



Safety Data Sheet

Report Date 28-Apr-15

Page 1 of 4

1. Identification

Product Name : ECO-MATE MAGNESIUM 4% (LIGNIN)
Synonyms : None
Product Use : Complexed Micronutrient
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 (no symbol)
Skin Irritation : No adverse effects expected by may cause minor skin irritation.
Eye Irritation : No adverse effects expected.
Acute Toxicity Oral : Magnesium salts are slowly absorbed, abdominal pain, vomiting and diarrhea may be the only symptoms.
Acute Toxicity Dermal : No information found.
Hazard Categories : Oral/Dermal/Inhalation Toxicity - 5/5/5; Eye Irritation - 2B; Skin Irritation - 3
Hazard Statement : May be harmful if swallowed
May be harmful in contact with skin
Causes eye irritation
Causes mild skin irritation
May be harmful if inhaled

3. Composition / Information on Ingredients

Component	CAS Number	Weight %
Blend of micronutrients derived from Magnesium Sulfate (CAS No. 7487-88-9). The complexing agent is lignin sulfonate (CAS No. 9009-75-0). GUARANTEED ANALYSIS: Sulfur (S): 5.00% Magnesium (Mg): 4.00%	Proprietary	100.00

4. First Aid Measures

Eye : Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for further treatment advice.
Skin : 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.
Inhalation : Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.
Ingestion : Call a poison control center or doctor immediately for treatment advice. Rinse mouth with water. Do not induce vomiting. Do not give anything by mouth if unconscious.
Indication of Immediate Medical Attention and Special Treatment Needed : Treat symptomatically.

5. Fire Fighting Measures



Safety Data Sheet

Report Date 28-Apr-15

Page 2 of 4

- Extinguishing Media** : Not a combustible liquid. Use extinguishing media suitable for underlying cause of fire.
- Specific Hazards Arising from the Chemical** : May produce toxic fumes under fire conditions.
- Special Fire Fight Proc** : Wear self-contained breathing apparatus and full protective clothing. Use water spray to keep fire-exposed containers cool.

6. Accidental Release Measures

- Personal Precautions** : Keep unprotected and unnecessary personnel out of spill area.
- Protective Equipment** : Splashproof goggles or face shield, impervious gloves, impervious apron and footwear. Eyewash should be available in work area. No respiratory protection normally needed.
- Emergency Procedures** : Do not contaminate water supplies, lakes, streams, ponds or drains with spilled product.
- Methods and Materials for Containment and Cleanup** : Contain spilled product and reuse if uncontaminated. Absorb with inert material, such as clay or sand, and place in suitable containers for proper disposal, if contaminated.

7. Handling and Storage

- Precautions for Safe Handling** : Keep locked up and out of reach of children. Do not contaminate water, food or feed by storage, handling or disposal. Keep container tightly closed. Do not allow water to be introduced into the contents of the container.
- Conditions for Safe Storage** : Store in original container only. Do not store near heat or open flame. Do not store with oxidizing agents or ammonium nitrate.

8. Exposure Controls / Personal Protection

- TLV/PEL** : No TLV or PEL established.
- Appropriate Engineering Controls** : Local exhaust sufficient.
- Personal Protective Equipment** : Splashproof goggles or face shield, impervious gloves, impervious apron and footwear. Eyewash should be available in work area. No respiratory protection normally needed.

9. Physical and Chemical Properties

- Odor/Appearance** : Opaque, dark brown liquid; slight odor.
- Flash Point, °F** : Not combustible
- Boiling Point, °F** : No information found
- Melting Point(Freezing point), °C** : <30 Degrees F.
- Vapor Pressure, mm Hg @ 20 °C** : No information found
- Vapor Density** : No information found
- Solubility in Water** : Miscible
- Molecular Formula** : Not applicable, formulated mixture.
- Density, g/mL @ 25 °C** : 1.234-1.254
- Evaporation Rate(Butyl Acetate = 1)** : Normal 0.4 (water)
- Octanol/Water Partition Coefficient** : No information found
- pH** : 7.0-9.0



Safety Data Sheet

Report Date 28-Apr-15

Page 3 of 4

Flammable Limits (approximate volume % in air) : Not applicable
Auto-ignition Temperature : Not applicable
Decomposition temperature : No information found

10. Stability and Reactivity

Reactivity : No information found
Chemical Stability : Stable
Hazardous Decomposition Products : Oxides of sulfur and the contained metal.
Hazardous Polymerization : Will not occur
Conditions to Avoid : Avoid mixing with phosphates, ethoxy ethyl alcohols, tartrates, alkali metals.
Incompatible Materials : Phosphates, ethoxy ethyl alcohols, tartrates, alkali metals.

11. Toxicological Information

Acute Toxicity (Oral LD50) : No LD50 available. Magnesium salts are slowly absorbed; abdominal pain/vomiting/diarrhea may occur.
Acute Toxicity (Dermal LD50) : No LD50 available. May be harmful in contact with skin.
Acute Toxicity Inhalation LC50 : No LC50 available. May be harmful if inhaled.
Likely Routes of Exposure : Skin and eyes
Skin Irritation : Causes mild skin irritation.
Eye Irritation : Causes eye irritation.
Skin Sensitization : No information found
Carcinogenic : Not listed by IARC, NTP or OSHA.
Chronic Effects : None currently known.
Other Hazards : None currently known.

12. Ecological Information

Ecotoxicity : No information found
Persistence and Degradability : No information found
Bioaccumulative Potential : No information found
Mobility in Soil : No information found
Other Adverse Effects : No information found

13. Disposal Considerations

Waste Disposal Method : This material must be disposed of according to Federal, State or Local procedures under the Resource Conservation and Recovery Act.

14. Transport Information

UN Proper Shipping Name : Not regulated by DOT.
Transport Hazard Class : None
UN Identification Number : None
Packaging Group : None
Environmental Hazards : No information found
Transport in Bulk : No information found



Safety Data Sheet

Report Date **28-Apr-15**

Page 4 of 4

Special Precautions for Transportation : None

Freight Classification : Fertilizing Compound, (Manufactured Fertilizer), Liquid, NOIBN (NMFC Item 68140, Sub 6, Class 70)

15. Regulatory Information

National Fire Protection Association Rating :

Health: 1 Fire: 0 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

16. Other Information

Data of Preparation/Revision : 28-April-2015