



Safety Data Sheet

Report Date 17-Mar-15

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1. Identification

Product Name : Helena T-Methyl 4.5 Ag
Synonyms : Thiophanate-methyl
Product Use : Fungicide
Manufacturer/Supplier : Helena Chemical Company
Address : 225 Schilling Blvd. Collierville, TN 38017
General Information : 901-761-0050
Transportation Emergency Number : CHEMTREC:800-424-9300

2. Hazard Identification



Signal Word : Warning
Skin Irritation : Slightly irritating
Eye Irritation : Practically non-irritating
Acute Toxicity Oral : Oral LD50 (rat) > 5,000 mg/kg
Acute Toxicity Dermal : Dermal LD50 (rat) > 5,050 mg/kg

Hazard Categories : Oral/Dermal Toxicity - 5/5; Eye Irritation - 2B; Skin Irritation - 3; Inhalation Toxicity - 4

Hazard Statement : May be harmful if swallowed
May be harmful in contact with skin
Causes eye irritation
Causes mild skin irritation
Harmful if inhaled

3. Composition / Information on Ingredients

Component	CAS Number	Weight %
Thiophanate-methyl	23564-05-8	46.2
Other Ingredients	Nonhazardous	53.8

4. First Aid Measures

Eye : Rinse eye cautiously with water for several minutes. Remove contact lenses, if present and easy to do, and continue rinsing. If eye irritation persists, get medical advice/attention.

Skin : Call a doctor or poison control center if you feel unwell.

Inhalation : Call a doctor or poison control center if you feel unwell.

Ingestion : Call a doctor or poison control center if you feel unwell.

Indication of Immediate Medical Attention and Special Treatment Needed : Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

5. Fire Fighting Measures

Extinguishing Media : Use water fog, foam, dry chemical or carbon dioxide extinguishing agents. Foam or dry chemical fire extinguishing systems are preferred to prevent environmental damage from excessive water runoff.



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- Specific Hazards Arising from the Chemical** : May produce toxic fumes.
- Special Fire Fight Proc** : Evacuate area of all unnecessary personnel and fight fire from a safe distance upwind. Contain contaminated water/fire fighting water; do not allow to enter drains or waterways.

6. Accidental Release Measures

- Personal Precautions** : Isolate area and keep unnecessary and unprotected personnel from entering. Wear suitable personal protective equipment and clothing.
- Protective Equipment** : Wear long-sleeved shirt, long pants, shoes, socks, chemical-resistant gloves made of any waterproof material, and a chemical-resistant apron.
- Emergency Procedures** : Control spill at the source and prevent material from entering soil, sewers, waterways or low areas. Large spills to soil or similar surfaces may require removal and disposal of topsoil. Contain contaminated water/fire fighting water.
- Methods and Materials for Containment and Cleanup** : Pump free liquid into suitable closed container for disposal. After decontamination, spill area can be washed with water. Collect washwater for approved disposal. Decontaminate tools and equipment following cleanup.

7. Handling and Storage

- Precautions for Safe Handling** : Avoid contact with skin, eyes or clothing. Avoid breathing vapor or spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.
- Conditions for Safe Storage** : Store in the original container in a dry area. Do not store in a manner where cross-contamination with other pesticides, fertilizers, food or feed could occur. If spilled during storage or handling, absorb with sand or other inert material and dispose of absorbent in accordance with applicable regulations.

8. Exposure Controls / Personal Protection

- TLV/PEL** : Not established
- Appropriate Engineering Controls** : Facilities storing or utilizing this material should be equipped with an eyewash station and a safety shower.
- Personal Protective Equipment** : Wear long-sleeved shirt, long pants, shoes, socks, chemical-resistant gloves made of any waterproof material, and a chemical-resistant apron when handling this product.

9. Physical and Chemical Properties

- Odor/Appearance** : Off-white liquid with faint sulfur odor.
- Flash Point, °F** : >94 Degrees C.
- Boiling Point, °F** : Not specified
- Melting Point(Freezing point), °C** : Not specified
- Vapor Pressure, mm Hg @ 20 °C** : Not specified
- Vapor Density** : Not specified
- Solubility in Water** : Dispersible
- Molecular Formula** : Not specified
- Density, g/mL @ 25 °C** : 1.118
- Evaporation Rate(Butyl Acetate = 1)** : Not specified
- Octanol/Water Partition Coefficient** : Not specified



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pH : 5.5-6.0
Flammable Limits (approximate volume % in air) : Not specified
Auto-ignition Temperature : Not specified.
Decomposition temperature : Not specified

10. Stability and Reactivity

Reactivity : No hazardous reactions should occur.
Chemical Stability : Stable
Hazardous Decomposition Products : May release oxides of carbon, nitrogen and sulfur when thermally decomposed.
Hazardous Polymerization : Will not occur.
Conditions to Avoid : Avoid excessive heat.
Incompatible Materials : Strong oxidizing agents.

11. Toxicological Information

Acute Toxicity (Oral LD50) : >5,000 mg/kg (rat)
Acute Toxicity (Dermal LD50) : >5,050 mg/kg (rat)
Acute Toxicity Inhalation LC50 : >2.17 mg/L/4 hour (rat)
Likely Routes of Exposure : Skin, eyes, inhalation, ingestion.
Skin Irritation : Slightly irritating
Eye Irritation : Practically non-irritating
Skin Sensitization : Not a contact sensitizer
Carcinogenic : Not listed by IARC, NTP or OSHA.
Chronic Effects : No evidence of mutagenic effects during in vivo and in vitro assays. Not known to cause reproductive or birth defects at normal exposure levels.
Other Hazards : CA Prop 65: This product contains a chemical(s) known to the state of California to cause cancer and birth defects or reproductive harm: thiophanate-methyl.

12. Ecological Information

Ecotoxicity : Bluegill (96-hour LC50)>41 ppm; Rainbow Trout (96-hour LC50)=8.3 ppm; Daphnia (48-hour EC50)=5.4 ppm; Mysid (96-hour LC50)=1.1 ppm; Bobwhite Quail (LC50)>10,000 ppm; Mallard Duck (LD50)=4,640 mg/kg; Honey Bee (LD50)>100 mcg/bee.
Persistence and Degradability : Not specified
Bioaccumulative Potential : Not specified
Mobility in Soil : Not specified
Other Adverse Effects : Runoff may be hazardous to aquatic organisms. Do not contaminate water when disposing of equipment washwater or rinsate.

13. Disposal Considerations

Waste Disposal Method : Do not contaminate water, food or feed by disposal. Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal law.

14. Transport Information



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UN Proper Shipping Name : Containers \geq 2 gallons and $<$ 119 gallons: RQ, Environmentally Hazardous Substance, Liquid, n.o.s. (Thiophanate-methyl)
Transport Hazard Class : Class 9
UN Identification Number : UN3082
Packaging Group : PG III
Environmental Hazards : Marine Pollutant
Transport in Bulk : RQ, UN3082, Environmentally Hazardous Substance, Liquid, n.o.s. (Thiophanate-methyl), 9, PG III, Marine Pollutant
Special Precautions for Transportation : Not regulated in single packages $<$ 2 gallons.
Freight Classification : Pesticides, NOI, Fungicides, Other than Poison (NMFC Item 155050, Sub 11, Class 70)

15. Regulatory Information

National Fire Protection Association Rating :

Health: 1 Fire: 1 Reactivity: 0
Rating Level: (4-Extreme, 3-High, 2-Moderate, 1-Slight, 0-Minimum)

S.A.R.A Title III Hazard Classification (Yes/No) :

Immediate(Acute) Health: Y
Delayed (Chronic) Health: N
Sudden Release of Pressure: N
Fire: N
Reactive: N

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

EPA Registration Number : 87373-10-5905
FIFRA Signal Word : Caution
FIFRA Label Statement : Harmful if swallowed, inhaled or absorbed through skin.
FIFRA Label Statement : Causes moderate eye irritation.
FIFRA Label Statement : Avoid contact with skin, eyes or clothing.
FIFRA Label Statement : Avoid breathing vapor or spray mist.
FIFRA Label Statement : No additional label statements.
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16. Other Information

Data of Preparation/Revision : 17-March-2015