



# DIQUAT HERBICIDE

## LANDSCAPE AND AQUATIC HERBICIDE

**TO PREVENT ACCIDENTAL POISONING, NEVER PUT THIS PRODUCT INTO FOOD, DRINK, OR OTHER CONTAINERS. USE THIS PRODUCT STRICTLY IN ACCORDANCE WITH THE DIRECTIONS ON THIS LABEL.**

**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 2 lbs. diquat cation per gallon (3.73 lbs. of diquat dibromide per gallon).

EPA Reg. No. 81927-35      EPA Est. No. 81927-AL-001<sup>PM</sup>  
7401-TX-001<sup>TX</sup>; 73427-NV-001<sup>NV</sup>  
Letter(s) in lot number correspond(s)  
to superscript in EPA Est. No.

**KEEP OUT OF REACH OF CHILDREN**

## CAUTION

**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.

| FIRST AID   |  |
|---|--|
| <b>If in eyes:</b>  | <ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>  |
| <b>If swallowed:</b>  | <ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by the poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul> |
| <b>If on skin or clothing:</b>  | <ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>  |
| <b>If inhaled:</b>  | <ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>  |
| HOT LINE NUMBER   |  |
| Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-424-9300 for emergency medical treatment information.   |  |
| NOTE TO PHYSICIAN   |  |
| 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. |  |

See label booklet for additional Precautionary Statements and Directions for Use.

Manufactured for:  
Alligare, LLC  
1565 5th Avenue  
Opelika, AL 36801

**Net Contents: 2.5 Gallons (9.46 liters)**

EPA 20161214



### PERSONAL PROTECTIVE EQUIPMENT (PPE)

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

**Exception:** After this product has been diluted to 0.50% Alligare Diquat 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 Standard (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 pesticides [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:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE 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.

### ENVIRONMENTAL HAZARDS

This pesticide is toxic to aquatic invertebrates.

**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 wash water.

**For Aquatic Uses,** do not apply directly to water except as specified on this label.

### PHYSICAL OR CHEMICAL HAZARDS

Do not mix or allow contact with oxidizing agents. Hazardous chemical reaction may occur.

## 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.

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 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, 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 or 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.

Alligare Diquat Herbicide is used to control weeds in the following sites:

- noncrop or nonplanted areas on farms
- aquatic areas
- commercial greenhouses and nurseries
- dormant established turfgrass (bermudagrass, zoysiagrass – nonfood or feed crop)
- landscape, industrial, recreational, commercial, residential, and public areas
- ornamental seed crops (flowers, bulbs, etc. – excluding the state of California)
- turf renovation (all turf areas except commercial sod farms)

Alligare Diquat Herbicide works by being absorbed by the weed, and, within a few days, the weed shows signs of dying. Optimum results are seen if the weeds are young, actively growing, and free from stress.

To avoid injury to desired crops, ornamentals or desirable plants, use caution to prevent drift during application and clean all spray equipment thoroughly with water after use. Avoid application to muddy water or disturbing the water during application that may reduce weed control. To avoid reduced herbicidal activity, do not use dirty or muddy water in preparing spray solutions of Alligare Diquat Herbicide. Avoid application under conditions of high wind, water flow, or wave action.

#### SPRAY DRIFT MANAGEMENT

Avoiding spray drift at the application site is the responsibility of the applicator and the grower. 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 applications 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 outermost nozzles on the boom must not exceed  $\frac{3}{4}$  the length of the wingspan or rotor.
- Nozzles must always point backward parallel with the air stream and never be pointed downward more than 45 degrees.

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

**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 will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see **Wind, Temperature and Humidity, and Temperature Inversions sections of this label**).

#### CONTROLLING DROPLET SIZE:

**Volume** – Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.

**Pressure** – Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. 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 that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from 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 the largest droplets and the lowest drift.

**BOOM LENGTH:** For some use patterns, reducing the effective boom length to less than  $\frac{3}{4}$  of the wingspan or rotor length may further reduce drift without reducing swath width.

**APPLICATION HEIGHT:** Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

**SWATH ADJUSTMENT:** When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase with increasing drift potential (higher wind, smaller droplets, etc.).

**WIND:** Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type, determine drift potential at any given speed. Application must be avoided below 2 mph due to variable wind direction and high inversion potential. NOTE: Local terrain can influence wind patterns. Every applicator needs to be familiar with local wind patterns and how they affect spray 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:** Applications must 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 winds 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 generator. 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 must 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).

### AGRICULTURAL USES

Alligare Diquat Herbicide can be used to control weeds in noncrop or non-planted areas on farms. This product acts on contact with actively growing green plant tissue and for effective control, complete coverage of all green plant tissue is required. Signs of herbicidal activity are usually apparent within a few days of application. Improper application technique and/or application to large, stressed, or mowed weeds will generally result in unacceptable control. Weeds that emerge after application of this product will not be controlled or suppressed. Weeds that are established or larger than 6" may require retreatment.

Cool (below 55°) or cloudy, overcast weather will slow this products activity but will not affect performance.

### PRECAUTIONS

- Rain or irrigation occurring within 30 minutes of application negatively impacts herbicidal activity.
- Be sure to rinse all spray equipment thoroughly with water after use.

### RESTRICTIONS

- Do not allow spray to contact or drift to desirable vegetation or severe plant injury or death will result.
- Do not use dirty or muddy water when diluting this product.
- Do not apply this product through any type of irrigation system.

### APPLICATION INSTRUCTIONS

Apply this product to newly emerged weeds while actively growing and before they become too large (weeds 1-6 inches in height are easiest to control). Be sure to follow the specified rates listed in the instructions below, using the higher rates when weeds are large or dense.

If weeds have been mowed or grazed (removing much of the green foliage) be sure to allow weeds to regrow to a height of 2-4 inches before application.

NOTE: Because dust can coat target surfaces and reduce product activity, avoid applying in extremely dusty conditions (e.g., dust caused by high winds or the passage of equipment tires).

### Spray Equipment

Be sure to follow the specific instructions for minimum spray volume listed in the instructions below. Note that instructions are minimum volumes only and increase spray volume as necessary to obtain complete coverage of the target weed or plant (without causing foliage runoff). For best results use flat fan nozzles. Other nozzles provide less than complete coverage resulting in reduced performance.

When spraying less than 20 gallons of spray carrier per acre, target weeds must not exceed 6 inches in height.

### Adjuvants

When applying this product, be sure to always add one of the following adjuvants:

Nonionic Surfactant (NIS) – Add a NIS containing 75% or greater surface active ingredient at 0.06-0.5% v/v (1/2-4 pints per 100 gallons) of the finished spray volume.

Other Adjuvants – Use adjuvants other than NIS but that meet the following criteria:

- Contains only EPA exempt ingredients.
- Is compatible when mixed with this product (compatibility can be determined using a jar test).
- Is supported locally for use with this product through proven field trials and through university and extension recommendations.

### SPECIFIC USE INSTRUCTIONS

| Use Sites   | Use Pattern    | Application Rates   | Notes   |
|---|----------------|---|---|
| <b>Noncrop or Nonplanted Areas on Farms</b><br><br>Fence lines, Farmyards, Farm Buildings, Fuel Storage Areas, Barrier Strips, Equipment Areas, and Dry (non-flooded) areas around ponds, lakes, and drainage ditches | Broadcast      | 1-2 pints of this product in a minimum of 15 gallons of water per acre.   | Apply for full coverage and thorough weed control. Retreatment may be necessary to control grasses and established weeds.   |
|   | Spot Treatment | 1-2 quarts of this product plus the labeled rate of a 75% or greater nonionic surfactant per 100 gallons water or 0.75 ounces (22 ml) plus the labeled rate of 75% or greater non-ionic surfactant per 1 gallon of water. | Avoid spray contact with foliage of food crops or ornamental plants or other desirable vegetation. Add the labeled rate of 75% or greater nonionic surfactant to the finished spray volume. |

### AQUATIC AND NONCROP USES

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

Alligare Diquat Herbicide is used to control aquatic weeds in waters such as ponds, lakes, reservoirs, marshes, bayous, drainage ditches, canals, streams, rivers, and other slow-moving or quiescent bodies of water. Do not apply to water that is moving or if outflow leads to public waters (i.e., apply only to still water ponds, lakes and drainage ditches).

Optimum control of submersed weeds is obtained by applying Alligare Diquat Herbicide when the weeds are actively growing (photosynthesizing), typically when water temperatures are about 50°F or more, (this occurs usually in the Spring or early Summer).

#### Precautions and Restrictions:

- Obtain all necessary approval and/or permits before application if required. Consult the responsible State Agencies (i.e., Fish and Game Agencies, State Water Conservation authorities, or Department of Natural Resources).
- Alligare Diquat Herbicide may be applied by those applicators certified for aquatic pest control authorized by the State or Local government, Federal or State Public Agencies such as Water Management District personnel and municipal officials, and by Corps of Engineers.
- For water bodies containing dense weeds, apply Alligare Diquat Herbicide to only 1/3 to 1/2 of the water body area at one time. If a repeat application is required, wait for 14 days. Using Alligare Diquat Herbicide in this manner will prevent loss of oxygen in the water body which occurs when dead weeds begin to decompose which often leads to suffocation of fish.

- Do not apply Alligare Diquat Herbicide in areas where commercial processing of fish which produces fish protein concentrate or fish meal is practiced. Prior to application, coordinate application with and obtain approval from local and/or State authorities.
- Use water treated with Alligare Diquat Herbicide only after the specified number of days have passed after application (refer to the table below for these water use restrictions). Alternatively, the water may be used

- at a different time after application only if an approved assay (ex. PAM II Spectromatic Method) shows that no more than the designated maximum contaminant level goal (MCLG) of 0.02 mg/L (ppm) of diquat dibromide (calculated as the cation) is present in the water.
- If posting is required by your state or tribe, consult the agency responsible for pesticide regulations for specific details.

**Water Use Restrictions Following Applications of Alligare Diquat Herbicide**

| TYPE OF WATER   | Number of Days to Wait Before Using Water After An Application of Alligare Diquat Herbicide At Different Application Rates |                      |                         |                         |   |
|---|--|----------------------|-------------------------|-------------------------|---|
|   | 2 gals./ surface acre  | 1 gal./ surface acre | 0.75 gal./ surface acre | 0.50 gal./ surface acre | Spot Spray (<0.5 gal./ surface acre) <sup>†</sup> |
| Drinking  | 3 days   | 2 days               | 2 days                  | 1 day                   | 1 day   |
| Fishing and Swimming  | 0  | 0                    | 0                       | 0                       | 0   |
| Livestock/Domestic Animals Consumption  | 1 day  | 1 day                | 1 day                   | 1 day                   | 1 day   |
| Spray Tank Applications <sup>**</sup> and Irrigation to Turf and Landscape Ornamentals        | 3 days   | 2 days               | 2 days                  | 1 day                   | 1 day   |
| Spray Tank Applications <sup>**</sup> and Irrigation to Food Crops and Production Ornamentals | 5 days   | 5 days               | 5 days                  | 5 days                  | 5 days  |

<sup>†</sup> Apply Alligare Diquat Herbicide in addition to the manufacturer's recommended rate of a nonionic surfactant (contains 75% or greater nonionic surfactant).  
<sup>\*\*</sup> Do not use water treated with Alligare Diquat Herbicide to prepare sprays to be applied to food crops, turf or ornamentals until the appropriate time period has elapsed or injury to crop, turf or plants could occur.  
**Note:** If more than one spray tank is required to complete a single aquatic application, there is no water restriction between the consecutive spray tank applications.

**Control of Floating and Marginal Weeds**

Alligare Diquat Herbicide controls the listed floating and marginal weeds from application by airboat, airplane, backpack, spray handgun, helicopter, or similar application equipment. For all application methods, ensure that weeds receive thorough spray coverage.

| Floating and Marginal Weeds Controlled            |
|---|
| Water lettuce, <i>Pistia stratiotes</i>           |
| Water hyacinth, <i>Eichhornia crassipes</i>       |
| Duckweed, <i>Lemna</i> spp.                       |
| Salvinia spp. (including <i>S. molesta</i> )      |
| Pennywort ( <i>Hydrocotyle</i> spp.)              |
| Frog's Bit, <i>Limnobium spongia</i> <sup>†</sup> |
| Cattails, <i>Typha</i> spp.                       |

<sup>†</sup> Not registered for use in California

**Spot Treatment:**

**Application Rates:** 2 quarts Alligare Diquat Herbicide per 100 gallons spray carrier (0.5% solution) **plus** 0.25-1.0% v/v (1 quart to 1 gallon per 100 gallons water) of an approved aquatic wetting agent.

**For cattail control:** Apply Alligare Diquat Herbicide before flowering at 8 quarts of Alligare Diquat Herbicide /100 gallons spray carrier (the maximum application rate) plus the wetting agent. Make repeat applications if needed for complete control.

**Application Directions:** Apply spray solutions to wet completely the target weeds. Do not spray to runoff. Additional applications may be needed if treating densely-packed weeds or mats. Best results are obtained for weed escapes if repeat applications are made within 2 weeks of the first treatment.

**Broadcast Treatment:**

**Application Rates:** 0.5 to 2.0 gallons Alligare Diquat Herbicide per surface acre in sufficient spray carrier **plus** 16 to 32 oz. per acre of an approved aquatic wetting agent.

**For duckweed control:** Apply Alligare Diquat Herbicide at 1-2 gallons/A.

**Application Directions:** Apply sprays to ensure thorough target weed coverage. Repeat applications may be necessary for densely populated weed areas.

**Control of Submerged Weeds**

Alligare Diquat Herbicide controls the listed submerged weeds from application by surface, subsurface, and bottom placement applications. Enhanced weed control may be obtained in situations where severe weed or algae infestations are found: use an approved algaecide either as a pretreatment to an Alligare Diquat Herbicide application, or as a tank mix with Alligare Diquat Herbicide.

| Submersed Weeds Controlled or Suppressed                              |
|---|
| Bladderwort, <i>Utricularia</i> spp.                                  |
| Hydrilla, <i>Hydrilla verticillata</i>                                |
| Watermilfoils (including Eurasian), <i>Myriophyllum</i> spp.          |
| Pondweeds, <i>Potamogeton</i> spp. <sup>†</sup>                       |
| Coontail, <i>Ceratophyllum demersum</i>                               |
| Elodea, <i>Elodea</i> spp.  |
| Brazilian Elodea, <i>Egeria densa</i>                                 |
| Naiad, <i>Najas</i> spp.  |
| Algae, <i>Spirogyra</i> spp. and <i>Pithophora</i> spp. <sup>**</sup> |

<sup>†</sup> Alligare Diquat Herbicide does not control Richardson's pondweed, *P. richardsonii*.

\*\* Suppression only. *Spirogyra* and/or *Pithophora* can be controlled using a tank mix of Alligare Diquat Herbicide with an approved algaecide.

**Application Rates:** 0.5-2.0 gallons Alligare Diquat Herbicide in water per surface acre (per 4-foot water depth). For severe weed infestations, use the 2.0 gallon per surface acre rate. Repeat applications at 14 to 21 day intervals may be needed for optimum control.

Use the table below to determine the number of gallons of Alligare Diquat Herbicide needed to apply per surface acre based on water depth.

|                           | Gallons of Alligare Diquat Herbicide per Surface Acre |           |           |           |
|---------------------------|---|-----------|-----------|-----------|
|                           | Average Water Depth                                   |           |           |           |
|                           | 1 Foot  | 2 Feet    | 3 Feet    | 4 Feet    |
| <b>1 gallon/acre rate</b> | 0.25 gal.   | 0.50 gal. | 0.75 gal. | 1.0 gal.  |
| <b>2 gallon/acre rate</b> | 0.50 gal.   | 1.0 gal.  | 1.5 gals. | 2.0 gals. |

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

#### Application Directions

**Subsurface Applications:** For submersed weeds, especially *Hydrilla*, that have reached the water's surface, apply Alligare Diquat Herbicide in a water carrier or an invert emulsion through boom trailing hoses carrying nozzle tips that direct the dilute spray below the water surface to ensure adequate weed coverage.

**Bottom Placement:** For submersed weeds (ex. *Hydrilla*, Bladderwort, or Coontail) that have reached the water surface and/or where the water is slowly moving through the weed growth, apply Alligare Diquat Herbicide in an invert emulsion carrier with weighted hoses that injects the diluted spray solution near the bottom. Adding a copper-based algaecide may improve control. Alternatively, a pretreatment application with a copper based algaecide may improve overall control if algae are present along with submersed weeds.

**Surface Application for Submersed Aquatic Weeds:** For submersed weeds, apply Alligare Diquat Herbicide as a spray in sufficient carrier to fully cover the target area and to ensure complete coverage of the weed areas. The higher rate is recommended for mixed weed populations. Surface spray applications are not recommended for densely-packed submersed weeds or if water is over 2 feet deep (use subsurface applications of Alligare Diquat Herbicide in these situations).

#### COMMERCIAL GREENHOUSES AND NURSERIES

Alligare Diquat Herbicide may be used for general weed control in commercial greenhouses (ex., beneath benches), for field grown and container stock, and in other similar areas. Make applications of Alligare Diquat Herbicide preplant or postplant preemergence in field grown ornamental nursery plantings, or postemergence as a directed spray. For ornamental seed crops (NOT registered for use in the State of California), Alligare Diquat Herbicide may also be applied preemergence. Do not allow sprays to contact desirable foliage or injury may occur. Do not use on food or feed crops.

**Spot Spray Application Rates:** 1-2 qts. Alligare Diquat Herbicide **plus** a nonionic surfactant (contains 75% or greater nonionic surfactant) at the manufacturer's recommended rate per 100 gals of water, or 0.75 fl. oz. (22 ml) Alligare Diquat Herbicide plus the manufacturer's recommended rate of a nonionic surfactant (contains 75% or greater nonionic surfactant) per 1 gallon of water.

**Broadcast Application Rates:** 1-2 pts. Alligare Diquat Herbicide in a minimum of 15 gallons of water per acre **plus** a nonionic surfactant (contains 75% or greater nonionic surfactant) at the manufacturer's recommended rate per 100 gals of spray mixture. For thorough coverage, apply Alligare Diquat Herbicide in an adequate spray volume.

#### DORMANT ESTABLISHED TURFGRASS (BERMUDAGRASS, ZOY-SIAGRASS) NONFOOD OR FEED CROP

Alligare Diquat Herbicide controls the listed emerged annual broadleaf and grass weeds in established dormant bermudagrass lawns, parks, golf courses, etc. Do not apply unless turfgrass is dormant at application. Application to actively growing bermudagrass may cause delay or permanent injury. If using this product in extreme Southern areas of the United States, make certain that the turfgrass is dormant at the time of application.

| Weeds Controlled in Established Dormant Turfgrass                                       |
|---|
| Little Barley <sup>†</sup>  |
| Annual Bluegrass  |
| Bromes including Rescuegrass, Sixweeks fescue, Henbit, Buttercup, and Carolina Geranium |

<sup>†</sup>Apply Alligare Diquat Herbicide before the mid-boot stage.

**Broadcast (Ground) Application Rates:** 1-2 pts. Alligare Diquat Herbicide per acre in 20-100 gals. of spray mix **plus** a nonionic surfactant (contains 75% or greater nonionic surfactant) at the manufacturer's recommended rate per 100 gals. of spray mixture.

#### LANDSCAPE, INDUSTRIAL, RECREATIONAL, COMMERCIAL, RESIDENTIAL, AND PUBLIC AREAS

Alligare Diquat Herbicide is a nonselective herbicide and it will kill broadleaf and grassy weeds in industrial, recreational, golf course, commercial, residential, and public areas within 24-36 hours. Do not allow sprays to contact desirable plant foliage or injury may occur.

To be effective as a contact/desiccant herbicide, Alligare Diquat Herbicide must completely cover the target weeds. Best results are seen when Alligare Diquat Herbicide is applied to young, actively growing weeds. Do not apply to weeds that are growing under stress. Use the recommended application techniques for acceptable weed control.

For weeds that are difficult to control, such as perennials, or deeply-rooted weeds, control is often obtained by applications of Alligare Diquat Herbicide as a tank mix with other systemic-type herbicides. Alligare Diquat Herbicide, when applied as a tank-mix with a preemergent herbicide labeled for the intended use site, will provide residual control. Before preparing large volume of a tank-mix of Alligare Diquat Herbicide with other herbicides, check that the tank-mix is physically compatible by mixing only a small amount of the tank mix. If the mixture balls up, forms flakes, sludges, jells, oily films or layers, or other precipitates form, do not use this combination: it is not compatible. Read and follow the other product labels for specific application directions.

It is not possible for Alligare, LLC to test all possible tank mixtures of Alligare Diquat Herbicide with other pesticides for compatibility, efficacy, or other adverse effects. Alligare, LLC recommends you consult your state experimental station, state university or extension agent before tank-mixing Alligare Diquat Herbicide with other herbicides.

**Grounds maintenance weed control in public, commercial and residential landscapes, including landscape beds, lawns, golf courses and roadsides:** Apply Alligare Diquat Herbicide as a spot or broadcast spray to control weeds in listed sites or to control weeds around the edges and nonflooded portions of ponds, lakes and ditches.

**Trim and Edge weed control along driveways, walkways, patios, cart paths, fence lines, and around trees, ornamental gardens, buildings, other structures, and beneath noncommercial greenhouse benches:** Alligare Diquat Herbicide can be used to eliminate undesired grass and broadleaf plant growth in narrow-banded areas along the areas listed.

Since Alligare Diquat Herbicide does not translocate systemically, it can be used as an edging or pruning tool. Alligare Diquat Herbicide must be applied only to the select, narrow-banded areas of grass or undesirable weed growth found in desirable ornamental bedding plants, ground covers, etc. Alligare Diquat Herbicide will only control vegetation growing within the width of the spray application. Do not exceed the labeled rate of Alligare Diquat Herbicide or concrete-based materials will be stained.

**Industrial weed control for right-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:** Apply Alligare Diquat Herbicide as a spot or broadcast spray either alone or in combination with other herbicides for a fast burndown of weeds in listed industrial weed control sites.

**Spot Spray Applications:** 1-2 qts. of Alligare Diquat Herbicide *plus* a nonionic surfactant (contains 75% or greater nonionic surfactant) at the manufacturer's recommended rate per 100 gals. water. For small spray solution volumes, mix 0.75 fl. oz. (22 ml) Alligare Diquat Herbicide with the appropriate amount of the nonionic surfactant in 1 gallon of water.

**Broadcast Applications:** 1-2 pts. Alligare Diquat Herbicide per acre *plus* a nonionic surfactant (contains 75% or greater nonionic surfactant) at the manufacturer's recommended rate per 100 gals. of spray mixture. Use sufficient water to ensure good spray coverage, although increased spray volumes (60 gals. or more are recommended) will be necessary for treating tall and/or dense target plants.

**ORNAMENTAL SEED CROPS (FLOWERS, BULBS, ETC.)  
(NOT REGISTERED FOR USE IN THE STATE OF CALIFORNIA)**

Alligare Diquat Herbicide can be used for preharvest desiccation of ornamental seed crops. DO NOT USE FOR FOOD OR FIBER CROPS.

**Broadcast (Air or Ground) Applications:** 1.5-2 pts. Alligare Diquat Herbicide *plus* a nonionic surfactant (contains 75% or greater nonionic surfactant) at the manufacturer's recommended rate per acre. Apply in sufficient amount of water (minimum of 5 gallons by air; 15 gallons by ground) to ensure desiccation and weed burndown. Make repeat applications at a minimum of 5-day intervals and do not apply more than three applications. Do not use seed, screenings, or waste as feed or for consumption.

**TURF RENOVATION  
(ALL TURF AREAS EXCEPT COMMERCIAL SOD FARMS)**

Alligare Diquat Herbicide is used to desiccate golf course turf and other turf areas prior to renovation. For suppression of regrowth and quick desiccation of treated turfgrass, use Alligare Diquat Herbicide as a tank mix with other systemic nonselective or systemic postemergence grassy weed herbicides. Before tank mixing with other products, read and follow the other product labels for specific application directions and restrictions.

**Broadcast (Ground) Application:** 1-2 pts. of Alligare Diquat Herbicide per acre *plus* a nonionic surfactant (contains 75% or greater nonionic surfactant) at the manufacturer's recommended rate in 20-100 gals. of water. For smaller spray solution volumes, mix 4 teaspoons of Alligare Diquat Herbicide and the appropriate amount of nonionic surfactant in 1 gal. of water. Apply Alligare Diquat Herbicide as a full coverage spray to thoroughly contact the turfgrass. Make applications only when the turf is dry, free from dew or other moisture. Increased water volumes (100 gal. of water per acre) will enhance turf desiccation, especially when turfgrass is dense and thick.

**RESTRICTIONS:**

- Do not allow sprays to come in contact with or drift to, foliage of ornamental plants or food crops.
- Do not graze livestock on treated turf or feed treated thatch to livestock.

**STORAGE AND DISPOSAL**

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

**PESTICIDE 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 temperatures above 32°F.

**PESTICIDE DISPOSAL:** Open dumping is prohibited. 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:**

Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying.

(Nonrefillable ≤ 5 gallons): 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. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

(Nonrefillable > 5 gallons): Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

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

**CONDITION OF SALE AND LIMITATION OF WARRANTY AND LIABILITY**

To the extent consistent with applicable law, upon purchase or use of this product, purchaser and user agree to the following terms:

**Warranty:** Alligare, LLC (the Company) warrants that this product conforms to the chemical description on the label in all material respects and is reasonably fit for the purpose referred to in the directions for use, subject to the exceptions noted below, which are beyond the Company's control.

To the extent consistent with applicable law, the Company makes no other representation or warranty, express or implied, concerning the product, including no implied warranty of merchantability or fitness for a particular purpose. To the extent consistent with applicable law, no such warranty shall be implied by law, and no agent or representative is authorized to make any such warranty on the Company's behalf.

**Terms of Sale:** The Company's directions for use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, and the manner of use or application (including failure to adhere to label directions), all of which are beyond the Company's control. To the extent consistent with applicable law, all such risks are assumed by the user.

**Limitation of Liability:** To the extent consistent with applicable law, the exclusive remedy against the Company for any cause of action relating to the handling or use of this product is a claim for damages, and in no event shall damages or any other recovery of any kind exceed the price of the product which caused the alleged loss, damage, injury or other claim. To the extent consistent with applicable law, under no circumstances shall the Company be liable for any special, indirect, incidental or consequential damages of any kind, including loss of profits or income. Some states do not allow the exclusion or limitation of incidental or consequential damages.

The Company and the seller offer this product, and the purchaser and user accept this product, subject to the foregoing warranty, terms of sale and limitation of liability, which may be varied or modified only by an agreement in writing signed on behalf of the Company by an authorized representative.

EPA 20161214





# DIQUAT HERBICIDE

## LANDSCAPE AND AQUATIC HERBICIDE

TO PREVENT ACCIDENTAL POISONING, NEVER PUT THIS PRODUCT INTO FOOD, DRINK, OR OTHER CONTAINERS. USE THIS PRODUCT STRICTLY IN ACCORDANCE WITH THE DIRECTIONS ON THIS LABEL.

**ACTIVE INGREDIENT:**

Diquat dibromide [6,7-dihydrodipyrido (1,2-a:2',1'-c) pyrazinedium dibromide] . . . . . 37.3%

**OTHER INGREDIENTS:** . . . . . 62.7%

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

Contains 2 lbs. diquat cation per gallon (3.73 lbs. of diquat dibromide per gallon).

EPA Reg. No. 81927-35

EPA Est. No. 81927-AL-001<sup>PM</sup>  
7401-TX-001<sup>TX</sup>; 73427-NV-001<sup>NV</sup>

Letter(s) in lot number correspond(s) to superscript in EPA Est. No.

### KEEP OUT OF REACH OF CHILDREN

## CAUTION

| FIRST AID   |
|---|
| <b>If in eyes:</b> 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.  |
| <b>If swallowed:</b> 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.  |
| <b>If on skin or clothing:</b> 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.  |
| <b>If inhaled:</b> 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.  |
| <b>HOT LINE NUMBER:</b> Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-424-9300 for emergency medical treatment information.   |
| <b>NOTE TO PHYSICIAN:</b> 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. |

**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.

### STORAGE AND DISPOSAL

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

**PESTICIDE 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 temperatures above 32°F.

**PESTICIDE DISPOSAL:** Open dumping is prohibited. 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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See label booklet for additional Precautionary Statements and Directions for Use.

**Net Contents: 2.5 Gallons (9.46 liters)**

Manufactured for: Alligare, LLC  
1565 5th Avenue • Opelika, AL 36801

EPA 20161214

PEEL BACK BOOK HERE