

## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

DEC 05 1991

Judy Oldham  
Helena Chemical Company  
6075 Poplar Avenue  
Suite 500  
Memphis, TN 38119

Dear Ms. Oldham:

Subject: Revised Label Text  
2,4-D Amine  
EPA Registration No. 5905-72  
Your Submission Dated October 17, 1991

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable with the following provisions:

- 1) As stated in the Agency letter dated May 24, 1991, part of the Environmental Hazards section has been changed due to new EPA policy. To comply, change the sentence "Do not apply to water or wetlands (swamps, bogs, marshes and potholes)" to read "Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark." Please review the Agency letter dated May 24, 1991.
- 2) Within the ingredient substatement, change "AOAX method" to read "AOAC method."

We acknowledge the name change of this product and understand the official name to be "2,4-D Amine." Please use this name in all future correspondence with the Agency concerning this product. A stamped copy is enclosed for your records. Please submit five (5) final printed copies for the referenced label, incorporating the above changes.

Sincerely yours,

Joanne I. Miller  
Product Manager (23)  
Fungicide-Herbicide Branch  
Registration Division (H7505C)

Enclosure

CONCURRENCES							
SYMBOL	H7505C						
SURNAME	D. KENNY						
DATE	12/5/91						

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## 2,4-D AMINE

ACTIVE INGREDIENT:	BY WT.
*Dimethylamine salt of 2,4-Dichlorophenoxyacetic acid .....	46.6%
INERT INGREDIENT: .....	<u>53.4%</u>
TOTAL .....	100.0%

\*2,4-Dichlorophenoxyacetic acid equivalent 38.7%-3.76 lbs. per gallon.  
Isomer specific by AOAX method 6.D01-5.

**KEEP OUT OF REACH OF CHILDREN**

### CAUTION - CAUCION

**PRECAUCION AL USUARIO:** Si usted no lee ingles, no use este producto hasta que le etiqueta haya sido explicada ampliamente.

**SEE INSIDE BOOKLET FOR ADDITIONAL PRECAUTIONARY STATEMENTS.**

**ACCEPTED  
with COMMENTS  
in EPA Letter Dated:**

**DEC 05 1991**

**EPA REG. NO. 5905-72  
EPA EST NO.**

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

**NET CONTENTS:**

**MANUFACTURED BY  
HELENA CHEMICAL COMPANY  
MEMPHIS, TN 38119**

## PRECAUTIONARY STATEMENTS

### CAUTION

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Harmful if swallowed. Avoid breathing spray mist. Avoid contact with skin, eyes and clothing. May produce skin sensitization reaction in certain individuals. In case of contact, immediately flush eyes or skin with plenty of water. Get medical attention if irritation persists. Do not apply this product in such a manner as to directly or through drift expose workers or other persons. The area being treated must be vacated by unprotected persons.

#### STATEMENT OF PRACTICAL TREATMENT

**IF SWALLOWED:** Call a physician or poison control center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.

**IF ON SKIN:** Wash with plenty of soap and water. Get medical attention if irritation persists.

**IF IN EYES:** Flush with plenty of water. Get medical attention if irritation persists.

#### ENVIRONMENTAL HAZARDS

This product is toxic to aquatic invertebrates. Drift or runoff may adversely affect aquatic invertebrates and nontarget plants. Do not apply directly to water or wetlands (swamps, bogs, marshes, and potholes). 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.

#### PROTECTIVE CLOTHING

When handling this product, wear chemical resistant gloves.

#### 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.

### RE-ENTRY STATEMENT

Do not enter treated area without protective clothing until sprays have dried (or, if appropriate, dusts have settled).

Because certain states may require more restrictive reentry intervals for various crops treated with this product, consult your State Department of Agriculture for further information.

Do not apply this product in such a manner as to directly or through drift expose workers or other persons. The area treated must be vacated by unprotected persons.

Written or oral warnings must be given to workers who are expected to be in a treated area or in an area about to be treated with this product. (Indicate specific oral warnings which inform workers of areas or fields that may not be entered without specific protective clothing, period of time field must be vacated, and appropriate actions to take in case of accidental exposure). When oral warnings are given, warnings shall be given in a language customarily understood by workers. Oral warnings must be given if there is reason to believe that written warnings cannot be understood by workers. Written warnings must include the following information:

#### CAUTION

Area treated with 2,4-D Amine on (date of application).

Do not enter without appropriate protective clothing until sprays have dried. Refer to Statement of Practical Treatment section of this label in case of accidental exposure.

### 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 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 check 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 3 to 10 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 broadleaved 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.

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.

**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 seedling, 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 broadleaved 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 broadleaved 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

Apply sprays containing 2 to 3 pints of 2,4-D Amine per acre for control of most broadleaved weeds. Use higher rate where perennial broadleaved 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.

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

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, 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 purpose 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 is a claim for damage and in no event shall damages or any other recovery of any kind against the Company exceed the price of the product which causes the alleged loss, damage, injury, or other claim. 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.