

Material Safety Data Sheet

Effective Date: 10-SEP-2007  
Product: TRACITE GHEP Z-F-M PLUS

I. IDENTIFICATION

Chemical Name: CHELATED MICRONUTRIENTS.  
Chemical Family: INORGANIC METAL SALTS  
Formula: NOT APPLICABLE, PROPRIETARY BLEND..  
Synonyms: NONE  
CAS Number: NOT APPLICABLE FORMULATED MIXTURE.  
EPA Number: NONE REQUIRED

II. PHYSICAL DATA

Boiling Point: >100 DEGREES C.  
Freezing Point: <32 DEGREES F.  
Spec Gravity: 1.302 GMS/CC  
Vapor Pressure: NOT DETERMINED  
Vapor Density: NOT DETERMINED  
Solubility: 99%  
Volatiles: 58%  
Evaporation: NOT DETERMINED  
Melting Point: NOT DETERMINED  
Appearance: DARK BROWN LIQUID, PHENOLIC ODOR.

III. INGREDIENTS

Material	CAS Number	Percent	TLV	Hazard
PROPRIETARY BLEND OF INORGANIC METAL SALTS, FERROUS SULFATE, MAGNESIUM SULFATE, MANGANESE SULFATE, ZINC SULFATE, SODIUM GLUCOHEPTONATE AND WATER		100.00	15 MG/M3	SKIN & EYE IRRITANT

IV. FIRE AND EXPLOSION HAZARD

Flash Point: NONCOMBUSTIBLE  
Autoignition Temp: NOT APPLICABLE  
Flammable Limit: NOT APPLICABLE  
Extinguishing Media: NONCOMBUSTIBLE 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.

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V. HEALTH HAZARD  
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Carcinogen Information: NONE CURRENTLY KNOWN.

ACUTE EFFECTS OF OVER EXPOSURE  
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Swallowing: INGESTION RESULTS 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  
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  
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Swallowing: IF CONSCIOUS, GIVE MILK OR WATER TO DRINK AND  
INDUCE VOMITING.OBTAIN MEDICAL ATTENTION IF  
IRRITATION DEVELOPS.  
Skin: WASH SKIN THOROUGHLY WITH SOAP AND WATER.  
OBTAIN MEDICAL ATTENTION IF IRRITATION  
DEVELOPS.  
Inhalation: MOVE TO FRESH AIR, OBTAIN MEDICAL ATTENTION IF  
IRRITATION DEVELOPS.  
Eyes: FLUSH EYES WITH WATER FOR 15 MINUTES, HOLDING  
EYELIDS OPEN.OBTAIN MEDICAL ATTENTION IF  
IRRITATION DEVELOPS.  
Notes to Physician: IN THE EVENT OF AN ADVERSE RESPONSE, TREATMENT  
SHOULD BE DIRECTED TOWARD CONTROL OF THE  
SYMPTOMS AND THE CLINICAL CONDITION OF THE  
PATIENT..

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VI. REACTIVITY  
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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.  
Hazardous Combustion: SULPHUR DIOXIDE, CARBON DIOXIDE AND CARBON  
MONOXIDE UNDER FIRE CONDITIONS.

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VII. SPILL OR LEAK PROCEDURES  
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Spill or Leak Proc: CONTAIN PRODUCT, REUSE MATERIAL IF UNCONTAMINATED. IF CONTAMINATED, ABSORB MATERIAL WITH AN ABSORBENT SUCH AS CLAY OR SAND AND PLACE IN SUITABLE CONTAINER 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.

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VIII. SPECIAL PROTECTION INFORMATION  
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Respiration: NONE NEEDED UNDER NORMAL CONDITIONS. UNDER FIRE CONDITIONS OR IF VAPORS EXCEED TLV USE NIOSH/MSHA APPROVED RESPIRATOR.

Ventilation: LOCAL EXHAUST SUFFICIENT.

Gloves: IMPERVIOUS

Eyes: SPLASH PROOF GOGGLES.

Other: EYE WASH STATION, IMPERVIOUS APRON AND FOOTWEAR.

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IX. SPECIAL PRECAUTIONS  
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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 NOTE: FOR BULK TRUCKLOAD SHIPMENTS, USE SHIPPING DESCRIPTIONS BELOW.

>/= 923 GALLONS: RQ, ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S., (FERROUS SULFATE), 9, UN3082, PG III "ERG # 171"

>/= 1,337 GALLONS: RQ, ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S., (FERROUS SULFATE, ZINC SULFATE), 9, UN3082, PG III "ERG # 171"

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X. SHIPPING INFORMATION  
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Shipping name: NOT REGULATED DOMESTICALLY BY DOT IN < 923 GALLONS.

Helena Chemical Company  
PH: 901-761-0050  
CHEMTREC: 800-424-9300

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Hazard Class: NONE  
Identification No: NONE  
Labels Required: NONE REQUIRED  
Placarding: NONE REQUIRED  
Freight Class: COMPOUND, FERTILIZER (MANUFACTURED FERTILIZER)  
LIQUID, NOIBN(NMFC 68140, SUB 6, CLASS 70)

Chemical Name		Equivalent R.Q.
FERROUS SULFATE,	CAS #7720-78-7	1000 LB/(454 KG)
ZINC SULFATE,	CAS #7733-02-0	1000 LB/(454 KG)

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XI. GENERAL PRODUCT INFORMATION  
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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

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Mail inquiries to: 225 Schilling Blvd., Suite 300 Collierville, TN 38017  
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