

MATERIAL SAFETY DATA SHEET

MONTEREY MANGANESE-ZINC

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Issue Date: 01/06

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Chemical Product

MONTEREY MANGANESE-ZINC

Common Name: Dry fertilizer mixture.

Chemical Description: Mixture of manganese and zinc sulfates.

TSCA/CAS No.: This product is a mixture — there is no specific CAS number.

Manufactured For

Monterey AgResources

P. O. Box 35000

Fresno, CA 93745-5000

Emergency Phone Numbers

Emergency Telephone: DAYS: (559) 499-2100 EVES: (559) 994-9144

CHEMTREC (24-Hour Emergency Number): (800) 424-9300

EPA National Response Center: (800) 424-8802

SECTION 2. HAZARDOUS INGREDIENTS

CHEMICAL	CAS NO.	%	TLV OR PEL	RQ (lbs)
Manganese sulfate, monohydrate	7785-87-7	50.0	5 mg/m ³ (as Mn) OSHA, ACGIH (1980)	N.A.*
Zinc sulfate, monohydrate	7733-02-0	50.0	15 mg/m ³ (8 hrs.)	1,000

*N.A. - Not Available.

SECTION 3. EMERGENCY/HAZARDS OVERVIEW

White powder/ granules with no odor. Avoid dry mixing with other powdered metals. Toxic sulfur oxide fumes at temperatures above 740°C. Not D.O.T. regulated.

HEALTH: 2 REACTIVITY: 1 FLAMMABILITY: 0 ENVIRONMENT: 0

(0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme)

SECTION 4. FIRST AID

- Eyes: Flush immediately with water for at least 15 minutes. Call a physician if eye irritation persists.
- Skin: Wash thoroughly with soap and water. Remove contaminated clothing and wash before reuse. See a physician if skin becomes irritated.
- Ingestion: If conscious and alert, administer a teaspoon of dibasic sodium phosphate in water, then a teaspoon of table salt (sodium chloride) in a glass of warm water, then induce vomiting. Call a physician or Poison Control Center immediately.
- Inhalation: Move to fresh air. If breathing becomes difficult, call a physician.

SECTION 5. FIRE AND EXPLOSION HAZARDS

Flash Point:	Noncombustible.
Test Method:	Not available.
LEL Flammable Limits:	Not pertinent.
UEL Flammable Limits:	Not pertinent.
Autoignition Temperature:	Not pertinent.
Flammability Classification:	Noncombustible.
Known Hazardous Products of Combustion:	None.
Properties that Initiate/Contribute to Intensity of Fire:	None.
Potential For Dust Explosion:	None.
Reactions that Release Flammable Gases or Vapors:	None.
Potential For Release of Flammable Vapors:	Not known.
Unusual Fire & Explosion Hazards:	None.
Extinguishing Media:	Does not burn.
Special Firefighting Procedures:	Wear positive pressure, self-contained breathing apparatus and goggles. Contain any liquid runoff.

SECTION 6. SPILLS AND LEAKS

Containment: Prevent product spillage from entering drinking water supplies or streams.
Clean Up: Sweep up and use according to labeling or package for disposal.
Evacuation: Not necessary.

SECTION 7. STORAGE AND HANDLING

Storage: Store in a cool, dry place. Do not store near food or feeds. Do not stack pallets more than two (2) high.

Transfer Equipment: Transfer solutions of product using chemical-resistant plastic or stainless steel tanks, pumps, valves, etc.

Work/Hygienic Practices: Keep out of reach of children. Harmful if swallowed. Causes eye and skin irritation. Avoid contact with eyes, skin and clothing. In case of contact, immediately flush eyes or skin with plenty of water. Avoid breathing dusts or spray mist. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

SECTION 8. PERSONAL PROTECTIVE EQUIPMENT

Eyes: Chemical dust/splash goggles to keep dust out of eyes. For solutions of product, use chemical/dust splash goggles or full-face shield. As a general rule, do not wear contact lenses when handling.

Skin: Impervious gloves and clothes.

Respiratory: Not normally needed but recommend NIOSH-approved respirator (such as 3M #8500) for nontoxic nuisance dust. If use in solutions generates an aerosol mist or respiratory irritation, use NIOSH-approved dust/mist respirator (such as 3M #8710).

Ventilation: Recommended but no TLV established.

SECTION 9. PHYSICAL AND CHEMICAL DATA

Appearance:	White powder/granules.
Odor:	None.
pH:	Not available.
Vapor Pressure:	Not available.
Vapor Density (Air=1):	Not available.
Boiling Point:	Not available.
Freezing Point:	Not available.
Water Solubility:	Soluble.
Density:	75 lbs./cu.ft.
Evaporation Rate:	Not available.
Viscosity:	Not available.
% Volatile:	Not available.
Octanol/Water Partition Coefficient:	Not available.
Saturated Vapor Concentration:	Not available.

SECTION 10. STABILITY AND REACTIVITY

Stability:	Stable.
Conditions To Avoid:	Avoid contact with strong alkalis, acids, oxidizing agents.
Incompatibility:	Not available.
Hazardous Decomposition Products:	None.
Hazardous Polymerization:	Will not occur.

SECTION 11. POTENTIAL HEALTH EFFECTS

<u>Acute Effects:</u>	
Eyes:	Moderate irritant. May cause redness and burning.
Skin:	Moderate irritant, especially from prolonged exposure. May cause redness and ulcerations.
Ingestion:	May cause stomach cramps and/or nausea.
Inhalation:	Moderate irritant of nasal mucous membranes. May cause dry throat, coughing, headaches, muscle aches.
<u>Subchronic Effects:</u>	None known.
<u>Chronic Effects:</u>	None known.

SECTION 12. ECOLOGICAL INFORMATION

Algal/Lemna Growth Inhibition:	Not known.
Toxicity to Fish and Invertebrates:	Not known.
Toxicity to Plants:	Not known.
Toxicity in Birds:	Not known.

SECTION 13. DISPOSAL

Do not contaminate lakes, streams, ponds, estuaries, oceans or other waters by discharge of waste effluents or equipment washwaters. Dispose of waste effluents according to state and local regulations. Also, chemical additions or other alterations of this product may invalidate any disposal information in this MSDS. Therefore, consult local waste regulators for proper disposal. Do not discharge.

SECTION 14. TRANSPORTATION

D.O.T. Shipping Description:	Not D.O.T. regulated.
Other Shipping Description:	Fertilizing Compounds (Manufactured), Dry, Pkgd. (NMFC Item 68140 Sub 4, LTL Class 60)

SECTION 15. REGULATORY INFORMATION

CERCLA: Zinc sulfate is listed as a priority pollutant under the Clean Water Act and, as such, falls under the CERCLA spill reporting requirements of 40 CFR 302.

SARA TITLE III, Section 313 Toxic Chemicals: Zinc compounds (50.0%), Manganese compounds (50.0%).

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

SECTION 16. OTHER

While the information contained herein is based on data considered accurate and was compiled to comply with the Federal Hazard Communication Standard and the California Hazardous Substances Information and Training Act, it is provided for guidance only. Monterey AgResources does not guarantee its accuracy or completeness. Health and safety precautions in this data sheet may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations; in so doing, user assumes all risk in use of the material. The information contained herein is not to be taken as a warranty or representation for which Monterey AgResources assumes legal responsibility.