

2749-532

04-19-2010

1/12



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

APR 19 2010

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Ms. Maria Cerrone
Product Registration
Aceto Agricultural Chemical Company
One Hollow Lane, Suite 201
Lake Success, NY 11042-1215

SUBJECT: Application for Pesticide Notification (PRN 98-10)
Request Alternate Brand Name "Aceto Diquat 2L Landscape and Aquatic
Herbicide"
EPA Reg. No. 2749-532
Application Dated January 6, 2010

Dear Ms. Cerrone:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 dated 01/06/10 for the above product. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action(s) requested fall within the scope of PRN 98-10. The label submitted with the application has been stamped "Notification" and will be placed in our records.

If you have any questions, please call me directly at 703-305-6249 or Owen F. Beeder of my staff at 703-308-8899.

Sincerely,

Rachel A. Holloman
Linda Arrington
Notifications & Minor Formulations Team Leader
Registration Division (7505P)
Office of Pesticide Programs

Please read instructions on reverse before completing form.

Form Approved. OMB No. 2070-0060

Print Form



United States
Environmental Protection Agency
Washington, DC 20460

<input type="checkbox"/>	Registration
<input type="checkbox"/>	Amendment
<input checked="" type="checkbox"/>	Other

OPP Identifier Number

Application for Pesticide - Section I

1. Company/Product Number Aceto Agricultural Chemicals Corp/2749-532	2. EPA Product Manager Joanne I. Millier	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) Diquat Dibromide 37.3% SL	PM# 23	
5. Name and Address of Applicant (Include ZIP Code) Aceto Agricultural Chemicals Corporation One Hollow Lane; Suite 201 Lake Success, NY 11042-1215 <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____	

Section - II

<input type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.
<input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.

NOTIFICATION

APR 19 2010

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

Additional Brand Name: Aceto Diquat 2L Landscape and Aquatic Herbicide

Section - III

1. Material This Product Will Be Packaged In:						2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes* <input type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No		Metal <input type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____			
* Certification must be submitted		If "Yes" Unit Packaging wgt.	No. per container	If "Yes" Package wgt.	No. per container		
3. Location of Net Contents Information <input type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container		5. Location of Label Directions <input type="checkbox"/> On Label <input type="checkbox"/> On Labeling accompanying product			
6. Manner in Which Label is Affixed to Product		<input type="checkbox"/> Lithograph <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled		<input type="checkbox"/> Other _____			

Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)		
Name Maria Cerrone	Title Administrative Assistant	Telephone No. (Include Area Code)
Certification I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.		6. Date Application Received (Stamped)
2. Signature <i>Maria Cerrone</i>	3. Title Administrative Assistant	CERRONE MARIA ADMINISTRATIVE ASSISTANT JAN 6 2010
4. Typed Name Maria Cerrone	5. Date Jan 6, 2010	

5
12

NOTIFICATION

APR 19 2010

trim line



diquat 2L

LANDSCAPE & AQUATIC HERBICIDE

TO PREVENT ACCIDENTAL POSIONING, 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]..... 37.3%

OTHER INGREDIENTS:..... 62.7%

Total:..... 100.0%

Contains 2lbs. diquat cation per gal. (3.73 lbs. diquat dibromide per gal.)

KEEP OUT OF REACH OF CHILDREN CAUTION

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.)

FIRST AID	
If inhaled:	<ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice.
If swallowed:	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
If in eyes:	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
If on skin or clothing:	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
<p>NOTE TO PHYSICIANS 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.</p> <p>Have the product container or label with you when calling a poison control center or physician, or going for treatment. FOR MEDICAL EMERGENCIES INVOLVING THIS PRODUCT, CALL CHEMTREC® TOLL FREE 1-800-424-9300 or 1-703-527-3887.</p>	

SEE BOOKLET FOR ADDITIONAL PRECAUTIONARY STATEMENTS.

Manufactured for:
Aceto Agricultural Chemicals Corporation
One Hollow Lane, Lake Success, NY 11042-1215

EPA Reg. No. 2749-532
Net Contents: 2.5 gallons
EPA Est. No. 37429-GA-002

trim line

6
12

trim line

**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION**

Harmful if inhaled. Harmful if swallowed. Causes moderate eye irritation. Avoid breathing spray mist. Avoid contact with eyes or clothing. Wear protective eyewear. Wear: Long-sleeved shirt and long pants, socks, shoes, and chemical-resistant gloves (such as Natural Rubber, Selection Category A).

Personal Protective Equipment (PPE)

Some materials that are chemical-resistant to this product are: barrier laminate, butyl rubber \geq 14 mils, nitrile rubber \geq 14 mils. If you want more options, follow the instructions for Category A on an EPA Chemical Resistance Category Selection Chart.

Mixers, Loaders, Applicators, and other handlers must wear:

- Coveralls over short-sleeved shirt and short pants or coveralls over long-sleeved shirt and long pants
- Chemical-resistant gloves
- Chemical-resistant footwear plus socks
- Protective eyewear
- Chemical-resistant headgear for overhead exposure
- Chemical-resistant apron when cleaning equipment, mixing, or loading
- Face shield when mixing or loading
- A dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C).

Exception: After this product has been diluted to 0.50% ACETO DIQUAT 2L LANDSCAPE AND AQUATIC HERBICIDE or less in water (i.e., the labeled rate for some spot applications); applicators for AQUATIC SURFACE APPLICATIONS must, at a minimum wear (Note – Mixers and Loaders for this application method must still wear the personal protective equipment (PPE) as described in the above section):

- Long-sleeved shirt and long pants
- Shoes plus socks
- Waterproof gloves
- Protective eyewear

Exception: At a minimum, applicators for AQUATIC SUBSURFACE APPLICATIONS must wear (Note-Mixers and loaders for this application method must still wear the personal protective equipment (PPE) as described in the above section):

- 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 exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

Engineering Control Statements:

Mixers and loaders supporting aerial applications are required to use closed systems that provide dermal protection. The closed system must be used in a manner that meets the requirements listed in the Worker Protection Standards (WPS) for agricultural pesticides [40 CFR 170.240(d)(4)]. When using the closed system, mixers and loaders' PPE requirements may be reduced or modified as specified in the WPS.

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 pesticide [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

USER SAFETY RECOMMENDATIONS:

Users should:

- Remove and wash contaminated clothing before reuse. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Prolonged contact of the product with the skin may produce burns.
- 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.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and aquatic invertebrates. For Terrestrial Uses, do not apply directly to water, or to areas where the surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate. For Aquatic Uses do not apply directly to water except as specified on this label.

trim line

trim line

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. **READ ENTIRE LABEL PRIOR TO USE. 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.

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.

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 protective 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 this 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, or coveralls over long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material
- Chemical-resistant footwear plus socks
- Protective Eyewear
- Chemical-resistant headgear for overhead exposure

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 enter 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.

GENERAL USE INFORMATION

ACETO DIQUAT 2L LANDSCAPE AND AQUATIC HERBICIDE is non-volatile herbicide chemical for use as a general herbicide to control weeds in commercial greenhouses and nurseries; ornamental seed crops (flowers, bulbs, etc. – except in the state of California); landscape, industrial, recreational, commercial, residential, and public areas; turf renovation (all turf areas except commercial sod farms); dormant established turfgrass (bermudagrass, zoysiagrass – non-food or feed crop); and aquatic areas. Absorption and herbicide action is usually quite rapid with effects visible in a few days. ACETO DIQUAT 2L LANDSCAPE AND AQUATIC 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 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 ACETO DIQUAT 2L LANDSCAPE AND AQUATIC HERBICIDE dilution may result in reduced herbicidal activity. Avoid applying under conditions of high wind, water flow, or wave action.

Spray Drift Management

Do not allow this product to drift onto neighboring crops or non-crop area or use in a manner or at a time other than in accordance with label directions because animal, plant or crop injury, illegal residues or other undesirable results may occur.

AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR. The interaction of many equipment – and weather – related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target drift movement from aerial application to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

The distance of the outer most nozzles on the boom must not exceed ¾ the length of the wingspan or rotor.

Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees. Where states have more stringent regulations, they should be observed.

Where states have more stringent regulations, they should be observed.

trim line

8
12

trim line

The importance of spray droplet size:

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential but may not prevent drift if applications are made improperly or under unfavorable environmental conditions (see the following "Wind", "Temperature and Humidity" and "Temperature Inversion" sections of this advisory).

Controlling initial droplet size:

- Volume – Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher flow rates produce larger droplets.
- Pressure – Use the lower spray pressures suggested by the manufacturer for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- Number of nozzles – Use the minimum number of nozzles that provide uniform coverage.
- Nozzle orientation – Orienting nozzles so the spray stream is released backwards, parallel to air stream will produce larger droplets than other orientations. Significant deflection from the horizontal will reduce droplet size and increase drift potential.
- Nozzle type- Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce larger droplets than other nozzle types.

Controlling placement of spray droplets:

- Boom Length – For some use patterns, reducing the effective boom length to less than ¾ of the wingspan or rotor length may further reduce drift without reducing swath width.
- Application height – Applications should not be greater than 10 feet above the top of the tallest plants unless a great height is required for aircraft safety. Greater application heights result in greater droplet size reduction through evaporation and greater movement in air currents. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.
- Application speed – Slower aircraft speeds within a safe range will produce less air turbulence and fewer small droplets.
- Swath adjustment – When applications are made with a cross-wind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicators must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distances should increase drift potential (wind speed, droplet size, etc.)

Key environment factors:

- Wind – Drift potential is the lowest between wind speeds of 2 to 10 mph. However, many factors including droplet size and equipment type determine drift potential at any given point. Application should be avoided when wind speeds are below 2 mph due to variable wind direction and high inversion potential. NOTE: Local terrain can influence wind patterns. Applicators should be familiar with local wind patterns and how they affect drift.
- Temperature and Humidity – When making applications in low relative humidity set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.
- Temperature Inversions – Application should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable air currents that are common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke detector. Smoke not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke detector. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.
- Sensitive Areas – The pesticide should only be applied when the wind is blowing away from adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops).

COMMERCIAL GREENHOUSES AND NURSERIES

For general weed control in commercial greenhouses (beneath benches) field grown and container stock, and other similar areas, ACETO DIQUAT 2L LANDSCAPE AND AQUATIC HERBICIDE may be applied pre-plant or post-plant pre-emergence in field grown ornamental nursery planting or post-emergence as a directed spray. ACETO DIQUAT 2L LANDSCAPE AND AQUATIC HERBICIDE may also be applied pre-emergence in ornamental seed crops (except in the state of California). Avoid contact with desirable foliage as injury may occur. Do not use on food or feed crops.

Spot Spray: 1-2 qts. ACETO DIQUAT 2L LANDSCAPE AND AQUATIC HERBICIDE plus the labeled rate of 75% or greater nonionic surfactant per 100 gals. of water, or 0.75 oz. (22 ml.) ACETO DIQUAT 2L LANDSCAPE AND AQUATIC HERBICIDE plus the labeled rate of 75% or greater nonionic surfactant per 1 gal. of water.

Broadcast: 1-2 pts. ACETO DIQUAT 2L LANDSCAPE AND AQUATIC HERBICIDE in a minimum of 15 gals. of water per acre. Add the labeled rate of a 75% or greater nonionic surfactant per 100 gals., or spray mixture. Use an adequate spray volume to insure good coverage.

ORNAMENTAL SEED CROPS (FLOWERS, BULBS, ETC.) EXCEPT IN THE STATE OF CALIFORNIA

For pre-harvest desiccation of ornamental seed crops. NOT FOR FOOD OR FIBER CROPS.

trim line

9
12

trim line

Broadcast (Air or Ground): 1.5 – 2 pts. ACETO DIQUAT 2L LANDSCAPE AND AQUATIC HERBICIDE plus the labeled rate of a 75% or greater nonionic surfactant per acre in sufficient water (minimum of 5 gals., by air; 15 gals., by ground) for desiccation and weed burndown. Repeat as needed at no less than 5-day intervals up to three applications. Do not use seed, screenings, or waste as feed or for consumption.

DIRECTIONS FOR LANDSCAPE, INDUSTRIAL RECREATIONAL, COMMERCIAL, RESIDENTIAL AND PUBLIC AREAS

ACETO DIQUAT 2L LANDSCAPE AND AQUATIC HERBICIDE provides fast control of broadleaf and grassy weeds in industrial, recreational, golf course, commercial, residential, and public areas.

ACETO DIQUAT 2L LANDSCAPE AND AQUATIC HERBICIDE is a non-selective herbicide that rapidly kills undesirable above ground weed growth in 24-36 hours. Avoid application of ACETO DIQUAT 2L LANDSCAPE AND AQUATIC HERBICIDE to desirable plants.

ACETO DIQUAT 2L LANDSCAPE AND AQUATIC HERBICIDE is a contact/desiccant herbicide; it is essential to obtain complete coverage of the target weeds to get good control. Improper application technique and/or application to stressed weeds may result in unacceptable weed control. For best results, apply to actively growing, young weeds.

Difficult weeds (such as perennial or deeply-rooted weeds) can often be controlled by tank mixing ACETO DIQUAT 2L LANDSCAPE AND AQUATIC HERBICIDE with other systemic-type herbicides. Refer to other product labels for specific application directions.

For residual weed control, tank mix ACETO DIQUAT 2L LANDSCAPE AND AQUATIC HERBICIDE with a pre-emergent herbicide labeled for the intended use site. When mixing ACETO DIQUAT 2L LANDSCAPE AND AQUATIC HERBICIDE with another herbicide, it is suggested to mix just a small amount first to determine if the mixture is physically compatible before proceeding with larger volumes.

Aceto Agricultural Chemicals Corporation has not tested all possible tank mixtures with other herbicides for compatibility, efficacy or other adverse effects. Before mixing with other herbicides Aceto urges you first consult your state experimental station, state university or extension agent.

Ground maintenance weeds control: ACETO DIQUAT 2L LANDSCAPE AND AQUATIC HERBICIDE can be used as a spot or broadcast spray to control weeds in public, commercial and residential landscapes, including landscape beds, lawns, golf courses and roadsides. ACETO DIQUAT 2L LANDSCAPE AND AQUATIC HERBICIDE can also be used for weed control around the edges and non-flooded portions of ponds, lakes and ditches.

Trim and Edge weed control: ACETO DIQUAT 2L LANDSCAPE AND AQUATIC HERBICIDE can be used to eliminate undesired grass and broadleaf plant growth in a narrow band along driveways, walkways, patios, cart paths, fence lines and around trees, ornamental gardens, buildings, other structures, and beneath non-commercial greenhouse benches. Vegetation control with ACETO DIQUAT 2L LANDSCAPE AND AQUATIC HERBICIDE is limited to the spray application width. Do not exceed the labeled rate of ACETO DIQUAT 2L LANDSCAPE AND AQUATIC HERBICIDE as excessive rates may result in staining of concrete-based materials.

ACETO DIQUAT 2L LANDSCAPE AND AQUATIC HERBICIDE, since it does not translocate systemically, can be used as an edging or pruning tool when precisely applied to select areas of grass or to undesirable growth on desirable ornamental bedding plants, ground covers, etc.

Industrial Weed Control: ACETO DIQUAT 2L LANDSCAPE AND AQUATIC HERBICIDE can be used as a spot or broadcast spray either along or in combination with other herbicides as a fast burndown or control weeds in rights-of-ways, railroad beds/yards, highways, roads, dividers and medians, parking lots, pipelines, pumping stations, public utility lines, transformer stations and substations, electric utilities, storage yards, and other non-crop areas.

Spot Spray: Apply either 1-2 qts. of ACETO DIQUAT 2L LANDSCAPE AND AQUATIC HERBICIDE plus the labeled rate of a 75% or greater nonionic surfactant per 100 gals. of water, or 0.75 oz. (22 ml.) ACETO DIQUAT 2L LANDSCAPE AND AQUATIC HERBICIDE plus the labeled rate of a 75% or greater nonionic surfactant per 1 gal. of water.

Broadcast: 1-2 pts. ACETO DIQUAT 2L LANDSCAPE AND AQUATIC HERBICIDE per acre in sufficient water to insure good spray coverage. Add the labeled rate of 75% or greater nonionic surfactant per 100 gals., spray mixture. Greater water volumes are necessary if the target plants are tall and/or dense. Use 60 gals., or greater water volume to obtain good coverage of dense weeds.

TURF RENOVATION (ALL TURF AREAS EXCEPT COMMERCIAL SOD FARMS)

To desiccate golf course turf and other turf areas prior to renovation, apply 1-2 pts. of ACETO DIQUAT 2L LANDSCAPE AND AQUATIC HERBICIDE per acre plus the labeled rate of 75% or greater nonionic surfactant in 20-100 gals. of water (4 teaspoons of ACETO DIQUAT 2L LANDSCAPE AND AQUATIC HERBICIDE plus the labeled rate of a 75% or greater nonionic surfactant per 1 gal. of water) using ground spray equipment. Apply for full coverage and thorough contact with the turfgrass. Apply only when the turf is dry, free from dew and incidental moisture. For enhanced turf desiccation of treated turfgrass, especially in the case of thick turfgrass, water volumes should approach 100 gals., of water per acre.

For suppression of regrowth and quick desiccation of treated turfgrass, ACETO DIQUAT 2L LANDSCAPE AND AQUATIC HERBICIDE may be mixed with other systemic non-selective or systemic post-emergence grassy weed herbicides. Refer to other product labels for specific application directions and restrictions.

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

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

trim line

10
12

trim line

DORMANT ESTABLISHED TURFGRASS (BERMUDAGRASS, ZOYSIAGRASS), NON-FOOD OR FEED CROP

For control 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 1-2 pts. ACETO DIQUAT 2L LANDSCAPE AND AQUATIC HERBICIDE per acre in 20-100 gals. of spray mix by ground as a broadcast application. Add the labeled rate of 75% or greater nonionic surfactant per 100 gals. or spray mixture.

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 the control of Little Barley, apply ACETO DIQUAT 2L LANDSCAPE AND AQUATIC HERBICIDE prior to the mid-boot stage.

AQUATIC USE DIRECTIONS

New York – Not for Sale or Use in New York State without Supplemental Special Local Needs Labeling.

Necessary approval and/or permits must be obtained prior to application if required. Consult the responsible State Agencies (i.e. Fish and Game Agencies, State Water Conservation authorities, or Department of Natural Resources).

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 1/4 to 1/2 of the water body area at one time and wait 14 days between treatments.

For best results on submersed weeds, ACETO DIQUAT 2L LANDSCAPE AND AQUATIC HERBICIDE should only be applied to actively growing (photosynthesizing) weeds when water temperatures have reached or exceeded approximately 50°F, typically during the Spring of early Summer.

For application only to still water (i.e. ponds, lakes, and drainage ditches) where there is minimal or no outflow to public waters And/or

For applications to public waters in ponds, lakes, reservoirs, marshes, bayous, drainage ditches, canals, streams, rivers, and other slow-moving or quiescent bodies of water for control of aquatic weeds. For use by:

- Corps of Engineers; or
- Federal or State Public Agencies (i.e. Water Management District personnel, municipal officials); or
- Applicators and/or Licensees (Certified for aquatic pest control) that are authorized by the State or Local government.

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 the designated maximum contaminant level goal (MCLG) or 0.02 mg/l (ppm) of diquat dibromide (calculated as the cation).

Water Use Restrictions Following Applications with Aceto Diquat 2L Landscape and Aquatic Herbicide

Application Rate	Drinking	Fishing and Swimming	Livestock/Domestic Animals Consumption	Spray Tank Applications ** and Irrigation to Turf and Landscape Ornaments	Spray Tank Applications ** and Irrigation to Food Crops and Production Ornaments
2 gals./surface acre	3 days	0	1 day	3 days	5 days
1 gal./surface acre	2 days	0	1 day	2 days	5 days
0.75 gal./surface acre	2 days	0	1 day	2 days	5 days
0.50 gal./surface acre	1 day	0	1 day	1 day	5 days
Spot Spray* < 0.5 gal./surface acre	1 day	0	1 day	1 day	5 days

* Add a nonionic surfactant (with at least 75% of the constituent's active as a spray adjuvant) at the rate suggested by the manufacturer.

** For preparing agricultural sprays for food crops, turf or ornamentals (to prevent phytotoxicity), do not use water treated with ACETO DIQUAT 2L LANDSCAPE AND AQUATIC HERBICIDE before the specified time period.

When the contents of more than one spray tank is necessary to complete a single aquatic application, no water holding restrictions apply between the consecutive spray tanks.

No applications are to be made in areas where commercial processing of fish, 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.

trim line

trim line

Floating and Marginal Weeds Including:

- Water lettuce, *Pistia stratiotes*
- Water hyacinth, *Eichhornia crassipes*
- Duckweed, *Lemna spp.*
- Salvinia spp. (including *S. molesta*)
- Pennywort (*Hydrocotyle spp.*)
- Frog's Bit¹, *Limnobium spongia*
- Cattails, *Typha spp.*

¹ Not for use in California

ACETO DIQUAT 2L LANDSCAPE AND AQUATIC HERBICIDE may be applied by backpack, airboat, spray handgun, helicopter, airplane, or similar application equipment that results in thorough spray coverage.

Spot Treatment: Apply ACETO DIQUAT 2L LANDSCAPE AND AQUATIC HERBICIDE at 2 quarts per 100 gallons spray carrier (0.5% solution) with an approved aquatic wetting agent at 0.25-1.0% v/v (1 quart to 1 gallon per 100 gallons water). For cattail control, ACETO DIQUAT 2L LANDSCAPE AND AQUATIC HERBICIDE should be applied prior to flowering at the maximum application rate (8 quarts of ACETO DIQUAT 2L LANDSCAPE AND AQUATIC HERBICIDE/ 100 gallons spray carrier) plus the wetting agent. Repeat treatments may be necessary for complete control.

Spray to completely wet target weeds but not to runoff. Densely packed weeds or mats may require additional applications due to incomplete spray coverage. Re-treat as needed. For best results, re-treat weed escapes within 2 weeks of the initial treatment.

Broadcast Treatment: Apply ACETO DIQUAT 2L LANDSCAPE AND AQUATIC HERBICIDE at the rate of 0.5-2.0 gallons per surface acre in sufficient carrier along with 16-32 oz./A of an approved wetting agent. Re-treat as necessary for densely populated weed areas. Good coverage is necessary for control of the target weeds.

For duckweed control, apply ACETO DIQUAT 2L LANDSCAPE AND AQUATIC HERBICIDE at 1-2 gallons/A.

Submersed Weeds including:

- Bladderwort, *Utricularia spp.*
- Hydrilla, *Hydrilla verticillata*
- Watermilfoils (including Eurasian), *Myriophyllum spp.*
- Pondweeds¹, *Potamogeton spp.*
- Coontail, *Ceratophyllum demersum*
- Elodea, *Elodea spp.*
- Brazilian Elodea, *Egeria densa*
- Naiad, *Najas spp.*
- Algae², *Spirogyra spp.* and *Pithophora spp.*

¹ ACETO DIQUAT 2L LANDSCAPE AND AQUATIC HERBICIDE controls *Potamogeton* species except Richardson's pondweed, *P. richardsonii*.

² Suppression only. For control of *Spirogyra* and/or *Pithophora*, use ACETO DIQUAT 2L LANDSCAPE AND AQUATIC HERBICIDE in a tank mix with an approved algaecide.

For severe weed or algae infestations, the use of an approved algaecide either as a pretreatment to the ACETO DIQUAT 2L LANDSCAPE AND AQUATIC HERBICIDE application or in a tank mix, may result in enhanced weed control.

To control submersed weeds, apply ACETO DIQUAT 2L LANDSCAPE AND AQUATIC HERBICIDE in water at 0.5-2.0 gallons per surface acre (per 4 foot water depth). For severe weed infestations, use the 2.0 gallon per surface acre rate. For best results, re-treat as necessary on 14-21 day intervals. The table below shows how many gallons of ACETO DIQUAT 2L LANDSCAPE AND AQUATIC HERBICIDE to apply per surface acre based on water depth.

Gallons of Aceto Diquat 2L Landscape and Aquatic Herbicide per Surface Acre Average Water Depth				
	1 Foot	2 Feet	3 Feet	4 Feet
1 gallon/acre rate	0.25 gal.	0.50 gal.	0.75 gal.	1.0 gal.
2 gallon/acre rate	0.50 gal.	1.0 gal.	1.50 gals.	2.0 gals.

Note: For water depths of 2 feet or less including shorelines, do not exceed 1 gallon per surface acre.

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: Water submersed weeds such as Hydrilla, Bladderwort, or Coontail have reached the water surface and/or where the water is slowly moving through the weed growth, the use of an invert emulsion carrier injected diluted ACETO DIQUAT 2L LANDSCAPE AND AQUATIC HERBICIDE near the bottom with weighted hoses may improve control. The addition of a copper based algaecide may improve control. If algae are present along with the

trim line

12
12

trim line

submersed weeds, a pretreatment with a copper based algaecide may improve overall control.

Surface Application for Submerged Aquatic Weeds: Apply the use rate of ACETO DIQUAT 2L LANDSCAPE AND AQUATIC HERBICIDE as a spray in sufficient carrier to fully cover the target area. 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 dense submersed weeds or water over 2 feet deep, a surface spray is to be avoided (ACETO DIQUAT 2L LANDSCAPE AND AQUATIC HERBICIDE should be applied subsurface in these situations.)

If posting is required by your state or tribe – consult the agency responsible for pesticide regulations for specific details.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage and disposal.

PESTICIDE STORAGE: Store at temperatures above 32°F, in a cool, dry area under lock and key. Post as a pesticide storage area. Always store pesticides in the original container. Do not put concentrate or dilute product into food or drink containers. Store away from food, pet food, feed, seed, fertilizer, insecticides, fungicides and veterinary supplies.

PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of 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: Nonrefillable container. Do not reuse this container to hold other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Offer for recycling, if available or reconditioning if appropriate or puncture and dispose in a sanitary landfill, or by incineration or by other procedures approved by state and local authorities. Do not burn unless allowed by state and local ordinances. If rinsate cannot be used, follow pesticide disposal instructions. If not triple or pressure rinsed, these containers are acute hazardous wastes and must be disposed in accordance with local, state and federal regulations.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. **Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and drain container for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Warranty Disclaimer and Notice

IMPORTANT: READ BEFORE USE

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

CONDITIONS: The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Aceto Agricultural Chemicals Corporation. To the extent consistent with applicable law all such risks shall be assumed by the user or buyer.

DISCLAIMER OF WARRANTIES: To the extent consistent with applicable law, ACETO AGRICULTURAL CHEMICALS CORPORATION MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, THAT EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. No agent of Aceto Agricultural Chemicals Corporation is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. To the extent consistent with applicable law, ACETO AGRICULTURAL CHEMICALS CORPORATION DISCLAIMS ANY LIABILITY WHATSOEVER FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

LIMITATIONS OF LIABILITY: To the extent consistent with applicable law, THE EXCLUSIVE REMEDY OF THE USER OR BUYER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL NOT EXCEED THE PURCHASE PRICE PAID, OR AT ACETO AGRICULTURAL CHEMICALS CORPORATION'S ELECTION, THE REPLACEMENT OF PRODUCT.

CHEMTREC is a registered trademark of American Chemical Society.

trim line