

**CHINATUNGSTEN**  
**ONLINE MANU. & SALES CORP**

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## Molybdenum MSDS

### Material Safety Data Sheet

Revised 04/10/12

### Molybdenum Products

MSDS – 0458

#### 1. Identification of the Substance and of the Company

- 1.1 Product Identified: Molybdenum Products.  
1.2 Uses: Lighting, furnace, electronics, medical applications.  
1.3 Supplier : Elmet Technologies, Inc., 1560 Lisbon Street, Lewiston Maine 04240  
1.4 Emergency Phone Number: 1-800-333-6100

#### 2. Hazards Identification

- 2.1 Classification: Not a hazardous material per Regulation (EC) NO. 1272/2008 EC or EC Directive 67/548/EEC.  
2.2 Label elements: Compact metal/alloy with no risk to human health or the environment.  
2.3 Other hazards: Dusts from powder may present a fire hazard.

#### 3. Composition/Information on Ingredients

- 3.1 Substances: Molybdenum (CAS# 7439-98-7), additions of Lanthanum Oxide (CAS# 1312-81-8), Silicon (CAS# 7440-21-3), Potassium (CAS# 7440-09-7) at < 1% mass fraction. May be in powder, wire, filament of formed/machined metal parts.  
3.2 Mixtures: None

#### 4. First Aid Measures

- 4.1 First aid measures: Wash dust off thoroughly with soap and water.  
4.2 Symptoms, effects: Inhalation, eyes – dust may cause irritation.  
4.3 Medical, treatment: Consult physician after prolonged exposure to dust. There are no components listed as carcinogen or potential carcinogen per NTP, OSHA or IARC.

#### 5. Firefighting Measures

- 5.1 Extinguishing media: Dry chemical extinguishing media recommended.  
5.2 Special hazards: Auto ignition is 360 degrees C for 0 – 74 micron dust. Flammable, explosive limits not tested. Powder is a weak fire and explosion hazard.  
5.3 Firefighting advice: Breathing protection in presence of dust.

#### 6. Accidental Release Measures

- 6.1 Precautions, PPE, emergency procedures: Eliminate sources of ignition. Do not create dust cloud during clean up operations.  
6.2 Environmental precautions: Avoid contamination of soils and water.  
6.3 Containment and clean up: Vacuum or wet-sweep powder. Protect against inhalation of dust.  
6.4 Reference to other sections: None

#### 7. Handling and Storage

- 7.1 Safe handling: Avoid dust formation. Use suction cleaning methods. Avoid sources of ignition including static sparks.  
7.2 Safe storage, incompatibilities: No special measures required. Store in cool, dry, ventilated area.  
7.3 Specific end uses: None – refer to section 1.2

#### 8. Exposure Controls/ Personal Protection

- 8.1 Control parameters: OSHA PEL: 5 mg/m3; ACGIH TLV: 10 mg/m3.  
8.2 Exposure controls: Wear goggles and repertory protection when dealing with dust. Wear a NIOSH approved respirator if airborne concentrations exceed limits cited above.

#### 9. Physical and

- 9.1 Physical, chemical properties: Appearance: silver-grey to black. Boiling

Chemical Properties

point: 4325 degrees C. Specific gravity: 19.3 g/cm<sup>3</sup> @ 20 degrees C.  
9.2 Other information: Will oxidize in water and become slightly soluble. Sublimes in air at high temperature.

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(continued)

10. Stability and Reactivity

- 10.1 Reactivity: Not reactive.
- 10.2 Chemical stability: Stable.
- 10.3 Possible hazardous reactions: No known hazardous reactions.
- 10.4 Conditions to avoid: Avoid high temperature in air.
- 10.5 Incompatible materials: Avoid strong oxidizers.
- 10.6 Hazardous decomposition products: Heat produces trioxide or hex carbonyl hydroxide.

11. Toxicological Information

- 11.1 Toxicological effects: No known toxic effects.

12. Ecological Information

- 12.1 Toxicity: No known toxic effects.
- 12.2 Persistence, degradability: Stable.
- 12.3 Bioaccumulative potential: No evidence of bioaccumulative potential.
- 12.4 Soil mobility: Will oxidize in water and become slightly soluble.
- 12.5 Results of PBT, vPvB assessment: Does not meet criteria for these substances.
- 12.6 Other adverse effects: None

13. Disposal Considerations

- 13.1 Waste treatment: Dispose residues as metal waste. Consider reclamation or recycling. Follow federal, state, local, national and regional regulations.

14. Transport Information

- 14.1 UN number: Not dangerous to transport.
- 14.2 UN proper shipping name: Not dangerous to transport.
- 14.3 Transport hazard class: Not dangerous to transport.
- 14.4 Packing group: Not dangerous to transport.
- 14.5 Environmental hazards: Not dangerous to transport.
- 14.6 Special user precautions: Not dangerous to transport.
- 14.7 Transport per annex II of MARPOL73/78, IBC code: Not dangerous to transport.

15. Regulatory Information

- 15.1 Safety, health, environmental regulations/legislation: No labeling required. Obey pertinent regulations.
- 15.2 Chemical safety assessment: Not considered a hazardous substance.

16. Other Information

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