



## Safety Data Sheet

Report Date 18-Mar-19

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### 1. Identification

**Product Name** : MicroMerge 5144  
**Synonyms** : None  
**Product Use** : Granular Micronutrient Fertilizer  
**Manufacturer/Supplier** : Helena Agri-Enterprises, LLC  
**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/Skin Irritation-1/3  
  
**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, Molybdc Oxide, Zinc Sulfate and Zinc Oxide.	Proprietary	100.00
GUARANTEED ANALYSIS:		
Sulfur (S):		5.0%
Boron (B):		1.0%
Manganese (Mn):		4.0%
Molybdenum (Mo):		0.001%
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.



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Indication of Immediate Medical : Treat symptomatically.  
Attention and Special Treatment  
Needed

### 5. Fire Fighting Measures

Extinguishing Media : Use extinguishing media suitable for underlying cause of fire.  
Specific Hazards Arising from the : None currently known.  
Chemical  
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 : Sweep or vacuum up, then place recovered material in suitable containers for  
Containment and Cleanup 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 = : Not applicable  
1)



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Octanol/Water Partition Coefficient : Not applicable  
pH : Not applicable  
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 : Emits oxides of carbon under fire conditions.  
Products  
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 : CA PROPOSITION 65 WARNING: The listed ingredients do not appear on the California Proposition 65 Warnings listing.

### 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. If shipped by air (IATA) or water (IMDG), classified as a marine pollutant.  
Transport Hazard Class : None  
UN Identification Number : None



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**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  
**Transport in Bulk** : Zinc sulfate heptahydrate RQ=1,000 lbs., not offered in single package where RQ is exceeded.  
**Special Precautions for Transportation** : If shipped by air (IATA) or water (IMDG), ship as: UN3077, Environmentally Hazardous Substance, Solid, n.o.s., (Zinc Sulfate Heptahydrate), 9, PG III, Marine Pollutant  
**Freight Classification** : Fertilizing Compound, (Manufactured Fertilizer), Solid, NOIBN (NMFC Item 68140, Sub 5, Class 50)

### 15. Regulatory Information

**National Fire Protection Association Rating**

Health: 2 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** : 18-March-2019