

MSDS# 95022

Section 1 - Chemical Product and Company Identification

MSDS Name: Sodium Molybdate Dihydrate  
Catalog Numbers: S336-3, S336-500  
Synonyms: Molybdic Acid Sodium Dihydrate; Disodium Molybdate Dihydrate.

Company Identification: Fisher Scientific  
One Reagent Lane  
Fair Lawn, NJ 07410

For information in the US, call: 201-796-7100  
Emergency Number US: 201-796-7100  
CHEMTREC Phone Number, US: 800-424-9300

Section 2 - Composition, Information on Ingredients

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Risk Phrases:

CAS#: 10102-40-6  
Chemical Name: Sodium molybdate dihydrate  
%: 100  
EINECS#: unlisted  
Hazard Symbols:

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Text for R-phrases: see Section 16

Hazard Symbols: XI



Risk Phrases: 36/37/38

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Warning! Causes eye, skin, and respiratory tract irritation. Target Organs: Respiratory system, eyes, skin.

Potential Health Effects

Eye: Causes eye irritation.

Skin: Causes skin irritation.

Ingestion: May cause gastrointestinal irritation with nausea, vomiting and diarrhea. The toxicological properties of this substance have not been fully investigated.

Inhalation: Causes respiratory tract irritation.

Chronic: No information found.

Section 4 - First Aid Measures

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

Skin: Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

Ingestion: Never give anything by mouth to an unconscious person. Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

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.

Notes to Physician: Treat symptomatically and supportively.

### 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. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Extinguishing Media: Use agent most appropriate to extinguish fire. Use water spray, dry chemical, carbon dioxide, or appropriate foam.

Autoignition Temperature: Not applicable.

Flash Point: Not applicable.

Explosion Limits: Lower: Not available

Explosion Limits: Upper: Not available

NFPA Rating: health: 2; flammability: 0; instability: 0;

### 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. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Provide ventilation.

### Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Use only in a well-ventilated area. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation. Wash clothing before reuse.

Storage: Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

### Section 8 - Exposure Controls, Personal Protection

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Sodium molybdate	0.5 mg/m <sup>3</sup> TWA (respirable fraction, as Mo) (listed under Molybdenum soluble compounds).	1000 mg/m <sup>3</sup> IDLH (as Mo) (listed under Molybdenum soluble compounds).	5 mg/m <sup>3</sup> TWA (as Mo) (listed under Molybdenum soluble compounds).
Sodium molybdate dihydrate	0.5 mg/m <sup>3</sup> TWA (respirable fraction, as Mo) (listed under Molybdenum soluble compounds).	1000 mg/m <sup>3</sup> IDLH (as Mo) (listed under Molybdenum soluble compounds).	5 mg/m <sup>3</sup> TWA (as Mo) (listed under Molybdenum soluble compounds).

OSHA Vacated PELs: Sodium molybdate: 5 mg/m<sup>3</sup> TWA (as Mo) (listed under Molybdenum soluble compounds) Sodium molybdate dihydrate: 5 mg/m<sup>3</sup> TWA (as Mo) (listed under Molybdenum soluble compounds)

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

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 prevent skin exposure.
- Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

#### Section 9 - Physical and Chemical Properties

Physical State: Solid

Color: white

Odor: none reported

pH: Not applicable

Vapor Pressure: Not applicable.

Vapor Density: Not available

Evaporation Rate: Not applicable.

Viscosity: Not applicable.

Boiling Point: Not applicable.

Freezing/Melting Point: Not available

Decomposition Temperature: Not available

Solubility in water: Not available.

Specific Gravity/Density: 3.28

Molecular Formula: Na<sub>2</sub>MoO<sub>4</sub>·2H<sub>2</sub>O

Molecular Weight: 241.944

#### Section 10 - Stability and Reactivity

- Chemical Stability: Stable at room temperature in closed containers under normal storage and handling conditions.
- Conditions to Avoid: Incompatible materials, dust generation, excess heat.
- Incompatibilities with Other Materials: Strong oxidizing agents.
- Hazardous Decomposition Products: Strong oxidizing agents, toxic fumes of sodium oxide.
- Hazardous Polymerization: Has not been reported.

#### Section 11 - Toxicological Information

- RTECS#: CAS# 7631-95-0: QA5075000  
CAS# 10102-40-6: QA5085000
- RTECS:  
**CAS# 7631-95-0:** Inhalation, rat: LC50 = >2080 mg/m<sup>3</sup>/4H;  
Oral, rat: LD50 = 4 gm/kg;
- LD50/LC50: Oral, rat: LD50 = 0.25 gm/kg;
- RTECS:  
**CAS# 10102-40-6:**
- Carcinogenicity: Sodium molybdate - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.  
Sodium molybdate dihydrate - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
- Other: See actual entry in RTECS for complete information.

#### Section 12 - Ecological Information

Not available

#### Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

#### Section 14 - Transport Information

US DOT

Shipping Name: Not regulated as a hazardous material

Hazard Class:  
UN Number:  
Packing Group:  
Canada TDG  
Shipping Name: Not available  
Hazard Class:  
UN Number:  
Packing Group:

## Section 15 - Regulatory Information

### European/International Regulations

#### European Labeling in Accordance with EC Directives

Hazard Symbols: XI

Risk Phrases:

R 36/37/38 Irritating to eyes, respiratory system and skin.

Safety Phrases:

S 28A After contact with skin, wash immediately with plenty of water.

S 37 Wear suitable gloves.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

#### WGK (Water Danger/Protection)

CAS# 7631-95-0: 1

CAS# 10102-40-6: 1

#### Canada

CAS# 7631-95-0 is listed on Canada's DSL List

Canadian WHMIS Classifications: D2B

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

CAS# 7631-95-0 is listed on Canada's Ingredient Disclosure List

CAS# 10102-40-6 is not listed on Canada's Ingredient Disclosure List.

#### US Federal

##### TSCA

CAS# 7631-95-0 is listed on the TSCA Inventory.

CAS# 10102-40-6 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 - Other Information

MSDS Creation Date: 12/01/1998

Revision #8 Date 7/20/2009

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 event 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.

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