Safety Data Sheet

1. Identification

Product Name : TRACITE MANGANESE 5% (CITRIC)(CHELATED)
Synonyms : None
Product Use : Chelated Micronutrient - Manganese
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 : May cause skin irritation
Eye Irritation : Based on pH, causes serious eye damage.
Acute Toxicity Oral : LD50 is 2,150 mg/kg (rat) for manganese sulfate solution.
Acute Toxicity Dermal : No data available.

Hazard Categories : Oral/Dermal/Inhalation Toxicity-5/5/5; Eye Irritation-1; Skin Irritation-3; STOT Repeated Exposure-2

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
May cause damage to organs (central nervous system) through prolonged or repeated exposure (via inhalation)

3. Composition / Information on Ingredients

Component	CAS Number	Weight %
Blend of plant nutrients derived from manganese sulfate. The chelating agent is citric acid. GUARANTEED ANALYSIS: Sulfur (S): 3.00% Manganese (Mn): 5.00%	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 : In the event of an adverse response, treatment should be directed toward control of the symptoms.

5. Fire Fighting Measures

Extinguishing Media : Non-combustible liquid. Use extinguishing media suitable for underlying cause of fire.

Specific Hazards Arising from the Chemical : May emit toxic and irritating fumes under fire conditions.

Special Fire Fight Proc : Wear self-contained breathing apparatus and full protective equipment. 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. Respiratory protection not normally needed. Eyewash and emergency shower should be available in work area.

Emergency Procedures : Do not contaminate water supplies, lakes, streams, ponds, drains or sewers.

Methods and Materials for Containment and Cleanup : If uncontaminated, recover spilled liquid for reuse. If contaminated, cover spilled product with inert absorbent, such as clay or sand. Sweep or scoop up absorbent and place in suitable containers for proper disposal.

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 : TLV - 0.2 mg/m3 (Manganese Sulfate/Manganese compounds as Mn). PEL - 5 mg/m3 (Manganese Sulfate/Manganese Compounds as Mn).

Appropriate Engineering Controls : Local exhaust is sufficient.

Personal Protective Equipment : Splashproof goggles or face shield, impervious gloves, impervious apron and footwear. Respiratory protection not normally needed. Eyewash and emergency shower should be available in work area.

9. Physical and Chemical Properties

Odor/Appearance : Clear, pale pink liquid.

Flash Point, ^{0}F : Non-combustible

Boiling Point, ^{0}F : >212 Degrees F.

Melting Point(Freezing point), ^{0}C : <25 Degrees F.

Vapor Pressure, mm Hg @ 20 ^{0}C : Not determined

Vapor Density : Not determined

Solubility in Water : Soluble

Molecular Formula : Not applicable, formulated mixture.

Density, g/mL @ 25 ^{0}C : 1.160-1.180

Evaporation Rate(Butyl Acetate = 1) : Not determined

Octanol/Water Partition Coefficient : No information found

pH : 1.9

Flammable Limits (approximate volume % in air) : No information found

Auto-ignition Temperature : Not applicable

Decomposition temperature : No information found

10. Stability and Reactivity

Reactivity : No information found

Chemical Stability : Stable

Hazardous Decomposition Products : May emit sulfur dioxide under fire conditions.

Hazardous Polymerization : Will not occur

Conditions to Avoid : None currently known.

Incompatible Materials : Product may react vigorously with alkaline materials due to its acidic nature.

11. Toxicological Information

Acute Toxicity (Oral LD50) : 2,150 mg/kg (mangnese sulfate solution). May be harmful if swallowed.

Acute Toxicity (Dermal LD50) : No LD50 available. May be harmful in contact with skin.

Acute Toxicity Inhalation LC50 : No LC50 available. Prolonged or repeated exposure may damage organs (central nervous system).

Likely Routes of Exposure : Skin, eyes, inhalation

Skin Irritation : Causes mild skin irritation.

Eye Irritation : Causes serious eye damage.

Skin Sensitization : Not listed as a sensitizer.

Carcinogenic : Not listed as a carcinogen.

Chronic Effects : May cause damage to organs (central nervous system) through prolonged or repeated exposure(via inhalation).

Other Hazards : No information found.

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 in non-bulk packages. Regulated if shipped by air (IATA) or water (IMDG).

Transport Hazard Class : None

UN Identification Number : None

Packaging Group : None

Environmental Hazards : No information found

Transport in Bulk : If shipped by ground (DOT) in bulk, or shipped in any size package by air (IATA) or water (IMDG), ship as: UN1760, Corrosive Liquid, n.o.s., (Manganese Sulfate, Citric Acid), 8, PG III "ERG # 154"

Special Precautions for Transportation : No information found

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

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 : 02-June-2015