

Safety Data Sheet

Material Name: Molybdenum Oxide

SDS ID: 00244164

*** Section 1 - PRODUCT AND COMPANY IDENTIFICATION ***

Material Name: Molybdenum Oxide

Manufacturer Information

CMC Cometals
CONTACT:
2050 Center Avenue, Suite 250
Ft. Lee, NJ 07024
Mfg Contact: CMC Cometals

EMERGENCY

Synonyms

Product Use

industrial

*** Section 2 - HAZARDS IDENTIFICATION ***

EMERGENCY OVERVIEW

Color: colorless to blue

Odor: odorless

POTENTIAL HEALTH EFFECTS

Inhalation

Short Term: irritation

Long Term: diarrhea, lung damage

Skin

Short Term: irritation

Long Term: no information on significant adverse effects

Eye

Short Term: irritation, blurred vision

Long Term: blurred vision

Ingestion

Short Term: no information on significant adverse effects

Long Term: no information on significant adverse effects

Potential Environmental Effects

No information available.

*** Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS ***

*** Section 4 - FIRST AID MEASURES ***

Inhalation

If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. Get immediate medical attention.

Skin

Wash skin with soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention, if needed. Thoroughly clean and dry contaminated clothing and shoes before reuse.

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Eyes

Flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention.

Ingestion

If a large amount is swallowed, get medical attention.

* * * Section 5 - FIRE FIGHTING MEASURES * * *

See Section 9 for Flammability Properties

NFPA Ratings: Health: 2 Fire: 0 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Extinguishing Media

Use extinguishing agents appropriate for surrounding fire.
halogenated extinguishing agents.

Protective Equipment and Precautions for Firefighters

Move container from fire area if it can be done without risk. Avoid inhalation of material or combustion by-products. Cool containers with water spray until well after the fire is out. Stay upwind and keep out of low areas.

Fire Fighting Measures

Negligible fire hazard.

Thermal Decomposition Products

Combustion: molybdenum

Sensitivity to Mechanical Impact

No

Sensitivity to Static Discharge

No.

* * * Section 6 - ACCIDENTAL RELEASE MEASURES * * *

Occupational spill/release

Stop leak if possible without personal risk. Remove sources of ignition. Ventilate the area. Collect spilled material in appropriate container for disposal.

Dispose in accordance with all applicable regulations.

* * * Section 7 - HANDLING AND STORAGE * * *

Handling Procedures

When using, do not eat, drink or smoke. Avoid contact with eyes and skin. Do not inhale dusts.

Storage Procedures

Storage and handle in accordance with all current regulations and standards. Store in a tightly closed container. Keep separated from incompatible substances.

* * * Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION * * *

Exposure Guidelines

Provide eyewash stations and quick-drench shower facilities.

Component Exposure Limits

ACGIH, NIOSH, EU, OSHA (US) and Mexico have not developed exposure limits for any of this product's components.

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Engineering Controls

General or local exhaust ventilation and other forms of engineering controls are the preferred means for controlling exposures. If ventilation cannot reduce airborne concentrations below acceptable limits, appropriate respiratory protection should be used.

PERSONAL PROTECTIVE EQUIPMENT

Eyes/Face

Wear splash resistant safety goggles. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

Protective Clothing

Keep exposure of this material to a minimum. Wear appropriate chemical resistant clothing and gloves.

Respiratory Protection

Molybdenum (Mo)

25 mg/m³

Any quarter-mask respirator.

50 mg/m³

Any particulate respirator equipped with an N95, R95, or P95 filter (including N95, R95, and P95 filtering facepieces) except quarter-mask respirators.

The following filters may also be used:

N99, R99, P99, N100, R100 or P100.

Any supplied-air respirator.

125 mg/m³

Any supplied-air respirator operated in a continuous-flow mode.

Any powered, air-purifying respirator with a high-efficiency particulate filter.

250 mg/m³

Any air-purifying, full-facepiece respirator equipped with an N100, R100, or P100 filter.

Any supplied-air respirator with a tight-fitting facepiece that is operated in a continuous-flow mode.

Any powered, air-purifying respirator with a tight-fitting facepiece and a high-efficiency particulate filter.

Any self-contained breathing apparatus with a full facepiece.

Any supplied-air respirator with a full facepiece.

1000 mg/m³

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Any supplied-air respirator with a full facepiece that is operated in a pressure-demand or other positive-pressure mode.

Emergency or planned entry into unknown concentrations or IDLH conditions -

Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode.

Any supplied-air respirator with a full facepiece that is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained breathing apparatus operated in pressure-demand or other positive-pressure mode.

Escape -

Any air-purifying, full-facepiece respirator equipped with an N100, R100, or P100 filter.

Any appropriate escape-type, self-contained breathing apparatus.

An approved air-purifying respirator with an appropriate cartridge or canister may be appropriate under certain circumstances where airborne concentrations are expected to exceed exposure limits.

Appropriate respirator selection should be made by a qualified professional as part of a comprehensive respiratory protection program.

Protection provided by air-purifying respirators is limited and should not be used in atmosphere deficient in oxygen or where airborne concentrations are immediately dangerous to life or health.

Use a positive-pressure-air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.

*** Section 9 - PHYSICAL AND CHEMICAL PROPERTIES ***

Physical State: solid	Appearance: Crystals powder granules
Color: colorless to blue	Physical Form:
Odor: odorless	Odor Threshold: Not available
pH: Not available	Melting Point: 795° C
Boiling Point: Not applicable	Flash Point: Not available
Decomposition: Not available	Evaporation Rate: Not available
LEL: Not available	UEL: Not available
Vapor Pressure: Not applicable	Vapor Density (air = 1): Not applicable
Density: Not available	Specific Gravity (water = 1): 4.692.
Water Solubility: 0.22 % @ 28 °C	Log KOW: Not available
Coeff. Water/Oil Dist: Not available	Auto Ignition: Not available
Viscosity: Not available	Molecular Weight: 143.94
Molecular Formula: Mo-O3	

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*** Section 10 - STABILITY AND REACTIVITY ***

Chemical Stability

Stable at normal temperatures and pressure.

Conditions to Avoid

Avoid heat, flames, sparks and other sources of ignition. Dangerous gases may accumulate in confined spaces. May ignite or explode on contact with combustible material.

Materials to Avoid

halogens, metals, bromine pentafluoride, chlorine trifluoride, lithium, magnesium, potassium, sodium

Decomposition Products

molybdenum

Thermal Decomposition Products

Combustion: molybdenum

Possibility of Hazardous Reactions

Will not polymerize.

*** Section 11 - TOXICOLOGICAL INFORMATION ***

Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and no selected endpoints have been identified.

RTECS Acute Toxicity (selected)

The components of this material have been reviewed and RTECS publishes no data as of the date on this document.

Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, NTP, DFG or OSHA.

Irritation

May cause skin and eye irritation.

RTECS Irritation

The components of this material have been reviewed and RTECS publishes no data as of the date on this document.

*** Section 12 - ECOLOGICAL INFORMATION ***

Ecotoxicity

Moderately toxic to aquatic life.

Component Analysis - Aquatic Toxicity

No LOLI ecotoxicity data are available for this product's components.

Other Ecological Information

No information is available.

*** Section 13 - DISPOSAL CONSIDERATIONS ***

Disposal Methods

Dispose in accordance with all applicable guidelines.

Component Waste Numbers

The U.S. EPA has not published waste numbers for this product's components.

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*** Section 14 - TRANSPORT INFORMATION ***

US DOT Information

Shipping Name: Not regulated for transport

TDG Information

Shipping Name: Not regulated for transport

ADR Information

Shipping Name: Not regulated for transport

RID Information

Shipping Name: Not regulated for transport

IATA Information

Shipping Name: Not regulated for transport

ICAO Information

Shipping Name: Not regulated for transport

IMDG Information

Shipping Name: Not regulated for transport

*** Section 15 - REGULATORY INFORMATION ***

U.S. Federal Regulations

None of this products components are listed under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 311/312 (40 CFR 370.21), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), or require an OSHA process safety plan.

SARA Section 311/312 (40 CFR 370 Subparts B and C)

Acute Health: Yes Chronic Health: No Fire: No Pressure: No Reactive: No

U.S. State Regulations

None of this product's components are listed on the state lists from CA, MA, MN, NJ, PA, or RI.

Not regulated under California Proposition 65

Canada

No classification assigned.

EU Marking and Labelling

EC-No. 215-204-7

Symbols

Carc.Cat.3

Xi Irritant

Risk Phrases

R40 Limited evidence of a carcinogenic effect.

R36/37 Irritating to eyes and respiratory system.

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Component Analysis - Inventory

No information is available.

*** Section 16 - OTHER INFORMATION ***

Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; RID - European Rail Transport; RTECS - Registry of Toxic Effects of Chemical Substances®; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States

Other Information

NOTICE: The information presented herein is based on data considered to be accurate as of the date of preparation of this Material Safety Data Sheet. However, MSDS may not be used as a commercial specification sheet of manufacturer or seller, and no warranty or representation, expressed or implied, is made as to the accuracy or comprehensiveness of the foregoing data and safety information, nor is any authorization given or implied to practice any patented invention without a license. In addition, no responsibility can be assumed by vendor for any damage or injury resulting from abnormal use, from any failure to adhere to recommended practices, or from any hazards inherent in the nature of the product.

End of Sheet 00244164