

MATERIAL SAFETY DATA SHEET

AMINO-MAN™

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Issue Date: 5/03

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Chemical Product

AMINO-MAN

Common Name: Fertilizing compound, liquid.

Chemical Description: Manganese sulfate complex, aqueous solution.

TSCA/CAS No.: This product is a mixture — there is no specific CAS number.

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

AMINO-MAN is a trademark of Northwest Agricultural Products

SECTION 2. HAZARDOUS INGREDIENTS

| CHEMICAL | CAS NO. | % | TLV OR PEL | RQ (lbs) |
|--------------------------------|------------|------|--|----------|
| Manganese sulfate, monohydrate | 10034-96-5 | 15.6 | 5 mg/m ³ (as Mn) OSHA,ACGIH (1980) | N.P.* |

*N.P. - Not Pertinent.

SECTION 3. EMERGENCY/HAZARDS OVERVIEW

Dark brown liquid with virtually no odor. Mild irritant if it comes in contact with eyes or skin. If ingested, may cause stomach cramps and/or nausea. Incompatible with strong oxidizing agents. Oxides of nitrogen, sulfur dioxide and other hazardous material may be formed in a fire situation. Not D.O.T. regulated.

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, drink water or milk to dilute. Call a physician or Poison Control Center immediately.

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

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| SECTION 5. | FIRE AND EXPLOSION HAZARDS |
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| Flash Point: | Not applicable. |
| Test Method: | Not pertinent. |
| LEL Flammable Limits: | Not pertinent. |
| UEL Flammable Limits: | Not pertinent. |
| Autoignition Temperature: | Not pertinent. |
| Flammability Classification: | Not applicable. |
| Known Hazardous Products of Combustion: | Oxides of nitrogen, sulfur dioxide and other hazardous material may be formed in a fire situation. |
| 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: | None. |
| Extinguishing Media: | Does not burn or support combustion. Use appropriate media for surrounding fire. |
| Special Firefighting Procedures: | Wear positive pressure, self-contained breathing apparatus and goggles. Avoid smoke inhalation. Contain any liquid runoff. |

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| SECTION 6. | SPILLS AND LEAKS |
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| 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. |

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| SECTION 7. | STORAGE AND HANDLING |
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| 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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| SECTION 8. | PERSONAL PROTECTIVE EQUIPMENT |
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| 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: | See Section 2 for TLV information. Provide appropriate ventilation and/or respirators to control level to below TLV. |

SECTION 9. PHYSICAL AND CHEMICAL DATA

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| Appearance: | Dark brown liquid. |
| Odor: | Virtually none. |
| pH: | 4.3 @ 20°C. |
| Vapor Pressure: | Not available. |
| Vapor Density (Air=1): | Not available. |
| Boiling Point: | 100°C (212°F) |
| Freezing Point: | Not available. |
| Water Solubility: | Miscible. |
| Density: | 10.2 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

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| Stability: | Stable. |
| Conditions To Avoid: | Excessive heat. |
| Incompatibility: | Strong oxidizing agents. |
| Hazardous Decomposition Products: | Oxides of nitrogen, sulfur dioxide and other hazardous material may be formed in a fire situation. |
| Hazardous Polymerization: | Will not occur. |

SECTION 11. POTENTIAL HEALTH EFFECTSAcute Effects:

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| Eyes: | Mild irritant. May cause redness. |
| Skin: | Mild irritant, especially from prolonged exposure. May cause redness. |
| Ingestion: | May cause stomach cramps and/or nausea. |
| Inhalation: | None expected but inhalation of aerosol mist may cause mild irritation of nasal mucous membranes. |

Subchronic Effects: None known.

Chronic Effects: None known.

SECTION 12. ECOLOGICAL INFORMATION

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| 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

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| D.O.T. Shipping Description: | Not D.O.T. regulated. |
| Other Shipping Information: | Fertilizing Compounds (Manufactured), Liquid. NMFC Item 68140 Sub 6, LTL Class 70 |

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 (15.6%).

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.