

MATERIAL SAFETY DATA SHEET

MEPIQUAT

FOR CHEMICAL EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT, CALL CHEMTREC - DAY OR NIGHT 1-800-424-9300

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

FORMULATED FOR:

LOVELAND PRODUCTS, INC.
P.O. Box 1286 • Greeley, CO 80632-1286

24-Hour Emergency Phone: 1-800-424-9300
Medical Emergencies: 1-800-301-7976
U.S. Coast Guard National Response Center: 1-800-424-8802

PRODUCT NAME: MEPIQUAT
CHEMICAL NAME: Mepiquat Chloride; (N,N-Dimethylpiperidinium Chloride)
CHEMICAL FAMILY: Quaternary Ammonium Salt
EPA REG. NO.: 34704-855
MSDS Number: 000855-08-LPI

MSDS Revisions: All sections reviewed Date of Issue: 07/30/08

Supersedes: 09/16/04

2. HAZARDS IDENTIFICATION SUMMARY

KEEP OUT OF REACH OF CHILDREN – CAUTION – Harmful if swallowed or absorbed through the skin. Causes moderate eye irritation. Avoid contact with eyes, skin or clothing.

This product is pink liquid with no odor.

3. COMPOSITION, INFORMATION ON INGREDIENTS

<u>Chemical Ingredients:</u>	<u>Percentage by Weight:</u>	<u>CAS No.</u>	<u>TLV (Units)</u>
Mepiquat Chloride	4.20	24307-26-4	none established
Inert Ingredients	95.80		

4. FIRST AID MEASURES

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 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.

If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.

FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: **1-800-301-7976**. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

5. FIRE FIGHTING MEASURES

FLASH POINT (°F/Test Method): Will not flash
FLAMMABLE LIMITS (LFL & UFL): Not applicable
EXTINGUISHING MEDIA: Water fog, foam, dry chemical, or CO₂.
HAZARDOUS COMBUSTION PRODUCTS: Combustion may generate hydrogen chloride and oxides of carbon, hydrogen and nitrogen.
SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained breathing apparatus with full protective clothing. Fight fire from upwind and keep all non-essential personnel out of area.
UNUSUAL FIRE AND EXPLOSION HAZARDS: If water is used to fight fire and cool the containers, contain run-off by diking to prevent contamination of water supplies.

6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

For small spills: absorb with an absorbent material such as sand, vermiculite or other absorbent material. Place contaminated material in appropriate containers for proper disposal. **For large spills:** dike large spills using absorbent or impervious material such as clay or sand. Recover and contain as much free liquid as possible for reuse. Allow absorbed material to solidify, and scrape up for disposal. After removal, scrub the area with detergent and water and flush contaminated area thoroughly with water. Pickup wash liquid with additional absorbent and place in appropriate containers for disposal.

CAUTION: Keep spills and cleaning runoff out of municipal sewers and open bodies of water.

7. HANDLING AND STORAGE

HANDLING: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after using this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

STORAGE: Do not store below 32°F/0°C or above 100°F/37.8°C. Store in a dry place away from heat and open flame. Do not contaminate water, food, or feed by storage and disposal.

Personal Protective Equipment (PPE): Applicators and other handlers must wear: long sleeved shirt and long pants, chemical-resistant gloves (such as Nitrile, butyl, Neoprene and/or Barrier Laminate, and shoes plus socks. Follow manufacturer's instructions for cleaning and maintaining PPE. If no instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: When handlers use 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.

RESPIRATORY PROTECTION: Not normally required; if vapors or mists become excessive, wear a NIOSH approved pesticide respirator with cartridges for pesticide vapors.

EYE PROTECTION: Chemical goggles or shielded safety glasses.

SKIN PROTECTION: Wear protective clothing: long-sleeved shirts and pants, shoes with socks. Wear chemical-resistant gloves.

OSHA PEL 8 hr TWA
not listed

ACGIH TLV-TWA
not listed

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Pink liquid with no odor.

SPECIFIC GRAVITY (Water = 1): 1.0 g/ml

VAPOR PRESSURE: Not established

PERCENT VOLATILE (by volume): Not established

Note: These physical data are typical values based on material tested but may vary from sample to sample.

Typical values should not be construed as a guaranteed analysis of any specific lot or as specification items.

BULK DENSITY: 8.345 lbs/gal.

BOILING POINT: $\pm 212^{\circ}\text{F}/100^{\circ}\text{C}$

EVAPORATION RATE: Not established

SOLUBILITY: Soluble

pH: 7.0-8.0 (1% solution)

10. STABILITY AND REACTIVITY

STABILITY: Stable

INCOMPATIBILITY: None known.

CONDITIONS TO AVOID: Temperatures below $32^{\circ}\text{F}/0^{\circ}\text{C}$ and above $100^{\circ}\text{F}/37.8^{\circ}\text{C}$.

HAZARDOUS DECOMPOSITION PRODUCTS: Combustion may generate hydrogen chloride and oxides of carbon, hydrogen and nitrogen.

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Oral LD₅₀ (rat): >5000 mg/kg

Eye Irritation (rabbit): Slight irritant

Inhalation LC₅₀ (rat): >20 mg/L

Carcinogenic Potential: Nothing listed in ACGIH, NTP, IARC, or OSHA.

Acute Dermal LD₅₀ (rabbit): >2,000 mg/kg

Skin Irritation (rabbit): Slight irritant

Skin Sensitization (guinea pig): Not a sensitizer

12. ECOLOGICAL INFORMATION

Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash waters.

13. DISPOSAL CONSIDERATIONS

Do not reuse containers. Plastic Jugs: Triple rinse (or equivalent), then offer for recycling at an ACRC site or by reconditioning, or puncture and dispose of in a sanitary landfill or, if allowed by state and local authorities, by burning. If burned, stay out of smoke. Pesticide wastes are toxic. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Do not contaminate water, food, or feed by storage or disposal.

14. TRANSPORT INFORMATION

DOT Shipping Description: NOT REGULATED BY USDOT

U.S. Surface Freight Classification: INHIBITORS, MODIFIERS OR REGULATORS, PLANT GROWTH (NMFC 101685; CLASS: 65)

Consult appropriate ICAO/IATA and IMDG regulations for shipment requirements in the Air and Maritime shipping modes.

15. REGULATORY INFORMATION

NFPA & HMIS Hazard Ratings:**NFPA**

1	Health	0	Least
0	Flammability	1	Slight
0	Instability	2	Moderate
		3	High
		4	Severe

HMIS

1	Health
0	Flammability
0	Reactivity
H	PPE

SARA Hazard Notification/Reporting**SARA Title III Hazard Category:**

Immediate	<u> N </u>
Delayed	<u> N </u>

Fire	<u> N </u>
Reactive	<u> N </u>

Sudden Release of Pressure	<u> N </u>
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Reportable Quantity (RQ) under U.S. CERCLA: Not listed**SARA, Title III, Section 313:** Not listed**RCRA Waste Code:** Not listed.**CA Proposition 65:** Not listed.

16. OTHER INFORMATION

MSDS STATUS: All sections reviewed and/or revised.**PREPARED BY:** Registrations and Regulatory Affairs**REVIEWED BY:** Environmental/ Regulatory Services

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