

5905-72

4-22-2002

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

APR 22 2002

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

Emily Smathers Ratliff
Helena Chemical Co.
225 Schilling Boulevard, Suite 300
Collierville, TN 38017

Dear Ms. Ratliff:

Subject: Revised Labeling
2,4-D Amine
EPA Registration No. 5905-72
Your Application Dated March 26, 2002

The amendment referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended is acceptable provided that you:

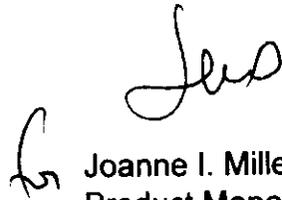
1. Make the labeling changes listed below before you release the product for shipment bearing the amended labeling:
 - a. Please note that 40 CFR 156.10(i)(1)(ii) states that only the Directions For Use may appear on printed or graphic matter which accompanies the pesticide. The referral statement "See Inside Panel For Additional Precautionary Statements" implies that the precautionary statements are inside a booklet. If all of the Precautionary Statements and First Aid Statements cannot appear on the outside container label due to size constraints, you should formally submit a request for a size exemption from the regulations.
 - b. Use "Chemical Resistant Gloves Category A" instead of "Waterproof Gloves" wherever it appears on the labeling
2. Submit one (1) copy of your final printed labeling before you release the product for shipment.

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

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If you have any questions concerning this letter, please contact Mr. James Stone at 703-305-7391.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "Joanne I. Miller".

Joanne I. Miller
Product Manager (23)
Herbicide Branch
Registration Division (7505C)

Enclosure

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2,4-D AMINE

ACTIVE INGREDIENT: (BY WT.)

*Dimethylamine salt of 2,4-Dichlorophenoxyacetic acid 46.6%

INERT INGREDIENT: 53.4%

TOTAL 100.0%

*2,4-Dichlorophenoxyacetic acid equivalent 38.7%-3.76 lbs. per gallon.

Isomer specific by AOAC method 6.D01-5.

KEEP OUT OF REACH OF CHILDREN

DANGER - PELIGRO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.

(If you do not understand this label, find someone to explain it to you in detail.)

SEE INSIDE BOOKLET FOR ADDITIONAL PRECAUTIONARY STATEMENTS.

EPA REG. NO. 5905-72

EPA EST. NO.

NET CONTENTS:

**MANUFACTURED BY
HELENA CHEMICAL COMPANY
225 SCHILLING BOULEVARD, SUITE 300
COLLIERVILLE, TENNESSEE 38017**

**ACCEPTED
with COMMENTS
In EPA Letter Dated:
APR 22 2002**

**Under the Federal Insecticide,
Fungicide, and Rodenticide Act,
as amended, for the pesticide
registered under EPA Reg. No.
5905-72**



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PRECAUTIONARY STATEMENTS

DANGER

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER. Corrosive. Causes irreversible eye damage. Harmful if swallowed. Do not get in eyes or on clothing. Avoid contact with skin. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers must wear:

- Coveralls over short-sleeved shirt and short pants
- Waterproof gloves
- Chemical-resistant footwear plus socks
- Protective eyewear
- Chemical-resistant headgear for overhead exposure
- Chemical-resistant apron when cleaning equipment, mixing, or loading

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.

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 re-used until it has been cleaned.

Engineering Controls Statements

If this container contains 5 gallons or more in capacity, do not open pour. 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.

FIRST AID

- IF IN EYES:**
 - Hold eyelid open and rinse slowly and gently with water for 15-20 minutes.
 - Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.
 - Call a poison control center or doctor immediately for treatment advice.
- IF SWALLOWED:**
 - Call a poison control center or doctor immediately for treatment advice.
 - Do not induce vomiting unless told to do so by a poison control center or doctor.
 - Have a person sip a glass of water if able to swallow.
 - Do not give anything to an unconscious or convulsing person.
- IF ON SKIN:**
 - Take off contaminated clothing.
 - Rinse skin immediately with plenty of water, after the first minutes, then continue rinsing.
 - Call a poison control center or doctor immediately for treatment advice.
- IF INHALED:**
 - Move victim to fresh air.
 - If not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.

HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor or going for treatment. In case of emergency, call ChemTrec at 1-800-424-9300.

NOTE TO PHYSICIAN

Probable mucosal damage may contraindicate the use of gastric lavage.

ENVIRONMENTAL HAZARDS

This product is toxic to aquatic invertebrates. Drift or runoff may adversely affect aquatic invertebrates and nontarget plants. For terrestrial uses, do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

GROUNDWATER CONTAMINATION

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.

PHYSICAL OR CHEMICAL HAZARDS

Do not use, pour, spill or store near heat or open flame.

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.

AGRICULTURAL USE REQUIREMENTS

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

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

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

- Coveralls over short-sleeved shirt and short pants
- Waterproof gloves
- Chemical-resistant footwear plus socks
- Protective eyewear
- Chemical-resistant headgear for overhead exposure

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.

CHEMIGATION PROHIBITION

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

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal. Protect from freezing. If stored below 32°F and crystals form, warm to 72°F for 24 hours, periodically rolling drum to reconstitute.

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.

CONTAINER DISPOSAL:

Metal containers - Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state or local authorities.

Plastic containers - Triple rinse (or equivalent). Then offer for recycling or reconditioning, or 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.

OBSERVE THESE PRECAUTIONS

Avoid applications of spray or drift of spray to desirable plants, as this product may injure cotton, tomatoes, beans, peas, most vegetables, ornamentals, grapes or others. Even minute quantities of the spray may cause severe injury. Accordingly, application by airplanes should be made

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only when there is no hazard from drift. All sprays are likely to drift under certain conditions. The finer the spray, the greater the likelihood of drift effect. Coarse sprays are less likely to drift.

Use only amount needed. **DO NOT OVERDOSE.**

Be sure that airplane spraying equipment has a quick-acting, effective cutoff valve, and is used from the lowest possible altitude by an aircraft operator experienced in the application of herbicides.

Do not use same equipment for other purposes. If necessary to use sprayer for any other spraying, be sure to thoroughly clean all equipment with a suitable chemical cleaner. (1 qt. of household ammonia in 20 to 25 gals. water - let stand overnight, then rinse thoroughly with water)

FOLLOW THESE DIRECTIONS CAREFULLY

Always mix with water, so as to apply the recommended amount of 2,4-D Amine per acre in the amount of water necessary to cover an acre of ground with the spraying equipment used.

Apply 2,4-D sprays at low pressures of approximately 30 to 50 pounds, with nozzles adjusted to give a coarse, wetting spray consisting of large droplets.

For best results apply 2,4-D sprays when soil and climatic conditions are conducive to rapid plant growth. This product may be applied when temperatures range from 50° to 95°; results may be unsatisfactory below 65° and above 90°. Sprays applied under adverse conditions (abnormally cool or hot and dry weather or when weeds are near maturity) should contain maximum recommended dosage. Under such conditions, control results may not always be entirely satisfactory.

The recommendations given are general. Because of varietal and local conditions, consult Agricultural Experiment Station or Extension Service weed specialists.

THIS CONTAINER IS NON-RETURNABLE

Conversion Table

2,4-D Acid						
Required	1 lb.	3/4 lb.	1/2 lb.	3/8 lb.	1/4 lb.	1/8 lb.
Amount 2,4-D Amine to use	2 pts.	1 1/2 pts.	1 pt.	3/4 pt.	1/2 pt.	1/4 pt.

AMOUNTS OF SPRAY MIXTURE TO APPLY

AIRPLANE APPLICATION - Water - Dilute recommended amount of 2,4-D Amine in 1 to 5 gallons of water and apply per acre.

GROUND SPRAYERS - Dilute recommended amount in 8 to 20 or more gallons of water and apply per acre. The amount of water required will depend upon the crop and type of equipment used. Thorough agitation of spray mixture is necessary for best results.

TO CONTROL WEEDS IN RESISTANT CROPS

2,4-D Amine is a selective water soluble herbicide for the control of susceptible broadleaf weeds in growing small grain crops, corn, sugar cane, pastures, lawns, and turf.

The following dosages are suggested on growing crops for the control of susceptible weeds such as mustard, sunflower, lambs-quarters, pigweed, ragweed, dock, cocklebur, sow thistle, marsh elder, and many other species. Perennial weeds are best when in bud or in early bloom stage of growth.

WHEAT, OATS, BARLEY AND RYE - 2,4-D sprays applied during seedling stage of growth may reduce yields. When crop plants are tillering (stooling), use 1/2 to 1 pint of 2,4-D Amine per acre and 1 to 1 1/2 pints per acre when fully tillered (stooled) - but before the early boot stage.

Sprays containing 2 to 3 pints per acre may be applied as an emergency weed control measure when seed in heads is past dough stage.

When small grain is underseeded with a legume such as alfalfa or clovers, use 1/4 to 1/2 pint of 2,4-D Amine per acre while the small grain is between tiller and boot stage. The legumes are less likely to be injured if a small grain foliage canopy is allowed to develop before application is made. Apply the lowest gallonage possible at low pressure in order to reduce penetration of the canopy with the spray.

For Spring Wheat and Durum, this product can be used when the crop is in the three leaf stage but before the booting stage.

Consult your local authorities: Fall applications of 2,4-D in crops are not recommended. Do not forage or graze treated grain fields within two weeks after treatment with 2,4-D. Do not feed treated straw to livestock.

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CORN AND SORGHUM - Crop varieties vary in susceptibility to injury. 2,4-D sprays may cause some injury to stalks such as lodging, bending, and brittleness. Plants generally recover from lodging or bending. Stalks may remain brittle 5 to 7 days, during which time they are subject to breakage by high winds and cultivation. Avoid cultivating while this condition prevails. Injury is most likely when crop is growing rapidly.

Spray 1 pint of 2,4-D Amine per acre as soon as majority of weeds are actively growing. Do not apply 2,4-D sprays from tasseling to dough stage. Use extension nozzles to direct sprays away from the leaves of corn and sorghum that are 8 inches or more high.

RICE - To control Curly Indigo, Coffeeweed and other broadleaved weeds in rice, apply 2,4-D Amine at 1 to 2-1/2 pints per acre any time after rice is well tillered but before the joining or boot stage (4 to 8 weeks after emergence; or where flooded, treated between 7 and 9 weeks after seeding, when plants have emerged above water and leaves are standing erect). Rice plants are sensitive to 2,4-D in the early seedling, boot and early heading stages; avoid applications of 2,4-D Amine during these stages of growth. Avoid drift to cotton or other 2,4-D susceptible crops.

SUGAR CANE - Apply 2,4-D Amine at 1 or 2 quarts per acre when cane is 1 to 2 feet tall to control broadleaf weeds.

TO CONTROL WEEDS ON NON-CROPPED AREAS

Fence rows, vacant lots, around buildings

Apply sprays containing 2 to 4 pints of 2,4-D Amine per acre (or 2 to 3 quarts of 2,4-D Amine in 100 gallons of water) for control of most broadleaf weeds. Use higher dosage to control more resistant weeds. Sufficient spray should be used to thoroughly wet all the weed foliage. Spray when weeds are growing actively. Deep rooted perennial weeds such as Bindweed, Canada Thistle, Hoary Cress, and Poison Ivy may require 4 to 6 pints per acre and repeat application may be necessary as new growth appears.

TO CONTROL WEEDS ON PASTURE, GOLF COURSES, PARKS, CEMETERIES, AND LARGE TURF AREAS

For each application apply sprays containing 2 to 3 pints of 2,4-D Amine per acre per site for control of most broadleaf weeds. Use higher rate where perennial broadleaf weeds are the major problems. Spray when seeds are growing actively. Seedling grasses should not be sprayed until root systems are established and sod has been formed. Some injury to clover, creeping bent, carpet grass and St. Augustine grass may occur. Keep dairy animals off treated areas for 7 days. Do not cut grass for hay for 30 days after treatment. Do not slaughter for meat animals for 3 days after treatment. For use in hand sprayers, mix 1-1/2 to 2 teaspoons of 2,4-D Amine per gallon of water. Wet all foliage thoroughly.

NOTES FOR ALL TURF SITES:

The maximum number of broadcast applications per treatment site is 2 per year.

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

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

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

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

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

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