

Duke's Root Control, Inc.

RAZORROOTER®

SAFETY DATA SHEET

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SECTION 1: PRODUCT IDENTIFICATION

Product Identity: **RAZORROOTER®**

Use: Herbicide

Manufacturer: Duke's Root Control, Inc.
1020 Hiawatha Blvd., West
Syracuse, NY 13204

Manufacturer Phone: 315-472-4781

Current Revision: 08/07/2019

Emergency Telephone Number: **Transportation (24 Hours) CHEMTREC: 800-424-9300**
Outside the United States call 202-483-7616 (collect calls accepted.)

FOR 24-HOUR EMERGENCY MEDICAL ASSISTANCE CALL PROSAR 1-800-391-2584

SECTION 2: HAZARDS IDENTIFICATION

Classifications: Corrosive to Metals: Category 1
Oral: Category 4
Inhalation: Category 3
Specific target Organ Toxicity: Repeated Category 2
Eye Damage/Irritation: Category 2B

Signal Word (OSHA) Danger

Hazard Statements: May be corrosive to metals
Harmful if swallowed
Causes eye irritation
Toxic if inhaled
May cause damage to organs through prolonged or repeated exposure

Hazard Symbols:



Precautionary Statements: Keep only in original container.
Do not breath mist, vapors, spray.
Wash hands and face thoroughly after handling.
Do not eat drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
If swallowed: Call a poison center, doctor or Prosar if you feel unwell. Rinse mouth.
If inhaled: Remove person to fresh air and keep comfortable for breathing.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if Present and easy to do. Continue rinsing.
Call a poison center, doctor or Prosar.
Get medical advice if you feel unwell.
See Section 4 First Aid Measures.

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SECTION 2: HAZARDS IDENTIFICATION (cont'd)

If eye irritation persists: Get medical advice.
Absorb spillage to prevent material damage.
Store locked up.
Store in corrosive resistant plastic, plastic-lined steel, stainless steel or fiberglass container.
Dispose of contents and container in accordance with local regulations.

Other Hazard Statements: Flammable hydrogen gas may be formed on contact with incompatible metals.
See "Conditions to Avoid", Section 10..

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Common Name	CAS Number	Concentration
Other Ingredients	Other Ingredients	Trade Secret	62.7%
[6,7-dihydrodipyrido(1,2-a:2',1'-c)pyrazinediium dibromide]	Diquat Dibromide	85-00-7	37.3%

Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.

SECTION 4: FIRST AID MEASURES

Have the product container, label or Safety Data Sheet with you when calling Prozar (800-391-2584), a poison control center or doctor, or going for treatment.

Ingestion: If swallowed: Call Prozar (800-391-2584), a poison control center or doctor immediately for treatment advice. Do not give any liquid to the person. Do not induce vomiting unless told to do so after contacting Prozar (800-391-2584) or by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

Eye Contact: If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Call Prozar (800-391-2584), a poison control center or doctor for treatment advice.

Skin Contact: If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call Prozar (800-391-2584), a poison control center or doctor for treatment advice.

Inhalation: If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call Prozar (800-391-2584), a poison control center or doctor for further treatment advice.

Most important symptoms/effects: Eye irritation

Indication of immediate medical attention and special treatment needed:

To be effective, treatment for ingestion of the product must begin IMMEDIATELY. Treatment consists of binding the active ingredient, diquat, in the gut with suspensions of activated charcoal or bentonite clay, administration of cathartics to enhance elimination and removal of diquat from the blood by charcoal hemoperfusion or continuous hemodialysis.

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SECTION 5: FIRE FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media:

Use dry chemical, foam or CO₂ extinguishing media. If water is used to fight fire, dike and collect runoff.

Specific Hazards:

This product may form flammable and explosive hydrogen gas when in contact with aluminum.

During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

Special protective equipment and precautions for firefighters:

Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures:

Follow exposure controls/personal protection outlined in Section 8.

Methods and materials for containment and cleaning up:

Control the spill at its source. Contain the spill to prevent from spreading or contaminating soil or from entering sewage and drainage systems, or any body of water. Clean up spills immediately, observing precautions outlined in Section 8. Cover entire spill with absorbing material and place into compatible disposal container. Scrub area with hard water detergent (e.g. commercial products such as Tide, Joy, Spic and Span). Pick up wash liquid with additional absorbent and place into compatible disposal container. Once all material is cleaned up and placed in a disposal container, seal container, and arrange for disposition.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling:

This product reacts with aluminum to produce flammable hydrogen gas. Do not mix or store in containers or systems made of aluminum or having aluminum fittings.

Store the material in a well-ventilated, secure area out of reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area. Prevent eating, drinking, tobacco use, and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

Conditions for safe storage, including any incompatibilities: Store locked up

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION AND PACKAGING OF THIS PRODUCT.

FOR COMMERCIAL APPLICATIONS CONSULT THE PRODUCT LABEL.

Occupational Exposure Limits:

Chemical Name	OSHA PEL	ACGIH TLV	Other	Source
Other Ingredients	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Diquat Dibromide	Not Established	0.5 mg/m ³ TWA	0.5 mg/m ³ TWA (0.5 Total; 0.08 respirable)	Manufacturer

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (cont'd)

Appropriate engineering controls:

Use effective engineering controls to comply with occupational exposure limits (if applicable).

Individual protection measures:

Ingestion: Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

Eye Contact: Where eye contact is likely, use chemical splash goggles.

Skin Contact: Where contact is likely, wear chemical-resistant gloves (such as barrier laminate, butyl rubber, Nitrile rubber, neoprene rubber, natural rubber, polyvinyl chloride [PVC] or Viton), coveralls, socks and chemical-resistant footwear.

Inhalation: A respirator is not normally required when handling this substance. Use effective engineering controls to comply with occupational exposure limits.

In case of emergency spills, use a NIOSH approved respirator with any N, R, P or HE filter.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Dark brown liquid

Odor: Odorless

Odor Threshold: Not Available

pH: 4 - 6

Melting point/freezing point: Not Applicable

Initial boiling point and boiling range: Not Available

Flash Point (Test Method): Not Applicable

Flammable Limits (% in Air): Not Available

Flammability: Not Applicable

Vapor Pressure: Diquat Dibromide <10(-8) mmHg @ 77°F (25°C)

Vapor Density : Not Available

Relative Density : 1.202 g/ml @ 68°F (20°C)

Solubility (ies): Diquat Dibromide 718,000 mg/l @ 68°F (20°C) and pH 7.2

Partition coefficient: n-octanol/water: Not Available

Autoignition Temperature: Not Applicable

Decomposition Temperature: Not Available

Viscosity: Not Available

Other: None

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SECTION 10: STABILITY AND REACTIVITY

Reactivity: Not reactive.

Chemical stability: Stable under normal use and storage conditions.

Possibility of hazardous reactions: Will not occur.

Conditions to Avoid: Concentrate should not be stored in aluminum containers. Spray solutions should not be mixed, stored or applied in containers other than plastic, plastic-lined steel, stainless steel or fiberglass.

Incompatible materials: None known.

Hazardous Decomposition Products: Flammable hydrogen gas may be formed on contact with aluminum. See "Conditions to Avoid", Section 10.

SECTION 11: TOXICOLOGICAL INFORMATION

Health effects information

Likely routes of exposure: Dermal, Inhalation

Symptoms of exposure: Eye irritation

Delayed, immediate and chronic effects of exposure: Eye irritation

Numerical measures of toxicity (acute toxicity/irritation studies [finished product])

Ingestion: Oral (LD50 Female Rat): 886 mg/kg body weight

Dermal: Dermal (LD50 Rabbit): > 5050 mg/kg body weight

Inhalation: Inhalation (LC50 Rat): 0.62 mg/l air – 4 hours

Eye Contact: Mildly Irritating (Rabbit)

Skin Contact: Slightly Irritating (Rabbit)

Skin Sensitization: Not a Sensitizer (Guinea Pig)

Reproductive/Developmental Effects

Diquat Dibromide: Mutagenicity: No evidence in in vivo assays

Development Toxicity: In rabbit studies a small percentage of fetuses had minor defects at 3 and 10 mg ion/kg/d.

Chronic/Subchronic Toxicity Studies

Diquat Dibromide: Kidney weight decreases and cataracts seen in dogs at 12.5 mg ion/kg/d
No evidence for neurotoxic effects in rats dosed up to 400 ppm ion in diet for 13 weeks

Carcinogenicity

Diquat Dibromide: No evidence of carcinogenicity in rat and mouse studies.

Chemical Name NTP/IARC/OSHA Carcinogen

Other ingredients No

[6,7-dihydrodipyrido(1,2-a:2',1'-c)pyrazinediium dibromide] No

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Pesticide Registration:

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheet, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

Caution: Harmful if inhaled. Harmful if swallowed. Causes moderate eye irritation. Avoid breathing spray mist. Remove and wash contaminated clothing before reuse. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Avoid contact with eyes or clothing. Wear protective eyewear. Wear long sleeve shirt and long pants, socks, shoes and gloves.

EPA Registration Number: 94625-3

EPCRA SARA Title III Classification:

Section 311/312 Hazard Classes: Acute Health Hazard

Section 313 Toxic Chemicals: None

California Proposition 65 None

CERCLA/SARA 304 Reportable Quantity (RQ)

Report product spills \geq 268 gal. (based on diquat [RQ = 1,000 lbs.] content in the formulation)

RCRA Hazardous Waste Classification (40 CFR 261)

Not Applicable

TSCA Status

Exempt from TSCA, subject to FIFRA

SECTION 16: OTHER INFORMATION

NFPA Hazard Ratings

Health: 2
Flammability: 1
Instability: 0

HMIS Hazard Ratings

Health: 2
Flammability: 1
Reactivity: 0

0 Minimal
1 Slight
2 Moderate
3 Serious
4 Extreme
* Chronic

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Sections Revised: 1-16

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