

Material Safety Data Sheet

Martrex, Inc.
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1. CHEMICAL IDENTIFICATION

CHEMICAL PRODUCT: Martrex Manganese Sulfate 31%

COMMON NAME: Manganese sulfate monohydrate

CAS NO: The primary CAS number is 10034-96-5

CHEMICAL DESCRIPTION: Manganese sulfate, powder

2. PERSONAL PROTECTION INFORMATION

RESPIRATORY: Not normally needed. If use generates an aerosol mist or respiratory irritation, use NIOSH-approved dust/mist respirator (such as 3M #8710).

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.

VENTILATION: Recommended but no TLV established.

3. POTENTIAL HEALTH EFFECTS

ACUTE EFFECTS:

EYES: Moderate irritant. May cause redness and burning.

SKIN: Moderate irritant, especially from prolonged exposure. Dermal LD₅₀ guinea pig is 1.0 g/kg (24 hours). May cause redness.

INGESTION: Low toxicity. Oral LD₅₀ rat is 1 6-3.2 g/kg. May cause stomach cramps and/or nausea.

INHALATION: Moderate irritant of nasal mucous membranes. RLV = 5 mg/m³ (as MN)> May cause dry throat, chills, fever, headaches, muscle aches.

SUBCHRONIC EFFECTS: None known.

CHRONIC EFFECTS: None known.

4. EMERGENCY AND FIRST AID MEASURES

SKIN: Wash thoroughly with soap and water. Remove contaminated clothing and wash before reuse. See a physician if skin becomes irritate.

EYES: Flush immediately with water for at least 15 minutes. Call a physician if eye irritation persists.

INHALATION: Move to fresh air. If breathing becomes difficult, call a physician.

INGESTION: If conscious and alert, drink water or milk to dilute, then induce vomiting. Call a physician or Poison Control center immediately.

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Product: Martrex Manganese Sulfate 31%
For Chemical Emergencies Call CHEMTREC - Day or Night - at 800-424-9300

5. HAZARDOUS INGREDIENTS

<u>CHEMICAL</u>	<u>CAS NO.</u>	<u>%</u>	<u>TLV OR PE</u>	<u>RQ (LBS)</u>
Manganese sulfate, monohydrate	10034-96-5	100	5 mg/m ³ (as MN) OSHA,ACGIH (1980)	Not Pert.

6. 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)

7. PHYSICAL DATA

APPEARANCE: White powder

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

8. REACTIVITY

STABILITY: Stable

HAZARDOUS POLYMERIZATION: Will not occur

CONDITIONS TO AVOID: Not available

INCOMPATIBILITY: Avoid mixing with other powdered metals

HAZARDOUS DECOMPOSITION PRODUCTS: Toxic sulfur oxide fumes at temperatures above 850°C

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9. FIRE AND EXPLOSIONS HAZARDS

FLASH POINT: Noncombustible

TEST METHOD: Not pertinent

LEL FLAMMABLE LIMITS: Not pertinent

UEL FLAMMABLE LIMITS: Not pertinent

EXTINGUISHING MEDIA: Not pertinent

SPECIAL FIRE FIGHTING PROCEDURES AND PRECAUTIONS: Wear positive pressure, self-contained breathing apparatus and goggles. Contain any liquid runoff.

AUTOIGNITION TEMPERATURE: Not pertinent

UNUSUAL FIRE AND EXPLOSION HAZARDS: Toxic sulfur oxide fumes at temperatures > 850°C

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

10. 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

11. STORAGE AND SPECIAL PRECAUTIONS

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 spray mists. Wash thoroughly with water after handling.

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12. DISPOSAL

Do not contaminate lakes, streams, ponds, estuaries, oceans or other waters by discharge of waste effluents or equipment wash waters. 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.

13. TRANSPORTATION REQUIREMENTS

DOT: Not D.O.T. regulated

OTHER SHIPPING DESCRIPTION: Manganese Sulfate, Fertilizer Grade, Dry.
NMFC Item 45200, LTL Class 60

14. SARA TITLE III 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.

15. EMERGENCY ACTION - SPILL OR LEAK

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.

16. OTHER

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