

PM 23

ED STATES ENVIRONMENTAL PROTE ON AGENCY

62499-4

DOT # 1000

Mr. Richard A. Zimmerman
Valent U.S.A. Corporation
1335 N. Calif. Blvd.
Suite 600
Walnut Creek, CA. 94596-6025

BEST AVAILABLE COPY

Dear Mr. Zimmerman:

Subject: Diquat Water Ween Killer
EPA Registration No 62499-4
Re: Label Amendment
Your Letter dated September 10, 1991

Please refer to our letter dated September 9, 1991 for the following changes made to your label. The labeling referred to above submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended is acceptable, provided the proposed changes are made. Also add to your label at the end of copy C, "For soybeans do not enter treated areas without appropriate protective clothing within 24 hours after treatment. Please submit (5) copies of your final printed labels incorporating this amendment. A stamped copy is enclosed for your record.

Sincerely

Joanne L. Miller
Product Manager (23)
Fungicide-Herbicide branch
Registration Division (H7505C)

Enclosure

CONCURRENCES

SYMBOL	H7505C							
SURNAME	Miller							
DATE	10/1/91							

EPA Form 1320-1 (12-78)

OFFICIAL FILE COPY

GPO : 1985-347-253

ORTHO Diquat Water Weed Killer
Submitted: Sept. 10, 1991
EPA Reg. No. 63499-4

Copy A:

Wear a protective suit, chemical resistant gloves and chemical resistant footwear when handling the product (mixing, loading, application [except aquatic subsurface applications], flagging, or disposal). A chemical resistant apron and face shield, or goggles, must also be worn when handling the concentrate. A protective suit consists of one or two pieces, such as coveralls, worn over work clothing to cover the entire body except head, hands and feet.

Copy B:

For terrestrial uses, do not allow entry of agricultural or maintenance workers into treated areas, or allow contact with treated vegetation wet with spray, dew or rain, without appropriate protective clothing until spray has dried. Treated soybean fields may not be entered within 24 hours of treatment unless protective clothing is worn.

Copy C:

Do not enter treated areas without appropriate protective clothing until spray has dried (or other reentry interval if your State has a more restrictive interval for this product).

*For Soybean
Do not enter treated areas without appropriate protective clothing within 24 hours after treatment.*

ACCEPTED
with COMMENTS
in EPA Letter Dated:

OCT 04 1991

Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, this pesticide
registered under EPA Reg. No.

63499-4

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Helping the World Grow Better®

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Chevron



ORTHO

Diquat

Water Weed Killer

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS & DOMESTIC ANIMALS WARNING

May be fatal if swallowed, inhaled or absorbed through skin. Causes substantial but temporary eye injury. Causes skin irritation. Contact with irritated skin, or a cut, or repeated contact with intact skin may result in poisoning. Do not get in eyes or on skin or clothing. Do not breathe spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco. Remove contaminated clothing and wash before reuse. Wear face shield or goggles, protective clothing, rubber gloves, rubber apron, and shoe coverings impermeable to diquat when handling concentrate. When spraying, wear waterproof footwear and clothing, except when using aquatic subsurface application methods. Do not feed forage from treated crops to livestock. Keep livestock and pets out of treated fields and crop areas.

STATEMENT OF PRACTICAL TREATMENT

IF SWALLOWED: IMMEDIATELY give water or milk to drink and induce vomiting by inserting finger in throat. Take person and product container to the nearest hospital or physician fast. **PROMPT TREATMENT IS ESSENTIAL TO COUNTERACT POISONING** and should be initiated before signs and symptoms of injury appear.

Note to Physicians: call the Chevron Poison Information Center (415) 233-3737 at any hour to obtain toxicology information and a diquat analysis. To be effective, treatment for diquat poisoning must begin IMMEDIATELY. Treatment consists of binding diquat in the gut with suspensions of activated charcoal or bentonite clay, administration of cathartics to enhance elimination, and removal of diquat from the blood by charcoal hemoperfusion or continuous hemodialysis.

SKIN CONTACT: IMMEDIATELY wash with soap and water. Remove and wash all contaminated clothing with soap and hot water before reuse. See a doctor if diquat contacts a skin cut, abrasion or area of irritation.

EYE CONTACT: IMMEDIATELY wash eyes with water for at least 15 minutes and get medical attention.

INHALATION: IMMEDIATELY get away from spray mist. Stop and check spray procedure. See a doctor if irritation persists.

WORKER SAFETY RULES

Keep all unprotected persons and children away from treated area or where there may be drift. Do not rub eyes or mouth with hands. If you feel sick in any way, STOP work and get help right away (See Practical Treatment Section).

ENVIRONMENTAL HAZARDS (AQUATIC AND NON-AQUATIC USES)

This pesticide is toxic to wildlife. Do not apply directly to water except as specified on this label. For Non-Aquatic Use do not apply directly to water or wetlands (swamps, bogs, marshes and pot-holes). Do not contaminate water when disposing of equipment washwaters. Do not use treated water for animal consumption, spraying or irrigation within 14 days after treatment. Do not use treated water for drinking purposes until 14 days after treatment. Treatment of dense wood areas can result in oxygen loss from decomposition of dead weeds. This loss can cause fish suffocation. Therefore treat only 1/3 to 1/2 of the dense wood areas at a time and wait 14 days between treatments. **DO NOT APPLY TO MUDDY WATER.** Avoid creating muddy water during application. Do not apply under conditions of high wind and wave action. Do not apply where plants are covered with mud deposits. Consult your State Fish and Game Agencies before applying this product to public waters.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

READ ENTIRE LABEL. USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND DIRECTIONS, AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.

Active Ingredient
Diquat dibromide [6, 7-dihydrodipyrido (1,2-a:2',1'-c)
pyrazinedium dibromide] 35.3%
Inert Ingredients 64.7%

Contains 2 lbs. diquat cation per gal. or 3.73 lbs. salt per gal.

Not For Homeowner Use.

KEEP OUT OF REACH OF CHILDREN

WARNING - AVISO

SEE SIDE PANEL FOR ADDITIONAL
PRECAUTIONARY STATEMENTS

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

DO NOT USE THIS PRODUCT FOR REFORMULATION.

Manufactured for

Chevron Chemical Company 1989

Agricultural Chemicals Division

San Ramon CA 94583 0947

R Form 7843 B2

Product 1000 2

EPA Reg. No. 62499-4 AA

Made in U.S.A.

EPA Est. 235-M91

NET CONTENTS 55 GALLONS

REENTRY STATEMENT

Keep all unprotected persons out of operating areas or vicinity where there may be drift.
For terrestrial uses do not enter or allow entry of agricultural or maintenance personnel into treated areas within 24 hours after treatment unless protective clothing is worn. When contacting sprayed vegetation wet with spray dew or rain, wear waterproof footwear and clothing. For aquatic uses do not enter treated areas while treatments are in progress.

Do not allow swimming in treated areas within 24 hours after treatment. Certain states may require more restrictive reentry intervals; consult your State Department of Agriculture for further information.

Written or oral warnings regarding use of protective clothing and accidental exposure must be given to workers who are expected to be in treated areas or in areas about to be treated. Oral warnings must be given if there is reason to believe that written warnings cannot be understood by workers.

When oral warnings are given, warnings shall be given in a language customarily understood by workers and must indicate the specific period of time that treated areas may not be entered without protective clothing. Oral warnings must also include appropriate first aid instructions in case of accidental exposure. These instructions are given in the STATEMENT OF PRACTICAL TREATMENT at the beginning of this label. Written warnings must include the following information: **WARNING:** Area treated with ORTHO Diquat Water Weed Killer on (date of application). Do not enter treated areas without appropriate protective clothing within 24 hours after treatment (or other reentry interval if your State has a more restrictive interval for this product). If accidental exposure occurs, follow the instructions below. (Written warnings must include the STATEMENT OF PRACTICAL TREATMENT given at the beginning of this label).

DIRECTIONS

ORTHO Diquat Water Weed Killer is a non-volatile herbicidal chemical for use in the desiccation of certain plants in preharvest application in order to facilitate both mechanical and hand harvesting. It is also recommended for use as a general weed killer and as an aquatic weed killer. Absorption and herbicidal action is usually quite rapid with effects visible in a few days. Do not use on lawns. Rinse all spray equipment thoroughly with water after use. **AVOID SPRAY DRIFT** to crops which may be damaged during application. Use ORTHO X 77 Spreader (non-ionic). ORTHO X 77 Spreader is recommended, but a similar and suitable labeled non-ionic surfactant may be substituted. Do not use dirty or muddy water for Diquat dilution as Diquat will be inactivated.

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

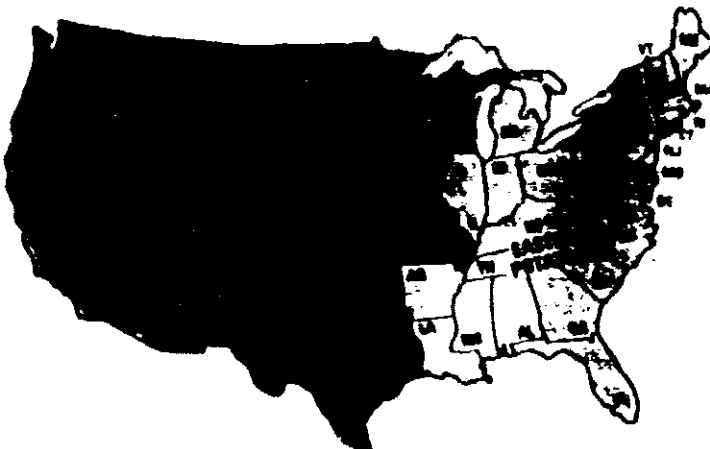
NON-CROP OR NON-PLANTED AREAS: Rights-of-Way, including Railroads, Highways, Roads, Dividers and Medians, Pipelines, Public Utility Lines, including Pumping Stations, Transformer Stations and Substations, Around Electric Utilities, Commercial Buildings, Manufacturing Plants, Storage Yards, Rail Yards, Fence Lines and Pathways, Edges and Non-Flooded Portions of Ponds, Lakes and Ditches, Also Around Ornamental Gardens, Walkways, Patios, Beneath Greenhouse Benches, Along Driveways and Around Golf Courses. To Kill Undesirable Above Ground Grass and Broadleaf Weed Growth—1 to 2 qts. plus 8 to 16 oz ORTHO X 77 Spreader (non-ionic) per 100 gals. water (4 tsp. ORTHO Diquat Water Weed Killer plus 1/2 tsp. ORTHO X 77 Spreader (non-ionic) to 1 gal. water). Apply for full coverage and thorough weed contact. Apply to young weeds since control decreases as weeds mature. Retreatment may be necessary to control grasses and established weeds. Avoid spray contact with foliage of food crops or ornamental plants.

ALFALFA, CLOVER, GRAIN SORGHUM, SOYBEANS (Seed Crops Only): 1 1/2 to 2 pts. per acre. On thin stands of Seed Alfalfa—1 pt. per acre.

Preharvest Desiccation of Foliage of Listed Crops—Use specified dosage in 15 to 30 gals. water by ground spray application and 5 to 10 gals. water by air. On Alfalfa and clover desiccation is complete in 1 to 10 days. On Grain Sorghum apply within 1 to 2 weeks of harvest and when seeds have not more than 30% moisture. On Soybeans, apply 1 week before harvest. Do not graze or feed treated forage to livestock. Do not use seed from treated plants for food, feed or oil purposes.

POTATOES (Eastern): For Desiccation of Potato Plants to Facilitate Harvest—Apply 1 pt. per acre in 20 to 100 gals. of water with ground equipment or in 5 to 10 gals. with aerial equipment. Use higher volumes (10 to 15 gals.) for thorough coverage of heavy vine growth or when heavy vine-type varieties are used. Make a second application if necessary to obtain additional desiccation where vine growth is dense. Allow a minimum of 5 days between applications. Do not apply to drought stressed potatoes. Applications should be made at least 7 days before harvest. Add ORTHO X 77 Spreader (non-ionic) at 8 to 16 fl. oz. per 100 gals. of spray mix.

POTATOES (Western): For Desiccation of Potato Plants to Facilitate Harvest—Apply 1 pt. per acre in 20 to 100 gals. of water with ground equipment or in 5 to 10 gals. with aerial equipment. Use sufficient water for thorough coverage. Make a second application if necessary to obtain additional desiccation where vine growth is dense. Allow a minimum of 5 days between applications. Do not apply to drought stressed potatoes. Applications should be made at least 7 days before harvest. Add ORTHO X 77 Spreader (non-ionic) at 8 to 16 fl. oz. per 100 gals. of spray mix.



AQUATIC USE DIRECTIONS

For application only to ponds, lakes, and drainage ditches where there is little or no outflow of water and which are totally under the control of the product's user. Do not use the treated water for animal consumption, spraying, irrigation, or domestic purposes for 14 days after treatment.

WEED SPECIES

SUBMERSED WEEDS (Infesting Still Ponds, Lakes, Ditches or Portions Thereof)

	GALS./SURFACE ACRE
Bladderwort (<i>Utricularia</i> spp.)	1/2
Coontail (<i>Ceratophyllum demersum</i>)	2
Elodea (<i>Elodea</i> spp.)	2
Naiad (<i>Najas</i> spp.)	1
Pondweeds (<i>Potamogeton</i> spp.)	7
*Except <i>P. robbinsii</i> , also Richardson Pondweed (<i>P. richardsonii</i>) in Minnesota.	
Watermilfoil (<i>Myriophyllum</i> spp.)	1/2

APPLICATION: In early season where submersed weed growth has not reached the surface apply ORTHO Diquat Water Weed Killer by pouring directly from the container into the water while moving slowly over the water surface in a boat. Distribute evenly over infested areas in strips 40 feet apart. In mixed weed population, use the high rate of application as indicated by weeds present.

In late season or where submersed weed growth has reached the water surface throughout the area to be treated apply ORTHO Diquat Water Weed Killer by pouring as above or injecting a diluted (10-20 to 1) solution below the water surface in strips no more than 20 feet apart. Use the high rate of application as indicated by the weeds present. Where algae are present along with the submersed weeds, pre-treatment with Copper Sulphate at recommended rates is advised for best results with ORTHO Diquat Water Weed Killer.

FLOATING WEEDS

	1/2 1 1/2 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Pennywort (<i>Hydrocotyle umbellata</i>)	1/2
Salvinia (<i>Salvinia rotundifolia</i>)	1/2
Waterhyacinth (<i>Eichhornia crassipes</i>)	1/2
Waterlettuce (<i>Pistia stratiotes</i>)	1/2

APPLICATION: 150 to 200 gals. of water plus 1 pt. ORTHO X 77 Spreader (non-ionic) should be applied as an overall spray for control of the above weeds. For aerial application to Waterlettuce, use 7.5 gals. of water per acre plus 1 pt. ORTHO X 77 Spreader (non-ionic) per 100 gals. spray solution. The high rates of ORTHO Diquat Water Weed Killer should be used for late season application.

APPLICATION: For control, apply ORTHO Diquat Water Weed Killer as an overall spray in 50 to 150 gals. of water plus 1 pt. ORTHO X 77 Spreader (non-ionic) per acre. Care should be taken to thoroughly cover all plants on water and on damp marginal areas. Reinfestation of duckweed occurs readily from untreated areas. Retreatment with ORTHO Diquat Water Weed Killer may be necessary to obtain season-long control.

WEED SPECIES

MARGINAL WEEDS (Infesting the Edges and Other Portions of Ponds, Lakes and Ditches)

	GALS./100 GALS. WATER
Cattails (<i>Typha</i> spp.)	10

APPLICATION: For top kill, apply ORTHO Diquat Water Weed Killer in 100 gals. water plus 1 pt. ORTHO X-77 Spreader (non-ionic) for full coverage and thorough weed contact. Repeat treatment as necessary to control regrowth. For best results apply before flowering.

ALGAE: ORTHO Diquat Water Weed Killer will control certain filamentous algae, *Spirogyra* spp. and *Pithophora* spp.: Apply 0.5 to 1.5 p.p.m. ORTHO Diquat Water Weed Killer for control. Application methods as for submersed weeds.

Formula For Parts Per Million (PPM) Recommendations

Gals. to use = p.p.m. recommended x acreage of water x average depth of water x 1.4. For example— $\frac{1}{2}$ p.p.m. recommendations; two acre pond; 4 feet average depth; $\frac{1}{2} \times 2 \times 4 \times 1.4 = 5.6$ gals. required.

Do not apply under conditions involving possible drift to food, forage or other plantings that might be damaged or the crops thereof rendered unfit for sale, use or consumption.

STORAGE AND DISPOSAL

PROHIBITIONS

Do not contaminate water, food or feed by storage, disposal or cleaning of equipment. Open dumping is prohibited.

STORAGE

Keep pesticide in original container. Do not contaminate feed, food stuffs or drinking water. Do not store or transport near feed or food. Store at temperatures above 32° F.

For help with any spill, leak, fire or exposure involving this material call day or night (415) 233 3737.

PESTICIDE DISPOSAL

This product is acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. 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

Triple rinse (or equivalent). Do not reuse container. Incinerate, burn, or puncture and dispose of in a sanitary landfill, or dispose of by other procedures allowed by State and local authorities. If burned, stay out of smoke.

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CONDITIONS OF SALE: 1. Chevron Chemical Company (Chevron) warrants that this material conforms to the chemical description on the label and is reasonably fit for use as directed hereon. Chevron neither makes, nor authorizes any agent or representative to make, any other warranty of FITNESS or of MERCHANTABILITY, guarantee or representation, express or implied, concerning this material.

2. Critical and unforeseeable factors beyond Chevron's control prevent it from eliminating all risks in connection with the use of chemicals. Such risks include, but are not limited to, damage to plants and crops to which the material is applied, lack of complete control, and damage caused by drift to other plants or crops. Such risks occur even though the product is reasonably fit for the uses stated hereon and even though label directions are followed. Buyer and user acknowledge and assume all risks and liability (except those assumed by Chevron under 1 above) resulting from handling, storage, and use of this material.