



Infosafe No™	1CH6L	Issue Date : August 2014	RE-ISSUED by CHEMSUPP
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Product Name : **SODIUM MOLYBDATE Dihydrate**

Not classified as hazardous

**1. Identification**

**GHS Product Identifier** SODIUM MOLYBDATE Dihydrate

**Company Name** CHEM-SUPPLY PTY LTD (ABN 19 008 264 211)

**Address** 38 - 50 Bedford Street GILLMAN  
SA 5013 Australia

**Telephone/Fax Number** Tel: (08) 8440-2000  
Fax: (08) 8440-2001

**Recommended use of the chemical and restrictions on use** Reagent in analytical chemistry, paint pigment, production of molybdated toners and lakes, metals finishing, brightening agent for zinc plating, corrosion inhibitor, catalyst in dye and pigment production, additive for fertilizers and feeds, micronutrient and laboratory reagent.

Other Names	Name	Product Code
	SODIUM MOLYBDATE Dihydrate LR	SL095
	SODIUM MOLYBDATE Dihydrate TG	ST095
	Sodium molybdate (VI) dihydrate, Molybdic acid sodium dihydrate	
	SODIUM MOLYBDATE Dihydrate AR	SA095

**Other Information** EMERGENCY CONTACT NUMBER: +61 08 8440 2000  
Business hours: 8:30am to 5:00pm, Monday to Friday.

Chem-Supply Pty Ltd does not warrant that this product is suitable for any use or purpose. The user must ascertain the suitability of the product before use or application intended purpose. Preliminary testing of the product before use or application is recommended. Any reliance or purported reliance upon Chem-Supply Pty Ltd with respect to any skill or judgement or advice in relation to the suitability of this product of any purpose is disclaimed. Except to the extent prohibited at law, any condition implied by any statute as to the merchantable quality of this product or fitness for any purpose is hereby excluded. This product is not sold by description. Where the provisions of Part V, Division 2 of the Trade Practices Act apply, the liability of Chem-Supply Pty Ltd is limited to the replacement of supply of equivalent goods or payment of the cost of replacing the goods or acquiring equivalent goods.

**2. Hazard Identification**

**GHS classification of the substance/mixture** Not classified as hazardous according to the Approved Criteria for Classifying Hazardous Substances [NOHSC:1008(2004) 3rd Edition, Safe Work Australia.

**Signal Word (s)** Not classified as dangerous goods according to the Australian Dangerous Goods Code (ADG).  
None.

**3. Composition/information on ingredients**

Chemical Characterization	Solid				
Ingredients	Name	CAS	Proportion	Hazard Symbol	Risk Phrase
	Sodium Molybdate Dihydrate	10102-40-6	100 %		

**4. First-aid measures**

**Inhalation** If inhaled, remove from contaminated area to fresh air immediately. Apply artificial respiration if not breathing. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.

**Ingestion** Rinse mouth thoroughly with water immediately. Give plenty of water to drink. Do not induce vomiting. Seek medical advice.

**Skin** Wash affected areas with copious quantities of water immediately. Remove contaminated clothing and wash before re-use. If irritation occurs seek medical advice.

**Eye contact** Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. Seek medical advice.

**First Aid Facilities** Maintain eyewash fountain and safety shower in work area.

**Advice to Doctor** Treat symptomatically.

**Other Information** For advice, contact the National Poisons Information Centre (Phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor.

**5. Fire-fighting measures**



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<b>Hazards from Combustion Products</b>	May liberate toxic fumes in fire (oxides of carbon and oxides of sodium).
<b>Specific Methods</b>	Use extinguishing media most appropriate for the surrounding fire. No limitations to the type of extinguishing media.
<b>Specific hazards arising from the chemical</b>	Material does not burn.
<b>Precautions in connection with Fire</b>	Wear SCBA and structural firefighter's uniform.

**6. Accidental release measures**

<b>Personal Precautions</b>	Avoid inhalation, contact with skin, eyes and clothing.
<b>Personal Protection</b>	Wear protective clothing specified for normal operations (see Section 8)
<b>Clean-up Methods - Small Spillages</b>	Sweep up (avoid generating dust) and remove to a suitable, clearly labelled container for disposal in accordance with local regulations.

**7. Handling and storage**

<b>Precautions for Safe Handling</b>	Avoid generation or accumulation of dusts. Use with adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Wash hands and face thoroughly after working with material.
<b>Conditions for safe storage, including any incompatibilities</b>	Store in a well ventilated place away from ignition sources, oxidising agents, foodstuffs and clothing. Keep containers closed when not in use.

**8. Exposure controls/personal protection**

<b>Other Exposure Information</b>	A time weighted average (TWA) has been established for Molybdenum, soluble compounds (as Mo) (Safe Work Australia) of 5 mg/m <sup>3</sup> . The exposure value at the TWA is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week.
<b>Appropriate engineering controls</b>	In industrial situations maintain the concentrations values below the TWA. This may be achieved by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods.
<b>Respiratory Protection</b>	Where ventilation is not adequate, respiratory protection may be required. Avoid breathing dust, vapours or mists. Respiratory protection should comply with AS 1716 - Respiratory Protective Devices and be selected in accordance with AS 1715 - Selection, Use and Maintenance of Respiratory Protective Devices. Filter capacity and respirator type depends on exposure levels. In event of emergency or planned entry into unknown concentrations a positive pressure, full-facepiece SCBA should be used. If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection.
<b>Eye Protection</b>	The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate. Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336.
<b>Hand Protection</b>	Hand protection should comply with AS 2161, Occupational protective gloves - Selection, use and maintenance. Recommendation: Rubber or plastic gloves.
<b>Personal Protective Equipment</b>	Final choice of personal protective equipment will depend on individual circumstances and/or according to risk assessments undertaken.
<b>Footwear</b>	Safety boots in industrial situations is advisory, foot protection should comply with AS 2210, Occupational protective footwear - Guide to selection, care and use.
<b>Body Protection</b>	Clean clothing or protective clothing should be worn, preferably with an apron. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.
<b>Hygiene Measures</b>	Always wash hands before smoking, eating or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

**9. Physical and chemical properties**

<b>Form</b>	Solid
<b>Appearance</b>	White granular powder.
<b>Odour</b>	Odourless.



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<b>Melting Point</b>	687 °C
<b>Solubility in Water</b>	840 g/L (20 °C)
<b>Specific Gravity</b>	3.28
<b>pH</b>	7.9 - 10.3 (5%, H <sub>2</sub> O, 20 °C)
<b>Flammability</b>	Non combustible material.
<b>Molecular Weight</b>	241.95

### 10. Stability and reactivity

**Chemical Stability** Stable under normal use conditons.**Conditions to Avoid** Incompatibles.**Incompatible Materials** Strong oxidising agents, alkali metals, most common metals, molten magnesium and interhalogens (e.g. bromine pentafluoride; chlorine trifluoride).**Hazardous Decomposition Products** Carbon, molybdenum and sodium oxides.**Possibility of hazardous reactions** Explodes on contact with molten magnesium. Violent reaction with interhalogens (e.g. bromine pentafluoride; chlorine trifluoride). Incandescent reaction with hot sodium, potassium or lithium.**Hazardous Polymerization** Will not occur.

### 11. Toxicological Information

**Ingestion** Moderately toxic. Large doses may cause severe distress, cramping, vomiting and hypertension. Symptoms of an acute molybdenum (VI) intoxication: diarrhoea, anaemia (decreased haemoglobin concentration in the blood), fatigue. Toxic effect on liver and kidneys after high doses.**Inhalation** Irritating to mucous membranes and upper respiratory tract. Symptoms may include coughing and shortness of breath. Can be route for absorption.**Skin** Irritating to skin. Contact with wet skin may cause a rash which is difficult to heal. May be harmful if absorbed through the skin.**Eye** Irritating to eyes. May act as a sensitizer.**Carcinogenicity** No evidence of carcinogenic properties.**Chronic Effects** Prolonged exposure may cause anemia. Molybdenum is rapily excreted from the body.**Mutagenicity** No evidence of mutagenic properties.

### 12. Ecological information

**Persistence and degradability** Methods for the determination of biodegradability are not applicable to inorganic substances.**Acute Toxicity - Fish** LC50 (Onchorhynchus mykiss): 7600 mg/l/96 h.**Acute Toxicity - Daphnia** EC50 (Daphnia magna): 330 mg/l/48 h.**Acute Toxicity - Algae** IC50 (Selenastrum capricornutum): > 100 mg/l/72 h.**Acute Toxicity - Bacteria** EC10 (Ps. putida): 50 mg/l/18 h.

### 13. Disposal considerations

**Disposal Considerations** Whatever cannot be saved for recovery or recycling should be disposed of according to relevant local, state and federal government regulations.

### 14. Transport information

**Transport Information** Not classified as a Dangerous Good according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.

### 15. Regulatory information

**Regulatory Information** Listed in the Australian Inventory of Chemical Substances (AICS).**Poisons Schedule** Not Scheduled



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**16. Other Information****Date of preparation** August 2009.  
**or last revision of****SDS****Literature**  
**References**

'Standard for the Uniform Scheduling of Medicines and Poisons No. 4', Commonwealth of Australia, June 2013.

Lewis, Richard J. Sr. 'Hawley's Condensed Chemical Dictionary 13th. Ed.', Rev., John Wiley and Sons, Inc., NY, 1997.

National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.', 2007.

'Labelling of Hazardous Workplace Chemicals, Code of Practice' Safe Work Australia.

Standards Australia 'AS 1940-2004 The Storage and Handling of Flammable and Combustible Liquids.

Standards Australia, 'SAA/SNZ HB 76:2010 Dangerous Goods - Initial Emergency Response Guide', Standards Australia/Standards New Zealand, 2010.

Worksafe Australia, 'Approved Criteria for Classifying Hazardous Substances [NOHSC:1008(2004)]'.

Worksafe Australia, 'Hazardous Substances Information System, 2005'.

Worksafe Australia, 'National Code of Practice for the Labelling of Workplace Hazardous Substances (2011)'.

Worksafe Australia, 'National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003(1995)]'.

**Contact**  
**Person/Point**

Paul McCarthy Ph. (08) 8440 2000 **DISCLAIMER STATEMENT:**  
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**Empirical Formula &** Na<sub>2</sub>MoO<sub>4</sub>.2H<sub>2</sub>O**Structural Formula**

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