



MATERIAL SAFETY DATA SHEET

CONTACT : **LEONID CHEMICALS**
62/A-2 2nd Stage, Industrial Suburb
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Ammonium Molybdate, Tetrahydrate - 01284

SECTION 1- CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MSDS Name:
Molybdate, Tetrahydrate

Catalog Numbers:
A/5720, A/5760

Synonyms:
Ammonium paramolybdate

Company Information:
LEONID CHEMICALS
62/A-2 1st Stage, Yeshwanthpur Industrial Suburb
Ashokpuram School Road
Bangalore-560 022, Karnataka, INDIA
Ph: +91-80-2337 8354, Fax: +91-80-2357 4827

SECTION 2- COMPOSITION, INFORMATION ON INGREDIENTS

CAS #	:	12054-85-2
Chemical Name	:	Ammonium Molybdate, Tetrahydrate
%	:	81-83 %
EINECS#	:	unlisted
Hazard Symbols	:	None Listed.
Risk Phrases	:	None Listed.

SECTION 3- HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
Information not available.

Potential Health Effects

Eye:
May cause eye irritation.

Skin:
May cause skin irritation. Low hazard for usual industrial handling.

Ingestion:
Ingestion of large amounts may cause gastrointestinal irritation.



Inhalation:

May cause respiratory tract irritation.

Chronic:

No information found.

SECTION 4 - FIRST AID MEASURES

Eyes:

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin:

Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.

Ingestion:

Induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Get medical aid.

Inhalation:

Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.

Notes to Physician:

No information available.

SECTION 5- FIRE FIGHTING MEASURES

General Information:

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

Extinguishing Media:

Substance is noncombustible; use agent most appropriate to extinguish surrounding fire.

SECTION 6- ACCIDENTAL RELEASE MEASURES

General Information:

Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Vacuum or sweep up material and place into a suitable disposal container. Avoid generating dusty conditions.

SECTION 7 - HANDLING AND STORAGE

Handling:

Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation.

Storage:

Keep from contact with oxidizing materials. Store in a cool, dry, well-ventilated area away from incompatible substances.

SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

Engineering Controls:

Use adequate ventilation to keep airborne concentrations low.

Personal Protective Equipment

Eyes:

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin:

Wear appropriate protective gloves to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to minimize contact with skin.

Respirators:

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical State	:	Solid
Color	:	White crystalline solid.
Odor	:	Odorless.
PH	:	5.0-5.5: 5% solution
Vapor Pressure	:	Information not available.
Viscosity	:	Information not available.
Boiling Point	:	373 deg F
Freezing/Melting Point	:	194 deg F
Autoignition Temperature	:	Not applicable.
Flash Point	:	Not applicable.
Explosion Limits, lower	:	Information not available.
Explosion Limits, upper	:	Information not available.
Decomposition Temperature	:	374 F
Solubility in water	:	43% in cold water.
Specific Gravity/Density	:	2.5 (Water=1)
Molecular Formula	:	H ₂₄ N ₆ Mo ₇ O ₂₄ .4H ₂ O
Molecular Weight	:	1235.8274

SECTION 10 - STABILITY AND REACTIVITY

Chemical Stability:
Stable.

Conditions to Avoid:
Strong oxidants.

Incompatibilities with Other Materials:
Strong oxidizers.

Hazardous Decomposition Products:
Nitrogen oxides (NO_x) and ammonia (NH₃).

Hazardous Polymerization:
Has not been reported.

SECTION 11 - TOXICOLOGICAL INFORMATION

RTECS#:
CAS# 12054-85-2 unlisted.

LD50/LC50:
Information not available.

Carcinogenicity:

Ammonium Molybdate, Tetrahydrate - Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA. See actual entry in RTECS for complete information.

SECTION 12 - ECOLOGICAL INFORMATION

Information not available.

SECTION 13 - DISPOSAL CONSIDERATIONS

Products which are considered hazardous for supply are classified as Special Waste and the disposal of such chemicals is covered by regulations which may vary according to location. Contact a specialist disposal company or the local waste regulator for advice. Empty containers must be decontaminated before returning for recycling.

SECTION 14 - TRANSPORT INFORMATION

IATA

Shipping Name	:	AMMONIUM NITRATE
Hazard Class	:	5.1
UN Number	:	1942
Packing Group	:	III

IMO

Shipping Name	:	AMMONIUM NITRATE
Hazard Class	:	5.1
UN Number	:	1942
Packing Group	:	III

RID/ADR

Shipping Name	:	AMMONIUM NITRATE
Hazard Class	:	5.1
UN Number	:	1942
Packing group	:	III

SECTION 15 - REGULATORY INFORMATION

European/International Regulations
European Labeling in Accordance with EC Directives

Hazard Symbols:

No information available.

Risk Phrases:

No information available.

Safety Phrases:

S 22 Do not breathe dust. S 25 Avoid contact with eyes.

WGK (Water Danger/Protection)

CAS# 12054-85-2: 1

United Kingdom Occupational Exposure Limits

No information available.

United Kingdom Maximum Exposure Limits

No information available.

Canada

None of the chemicals in this product are listed on the DSL/NDSL list. CAS# 12054-85-2 is not listed on Canada's Ingredient Disclosure List.

Exposure Limits

No information available.

US FEDERAL

TSCA

CAS# 12054-85-2 is not on the TSCA Inventory because it is a hydrate. It is considered to be listed if the CAS number for the anhydrous form is on the inventory (40CFR720.3(u)(2)).

SECTION 16 - ADDITIONAL INFORMATION

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if the company has been advised of the possibility of such damages.