



# 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