

SAFETY DATA SHEET

MICROMINOR™ 0.4-0-0, 2FE, 4MN, 4ZN

FOR CHEMICAL EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT, CALL CHEMTREC - DAY OR NIGHT 1-800-424-9300

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

FORMULATED FOR:

LOVELAND PRODUCTS, INC.
P.O. Box 1286 • Greeley, CO 80632-1286

24-Hour Emergency Phone: 1-800-424-9300

Medical Emergencies: 1-866-944-8565

U.S. Coast Guard National Response Center: 1-800-424-8802

PRODUCT NAME: MICROMINOR™ 0.4-0-0, 2Fe, 4Mn, 4Zn

CHEMICAL NAME: None

CHEMICAL FAMILY: Aqueous Plant Nutritional Solution

MSDS Number: 1000364744-13-LPI MSDS Revisions: New

Date of Issue: 05/14/13

Supersedes: New

2. HAZARDS IDENTIFICATION SUMMARY

KEEP OUT OF REACH OF CHILDREN - CAUTION – May cause mild eye and skin irritation. Avoid contact with skin, eyes, open cuts, or sores. In case of contact, flush with water. Get medical attention for eyes. This blended liquid fertilizer is derived from Protein Hydrolysate and Zinc Sulfate. Nausea and vomiting could be expected upon large dose ingestion. The acute ingestive effects are described as nausea, chills, and diarrhea. Eye or skin contact with these products could cause irritation (particularly in sensitive persons), and respiratory irritation could be expected from the unprotected inhalation of fertilizer mists. Product users should avoid prolonged or repeated skin contact by wearing impervious gloves, long sleeve shirt, long pants, socks and rubber boots. Goggles for eye protection are recommended. Wash thoroughly after handling and using this product.

This product is a clear to cloudy liquid with negligible odor.

3. COMPOSITION, INFORMATION ON INGREDIENTS

<u>Chemical Name and Synonyms:</u>	<u>Percent Hazardous by Weight:</u>	<u>CAS No.</u>	<u>TLV (Units)</u>
<u>Non Hazardous</u>			
This product is a blend of the following non-hazardous ingredients:			
	100.00		
Water		7732-18-5	not listed
Protein Hydrolysate		9015-54-7	not listed
Ferrous Sulfate		7720-78-7	not listed
Manganese Sulfate		10034-96-5	not listed
Zinc Sulfate		7446-19-7	not listed

4. FIRST AID MEASURES

If in eyes: Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

If on skin or clothing: 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.

If swallowed: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: **1-866-944-8565**.

5. FIRE FIGHTING MEASURES

FLASH POINT (°F/Test Method): Does not flash.

FLAMMABLE LIMITS (LFL & UFL): Not applicable.

EXTINGUISHING MEDIA: Use media appropriate for surrounding fire.

HAZARDOUS COMBUSTION PRODUCTS: None known.

SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained breathing apparatus and full protective gear. If heated to dryness, immediately ventilate the structure to prevent pressure build-up, which will increase the possibility of explosion.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Product may burn if all water has evaporated or boiled away.

6. ACCIDENTAL RELEASE MEASURES**STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:**

Wear appropriate personal protective equipment (refer to Section 8). Pick up the material with absorbent material and place in a container for proper disposal in accordance with local, state and federal regulations.

ENVIRONMENTAL PRECAUTIONS: Keep spills and cleaning runoff out of municipal sewers and open bodies of water.

7. HANDLING AND STORAGE

HANDLING: Wear protective eyewear and chemical resistant gloves. Wash thoroughly with soap and water after handling.
STORAGE: Store in a cool, dry place. Store in original container. Keep tightly closed. Do not reuse empty container. Do not contaminate water, food or feed by storage or disposal.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: Work in well-ventilated area. Local exhaust may be required if working in confined space.
RESPIRATORY PROTECTION: Wear a NIOSH approved air-purifying respirator for pesticide handling if necessary.
EYE PROTECTION: Chemical goggles or face-shield.
SKIN PROTECTION: Wear long sleeved shirt, long pants, shoes and socks.

OSHA PEL 8 hr TWA

ACGIH TLV-TWA

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Clear to cloudy liquid with negligible odor
SPECIFIC GRAVITY (Water = 1): 1.38 g/ml
VAPOR PRESSURE: Not known
FLASHPOINT: Not flammable
VAPOR DENSITY (Air = 1): Not known
PERCENT VOLATILE (by volume): Not known
FLAMMABLE LIMITS (LFL & UFL): Not known
AUTO-IGNITION TEMPERATURE: Not known
Note: These physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specification items.

BULK DENSITY: 11.52 lbs/gal. / 1.38 Kg/L
BOILING POINT: >200°F / >93°C
VISCOSITY: Not known
EVAPORATION RATE: (Butyl Acetate = 1): Not known
RELATIVE DENSITY: Not known

SOLUBILITY: Soluble
pH: Not established
MELTING POINT: No Data

DECOMPOSITION TEMPERATURE: Not known

10. STABILITY AND REACTIVITY

STABILITY: Stable
CONDITIONS TO AVOID: Extreme temperatures, flame, and exposure to incompatible materials.
INCOMPATIBILITY: None known.
HAZARDOUS DECOMPOSITION PRODUCTS: Carbon and nitrogen oxides.
HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure: Eye contact, skin, ingestion, and/or inhalation.
LC₅₀ (rat): Not determined or available
Oral LD₅₀ (rat): Not known for product
Oral LD₅₀ (rat): Zinc Sulfate: 1,700 mg/kg
Acute Toxicity Estimates: Not available
Serious Eye Damage / Irritation (rabbit): Not determined
Respiratory or Skin sensitization (guinea pig): Not a skin sensitizer
Specific Target Organ Toxicity: None known.

Dermal LD₅₀ (rabbit): Not known
Aspiration: Not determined
Skin Corrosion / Irritation (rabbit): Not determined

12. ECOLOGICAL INFORMATION

Ecotoxicity: None listed or known.
Persistence and Degradability: Not known.
Bioaccumulative Potential: Not known.
Mobility in Soil: Not known.

13. DISPOSAL CONSIDERATIONS

WASTE TREATMENT METHODS: This material must be disposed of according to local, state, provincial and federal requirements and procedures.

14. TRANSPORT INFORMATION

UN No.: NOT APPLICABLE
UN PROPER SHIPPING NAME: NOT APPLICABLE
TRANSPORT HAZARD CLASS: NOT APPLICABLE
PACKING GROUP: NOT APPLICABLE
ENVIRONMENTAL HAZARDS: NOT DETERMINED
TRANSPORT IN BULK (ACCORDING TO ANNEX II OF MARPOL 73/78): – IBC CODE: NOT APPLICABLE
Special Precautions (for User): NOT APPLICABLE

U.S. Surface Freight Classification: FERTILIZING COMPOUNDS (MANUFACTURED FERTILIZERS), NOI; LIQUID (NMFC 68140, SUB 6; CLASS 70)

15. REGULATORY INFORMATION

CAUTION

NFPA & HMIS Hazard Ratings:

NFPA

1 Health
 0 Flammability
 0 Instability

HMIS

0 Least
 1 Slight
 2 Moderate
 3 High
 4 Severe

SARA Hazard Notification/Reporting

SARA Title III Hazard Category: Immediate Y Fire N Sudden Release of Pressure N
 Delayed N Reactive N

Reportable Quantity (RQ) under U.S. CERCLA: Ferrous Sulfate (CAS: 7720-78-7) 1,000lbs.; Zinc Sulfate (CAS: 7446-19-7) 1,000 lbs.

SARA, Title III, Section 313: Zinc Compounds

RCRA Waste Code: Not listed

CA Proposition 65: WARNING: This product contains chemicals known to the State of California to cause cancer or birth defects or other reproductive harm.

16. OTHER INFORMATION

MSDS STATUS: New

PREPARED BY: Registrations and Regulatory Affairs

REVIEWED BY: Environmental Health and Safety

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