

MATERIAL SAFETY DATA SHEET

MONTEREY ZINC SULFATE SOLUTION 12%

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Issue Date: 12/99

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Chemical Product

MONTEREY ZINC SULFATE SOLUTION 12%

Common Name: Zinc sulfate solution.

Chemical Description: Zinc sulfate, aqueous solution (12% Zinc).

TSCA/CAS No.: The primary CAS No. is 7733-02-0

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)
Zinc sulfate	7733-02-0	26.7	N.A.*	1,000

* N.A. - Not available.

SECTION 3. EMERGENCY/HAZARDS OVERVIEW

Colorless to pale amber liquid with no odor. Mild irritant. Sulfur trioxide fumes at temperatures above 575°C. D.O.T. regulated in containers of more than 320 gals.

HEALTH: 1 REACTIVITY: 0 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, administer large amounts of water for dilution. 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:	None.
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:	Not known.
Potential For Release of Flammable Vapors:	None.
Unusual Fire & Explosion Hazards:	Sulfur trioxide fumes at temperatures above 575°C.
Extinguishing Media:	Does not burn.
Special Firefighting Procedures:	Wear positive pressure, self-contained breathing apparatus and goggles. Avoid exposure to smoke or fumes. 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 spray mists. Wash thoroughly with soap and 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:	Colorless to pale amber liquid.
Odor:	None.
pH:	4.5
Vapor Pressure:	Not available.
Vapor Density (Air = 1):	Not available.
Boiling Point:	280°C (138°F)
Freezing Point:	Not available.
Water Solubility:	Completely soluble.
Density:	11.74 lbs./gal.
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:	None known.
Hazardous Decomposition Products:	Sulfur trioxide at temperatures above 575°C.
Hazardous Polymerization:	Will not occur.

SECTION 11. POTENTIAL HEALTH EFFECTSAcute Effects:

Eyes:	Mild irritant. May cause redness or burning.
Skin:	Mild irritant, especially from prolonged exposure. May cause redness.
Ingestion:	May cause stomach cramps and/or nausea.
Inhalation:	Moderate irritant of nasal mucous membranes. May cause dry coughing, wheezing or chest tightness.

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.:	Less Than 320 Gallons	Not D.O.T. Regulated.
	320 Gal. Or Larger Bulk Containers	Environmentally Hazardous Substance, Liquid, N.O.S. (Zinc Sulfate), 9, UN 3082, PG III, RQ 1000 lbs. (Placards Required for Containers of 320 Gal. Or More) ERG 171.
Other Shipping Information:		Fertilizing Compounds (Manufactured), Liquid. NMFC Item 68140 Sub 6, 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.

SARA TITLE III, Section 313 Toxic Chemicals: Zinc compounds (26.7%).

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.