



# MATERIAL SAFETY DATA SHEET

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MSDS No. AA 285  
Effective Date January 23, 1999

## SECTION V HEALTH HAZARD DATA

AA 285

**Threshold Limited Value** Toxicity data: LD50 oral (rat) = 333 mg/kg.  
TWA 5 mg (Mo)/m<sup>3</sup> (ACGIH, 1992-93).

**Effects of Overexposure** No cases of human poisoning have been reported. Animal experiments indicate moderate to severe local irritation of skin, eyes and mucous membranes. **INHALATION:** Prolonged exposure to very high dust concentrations can cause systemic toxic effects and upper respiratory tract irritation. Large doses have produced kidney damage in experimental animals. Exercise appropriate procedures to minimize potential hazards.

**Emergency and First Aid Procedures**  
**EYES:** Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention. **SKIN:** Flush thoroughly with water, then wash with mild soap and water. **INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention. **INGESTION:** If swallowed, if conscious, give one or two glasses of water to drink and call a physician. Never give anything by mouth to an unconscious person.

## SECTION VI REACTIVITY DATA

<b>Stability</b>	<b>Unstable</b>		<b>Conditions to Avoid</b>	Heating above 75°C (167°F) will cause material to decompose.
	<b>Stable</b>	X		

**Incompatibility (Materials to Avoid)** Strong oxidizers.

**Hazardous Decomposition Products** Thermal decomposition or heating may produce carbon monoxide and/or carbon dioxide, ammonia and oxides of nitrogen.

<b>Hazardous Polymerization</b>		<b>Conditions to Avoid</b>	Not applicable.
<b>May Occur</b>	<b>Will Not Occur</b>		
	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 and place in a suitable container for proper disposal. Wash spill area with soap and water.

**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.

Dispose 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 a ventilation hood or wear a NIOSH/MSHA-approved dust mask or respirator.

<b>Ventilation</b>	<b>Local Exhaust</b>	<b>Recommended.</b>	<b>Special</b>	No.
	<b>Mechanical (General)</b>	<b>Recommended.</b>	<b>Other</b>	No.

**Protective Gloves** Rubber if sensitive to irritation. **Eye Protection** Chemical safety glasses.

**Other Protective Equipment** Safety glasses, lab coat, apron, and eye wash station.

## SECTION IX SPECIAL PRECAUTIONS

**Precautions to be Taken in Handling & Storing** Store in a cool, dry place. Wash thoroughly after handling.  
Keep container tightly closed when not in use.

**Other Precautions** Read label on container before using. Do not wear contact lenses when working with chemicals.  
Do not get in eyes, on skin or on clothing. Use with adequate ventilation. Remove and wash contaminated clothing.

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

<b>Revision</b> No. 5	<b>Date</b> 1/23/99	<b>Approved</b> Michael Raszeja	<b>Chemical Safety Coordinator</b> 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

<b>Product</b>	AMMONIUM MOLYBDATE	<p>CHEMTREC 800-424-9300 Day 716-226-6177</p>	<b>Health</b>	2									
<b>Chemical Synonyms</b>	Ammonium Heptamolybdate		<b>Fire</b>	0									
<b>Formula</b>	(NH <sub>4</sub> ) <sub>6</sub> Mo <sub>7</sub> O <sub>24</sub> •4H <sub>2</sub> O		<b>Reactivity</b>	1									
<b>Unit Size</b>	up to 2.5 Kg.		<b>HMIS *</b>										
<b>C.A.S. No.</b>	12054-85-2	<p>NFPA HAZARD RATING</p> <table border="1"> <tr> <td>LEAST</td> <td>SLIGHT</td> <td>MODERATE</td> <td>HIGH</td> <td>EXTREME</td> </tr> <tr> <td>0</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> </tr> </table>	LEAST	SLIGHT	MODERATE	HIGH	EXTREME	0	1	2	3	4	
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0	1	2	3	4									

## SECTION II INGREDIENTS OF MIXTURES

Principal Component(s)	%	TLV Units
Ammonium Heptamolybdate, Tetrahydrate	100%	See Section V.

CAUTION! IRRITANT TO EYES, SKIN

AND MUCOUS MEMBRANES.

## SECTION III PHYSICAL DATA

<b>Melting Point (°F)</b>	Decomposes 190°C (374°F)	<b>Specific Gravity (H<sub>2</sub>O = 1)</b>	2.276
<b>Boiling Point (°F)</b>	Decomposes.	<b>Percent Volatile by Volume (%)</b>	Negligible as solid.
<b>Vapor Pressure (mm Hg)</b>	N/A	<b>Evaporation Rate ( =1)</b>	Not applicable.
<b>Vapor Density (Air=1)</b>	N/A		
<b>Solubility in Water</b>	63.5 gm/100 ml at 25°C		
<b>Appearance &amp; Odor</b>	White to greenish crystalline powder; slight odor of ammonia.		

## SECTION IV FIRE AND EXPLOSION HAZARD DATA

<b>Flash Point (Method Used)</b>	Non-combustible.	<b>Flammable Limits in Air % by Volume</b>	N/A	<b>Lower</b>	<b>Upper</b>
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**Extinguisher Media** Use any media suitable for extinguishing supporting fire.

## SPECIAL FIREFIGHTING PROCEDURES

In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective clothing.

## UNUSUAL FIRE AND EXPLOSION HAZARDS

Subjected to the heat of a fire it will decompose to Ammonia, water and Molybdenum trioxide.

D.O.T. NON-REGULATED.

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