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239-1663

ORTHO Diquat Water Weed Killer
EPA Reg. No. 239-1663
Submitted: April 21, 1987

1 of 4

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ok. Jerry
on 5/1/87

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May be fatal if swallowed or absorbed through skin. Causes eye and skin irritation on contact with irritated skin, or a cut, or repeated contact with intact skin may result in poisoning. Do not get on 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, new abrasion or area of irritation.

EYE CONTACT: IMMEDIATELY flush eyes with water for at least 15 minutes. See a doctor if irritation persists. *Get medical attention*

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

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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 potholes). Do not contaminate water by cleaning of equipment or disposal of wastes.

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Helping the World Grow Better®

**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS & DOMESTIC ANIMALS**

WARNING

May be fatal if swallowed, inhaled, or absorbed through skin. Skin contact will cause severe irritation. Do not get material on skin, eyes or clothing. Contact with skin may increase danger of absorption. Symptoms of injury may be delayed. Wear face shield, rubber gloves and rubber apron when handling concentrate. When spraying, wear waterproof protector and clothing, except when using specific surface application methods. Do not breathe spray mist. Do not feed crops from treated crops to livestock. Keep livestock out of treated fields and crop areas.

STATEMENT OF PRACTICAL TREATMENT

IF SWALLOWED

IMMEDIATELY induce vomiting by inserting finger in throat. Administer fluids and induce further vomiting. Get to a hospital or physician fast. PROMPT TREATMENT IS ESSENTIAL TO COUNTERACT POISONING and must 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 and medical management consultation, a supply of bentonite clay, and digest analysis. Symptoms following ingestion may be delayed up to 3 days. To be effective, treatment for digest poisoning must begin IMMEDIATELY. Treatment consists of binding digest in the gut with suspensions of bentonite clay or charcoal and removal of digest from the blood by prolonged 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. Prolonged contact will cause severe irritation. Contact with irritated skin, or a cut, or repeated contact with intact skin may result in poisoning.

EYE CONTACT

IMMEDIATELY wash eyes with water for at least 15 minutes and get medical attention. Contact may cause eye injury.

INHALATION

IMMEDIATELY get away from spray mist. Exposure may cause irritation, nose bleeds and may lead to poisoning. Stop and check spray procedures.

ENVIRONMENTAL HAZARDS

Do not apply directly to water except as specified on this label. 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 vegetation result in oxygen loss from decomposition of dead woods. This loss can cause fish suffocation. Therefore, treat only 1/2 to 1/3 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.

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ORTHO

**Diquat
Water Weed Killer**

TO PREVENT ACCIDENTAL POISONING, NEVER PUT INTO FOOD, DRINK OR OTHER CONTAINERS AND USE STRICTLY IN ACCORDANCE WITH ENTIRE LABEL.

Active Ingredient	By Wt.
Diquat dibromide [6, 7-dihydrodipyrid (1,2-a2,1'-c) pyrazinedium dibromide]	33.3%
Inert Ingredients	64.7%
Contains 2 lbs. Diquat cotton per gal. as 3.73 lbs. salt per gal.	

KEEP OUT OF REACH OF CHILDREN

WARNING - AVISO

FOR AGRICULTURAL USE ONLY OR FOR SALE TO, USE, AND STORAGE BY SERVICE PERSONS ONLY. DO NOT STORE IN AREAS ACCESSIBLE TO CHILDREN.

SEE SIDE PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS

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

Manufactured for
Chevron Chemical Company © 1983

Ortho Agricultural Chemicals Division
San Francisco CA 94123-7144

Product 1000-2 Made in U.S.A.
R Form 7843-5

EPA Est. 239-MQ-1

EPA Reg. No. 239-1663-AA

NET CONTENTS 55 GALLONS

REENTRY STATEMENT

Keep all unprotected persons out of operating areas or vicinity when they may be drift.

For terrestrial uses, do not enter treated areas without protective clothing until sprays have dried. 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.

Some 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 local dental 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 periods 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 until your State Fish and Game Agency 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.)

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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, stubs or drinking water. Do not store or transport near food or feed. 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 residue 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 of 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.

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.

ORTHO Diquat Water Weed Killer is a non-toxic herbicidal chemical for use in the desiccation of certain plants in preharvest application order to facilitate both mechanical and hand harvesting. It is also recommended for use as a general weed killer and as a pre-plant 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 SPRAYING TO CROPS WHICH MAY BE DAMAGED.

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NOTE: No changes to this text

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.

DIRECTIONS

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 Parkways. 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.

VELCH (Seed Crops Only): 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, Clover and Velch, desiccation is complete in 3 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 treated areas or feed treated forage to livestock. Do not use seed from treated plants for food, feed or oil purposes.

POTATOES: For Desiccation of Potato Plants to Facilitate Harvest: Apply 1 pt. per acre in 50 to 100 gals. of water with ground equipment or in 5 to 10 gals. with aerial equipment. Make a second application if necessary to obtain adequate desiccation where vine growth is dense. Allow a minimum of 5 days between applications. Do not apply to drought stressed potatoes. Application 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.

SUGARCANE (HAWAII ONLY): To Prevent Flowering (tassel) of Cane—1 pt. ORTHO Diquat Water Weed Killer plus 1 oz. ORTHO X-77 Spreader (non-ionic) per acre. Apply during flower initiation period, first 3 weeks of September. Apply by aircraft in 7 to 10 gals. water per acre. Some leaf burn will occur following this treatment. Do not apply within 5 months of harvest.

SUGARCANE (HAWAII ONLY): For Control of emerged annual weeds and suppression of sedges, six inches or less in height, using a directed spray—1 to 2 qts. in 50 to 100 gals. water per acre. Add 8 oz. ORTHO X-77 Spreader (non-ionic) per 100 gals. water. Repeat as necessary. Use power sprayer with boom, or hand sprayer with wand, directed as a coarse spray to thoroughly wet weeds in fields, roadways and borders. Avoid contacting sugarcane foliage. Spray drift on sugarcane leaves will cause injury. Use lower rate for control of weed seedlings and suppression of sedges. Use higher rate when weeds are 3 to 6 inches tall. Do not apply after crop closes in.

SUGARCANE (FLORIDA AND PUERTO RICO ONLY): To Prevent Flowering (tassel) of Cane—1 pt. ORTHO Diquat Water Weed Killer plus 1 oz. ORTHO X-77 Spreader (non-ionic) per acre. Apply during flower initiation period. Apply by aircraft in 3 to 10 gals. of water per acre. Some leaf burn will occur following this treatment. Do not apply within 3 months of harvest.

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	GALS./SURFACE ACRE
SUBMERSED WEEDS (Infesting Still Ponds, Lakes, Ditches or Portions Thereof):	
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.)†	2

†Except *P. robbinsii*; also Richardson Pondweed (*P. richardsonii*) in Minnesota.
Watermilfoil (*Myriophyllum* 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	
Pennywort (<i>Hydrocotyle umbellata</i>)	1/2-3/4
Salvinia (<i>Salvinia rotundifolia</i>)	1/2-3/4
Waterhyacinth (<i>Eichhornia crassipes</i>)	1/2-3/4
Waterlettuce (<i>Pistia stratiotes</i>)	1/2-3/4

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.

Duckweed (<i>Lemna</i> spp.)	1
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APPLICATION: For control, apply ORTHO Diquat Water Weed Killer as an overall spr. in 50 to 150 gals. of water 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 **GALS./100 GALS. WATER**
MARGINAL WEEDS (Infesting the Edges and Other Portions of Ponds, Lakes and Ditches):

Cattails (<i>Typha</i> spp.)	1.0
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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. w. 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—1/2 p.p.m. recommendations; two acre pond; 4 feet average depth; 1/2 x 2 x 4 x 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.

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.