



Safety Data Sheet

Report Date 09-Jun-15

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1. Identification

Product Name : TRACITE WESTERN ZFM II
Synonyms : None
Product Use : Complexed micronutrients - S, Fe, Mn, Zn
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.
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 ferrous sulfate, manganese sulfate, lignin sulfonate and zinc sulfate. GUARANTEED ANALYSIS: Sulfur (S): 5.0% Iron (Fe): 2.3% Manganese (Mn): 2.3%	Proprietary	100.00



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Zinc (Zn): 5.4%

The complexing agent is lignin sulfonate.

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** : Metal oxides, nitrogen oxides and ammonia.
- 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, impervious gloves, impervious apron and footwear. Respiratory protection not normally needed. Eyewash and emergency shower should be available in work area.
- Emergency Procedures** : Dike spilled product to prevent spreading to soil and contamination of water supplies, drains or sewers.
- Methods and Materials for Containment and Cleanup** : If uncontaminated, collect and reuse as intended. If contaminated, absorb with an inert materials, such as sand, and dispose of in accordance with local 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 the container.



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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 : Ferrous sulfate heptahydrate (Iron salts, soluble (as Fe)) TLV=1 mg/m³;
Manganese sulfate (Manganese compounds), PEL=5 mg/m³, TLV=0.2 mg/m³

Appropriate Engineering Controls : General and/or 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 brown liquid with phenolic odor.

Flash Point, °F : Non-combustible

Boiling Point, °F : >212 Degrees F.

Melting Point(Freezing point), °C : <20 Degrees F.

Vapor Pressure, mm Hg @ 20 °C : Not established

Vapor Density : Not established

Solubility in Water : Soluble

Molecular Formula : Not applicable, formulated mixture.

Density, g/mL @ 25 °C : 1.340-1.360

Evaporation Rate(Butyl Acetate = 1) : Not established

Octanol/Water Partition Coefficient : No information found

pH : 1.0 to 2.0

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 : May produce 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.



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11. Toxicological Information

- Acute Toxicity (Oral LD50)** : 1,520 mg/kg (iron sulfate heptahydrate). 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 cause central nervous system damage through prolonged/repeated exposure.
- Likely Routes of Exposure** : Eyes, skin, ingestion, inhalation.
- 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.
- Transport Hazard Class** : None
- UN Identification Number** : None
- Packaging Group** : None
- Environmental Hazards** : No information found
- Transport in Bulk** : If shipped in single package >572.4 gallons, ship as: RQ, UN3082, Environmentally Hazardous Substance, Liquid, n.o.s., (Zinc Sulfate), 9, PG III. If single package >787.4 gallons, add Ferrous Sulfate to description.
- Special Precautions for Transportation** : May be regulated if offered for shipment by air (IATA) or water (IMDG).



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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 N Pressure:
Fire: N
Reactive: N

16. Other Information

Data of Preparation/Revision : 09-June-2015