

SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE AND THE SUPPLIER

Product name:	Diquat dibromide 200G/L SL
Other name:	/
Recommended use of the chemical and restrictions on use	Herbicide
Supplier name:	Shandong Weifang Rainbow Chemical Co., Ltd.
Supplier address:	Binhai Economic Development Area, Weifang, Shandong, China
Supplier phone:	+86-531-88875222, 88875231
Supplier fax:	+86-531-88875232, 88875224
Emergency phone number:	+86-531-88875222

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Acute toxicity - Oral (Category 4)

Acute toxicity - Dermal (Category 5)

Acute toxicity - Inhalation (Category 3)

Acute toxicity – Skin irritation (Category 2)

Acute toxicity – Eye irritation (Category 2B)

Hazardous to the aquatic environment — Acute Hazard (Category 1)

GHS Label elements, including precautionary statements:



Signal word: Danger

Hazard statements:

H302: Harmful if swallowed.

H313: May be harmful in contact with skin

H315: Causes skin irritation.

H320: Causes eye irritation

H331: Toxic if inhaled.

H400: Very toxic to aquatic life.

Precautionary statements:

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 Wash face, hands and contact areas thoroughly after handling.

P264 + P265 Wash hands thoroughly after handling. Do not touch eyes.

P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing.

P301 + P317 IF SWALLOWED: Get medical help.

P302 + P317 IF ON SKIN: Get medical help.

P302 + P352 IF ON SKIN: Wash with plenty water/...

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P316 Get emergency medical help immediately.

P321 Specific treatment

P330 Rinse mouth.

P332 + P317 If skin irritation occurs: Get medical help.

P337 + P317 If eye irritation persists: Get medical help.

P362 + P364 Take off contaminated clothing and wash it before reuse.

P391 Collect spillage.

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international Regulations.

Other hazards which do not result in classification:

Not available

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Concentration
Diquat dibromide	85-00-7	200G/L
Other ingredients	/	Up to 1L

4. FIRST AID MEASURES

Description of necessary first aid measures

INHALATION: Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Keep patient warm and at rest. Call a physician immediately.

SKIN Take off all contaminated clothing immediately. Wash off immediately with plenty of water. If

CONTACT: symptoms persist, call a physician. Wash contaminated clothing before re-use.

EYE Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

CONTACT: Remove contact lenses. Immediate medical attention is required.

INGESTION: If swallowed, seek medical advice immediately. DO NOT induce vomiting.

Most important symptoms/effects, acute and delayed

Not available

Indication of immediate medical attention and special treatment needed:

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. FIRE FIGHTING MEASURES

Suitable extinguishing media:

Dry chemical, foam or CO₂ extinguishing media.

Special hazards arising from the chemical:

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 actions for fire-fighters:

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. Prevent use of contaminated buildings, area, and equipment until decontaminated. Water runoff can cause environmental

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damage. If water is used to fight fire, dike and collect runoff.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Do not breathe vapour/spray. Use personal protective clothing. Avoid contact with the skin, eyes and clothing.

Environmental precautions:

Do not allow entering drains or watercourses. Spillage or uncontrolled discharges into water courses (or public waters) to be reported immediately to the Police and to the Department of Water/Environmental Affairs.

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. 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.

7. HANDLING AND STORAGE

Precautions for safe handling:

Avoid skin and eye contact and the inhalation of vapour and mist. Wear overalls, face shield, elbow-length impervious gloves, splash apron and rubber boots. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

Conditions for safe storage, including any incompatibilities:

Store in the closed, original container in a dry, cool, well ventilated area. DO NOT store for prolonged periods in direct sunlight. Store in a locked room or a place away from children, animals, food, feedstuffs, seed and fertilisers.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Appropriate engineering controls:

Containment and/or segregation is the most reliable technical protection measure if exposure cannot be eliminated. The extent of these protection measures depends on the actual risks in use. Where necessary, seek additional occupational hygiene advice.

Personal protective equipment:

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

Skin protection: 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. For overhead exposure, wear chemical-resistant headgear.

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

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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color etc.):	Dark Brown Liquid
Odor:	Non-specific
Odor threshold:	No data available

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pH:	4.0-8.0
Melting point/freezing point:	No data available
Initial boiling point and boiling range:	Approx 100°C
Flash point:	No data available
Evaporation rate:	No data available
Flammability (solid, gas):	No data available
Upper/lower flammability or explosive limits:	No data available
Vapor pressure:	No data available
Vapor density:	No data available
Relative density:	1.17 g/cm ³
Solubility(ies):	Soluble in water
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity:	No data available

10. STABILITY AND REACTIVITY

Reactivity:

No hazardous reactions if stored and handled as prescribed/indicated.

Chemical stability:

Stable under normal conditions.

Possibility of hazardous reactions:

No dangerous reaction in appropriate storage and usage.

Conditions to avoid:

Extreme degrees and direct sunlight.

Incompatible materials:

strong acids, strong bases, strong oxidizing agents

Hazardous decomposition products:

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.

11. TOXICOLOGICAL INFORMATION

Acute health effects:

Eye irritation	Mildly irritant
Skin irritation	Mildly irritant
Sensitization	No sensitizer in Guinea Pigs

Numerical measures of toxicity:

Acute oral LD ₅₀ :	>1000 mg/kg in the rat
Acute dermal LD ₅₀ :	>2000 mg/kg in the rat
Acute inhalation LC ₅₀ :	0.81 mg/L in the rat

Chronic health effects:

Did not show carcinogenic, teratogenic or mutagenic effects in animal experiments.

12. ECOLOGICAL INFORMATION

Ecotoxicity:

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Fish - 96 hour LC ₅₀	9.6736 mg/L(Poecillia reticulata Peters)
Daphnia - 48 hour EC ₅₀	2.2288 mg/L (<i>Daphnia magna</i>)
Algae – 72 hour EC ₅₀	0.216 mg/L (Pseudokirchneriella subcapitata)
Birds - Acute LD ₅₀	191.58mg/kg (<i>Colinus virginianus</i>)
Honeybee – Acute contact LD ₅₀	>23.9236 µg/bee
Honeybee – Acute oral LD ₅₀	>23.33372 µg/bee
Earthworm - Acute LD ₅₀	116.25 mg/kg

Persistence and degradability:

Not available

Bioaccumulative potential:

Does not bioaccumulate.

Mobility in the soil:

Not available

Other adverse effects:

Not available

13. DISPOSAL CONSIDERATIONS

Safe handling of waste residues and disposal methods:

PRODUCT DISPOSAL

Do not contaminate ponds, waterways or ditches with chemical or used container. Do not dispose of waste into sewer. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations.

CONTAINER DISPOSAL

Empty remaining contents. Triple rinse containers. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

14. TRANSPORT INFORMATION

UN Number: 3082

Road Transport ADR/IRD:

Class:9

Packaging group: III

UN Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID.N.O.S

Maritime Transport IMDG/IMO:

Class:9

Packaging group: III

UN Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID.N.O.S

Marine Pollutant (Y/N): Yes

Air transport IATA/ICAO:

Class:9

Packaging group: III

UN Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID.N.O.S

Special/Environmental Precautions: None known.

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15. REGULATORY INFORMATION

The information herein is presented in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given.

Regulatory requirements are subject to change and may differ from one location to another; it is the buyer's responsibility to ensure that its activities comply with local laws.

16. OTHER INFORMATION

The data given here is based on current knowledge and experience. The purpose of this safety data sheet is to describe the products in terms of their safety requirements. The data does not signify any warranty with regard to the products' properties.

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