

MATERIAL SAFETY DATA SHEET

I. IDENTITY:

Label Name: **Instant Cold Pack** Date Prepared: 5/5/95
 Stock # 033112 033103 033102
 033107 033101

Chemical Name and Synonyms: N/A Formula: N/A
 Chemical Family: Mixture, Aqueous Inorganic Salt Product Class:

Supplier: **Cramer Products, Inc.** Emergency Telephone No.
 153 W. Warren (913) 856-7511
 Gardner, KS 66030

II. HAZARDOUS INGREDIENTS:

Hazardous Components	CAS #	OSHA	PEL	ACGIH	TLV	%
Ammonium Nitrate	6484-52-2	-	-	-	-	40 - 60

No occupational exposure limits established by OSHA, ACGIH or NIOSH

CERCLA Ratings: (Scale 0-3): Health=2 Fire=0 Reactivity=3 Persistence=0

NFPA Ratings: (Scale 0-4): Health=0 Fire=0 Reactivity=3

III. PHYSICAL CHARACTERISTICS: (Ammonium Nitrate Component)

Boiling Point: 210°C @ 11mm Hg Specific Gravity: 1.725 @ 25°C
 Vapor Pressure: Not available Melting Point: 169.6°C (decomp. @ 210°C)
 Vapor Density: Not Available Evaporation Rate: Not Available
 Solubility in Water: 1gm/0.5ml Percent Volatile by Volume: Not Available

IV. FIRE AND EXPLOSION HAZARD: (Ammonium Nitrate Component).

Flash Point: Not available Flammable Limits: Not available

Negligible fire hazard when exposed to heat or flame.

Extinguishing Media: Water only, no dry chemical, carbon dioxide or halon
 For larger fires, flood area with water from a distance.
 (1990 Emergency Response Guidebook, DOT P 5800.5)

Special Fire Fighting Procedures: Do not move cargo or vehicle if cargo has been exposed to heat. Apply cooling water to sides of containers exposed to flames until well after fire is out. For massive fire in cargo area, use unmanned hose holder or monitor nozzles; if this is impossible, withdraw from area and let fire burn. Isolate for 1/2 mile in all directions if tank, rail car or tank truck is involved in fire. (1990 Emergency Response Guidebook, DOT P 5800.5, guide page 43)

Flood with water. Cool containers with flooding amounts of water from as far a distance as possible. If fire is uncontrollable, evacuate for a radius of 5000 feet. ↙

V. REACTIVITY: (Ammonium Nitrate Component)

Stability: Stable under normal temperatures and pressures

Incompatibility to Avoid:

- Acetic Acid: ignites when heated
- Acetic Anhydride + Nitric Acid: forms explosive compound
- Acids: may react exothermically
- Alkalis (strong): reacts with evolution of ammonia gas
- Ammonium Sulfate + Potassium: explodes on contact
- Calcium Nitrate + Formamide + Water: detonable mixture
- Chloride Salts: increased sensitivity toward explosive decomposition
- Combustible Materials: violent or explosive reaction
- Cyanoguanidine: forms an explosive mixture
- Magnesium + Copper Sulfate + Potassium Chlorate + Water: forms unstable compound
- Metals (powdered): violent or explosive reaction

Metal Salts: ignition
 Organic Fuels: forms a shock-sensitive mixture
 Phosphorous: ignition or explosion
 Potassium or Sodium-Potassium Alloy: forms a shock-sensitive mixture
 Potassium Nitrite: incandescent reaction
 Potassium Permanganate: explosion hazard
 Reducing Agents: violent or explosive reaction
 Sodium: forms an explosive compound
 Sodium Hypochlorite: possible violent reaction
 Sodium Perchlorate: forms an explosive mixture
 Sulfur: forms a shock-sensitive mixture
 Trinitroanisole: forms an explosive mixture
 Urea: explosive reaction
 Zinc + Ammonium Chloride + Barium Nitrate + Water: possible ignition
 Hazardous Decomposition Byproducts: Ammonia and toxic Oxides of Nitrogen
 Hazardous Polymerization: Will not occur under normal temperatures and pressures

VI. HEALTH HAZARD DATA: (Ammonium Nitrate Component)

Eyes: Irritant: Acute exposure - may be irritating causing redness, pain and possible burns. Chronic exposure - repeated or prolonged contact with irritants may cause conjunctivitis.
Skin: Irritant: Acute exposure - may be irritating causing redness, pain and possible burns. Chronic exposure - repeated or prolonged contact with irritants may cause dermatitis.
Ingestion: Acute exposure - may cause mild gastric irritation, abdominal spasms, nausea and faintness. Large doses may cause systemic acidosis and methemoglobinemia with cyanosis. Rarely inorganic nitrates may be converted to nitrites by nitrate reducing bacteria in the digestive tract, resulting in methemoglobinemia. Chronic exposure - repeated or prolonged exposure to nitrates may cause anemia, nephritis, and possibly methemoglobinemia.
Inhalation: Irritant: Acute exposure - may be irritating to the respiratory tract and cause sore throat, coughing, difficult breathing, severe lung congestion, acidosis, and methemoglobinemia. Pulmonary edema and chemical pneumonitis may be delayed. Chronic exposure - prolonged or repeated exposure may cause an allergic response in the respiratory tract.

Emergency First Aid Procedures:

Eyes: Wash eyes immediately with large amounts of water or normal saline, occasionally lifting upper and lower lids, until no evidence of chemical remains (approximately 15-20 minutes). Get medical attention immediately.
Skin: Remove contaminated clothing and shoes immediately. Wash affected area with soap or mild detergent and large amounts of water until no evidence of chemical remains (approximately 15-20 minutes). Get medical attention immediately.
Ingestion: Treat symptomatically and supportively. If person is conscious and able to swallow, give large amounts of water or milk to dilute substance. Get medical attention immediately. If vomiting occurs, keep head below hips to help prevent aspiration.
Inhalation: Remove from exposure area to fresh air immediately. If breathing has stopped, perform artificial respiration. Keep person warm and at rest. Treat symptomatically and supportively. Get medical attention immediately.

VII. PRECAUTIONS FOR SAFE HANDLING AND USE: (Ammonium Nitrate Component)

Spills: Keep combustibles (wood, paper, oil, etc.) away from spilled material. Do not touch spilled material. Stop leak if you can do it without risk. Use water spray to reduce vapors. For small spills, take up absorbent material and place into containers for later disposal. For larger spills, dike spill for later disposal. Keep unnecessary people away. Isolate hazard area and deny entry.
Handling and Storage: Store away from incompatible substances. Observe all federal, state and local regulations when storing or disposing of this substance.

VIII. CONTROL MEASURES: (Ammonium Nitrate Component)

Respiratory protection: Respirators are recommended
Ventilation: Local exhaust or general dilution ventilation system
Protective Gloves: Wear appropriate protective gloves to prevent contact with substance.
Eye Protection: Splash proof or dust resistant safety goggles
Protective Clothing or Equipment: Wear appropriate protective clothing and equipment to prevent repeated or prolonged skin contact.

The information contained herein is believed to be accurate. It is the user's obligation to determine the safe use of the product.