

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

COMPANY ADDRESS: ALBAUGH, LLC
Ankeny, IA 50021

EMERGENCY TELEPHONE NUMBERS:
(800) 424-9300 (CHEMTREC, transportation and spills)

PRODUCT NAME : MEPSTAR
CHEMICAL NAME : Mepiquat chloride
PRODUCT USE : Plant Growth Regulator
PRODUCT CODE : EPA Reg. No 42750-74

SECTION 2 - HAZARDS IDENTIFICATION SUMMARY

(As defined by OSHA Hazard Communication Standard, 29 CFR 1910.1200)

Liquid with slight red color, no appreciable odor

HEALTH HAZARDS: Potentially irritating to the eyes if untreated.

PHYSICAL HAZARDS: None known.

ENVIRONMENTAL HAZARDS: None known.

SECTION 3 - COMPOSITION, INFORMATION OF INGREDIENTS

COMPONENT	PERCENTAGE	CAS NUMBER
Mepiquat Chloride	4.2	24307-26-4
Other ingredients	95.8	n/a

SECTION 4 - FIRST AID MEASURES

First Aid responders should use protective equipment in Section 8 if there is a potential for exposure to product.

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 the 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 15-20 minutes. Call a poison control center or doctor for treatment advice.

NOTE TO PHYSICIAN: Treat symptomatically.

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

SECTION 5 - FIRE FIGHTING MEASURES

National Fire Protection Rating (NFPA)

HEALTH	0
FLAMMABILITY	0
REACTIVITY	0
4=Severe 3=Serious 2=Moderate 1=Slight 0=Minimal	

FLASHPOINT: N/A

EXTINGUISHING MEDIA: Use foam, dry chemical, carbon dioxide, or water spray when fighting fires involving this material.

FIRE AND EXPLOSION HAZARD: None known

FIRE FIGHTING EQUIPMENT: Self-contained breathing apparatus with full facepiece. Full firefighting turn-out gear (Bunker gear).

FIRE FIGHTING INSTRUCTIONS: Evacuate area and fight fire upwind from a safe distance to avoid hazardous vapors and decomposition products. Foam or dry chemical extinguishing systems recommended to prevent environmental damage due to water run off.

Minimize use of water to prevent environmental contamination. Contact your State Pesticide or Environmental Control Agency, or nearest EPA Regional Office for guidance on disposal.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

IN CASE OF SPILLS OR LEAKS: Clean up spills immediately, observing precautions in Section 8 of this document. Isolate hazard area. Keep unnecessary and unprotected personnel from entering.

SMALL SPILL: Absorb small spills on sand, vermiculite or other inert absorbent. Place contaminated material in appropriate chemical waste for disposal. Rinse area with water and place rinsate in chemical waste container for disposal.

LARGE SPILL: 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 any absorbed material to solidify, and scrape up for disposal. After removal, flush contaminated area thoroughly with water. Pick up wash liquid with additional absorbent and place in a disposable container.

Minimize use of water to prevent environmental contamination

SECTION 7 - HANDLING AND STORAGE

KEEP OUT OF REACH OF CHILDREN!

Wear proper safety equipment specified in Section 8 when mixing, loading or otherwise handling concentrate.

HANDLING: Use only in a well-ventilated area. Do not reuse this container.

STORAGE: Keep container closed when not in use. Keep away from food, feed and drinking water. Store in a well ventilated, dry place away from heat. Store above 32 F to keep from freezing.

SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION**EXPOSURE LIMITS (8 hour TWA, ppm):**

COMPONENT	OSHA PEL	ACIGH TLV
Mepiquat chloride	Not listed	Not listed

ENGINEERING CONTROLS: Proper ventilation is required when handling or using this product. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

PERSONAL PROTECTIVE EQUIPMENT:

EYE PROTECTION - Safety glasses.

CLOTHING - Long-sleeved shirt and long pants. Shoes plus socks.

GLOVES - Waterproof gloves.

Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS:

1. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
2. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Liquid
Odor:	No data
pH:	6.2 – 7.2
Melting Point:	Not applicable
Boiling Point:	No data
Flash Point:	Will not flash
Evaporation Rate:	No data
Flammability:	Not flammable
Flammability Limits:	Not applicable
Vapor Pressure:	$<1 \times 10^{-11}$ mPa (20°C) (Mepiquat Chloride)
Vapor Density:	Not applicable
Density:	0.98 – 1.02 g/ml (8.18 – 8.51 lb/gl)*
Solubility:	Emulsifies
Partition Coefficient:	log Pow = -3.55 (pH 7) (Mepiquat Chloride)
Auto-Ignition Temperature:	No data
Decomposition Temperature:	No data
Viscosity:	1.0 cSt (20°C); 0.7 cSt (40°C)

*Listed density is an approximate value and does not necessarily represent that of a specific batch.

SECTION 10 - STABILITY AND REACTIVITY

PRODUCT REACTIVITY: None known

CHEMICAL STABILITY: Stable, however may decompose if heated.

HAZARDOUS REACTION/POLYMERIZATION: Product will not undergo polymerization.

CONDITIONS TO AVOID: Temperatures above 125°F (50°C) and below 30°F (0°C).

INCOMPATIBLE MATERIALS:

HAZARDOUS DECOMPOSITION PRODUCTS: Hydrogen chloride, oxides of hydrogen and nitrogen.

SECTION 11 - TOXICOLOGICAL INFORMATION**ACUTE TOXICITY:**

Oral LD ₅₀ (rat)	> 5,000 mg/Kg
Dermal LD ₅₀ (rat)	> 5,000 mg/Kg
Inhalation LC ₅₀ (rat)	> 2.15 mg/L
Eye Irritation (rabbit)	Practically non-irritating
Skin Irritation (rabbit)	Non-irritating
Sensitization (guinea pig)	Not a contact sensitizer

CARCINOGEN STATUS:

OSHA	-	- Not listed
NTP	-	- Not listed
IARC	-	- Not listed

TERATOGENICITY: No evidence of effects during in vivo or in vitro studies.

MUTAGENICITY: No evidence of effects during in vivo or in vitro studies.

SECTION 12 - ECOLOGICAL INFORMATION

ENVIRONMENTAL SUMMARY: Do not apply directly to water, to areas where surface water is present. Do not contaminate water when disposing of rinsate or equipment washwater. Do not contaminate water by cleaning of equipment

FATE: Mepiquat chloride is slightly persistent with a soil half life of 7 - 90 days depending on soil type and weather conditions. It is relatively immobile in soil.

FISH TOXICITY: (Technical)

96 hour LC ₅₀ , Rainbow trout -	> 92 ppm
96 hour LC ₅₀ , Bluegill -	> 89 ppm

AVIAN TOXICITY: (Technical)

Oral LD ₅₀ , Bobwhite quail -	>2,000 mg/Kg
Oral LD ₅₀ , Mallard duck -	>2,000 mg/Kg

BEE TOXICITY: > 100 ug/bee

SECTION 13 - DISPOSAL CONSIDERATIONS

Do not contaminate water, food or feed by storage or disposal.

WASTE: Pesticide wastes are toxic. Dispose of in accordance with applicable Federal, state and local laws and regulations at an approved facility.

CONTAINER: Non-refillable containers: Do not reuse or refill this container. Offer for recycling, if available. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Refillable container: Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

Refer to the container label to determine if it is refillable and for complete cleaning and disposal instructions.

SECTION 14 - TRANSPORT INFORMATION

SHIPPING DESCRIPTION: Not regulated by DOT
(Ground transport)

TRANSPORT HAZARD CLASS: N/A
UN NUMBER: N/A
DOT PACKING GROUP: DOT III

SECTION 15 - REGULATORY INFORMATION

CERCLA REPORTABLE QUANTITY: Not listed

SARA TITLE III STATUS:
311/312 Hazard Categories – Not listed
313 Toxic Chemicals – None known

CALIFORNIA PROP 65: Not listed

TSCA: This product is exempted from TSCA because it is solely for FIFRA regulated use.

SECTION 16 - OTHER INFORMATION

HMIS HAZARD RATINGS	HEALTH	1
	FLAMMABILITY	1
	PHYSICAL HAZARD	0
	4=Severe 3=Serious 2=Moderate 1=Slight 0=Minimal	

DISCLAIMER: The information presented herein is based on available data from reliable sources and is correct to the best of Albaugh's knowledge. Albaugh makes no warranty, express or implied, regarding the accuracy of the data or the results obtained from the use of this product. Nothing herein may be construed as recommending any practice or any product in violation of any law or regulations. The user is solely responsible for determining the suitability of any material or product for a specific purpose and for adopting any appropriate safety precautions.

This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA APPROVED PRODUCT LABELING (attached to and accompanying the product container). This SDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course. Use, storage and disposal of pesticide products are regulated by the EPA under the authority of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) through the product labeling, and all necessary and appropriate precautionary, use, storage, and disposal information is set forth on that labeling.

It is a violation of federal law to use a pesticide product in any manner not prescribed on the EPA-approved label.

REVISED DATE: March, 2016

REFERENCE: Revised CAS number in Section 3