

MATERIAL SAFETY DATA SHEET

AMINO-PAK™

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Issue Date: 5/03

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Chemical Product

AMINO-PAK

Common Name: Fertilizing compound, liquid.

Chemical Description: Metal 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

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SECTION 2. HAZARDOUS INGREDIENTS

CHEMICAL	CAS NO.	%	TLV OR PEL	RQ (lbs)
Copper sulfate pentahydrate	7758-99-8	1.2		
Contributing copper sulfate	7758-98-7	0.77	1.0 mg/m ³ (Dust/mist as copper)	10 lbs.
Ferrous sulfate, heptahydrate	7782-63-0	1.5		
Contributing ferrous sulfate	7720-78-7	0.82	1 mg/m ³ (as Fe) Iron salts, soluble ACGIH TWA (1979)	1,000
Manganese sulfate, monohydrate	10034-96-5	3.1	5 mg/m ³ (as Mn) OSHA,ACGIH (1980)	N.P.*
Zinc sulfate, monohydrate	7446-19-7	3.4		
Contributing zinc sulfate	7733-02-0	3.0	*N.P.	1,000

*N.P. - Not Pertinent.

SECTION 3. EMERGENCY/HAZARDS OVERVIEW

Dark brown liquid with sweet odor. Mild irritant if it comes in contact with eyes or skin. If ingested, may cause stomach cramps and/or nausea. Incompatible with strong reducing agents, strong oxidizing agents and magnesium. Oxides of nitrogen, sulfur dioxide and other hazardous material may be formed in a fire situation. D.O.T. regulated in packages >128 gallons.

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.

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.

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.

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.

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

Appearance:	Dark brown liquid.
Odor:	Sweet odor.
pH:	Not available.
Vapor Pressure:	Not available.
Vapor Density (Air=1):	Not available.
Boiling Point:	100°C (212°F)
Freezing Point:	Not available.
Water Solubility:	Approximately 98%.
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

Stability:	Stable.
Conditions To Avoid:	Excessive heat.
Incompatibility:	Strong reducing agents, strong oxidizing agents and magnesium.
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:

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**

Algal/Lemna Growth Inhibition:	Not known.
Toxicity to Fish and Invertebrates:	Not known.
Toxicity to Plants:	Not known.
Toxicity in Birds:	Not known.

