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MATERIAL SAFETY DATA SHEET

MOLYBDENUM

IDENTIFICATION

PRODUCT NAME	:	SODIUM MOLYBDATE DIHYDRATE	MAY 2002
FORMULA	:	$\text{Na}_2\text{MoO}_4 \cdot 2\text{H}_2\text{O}$	
MSDS CODE	:		
U.N NUMBER	:	None allocated	HAZCHEM CODE:None allocated
DANGEROUS GOODS CLASS	:	None allocated	
SUB RISK CLASS	:	None allocated	
PACKAGING GROUP	:	None allocated	EPG:None allocated
POISON SCHEDULE	:	S5	
USES	:	Fertilizer Trace Element & others.	

Physical appearance & Properties:

APPEARANCE & ODOUR	:	White small, lustrous, crystalline plates.
MELTING/SOFTENING POINT	:	687°C
BOILING POINT AND VAPOUR PRESSURE	:	N/A
VOLATILE MATERIALS	:	No specific data. Expected to be low at 100°C.
FLASHPOINT	:	Does not burn.
FLAMMABILITY LIMITS	:	Not applicable. This product does not burn.
SPECIFIC GRAVITY	:	3.28
SOLUBILITY IN WATER	:	840 g/l (25°C)
CORROSIVENESS	:	Not corrosive. Mildly alkaline.
VAPOUR PRESSURE	:	No data
pH	:	10 5% aqueous soln

OTHER PROPERTIES

Loss of crystalline water at 100 °C
Bulk Density: 1000 kg/m³

INGREDIENTS

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Chemical entity	CAS No	Proportion
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%

Sodium molybdate dihydrate	7631-95-0	99 %
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This is a commercial product whose exact ratio of components may vary. Trace quantities of impurities are also likely.

II HEALTH HAZARD DATA

Health Effects

No specific data is available for the product for chronic exposure symptoms. The ingredients are not listed as carcinogenic in Worksafe's "Exposure Standards for Atmospheric Contaminants in the Occupational Environment" (May 1995), nor in NOHSC's "List of Designated Hazardous Substances" (April 1999).

Acute Effects:

SWALLOWED : Data suggests that this product is harmful if swallowed.

EYE : This product may be mildly irritating to eyes. However, it is unlikely to cause any more than mild transient discomfort. It is unlikely to cause any lasting effects.

SKIN : This product may be mildly irritating to skin. However, it is unlikely to cause any lasting effects.

INHALATION : Data indicates that this product is mildly irritating if inhaled. Likely to cause minor discomfort to throat and lungs and/or coughing which should quickly disappear once exposure has ceased.

First Aid:

If poisoning occurs, contact a Doctor or Poisons Information Centre (Phone 131126).

SWALLOWED : If swallowed, do NOT induce vomiting. Wash mouth with water and give a glass of water to drink. Seek medical attention.

EYE : If this product comes into contact with eyes, wash to remove material. No further measures should normally be required.

SKIN : If product gets on skin, wash skin to remove material. No further measures should be normally required.

INHALATION : Remove to fresh air, seek medical attention.

ADVICE TO DOCTOR Treat symptomatically. Note the nature of this product.

TOXICITY DATA

Acute LD50 Oral rat : 4233 mg/kg of body weight

Acute LD50 Dermal rat: > 2000 mg/kg body weight

Acute LC50 Inhalation rat (4 hr): > 1.93 mg/l

Effects of exposure and symptoms: LC50 for 4 hr is in excess of maximum achievable concentration.

Sensitisation: contact with skin or eyes may cause irritation. Inhalation of dust may cause irritation to upper respiratory tract.

Carcinogenicity: not available, not mentioned in existing literature.

Mutagenicity: idem

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Reproductive toxicity: n/a

Narcosis: n/a

Other Data: Eyes- New Zealand white strain rabbits - very slight conjunctival inflammation resolved one to three days after instillation. Skin - New Zealand white strain rabbits - no irritation noted in any animal. Respiratory - n/a.

III PRECAUTIONS FOR USE

3.1 Exposure Standards

The following exposure standard has been established by Worksafe Australia:
Molybdenum, soluble compounds (as Mo) : TWA 5mg/m³.
TLV -level : 5 mg Mo/m³ or 12.6 mg sodium molybdate/m³.

3.1 Engineering Controls

Use efficient dust filters to collect generated dust; workers to use efficient masks with filter cartridges.

3.3 Personal Protection

Rubber gloves, eye protection by safety glasses with side shields. Wash hands, and face thoroughly after handling and before work breaks, eating, drinking, smoking and using toilet facilities.

3.4 Flammability

Product is not flammable on itself but water soluble.

IV SAFE HANDLING INFORMATION

4.1 Storage /Transport

Store in dry conditions.
Keep container tightly closed.

4.2 Packaging/ Labelling

U.N. No, Class, Subs Risk, Hazchem code all N/A.
Shipping Name: **SODIUM MOLYBDATE DIHYDRATE**
Hazard : Not applicable.

RISK PHRASES : R52/53 HARMFUL TO AQUATIC ORGANISMS; MAY CAUSE LONG TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT.

4.3 SPILLS AND DISPOSALS

Spills

Personal precautions: wear self-contained breathing apparatus and full protective clothing.

Environmental precautions: If a large spill occurs avoid contamination of water waste by sealing off drainage outlets.

