

# MATERIAL SAFETY DATA SHEET

## SECTION I NAME

Product	AMMONIUM NITRATE	
Chemical Synonyms	Ammonium Nitrate	
Formula	NH <sub>4</sub> NO <sub>3</sub>	
Unit(s) Size	100, 500 grams, 2.5 Kg.	
C.A.S. No.	6484-52-2	

0 2 3	CHEMTREC 800-424-9300 Day 716-226-6177 Night 716-334-4222	Health	1
		Fire	0
		Reactivity	3

NFPA  
HAZARD RATING  
LEAST SLIGHT MODERATE HIGH EXTREME  
0 1 2 3 4

## SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

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

HAZARD: STRONG OXIDIZER-CONTACT WITH OTHER MATERIAL MAY CAUSE FIRE -HARMFUL IF SWALLOWED.

## SECTION III PHYSICAL DATA

Melting Point (°F)	169.6°C	Specific Gravity (H <sub>2</sub> O = 1)	1.725 at 25°C
Boiling Point (°F)	Decomposes at 210°C	Percent Volatile by Volume (%)	Non-volatile (NA)
Vapor Pressure (mm Hg)	Negligible as solid	Evaporation Rate	Non-volatile (NA)
Vapor Density (Air = 1)	2.8		
Solubility in Water	1 gram dissolves in 0.5 ml water.		
Appearance and 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	Lower Upper
Extinguisher Media	Carbon dioxide(CO <sub>2</sub> ); Dry chemical (ABC); water spray.		

## SPECIAL FIREFIGHTING PROCEDURES

Fire may release yellow or brown fumes. Wear a NIOSH-approved self-contained breathing apparatus and 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.

## UNUSUAL FIRE AND EXPLOSION HAZARDS

Can detonate if heated in confinement or if subject to strong shocks as from an explosive. Can be sensitized by certain organic matter to a readily explodable state.

D.O.T. OXIDIZER



**FREY SCIENTIFIC**  
905 HICKORY LANE MANSFIELD OHIO 44905

MSDS No. Effective Date

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

## SECTION V HEALTH HAZARD DATA

Threshold Limited Value

Effects of Overexposure

Emergency and First Aid Procedures

NO TLV has been established (ACGIH 1983-84).

There have been reports of faintness and low blood pressure in workers exposed to this material. Normally, none expected.

SKIN: As a precaution, wash area with flowing water.

EYES: Flush with water. If irritation develops, get medical attention.

INHALATION: Remove to fresh air.

INGESTION: If conscious, give one or two glasses of water to drink. Call physician.

## SECTION VI REACTIVITY DATA

Stability	Unstable Stable	Conditions to Avoid
Incompatibility (Materials to avoid)	X	Hydroscopic, Heat and contamination with organic materials.
Hazardous Decomposition Products		Peroxides, strong oxidants, reducing materials.
Hazardous Polymerization		Conditions to Avoid
May Occur	Will Not Occur	Not applicable.

## SECTION VII SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled

Waste Disposal Method

(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. Discharge, treatment, or disposal may be subject to federal, state, or local laws.

## SECTION VIII SPECIAL PROTECTION INFORMATION

Respiratory Protection (Specify type)	None should be needed in normal laboratory handling. If dusty conditions prevail, work in ventilation hood or wear a NIOSH-approved dust mask.
Ventilation (Specify type)	Local Exhaust Preferable Other None
Protective Gloves	Rubber
Other Protective Equipment	Goggles, smock, apron, proper gloves, eye wash station, ventilation hood.

## SECTION IX SPECIAL PRECAUTIONS

Precautions to be Taken in Handling and Storing

Other Precautions

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

Rev. No. *11/2/87* Date *11/2/87* Approved *[Signature]* Chemical Safety Coordinator

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.