

# MATERIAL SAFETY DATA SHEET

MONTEREY COARSE GRANULAR FERROUS SULFATE Page 1 of 4

Issue Date: 09/02

## SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

### Chemical Product

MONTEREY COARSE GRANULAR FERROUS SULFATE MONOHYDRATE

Common Name: Ferrous sulfate monohydrate.

Chemical Description: Ferrous sulfate, granule.

TSCA/CAS No.: The primary CAS number is 7720-78-7.

### Manufactured For

Monterey Chemical Company

P. O. Box 35000

Fresno, CA 93745-5000

### Emergency Phone Numbers

Emergency Telephone: DAYS: (559) 499-2100 EVES.: (559) 431-7390

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)
Ferrous sulfate, monohydrate	7720-78-7	100.0	1 mg/m <sup>3</sup> (TWA) soluble iron salt as Fe (ACGIH)	1000

## SECTION 3. EMERGENCY/HAZARDS OVERVIEW

Light gray powder with acidic/sour odor. Avoid mixing with oxidizing agents and alkalis. Thermal decomposition products may include toxic sulfur oxides. D.O.T. regulated in containers  $\geq$  1000 lbs.

HEALTH: 1 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 identified.
Properties that Initiate/Contribute to Intensity of Fire:	None identified.
Potential For Dust Explosion:	None identified.
Reactions that Release Flammable Gases or Vapors:	None identified.
Potential For Release of Flammable Vapors:	None identified.
Unusual Fire & Explosion Hazards:	Toxic sulfur oxide fumes may result from decomposition (> 300°C).
Extinguishing Media:	Use agents appropriate to surrounding fire.
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 away from children and other food and feed products. Do not contaminate other stored products or the storage area by handling or storage of this product.
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 or inhaled. Avoid breathing dust. Avoid contact with eyes, skin and clothing. 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 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:	NIOSH-approved dust/mist respirator (such as 3M #8710).
Ventilation:	TWA TLV for ferrous sulfate (soluble iron salt as Fe) = 1 mg/m <sup>3</sup> . Provide appropriate ventilation and/or dust respirators to control dust level to below TLV.

**SECTION 9. PHYSICAL AND CHEMICAL DATA**

Appearance:	Light gray powder.
Odor:	Acidic/sour.
pH:	Not available.
Vapor Pressure:	Not available.
Vapor Density (Air = 1):	Not available.
Boiling Point:	Not available.
Freezing Point:	Not available.
Water Solubility:	Not available.
Density:	Not available.
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:	Extremely high temperatures.
Incompatibility:	Avoid mixing with oxidizing agents and alkalis.
Hazardous Decomposition Products:	Toxic sulfur oxide fumes at extremely high temperatures (> 300°C).
Hazardous Polymerization:	Will not occur.

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

Eyes:	May cause severe irritation and corrosive activity due to acidity.
Skin:	Causes irritation to skin, especially from prolonged exposure. Symptoms include redness, itching, and pain
Ingestion:	Low toxicity in small quantities but larger dosages may cause nausea, vomiting, diarrhea, and black stool. Pink urine discoloration is a strong indicator of iron poisoning. Liver damage, coma, and death from iron poisoning have been recorded. Smaller doses are much more toxic to children.
Inhalation:	Causes irritation to the respiratory tract. Symptoms may include coughing, shortness of breath.

Chronic Effects: Severe or chronic ferrous sulfate poisonings may damage blood vessels. Large chronic doses cause rickets in infants. Chronic exposure may cause liver effects. Prolonged exposure of the eyes may cause discoloration.

Aggravation of Pre-existing Conditions: Persons with pre-existing skin disorders or eye problems, or impaired liver, kidney or respiratory function may be more susceptible to the effects of the substance

**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.:	< 1000 lbs.	Not D.O.T. regulated.
	≥ 1000 lbs.	Environmentally Hazardous Substance, Solid, N.O.S. (Ferrous Sulfate), 9, UN 3077, PG III, RQ 1000 lbs. ERG #171.

Other Shipping Description: Iron Sulfate (Ferrous Sulfate) (Copperas)  
NMFC Item 44820, Sub 3, LTL Class 55

**SECTION 15. REGULATORY INFORMATION**

CERCLA: Ferrous 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: None.

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**

All information appearing in this document was based on data provided by third party sources and was compiled to comply with the Federal Hazard Communication Standard and the California Hazardous Substances Information and Training Act. The information is believed to be accurate as of the preparation date, but is not warranted as being the final authority in the use of this product. This information does not purport to be legal or medical advice.