

MATERIAL SAFETY DATA SHEET

MICROFINE SULFUR – FOR ORGANIC PRODUCTION

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: 1-800-301-7976
U.S. Coast Guard National Response Center: 1-800-424-8802

PRODUCT NAME: MICROFINE SULFUR
CHEMICAL NAME: Sulfur
CHEMICAL FAMILY: Elemental Sulfur Fungicide
EPA REG. NO.: 6325-13-34704
MSDS Number: 632513-08-LPI

MSDS Revisions: All sections reviewed

Date of Issue: 08/26/08

Supersedes: 01/13/05

2. HAZARDS IDENTIFICATION SUMMARY

KEEP OUT OF REACH OF CHILDREN – CAUTION – Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling.

This product is pale yellow powder with sulfur (rotten egg) odor.

3. COMPOSITION, INFORMATION ON INGREDIENTS

<u>Chemical Ingredients:</u>	<u>Percentage by Weight:</u>	<u>CAS No.</u>	<u>TLV (Units)</u>
Sulfur	90.00	7704-34-9	None Established
Inert Ingredients	10.00		

4. FIRST AID MEASURES

If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 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 15-20 minutes. Call a poison control center or doctor for further treatment advice.

FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: 1-800-301-7976. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

5. FIRE FIGHTING MEASURES

FLASH POINT (°F/Test Method): 405°F / 207.2°C
FLAMMABLE LIMITS (LFL & UFL): 35 g/m³ – 1400 g/m³ (Explosive limits of dust in air)
EXTINGUISHING MEDIA: Water fog, spray, or regular foam. .
HAZARDOUS COMBUSTION PRODUCTS: Burning sulfur decomposes into oxides of sulfur, such as hydrogen sulfide and sulfur dioxide. Other unknown hazardous material may also be formed in a fire situation.
SPECIAL FIRE FIGHTING PROCEDURES: If water is used to fight fire or cool containers, contain run-off by diking to prevent contamination of water supplies. Avoid breathing smoke. Wear self-contained breathing apparatus and full protective gear.
UNUSUAL FIRE AND EXPLOSION HAZARDS: Sulfur dusts ignite easily and may form explosive mixtures with air; avoid using direct and heavy water streams.

6. ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

Avoid breathing dusts. Sweep up spills and transfer to approved chemical containers for disposal or rework. Keep dusting to a minimum. Check local, state and federal regulations for proper disposal.

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

7. HANDLING AND STORAGE

HANDLING: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.
STORAGE: Store in a cool, dry place. After partial use, fold and roll back bags, clamp and close tightly. Do not contaminate water, food or feed by storage or disposal.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets with requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40CFR 170.240 (d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

RESPIRATORY PROTECTION: Not normally required. If dusts exceed acceptable levels, wear a NIOSH approved pesticide respirator.

EYE PROTECTION: Chemical goggles or shielded safety glasses.

SKIN PROTECTION: Wear protective clothing: long-sleeved shirts and pants, shoes plus socks. Wear chemical-resistant gloves.

	OSHA PEL 8 hr TWA	ACGIH TLV-TWA
Nuisance Particulates	15 mg/m ³ (total dust)	none established

Personal Protective Equipment: Applicators and other handlers other than mixers and loaders must wear: Long-sleeved shirt and long pants, chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride, shoes plus socks, and protective eyewear. **Mixers and loaders must wear:** Long-sleeved shirt and long pants, chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride, shoes plus socks, and protective eyewear. Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Pale yellow powder with sulfur (rotten egg) odor	SOLUBILITY: Insoluble
SPECIFIC GRAVITY (Water = 1): 0.528 - 1.281 g/ml	pH: Not applicable
VAPOR PRESSURE: Not applicable	BULK DENSITY: 33.0 - 80.0 lbs/ft ³
PERCENT VOLATILE (by volume): Not applicable	BOILING POINT: 832 ^o F / 444.4 ^o C
Note: These physical data are typical values based on material tested but may vary from sample to sample.	EVAPORATION RATE: Not applicable
Typical values should not be construed as a guaranteed analysis of any specific lot or as specification items.	

10. STABILITY AND REACTIVITY

STABILITY: Stable

CONDITIONS TO AVOID: Extreme heat, sparks, or flame.

INCOMPATIBILITY: Oxidizing agents may react violently. Corrosive to copper and copper alloys. Damp sulfur will corrode steel.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of sulfur gases produced by burning sulfur.

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Oral LD₅₀ (rat): >5050 mg/kg	Acute Dermal LD₅₀ (rabbit): >2020 mg/kg
Eye Irritation (rabbit): Causes minimal eye irritation.	Skin Irritation (rabbit): Slightly irritating
Inhalation LC₅₀ (rat): 5.49 mg/L (4 HR)	Skin Sensitization (guinea pig): Not a sensitizer
Carcinogenic Potential: None listed in OSHA, NTP, IARC or ACGIH	

12. ECOLOGICAL INFORMATION

This product is toxic to fish. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not apply where runoff is likely to occur. Do not apply when weather conditions favor drift from areas treated. Do not contaminate water when disposing of equipment wash waters. Do not contaminate water, food, or feed by storage or disposal.

13. DISPOSAL CONSIDERATIONS

Do not reuse container. Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Do not contaminate other pesticides, fertilizers, water, food or feed by storage or disposal.

14. TRANSPORT INFORMATION

DOT Shipping Description: NOT REGULATED BY USDOT.

U.S. Surface Freight Classification: INSECTICIDES OR FUNGICIDES, INSECT OR ANIMAL REPELLENTS; NOI; OTHER THAN POISON (NMFC 102120; CLASS: 60)

15. REGULATORY INFORMATION

NFPA & HMIS Hazard Ratings:	NFPA		HMIS
	1 Health	0 Least	1 Health
	1 Flammability	1 Slight	1 Flammability
	0 Instability	2 Moderate	0 Reactivity
		3 High	H PPE
		4 Severe	

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

Reportable Quantity (RQ) under U.S. CERCLA: Not listed
SARA, Title III, Section 313: Not listed
RCRA Waste Code: Not listed
CA Proposition 65: Not listed

16. OTHER INFORMATION

MSDS STATUS: All sections reviewed and/or revised.
PREPARED BY: Registrations and Regulatory Affairs **REVIEWED BY:** Environmental/ Regulatory Services

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