

MATERIAL SAFETY DATA SHEET

Mepiquat Chloride 4.2% Liquid

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1. IDENTIFICATION

Product name: **Mepiquat Chloride 4.2% Liquid**
 Chemical name of active ingredient(s): Mepiquat chloride: N,N-Dimethylpiperidium Chloride
 Manufacturer/Registrant: Makhteshim Agan of North America, Inc.
 4515 Falls of Neuse Road, Suite 300
 Raleigh, NC 27609
 Phone: 919-256-9300
 For fire, spill, and/or leak emergencies, contact Infotrac: Phone: 1-800-535-5053
 For medical emergencies and health and safety inquiries, contact Prosar: Phone: 1-877-250-9291

2. COMPOSITION/INFORMATION ON INGREDIENTS

COMMON NAME	CAS NO.	%	OSHA PEL	ACGIH TLV	OTHER	NTP/IARC/OSHA (Carcinogen)
Mepiquat chloride	24307-26-4	4.2	NE	NE	NE	NA
NE=not established NA=not available						

3. HAZARDS IDENTIFICATIONS

PHYSICAL PROPERTIES

Appearance: Transparent reddish-orange or pink liquid
 Odor: None

EMERGENCY OVERVIEW: CAUTION. Harmful if swallowed or absorbed through the skin. Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing.

HAZARDOUS DECOMPOSITION PRODUCTS: Combustion may generate HCl, NOx.

PRIMARY ROUTES OF EXPOSURE: Skin and eye contact.

SYMPTOMS OF EXPOSURE: Contact with the eyes and skin may result in slight irritation. Inhalation of large amounts of mists may result in respiratory irritation and possible narcosis. Ingestion of large amounts can result in apathy, difficulty breathing, decreased muscular coordination or control.

4. FIRST AID MEASURES

FIRST AID	
IF SWALLOWED:	<ul style="list-style-type: none"> Call a poison control center or doctor immediately for treatment advice. Have person drink a glass or two 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:	<ul style="list-style-type: none"> Take off contaminated clothing. Rinse skin immediately with plenty of soap and water for 15-20 minutes. Call a poison control center or doctor for treatment advice if irritation persists.
IF IN EYES:	<ul style="list-style-type: none"> 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.
Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact Prosar at 1-877-250-9291 for emergency medical treatment information.	

5. FIRE FIGHTING MEASURES

FLASH POINT: Not applicable.

FLAMMABLE LIMITS: LFL/UFL: Not applicable.

EXTINGUISHING MEDIA: Use dry chemical, carbon dioxide, water fog, or foam.

HAZARDOUS DECOMPOSITION PRODUCTS: Combustion may generate HCl, NOx.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None.

FIRE-FIGHTING PROCEDURES: Wear self-contained breathing apparatus and full protective clothing.

6. ACCIDENTAL RELEASE MEASURES

ACTION TO TAKE FOR SPILLS/LEAKS: Use proper personal protective equipment. Sweep up and place into a secure container for proper disposal. Wash spill area with water containing a strong detergent. Absorb with absorbent material and place in container for disposal.

7. HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING: Wash hands thoroughly with soap and water after handling and before eating. Handle and open container in a manner as to prevent spillage. Do not contaminate water, food or feed by storage, disposal or by cleaning equipment.

PRECAUTIONS TO BE TAKEN IN STORAGE: Store in a locked area in original container only, with lid tightly closed. Do not store below 32° F or above 100° F. Keep container closed when not in use. Store in a dry place away from heat or open flame. Store separately from other pesticides, fertilizers, food and feed to prevent contamination. Use care to avoid puncturing container during storage or transit.

STORAGE TEMPERATURE:

Minimum: 32° F

Maximum: 100° F

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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

FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.

EYE PROTECTION: Use safety glasses or goggles.

SKIN PROTECTION: Wear long-sleeved shirt, long pants and shoes plus socks.

HAND PROTECTION: Chemical-resistant gloves such as barrier laminate or Viton (>14 mils).

RESPIRATOR REQUIREMENTS: None recommended.

ADDITIONAL PROTECTIVE MEASURES: Follow manufacturer's instructions for cleaning, maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. Prevent eating, drinking, tobacco use and cosmetic application where product is being used. Wash thoroughly after handling.

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.

EXPOSURE GUIDELINES: Refer to Section 2.

ENGINEERING CONTROLS: Refer to product label.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Transparent reddish-orange or pink liquid

ODOR: None

FLASH POINT: Not determined

pH: 6.44@25°C

SPECIFIC GRAVITY: 1.0025 g/ml@25°C

VISCOSITY: 0.981 mm²/s@25°C

10. STABILITY AND REACTIVITY

STABILITY: Stable under normal use and storage conditions.

CONDITIONS AND MATERIALS TO AVOID: Do not allow product to freeze.

HAZARDOUS POLYMERIZATION: Will not occur.

HAZARDOUS DECOMPOSITION PRODUCTS: Combustion may generate HCl, NOx

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY/IRRITATION STUDIES

Acute Oral LD ₅₀ :	6.95 mg/kg (rat)
Acute Dermal LD ₅₀ :	> 5,000 mg/kg (rat)
Acute Inhalation LC ₅₀ :	> 20 mg/L (rat)
Eye Irritation:	Slightly irritating.
Dermal Irritation:	Slightly irritating.
Dermal Sensitization:	Not a dermal sensitizer

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL HAZARDS: 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 disposing of equipment wash waters.

13. DISPOSAL CONSIDERATIONS

END USERS MUST DISPOSE OF ANY UNUSED PRODUCT AS PER THE LABEL RECOMMENDATIONS.

PRODUCT DISPOSAL: Pesticide wastes are toxic. Wastes resulting from this product may be disposed of on-site or at an approved waste disposal facility. 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: Dispose of product containers, waste containers, and residues according to label instructions and local, state, and federal health and environmental regulations.

14. TRANSPORT INFORMATION

DOT CLASSIFICATION:

Not regulated

INTERNATIONAL TRANSPORTATION

IMO (vessel): Not regulated

IATA (air): Not regulated

15. REGULATORY INFORMATION

SARA TITLE III CLASSIFICATION:

Section 302:	Not applicable.
Section 311/312:	Acute health hazard (immediate)
Section 313:	Not applicable.

CA PROPOSITION 65: Not applicable

CERCLA RQ: Not applicable

RCRA CLASSIFICATION: Under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste.

TSCA STATUS: The ingredients of this product are listed on the TSCA inventory or are exempt.

16. OTHER INFORMATION

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HAZARD RATINGS	NFPA	HMIS	
HEALTH:	1	1	0 MINIMAL
FLAMMABILITY:	0	0	1 SLIGHT
REACTIVITY:	0	0	2 MODERATE
			3 HIGH
			4 SEVERE

MSDS DATE: 11-13-09. Supersedes version dated 5-16-06. Changes made to all sections.

The information herein is given in good faith, but no warrant, express or implied, is made. Consult Makhteshim Agan of North America, Inc. for further information.