# MATERIAL SAFETY DATA SHEET

## FERROMOLYBDENUM

Transportation Emergencies (U.S.): (800) 424-9300 (CHEMTREC)
Transportation Emergencies (Canada): (613) 996-6666 (Collect)(CANUTEC)

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## Section 1. Hazardous Ingredients

<table>
<thead>
<tr>
<th>LD&lt;sub&gt;50&lt;/sub&gt;</th>
<th>%</th>
<th>CAS No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iron, elemental</td>
<td>20 mg/kg</td>
<td>26 – 32</td>
</tr>
<tr>
<td>Molybdenum, elemental</td>
<td></td>
<td>68 – 74</td>
</tr>
</tbody>
</table>

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## Section 2. Preparation Information

Responsibility for MSDS Preparation: Masterloy Products Company  
(613) 822-1010  
Prepared November 15, 1989  
Reviewed and Revised January 12, 2010  
Supercedes Jan 12, 2007

## Section 3. Product Information

**Product Name:** Ferromolybdenum  
**CAS No.:** 11121-95-2  
**Product Use:** Alloyming of iron and steel  
**Manufacturer/Supplier:** Masterloy Products Company  
5663 Doncaster Road  
Ottawa, ON K1G 3N4, Canada  
Phone (613) 822-1010 (8:00 a.m. – 5:00 p.m. Mon. – Fri. EST)  
FAX (613) 822-0249

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## Section 4. Physical Data

<table>
<thead>
<tr>
<th>Boiling Point: Not applicable</th>
<th>Specific Gravity (H&lt;sub&gt;2&lt;/sub&gt;O=1): 9.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melting Point: Approximately 3,000 °F</td>
<td>Vapor Pressure: Not applicable</td>
</tr>
<tr>
<td>pH: Not applicable</td>
<td>Vapor Density: Not applicable</td>
</tr>
<tr>
<td>Odor Threshold: Not applicable</td>
<td>Evaporation Rate: Not applicable</td>
</tr>
</tbody>
</table>

**Odor and appearance:** Silvery white metallic solid, lumps to powder.  
**Coefficient of Water/Oil Distribution:** Not applicable

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## Section 5. Fire and Explosion Hazard Data

<table>
<thead>
<tr>
<th>Flash Point: Not applicable</th>
<th>Flammable Limits: Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower Explosive Limit: Not applicable</td>
<td>Upper Explosive Limit: Not applicable</td>
</tr>
<tr>
<td>Autoignition Temperature: Not applicable</td>
<td>Extinguishing Media: Not applicable</td>
</tr>
</tbody>
</table>

**Hazardous Combustion Products:** Not applicable  
**Explosion Data – Sensitivity to Impact:** Not applicable  
**Explosion Data – Sensitivity to Static Discharge:** Not applicable

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## Section 6. Reactivity Data

**Conditions Under Which Product is Chemically Unstable:** None known.  
**Substance or Class of Substances With Which Product is Incompatible:** Strong acids, oxidizers.  
**Conditions of Reactivity:** None known.  
**Hazardous Decomposition Products:** None known.

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The information data and recommendations contained herein are believed to be accurate. Masterloy Products Company makes no warranty of any kind whatever with respect thereto and disclaims all liability from reliance thereon.
FERROMOLYBDENUM

Section 7. Health Hazard Data/Toxicological Properties

ACGIH TLV:- 10 mg/m³ Total Dust
OSHA PEL: 15 mg/m³ Total Dust

WHMIS CLASS (Canada): D2

Routes of Entry: Lungs (breathing) - Yes   Eyes – No   Ingestion - No   Skin – No

Carcinogen: OSHA - No   NTP - No   IARC – No   ACGIH – No

Effects of Overexposure:

   Short Term: High concentrations of dust may cause eye or throat irritation.

   Long Term: Long term exposure to dust concentrations higher than recommended exposure limits may cause delayed lung injury.

Sensitization to Product: Not applicable

   Toxicologically synergistic products: None known.

Medical Conditions Aggravated: Workers with existing lung problems may be more susceptible to the effects of this material.

Toxicity Data:

   For iron, rabbit, LD50 20 mg/kg

   Teratogenicity: None found

   Mutagenicity: Molybdenum, inhalation, rat, 19.5 mg/m³

   Reproductive Toxicity: Molybdenum, oral, rat lowest published toxic dose 5.8 mg/kg

Section 8. Preventive Measures

Respiratory Protection: If dust limits exceed recommended exposure limits, use of an approved dust respirator is recommended until feasible engineering controls are completed.

Ventilation: Local exhaust ventilation is recommended to control dust to below applicable exposure limits.

Eye Protection: If high dust concentrations exist wear tight-fitting goggles.

Other Protective Equipment: Optional

Steps To Be Taken In Case Material Is Released Or Spilled: If uncontaminated, sweep up or collect, and reuse as product. If contaminated, collect in a suitable container.

Waste Disposal Method: Can be disposed of in an approved disposal facility, in accordance with applicable federal, state or provincial, and local regulations. The nature and extent of contamination, if any, may require use of specialized disposal methods.

Storage Requirements: Store in a dry area, away from acids and strong oxidizers.

Handling Procedures and Equipment: Optional.

DOT Identification: Not regulated by DOT

Transport Canada: Not regulated

Section 9. First Aid Measures

First Aid:  Eyes - Flush thoroughly with running water. See a physician if irritation persists.

   Skin - Wash thoroughly with soap and water.

   Inhalation - Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.