

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

25 MAR 1992

Ms. Jackie Dimaggio
Valent U.S.A. Corporation
1335 N. Calif. Blvd.
Suite 600
Walnut Creek CA 94596-8025

Dear Ms. Dimaggio:

Subject: Diquet Water Weed Killer
EPA Registration No. 59629-65
Re: Label Amendment
Your Submission Dated February 24 1992

The labeling referred to above submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act as amended is acceptable. Please submit five (5) copies of your final printed labels incorporating this amendment. A stamped copy of labeling is enclosed for your records.

Sincerely

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

BEST AVAILABLE COPY

Enclosure

CONCURRENCES

SYMBOL	14-7505C						
SURNAME	Miller						
DATE	3/23/92						

Diquat Water Weed Killer
59639-65
Feb. 24, 1992

COPY A

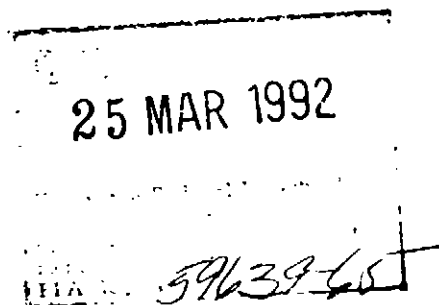
,at a rate not to exceed 100 gals. per acre,

COPY B

Apply 1 to 2 gals. per surface acre. For water less than 2 feet in average depth, use a maximum of 1 gal. VALENT Diquat Water Weed Killer per surface acre.

COPY C

For waters less than 2 feet in average depth, use a maximum of 1 gal. VALENT Diquat Water Weed Killer per surface acre.



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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 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. 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 1-800-457-2022 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, 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. 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 weed areas can result in oxygen loss from decomposition of dead weeds. This loss can cause fish suffocation. Therefore, treat only $\frac{1}{4}$ to $\frac{1}{2}$ of the dense weed 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.

REENTRY STATEMENT

Keep all unprotected persons out of operating areas or vicinity where there may be drift.

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.

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 cus-



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-dihydrodipyrido (1,2-a:2',1'-c) pyrazinedium dibromide]	35.3%
Inert Ingredients	64.7%
Contains 2 lbs. diquat cation per gal. as 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
VALENT U.S.A. Corporation © 1992
Walnut Creek CA 94596 8025
R-375 A
Made in U.S.A.
EPA Reg. No. 59639 65 EPA Est. 5905 GA 1

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tomarily 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 VALENT Diquat Water Weed Killer on (date of application). 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). Treated soybean fields may not be entered within 24 hours of treatment unless protective clothing is worn. 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

VALENT 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 VALENT X-77 Spreader (non-ionic). VALENT 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.

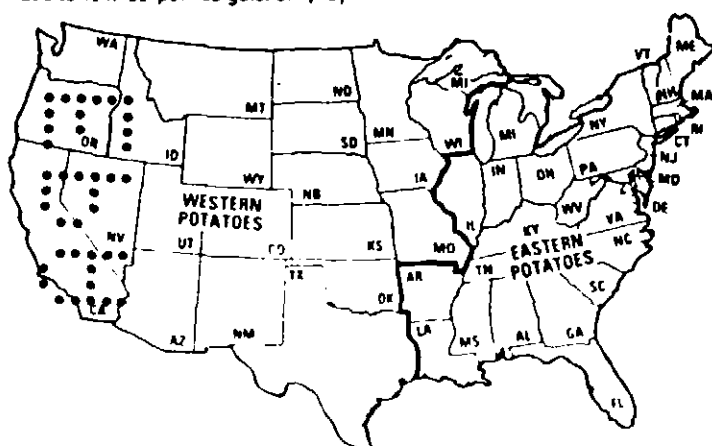
Do not apply this product through any type of irrigation system.

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 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. VALENT X-77 Spreader (non-ionic) per 100 gals. water (4 tsp. VALENT Diquat Water Weed Killer plus ½ tsp. VALENT 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): ½ 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 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 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 (40 to 100 gals.) for thorough coverage of heavy vine growth or when hollow cone type nozzles 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 VALENT 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 appli-

cations. Do not apply to drought stressed potatoes. Applications should be made at least 7 days before harvest. Add VALENT 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):

Bladderwort (Utricularia spp.)	1-2
Coontail (Ceratophyllum demersum)	2
Elodea (Elodea spp.)	2
Naiad (Najas spp.)	1
Pondweeds (Potamogeton 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 VALENT 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 VALENT 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 VALENT Diquat Water Weed Killer.

FLOATING WEEDS

Pennywort (Hydrocotyle umbellata)	½-¾
Salvinia (Salvinia rotundifolia)	½-¾
Waterhyacinth (Eichhornia crassipes)	¼-¾
Waterlettuce (Pistia stratiotes)	¼-¾

APPLICATION: 150 to 200 gals. of water plus 1 pt. VALENT 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. VALENT X-77 Spreader (non-ionic) per 100 gals. spray solution. The high rates of VALENT Diquat Water Weed Killer should be used for late season application.

Duckweed (Lemna spp.) 1

APPLICATION: For control, apply VALENT Diquat Water Weed Killer as an overall spray in 50 to 150 gals. of water plus 1 pt. VALENT 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 VALENT 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):

Cattails (Typha spp.)	1.0
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APPLICATION: For top kill, apply VALENT Diquat Water Weed Killer in 100 gals. water plus 1 pt. VALENT 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: VALENT Diquat Water Weed Killer will control certain filamentous algae, Spirogyra spp. and Pithophora spp.: Apply 0.5 to 1.5 p.p.m. VALENT 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 — ½ p.p.m. recommendations; two acre pond; 4 feet average depth; ½ 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.

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PROHIBITED
Do not use on equipment.

STORAGE
Keep pesticides in original containers. Do not use for drinking water. For help, call 1-800-4-A-PESTICIDE.

PESTICIDE
This product is a pesticide. It may be disposed of in a hazardous waste landfill or by incineration.

CONTAINER
Triple rinse punctured containers.

IMPORTANT LIMITED WARRANTY
conforms to use under directions. represents or warrants that the product is as described. Buyer assumes responsibility for proper use. Precautions should be taken to avoid exposure.

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, foodstuffs 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 1-800-457-2022, or Chemtrec 1-800-424-9300.

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 local authorities. If burned, stay out of smoke.

IMPORTANT INFORMATION. READ BEFORE USING PRODUCT.

LIMITED WARRANTY: 1. Valent U.S.A. Corporation warrants that this product conforms to the chemical description on the label and is reasonably fit for use under average conditions when used strictly in accordance with the directions on the labeling. Valent does not make nor authorizes any agent or representative to make, any other warranty, guarantee or representation, express or implied, concerning this product. Specifically, NO IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE IS MADE.

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

3. Precautions stated on the labeling should be followed to avoid hazardous exposure to the product.

rought stressed potatoes. Applications should be made before harvest. Add VALENT X-77 Spreader (non-ionic) to spray mix.

Subsurface, lakes, and drainage ditches where there is little or no water which are totally under the control of the product's action. Do not use for animal consumption, spraying, irrigation for 14 days after treatment.

GALS./SURFACE ACRE

Infesting Still Ponds, Lakes, Ditches or Portways

1 spp.)	1-2
emersum)	2
	2
	1
1 spp.)†	2
Richardson Pondweed (P. richardsonii) in Minnesota	
n spp.)	1-2
Season where submersed weed growth has not	
VALENT Diquat Water Weed Killer by pouring di-	
into the water while moving slowly over the water	
to evenly over infested areas in strips 40 feet apart.	
1, use the high rate of application as indicated by	

Submersed weed growth has reached the water surface to be treated apply VALENT Diquat Water Weed Killer or injecting a diluted (10-20 to 1) solution below the more than 20 feet apart. Use the high rate of application where weeds are present. Where algae are present along the edges, pre-treatment with Copper Sulphate at recommended rates for best results with VALENT Diquat Water Weed Killer.

mbellata)	1/2-3/4
olia)	1/2-3/4
crassipes)	1/2-3/4
otes)	1/2-3/4
gals. of water plus 1 pt. VALENT X-77 Spreader (non-ionic)	
an overall spray for control of the above weeds.	
Water lettuce, use 7.5 gals. of water per acre plus 1	
(non-ionic) per 100 gals. spray solution. The high	
Water Weed Killer should be used for late season	

1. If, apply VALENT Diquat Water Weed Killer as an overall spray plus 1 pt. VALENT X-77 Spreader (non-ionic) to thoroughly cover all plants on water surface. Reinfestation of duckweed occurs readily from seed with VALENT Diquat Water Weed Killer may be used for long control.

GALS./100 GALS. WATER

Along the Edges and Other Portions of Ponds, Lakes

1.0. Apply VALENT Diquat Water Weed Killer in 100 gals. of water plus 1 pt. VALENT X-77 Spreader (non-ionic) for full coverage and repeat treatment as necessary to control regrowth before flowering.

VALENT Water Weed Killer will control certain filamentous algae (Pithophora spp.). Apply 0.5 to 1.5 p.p.m. VALENT for control. Application methods as for submersed weeds.

Concentration (PPM) Recommendations

Recommended x acreage of water x average depth of water = 1/2 p.p.m. recommendations; two acre pond; 4 feet deep = 5.6 gals. required.

Precautions involving possible drift to food, forage or other crops should be taken or the crops thereof rendered unfit for sale.

10% BLK



POSITION ONLY
(OVERLAYS FOR MAP)

30% BLACK



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