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) pyrazinenediamidobromide] .................................................. 36.4%
Inert Ingredients .................................................................................................................. 63.6%

Total ........................................................................................................................................ 100.0%

Contains 2 pounds diquat ion per gallon as 3.73 pounds salt per gallon.

EPA Reg. No. 10182-353

Keep Out of Reach of Children

NOTE TO PHYSICIANS:

IF IN EYES: IMMEDIATELY wash eyes with water for at least 15 minutes

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.

FOR 24-HOUR EMERGENCY MEDICAL ASSISTANCE, CALL CHEMTREC, 1-800-424-9300.

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

Precautionary Statements

Hazards to Humans and 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 CATTLE. KEEP LIVESTOCK AND PETS OUT OF TREATED FIELDS AND CROP AREAS.

Personal Protective Equipment (PPE)

Applicants and other handlers must wear:

• Coversalls 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

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 cleaning/maintaining PPE are available, use detergent and hot water. Keep and wash PPE separately from laundry. Where 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. Mixers, loaders, and applicators using closed systems who meet these requirements may wear: long-sleeved shirt and long pants, protective eyewear, waterproof gloves, shoes plus socks, and a chemical-resistant apron when mixing, loading, or cleaning equipment. If handling tasks are performed from inside an enclosed cab or aircraft with enclosed cockpits that meet these requirements may wear: long-sleeved shirt, long pants, shoes, and socks for the labeling-specified PPE. All labeling-specified PPE must be immediately available for use in an emergency. All applicable requirements as specified in 40 CFR 170.240(d)(4-6) must be followed.

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 after putting 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 (Terrestrial Uses)

This pesticide is toxic to wildlife. 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 waters.

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 the label instructions, or use under abnormal conditions or under conditions not reasonably foreseeable or beyond the control of ZENECA or Seller, 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.

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

Do Not Apply This Product Through Any Type of Irrigation System

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, documentation, 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 (REI). 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.
Diquat herbicide is a nonvolatile herbicide for use as a preharvest aid to desiccate certain crops in order to facilitate harvesting. Diquat herbicide is also recommended for use as a general herbicide to control weeds in noncrop areas and nonbearing crops. Diquat is a contact-type herbicide and requires actively growing green plant tissue to function. Thorough coverage of all green plant tissue is essential for effective control. Diquat herbicide is rapidly absorbed by green plant tissue and interacts with the phytosynthetic process to produce compounds which destroy plant cells. Herbicidal activity is usually quite rapid with effects visible in a few days.

**Agricultural Use Directions**

**Application**

Since Diquat is a contact-type herbicide, it is essential to obtain complete coverage of the target weed or crop to achieve effective results. Improper application technique and/or application to large, stressed, or mowed weeds will generally result in unacceptable control. Complete coverage is also essential for effective performance in harvest aid applications. See details in the following table for additional information.

**Nozzle Selection:** The use of flat-fan nozzles will result in the most effective application of Diquat herbicide. The use of nozzles other than flat fans may result in reduced performance due to inadequate coverage.

**Spray Volume:** Follow recommended minimum spray volumes listed for each use of Diquat herbicide. These are minimum volumes only, and spray volumes should be increased as necessary to obtain complete coverage of the target weed or crop to achieve effective results. Improper application of the target weed or crop to achieve effective results. Improper application of Diquat herbicide results in unacceptable control. These are minimum volumes only, and spray volumes should be increased as necessary to obtain complete coverage of the target weed or plant without runoff from the foliage. When spraying less than 20 gallons of spray carrier per acre, target weeds should not exceed 6 inches in height.

**Spray Adjuvants**

**Always Add One of the Following:**

- Nonionic Surfactant (NIS): Add a NIS containing 75% or greater surface active agent at 0.06% to 0.5% v/v (U). For 4 pints per 100 gallons) of the finished spray volume.
- Other Adjuvants: Adjuvants other than NIS may be used providing the product meets the following criteria:
  1. Contains only EPA exempt ingredients.
  2. Is compatible in mixture. Compatibility may be established through a jar test.
  3. Is supported locally for use with Diquat herbicide through proven field trials and through university and extension recommendations.

**Rates**

Follow recommended rates listed with each use of Diquat herbicide. Use the higher label rates when weeds are large or dense. Also, use higher labeled rates for harvest aid when crop vegetation is dense.

**Application Timing**

Diquat herbicide should be applied to emerged weeds when they are small. Weeds 1 inch to 6 inches in height are the easiest to control. When weeds have been grazed or mowed, removing much of the green foliage, allow the weeds to regrow to a height of 2 to 4 inches before spraying. For proper application timing of harvest aid applications, refer to each crop for recommendations. Weeds emerging after application of Diquat herbicide will not be controlled or suppressed.

**Rainfastness**

Because Diquat herbicide is rapidly absorbed by green plant tissue, rain occurring 30 minutes after application will have no effect on the activity of Diquat herbicide.

**Environmental Conditions**

Diquat herbicide is active over a wide range of environmental conditions. Cool weather (below 55°F) will slow the activity of Diquat herbicide, as will cloudy, overcast weather, but will not affect performance. In dry areas, dust stirred up by high winds or equipment tires can coat target surface and reduce Diquat herbicide activity. Avoid applying Diquat herbicide in extremely dusty conditions.

**Specific Use Directions**

The following table indicates use pattern, rates, minimum spray volumes, and preharvest interval for specific uses.

**Specific Use Recommendations**

<table>
<thead>
<tr>
<th>Crop</th>
<th>Use Pattern</th>
<th>Diquat Herbicide Rate per Acre</th>
<th>Minimum Total Spray Volume per Acre</th>
<th>Preharvest Interval (Days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alfalfa (seed crop only)</td>
<td>Preharvest desiccation broadcast</td>
<td>1 1/2 to 2 pints (see precautions section for additional rate information)</td>
<td>Ground: 15 gal. Air: 5 gal.</td>
<td>3</td>
</tr>
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**Precautions, Restrictions, and Comments:**

- Do not apply to drought-stressed potatoes.
- Make a second application if necessary to obtain additional desiccation where vine growth is dense.
- For improved vine coverage, a 5-day interval is recommended between applications.
- Do not exceed a total of 4 pints per acre.

**Adjuvants other than NIS may be used providing the product meets the following criteria:**

- Contains only EPA exempt ingredients.
- Is compatible in mixture. Compatibility may be established through a jar test.
- Is supported locally for use with Diquat herbicide through proven field trials and through university and extension recommendations.

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Diquat Herbicide may further reduce drift without reducing swath width.

The applicator and the grower are responsible for compliance with these requirements when making decisions.

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

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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 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 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 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).

Limitations and Precautions

Direct spray contact or drift of Diquat herbicide will cause severe plant injury or death. Avoid contact of desirable vegetation. Weeds emerging after application of Diquat herbicide will not be controlled or suppressed. Retreatment may be necessary for complete control of grasses and older established weeds. Use of dirty or muddy water for Diquat herbicide dilution may result in reduced efficacy. Weeds suppressed by Diquat herbicide will result in contamination and may weaken the container.

Precautions, Restrictions, and Comments:

- Diquat herbicide can be used during site preparation prior to planting and up to 1 year of harvest.
- Retreatment may be necessary for complete control of grasses and older established weeds.
- Do not allow spray to contact grass stems, foliage, or fruits as injury can occur.
- Use a shield or wrap plant when spraying around young trees or vines.
- Do not graze treated areas.

Nonagricultural uses:

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.

Careful consideration of all these factors when making decisions.

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 large 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 sufficient 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. Significan 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 ½ of the wingspan or rotor length may further reduce drift without reducing swath width.
Do not refill or transport damaged or leaking container.

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

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This is a specimen label which was not prepared by ZENECA Inc. ZENECA Inc. is not responsible for the accuracy of the information contained herein. As labels are subject to revision, always carefully read and follow the label on the product container.

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