

MATERIAL SAFETY DATA SHEET

MONTEREY ZM-NITE

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Issue Date: 01/06

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Chemical Product

MONTEREY ZM-NITE

Common Name: Liquid fertilizing solution.

Chemical Description: Manganese and zinc nitrate, aqueous solution.

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 nitrate	10377-66-9	25.0	* N.A.	* N.P.
Zinc nitrate	7779-88-6	25.0	N.A.	1,000

* N.A. – Not Available.

* N.P. – Not Pertinent.

SECTION 3. EMERGENCY/HAZARDS OVERVIEW

Colorless to slight pinkish liquid. Avoid contact with strong reducing agents or flammable liquids at elevated temperatures. Extreme heat may cause product to decompose, producing toxic fumes (nitrogen oxides). D.O.T. regulated as an oxidizer.

HEALTH: 2 REACTIVITY: 2 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. Do not rub eyes. Get immediate medical attention.

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

Ingestion: Call a physician or Poison Control Center immediately. Do not induce vomiting.

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:	Not known.
Potential For Release of Flammable Vapors:	None.
Unusual Fire & Explosion Hazards:	Fumes of toxic nitric oxides at high temperatures.
Extinguishing Media:	Water, foam, dry powder or CO ₂ .
Special Firefighting Procedures:	Wear positive pressure, self-contained breathing apparatus and goggles. Avoid smoke inhalation. 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 in contact with flammable materials, strong alkalies, acids, reducing agents. 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.

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 slight pinkish liquid.

Odor: None.

pH: 2.5

Vapor Pressure: Not available.

Vapor Density (Air=1): Not available.

Boiling Point: Not available.

Freezing Point: Not available.

Water Solubility: Soluble.

Density: 13.3 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: Excess heat.

Incompatibility: Contact with strong reducing agents or flammable liquids at elevated temperatures.

Hazardous Decomposition Products: Nitrogen oxides at high temperatures.

Hazardous Polymerization: Will not occur.

SECTION 11. POTENTIAL HEALTH EFFECTSAcute Effects:

Eyes: Moderate irritant. May cause redness and burning.

Skin: Moderate irritant, especially from prolonged exposure. May cause redness, itching, peeling.

Ingestion: May cause stomach cramps and/or nausea.

Inhalation: May cause irritation of nasal mucous membranes and upper respiratory system.

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. Proper Shipping Description:	Oxidizing Liquid, N.O.S. (Manganese Nitrate/Zinc Nitrate), 5.1, UN 3139, PG II, RQ 1000 Lbs. (Placards Req. For Loads More Than 1,001 Lbs.) ERG #140.
Other Shipping Description:	Fertilizing Compounds (Manufactured), Liquid. NMFC Item 68140 Sub 6, LTL Class 70

SECTION 15. REGULATORY INFORMATION

CERCLA: Zinc nitrate 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: Manganese nitrate (25.0%), Zinc nitrate (25.0%)

PROPOSITION 65: 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.