows:

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

- i. Revise the section heading "General Information" with "Product Information." The word "General" is an implied safety claim that makes all text within the section unenforceable.

- j. Replace the advisory term “should” with the mandatory term “must” in the following sentences found on page 4 of 24 of the label:
- 1) “Aerial application *should* be used only when there is no danger of drift to susceptible crops.”
  - 2) “Product *should* not be used in greenhouses.”
- k. Replace the sentence, “Fill the spray tank approximately ½ full with liquid fertilizer.” with “Add half the recommended amount of liquid fertilizer to the spray tank.” On page 4 of 24 (paragraph above the ‘Spray Drift’ section).
- l. Remove ‘chemigation’ from the Spray Drift section as this product label restricts application through irrigation systems.
- m. Revise the spacing issue between “2,4-D” and following text:
1. see page 4 of 24 “Mix WHITEOUT 2,4-D and ...”
  2. see page 14 of 24 “If it is necessary to apply WHITEOUT 2,4-D under...”
- n. Add the word, “there” after “and” in the second sentence of the “Wind Speed” section so that it reads: “Only apply this product if the wind direction favors on-target deposition and **there** are not sensitive areas (including, but not limited to...”
- o. Revise the Rate Conversion Table for Spot Treatment so that, “(l” “fl” and “ft” are all “fl” to stand for ‘fluid.’
- p. Per the 2,4-D RED, remove the following text from the ‘Aquatic Weed Control’ section:
- “Use 4 to 8 pts AMINE 4 per acre (1.87 to 3.74 lbs ae/A) to control weeds including water hyacinth. Spray the weed mass only. Use 8 pts per acre when plants are matured or when the weed mass is dense. Spray when weeds are actively growing. Repeat as necessary to kill regrowth.”

Continued on page 4

- q. Per the 2,4-D RED, add the following text before the 'For shoreline weeds' heading:

**"Ditchbank application**

Postemergence:

Limited to 2 applications per season.

Maximum of 2.0 lbs ae/acre per application.

Minimum of 30 days between applications.

Spot treatment permitted.

Do not use on small canals with a flow rate less than 10 cubic feet per second (CFS) where water will be used for drinking purposes. CFS may be estimated by using the formula below. The approximate velocity needed for the calculation can be determined by observing the length of time that it takes a floating object to travel a defined distance. Divide the distance (ft.) by the time (sec.) to estimate velocity (ft. per sec.). Repeat 3 times and use the average to calculate CFS.

$$\text{Average Width (ft.)} \times \text{Average Depth (ft.)} \times \text{Average Velocity (ft. per sec.)} = \text{CFS}$$

**For ditchbank weeds:**

Do not allow boom spray to be directed onto water surface.

Do not spray across stream to opposite bank."

- r. Remove "8 pts AMINE 4 per acre" from the 'Air Application' paragraph on page 10 of 24 of the label so that it reads as follows:  
"Apply through standard boom systems with a minimum of 5 gallons of spray mixture per acre."
- s. Either underline or bold the "Preemergence" and "Postemergence" headings in the restrictions sections so that the user is aware that the restrictions following them are associated with that particular use scenario.
- t. Per the 2,4-D RED, the maximum post-emergent application for corn is 0.5 lbs. 2,4-D per acre. Therefore, the application rate of "2 pints per acre" must be replaced with "1 pint per acre" in the corn restrictions section.
- u. Add the text "(field and popcorn ONLY)" next to the "Preharvest" heading in the restrictions for corn on page 14 of 24 since preharvest applications are not permitted for sweet corn.

- v. Revise the Application table for soybeans on page 15 of 24 so that the two application scenarios are labeled as "OPTION 1" OR "OPTION 2".

Add a fourth column to the table that lists the number of applications: OPTION 1, which is  $\frac{3}{4}$  to 1 pt/acre is limited to 2 pre-plant application per crop cycle. OPTION 2, which is 1 to 2 pt/acre is limited to 1 pre-plant application per crop cycle.

In addition, list the following text in the Restrictions and Limitations section:

"Choose either Option 1 OR Option 2. These two options may not be used together in the same crop cycle, as the maximum application rate would be exceeded."

- w. Remove "airfields, roadsides, vacant lots, drainage ditch banks" from the ornamental turf section as these sites are considered 'non-cropland areas.'
- x. Replace "4.0 pounds" with "3.0 pounds" in the Ornamental Turf Restrictions section sentence, "When tank mixing with products that contain 2,4-D, do not exceed a combined total of 4.0 pounds of a.i. per acre per year excluding spot treatments."
- y. Revise the minimum spray interval between applications in grass seed crops to 21 days.
- z. Replace "Do not apply more than 2 pints per acre per application for spot treatments." with "Do not apply more than 4 pints per acre per application for spot treatments." In the 'Pasture and Rangeland Restrictions.'
- aa. Replace all instances of "recommended" rates with "listed" rates. Recommendations are not enforceable.  
(see pgs. 19 and 20 in the 'Spot treatment to Broadleaf weeds' sections)
- bb. Replace the section heading, "General Weed Control Restrictions" on page 20 with "Weed Control Restrictions and Limitations for Use in Non-Crop Areas." The word "General" is an implied safety claim that makes all restrictions following it unenforceable.

Submit one (1) copy of the revised final printed label for the record.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.

6  
29

# WHITEOUT 2,4-D

LOW VOLATILE ESTER HERBICIDE  
CONTAINS NO SOLVENT

**ACTIVE INGREDIENT:**

2-ethylhexyl ester of 2,4-dichlorophenoxyacetic acid\* ..... 60.80%

**OTHER INGREDIENTS:** ..... 39.20%

**TOTAL:** ..... 100.00%

\*2,4-dichlorophenoxyacetic acid equivalent 40.32% or 3.7 per gallon

KEEP OUT OF REACH OF CHILDREN.

## CAUTION

See inside booklet for additional Precautionary Statements.

EPA Reg. No. 34704-

EPA Est. No.

Net Contents: \_\_\_\_\_ Gal. ( \_\_\_\_\_ L)

ACCEPTED  
with COMMENTS  
In EPA Letter Dated:  
DEC 22 2009  
Under the Federal Insecticide,  
Fungicide, and Rodenticide Act  
as amended, for the pesticide  
registered under EPA Reg. No.

34704-1032

**Formulated For:**

Loveland Products, Inc.

P.O. Box 1286

Greeley, CO 80632-1286

FOR CHEMICAL SPILL, LEAK, FIRE, OR EXPOSURE, CALL CHEMTREC (800) 424-9300

FIRST AID	
IF SWALLOWED:	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by the poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
IF ON SKIN OR CLOTHING:	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
IF IN EYES:	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>HOT LINE NUMBER:</b> Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-424-9300 for emergency medical treatment information.	

### PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Causes eye irritation. Harmful if swallowed or absorbed through skin. Avoid contact with skin, eyes, or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

**PERSONAL PROTECTIVE EQUIPMENT/PPE:**

Some materials that are chemical-resistant to this product are butyl rubber, natural rubber, neoprene or nitrile rubber. If you want more options, follow the instructions for Category A on an EPA chemical- resistance category selection chart.

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 handheld nozzle or equipment, mixing or loading, cleaning up spills or equipment, or otherwise exposed to the concentrate, Chemical resistant apron when applying with any handheld nozzle or equipment, mixing or loading, cleaning up spills or equipment, or otherwise exposed to the concentrate.

If this container contains over 1 gallon and less than 5 gallons, mixers and loaders who do not use a mechanical system (probe and pump) to transfer the contents of this container must wear coveralls or a chemical-resistant apron in addition to the other required PPE.

See engineering controls for additional requirements.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. After each day of use, clothing or PPE must not be reused until it has been cleaned.

**ENGINEERING CONTROLS STATEMENTS**

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

If this container contains 5 gallons or more in capacity, do not open pour product from this container. A mechanical system (such as a probe and pump or spigot) must be used for transferring the contents of this container, if the contents of a non-refillable pesticide container are emptied, the probe must be rinsed before removal. If the mechanical system is used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4)], the handler PPE requirements may be reduced or modified as specified in the WPS.

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

**ENVIRONMENTAL HAZARDS**

This pesticide may be toxic to fish and aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark except as specified on this label. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment washwaters or rinsate. Apply this product only as directed on label.

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

**DIRECTIONS FOR USE**

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

**AGRICULTURAL USE REQUIREMENTS**

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

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 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, Shoes plus socks, and Protective eyewear.

**NON-AGRICULTURAL USE REQUIREMENTS**

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

Do not allow people (other than applicator) or pets on treatment area during application. Do not enter treatment areas until spray has dried.

**GENERAL INFORMATION**

Performance of WHITEOUT 2,4-D may be affected by local conditions, crop varieties, and application method. User should consult local extension service, agricultural experiment or university weed specialists, and state regulatory agencies for recommendations in your area.

Best results are obtained when product is applied to young succulent weeds that are actively growing. Application rates lower than specified will be satisfactory on susceptible annual weeds. For perennial weeds and conditions such as the very dry areas of the western states, where control is difficult, use the higher specified rates. When



WHITEOUT 2,4-D is used for weed control in crops, the growth stage of the crop must be considered.

Some plants and weeds, especially woody varieties, are difficult to control and may require repeat applications. Application rates should be 2 to 5 gallons of total spray by air or 5 to 25 gallons by ground equipment unless otherwise directed. In either case, use the same amount of WHITEOUT 2,4-D specified per acre. For crop uses, do not mix with oil, surfactants, or other adjuvants unless specifically directed. To do so may reduce herbicide's selectivity and could result in crop damage.

Aerial application should be used only when there is no danger of drift to susceptible crops. Many states have regulations concerning aerial application of 2,4-D formulations. Consult local regulatory authorities before making applications. Although WHITEOUT 2,4-D is a low volatile formulation, at temperatures above 90°F vapors may damage susceptible plants nearby.

Product should not be used in greenhouses. Excessive amounts of 2,4-D in the soil may temporarily inhibit seed germination and all plant growth.

Users should note that herbicide treatment of public water requires a permit from appropriate state agencies in most states. Your state Conservation Department, or Game and Fish Commission will aid you in securing a permit in your state. If stored below freezing, warm this product to 40°F and agitate before using. This does not affect the effectiveness of the product.

Spray equipment used to apply 2,4-D should not be used for any other purpose until thoroughly cleaned with a suitable chemical cleaner.

Spray Preparation: Add the specified amount of product to approximately one-half the volume of water to be used for spraying. Agitate well, and then add the remainder of the water. Continue agitation during application until spray tank is empty.

**USE IN LIQUID NITROGEN FERTILIZER:** WHITEOUT 2,4-D is specially formulated to be combined with liquid nitrogen fertilizer suitable for foliar application on corn, grass, pastures, or small grains in one operation. Use WHITEOUT 2,4-D according to directions on this label for those crops. Use liquid fertilizer at rates recommended by supplier or extension service specialist. Mix WHITEOUT 2,4-D and fertilizer according to the following instructions:

Fill the spray tank approximately 1/2 full with the liquid fertilizer. Add WHITEOUT 2,4-D while agitating the tank. Add the remainder of the liquid fertilizer while continuing to agitate. Application should be made immediately, maintaining agitation until tank is empty. **DO NOT APPLY DURING COLD (NEAR FREEZING) WEATHER.** Spray mixture may not be stored.

#### **SPRAY DRIFT**

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

#### **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 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.

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.

**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 stage), 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 equipment and ground application equipment must be properly maintained and calibrated using appropriate carriers or surrogates.

For aerial equipment, 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 in a crosswind, the swath will be displaced downwind. The applicator must compensate for this by adjusting the path of the aircraft upwind.

For ground boom application, do not apply with a nozzle height greater than 4 feet above the crop canopy.

**APPLICATION INSTRUCTIONS**

**Spray volume:** Apply with calibrated air or ground equipment 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 in a spray volume of 2 or more gallons per acre by air and 10 or more gallons per acre for ground equipment. 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.

**Application Rates:** 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 emulsifiable oil or other adjuvants unless specifically directed on this label. Deep-rooted perennial weeds such as Canada thistle and field bindweed and many woody plants usually require repeated applications for effective control.

**Spot Treatments**

To prevent misapplication apply spot treatments with a calibrated boom or with hand sprayers using a fixed spray volume per 1,000 sq ft as indicated below.

**Hand-Held Sprayers:** Hand-held sprayers may be used for spot applications of WHITEOUT 2,4-D. Care should be taken to apply the spray uniformly and at a rate equivalent to a broadcast application. Application rates in the table are based on the application rate for an area of 1,000 sq ft. Mix the amount of WHITEOUT 2,4-D (fl. oz or ml) corresponding to the desired broadcast rate in 1 to 3 gallons of spray. To calculate the amount of WHITEOUT 2,4-D required for larger areas, multiply the table value (fl oz or ml) by the thousands of sq ft to be treated: An area of 1,000 sq ft is approximately 10.5 x 10.5 yards (strides) in size.

Rate Conversion Table for Spot Treatment:

Label Broadcast Rate (pt/acre)							
1/2	2/3	3/4	1	2	3	4	8
Equivalent Amount of WHITEOUT 2,4-D per 1,000 sq ft							
1/5 fl oz (5.5 ml)	1/4 fl oz (7.3 ml)	1/3 fl oz (8.3 ml)	3/8 fl oz (11 ml)	3/4 fl oz (22 ml)	1 fl oz (33 ml)	1 1/2 fl oz (44 ml)	3 (l oz) (88 ml)

Conversion factors: 1 pt = 16 fl oz.; 1 fl oz = 29.6 ml

Band Application: WHITEOUT 2,4-D may be applied as a band treatment. Use the formulas below to determine the appropriate rate and volume per treated acre.

$$\text{Band rate per treated acre} = \frac{\text{Band width in inches}}{\text{Row width in inches}} \times \text{Broadcast rate per acre}$$

$$\text{Band volume per treated acre} = \frac{\text{Band width in inches}}{\text{Row width in inches}} \times \text{Broadcast volume per acre}$$

**AQUATIC WEED CONTROL** (ponds, lakes, reservoirs, marshes, bayous, drainage ditches, canals, rivers, and streams that are quiescent or slow moving) (NOT REGISTERED FOR AQUATIC USE IN NEW YORK STATE)

Use 4 to 8 pts AMINE 4 per acre (1.87 to 3.74 lbs ae/A) to control weeds including water hyacinth. Spray the weed mass only. Use 8 pts per acre when plants are matured or when the weed mass is dense. Spray when weeds are actively growing. Repeat as necessary to kill regrowth.

**For shoreline weeds:** Allow no more than 2 foot overspray onto water.

**Floating and Emergent Weeds:** Maximum of 4.0 lbs ae/surface acre per application. Limited to 2 applications per season. Minimum of 21 days between applications. Spot treatments are permitted. Apply to emergent aquatic weeds in ponds, lakes, reservoirs, marshes, bayous, drainage ditches, non-irrigation canals, rivers, and streams that are quiescent or slow moving. Coordination and approval of local and state authorities may be required, either by letter of agreement or issuance of special permits for aquatic applications.

**Water Use**

**1. Water for irrigation or sprays:**

A. If treated water is intended to be used only for crops or non-crop areas that are labeled for direct treatment with 2,4-D such as pastures, turf, or cereal grains, the treated water may be used to irrigate and/or mix sprays for these sites at anytime after the 2,4-D aquatic application.

B. Due to potential phytotoxicity considerations, the following restrictions are applicable: If treated water is intended to be used to irrigate or mix sprays for plants grown in commercial nurseries and greenhouses; and other plants or crops that are not labeled for direct treatment with 2,4-D, the water must not be used unless one of the following restrictions has been observed:

- i. A setback distance from functional water intake(s) of greater than or equal to 600 ft was used for the application, or,
- ii. A waiting period of 7 days from the time of application has elapsed, or,
- iii. An approved assay indicates that the 2,4-D concentration is 100 ppb (0.1 ppm) or less at the water intake. Wait at least 3 days after application before initial sampling at water intake.

**2. Drinking water (potable water):**

A. Consult with appropriate state or local water authorities before applying this product to public waters. State or local agencies may require permits. The potable water use restrictions on this label are to ensure that consumption of water by the public is allowed only when the concentration of 2,4-D in the water is less than the MCL (Maximum Contaminant Level) of 70 ppb. Applicators should consider the unique characteristics of the treated waters to assure that 2,4-D concentrations in potable water do not exceed 70 ppb at the time of consumption.

B. For floating and emergent weed applications, the drinking water setback distance from functioning potable water intakes is greater than or equal to 600 ft.

C. If no setback distance of greater than or equal to 600 ft is used for application, applicators or the authorizing organization must provide a drinking water notification prior to a 2,4-D application to the party responsible for public water supply or to individual private water users. Notification to the party responsible for a public water supply or to individual private water users must be done in a manner to assure that the party is aware of the water use restrictions when this product is applied to potable water. The following is an example of a notification via posting, but other methods of notification which convey the above restrictions may be used and may be required in some cases under state or local law or as a condition of a permit.

**Example:**

Posting notification should be located every 250 ft including the shoreline of the treated area and up to 250 feet of shoreline past the application site to include immediate public access points. Posting must include the day and time of application. Posting may be removed if analysis of a sample collected at the intake 3 or more days following application shows that the concentration in the water is less than 70 ppb (100 ppb for irrigation or sprays), or after 7 days following application, whichever occurs first.

**Text of notification:** Wait 7 days before diverting functioning surface water intakes from the treated aquatic site to use as drinking water, irrigation, or sprays, unless water at functioning drinking water intakes is tested at least 3 days after application and is demonstrated by assay to contain not more than 70 ppb 2,4-D (100 ppb for irrigation or sprays).

**Application Date:** \_\_\_\_\_

**Time:** \_\_\_\_\_

D. Following each application of this product, treated water must not be used for drinking water unless one of the following restrictions has been observed:

- i. A setback distance from functional water intake(s) of greater than or equal to 600 ft was used for the application, or,
- ii. A waiting period of at least 7 days from the time of application has elapsed, or,
- iii. An approved assay indicates that the 2,4-D concentration is 70 ppb (0.07 ppm) or less at the water intake. Sampling for drinking water analysis should occur no sooner than 3 days after 2,4-D application.

Analysis of samples must be completed by a laboratory that is certified under the Safe Drinking Water Act to perform drinking water analysis using a currently approved version of analytical Method Number 515, 555, other methods for 2,4-D as may be listed in Title 40 CFR, Part 141.24, or Method Number 4015 (immunoassay of 2,4-D) from U.S. EPA Test Methods for Evaluating Solid Waste SW-846.

E. Note: Existing potable water intakes that are no longer in use, such as those replaced by a connection to a municipal water system or a potable water well, are not considered to be functioning potable water intakes.

F. Drinking water setback distances do not apply to terrestrial applications of 2,4-D adjacent to water bodies with potable water intakes.

3. Except as stated above, there are no restrictions on using water from treated areas for swimming, fishing, watering livestock or domestic purposes.

Submersed Weeds: Maximum of 11.55 qts (10.8 lbs ae) per acre-foot per application. Limited to 2 applications per season. Apply to aquatic weeds in ponds, lakes, reservoirs, marshes, bayous, drainage ditches, nonirrigation canals, rivers, and streams that are quiescent or slow moving. Do not apply within 21 days of previous application. When treating moving bodies of water, applications must be made while traveling upstream to prevent concentration of 2,4-D downstream from the application. Coordination and approval of local and state authorities may be required, either by letter of agreement or issuance of special permits for such use.

**Table 1. Amount of 2,4-D to Apply for a Target Subsurface Concentration**

Surface Area	Average Depth	For typical conditions – 2 ppm 2,4-D ae/acre-foot	For difficult conditions* - 4 ppm 2,4-D ae/acre-foot
1 Acre	1 ft.	5.4 lbs	10.8 lbs
	2 ft.	10.8 lbs	21.6 lbs
	3 ft.	16.2 lbs	32.4 lbs
	4 ft.	21.6 lbs	43.2 lbs
	5 ft.	27.0 lbs	54.0 lbs

\* Examples include spot treatment of pioneer colonies of Eurasian water milfoil and certain difficult to control aquatic species.

**Water Use:**

**1. Water for irrigation or sprays:**

A. If treated water is intended to be used only for crops or noncrop areas that are labeled for direct treatment with 2,4-D such as pastures, turf, or cereal grains, the treated water may be used to irrigate and/or mix sprays for these sites at anytime after the 2,4-D aquatic application.

B. Due to potential phytotoxicity and/or residue considerations, the following restrictions are applicable: If treated water is intended to be used to irrigate or mix

sprays for unlabeled crops, noncrop areas or other plants not labeled for direct treatment with 2,4-D, the water must not be used unless one of the following restrictions has been observed:

- i. A setback distance described in the Drinking Water Setback Table was used for the application, or,
- ii. A waiting period of 21 days from the time of application has elapsed, or,
- iii. An approved assay indicates that the 2,4-D concentration is 100 ppb (0.1 ppm) or less at the water intake. See Table 3 for the waiting period after application but before taking the initial sampling at water intake.

**2. Drinking water (potable water):**

A. Consult with appropriate state or local water authorities before applying this product to public waters. State or local agencies may require permits. The potable water use restrictions on this label are to ensure that consumption of water by the public is allowed only when the concentration of 2,4-D in the water is less than the MCL (Maximum Contaminant Level) of 70 ppb. Applicators should consider the unique characteristics of the treated waters to assure that 2,4-D concentrations in potable water do not exceed 70 ppb at the time of consumption.

B. For submersed weed applications, the drinking water setback distances from functioning potable water intakes are provided in Table 2. Drinking Water Set back Distance (below).

C. If no setback distance from the Drinking Water Setback Table (Table 2) is to be used for the application, applicators or the authorizing organization must provide a drinking water notification and an advisory to shut off all potable water intakes prior to a 2,4-D application. Notification to the party responsible for a public water supply or to individual private water users must be done in a manner to assure that the party is aware of the water use restrictions when this product is applied to potable water. The following is an example of a notification via posting, but other methods of notification which convey the above restrictions may be used and may be required in some cases under state or local law or as a condition of a permit.

Example:

Posting notification should be located every 250 feet including the shoreline of the treated area and up to 250 feet of shoreline past the application site to include immediate public access points. Posting should include the day and time of application. Posting may be removed if analysis of a sample collected at the intake no sooner than stated in Table 3 (below) shows that the concentration in the water is less than 70 ppb (100 ppb for irrigation or sprays), or after 21 days following application, whichever occurs first. Text of notification: Wait 21 days before diverting functioning surface water intakes from the treated aquatic site to use as drinking water, irrigation, or sprays, unless water at functioning drinking water intakes is tested no sooner than (insert days from Table 3) and is demonstrated by assay to contain not more than 70 ppb 2,4-D (100 ppb for irrigation or sprays).

Application Date: \_\_\_\_\_ Time: \_\_\_\_\_.

D. Following each application of this product, treated water must not be used for drinking water unless one of the following restrictions has been observed:

- i. A setback distance described in the Drinking Water Setback Distance Table was used for the application, or,
- ii. A waiting period of at least 21 days from the time of application has elapsed, or,
- iii. An approved assay indicates that the 2,4-D concentration is 70 ppb

(0.07 ppm) or less at the water intake. Sampling for drinking water analysis should occur no sooner than stated in Table 3.

Analysis of samples must be completed by a laboratory that is certified under the Safe Drinking Water Act to perform drinking water analysis using a currently approved version of analytical Method Number 515, 555, other methods for 2,4-D as may be listed in Title 40 CFR, Part 141.24, or Method Number 4015 (immunoassay of 2,4-D) from U.S. EPA Test Methods for Evaluating Solid Waste SW-846.

E. Note: Existing potable water intakes that are no longer in use, such as those replaced by a connection to a municipal water system or a potable water well, are not considered to be functioning potable water intakes.

F. Drinking water setback distances do not apply to terrestrial applications of 2,4-D adjacent to water bodies with potable water intakes.

**Table 2. Drinking Water Setback Distance for Submersed Weed Applications**

Application Rate and Minimum Setback Distance (feet) From Functioning Potable Water Intake			
1 ppm*	2 ppm*	3 ppm*	4 ppm*
600	1200	1800	2400

\* ppm acid equivalent target water concentration

**Table 3. Sampling for Drinking Water Analysis After 2,4-D Application for Submersed Weed Applications**

Minimum Days After Application Before Initial Water Sampling at the Functioning Potable Water Intake			
1 ppm*	2 ppm*	3 ppm*	4 ppm*
5	10	10	14

\* ppm acid equivalent target water concentration

**Surface Application:** Use power sprayers operated with a boom or spray gun mounted on a boat, tractor, or truck. Thorough wetting of foliage is essential for maximum control. Use 100 to 400 gals per acre of spray mixture. Special precautions, such as the use of lower pressure, large nozzles, and thickening agents should be taken to avoid spray drift in areas of sensitive crops.

**Air Application:** Use drift control spray equipment or thickening agents mixed into the spray solution. Apply 8 pts AMINE 4 per acre through standard boom systems with a minimum of 5 gals of spray mixture per acre.

**NOTICE TO APPLICATORS**

**State and Local coordination:** Before application, coordination and approval of local and state authorities may be required, either by letter of agreement or issuance of special permits for such use.

**Fish Toxicity:** To avoid fish kill from decaying plant material, do not treat more than one half the lake or pond at one time. For large bodies of weed infested waters leave buffer strips of at least 100 feet wide and delay treatment of these strips for 4 to 5 weeks or until the dead vegetation has decomposed.

**Irrigation:** Delay the use of treated water for irrigation for three weeks after treatment unless an approved assay shows that the water does not contain more than 0.1 ppm 2,4-D acid. Do not treat irrigation ditches in areas where water will be used to overhead sprinkler irrigate susceptible crops.

Potable Water: Delay the use of treated water for domestic purposes for a period of three weeks or until such time as an approved assay shows that the water contains no more than 0.1 ppm 2,4-D acid.

**WHERE TO USE**

WHITEOUT 2,4-D is used to control broad-leaved weeds in cereal crops, corn, sorghum, weeds and brush in rangeland, pastures, rights-of-way, ornamental turf, grass seed crops, fallow land, forest management and similar non-crop uses.

**Annual or Biennial Weeds**

- beggarticks
- bittercress, smallflowered (2)
- bitterweed
- broomweed, common (1)
- burdock, common
- buttercup, smallflowered d1X2)
- carpetweed
- cinquèfoil, common (2)
- cinquefoil, rough (2)
- cocklebur, common
- coffeeweed
- copperleaf, Virginia
- croton, Texas
- croton, wooly
- fixweed
- galinsoga
- geranium, Carolina (2)
- hemp, wild
- horseweed (marestail) (2)
- jewelweed
- jimsonweed
- knotweed (1)
- kochia
- lamsquarter, common
- lettuce, prickly (1)(2)
- lettuce, wild
- lupines
- mallow, little
- mallow, Venice (1)
- marshelder
- morningglory, annual
- morningglory, ivy
- morningglory, woolly
- mousetail (2)
- mustards (except blue mustard)
- parsnip, wild
- pennycress (fanweed)
- pepperweeds (Lepidium spp.) (1)(2)
- pigweeds (Amaranthus spp.)
- poorjoe
- primrose, common

- purslane, common (2)
- pusley, Florida
- radish, wild
- ragweed, common
- ragweed, giant
- rape, wild
- rocket, yellow
- salsify, common
- salsify, western (1)
- shepherdspurse
- sicklepod
- smartweed (annual species) (1)(2)
- sneezeweed, bitter
- sowthistle, annual
- sowthistte, spiny
- spanishneedles
- sunflower
- sweetclover
- tansymustard
- thistle, bull
- thistle, musk
- thistle, Russian (tumbleweed)
- velvetleaf
- vetches

**Perennial Weeds**

- Alfalfa (1)
- artichoke, Jerusalem (1)
- aster, many-flower (1)
- Austrian fieldcress
- bindweed (hedge, field and European) (1) (2)
- blue lettuce
- blueweed, Texas
- broomweed
- bullnettle (1) (2)
- carrot, wild
- catnip
- chicory
- clover, red (1) (2)
- coffeeweed
- cress, hoary 11)
- dandelion



docks (1)  
 dogbanes (1)  
 eveningprimrose, cutleaf (2)  
 garlic, wild  
 goldenrod  
 hawkweed, orange  
 healal  
 ironweed, western (2)  
 ivy, ground (1)

nettles (including stinging) (1)  
 onion, wild (1)  
 pennywort  
 plantains  
 ragwort, tansy  
 sowthistle, perennial  
 thistle, Canada (1)(2)  
 vervains (1)  
 wormwood

(1) Difficult-to-Control Weeds: These weeds are only partially controlled and may require repeat applications and/or use of the higher recommended rate of this product even under ideal conditions of application.

(2) This product may not be used to control this weed species in the state of California.

**CROPS**

**CEREAL GRAINS (Wheat, Barley, Millet, Oats, Rye)**

**(Not under seeded with Legumes)**

Crop/Application Timing	WHITEOUT 2,4-D (pt/acre)	Specific Use Directions
Wheat, Barley, Millet Rye Annual and biennial & Broadleaf weeds Perennial broadleaf weeds	1/2 to 2 <sup>†</sup>  1 to 2 <sup>†</sup>	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.
Oats (Spring Seeded) (Fall Seeded Southern)	1/2 3/4 to 1 1/4 <sup>†</sup>	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.
Preharvest application (all cereals)	1	Apply using air or ground equipment 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 biennial weeds are present that 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 WHITEOUT 2,4-D 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.

**CEREAL GRAIN RESTRICTIONS:**

- Postemergence:
- Make no more than one application per crop cycle.

18  
29

- Do not apply more than 2-2/3 pints per acre per application.
  - Preharvest:
  - Make no more than one application per crop cycle.
  - Do not apply more than 1 pint per acre per application.
  - Pre-Harvest Interval is 14 days.
  - Do not graze lactating dairy cattle in treated areas for 14 days after application, Remove meat animals from freshly treated areas 7 days before slaughter.
  - Do not harvest hay from treated grain fields.
- WHITEOUT 2,4-D contains 0.46 pounds a.e. of 2,4-D per pint. When tank mixing with products that contain 2,4-D, do not exceed a combined total of 1.75 pounds of a.e. per acre per year.

**CORN (Field Corn, Popcorn and Sweet Corn)**

<b>Application Timing/Stage of Growth</b>	<b>WHITEOUT 2,4-D (pt/acre)</b>	<b>Specific Use Directions</b>
Preplant (Burndown) Preemergence (Field corn, popcorn, and sweetcorn)	1 to 2	General: 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. Preplant: Apply 7 to 14 days before planting corn to control emerged broadleaf weed seedlings or existing cover crops. Preemergence: Apply any time after planting, but before corn emergence to control broadleaf weed seedlings or existing cover crops. Do not use on light sandy soils.
Postemergence (Field corn, popcorn, and sweet corn) Annual broadleaf weeds Crop up to 8 inches tall Crop 8 inches tall to tasseling (directed spray only) Perennial broadleaf weeds	1/2 to 1  1  1	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 apply from tasseling to hard dough stage. Note: Corn treated with 2,4-D may become temporarily brittle. Wind or cultivation may cause stem breakage during the period of time that corn is brittle. Sweet corn: To minimize potential for crop injury, use 2y lowest rate in rate range.
Preharvest	Up to 3	Apply after corn is in hard dough

(Field corn and popcorn only)		(or denting) stage. Do not make preharvest applications to sweet corn.
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**CORN RESTRICTIONS:**

- Do not forage or feed corn fodder to livestock for 7 days following application.
- Preplant or Preemergence:
  - Do not make more than one application per crop cycle
  - Do not apply more than 2 pints per acre per application
- Postemergence:
  - Do not make more than one application per crop cycle
  - Do not apply more than 2 pints per acre per application
- Preharvest:
  - Do not make more than one application per crop cycle
  - Do not apply more than 3 pints per acre per application
- Minimum spray interval between applications is 30 days.
- Pre-Harvest interval is 7 days

WHITEOUT 2,4-D contains 0.46 pounds a.e. of 2,4-D per pint. When tank mixing with products that contain 2,4-D, do not exceed a combined total of 3.0 pounds of a.e. per acre per year.

**SORGHUM (Grain Sorghum (Milo) and Forage Sorghum)**

Application Timing/Stage of Growth	WHITEOUT 2,4-D (pt/acre)	Specific Use Directions
Postemergence <sup>†</sup> Crop 6 — 8 inches tall Crop 8 — 15 inches tall (directed spray only)	1/2 to 1 <sup>†</sup> 3/4 to 1	Apply when sorghum is 6 to 15 inches tall. If sorghum is more than 8 inches tall (top of canopy), use drop nozzles to keep spray off of foliage. Do not use with oil or other adjuvants. Do not treat during boot, flowering or dough stage.

<sup>†</sup>Temporary crop injury can be expected under conditions of high soil moisture and high air temperatures. If it is necessary to apply WHITEOUT 2,4-D under these conditions, use no more than 2/3 pint per acre. **SORGHUM RESTRICTIONS:**

- Postemergence:
  - Do not make more than one application per crop cycle
  - Do not apply more than 1 pint per acre per application
- Do not permit meat or dairy animals to consume treated crop as fodder or forage for 30 days following application
- Preharvest Interval is 30 days.

WHITEOUT 2,4-D contains 0.46 pounds a.e. of 2,4-D per pint. When tank mixing with products that contain 2,4-D, do not exceed a combined total of 0.5 pounds of a.e. derived from ester forms of 2,4-D per acre per year.

20  
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**SOYBEANS — For Use in Crop Residue management Systems  
(Pre-plant Burndown Application Only)**

Application Timing/Stage of Growth	WHITEOUT 2,4-D (pt/acre)	Specific Use Directions
Preplant (Burndown)	3/4 to 1	Apply not less than 7 days before planting soybeans. See Use Precautions and Restrictions below.
	1 to 2	Apply not less than 15 days before planting soybeans. See Use Precautions and Restrictions below.

General Use Directions: Use WHITEOUT 2,4-D 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. 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.

**RESTRICTIONS AND LIMITATIONS FOR USE IN SOYBEANS**

- Do not apply this product prior to planting soybeans if you are not prepared to accept the results of soybean injury including possible loss of stand and yield.
- Do not use on low organic sandy soils (less than 1.0%).
- Do not apply this product when weather conditions such as temperature, air inversions, or wind favor drift from treated areas to susceptible plants.
- Do not mow or cultivate weeds prior to treating with this product as poor control may result.
- Do not feed treated hay, forage, or fodder or graze treated soybeans to livestock. Do not feed or graze treated cover crops to livestock.
- Do not replant fields treated with this product in the same growing season with crops other than those labeled for 2,4-D use.

WHITEOUT 2,4-D contains 0.46 pounds a.e. of 2,4-D per pint. When tank mixing with products that contain 2,4-D, do not exceed a combined total of 1.0 pound of a.e. per acre per year.

**ORNAMENTAL TURF (Excluding Grasses Grown For Seed or Sod Farms)  
(Includes lawns, golf courses, cemeteries and parks, airfields, roadsides, vacant lots, drainage ditch banks)**

Use Requirements for Ornamental Turf Areas: When this product is applied to ornamental turf areas, follow PPE and reentry instructions in the "Non-agricultural Use Requirements" section of this label.

Treatment Site Application Timing	WHITEOUT 2,4-D (pt/acre)	Specific Use Directions
Ornamental Turf (Postemergence) Seedling grass (five-leaf stage or later)	3/4 to 1	Apply when weeds are small and actively growing. For best results, apply when soil moisture is adequate for active weed growth. Deep-rooted perennial weeds such as bindweed and Canada thistle
Well-established grasses	2 to 3	

21  
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Biennial and perennial Broadleaf weeds	3	may require repeat applications. Do not apply to newly seeded grasses until well established (five-leaf stage or later) and then use a maximum of 1 pt/acre. Cool season grasses are tolerant of higher rates.
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**ORNAMENTAL TURF RESTRICTIONS:**

- Do not apply more than 3 pints per acre per application.
- Do not make more than 2 broadcast applications per treatment site per year.

WHITEOUT 2,4-D contains 0.46 pounds a.e. of 2,4-D per pint. When tank mixing with products that contain 2,4-D, do not exceed a combined total of 4.0 pounds of a.e. per acre per year excluding spot treatments.

**GRASSES GROWN FOR SEED or SOD FARMS**

Agricultural Use Requirements: When used in grass grown for seed or sod farms, follow PPE and reentry instructions in the "Agricultural Use Requirements" section of this label.

Treatment Site Application Timing	WHITEOUT 2,4-D (pt/acre)	Specific Use Directions
Grasses Grown for Seed (Postemergence Use) Seedling grass (five-leaf stage or later)	3/4 to 1	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
Well-established grasses	1 to 4	(five-leaf stage or later) and then use a maximum of 1 pt/acre. Cool
Sod Farms (Postemergence)	2 to 4	season grasses are tolerant of 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 4 pints/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.

**GRASS SEED CROP RESTRICTIONS:**

- Do not graze dairy cattle within 7 days of application. Do not apply this product within 30 days of cutting grass for hay. Remove meat animals from treated areas 7 days prior to slaughter.
- Do not apply more than 4 pints per acre per application.
- Do not make more than 2 applications per year.
- Minimum spray interval between applications is 30 days.

- Do not apply more than 8 pints per acre per year.
- If grass is to be cut for hay, Agricultural Use requirements for the Worker Protection Standard are applicable.
- WHITEOUT 2,4-D contains 0.46 pounds a.e. of 2,4-D per pint. When tank mixing with products that contain 2,4-D, do not exceed a combined total of 4.0 pounds of a.e. per acre per year.

**FALLOWLAND and CROP STUBBLE**

Fallowland is considered to be idle cropland, postharvest to crops or between crops.

Type of weeds	WHITEOUT 2,4-D (pt/acre)	Specific Use Directions
Annual broadleaf weeds	1 to 2	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	2 to 4	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	2 to 4	Apply when perennial weeds are in bud to early bloom stage or while in good vegetative growth.
Wild garlic and onion in crop stubble	4	Apply to new regrowth of wild garlic or onion that occurs in the fall after harvest of other crops.

**FALLOW LAND RESTRICTIONS:**

- Plant only labeled crops within 29 days following last application
- Do not apply more than 4 pints per acre per application.
- Do not make more than 2 applications per year.
- Minimum spray interval between applications is 30 days.

WHITEOUT 2,4-D contains 0.46 pounds a.e. of 2,4-D per pint. When tank mixing with products that contain 2,4-D, do not exceed a combined total of 4.0 pounds of a.e. per acre per year.

**RANGELAND, ESTABLISHED GRASS PASTURES  
(Including Perennial Grasslands Not In Agricultural Production  
Such As Conservation Reserve Program Acres)**

Target Weeds or Woody Plants	WHITEOUT 2,4-D (pt/acre)	Specific Use Directions
Annual broadleaf weeds	2	For best results, apply when weeds are small and growing actively before the bud stage. Apply when
Biennial and perennial broadleaf weeds	2 to 4	

		<p>musk thistles or other biennial species are in the seedling to rosette stage and before flower stalks appear. Refer to the "Weeds Controlled" section for a listing of susceptible weed species and weeds that may be only partially controlled and require repeat applications and/or use of higher recommended rates, even under ideal conditions of application.</p>
Spot Treatment to control broadleaf weeds	See Instructions for "Spot Treatment" under "Application Instructions"	<p>Note: To control broadleaf weeds in small areas with a hand sprayer, use an application rate equivalent to the recommended broadcast rate and spray to thoroughly wet all foliage. See rate conversion table and instructions for "Spot Treatment" and use of hand-held sprayers under "Application Instructions."</p>
Tree Injection Application	See instructions for tree injection application in "Forestry Uses" section.	
Wild garlic and wild onion	4	Make three applications (fall-spring-fall or spring-fall-spring) starting in late fall or early spring.
Broadleaf weed control in newly sprigged coastal bermudagrass	2 to 4	Applications may be made either preemergence or postemergence, Follow "Specific Use Directions" for annual, biennial and perennial broadleaf weed control, above.
Southern wild rose Broadcast application  Spot treatment	up to 4  8 pints/100 gal of spray	<p><b>Broadcast:</b> Apply in spray volume of 5 or more gallons per acre by aircraft or 10 or more gallons per acre by ground equipment.</p> <p><b>Spot treatment:</b> Apply when foliage is we developed. Thorough coverage is required. Use 8 pints of WHITEOUT 2,4-D plus 4 to 8 fluid ounces of an agricultural surfactant per 100 gallons of water. Two or more treatments may be required. Do no exceed 4 pt per acre per application.</p>
CRP Acres	For program lands such as CRP, consult program rules to determine whether grass or hay maybe used. The more restrictive requirements of the program rules or this label must be followed.	

**PASTURE & RANGELAND RESTRICTIONS:**

- Do not apply more than 4 pints per acre per application.
- Do not apply more than 2 pints per acre per application for spot treatments.
- Do not make more than 2 applications per year.
- Minimum spray interval between applications is 30 days.
- Pre-Harvest Interval for cut forage for hay is 7 days
- If grass is to be cut for hay, Agricultural Use requirements for the Worker Protection Standard are applicable.

WHITEOUT 2,4-D contains 0.46 pounds a.e. of 2,4-D per pint. When tank mixing with products that contain 2,4-D, do not exceed a combined total of 4.0 pounds of a.e. per acre per year.

**NON-CROPLAND AREAS**

**Such as fencerows, hedgerows, roadsides, drainage ditches, rights-of way, utility power lines, railroads, airports, and other non-crop areas**

Treatment Site Method of Application	WHITEOUT 2,4-D (pt/acre)	Specific Use Directions
Annual broadleaf weeds  Biennial and perennial broadleaf weeds and susceptible woody plants	2 to 4  4 to 8	Apply when annual weeds are small and growing actively before the bud stage. Biennial and perennial weeds should be 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 4 qts of WHITEOUT 2,4-D plus 1 to 8 pints of 3lb./gal. Triclopyr herbicide per acre. <b>For ground application:</b> (High volume) apply a total spray volume of 100 to 400 gallons per acre; (low volume) apply a total spray volume of 10 to 100 gallons per acre. <b>For helicopter:</b> Apply a total spray volume of 5 to 30 gallons per acre.
Spot Treatment to control Broadleaf weeds	See Instructions for "Spot Treatment" under "Application Instructions"	Note: To control broadleaf weeds in small areas with a hand sprayer, use an application rate equivalent to the recommended broadcast rate and spray to thoroughly wet all foliage. See rate conversion table and instructions for "Spot Treatment" and use of hand-held sprayer under "Application Instructions."
Tree injection Application	See instructions for tree injection application in "Forestry Uses" section.	
Southern wild rose Broadcast application  Spot treatment	up to 4  8 pints/100 gal	Broadcast: Apply in a spray volume of 5 or more gallons per acre by aircraft or 10 or more gallons per acre by ground equipment.



	of spray	Apply when foliage is well developed. Thorough coverage is required. Use 8 pints of WHITEOUT 2,4-D plus 4 to 8 fluid ounces of an agricultural surfactant per 100 gallons of water. Two or more treatments may be required.
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**GENERAL WEED CONTROL RESTRICTIONS:**

- Postemergence (annual & perennial weeds):
- Do not make more than 2 applications per year.
- Do not apply more than 4 pints per acre per application.
- Minimum spray interval between applications is 30 days.
- Postemergence (woody plants):
- Do not make more than 1 application per year.
- Do not apply more than 8 pints per acre per application.
- Applications to non-cropland areas are not applicable to treatment of commercial timber or other plants being grown for sale or other commercial use, or for commercial seed production, or for research purposes.

WHITEOUT 2,4-D contains 0.46 pounds a.e. of 2,4-D per pint. When tank mixing with products that contain 2,4-D, do not exceed a combined total of 4.0 pounds of a.e. per acre per year.

**FORESTRY USES**

**Forest site preparation, forest roadsides, brush control, established conifer release, including Christmas trees and reforestation areas.**

Treatment Site Method of Application	WHITEOUT 2,4-D (pt/acre)	Specific Use Directions
Annual Weeds	2 to 4 pt/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 4 qt of WHITEOUT 2,4-D and 1 to 4 qts of 3lb./gal. Triclopyr herbicide per acre. For conifer release, make application in early spring before budbreak of conifers when weeds are small and actively growing
Biennial and perennial broadleaf weeds and susceptible woody plants	4 to 8 pt/acre	
Spot Treatment to control Broadleaf weeds	See Instructions for "Spot Treatment" under "Application Instructions"	Note: To control broadleaf weeds in small areas with a hand sprayer, use an application rate equivalent to the recommended broadcast rate and spray to thoroughly wet all foliage. See rate conversion table and instructions for "Spot

26  
29

		Treatment" and use of hand-held sprayer under "Application Instructions."
Conifer Release; Species Such as white pine, ponderosa pine, jack pine, red pine, black spruce, white spruce, red spruce, and balsam fir.	3 to 6 pts/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 pine	8 pts/100 gal	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 water carrier in a spray volume of 10 to 100 gallons per acre,
Surface of Cut Stumps (May also be used in rangeland, pastures, and noncropland)	1.75 fl oz/gal of water	Apply as soon as possible after cutting trees. Thoroughly soak the entire stump with 2,4-D mixture including cut surface, bark and exposed roots.
Frill and Girdle (May also be used in rangeland, pastures, and noncropland)		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. Saturate the freshly cut frills with the 2,4-D mixture.
Tree Injection Application (May also be used in rangeland, pastures, and noncropland)	(1 to 2 ml per injection site)	To control and prevent resprouting of unwanted hardwood trees such as elm, hickory, oak, and sweetgum in forests and other non-crop areas, apply by injecting at a rate of 1 ml of undiluted WHITEOUT 2,4-D per inch of trunk diameter as measured at breast height (DBH), approximately 4 1/2 ft above the ground. Injection sites, however, should be as close to the root collar as possible and the injection bit must penetrate the inner bark. Applications may be

		<p>made throughout the year, but for best results apply between May 15 and October 15. Maples should not be treated during the spring sap flow.</p> <p>For hard to control species such as ash, maple, and dogwood use 2 ml of undiluted WHITEOUT 2,4-D per injection site or double the number of 1 ml injections.</p> <p>Note: No Worker Protection Standard worker entry restrictions or worker notification requirements apply when this product is directly injected into agricultural plants.</p>
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**FOREST MANAGEMENT RESTRICTIONS:**

- Broadcast Application:
  - Do -not make more than 1 application per year.
  - Do not apply more than 8 pints per acre per application.
- Injection Application:
  - Do not make more than 1 application per year.
  - Do not apply more than 2 ml per injection site.

WHITEOUT 2,4-D contains 0.46 pounds a.e. of 2,4-D per pint. When tank mixing with products that contain 2,4-D, do not exceed a combined total of 4.0 pounds of a.e. per acre per year.

**STORAGE AND DISPOSAL**

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

**PESTICIDE STORAGE:** Open dumping is prohibited. Do not store this product near fertilizers, seeds, insecticides or fungicides. Do not store near heat or open flame. Re-close all partially used containers by thoroughly tightening screw cap. Absorb any spill with suitable clay absorbent and dispose of as indicated under "Pesticide Disposal."

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

**Nonrefillable container.** Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state. Once cleaned, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or manufacturer, or contact The Agricultural Container Recycling Council (ACRC) at [www.acrecycle.org](http://www.acrecycle.org). If not recycled, then puncture and dispose of in a sanitary landfill, or incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

**For packages up to 5 gallons: Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to

28  
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**STORAGE AND DISPOSAL Con't.**

drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip.

Repeat this procedure two more times. **Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

**For packages greater than 5 gallons and less than 56 gallons: Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. **Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

**For packages greater than 56 gallons:** To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

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

For help with any spill, leak, fire or exposure involving this material, call day or night CHEMTREC – 1-800-424-9300.

**CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY**

**BEFORE BUYING OR USING THIS PRODUCT,** read the entire Directions for Use and the following Conditions of Sale and Limitation of Warranty and Liability. By buying or using this product, the buyer or user accepts the following Conditions of Sale and Limitation of Warranty and Liability, which no employee or agent of LOVELAND PRODUCTS, INC. or the seller is authorized to vary in any way.

Follow the Directions for Use of this product carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop or other plant injury, ineffectiveness, or other unintended consequences may result from such risks as weather or crop conditions, mixture with other chemicals not specifically identified in this product's label, or use of this product contrary to the label instructions, all of which are beyond the control of LOVELAND PRODUCTS, INC. and the seller. The buyer or user of this product assumes all such inherent risks.

Subject to the foregoing inherent risks, LOVELAND PRODUCTS, INC. warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use when the product is used in strict accordance with such Directions for Use under normal conditions of use. EXCEPT AS WARRANTED IN THIS LABEL AND TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THIS PRODUCT IS SOLD "AS IS," AND LOVELAND PRODUCTS, INC. MAKES NO OTHER WARRANTY,

29  
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