

EMS CATALOG NO: 10500
EMS PRODUCT: Ammonium Molybdate
Tetrahydrate
DATE: 10/10/2008
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MATERIAL SAFETY DATA SHEET

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FOR PRODUCT AND SALES INFORMATION

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PRODUCT IDENTIFICATION

PRODUCT NAME: Ammonium Molybdate Tetrahydrate
FORMULA: $(\text{NH}_4)_6\text{Mo}_7\text{O}_{24}\cdot\text{H}_2\text{O}$
SYNONYMS: Hexaammonium molybdate
CAS#: 12027-67-7
RTECS: QA4900000
TSCA: On the TSCA list.

COMPOSITION AND INFORMATION ON INGREDIENTS

Name :	CAS #	% by Weight
Ammonium molybdate tetrahydrate	12027-67-7	100
TOXICOLOGICAL DATA ON INGREDIENTS	Ammonium molybdate tetrahydrate: ORAL (LD50):	Acute: 333 mg/kg (Rat).

HAZARDS IDENTIFICATION

POTENTIAL ACUTE HEALTH EFFECTS:

Very dangerous in case of eye contact (irritant), of ingestion, of inhalation. Slightly dangerous to dangerous in case of skin contact (irritant). This product is an eye irritant. Severe over-exposure can result in death. Can be fatal if inhaled or ingested. This product may irritate eyes and skin upon contact. Inflammation of the eye is characterized by redness, watering, and itching.

POTENTIAL CHRONIC HEALTH EFFECTS:

Very dangerous in case of eye contact (irritant), of ingestion, of inhalation. Slightly dangerous to dangerous in case of skin contact (irritant).

CARCINOGENIC EFFECTS: Not available.

MUTAGENIC EFFECTS: Not available.

TERATOGENIC EFFECTS:

Not available. Toxicity of the product to the reproductive system: Not available. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

FIRST AID MEASURES

EYE CONTACT:

Check for and remove any contact lenses. IMMEDIATELY flush eyes with running water for at least 15 minutes, keeping eyelids open. COLD water may be used. DO NOT use an eye ointment.

Seek medical attention.

SKIN CONTACT:

If the chemical got onto the clothed portion of the body, remove the contaminated clothes as quickly as possible, protecting your own hands and body. Place the victim under a deluge shower. If the chemical touches the victim's exposed skin, such as the hands: Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. COLD water may be used. Cover the irritated skin with an emollient. If irritation persists, seek medical attention. Wash contaminated clothing before reusing.

SERIOUS SKIN CONTACT:

Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

INHALATION:

Allow the victim to rest in a well-ventilated area. Seek immediate medical attention.

INGESTION:

Remove dentures if any. Have conscious person drink several glasses of water or milk. INDUCE VOMITING by sticking finger in throat. Lower the head so that the vomit will not reenter the mouth and throat. NEVER give an unconscious person anything to ingest. Seek medical attention.

FIRE AND EXPLOSION DATA

FLAMMABILITY OF THE PRODUCT: Non-flammable.
AUTO-IGNITION TEMPERATURE: Not applicable.
FLASH POINTS: Not applicable.
FLAMMABLE LIMITS: Not applicable.
PRODUCTS OF COMBUSTION: Not applicable.
FIRE HAZARDS IN PRESENCE OF VARIOUS SUBSTANCES: Not applicable.

EXPLOSION HAZARDS IN PRESENCE OF VARIOUS SUBSTANCES:

Risks of explosion of the product in presence of mechanical impact:

Not available.

Risks of xplosion of the product in presence of static discharge:

Not available.

No specific information is available in our database regarding the product's risks of explosion in the presence of various materials.

FIRE FIGHTING MEDIA: Non-flammable.

ACCIDENTAL RELEASE MEASURES

SMALL SPILL:

Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

LARGE SPILL: Poisonous solid.

Stop leak if without risk. **DO NOT** get water inside container. **DO NOT** touch spilled material. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas, dike if needed. Call for assistance on disposal. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

HANDLING AND STORAGE

PRECAUTIONS: Keep locked up. **DO NOT** ingest. **DO NOT** breathe dust. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes.

STORAGE: Keep container tightly closed. Keep in a cool, well ventilated place. Highly toxic or infectious materials should be stored in a separate locked safety storage cabinet or room.

EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS:

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

PERSONAL PROTECTION:

Splash goggles. Lab coat. Dust respirator. Be sure to use a MSHA/NIOSH approved respirator or equivalent. Gloves (impervious). Wear appropriate respirator when ventilation is inadequate.

PERSONAL PROTECTION IN CASE OF A LARGE SPILL:

Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

EXPOSURE LIMITS: Not available.

PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE/APPEARANCE:	Solid. (Crystalline solid.)
MOLECULAR WEIGHT:	1235.86
pH(1% soln/water):	Not available.
BOILING POINT:	Not available.
MELTING POINT:	Decomposes.
CRITICAL TEMPERATURE:	Not available.
SPECIFIC GRAVITY:	2.276 (water=1)
VAPOR PRESSURE:	Not available.
VAPOR DENSITY:	Not available.
VOLATILITY:	Not available.
ODOR THRESHOLD:	Not available.
WATER/OIL DIST. COEFF.:	Not available.
IONICITY(in Water):	Not available.
DISPERSION PROPERTIES:	See solubility in water.
SOLUBILITY:	Easily soluble in cold water, hot water.
ODOR:	Ammoniacal. (Slight.)
TASTE:	Not available.
COLOR:	White or light-green.

STABILITY AND REACTIVITY DATA

STABILITY: The product is stable.
INSTABILITY TEMPERATURE: Not available.
CONDITIONS OF INSTABILITY: No additional remark.

INCOMPATIBILITY WITH VARIOUS

SUBSTANCES: No specific information is available in our database regarding the reactivity of this material in presence of various materials.

CORROSIVITY: No specific information is available in our database regarding the corrosivity of this product in presence of various materials.

POLYMERIZATION: No

TOXICOLOGICAL INFORMATION

ROUTES OF ENTRY: Ingestion. Inhalation.

TOXICITY TO ANIMALS: Acute oral toxicity (LD50): 333 mg/kg (Rat).

CHRONIC EFFECTS ON HUMANS: Toxicity of the product to the reproductive system: Not available.

OTHER TOXIC EFFECTS ON HUMANS:

Very dangerous in case of eye contact (irritant), of ingestion, of inhalation. Slightly dangerous to dangerous in case of skin contact (irritant).

ECOLOGICAL INFORMATION

ECOTOXICITY: Not available.

BOD5 and COD: Not available.

PRODUCTS OF BIODEGRADATION: Some metallic oxides.

TOXICITY OF THE PRODUCTS OF

BIODEGRADATION: The products of degradation are as toxic as the original product.

DISPOSAL CONSIDERATION

WASTE DISPOSAL: Recycle to process, if possible. Consult your local or regional authorities.

REGULATORY INFORMATION

FEDERAL AND STATE REGULATIONS:

The following product is listed by the State of Massachusetts:

Ammonium molybdate tetrahydrate

The following product is listed by the State of Pennsylvania:

Ammonium molybdate tetrahydrate

The following product is listed on TSCA: **Ammonium molybdate tetrahydrate**

OTHER REGULATIONS:

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA): This product is on the Domestic Substances List (DSL), and is acceptable for use under the provisions of CEPA.

OTHER CLASSIFICATIONS:

WHMIS (Canada) WHMIS CLASS D-1B: Material causing immediate and serious toxic effects (TOXIC).

WHMIS CLASS D-2B: Material causing other toxic effects (TOXIC).

DSCL (EEC) R22-Harmful if ingested.

R36-Irritating to eyes.

HMIS (U.S.A.)	Health Hazard - 2
	Fire Hazard - 0
	Reactivity - 0