

MATERIAL SAFETY DATA SHEET

Sodium Molybdate



1. PRODUCT & COMPOSITION / INGREDIENTS

PRODUCT IDENTIFICATION

Product Name	:	SODIUM MOLYBDATE DIHYDRATED
Chemical Name	:	Sodium Molybdate Dihydrated
Chemical Formula	:	$\text{Na}_2\text{MoO}_4 \times 2 \text{H}_2\text{O}$
Synonyms	:	Molybdic Acid Disodium Salt
CAS N°	:	10102-46
UN N°	:	Product not classified as dangerous substance by United Nations.

2. HAZARDS IDENTIFICATION

Mark in Label: None

Hazard classification of the chemical product: Non-dangerous product.

a) Personal Health Hazard:

Effects of an acute overexposure (once):

None described, molybdenum is rapidly excreted by the body.

Effects of chronic overexposure (long term):

Not available.

Medical conditions aggravated by exposure:

Not available.

Inhalation: Slightly harmful when inhaled. Slight irritations to the respiratory tract, coughing and breath shortness symptoms.

Skin Contact: It may cause slight irritation, redness, discomfort.

Eye Contact: It may cause slight irritation, with symptoms of redness and pain.

Ingestion: It may cause slight stomach irritation; high doses may be dangerous.

b) **Environmental Hazards:** this product is not dangerous to the environment.

c) **Special Hazards of the product:** Unknown

3. FIRST AID MEASURES

In case of accidental contact, proceed according to:

Inhalation: Remove victim from exposure source; although it is not considered dangerous to health.

Skin Contact: Remove contaminated clothes and flush skin immediately with soap and plenty of water for, at least, 15 minutes. If irritation persists, repeat procedure. Hazards for skin are not expected. Call a physician.

Eye Contact: Flush eyes immediately with plenty of water for, at least, 15 minutes. Lift and separate eyelids to ensure product removal. If irritation persists, repeat procedure. Call a physician.

Ingestion: Flush mouth with water. Give plenty of water to drink in order to dilute product. Do not provide anything to drink if victim is unconscious. Call a physician.

Notes for the physician: specific antidote not known; apply symptomatic therapy. If breathing difficulties appear, provide oxygen.

4. FIRE FIGHTING MEASURES

Extinguishing agents: Product does not pose fire hazard. Use any extinguishing media for surrounding fire. Most of the extinguishing agents can be used. Apply indirectly in order to avoid bulk product spilling and air suspended particles.

Special procedures for fire-fighting:

Substance is not combustible. Keep containers exposed to fire cold, spraying them with water. Substance is not self ignited; however, it may decompose when heated and may produce toxic vapours. Avoid the use of water throwers; contain water flow with provisional barriers, for example, ground.

Fire fighting personal protective equipment:

Use adequate protective clothes and self-contained positive pressure breathing equipment, specially approved for use closed areas.

5. SPILL OR LEAKS CONTROLLING MEASURES

Emergency measures to control material spill:

It does not require neutralisation; evacuate or isolate dangerous area. Restrict access to unnecessary people and people without adequate protection. Collect substance in dry and clean plastic containers, labeled for the subsequent recovery or disposal in SECTION 8; safety goggles and mask with filter for dust particles.

Precautions to avoid environmental damage:

Substance is not considered toxic for the environment; do not disperse dust during spill cleaning.

Cleaning methods:

Collect spill immediately; sweep without dispersing dust and dispose in container duly labeled. Residues can be washed away with plenty of water.

6. HANDLING AND STORAGE

Technical recommendations: Substance is used as additive in agricultural formulations and pigments.

Precautions:

Do not eat or drink while handling the product; change clothes after finishing work for the day, wash with soap and plenty of water.

Specific recommendations for safe handling:

Do not expose product to high temperatures and humidity.

Storage Conditions:

Store product in original package, closed, in a safe, fresh and dry place, with good ventilation at all times, away from heat sources and physical damages. Label containers properly and keep them closed.

Recommended and inadequate containers:

Recommended containers are those which isolate product from environment and humidity: this type of container may be dangerous once they are empty because they retain product residues (dust, solids). Observe all the warnings and precautions indicated in the label.

7. EXPOSURE CONTROLS/ PERSONAL PROTECTION

Measures to reduce exposure possibility:

Avoid accumulation of air suspended dust.

Control parameters: Not established

Total Weight Average Permissible Exposure Limit, TWA PEL:

Not established.

Respiratory Protection: If dust problems arise, a full face, approved respirator must be worn.

Protection Gloves: Use PVC impervious protection gloves.

Eye Protection: Use chemical safety protection goggles to protect eyes from dust; or a full face mask.

Additional protection equipment:

Use the adequate clothes according to the emergency. Facial protection if required.

Ventilation: A place with natural or forced ventilation at all times must be considered.

8. PHYSICAL AND CHEMICAL PROPERTIES

Physical Form	:	Solid
Appearance & Colour	:	Fine white crystals
Concentration	:	99.6% expressed as $\text{Na}_2\text{MoO}_4 \times 2 \text{H}_2\text{O}$
pH	:	7.0 – 9.5 at 10% in water
Decomposition T°	:	Over 100°C
Flash Point	:	Not applicable
Explosive Limit	:	Not applicable
Self-ignition temperature	:	Not applicable
Fire/Explosion Hazards	:	Product is not ignitable
Water pressure at 20°C	:	Information not available
Vapour density	:	Information not available
Apparent density	:	0.65 – 0.80 g/cc
Solubility in water and other solvents	:	Highly soluble in water and insoluble in most organic solvents.

9. STABILITY AND REACTIVITY

Stability: Stable under normal conditions of use and storage.

Conditions that must be avoided:
Information not available.

Incompatibilities (materials to be avoided):
Alkali metals, common metals and oxidising agents.

Decomposition Products:
Information not available.

Combustion products:
Product is not combustible.

Polymerization: Not applicable.

10. TOXICOLOGICAL INFORMATION

Acute Toxicity: LD₅₀ oral rats \geq 4 g/kg

Chronic or long-term toxicity: This product is not registered by NTP, IARC or regulated as carcinogenic by OSHA.

Local or systemic effects: Information not available.

Allergic sensibilisation: Information not available.

11. ECOLOGICAL INFORMATION

Instability: Highly stable product.

Persistence / Degradability: This product does not require degradability as its components are part of the environment naturally.

Local or systemic effects: Information not available.

Environmental effects: Product does not pose environmental damages; it is considered a non-dangerous waste.

12. DISPOSAL CONSIDERATIONS

Methods recommended and approved by Australian norm to dispose substance, residues and wastes: dispose in places approved by authority for substance disposal; the application of lime is generally required.

Methods recommended and approved by Australian norm to dispose contaminated containers/packaging: Dispose containers/packaging in accordance with local regulations. It is recommended to wash containers three times and to dispose collected water in drain.

13. TRANSPORT INFORMATION

Terrestrial highway or railway : Not applicable

Maritime : Not applicable

By air : Not applicable

Lake & river : Information not available

NCh 2190 applicable marks : Not applicable

UN Number : Not applicable.

14. REGULATORY INFORMATION

Applicable International Regulations: Not applicable

Applicable National Regulations: Not applicable

Label Marks: Not applicable.

15. OTHER INFORMATION

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