

SAFETY DATA SHEET

Revision Date 17-January-2018

Revision Number 3

1. Identification

Product Name Sodium Molybdate Dihydrate

Cat No. : S336-3; S336-500

Synonyms Disodium Molybdate Dihydrate.; Molybdic Acid Sodium Dihydrate

Recommended Use Laboratory chemicals.

Uses advised against Not for food, drug, pesticide or biocidal product use

Details of the supplier of the safety data sheet

Company

Importer/Distributor
Fisher Scientific
112 Colonnade Road,
Ottawa, ON K2E 7L6,
Canada
Tel: 1-800-234-7437

Manufacturer

Fisher Scientific
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

Emergency Telephone Number

CHEMTREC®, Inside the USA: 800-424-9300
CHEMTREC®, Outside the USA: 001-703-527-3887

2. Hazard(s) identification

Classification

WHMIS 2015 Classification Classified as hazardous under the Hazardous Products Regulations (SOR/2015-17)

Skin Corrosion/irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 2
Specific target organ toxicity - (repeated exposure)	Category 2
Target Organs - Respiratory system.	

Label Elements

Signal Word

Warning

Hazard Statements

Causes skin irritation
May cause damage to organs through prolonged or repeated exposure

**Precautionary Statements****Prevention**

Do not get in eyes, on skin, or on clothing
 Wash face, hands and any exposed skin thoroughly after handling
 Wear protective gloves/protective clothing/eye protection/face protection

Response

IF ON SKIN: Wash with plenty of soap and water
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 Get medical advice/attention if you feel unwell
 Take off contaminated clothing

Storage

Store locked up

Disposal

Dispose of contents/container to an approved waste disposal plant

3. Composition/Information on Ingredients

Component	CAS-No	Weight %
Sodium molybdate dihydrate	10102-40-6	100
Sodium molybdate	7631-95-0	-

4. First-aid measures

Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. Obtain medical attention.
Inhalation	Move to fresh air. If breathing is difficult, give oxygen. Obtain medical attention.
Ingestion	Do not induce vomiting. Obtain medical attention.
Most important symptoms/effects	No information available.
Notes to Physician	Treat symptomatically

5. Fire-fighting measures

Unsuitable Extinguishing Media	No information available
Flash Point	No information available
Method -	No information available
Autoignition Temperature	No information available
Explosion Limits	
Upper	No data available
Lower	No data available
Sensitivity to Mechanical Impact	No information available
Sensitivity to Static Discharge	No information available

Specific Hazards Arising from the Chemical

Keep product and empty container away from heat and sources of ignition.

Hazardous Combustion Products

None known

Protective Equipment and Precautions for Firefighters

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

NFPA

Health
2

Flammability
1

Instability
0

Physical hazards
N/A

6. Accidental release measures**Personal Precautions**

Ensure adequate ventilation. Use personal protective equipment. Avoid dust formation.

Environmental Precautions

Avoid release to the environment.

Methods for Containment and Clean Up

Sweep up or vacuum up spillage and collect in suitable container for disposal. Keep container tightly closed in a dry and well-ventilated place. Avoid dust formation.

7. Handling and storage**Handling**

Wear personal protective equipment. Ensure adequate ventilation. Avoid dust formation.

Storage

Keep containers tightly closed in a dry, cool and well-ventilated place.

8. Exposure controls / personal protection**Exposure Guidelines**

Component	Alberta	British Columbia	Ontario TWAEV	Quebec	ACGIH TLV	OSHA PEL	NIOSH IDLH
Sodium molybdate dihydrate	TWA: 0.5 mg/m ³	TWA: 0.5 mg/m ³	TWA: 0.5 mg/m ³	TWA: 5 mg/m ³	TWA: 0.5 mg/m ³	(Vacated) TWA: 5 mg/m ³	IDLH: 1000 mg/m ³
Sodium molybdate	TWA: 0.5 mg/m ³	TWA: 0.5 mg/m ³	TWA: 0.5 mg/m ³	TWA: 5 mg/m ³	TWA: 0.5 mg/m ³	(Vacated) TWA: 5 mg/m ³	IDLH: 1000 mg/m ³

Legend

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NIOSH IDLH: The National Institute for Occupational Safety and Health Immediately Dangerous to Life or Health

Engineering Measures

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

Personal protective equipment**Eye Protection**

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.

Hand Protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

Glove material	Breakthrough time	Glove thickness	Glove comments
Nitrile rubber	See manufacturers recommendations	-	Splash protection only

Inspect gloves before use. observe the instructions regarding permeability and breakthrough time which are provided by the

supplier of the gloves. (Refer to manufacturer/supplier for information) gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion. gloves with care avoiding skin contamination.

Respiratory Protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly

When RPE is used a face piece Fit Test should be conducted

Environmental exposure controls

No information available.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing before re-use. Wash hands before breaks and at the end of workday.

9. Physical and chemical properties

Physical State	Solid
Appearance	White
Odor	Odorless
Odor Threshold	No information available
pH	No information available
Melting Point/Range	No data available
Boiling Point/Range	No information available
Flash Point	No information available
Evaporation Rate	No information available
Flammability (solid,gas)	No information available
Flammability or explosive limits	
Upper	No data available
Lower	No data available
Vapor Pressure	No information available
Vapor Density	No information available
Specific Gravity	3.28
Solubility	No information available
Partition coefficient; n-octanol/water	No data available
Autoignition Temperature	No information available
Decomposition Temperature	No information available
Viscosity	No information available
Molecular Formula	Na ₂ MoO ₄ ·2H ₂ O
Molecular Weight	241.944

10. Stability and reactivity

Reactive Hazard	None known, based on information available
Stability	Stable under normal conditions.
Conditions to Avoid	Avoid dust formation. Excess heat. Incompatible products.
Incompatible Materials	Strong oxidizing agents, Halogens
Hazardous Decomposition Products	None under normal use conditions
Hazardous Polymerization	Hazardous polymerization does not occur.

Hazardous Reactions None under normal processing.

11. Toxicological information

Acute Toxicity

Oral LD50 Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg.

Dermal LD50 Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg.

Mist LC50 Based on ATE data, the classification criteria are not met. ATE > 5 mg/l.

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Sodium molybdate	LD50 = 4000 mg/kg (Rat) LD50 = 4 g/kg (Rat)	Not listed	LC50 > 2080 mg/m ³ (Rat) 4 h

Toxicologically Synergistic Products No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation No information available

Sensitization No information available

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS-No	IARC	NTP	ACGIH	OSHA	Mexico
Sodium molybdate dihydrate	10102-40-6	Not listed	Not listed	A3	Not listed	Not listed
Sodium molybdate	7631-95-0	Not listed	Not listed	A3	Not listed	Not listed

Mutagenic Effects No information available

Reproductive Effects No information available.

Developmental Effects No information available.

Teratogenicity No information available.

STOT - single exposure None known

STOT - repeated exposure Respiratory system

Aspiration hazard No information available

Symptoms / effects, both acute and delayed No information available

Endocrine Disruptor Information No information available

Other Adverse Effects The toxicological properties have not been fully investigated.

12. Ecological information

Ecotoxicity

Do not empty into drains.

Persistence and Degradability No information available

Bioaccumulation/ Accumulation No information available.

Mobility No information available.

13. Disposal considerations

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a

hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. Transport information

<u>DOT</u>	Not regulated
<u>TDG</u>	Not regulated
<u>IATA</u>	Not regulated
<u>IMDG/IMO</u>	Not regulated

15. Regulatory information

International Inventories

Component	DSL	NDSL	TSCA	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	IECSC	KECL
Sodium molybdate dihydrate	-	-	-	-	-		X	X	X	X	-
Sodium molybdate	X	-	X	231-551-7	-		X	X	X	X	X

Canada

SDS in compliance with provisions of information as set out in Canadian Standard - Part 4, Schedule 1 and 2 of the Hazardous Products Regulations (HPR) and meets the requirements of the HPR (Paragraph 13(1)(a) of the Hazardous Products Act (HPA)).

16. Other information

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Revision Summary This document has been updated to comply with the requirements of WHMIS 2015 to align with the Globally Harmonised System (GHS) for the Classification and Labelling of Chemicals.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS