



Safety Data Sheet

Report Date 02-May-15

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1. Identification

Product Name : MicroMerge 5144
Synonyms : None
Product Use : Granular Micronutrient Fertilizer
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 : Danger
Skin Irritation : Causes mild skin irritation.
Eye Irritation : Causes serious eye damage.
Acute Toxicity Oral : May be harmful if swallowed.
Acute Toxicity Dermal : May be harmful in contact with skin.

Hazard Categories : Oral/Dermal/Inhalation Toxicity - 5/5/5; Eye Irritation - 1; Skin Irritation - 3

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

3. Composition / Information on Ingredients

Component	CAS Number	Weight %
Blend of plant nutrients derived from Sodium Borate, Manganese Sulfate, Manganese Oxide, Zinc Sulfate and Zinc Oxide.	Proprietary	100.00
GUARANTEED ANALYSIS:		
Sulfur (S):		5.0%
Boron (B):		1.0%
Manganese (Mn):		4.0%
Zinc (Zn):		4.0%

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.



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5. Fire Fighting Measures

- Extinguishing Media** : Use extinguishing media suitable for underlying cause of fire.
Specific Hazards Arising from the Chemical : None currently known.
Special Fire Fight Proc : Wear self-contained breathing apparatus and full protective clothing.

6. Accidental Release Measures

- Personal Precautions** : Keep unprotected and unnecessary personnel out of spill area.
Protective Equipment : Splashproof goggles or face shield, chemical-resistant gloves, long-sleeved shirt and long pants, and shoes plus socks. Use approved dust mask if needed. Eyewash should be available in work area.
Emergency Procedures : Confine spilled material to prevent spreading.
Methods and Materials for Containment and Cleanup : Sweep or vacuum up, then place recovered material in suitable containers for reuse, if uncontaminated. If contaminated, dispose of in accordance with applicable regulations.

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 this 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 information found for mixture.
Appropriate Engineering Controls : General or local exhaust sufficient.
Personal Protective Equipment : Splashproof goggles or face shield, chemical-resistant gloves, long-sleeved shirt and long pants, and shoes plus socks. Use approved dust mask if needed. Eyewash should be available in work area.

9. Physical and Chemical Properties

- Odor/Appearance** : Granular material
Flash Point, °F : Non-combustible
Boiling Point, °F : Not applicable
Melting Point(Freezing point), °C : Not applicable
Vapor Pressure, mm Hg @ 20 °C : Not applicable
Vapor Density : Not applicable
Solubility in Water : Soluble
Molecular Formula : Not applicable, formulated mixture.
Density, g/mL @ 25 °C : Not determined
Evaporation Rate(Butyl Acetate = 1) : Not applicable
Octanol/Water Partition Coefficient : Not applicable
pH : Not applicable



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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 : Emits oxides of carbon under fire conditions.
Hazardous Polymerization : Will not occur
Conditions to Avoid : None currently known.
Incompatible Materials : None currently known.

11. Toxicological Information

Acute Toxicity (Oral LD50) : 2,150 mg/kg (zinc sulfate heptahydrate). May be harmful if swallowed.
Acute Toxicity (Dermal LD50) : No data available. May be harmful in contact with skin.
Acute Toxicity Inhalation LC50 : No data available. May be harmful if inhaled.
Likely Routes of Exposure : Skin and eyes
Skin Irritation : Causes mild skin irritation.
Eye Irritation : Causes serious eye damage.
Skin Sensitization : Not listed as a skin sensitizer.
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 : Marine pollutant under international classifications.

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, IATA or IMDG.
Transport Hazard Class : None
UN Identification Number : None
Packaging Group : None
Environmental Hazards : Marine Pollutant under international shipping regulations. Ship as UN3077, Environmentally Hazardous Substance, Solid, n.o.s., (Zinc Sulfate Heptahydrate), 9, PG III, Marine Pollutant



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Transport in Bulk : Zinc sulfate heptahydrate RQ=1,000 lbs., not offered in single package where RQ is exceeded.
Special Precautions for Transportation : No information found
Freight Classification : Fertilizing Compound, (Manufactured Fertilizer), Solid, NOIBN (NMFC Item 68140, Sub 5, Class 50)

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 : 02-May-2015