



MATERIAL SAFETY DATA SHEET

1533 W. Henrietta Rd.
Avon, New York 14414
(716) 226-6177

MSDS No. AA 295
Effective Date September 22, 1998

SECTION V HEALTH HAZARD DATA

AA 295

Threshold Limited Value Although no specific exposure limit has been established for this material, OSHA and ACGIH have established limits for nuisance dusts. OSHA PEL/TWA: Total - 15 mg/m³; Respirable - 5 mg/m³ (8 hr.). ACGIH TLV/TWA: Total - 10 mg/m³; Respirable - 5 mg/m³ (8 hr.).

Effects of Overexposure Inhalation may cause irritation to mucous membranes, respiratory tract. May cause lung congestion. Contact with skin may cause irritation with discomfort or rash. Contact with eyes causes irritation with discomfort or blurring of vision. Ingestion may cause abdominal spasms, gastric irritation, nausea and pain.

Emergency and First Aid Procedures
SKIN: Flush thoroughly with water, then wash with mild soap and water.
EYES: Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention. **INHALATION:** Remove to fresh air. If illness or discomfort develops, get medical attention.
INGESTION: If swallowed, if conscious, give one or two glasses of water to drink, induce vomiting. Call physician immediately. Never give anything by mouth to an unconscious person.

SECTION VI REACTIVITY DATA

Stability	Unstable		Conditions to Avoid	Hygroscopic, heat and contamination with organic materials.
	Stable	X		

Incompatibility (Materials to Avoid) Peroxides, strong oxidants, reducing materials, organic materials, acids.

Hazardous Decomposition Products Nitrogen dioxide and nitrogen tetroxide.

Hazardous Polymerization	Conditions to Avoid		Not applicable.
	May Occur	Will Not Occur	
		X	

SECTION VII SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled Recover for use if not contaminated. Sweep up spills immediately and place in a waste disposal container. Flush area with water. Dispose of reclaimed material promptly if contaminated.

Waste Disposal Method Discharge, treatment, or disposal may be subject to Federal, State or Local laws. These disposal guidelines are intended for the disposal of catalog-size quantities only.
(1) Into approved landfill.
(2) Dissolve in water and flush into approved sewer. Disposal must be made in accordance with federal, state and local regulations.

SECTION VIII SPECIAL PROTECTION INFORMATION

Respiration Protection (Specify Type) None should be needed in normal laboratory handling. If dusty conditions prevail, work in ventilation hood or wear a NIOSH/MSHA-approved dust mask or respirator.

Ventilation	Local Exhaust	Preferable.	Special	None.
	Mechanical (General)	Acceptable.	Other	None.

Protective Gloves Rubber. **Eye Protection** Chemical safety glasses.

Other Protective Equipment Goggles, smock, apron, proper gloves, eye wash station, ventilation hood, fire extinguisher.

SECTION IX SPECIAL PRECAUTIONS

Precautions to be Taken in Handling & Storing Store in cool, dry well-ventilated place. Separate from all organic materials or other possible contaminants such as flammable liquids, oils, charcoal, coke, cork, sawdust, etc. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling.

Other Precautions Read label on container before using. Do not wear contact lenses when working with chemicals.
NOTE: Dry ammonium nitrate of any grade, including fertilizer, when contaminated with oil, charcoal, or other organic substances and flammable liquids, should be considered an explosive, capable of detonation by combustion, or by explosion of adjacent explosives. Remove and wash contaminated clothing.

For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

Revision No. 5	Date 9/22/98	Approved Michael Raszeja	Chemical Safety Coordinator MR
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The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. * Hazardous Materials Industrial Standards. Printed on recycled paper.

SECTION I NAME 24 HOUR EMERGENCY ASSISTANCE

Product	AMMONIUM NITRATE	<p>CHEMTREC 800-424-9300 Day 716-226-6177</p> <p>NFPA HAZARD RATING</p> <table border="1"> <tr> <td>0</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> </tr> <tr> <td>LEAST</td> <td>SLIGHT</td> <td>MODERATE</td> <td>HIGH</td> <td>EXTREME</td> </tr> </table> <p>HMIS *</p> <table border="1"> <tr> <td>Health</td> <td>1</td> </tr> <tr> <td>Fire</td> <td>0</td> </tr> <tr> <td>Reactivity</td> <td>3</td> </tr> </table>	0	1	2	3	4	LEAST	SLIGHT	MODERATE	HIGH	EXTREME	Health	1	Fire	0	Reactivity	3
0	1		2	3	4													
LEAST	SLIGHT		MODERATE	HIGH	EXTREME													
Health	1																	
Fire	0																	
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Chemical Synonyms	Ammonium Nitrate																	
Formula	NH ₄ NO ₃																	
Unit Size	up to 2.5 Kg.																	
C.A.S. No.	6484-52-2																	

SECTION II INGREDIENTS OF MIXTURES

Principal Component(s)	%	TLV Units
Ammonium Nitrate	100%	None established.

DANGER! STRONG OXIDIZER! CONTACT WITH OTHER

MATERIAL MAY CAUSE FIRE. HARMFUL IF SWALLOWED.

SECTION III PHYSICAL DATA

Melting Point (°F)	169.6°C (338°F)	Specific Gravity (H₂O = 1)	1.725 at 25°C.
Boiling Point (°F)	Decomposes at 210°C (410°F)	Percent Volatile by Volume (%)	Non-volatile (NA).
Vapor Pressure (mm Hg)	Negligible as solid.	Evaporation Rate (=1)	Non-volatile (NA).
Vapor Density (Air=1)	2.8		
Solubility in Water	1 gram dissolves in 0.5 mL. water.		
Appearance & Odor	White, crystalline or prills; no odor.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	Non-flammable (NA).	Flammable Limits in Air % by Volume	NA	Lower	Upper
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Extinguisher Media Carbon dioxide (CO₂); dry chemical (ABC); water spray.

SPECIAL FIREFIGHTING PROCEDURES

Wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective clothing. Evacuate area downwind from fumes. Fight large fires from protected location. Use water in large amounts. It is important that the mass of material be kept cool and that burning be extinguished promptly.

(1996 EMERGENCY RESPONSE GUIDEBOOK, DOT P 5800.7, GUIDE PAGE NO. 140)

UNUSUAL FIRE AND EXPLOSION HAZARDS

Oxidizing agent; supports combustion and is capable of undergoing detonation if heated under confinement that permits high pressure build-up, or if subjected to strong shocks, such as those from an explosive. Organic and other easily oxidizable matter can sensitize it to a more readily explodable state. Ammonium nitrate melts at 337°F. with slow decomposition; near 575°F., the decomposition accelerates with sudden rushes of light-brown to orange-copper-colored fumes, indicating the formation of toxic higher oxides-of-nitrogen, with the possibility that the decomposition may become explosive. Self-ignition of mixtures of ammonium nitrate with easily oxidizable organic materials or easily oxidizable, finely divided metals may take place at moderately elevated temperatures.

D.O.T. AMMONIUM NITRATE, 5.1, UN 1942, PG III

Approved by U.S. Department of Labor "essentially similar" to form OSHA-20