

PM 23 10182-353  
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

FEB 10 1995

Drew Davidson  
Zeneca Ag Products  
1800 Concord Pike  
Wilmington, DE 19897

Dear Mr. Davidson:

Subject: Revised Labeling - Add Use on Non-Bearing Grapes  
Diquat Herbicide  
EPA Registration No. 10182-353  
Your Submission Dated August 15, 1994

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) Revise the restriction "Do not apply to grapes to be harvested in the same year" to read "Do not harvest grapes for at least 12 months after application."
- 2) As per your telephone conversation with Dan Kenny on February 9, 1995, the statement "Tank mixtures with other products (such as GOAL) may improve overall weed desiccation to facilitate planting" is deleted from the directions for use for non-bearing grapes.
- 3) Add coveralls to the list of personal protective equipment (PPE) for Non-WPS Uses. At your option, the requirement of long-sleeved shirt and long pants may be revised to short-sleeved shirt and short pants.
- 4) Add a note to the list of PPE for applicators of aquatic subsurface applications to state that mixers and loaders for this application method must still wear the PPE as described in the above section for "Non-WPS Uses".
- 5) Reinstate the aquatic reentry restriction "Do not allow swimming in treated areas within 24 hours after treatment" to the Non-Agricultural Use Requirements box. Although we acknowledge that the statement does appear elsewhere in the labeling, this prohibition represents an exposure issue and therefore its presence as a reentry restriction in the proper location is necessary.

DK: 305-7546: FHB/PM 2-3			CONCURRENCES				
SYMBOL	750.5C						
SURNAME	D. KENNY						
DATE	2/9/95						

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

A stamped copy is enclosed for your records. Please submit one (1) final printed copy for the referenced label, incorporating the above changes, before releasing the product for shipment.

Sincerely yours,

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

Enclosure

CONCURRENCES							
SYMBOL							
SURNAME							
DATE							

**Diquat Herbicide**

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

**DO NOT USE THIS PRODUCT FOR REFORMULATION**

**ACTIVE INGREDIENT:**

Diquat dibromide [6,7-dihydrodipyrido (1,2-a:2',1'-c)  
pyrazinediium dibromide] ..... 36.4%

**INERT INGREDIENTS** ..... 63.6%

**TOTAL** ..... 100.0%

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

EPA Reg. No.: 10182-353  
EPA Est. No.:

Contents:

**KEEP OUT OF REACH OF CHILDREN**

**WARNING - AVISO**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en  
detalle. (If you do not understand the label, find someone to explain it to you in detail.)

**SEE SIDE PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS**

Made in U.S.A.  
ZENECA Ag Products  
ZENECA Inc.  
Wilmington, DE 19897

ACCEPTED  
with COMMENTS  
In EPA Letter Dated

**FEB 10 1995**

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act  
as amended, for the pesticide  
registered under EPA Reg. No.  
10182-353

EPA REC'D

8-19-94

**STATEMENT OF PRACTICAL TREATMENT**

**IF SWALLOWED: IMMEDIATELY** give water or milk to drink and induce vomiting by inserting finger in throat. Do not induce vomiting or give anything by mouth to an unconscious person. 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.

**IF ON SKIN: IMMEDIATELY** wash with soap and water. See a doctor if diquat contacts a skin cut, abrasion or area of irritation.

**IF IN EYES: IMMEDIATELY** wash eyes with water for at least 15 minutes and get medical attention.

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

**NOTE TO PHYSICIANS:** Call ZENECA Medical Emergency Information Network 1-800-F-A-S-T-M-E-D (327-8633) 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.

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**FOR 24-HOUR EMERGENCY MEDICAL ASSISTANCE CALL 1-800-F-A-S-T-M-E-D (327-8633)**

**FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident call CHEMTREC 1-800-424-9300.**

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

**MAY BE FATAL IF SWALLOWED, INHALED OR ABSORBED THROUGH THE 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, on skin or on clothing. Do not breathe spray mist. Do not feed forage from treated crops to livestock. Keep livestock and pets out of treated fields and crop areas.

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**PERSONAL PROTECTIVE EQUIPMENT**

**WPS USES:** Applicators and other handlers who handle this pesticide for any use covered by the Worker Protection Standard (40 CFR Part 170) 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.

**NON-WPS USES:** Applicators and other handlers who handle this pesticide for any use NOT covered by the Worker Protection Standard (40 CFR Part 170) must wear:

- Long-sleeved shirt and long 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.

**EXCEPTION: NON-WPS USE:** Applicators for AQUATIC SUBSURFACE APPLICATIONS must wear:

- Short-sleeved shirt and short pants.
- Waterproof gloves.
- Chemical-resistant footwear plus socks.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. 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.

When handlers use closed systems, 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.

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**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.
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**ENVIRONMENTAL HAZARDS (AQUATIC AND NONAQUATIC USES)**

This pesticide is toxic to wildlife. Do not apply directly to water except as specified on this label. **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. Treatment of dense weed areas may result in oxygen loss from decomposition of dead weeds. This loss of oxygen may cause fish suffocation. Therefore, treat only 1/3 to 1/2 of the dense weed areas at a time and wait 14 days between treatments.

Necessary approval and/or Permits should be obtained prior to application if required. Consult the responsible State Agencies (i.e., Fish and Game agencies or Department of Natural Resources) before making applications to public waters.

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**CONDITIONS OF SALE  
AND LIMITATION OF WARRANTY AND LIABILITY**

**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product should be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of ZENECA or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold ZENECA and Seller harmless for any claims relating to such factors.

ZENECA warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or ZENECA, and Buyer and User assume the risk of any such use. ZENECA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

In no event shall ZENECA or Seller be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF ZENECA AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF ZENECA OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

ZENECA and Seller offer this product, and Buyer and User accept it, subject to the foregoing conditions of sale and limitations of warranty and of liability, which may not be modified except by written agreement signed by a duly authorized representative of ZENECA.

**BEST AVAILABLE COPY**

### **DIRECTIONS FOR USE:**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Refer to Label Booklet attached to container for complete Directions for Use.

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.

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

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

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### **AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to supplemental labeling (i.e., attached booklet) under "AGRICULTURAL USE REQUIREMENTS" in the DIRECTIONS FOR USE section for information about this standard.

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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 put concentrate or dilute into food or drink containers. Do not contaminate feed, foodstuffs or drinking water. Do not store or transport near feed or food. Store at temperature above 32°F. For help with any spill, leak, fire or exposure involving this material, call CHEMTREC (1-800-424-9300).

**PESTICIDE DISPOSAL:** Pesticide wastes are toxic. 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.

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**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.

**FOR BULK AND MINI-BULK CONTAINERS:**

**CONTAINER DISPOSAL:** Reseal container and offer for reconditioning, or triple rinse (or equivalent) and offer for recycling or reconditioning, or clean in accordance with manufacturer's instructions.

**CONTAINER PRECAUTIONS:** Before refilling, inspect thoroughly for damage, such as cracks, punctures, bulges, dents, abrasions and damaged or worn threads on closure devices.

**REFILL ONLY WITH DIQUAT HERBICIDE.** The contents of this container cannot be completely removed by cleaning. Refilling with materials other than Diquat Herbicide will result in contamination and may weaken container.

After filling and before transporting, check for leaks.

Do not refill or transport damaged or leaking container.

**CONTAINER IS NOT SAFE FOR FOOD, FEED OR DRINKING WATER!**

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**Diquat Herbicide**

**COMPLETE DIRECTIONS FOR USE**

**CONDITIONS OF SALE  
AND LIMITATION OF WARRANTY AND LIABILITY**

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ZENECA warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or ZENECA, and Buyer and User assume the risk of any such use. ZENECA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

In no event shall ZENECA or Seller be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF ZENECA AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF ZENECA OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

ZENECA and Seller offer this product, and Buyer and User accept it, subject to the foregoing conditions of sale and limitations of warranty and of liability, which may not be modified except by written agreement signed by a duly authorized representative of ZENECA.

Made in U.S.A.  
ZENECA Ag Products  
ZENECA Inc.  
Wilmington, DE 19897

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

**DO NOT USE THIS PRODUCT FOR REFORMULATION**

**KEEP OUT OF REACH OF CHILDREN**

**WARNING - AVISO**

**Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en  
detalle. (If you do not understand the label, find someone to explain it to you in detail.)**

**ACTIVE INGREDIENT:**

Diquat dibromide [6,7-dihydrodipyrdo (1,2-a:2',1'-c) pyrazinedium dibromide] .....	36.4%
<b>INERT INGREDIENTS</b> .....	<u>63.6%</u>
<b>TOTAL</b> .....	<b>100.0%</b>

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

EPA Reg. No.: 10182-353

**STATEMENT OF PRACTICAL TREATMENT**

**IF SWALLOWED: IMMEDIATELY** give water or milk to drink and induce vomiting by  
inserting finger in throat. Do not induce vomiting or give anything by mouth to an unconscious  
person. 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.

**IF ON SKIN: IMMEDIATELY** wash with soap and water. See a doctor if diquat contacts a  
skin cut, abrasion or area of irritation.

**IF IN EYES: IMMEDIATELY** wash eyes with water for at least 15 minutes and get medical  
attention.

**IF INHALED: IMMEDIATELY** get away from spray mist. Stop and check spray procedure,  
See a doctor if irritation persists.

**NOTE TO PHYSICIANS:** Call ZENECA Medical Emergency Information Network 1-800-F-A-S-T-M-E-D (327-8633) 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.

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**FOR 24-HOUR EMERGENCY MEDICAL ASSISTANCE CALL 1-800-F-A-S-T-M-E-D (327-8633)**

**FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident call CHEMTREC 1-800-424-9300.**

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## **PRECAUTIONARY STATEMENTS**

### **HAZARDS TO HUMANS & DOMESTIC ANIMALS**

#### **WARNING**

MAY BE FATAL IF SWALLOWED, INHALED OR ABSORBED THROUGH THE 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, on skin or on clothing. Do not breathe spray mist. Do not feed forage from treated crops to livestock. Keep livestock and pets out of treated fields and crop areas.

#### **PERSONAL PROTECTIVE EQUIPMENT**

**WPS USES:** Applicators and other handlers who handle this pesticide for any use covered by the Worker Protection Standard (40 CFR Part 170) 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.

**NON-WPS USES:** Applicators and other handlers who handle this pesticide for any use NOT covered by the Worker Protection Standard (40 CFR Part 170) must wear:

- Long-sleeved shirt and long 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.

**EXCEPTION: NON-WPS USE:** Applicators for AQUATIC SUBSURFACE APPLICATIONS must wear:

- Short-sleeved shirt and short pants.
- Waterproof gloves.
- Chemical-resistant footwear plus socks.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. 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.

When handlers use closed systems, 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.

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### 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.

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### ENVIRONMENTAL HAZARDS (AQUATIC AND NONAQUATIC USES)

This pesticide is toxic to wildlife. Do not apply directly to water except as specified on this label. Treatment of dense weed areas may result in oxygen loss from decomposition of dead weeds. This loss of oxygen may cause fish suffocation. Therefore, treat only 1/3 to 1/2 of the dense weed areas at a time and wait 14 days between treatments. **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.

Necessary approval and/or Permits should be obtained prior to application if required. Consult the responsible State Agencies (i.e., Fish and Game agencies or Department of Natural Resources) before making applications to public waters.

## **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.

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

### **DIRECTIONS**

Diquat Herbicide is a nonvolatile herbicidal chemical for use in the desiccation of certain plants in preharvest application in order to facilitate both mechanical and hand harvesting. Diquat Herbicide is also recommended for use as a general herbicide to control weeds in noncrop and aquatic areas. Absorption and herbicidal action is usually quite rapid with effects visible in a few days. Diquat Herbicide controls weeds by interfering with photosynthesis within green plant tissue. Weed plants should be succulent and actively growing for best results. Rinse all spray equipment thoroughly with water after use. **AVOID SPRAY DRIFT** to crops, ornamentals, and other desirable plants during application as injury may result. Application to muddy water may result in reduced control. Minimize creating muddy water during application. Use of dirty or muddy water for Diquat dilution may result in reduced herbicidal activity. Avoid applying under conditions of high wind and wave action.

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

### **AGRICULTURAL USES:**

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#### **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 protection 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 24 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.

**ALFALFA, CLOVER, GRAIN SORGHUM, SOYBEANS (Seed Crops Only):** 1½ to 2 pts. per acre. **On Thin Stands of Seed Alfalfa --** 1 pt. per are. **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.

#### **NONBEARING GRAPES**

For control of vegetation for the establishment of new grape plantings. Always apply Diquat for full coverage and thorough weed contact in a minimum of 15 GPA. Add a 75% nonionic spreader at a rate of 8 to 16 fl. oz. per 100 gallons of spray mix. Do not apply to grapes to be harvested in the same year. Spray contact with green growth may result in injury. Make every effort to avoid spray contact with foliage.

Retreatment of spot spray may be necessary for the complete control of grasses and older established weeds.

**Prior to Planting:** Apply 24 to 32 fl. oz. of product per acre for the desiccation of young established weeds to facilitate planting. ~~Tank mixture with other products (such as GOAL) may improve overall weed desiccation to facilitate planting.~~

**Dormant Application to Newly Established Plantings:** Apply 24 to 32 fl. oz. of product per acre as a directed spray for the desiccation of young established weeds to limit competition with new plantings during dormant season. For crop protection do not allow spray to contact green stems except suckers free of foliage.

**Spot Spray to Newly Established Plantings:** Apply 24 to 32 fl. oz. of product per acre as a directed spray for the desiccation of established weeds to limit competition with new plantings during growth season. For crop protection do not allow spray to contact green stems except suckers free of foliage or less than 8 inches long. Use of shielded sprayers or vine wraps may provide additional crop safety during growth season.

**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

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applications. Do not apply to drought stressed potatoes. Applications should be made at least 7 days before harvest. Add a 75% nonionic spreader of 8 - 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 a 75% nonionic spreader at a rate of 8 - 16 fl. oz. per 100 gals of spray mix.

#### REGIONAL USE MAP

#### NON-AGRICULTURAL USES:

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#### 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.

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

For terrestrial uses, do not allow entry of 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.

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 Diquat Herbicide 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).

**NONCROP OR NONPLANTED AREAS AROUND FARMS: Fence lines, Farmyards, Farm Buildings, Fuel Storage Areas, Rights-of-Way, Barrier Strips, Equipment Areas, and Nonflooded Portions of Ponds, Lakes and Ditches around Farms –**

**OR**

**NONCROP OR NONPLANTED 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 Nonflooded Portions of Ponds, Lakes and Ditches. Also Around Ornamental Gardens, Walkways, Patios, Beneath Greenhouse Benches, Along Driveways and on or Around Golf Courses. To Kill Undesirable Above-Ground Grass and Broadleaf Weed Growth --**

1 to 2 qts. plus 8 - 16 oz. of a 75% nonionic spreader per 100 gals. water (4 teaspoonfuls Diquat Herbicide plus 1 teaspoonful of a 75% nonionic spreader 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.

**TURF RENOVATION (All Turf Areas Except Commercial Sod Farms)**

To desiccate golf course turf and other turf areas prior to renovation, apply 1 to 2 quarts of Diquat Herbicide plus 8-16 ounces of a 75% nonionic spreader per 100 gallons of water (4 teaspoons of Diquat Herbicide plus 1 teaspoon of a 75% nonionic spreader per 1 gallon of water) using ground spray equipment. Apply for full coverage and thorough contact with the turf grass. Apply only when the turf is dry, free from dew and incidental moisture.

Avoid spray contact with, or spray drift to, foliage of ornamental plants or food crops.

Do not graze livestock on treated turf or feed treated thatch to livestock.

**DORMANT ESTABLISHED BERMUDAGRASS (Nonfood or Feed Crop)**

For control suppression of emerged annual broadleaf and grass weeds, including Little Barley\*, Annual Bluegrass, Bromes including Rescuegrass, Sixweeks fescue, Henbit, Buttercup, and Carolina Geranium in established dormant bermudagrass lawns, parks, golf courses, etc.

Apply 1 to 2 pts. Diquat per acre in 20 to 100 gallons spray mix by ground as a broadcast application. Add 16-32 oz. of a nonionic surfactant per 100 gallons spray mixture.

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Bermudagrass must be dormant at application. Application to actively growing bermudagrass may cause delay or permanent injury. Users in the extreme Southern areas should be attentive to the extent of dormancy at the time of application.

\*For control of Little Barley, apply Diquat prior to the mid-boot stage.

### **AQUATIC USE DIRECTIONS**

#### **U.S., (except Florida)**

For application only to farm ponds, farm lakes, and drainage ditches around farms where there is little or no outflow of water and which are totally under the control of the product's user.

#### **Florida**

For application only to farm ponds, farm lakes, and drainage ditches around farms where there is little or no outflow of water and which are totally under the control of the product's user.

For use only by the Corps of Engineers or other Federal or State Public Agencies, or contractors or licensees (certified applicators) under their direct control. Contact your local office of the Department of Environmental Protection, Bureau of Aquatic Plant Management to determine if a permit is required for a specific use.

OR

#### **U.S. (except Florida)**

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.

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FOR USE ONLY BY THE CORPS OF ENGINEERS OR OTHER FEDERAL OR STATE PUBLIC AGENCIES, OR BY CONTRACTORS OR LICENSEES (CERTIFIED APPLICATORS) UNDER THEIR DIRECT CONTROL.

**Florida:** 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.

**U.S. (including Florida):** For application to ponds, lakes, reservoirs, marshes, bayous, drainage ditches, canals, streams, rivers and other slow moving or quiescent bodies of water for control of aquatic weeds.

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Necessary approval and/or Permits should be obtained if required. Consult the responsible State Agencies (i.e., Fish and Game agencies or Department of Natural Resources) before making applications.

Treated water may be used according to the following table or until such time as an approved assay (example: PAM II Spectromatic Method) shows that the water does not contain more than 0.01 part per million of diquat dibromide (calculated as the cation):

**WATER USE RESTRICTIONS FOLLOWING APPLICATIONS  
 WITH DIQUAT HERBICIDE (Days)**

Application Rate**	Drinking	Swimming	Livestock Consumption	Irrigation Turf/ Nonfood Crop	Irrigation Food Crops
2 gal./surface acre	14 days	1 day	14 days	5 days	14 days
1 gal./surface acre	14 days	1 day	14 days	5 days	14 days
0.75 gal./surface acre	14 days	1 day	14 days	5 days	14 days
0.50 gal./surface acre	14 days	1 day	14 days	5 days	14 days
Spot Spray* ( $< 0.5$ gal./surface acre)	14 days	1 day	14 days	5 days	14 days

\* Rates refer to total surface area for spot spray.

\*\* For water with an average depth less than 2 feet, use no more than 1 gal./surface acre.

No applications are to be made in areas where commercial fish processing, resulting in the production of fish protein concentrate or fish meal, is practiced. Before application, coordination and approval of local and/or State authorities must be obtained.

Apply Diquat Herbicide in accordance with the following table:

WEED SPECIES	SUBSURFACE OR BOTTOM PLACEMENT GALS/SURFACE ACRE	SURFACE GALS/SURFACE ACRE
Bladderwort ( <i>Utricularia</i> spp.)	1-2	2
Coontail ( <i>Ceratophyllum demersum</i> )	2	2
Elodea ( <i>Elodea</i> spp.)	2	2
Naiad ( <i>Najas</i> spp.)	1 - 2	2
Pondweeds <sup>1</sup> ( <i>Potamogeton</i> spp.)	2	2
Watermilfoils ( <i>Myriophyllum</i> spp.)	1 - 2	2
Hydrilla ( <i>Hydrilla verticillata</i> )	2	2
Waterlettuce <sup>2</sup> ( <i>Pistia Stratiotes</i> )	NA	0.5 - 0.75
Waterhyacinth <sup>2</sup> ( <i>Eichhornia crassipes</i> )	NA	0.5 - 0.75
Pennywort <sup>3</sup> ( <i>Hydrocotyle</i> spp.)	NA	0.5 - 0.75
Salvinia <sup>2</sup> ( <i>Salvinia</i> spp.)	NA	0.5 - 0.75
Duckweed <sup>4</sup> ( <i>Lemna</i> spp.)	NA	1
Cattails <sup>3</sup> ( <i>Typha</i> spp.)	NA	1-2
Algae <sup>5</sup> ( <i>Spirogyra</i> spp. & <i>Pithophora</i> spp.)	1 - 2	2

<sup>1</sup> Diquat controls *Potamogeton* species except Richardson's pondweed (*P. richardsonii*). For control of *P. robbinsii*, applications must be made when the plants are in the early stages of growth such as in Spring and early Summer.

<sup>2</sup> For salvinia, waterlettuce and water hyacinth, use the labeled rate of Diquat in 150 gallons water plus 1 pt. of 75% nonionic surfactant per acre for surface sprays and for aerial application for waterlettuce and water hyacinth control, apply the labeled rate of Diquat in 10 to 24 gallons water plus 1 qt. of 75% nonionic surfactant per acre.

<sup>3</sup> For Pennywort and cattail control, apply in 100 gallons of water plus 1 pt. 75% nonionic surfactant per acre for full coverage and thorough weed contact. Repeat treatments may be necessary to control regrowth. For best results, apply before flowering (cattail).

<sup>4</sup> For duckweed control, apply as an overall spray in 50-150 gallons of water plus 1 pt. 75% nonionic surfactant per acre. Retreatment may be necessary for plants missed in previous applications and regrowth.

<sup>5</sup> For suppression of certain filamentous algae species including *Spirogyra* and *Pithophora*, apply according to the submersed use directions. For water less than 2 feet in average depth, use a maximum of 1 gallon Diquat Herbicide per surface acre.

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**APPLICATION:** In mixed weed populations, use the high rate of application as indicated by weeds present.

**SUBSURFACE APPLICATIONS:** Where the submersed weed growth, especially Hydrilla, has reached the water surface, apply either in a water carrier or an invert emulsion through boom trailing hoses carrying nozzle tips to apply the dilute spray below the water surface to insure adequate coverage..

**BOTTOM PLACEMENT:** Where the submersed weeds, especially Hydrilla, Bladderwort, and Coontail growth have reached the water surface or where water is slowly moving through the submersed weed growth that has reached the water surface, especially Hydrilla, Bladderwort, and Coontail, control may be enhanced when applied in an invert emulsion carrier injecting diluted Diquat near the bottom with weighted hoses. The addition of a copper-based algaecide herbicide will improve control. Where algae are present along with the submersed weeds, pretreatment with copper-based algaecide ~~herbicide~~ <sup>sulfate</sup> at recommended rates is advised for best results. ~~with Diquat Herbicide.~~

**SURFACE APPLICATION:** Apply Diquat either as concentrate slowly poured directly from the container in strips or as a spray in sufficient carrier. Applications should be made to ensure complete coverage of the weed areas. In mixed weed populations, use the high rate of application as indicated by weeds present. For waters less than 2 feet in average depth, use a maximum of 1 gallon Diquat Herbicide per surface acre.

## **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 put concentrate or dilute into food or drink containers. Do not contaminate feed, foodstuffs or drinking water. Do not store or transport near feed or food. Store at temperature above 32°F. For help with any spill, leak, fire or exposure involving this material, call CHEMTREC (1-800-424-9300).

**PESTICIDE DISPOSAL:** Pesticide wastes are toxic. 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.

### **FOR BULK AND MINI-BULK CONTAINERS:**

**CONTAINER DISPOSAL:** Reseal container and offer for reconditioning, or triple rinse (or equivalent) and offer for recycling or reconditioning, or clean in accordance with manufacturer's instructions.

**CONTAINER PRECAUTIONS:** Before refilling, inspect thoroughly for damage, such as cracks, punctures, bulges, dents, abrasions and damaged or worn threads on closure devices.

**REFILL ONLY WITH DIQUAT HERBICIDE.** The contents of this container cannot be completely removed by cleaning. Refilling with materials other than Diquat Herbicide will result in contamination and may weaken container.

After filling and before transporting, check for leaks.

Do not refill or transport damaged or leaking container.

**CONTAINER IS NOT SAFE FOR FOOD, FEED OR DRINKING WATER!**