

Material Safety Data Sheet

Effective Date: 22-AUG-2003  
Product: KICKSTAND MANZINC

I. IDENTIFICATION

Chemical Name: Concentrated Manganese and Zinc 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: Not determined  
Freezing Point: <30 Degrees F.  
Spec Gravity: 1.2 - 1.21 gms/cc  
Vapor Pressure: Not determined  
Vapor Density: Not determined  
Solubility: Soluble  
Volatiles: Not determined  
Evaporation: Not determined  
Melting Point: Not applicable  
Appearance: Clear, light yellow to amber liquid.

III. INGREDIENTS

Material	CAS Number	Percent	TLV	Hazard
Proprietary Blend of Micronutrients derived from Manganese Amino Acid Complex, Manganese Humates, Zinc Ammonia Complex, Zinc Amino Acid Complex, and Zinc Humates. Each gallon of concentrate will yield 0.2 lbs of Zinc and 0.2 lbs of Manganese.		100.00	N/E	Skin & eye irritant

IV. FIRE AND EXPLOSION HAZARD

Flash Point: Non-combustible  
Autoignition Temp: Not determined  
Flammable Limit: Not determined  
Extinguishing Media: Non-combustible liquid. Use extinguishing media suitable for underlying cause of fire.  
Special Fire Fight Proc: Wear self-contained breathing apparatus and full protective clothing. Use water spray to

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keep fire exposed containers cool.  
Fire and Expl Hazard: May product toxic fumes under fire conditions.  
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V. HEALTH HAZARD  
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Carcinogen Information: Not listed.

ACUTE EFFECTS OF OVER EXPOSURE  
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Swallowing: Ingestion may result in vomiting and abdominal cramps.  
Skin Absorption: No adverse effects anticipated from absorption.  
Inhalation: Inhalation may cause irritation of the respiratory tract.  
Skin contact: May cause skin irritation with repeated or 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 swallowed, drink 1 to 2 glasses of water. Induce vomiting by touching back of throat with finger. Seek medical attention.  
Skin: Wash affected area with soap and water. Launder contaminated clothing before reuse. Consult a physician if irritation persists.  
Inhalation: Remove to fresh air. If irritation persists, seek medical attention.  
Eyes: Flush eyes with water for at least 15 minutes, holding eyelids open. Seek medical attention.  
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: Avoid strong oxidizers and strong alkaline materials.  
Hazardous Combustion: May produce oxides of nitrogen, ammonia or amines and carbon monoxide.

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VII. SPILL OR LEAK PROCEDURES  
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Spill or Leak Proc: If uncontaminated, collect and reuse as product. If contaminated, absorb using clay, sand or sawdust. Scoop up absorbent materials and place in proper chemical waste disposal containers.

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: Use a NIOSH-approved respirator if needed.  
Ventilation: Local exhaust sufficient.  
Gloves: Impervious  
Eyes: Chemical workers' goggles.  
Other: Eyewash station, emergency shower, 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. Keep segregated from oxidizers and other incompatible materials.

Other precaution: None currently needed.

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X. SHIPPING INFORMATION  
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Shipping name: Not regulated by DOT, IATA or IMDG.  
Hazard Class: None  
Identification No: None  
Labels Required: None required  
Placarding: None  
Freight Class: Compound, Fertilizer (Manufactured Fertilizer), Liquid, NOIBN (NMFC Item 68140, Sub 6, Class 70)

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Chemical Name	Equivalent R.Q.
Zinc	1,000 lbs.

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Transportation Note:  
If 4,762 gallons or more shipped in single unit, ship as:  
RQ, Environmentally Hazardous Substances, Liquid, n.o.s. (Zinc), 9, UN3082,  
PG III "ERG # 171"

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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: 1                      Fire: 1                      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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