

Material Safety Data Sheet



AMMONIUM MOLYBDATE, TETRAHYDRATE, CRYSTAL

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CAROLINA
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Section 1 - Product Description

Product Name: Ammonium Molybdate, 4 Hydrate, Crystal, Reagent Grade
Product Code(s): 84-4080, 84-4088, 84-4090
Size: 100g, 125g, 500g
Chemical Name: Ammonium Heptamolybdate
CAS Number: 12054-85-2
Formula: $(\text{NH}_4)_6\text{Mo}_7\text{O}_{24} \cdot 4\text{H}_2\text{O}$
Synonyms: Ammonium Molybdate, Tetrahydrate
Distributor: Carolina Biological Supply Company, 2700 York Road, Burlington, NC 27215
Chemical Information: 800-227-1150 (8am-5pm (ET) M-F) **Chemtrec** 800-424-9300 (Transportation Spill Response 24 hours)

Section 2 - Hazard Identification

Emergency Overview: Do not breathe dust. Irritating to eyes and skin.
Potential Health Effects:
Eyes: May cause irritation. **Skin:** May cause irritation to skin.
Ingestion: May cause gastrointestinal discomfort. **Inhalation:** May cause irritation to respiratory tract.

Section 3 - Composition / Information on Ingredients

Principal Hazardous Components: Ammonium Molybdate, Tetrahydrate (CAS# 12054-85-2)
TLV units: ACGIH-TLV 5 mg (Mo)/m³ (Soluble) (TWA)
PEL units: OSHA-PEL 5 mg (Mo)/m³ (Soluble), 15 mg(Mo)/m³ (Total Dust) (TWA)

Section 4 - First Aid Measures

Emergency and First Aid Procedures:
Eyes - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Skin - After contact with skin, wash immediately with plenty of ... (Water, unless specified as water-reactive).
Ingestion - If swallowed, if conscious, give plenty of water and induce vomiting immediately as directed by medical personnel. Immediately call a physician or poison control center. Never give anything by mouth to an unconscious person.

Inhalation - In case of accident by inhalation: remove casualty to fresh air and keep at rest.

Section 5 - Firefighting Procedures

Flash Point (Method Used): N/A

NFPA Rating:

Health: 2

Fire: 0

Reactivity: 1

Extinguisher Media: Use media suitable to extinguish surrounding fire.

Flammable Limits in Air % by Volume: N/A

Autoignition Temperature: N/A

Special Firefighting Procedures: Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.

Unusual Fire and Explosion Hazards: Fire or excessive heat may produce hazardous decomposition products.

Section 6 - Spill or Leak Procedures

Steps to Take in Case Material Is Released or Spilled: Ventilate area of spill. Clean-up personnel should wear proper protective equipment. Avoid creating dust. Sweep or scoop up and containerize for disposal.

Section 7 - Special Precautions

Precautions to Take in Handling or Storing: After contact with skin, wash immediately with plenty of ... (Water, unless specified as water-reactive). Keep container tightly closed in a cool, well-ventilated place.

Section 8 - Protection Information

Respiratory Protection (Specify Type): None needed under normal conditions of use with adequate ventilation. A NIOSH/MSHA chemical cartridge respirator should be worn if PEL or TLV is exceeded.

Ventilation:

Local Exhaust: Yes

Mechanical(General): Yes

Special: No

Other: No

Protective Gloves: Natural rubber, Neoprene, PVC or equivalent.

Eye Protection: Splash proof chemical safety goggles should be worn.

Other Protective Clothing or Equipment: Lab coat, apron, eye wash, safety shower.

Section 9 - Physical Data

Molecular Weight: 1235.86

Boiling Point: N/A

Vapor Density(Air=1): N/A

Percent Volatile by Volume: N/A

Solubility in Water: Soluble

Melting Point: Decomposes at 190 °C

Vapor Pressure: 0 mmHg at 20 °C

Specific Gravity (H2O=1): 2.87 at 20 °C

Evaporation Rate (BuAc=1): N/A

Appearance and Odor: Colorless, white, or yellow crystals.

Section 10 - Reactivity Data

Stability: Stable

Conditions to Avoid: Heat and sources of ignition.

Incompatibility (Materials to Avoid): Oxidizers,

Hazardous Decomposition Products: NH₃, NO_x, CO_x,

Hazardous Polymerization: Will not occur

Section 11 - Toxicity Data

Toxicity Data: orl-rat LD50 333 mg/kg

Effects of Overexposure:

Acute: See Section 2

Chronic: Not listed as a carcinogen by IARC, NTP or OSHA.

Conditions Aggravated by Overexposure: N/A

Target Organs: Respiratory system, Kidneys,

Primary Route(s) of Entry: Inhalation.

Section 12 - Ecological Data

EPA Waste Numbers: N/A

Section 13 - Disposal Information

Waste Disposal Methods: Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.

Section 14 - Transport Information

DOT Proper Shipping Name: N/A

Section 15 - Regulatory Information

EPA TSCA Status: On TSCA Inventory

Hazard Category for SARA Section 311/312 Reporting: Acute

Name List:

Ammonium Molybdate - No

Chemical Category:

Ammonium Molybdate - No

CERCLA Section 103 RQ(Ib.): Ammonium Molybdate - No

RCRA Section 261.33: Ammonium Molybdate - No

Section 16 - Additional Information

The information provided in this Material Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the Material Safety Data Sheet. Any employer must carefully assess the applicability of any information contained herein in regards to the particular use to which the employer puts the material.

Glossary

ACGIH American Conference of Governmental Industrial Hygienists

CAS Number Chemical Services Abstract Number

CERCLA Comprehensive Environmental Response, Compensation, and Liability Act

DOT U.S. Department of Transportation

IARC International Agency of Research on Cancer

N/A Not Available

NTP National Toxicology Program

OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
ppm	Parts per million
RCRA	Resource Conservation and Recovery Act
SARA	Superfund Amendments and Reauthorization Act
TLV	Threshold Limit Value
TSCA	Toxic Substances Control Act