



MATERIAL SAFETY DATA SHEET

Identity: Molybdic Oxide
Common Name: Molybdenum Oxide
Distributor's Name: Miller and Company LLC
Address: 9700 W. Higgins Road
Suite 1000
Rosemont, IL 60018
Phone: 874-696-2400
Emergency Phone: Chemtrec 800-262-8200
Prepared by: H. F. Linebarger
Date: March 15, 2010

SECTION I - COMPONENTS/IDENTITY INFORMATION

<u>NAME</u>	<u>CAS NO.</u>	<u>% by Wt.</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>
Molybdic oxide	01313-275	81 - 98	5 mg/m ³	5 mg/m ³
Silica	14808-60-7	0 - 19	0.05 mg/m ³ *	0.025 mg/m ³ *
Copper	7440-50-8	0 - 1	0.1 mg/m ³ *	0.2 mg/m ³ *

* Respirable dust

SECTION II - PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point*: 1150 C
Melting Point *: 795 C
Vapor Pressure*: Essentially 0 at 20 C
Solubility in Water*: 1.6 - 6.9 gm/l at 25 C
Specific Gravity*: 4.69 (Water = 1.0)
Appearance: Yellow green to white

*Molybdic oxide

SECTION III - FIRE AND EXPLOSION DATA

Flash Point:	N/A
Auto Ignition:	N/A
Flammable Limits:	N/A
Fire Extinguishing Media:	Use media appropriate for surrounding fire
Unusual Fire and Explosion Hazards:	Dust explosion hazard

SECTION IV - REACTIVITY

Stability:	Stable
Hazardous Polymerization:	Will not occur
Incompatibles:	Strong acids, alkali metals. Explodes on contact with molten Mg. Violent reaction with inter halogens.
Conditions to Avoid:	Incompatibles
Decomposition:	Toxic metal fumes on decomposition.

SECTION V - HEALTH HAZARD

Skin Contact:	May cause skin irritation
Eye Contact:	May be irritating to the eyes
Ingestion:	Harmful if swallowed. Ingestion may cause vomiting and gastrointestinal irritation, severe distress, cramping, and hypertension.
Inhalation:	Harmful if inhaled. Irritating to the upper respiratory tract and mucous membranes. May be absorbed into the blood- stream with symptoms similar to indigestion.
Chronic Overexposure Effects:	None identified. Molybdenum is rapidly excreted. Long-term overexposure can lead to anemia.
Toxicity:	LC50 (rat) > 5840 mg/m ³ LD50 (oral, rat) 2689 mg/kg
Target Organs:	None identified
Reproductive Effects:	None identified
Carcinogenicity:	None identified

SECTION VI - HANDLING AND USE

Store in cool, dry area
 Keep away from incompatibles
 Protect containers from physical damage use exhaust ventilation to meet PEL and TLV requirements.

Wearing a dust mask or respirator is recommend

Wear safety goggles, gloves and protective clothing

In case of spill, wear full protective and respiratory protection. Sweep or scoop into a suitable container. Reclaim or dispose of in accordance with local, state, and federal regulations.

SECTION VII - TRANSPORTATION INFORMATION

Molybdenum trioxide:	TSCA Inventory
	SARA Hazard: Acute, SARA
	313 Toxic Release

The information presented herein is offered for informational purposes only. This MSDS, and the associated product, is intended for use only by technically qualified persons, at their own discretion and risk. Miller and Company makes no warranties either expressed or implied, and assumes no liability, in connection with any use of this information.

H. F. Linebarger
March 15, 2010