Safety Data Sheet

1. Identification

Product Name : TRACITE CROP MIX (COMPLEXED)(LIGNIN)
Synonyms : None
Product Use : Complexed Micronutrient - Crop Mix
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 severe skin burns
Eye Irritation : Causes serious eye damage
Acute Toxicity Oral : LD50 1,520 mg/kg (ferrous sulfate)
Acute Toxicity Dermal : No LD50 available

Hazard Categories : Oral/Dermal/Inhalation Toxicity:4/5/5; Eye/Skin Irritation: 1/1C; STOT-RE: 2(central nervous system)

Hazard Statement : Harmful if swallowed
May be harmful in contact with skin
Causes severe skin burns and eye damage
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 (CAS No 7785-87-7), Zinc Sulfate (CAS No 7733-02-0), Ferrous Sulfate (CAS No 7720-78-7) and Lignin Sulfonate (CAS No 9009-75-0). The complexing agent is lignin sulfonate.	Proprietary	100.00
GUARANTEED ANALYSIS:		

Sulfur (S): 3.50%
Iron (Fe): 1.00%
Manganese (Mn): 1.00%
Zinc (Zn): 4.00%

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 : Emits sulfur dioxide 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. Respiratory protection not normally needed. Eyewash and emergency shower should be available in work area.

Emergency Procedures : Contain spilled product to prevent spreading or entry to water supplies, drains or sewers.

Methods and Materials for Containment and Cleanup : If uncontaminated, recover spilled product for reuse. If contaminated, cover with inert absorbent then scoop or shovel up 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 - 1 mg/m3 (Iron Salts, Soluble (as Fe))

Appropriate Engineering Controls : Local exhaust should be 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 yellow to light green liquid.

Flash Point, ^{0}F : Not flammable

Boiling Point, ^{0}F : >100 Degrees C.

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

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

Vapor Density : Not determined

Solubility in Water : Soluble

Molecular Formula : Not applicable, formulated mixture.

Density, g/mL @ 25 ^{0}C : 1.190-1.210

Evaporation Rate(Butyl Acetate = 1) : Not determined

Octanol/Water Partition Coefficient : No information found

pH : <2.5

Flammable Limits (approximate volume % in air) : Not determined

Auto-ignition Temperature : Not applicable

Decomposition temperature : No information found

10. Stability and Reactivity

Reactivity : No information found

Chemical Stability : Stable

Hazardous Decomposition Products : Sulfur dioxide may be emitted under fire conditions.

Hazardous Polymerization : Will not occur

Conditions to Avoid : None currently known

Incompatible Materials : Product may react vigorously with alkaline materials.

11. Toxicological Information

Acute Toxicity (Oral LD50) : 1,520 mg/kg (ferrous sulfate). Harmful if swallowed.
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, eyes, ingestion
Skin Irritation : Causes severe skin burns.
Eye Irritation : Causes serious eye damage.
Skin Sensitization : Not listed as a skin sensitizer.
Carcinogenic : Not listed by IARC, NTP or OSHA.
Chronic Effects : May cause damage to organs (central nervous system) through prolonged or repeated exposure via inhalation.
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 in a single packages <876 gallons.
Transport Hazard Class : None
UN Identification Number : None
Packaging Group : None
Environmental Hazards : Reportable Quantity (RQ) = 1,000 lbs Ferrous Sulfate (>/=2,000 gallons); 1,000 lbs Zinc Sulfate (>876.42 gallons).
Transport in Bulk : If shipped in single package >876.42 gallons, ship as: RQ, UN3082, Environmentally Hazardous Substance, Liquid, n.o.s., (Zinc Sulfate), 9, PG III "ERG # 171"

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:	Y
Sudden Release of Pressure:	N
Fire:	N
Reactive:	N

16. Other Information

Data of Preparation/Revision : 17-June-2015