

Material Safety Data Sheet

Effective Date: 17-MAY-2000  
Product: TRACITE ZFM PLUS

I. IDENTIFICATION

Chemical Name: FORMULATED MIXTURE  
Chemical Family: INORGANIC METAL SALTS  
Formula: NA  
Synonyms: TRACITE FOR SOYBEANS  
CAS Number: SEE MATERIAL SECTION III.  
EPA Number: NONE REQUIRED

II. PHYSICAL DATA

Boiling Point: >100 DEGREES C.  
Freezing Point: <32 DEGREES F.  
Spec Gravity: 1.326 GMS/CC  
Vapor Pressure: NOT APPLICABLE  
Vapor Density: NOT APPLICABLE  
Solubility: 99%  
Volatiles: <0.5%  
Evaporation: NOT DETERMINED  
Melting Point: NOT APPLICABLE  
Appearance: BLACK LIQUID, PHENOLIC ODOR.

III. INGREDIENTS

Material	CAS Number	Percent	TLV	Hazard
ZINC SULFATE	07733-02-0	6.94	NOT APPLICABLE	SKIN & EYE IRRITANT
FERROUS SULFATE	07720-78-7	9.62	NOT APPLICABLE	SKIN & EYE IRRITANT
MANGANESE SULFATE	07785-87-7	7.33	NOT APPLICABLE	SKIN & EYE IRRITANT
MAGNESIUM SULFATE	NOT APPLICABLE	15.15	NOT APPLICABLE	SKIN & EYE IRRITANT
INERT INGREDIENTS		60.96	NOT APPLICABLE	NOT APPLICABLE

IV. FIRE AND EXPLOSION HAZARD

Flash Point: NOT APPLICABLE

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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.

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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 NOSE AND THROAT  
IRRITATION.  
Skin contact: SKIN IRRITATION MAY OCCUR WITH CONTACT.  
Eye Contact: LIQUID CONTACT WITH EYES MAY CAUSE IRRITATION.  
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.  
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. INGESTION MAY RESULT IN CORROSIVE  
DAMAGE TO THE DIGESTIVE TRACT.

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VI. REACTIVITY  
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Stability: Stable

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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 CONTAINERS FOR  
PROPER DISPOSAL. DO NOT CONTAMINATE WATER  
SUPPLIES, LAKES, STREAMS, OR PONDS.  
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.  
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: A) RCRA HAZARDOUS WASTE NUMBER: NOT LISTED  
B) SARA TITLE III, SECTION 313: NOT LISTED  
C) SARA THRESHOLD PLANNING QUANTITY: NOT LISTED  
D) CERCLA REPORTABLE QUANTITY: 1,000 LBS.  
E) CALIFORNIA PROPOSITION 65: NOT LISTED  
F) LISTED UNDER NEW JERSEY STATE RIGHT TO KNOW  
LAW.  
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Helena Chemical Company  
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X. SHIPPING INFORMATION  
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Shipping name: NOT REGULATED BY DOT  
Hazard Class: NONE  
Identification No: NONE  
Labels Required: NONE  
Placarding: NONE  
Freight Class: COMPOUND, FERTILIZER (MANUFACTURED FERTILIZER)  
LIQUID, NOIBN

Chemical Name	Equivalent R.Q.
FERROUS SULFATE	1,000 LB(454 KG)
ZINC SULFATE	1,000 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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