

# DESSICASH AG

## Dessicant & Herbicide

TO PREVENT ACCIDENTAL POISONING, NEVER PUT INTO FOOD, DRINK OR OTHER CONTAINERS AND USE STRICTLY IN ACCORDANCE WITH ENTIRE LABEL. DO NOT USE THIS PRODUCT FOR REFORMULATION.

### Active Ingredient:

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

Other Ingredients: . . . . . 62.7%

Total: . . . . . 100.0%

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

## KEEP OUT OF REACH OF CHILDREN CAUTION

See booklet for complete Precautionary Statements and Directions For Use.

EPA Reg. No. 83529-13

EPA Est. No. 70815-GA-002

Net Contents: 2.5 gals.

Manufactured For:

Sharda USA LLC 

7217 Lancaster Pike, Suite A  
Hockessin, DE 19707

### FIRST AID

#### IF IN EYES:

- 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:

- 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.

#### IF INHALED:

- 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:

- 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 a poison control center or doctor.
- Do not give anything by mouth to an unconscious person.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

**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.

#### EMERGENCY NUMBERS

For 24-Hour medical emergency assistance (human or animal) call **1-800-222-1222**.

For chemical emergency assistance (spill, leak, fire, or accident) call CHEMTREC at **1-800-424-9300**.

## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION:** Harmful if inhaled. Harmful if swallowed. Causes moderate eye irritation. Avoid contact with eyes or clothing.

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some of the materials that are chemical-resistant to this product are listed below.

#### Applicators and other handlers must wear:

- Coveralls over short-sleeved shirt and short pants
- Chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride
- 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 washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

### ENGINEERING CONTROLS

Mixers and loaders supporting aerial applications are required to use closed systems. 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, the 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 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. 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 or rinsate.

## 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 must 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 SHARDA USA LLC or Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold SHARDA USA LLC and Seller harmless for any claims relating to such factors.

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

To the extent consistent with applicable law, in no event shall SHARDA USA LLC 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 SHARDA USA LLC 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 SHARDA USA LLC OR SELLER, THE REPLACEMENT OF THE PRODUCT.

SHARDA USA LLC and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and of Liability, which may not be modified except by written agreement signed by a duly authorized representative of SHARDA USA LLC.

## **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, 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
- 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.

Do not allow people or pets to touch treated plants until the sprays have dried. Do not allow entry of maintenance workers into treated areas, or allow contact with treated vegetation wet with spray, dew, or rain, without appropriate protective clothing until spray has dried.

### **STORAGE AND DISPOSAL**

#### **Prohibitions**

Do not contaminate water, food, or feed by storage, disposal, or cleaning of equipment. Open dumping is prohibited.

**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:** 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:** Non-refillable container. Do not refill or reuse container. 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. Offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or 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!**

## **GENERAL PRODUCT INFORMATION**

DESSICASH AG Dessicant & Herbicide is a nonvolatile herbicide for use as a preharvest aid to desiccate certain crops in order to facilitate harvesting. DESSICASH AG Dessicant & Herbicide is also directed for use as a general herbicide to control weeds in non-crop areas and nonbearing crops. DESSICASH AG Dessicant & Herbicide 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. DESSICASH AG Dessicant & Herbicide is rapidly absorbed by green plant tissue and interacts with the photosynthetic 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 DESSICASH AG Dessicant & Herbicide 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 below for additional information.

### **Nozzle Selection**

The use of flat fan nozzles will result in the most effective application of DESSICASH AG Dessicant & 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 DESSICASH AG Dessicant & Herbicide. 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 gals. 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 0.06-0.5% v/v (1/2-4 pts. per 100 gals.) of the finished spray volume.

#### **Other Adjuvants**

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 DESSICASH AG Dessicant & Herbicide through proven field trials and through university and extension recommendations.

## **RATES**

Follow recommended rates listed with each use of DESSICASH AG Dessicant & 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**

**DESSICASH AG Dessicant & 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, thus removing much of the green foliage, allow the weeds to regrow to a height of 2-4 inches before spraying. For proper application timing of harvest aid applications, refer to each crop for directions. Weeds emerging after application of DESSICASH AG Dessicant & Herbicide will not be controlled or suppressed.

## **RAINFASTNESS**

Because DESSICASH AG Dessicant & Herbicide is rapidly absorbed by green plant tissue, rain occurring 30 minutes after application will have no effect on the activity of DESSICASH AG Dessicant & Herbicide.

## **ENVIRONMENTAL CONDITIONS**

DESSICASH AG Dessicant & Herbicide is active over a wide range of environmental conditions. Cool weather (below 55°F) will slow the activity of DESSICASH AG Dessicant & 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 DESSICASH AG Dessicant & Herbicide activity. Avoid applying DESSICASH AG Dessicant & Herbicide in extremely dusty conditions.

## **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 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.

- 1) The distance of the outer most nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
- 2) 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.

## **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**).

### **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 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 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 ft. above the top of the target 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 drops, 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 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.

### **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 herbicide 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, and non-target crops).

## SPECIFIC USE DIRECTIONS

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

<b>Crop</b>	<b>Use Pattern</b>	<b>DESSICASH AG Desiccant &amp; Herbicide Rate Per Acre</b>	<b>Minimum Total Spray Volume Per Acre</b>	<b>Preharvest Interval (Days)</b>	<b>Precautions, Restrictions and Comments</b>
<b>Alfalfa</b> (seed crop only)	Preharvest desiccation broadcast	1 1/2 - 2pts. (see precautions section for additional rate information)	Ground: 15 gals. Air: 5 gals.	3	<ul style="list-style-type: none"> <li>• On thin stands of seed alfalfa use 1 pt. per acre.</li> <li>• Desiccation is complete in 3-10 days.</li> <li>• Do not graze or feed treated forage to livestock.</li> <li>• Do not use seed from treated plants for food, feed, or oil purposes.</li> </ul>
<b>Clover</b> (seed crop only)	Preharvest desiccation broadcast	1 1/2 - 2 pts.	Ground: 15 gals. Air: 5 gals.	3	<ul style="list-style-type: none"> <li>• Desiccation is complete in 3-10 days.</li> <li>• Do not graze or feed treated forage to livestock.</li> <li>• Do not use seed from treated plants for food, feed, or oil purposes.</li> </ul>

(continued)

**SPECIFIC USE DIRECTIONS (CONTINUED)**

<b>Crop</b>	<b>Use Pattern</b>	<b>DESSICASH AG Desiccant &amp; Herbicide Rate Per Acre</b>	<b>Minimum Total Spray Volume Per Acre</b>	<b>Preharvest Interval (Days)</b>	<b>Precautions, Restrictions and Comments</b>
<b>Potato</b>	Preharvest desiccation broadcast	1 - 2 pts.	Ground: 20 gals. Air: 5 gals.	7	<ul style="list-style-type: none"><li>• Do not apply to drought stressed potatoes.</li><li>• 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.</li><li>• Do not exceed a total of 4 pts. per acre.</li></ul>

(continued)

**SPECIFIC USE DIRECTIONS (CONTINUED)**

Crop	Use Pattern	DESSICASH AG Dessicant & Herbicide Rate Per Acre	Minimum Total Spray Volume Per Acre	Preharvest Interval (Days)	Precautions, Restrictions and Comments
<b>Tree, Vine, Small Fruit Vegetable Crops - Non-bearing</b> Acerola (West Indian Cherry) Almonds Apple Apricots Artichokes Asparagus Avocados Bananas Blackberry Blueberry Boysenberry Cherries Coffee Conifers Crabapple Cranberry Dates Dewberry Elderberry Figs Filberts Ginseng Gooseberry Grapes Grapefruit	Directed Spray	1 1/2 - 2 pts.	Ground: 15 gals.	Do not use for food or feed for one year after application.	<ul style="list-style-type: none"> <li>• DESSICASH AG Dessicant &amp; Herbicide can be used during site preparation prior to planting and up to 1 year of harvest.</li> <li>• Retreatment may be necessary for complete control of grasses and older established weeds.</li> <li>• Do not allow spray to contact green stems, foliage, or fruit as injury can occur.</li> <li>• Use a shield or wrap plant when spraying around young trees or vines.</li> <li>• Do not graze treated areas.</li> </ul>

(continued)

**SPECIFIC USE DIRECTIONS (CONTINUED)**

Crop	Use Pattern	DESSICASH AG Dessicant & Herbicide Rate Per Acre	Minimum Total Spray Volume Per Acre	Preharvest Interval (Days)	Precautions, Restrictions and Comments
<p><b>Tree, Vine, Small Fruit Vegetable Crops - Non-bearing (continued)</b>                      Guava                      Huckleberry                      Jojoba                      Kiwi                      Lemons                      Limes                      Loganberry                      Macadamia                      Mango                      Nectarines                      Olives                      Oranges                      Papayas                      Passion Fruit                      Peaches                      Pears                      Pecans                      Persimmons                      Pistachios                      Plantains                      Plums                      Pomegranates                      Prunes                      Raspberry                      Tangelos                      Tangerines                      Walnuts</p>	<p>Directed                      Spray</p>	<p>1 1/2 - 2 pts.</p>	<p>Ground: 15 gals.</p>	<p>Do not use for food or feed for one year after application.</p>	<ul style="list-style-type: none"> <li>• DESSICASH AG Dessicant &amp; Herbicide can be used during site preparation prior to planting and up to 1 year of harvest.</li> <li>• Retreatment may be necessary for complete control of grasses and older established weeds.</li> <li>• Do not allow spray to contact green stems, foliage, or fruit as injury can occur.</li> <li>• Use a shield or wrap plant when spraying around young trees or vines.</li> <li>• Do not graze treated areas.</li> </ul>

