



SAFETY DATA SHEET

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SECTION 1 PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: **Molybdenum, Powder**

PRODUCT NUMBER: 2593

CAS NUMBER: 7439-98-7

MANUFACTURER:

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IN CASE OF TRANSPORTATION EMERGENCY CONTACT CHEM-TREC: 1-800-424-9300

SECTION 2 HAZARDS IDENTIFICATION

CLASSIFICATION OF SUBSTANCE OR MIXTURE

Not a dangerous substance or mixture according to GHS

HMIS CLASSIFICATION:

Health: 0 Fire: 0 Reactivity Hazard: 0

NFPA RATING:

Health: 0 Flammability: 0 Reactivity Hazard: 0

EYE CONTACT: May cause slight to mild irritation of the eyes.

SKIN CONTACT: May cause slight to mild irritation of the skin.

INHALATION: May cause respiratory tract irritation.

INGESTION: No specific information is available on the physiological effects of ingestion.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Formula: Mo

Molecular Weight: 95.94

CHEMICAL NAME	CAS#	%
Molybdenum	7439-98-7	100

SECTION 4 FIRST AID MEASURES

EYE EXPOSURE: Immediately flush the eyes with copious amounts of water for at least 15 minutes. Assure flushing under eyelids. A victim may need assistance in keeping their eyelids open. Get immediate competent medical attention.

SKIN EXPOSURE: Wash affected area with water. Remove contaminated clothes if necessary. Seek medical assistance if irritation persists.

INHALATION: Remove to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.

SECTION 4 FIRST AID MEASURES (Cont.)

INGESTION: Seek medical assistance immediately. Keep the victim calm. Give the victim water (only if conscious). Induce vomiting only if directed by medical personnel.

SECTION 5 FIREFIGHTING MEASURES

FLASH POINT: Product is not flammable.

AUTO IGNITION TEMPERATURE: Not available

EXPLOSION LIMITS: Product does not present an explosion hazard.

EXTINGUISHING MEDIUM: Use fire fighting measures that suit the surrounding fire.

SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.

HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS: Molybdenum oxides

SECTION 6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Wear all appropriate equipment when using this material. Ensure adequate ventilation. Avoid the formation of dust. Avoid breathing vapors, mist, gas, or dust.

ENVIRONMENTAL PRECAUTIONS: Prevent spillage from entering drains or allowing to be released into the environment.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP: Mix spills with vermiculite or sodium carbonate. Sweep up and place in suitable container for proper disposal.

SECTION 7 HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Wear appropriate personal protective equipment. Avoid contact with skin and eyes. Use with adequate ventilation. Avoid formation of dusts and aerosols.

CONDITIONS FOR SAFE STORAGE: Store in cool, dry, and well-ventilated area.

SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

EXPOSURE CONTROLS:

Component	Exposure Limits	Basis	Entity
Molybdenum	10 mg/m ³	TLV (Inhalable fraction)	ACGIH
	3 mg/m ³	TLV (Respirable fraction)	ACGIH
	15 mg/m ³	PEL (Insoluble Mo)	OSHA

TLV: Threshold Limit Value over 8 hours of work.

PEL: Permissible Exposure Limit

EYE PROTECTION: Wear chemical safety glasses or goggles and face shield.

SKIN PROTECTION: Wear nitrile or rubber gloves, and a complete suit protecting against chemicals.

VENTILATION: Provide local exhaust, preferably mechanical.

RESPIRATOR: Use an approved respirator.

ADDITIONAL PROTECTION: Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

COLOR AND FORM: Gray, black, silver powder

ODOR: None

MOLECULAR WEIGHT: 95.94

BOILING POINT: 4612°C

MELTING POINT: 2617°C

SPECIFIC GRAVITY: 10.3 gm/ml

SOLUBILITY: Insoluble

SECTION 10 STABILITY AND REACTIVITY

STABILITY: Stable

HAZARDOUS POLYMERIZATION: Will not occur

CONDITIONS TO AVOID: None

INCOMPATIBILITY: Oxidizing agents, bromine trifluoride, chlorine trifluoride, fluorine, lead oxide, halogens, acids, and strong mineral acids

DECOMPOSITION PRODUCTS: Molybdenum oxides

SECTION 11 TOXICOLOGICAL DATA

ACUTE TOXICITY: LD50 Oral – Rat – >5000mg/kg. LD50 Inhalation – Rat – 4h – >5.84mg/L. LD50 Dermal – Rat – >2000mg/kg. LDLo Intratracheal – Rabbit – 70mg/kg. TDLo Oral – Rat – 6050 µg/kg. TDLo Oral – Rat – 5800 µg/kg. TDLo Oral – mouse – 448mg/kg. Inhalation – Rat – Cytogenetic analysis: 19500µg/m³

CARCINOGENIC EFFECTS: No components of this product present at levels greater than or equal to 0.1% is identified a carcinogen.

MUTAGENIC EFFECTS: Not available

TETRAOGENIC EFFECTS: Not available

CHRONIC TOXICITY: Not available

RTECS: QA4680000

To the best of our knowledge the toxicological effects of this compound have not been fully investigated.

SECTION 12 ECOLOGICAL DATA

AQUATIC VERTEBRATE: LC50 – Oncorhynchus mykiss (rainbow trout) – 800mg/L – 96h. Mortality LOEC – Oncorhynchus mykiss (rainbow trout) – 500mg/L – 96h.

SECTION 13 DISPOSAL CONSIDERATIONS

Dispose of in according to local, state, and federal regulations.

SECTION 14 TRANSPORTATION DATA

Not a dangerous good.

SECTION 15 REGULATORY INFORMATION

TSCA: Listed in the TSCA inventory

SARA 302/304: Not Listed

SARA 311/312: Not Listed

SARA (TITLE 313): Not Listed

CALIFORNIA PROP. 65: Not Listed

MASSACHUSETTS RIGHT TO KNOW COMPONENTS: Molybdenum

NEW JERSEY RIGHT TO KNOW COMPONENTS: Molybdenum

PENNSYLVANIA RIGHT TO KNOW COMPONENTS: Molybdenum

SECTION 16 OTHER INFORMATION

DISCLAIMER: The information herein is believed to be accurate and reliable as of the date compiled. However, Prochem, Inc. makes no representation, warranty, or guarantee of any kind with respect to the information in this document or any use of the product based on the information.

DATE PREPARED: 05/15

SDS DEPT.