

Section 1 Product Identification

Product Name Molybdenum - sheet, foil, wire, rod, pellets, target, fasteners

Formula Mo

CAS No 7439-98-7

Address 23661 Birtcher Dr.,
Lake Forest, CA 92630 U.S.A.

Telephone/Fax (949) 812-6690

Emergency (949) 407-8904

Recommended Uses Scientific Research

Section 2 Hazards Identification

Classification under Safe Work Australia

Classified as not hazardous according to criteria of Safe Work Australia.

Physical hazards

No hazards identified

Health hazards

No hazards identified

Environmental hazards

No hazards identified

Label Elements None required

Other information

Section 3 Composition/Information on Ingredients

Ingredient	CAS No	Weight %
Molybdenum	7439-98-7	<=100

Section 4 First Aid Measures

General Measures: No special requirements.

Inhalation: Remove to fresh air, keep warm and quiet, give oxygen if breathing is difficult. Seek medical attention.

Ingestion: Rinse mouth with water. Do not induce vomiting. Seek medical attention. Never induce vomiting or give anything by mouth to an unconscious person.

Skin: Remove contaminated clothing, brush material off skin, wash affected area with soap and water. Seek medical attention if symptoms develop or persist.

Eyes: Flush eyes with lukewarm water, including under upper and lower eyelids, for at least 15 minutes. Seek medical attention if symptoms develop or persist.

Most Important Symptoms/Effects, Acute and Delayed: May cause irritation. See section 11 for more information.

Indication of Immediate Medical Attention and Special Treatment: No other relevant information available.

Section 5 Firefighting Measures

Extinguishing Media

Use suitable extinguishing agent for surrounding materials and type of fire.

Unsuitable Extinguishing Media

No information available.

Specific Hazards Arising from the Material

May emit toxic metal oxide fumes under fire conditions.

Special Protective Equipment and Precautions for Firefighters

Full face, self-contained breathing apparatus and full protective clothing when necessary.

Section 6 Accidental Release Measures

Personal Precautions, Protective Equipment, and Emergency Procedures

Wear appropriate respiratory and protective equipment specified in section 8. Isolate spill area and provide ventilation. Avoid breathing dust or fumes. Avoid contact with skin and eyes. Eliminate all sources of ignition.

Methods and Materials for Containment and Cleaning Up

Avoid dust formation. Sweep or scoop up. Place in a properly labeled closed container for further handling and disposal.

Environmental Precautions

Do not allow to be released to the environment.

Section 7 Handling and Storage

Precautions for Safe Handling

Avoid creating dust. Provide adequate ventilation if dusts are created. Avoid breathing dust or fumes. Avoid contact with skin and eyes. Wash thoroughly before eating or smoking. See section 8 for information on personal protection equipment.

Conditions for Safe Storage

Store in a cool, dry area. See section 10 for more information on incompatible materials.

Section 8 Exposure Controls and Personal Protection

Exposure Limits

Molybdenum (as Mo) (Insoluble compounds, total dust)

OSHA/PEL

15 mg/m³ (insoluble compounds, total dust)

ACGIH/TLV

No exposure limit established

Engineering Controls

Ensure adequate ventilation to maintain exposures below occupational limits. Whenever possible the use of local exhaust ventilation or other engineering controls is the preferred method of controlling exposure to airborne dust and fume to meet established occupational exposure limits. Use good housekeeping and sanitation practices. Do not allow dust to accumulate as it may present a fire hazard. Do not use tobacco or food in the work area. Wash thoroughly before eating or smoking. Do not blow dust off clothing or skin with compressed air.

Respiratory Protection

If permissible levels are exceeded, use NIOSH approved dust respirator.

Eye Protection

Safety glasses

Skin Protection

Wear impermeable gloves, and protective work clothing as necessary.

Section 9 Physical and Chemical Properties

Appearance

Form Solid in various forms

Color Silver gray metallic

Odor Odorless

Odor Threshold Not determined

pH	N/A
Melting Point	2610 °C
Boiling Point	5560 °C
Flash Point	N/A
Evaporation Rate	N/A
Flammability	N/A
Upper Flammable Limit	No data
Lower Flammable Limit	No data
Vapor Pressure	1mm @ 3102 °C
Vapor Density	N/A
Relative Density (Specific Gravity)	10.2 g/cc
Solubility in H2O	Insoluble
Partition Coefficient (n-octanol/water)	Not determined
Autoignition Temperature	No data
Decomposition Temperature	No data
Viscosity	N/A

Section 10 Stability and Reactivity

Reactivity	No data
Chemical Stability	Stable under recommended storage conditions
Possibility of Hazardous Reactions	None known
Conditions to Avoid	High temperatures in air; strong oxidation starting around 600°C, sublimation of MoO ₃ starting around 700°C
Incompatible Materials	Strong oxidizing agents, sulfuric acid, phosphoric acid
Hazardous Decomposition Products	Molybdenum oxide fume.

Section 11 Toxicological Information

Likely Routes of Exposure	Inhalation, skin, eyes.
Symptoms of Exposure	May cause irritation if dust or fumes are inhaled or swallowed. Fines/dusts may irritate skin and eyes.
Acute and Chronic Effects	No data
Acute Toxicity	No data
Carcinogenicity	NTP Not identified as carcinogenic
IARC	Not identified as carcinogenic

To the best of our knowledge the chemical, physical and toxicological characteristics of the substance are not fully known.

Section 12 Ecological Information

Ecotoxicity	No data
Persistence and Degradability	No data

Bioaccumulative Potential No data

Mobility in Soil No data

Other Adverse Effects Do not allow material to be released to the environment without proper governmental permits. No further relevant information available.

Section 13 Disposal Considerations

Waste Disposal Method

Product Dispose of in accordance with Federal, State and Local regulations.

Packaging and Dispose of in accordance with Federal, State
and Local regulations.

Section 14 Transport Information

Shipping Regulations Not regulated

UN Number N/A

UN Proper Shipping Name N/A

Transport Hazard Class N/A

Packing Group N/A

Marine Pollutant No

Section 15 Regulatory Information

TSCA Listed

All components are listed

Regulation (EC) No 1272/2008 (CLP)

N/A

Canada WHMIS Classification (CPR, SOR/88-66)

N/A

HMIS Ratings: Health: 0

Flammability: 0

Physical: 0

NFPA Ratings: Health: 0

Flammability: 0

Instability: 0

Chemical Safety Assessment
out

A chemical safety assessment has not been carried

Section 16 Other Information

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