

# MATERIAL SAFETY DATA SHEET

MONTEREY GRANULAR MANGANESE SULFATE 31% Page 1 of 4

Issue Date: 01/06

## SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

### Chemical Product

MONTEREY GRANULAR MANGANESE SULFATE 31%

Common Name: Manganous sulfate monohydrate.

Chemical Description: Manganese sulfate, granule.

TSCA/CAS No.: The primary CAS number is 10034-96-5.

### 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	10034-96-5	100.0	5 mg/m <sup>3</sup> (as Mn) OSHA,ACGIH (1980)	N.P.*

\*N.P. - Not Pertinent.

## SECTION 3. EMERGENCY/HAZARDS OVERVIEW

White powder with no odor. Avoid mixing with other powdered metals. Toxic sulfur oxide fumes at temperatures above 850°C. Not D.O.T. regulated.

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

(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, drink water or milk to dilute, 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 pertinent.
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:	None.
Unusual Fire & Explosion Hazards:	Toxic sulfur oxide fumes at temperatures > 850°C
Extinguishing Media:	Not pertinent.
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: Collect liquid or absorb onto absorbent material and package for disposal.  
 Evacuation: Not necessary.

**SECTION 7. STORAGE AND HANDLING**

Storage: Store in plastic or stainless steel container in a cool, well-ventilated, dry place at temperatures above 40°F. Do not store near food or feeds. Do not stack pallets more than two (2) high.

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

Work/Hygienic Practices: Keep out of reach of children. Avoid contact with eyes, skin and clothing. Avoid inhalation of dust. Wash thoroughly with water after handling.

**SECTION 8. PERSONAL PROTECTIVE EQUIPMENT**

Eyes: Chemical dust/splash goggles or full-face shield to prevent eye contact. As a general rule, do not wear contact lenses when handling.

Skin: Impervious gloves and clothes.

Respiratory: Not normally needed. If use 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 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:	70% (w/w) @ 20°C.
Density:	2.95 g/ml.
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:	Not available.
Incompatibility:	Avoid mixing with other powdered metals.
Hazardous Decomposition Products:	Toxic sulfur oxide fumes at temperatures above 850°C.
Hazardous Polymerization:	Will not occur.

**SECTION 11. POTENTIAL HEALTH EFFECTS**Acute Effects:

Eyes:	Moderate irritant. May cause redness and burning.
Skin:	Moderate irritant, especially from prolonged exposure. Dermal LD <sub>50</sub> guinea pig is 1.0 g/kg (24 hours). May cause redness.
Ingestion:	Low toxicity. Oral LD <sub>50</sub> rat is 1.6–3.2 g/kg. May cause stomach cramps and/or nausea.
Inhalation:	Moderate irritant of nasal mucous membranes. TLV = 5 mg/m <sup>3</sup> ( as Mn). May cause dry throat, chills, fever, headaches, muscle aches.

Subchronic Effects: None known.

Chronic Effects: 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.:	Not D.O.T. regulated.
Other Shipping Description:	Manganese Sulfate, Fertilizer Grade, Dry. NMFC Item 45200, LTL Class 60

**SECTION 15. REGULATORY INFORMATION**

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

SARA TITLE III, Section 313 Toxic Chemicals: Manganese compounds (100.0%)

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.