

U.S. DEPARTMENT OF LABOR  
Occupational Safety and Health Administration  
**MATERIAL SAFETY DATA SHEET**

May be used to comply with OSHA's Hazard Communications Standard.  
29CFR 1910.1200. Standard must be consulted for specific requirements.

**SECTION I**

<b>MANUFACTURER'S NAME/REPACKAGED BY:</b> <b>Certified Safety Manufacturing, Inc.</b>	<b>TELEPHONE NO.</b> <b>(816) 483-9090</b>
<b>ADDRESS:</b> <b>1400 Chestnut Avenue Kansas City, Missouri 64127</b>	
<b>IDENTITY (AS USED ON LABEL):</b> <b>Cold Pack</b>	<b>DATE PREPARED:</b> 10/19/2010
	<b>DATE REVIEWED:</b>

**SECTION II – HAZARDOUS INGREDIENTS/IDENTITY INFORMATION**

<b>HAZARDOUS COMPONENTS (Specific Chemical Identity; Common Name(s)):</b>			
	%	OSHA PEL	ACGIH TLV
Ammonium Nitrate (NH <sub>4</sub> NO <sub>3</sub> ) CAS# 6484-52-2	98-100%	None Established	None Established
THIS PRODUCT IS PRODUCED AS A HEALTH CARE ITEM "FOOD, DRUG OR COSMETIC, INTENDED FOR PERSONAL CONSUMPTION BY EMPLOYEES WHILE IN THE WORKPLACE" TO WHICH THE HAZARDOUS COMMUNICATIONS REQUIREMENTS OF; 29CFR1910.1200 (A) & (B) DO NOT APPLY, AS SPECIFICALLY STATED IN 29CFR 1910.1200 (B) (5) (V)			

**SECTION III – PHYSICAL DATA**

<b>BOILING POINT (°F):</b>	Decomposes between 350-410° (177-210°C)	<b>SPECIFIC GRAVITY (H<sub>2</sub>O= 1):</b>	1.72
<b>VAPOR PRESSURE (mm Hg.):</b>	N/A	<b>MELTING POINT:</b>	170° C (337°F)
<b>VAPOR DENSITY (AIR=1)</b>	N/A	<b>EVAPORATION RATE:</b> (Butyl Acetate=1)	N/A
<b>SOLUBILITY IN WATER:</b>	192 g/100ml @ 20° C (68°F) 118 g/100 ml @ 0° C (32°F)	<b>DENSITY (POWDERED BULK DENSITY):</b>	0.72-1.00g/cc
<b>APPEARANCE AND ODOR:</b> White to off-white, solid prills or fine granules; Slight ammonia odor.			

**SECTION IV – FIRE AND EXPLOSION HAZARD DATA**

<b>FLASH POINT (Method used):</b> N/A	<b>FLAMMABLE LIMITS:</b> N/A	<b>LEL:</b> N/A	<b>UEL:</b> N/A
<b>EXTINGUISHING MEDIA:</b> Use water only. Do not attempt to smother. Do not use salt water, dry chemical, carbon dioxide, steam or foam.			
<b>SPECIAL FIRE FIGHTING PROCEDURES:</b> Fight only small fires in initial stages when not confined. Immediately ventilate structures and transport containers to minimize confinement and prevent pressure buildup that increases the possibility of explosion. In advanced stage, or for any large fire or fire engulfing confining containers, abandon fire-fighting efforts and quickly evacuate all personnel to a safe distance of at least 2,500 feet. Use large quantities of water to cool. If possible, plug drains or dike channels to prevent either molten material or water runoff from entering storm drains or surface waters. Firefighters should wear self-contained breathing apparatus (SCBA) and full turnout gear.			
<b>UNUSUAL FIRE AND EXPLOSION HAZARDS:</b> May explode or detonate under confinement and high temperatures. Ammonium nitrate emits toxic nitrogen oxides when heated to decomposition and will release ammonia to air upon reaction with strong alkalis. Explodes more easily if contaminated with organic materials or other fuels.			

**SECTION V – REACTIVITY DATA**

<b>STABILITY:</b>	STABLE	√	Stable under normal conditions. May explode when subjected to fire, supersonic shock or high-energy projectile impact, especially when confined or in large quantities.
	UNSTABLE		

<b>CONDITIONS TO AVOID:</b> Keep away from heat, flame ignition sources and strong shock.		
<b>INCOMPATIBILITY (<i>Materials to avoid</i>):</b> Flammable liquids, organic solvents and materials, explosives, metal powders, explosives and other combustible materials. Reducing agents, chlorides, phosphorus and sulfur. Corrosives (strong acids and strong bases).		
<b>HAZARDOUS POLYMERIZATION:</b>	<b>MAY OCCUR</b>	<b>CONDITIONS TO AVOID:</b> Keep away from heat, flame, ignition sources, and strong shock.
	<b>WILL NOT OCCUR</b>	√
<b>HAZARDOUS DECOMPOSITION PRODUCTS:</b> Nitrogen Oxides (NO <sub>x</sub> ), Ammonia (NH <sub>3</sub> ), Nitric Acid (HNO <sub>3</sub> ).		

<b>SECTION VI – HEALTH HAZARD DATA</b>			
<b>ROUTE(S) OF ENTRY:</b>	<b>INHALATION?:</b> N/A	<b>SKIN?:</b> N/A	<b>INGESTION?:</b> N/A
<b>HEALTH HAZARDS: (Chronic and Acute):</b> N/A			
<b>CARCINOGENICITY: NTPQ?:</b> No		<b>IARC MONOGRAPHS?:</b> No	
<b>OSHA REGULATED?:</b> No			
<b>SIGNS AND SYMPTOMS OF EXPOSURE:</b> Not found to be toxic by oral, dermal and inhalation exposure as defined by OSHA. <b>Eyes:</b> May cause irritation, redness, tearing or blurred vision. <b>Skin:</b> Prolonged contact may irritate skin, resulting in reddening of the skin and possible dermatitis, or may aggravate pre-existing dermatitis. <b>Ingestion:</b> May cause gastric irritation, abdominal spasms, nausea, pain and faintness. Large amounts may be harmful if swallowed, potentially causing systemic acidosis and methemoglobinemia. <b>Inhalation:</b> Dust is irritating to mucous membranes and respiratory tract, and may cause sore throat, coughing, difficult breathing and severe lung congestion, and may also aggravate pre-existing lung conditions. Inhalation may also lead to ingestion effects. Delayed reactions may result in pulmonary edema and chemical pneumonitis. <b>Systemic or Other Effects:</b> Decomposition of ammonium nitrate at high temperatures produces highly toxic Nitrogen Oxides (NO <sub>x</sub> ). High level exposure to NO <sub>x</sub> can cause serious injury or death. Chronic exposure to NO <sub>x</sub> can produce respiratory and/or kidney damage.			
<b>MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:</b> Inhalation – Overexposure to extremely dusty area may irritate the respiratory tract.			
<b>EMERGENCY AND FIRST AID PROCEDURES:</b> <b>Eyes:</b> Irrigate with running water for at least 15 minutes. If irritation persist, seek medical attention. <b>Skin:</b> Remove contaminated clothing. Wash with soap and water. <b>Ingestion:</b> Seek medical attention. Do not induce vomiting. Treat for methemoglobinemia. <b>Inhalation:</b> Remove to fresh air, seek medical attention. <b>Special Considerations:</b> If an exposure to toxic NO <sub>x</sub> vapors occurs, restore or support breathing as necessary, seek immediate medical attention. Observe for delayed reactions to NO <sub>x</sub> exposure that may involve pulmonary edema.			

<b>SECTION VII – SPILL OR LEAK PROCEDURES</b>
<b>STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:</b> Protect for all ignition sources. In case of large fire or fire engulfing containers, evacuate an area not less than 2,500 feet in all direction. If possible, plug drains or dike channels to prevent either molten material or water runoff from entering storm drains or surface water. Notify authorities in accordance with emergency response procedures. Only personnel trained in emergency response should respond. If no fire danger is present, and product is undamaged and/or uncontaminated, repackage product in original packaging or other clean DOT approved container. Ensure that a complete account of product has been made and is verified. Follow applicable federal, state, and local spill reporting requirements. Contact of this product with water may result in a reportable release.
<b>WASTE DISPOSAL METHODS FOR BULK AMMONIUM NITRATE:</b> Disposal must comply with federal, state and local regulations. Ammonium nitrate is used as a fertilizer and, in some cases; recovered material may be put to beneficial use. If product becomes a waste, it is potentially regulated as a hazardous waste as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR, part 261. Review disposal requirements with a person knowledgeable with applicable environmental law (RCRA) before disposing of any hazardous material.

<b>SECTION VIII – SPECIAL PROTECTION INFORMATION</b>
<b>RESPIRATORY PROTECT (<i>specify type</i>):</b> Wear NIOSH approved respirator when airborne exposure limits for nuisance dust are exceeded. Refer to OSHA standard 1910-134 for proper selection and use of respirators.
<b>VENTILATION:</b> Not required for normal handling. Provide adequate ventilation as needed to avoid exceeding exposure limits for nuisance dust, especially in confined spaces.
<b>EYE PROTECTION:</b> Safety glasses with side shields or chemical goggles are recommended. Eye baths should be provided when direct eye contact is likely.
<b>OTHER PROTECTIVE EQUIPMENT:</b> Wear long sleeved clothing and protective gloves to prevent prolonged and repeated skin contact.

**SECTION IX – SPECIAL PRECAUTIONS**

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:** Store in cool, dry, non-combustible buildings and avoid contamination. Automatic sprinklers are appropriate. Keep separate from other chemicals and combustible materials. Refer to applicable fire and building codes. Empty containers may contain residue and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind or expose such containers to heat, flames, sparks or other sources of ignition without first thoroughly decontaminating the containers; they may evolve poisonous gas and cause injury or death.

**OTHER PRECAUTIONS:** Drain in storage area should be plugged to prevent entry of molten material during fire conditions.

THIS INFORMATION AND RECOMMENDATIONS HEREIN ARE TAKEN FROM SOURCES BELIEVED TO BE ACCURATE AS OF THE DATE, HOWEVER CERTIFIED SAFETY MAKES NO WARRANTY WITH RESPECT TO THE ACCURACY OF THIS INFORMATION OR THE SUITABILITY OF THE RECOMMENDATIONS, AND ASSUMES NO LIABILITY TO ANY USE THEREOF.....