

Material Safety Data Sheet

Effective Date: 03-DEC-2001
Product: TRAFIX ZM

I. IDENTIFICATION

Chemical Name: Chelated micronutrients
Chemical Family: Inorganic Metal Salts
Formula: Not applicable, formulated mixture.
Synonyms: None
CAS Number: Not applicable, formulated mixture.
EPA Number: None Required

II. PHYSICAL DATA

Boiling Point: >212 Degrees F.
Freezing Point: <32 Degrees F.
Spec Gravity: 1.262 gms/cc
Vapor Pressure: Not determined
Vapor Density: Not determined
Solubility: 99%
Volatiles: Not determined
Evaporation: Not determined
Melting Point: Not determined
Appearance: Dark, brownish-red liquid with ammonia odor.

III. INGREDIENTS

Material	CAS Number	Percent	TLV	Hazard
Proprietary Blend of Ammonia Carboxylates, Manganese and Zinc Sulfates, Organic Acid Complexing Agents and Inerts		100.00	N/D	Skin and Eye Irritant

NOTE: N/D = Not Determined

IV. FIRE AND EXPLOSION HAZARD

Flash Point: Non-combustible.
Autoignition Temp: Not applicable
Flammable Limit: Not applicable
Extinguishing Media: Non-combustible liquid. Use extinguishing media for underlying cause of fire.
Special Fire Fight Proc: Wear self-contained breathing apparatus and full protective equipment. Use water spray to keep fire-exposed containers cool.
Fire and Expl Hazard: Product may produce toxic fumes under fire conditions.

Material Safety Data Sheet

Effective Date: 03-DEC-2001
Product: TRAFIX ZM

V. HEALTH HAZARD

Carcinogen Information: Not currently listed.

ACUTE EFFECTS OF OVER EXPOSURE

Swallowing: Ingestion may result in vomiting and abdominal cramps.
Skin Absorption: None currently known.
Inhalation: Inhalation may cause irritation of the respiratory tract.
Skin contact: May cause skin irritation after prolonged or repeated contact.
Eye Contact: May cause eye irritation with direct contact.
Chronic Effects: None currently known.
Other Hazard: None currently known.

EMERGENCY AND FIRST AID PROCEDURES

Swallowing: If swallowed, call a physician or poison control center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger.
Skin: Wash affected areas with plenty of soap and water. Seek medical attention if irritation persists.
Inhalation: Move to fresh air. Obtain medical attention if irritation develops.
Eyes: Flush eyes with water for at least 15 minutes, holding eyelids open. Get medical attention if irritation develops or persists.
Notes to Physician: In the event of an adverse response, treatment should be directed toward the control of the symptoms and the clinical condition of the patient.

VI. REACTIVITY

Stability: Stable
Conditions to Avoid: None currently known.
Polymerization: Will Not Occur
Conditions to Avoid: None currently known.
Incompatibility material: Product may react vigorously with alkaline materials. Product pH=9.0; may be corrosive to galvanized steel and aluminum.
Hazardous Combustion: Carbon dioxide, carbon monoxide, ammonium gas and sulfur oxides under fire conditions.

Material Safety Data Sheet

Effective Date: 03-DEC-2001
Product: TRAFIX ZM

VII. SPILL OR LEAK PROCEDURES

Spill or Leak Proc: Contain product and reuse material, if uncontaminated. If contaminated, absorb material with an absorbent such as clay or sand, and place in suitable containers for proper disposal. Do not contaminate water supplies.

Waste Disposal Method: This material must be disposed of according to Federal, State, or Local procedures under the Resource Conservation and Recovery Act.

VIII. SPECIAL PROTECTION INFORMATION

Respiration: Use only NIOSH/MSHA full-face, cartridge-type respirator approved for ammonia gas.

Ventilation: Local exhaust sufficient.

Gloves: Impervious

Eyes: Splashproof goggles.

Other: Eyewash station, impervious apron and footwear.

IX. SPECIAL PRECAUTIONS

Special precaution: Keep out of reach of children. Do not store with food, feed, or other material to be used or consumed by humans or animals. Do not contaminate water supplies, lakes, streams, or ponds.

Other precaution: Transportation Notes for Ground and Air Shipments:

1. Container >1,126 gallons: RQ, Environmentally Hazardous Substances, Liquid, N.O.S., (Zinc Sulfate), 9, UN3082, PG III "ERG # 171"
2. Container <1,126 gallons: Not Regulated by D.O.T.
3. Product is regulated by IATA when shipped by air in any quantity. Description is as follows: Corrosive Liquid, Basic, Inorganic, N.O.S., (Zinc Sulfate), 8, UN3266, PG III "ERG # 154"

Material Safety Data Sheet

Effective Date: 03-DEC-2001
Product: TRAFIX ZM

X. SHIPPING INFORMATION

Shipping name: Not regulated for highway transportation in
containers less than 1,126 gallons.

Hazard Class: None
Identification No: None
Labels Required: None Required
Placarding: None required
Freight Class: Compound, Fertilizer (Manufactured Fertilizer),
Liquid, NOIBN (NMFC Item 68140, Sub 6, Class
70)

Chemical Name	Equivalent R.Q.
-----	-----
Zinc Sulfate (CAS No. 7733-02-0)	1,000 LB (454 kg)

XI. GENERAL PRODUCT INFORMATION

National Fire Protection Association Rating:
(Rating level: 4-Extreme, 3-High, 2-Moderate, 1-Slight, 0-Minimum)

Health: 2 Fire: 0 Reactivity: 0

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	

Mail inquiries to: 225 Schilling Blvd., Suite 300 Collierville, TN 38017
Helena Chemical Company believes that the data contained herein is factual.
This data is not to be taken as a warranty or representation of legal
responsibility. It is offered solely for your consideration, investigation
and verification.