STANFORD ADVANCED MATERIALS
http://www.samaterials.com

Stanford Advanced Materials
We not only sell products, we provide satisfactions.
72 Fairbanks Suite 100, Irvine, CA 92618, USA
Tel: (949) 407-8904 **Fax:** (949) 812-6690

Current Version: 2.0
Revision Date: Sep 5, 2012

Material Safety Data Sheet

Identity: Molybdenum carbide Formula: Mo_2C

SECTION I - GENERAL INFORMATION

Manufacturer: Stanford Advanced Materials (SAM)

The information below is believed to be accurate and represents the best information available to SAM. However, SAM makes no warranty, expressed or implied with respect to such information and assumes no liability resulting from its use.

SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

Form Weight: 203.89

CAS #	OSHA PEL	ACGIH TLV	%
12069-89-5	15mg/m^3	10mg/m^3	0-100%

SECTION III – PHYSICAL/CHEMICAL CHARACTERISTICS

Physical States: Solid

Boiling Point: N/A
Melting Point: 2687.00 ℃
Evaporation Rate: N/A
Solubility in water: Insoluble

Vapor Pressure (vs. air or mmHg): N/A
Flash Point: N/A
Specific Gravity: 8.9 gm/cc

Appearance and odor: White powder and pieces, no odor

SECTION IV - FIRE AND EXPLOSION HAZARD DATA:

Method Used: Non-Flammable *Explosive Limits:* LEL: N/A UEL: N/A

Extinguishing Media: Use suitable extinguishing agent for surrounding material and type of fire.

Special Fire Fighting Procedures:
Firefighters must wear full face, self-contaminated breathing apparatus with full protective clothing to prevent contact with skin and eyes. Fumes from fire are hazardous. Isolate runoff to prevent environmental pollution.

Unusual Fire and Explosion Hazards:
When heated to decomposition, molybdenum metal may emit toxic fumes of molybdenum. Contact with acids can generate flammable hydrogen gas.

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SECTION V - REACTIVITY DATA

Stability: Stable
Conditions to Avoid (stability): None
Incompatibility: Acids
Hazardous Polymerization: Will not occur
Hazardous Decomposition or Byproducts: Fumes of molybdenum and hydrogen gas
Conditions to avoid (hazardous polymerization): None

SECTION VI - HEALTH HAZARD DATA

Health Hazards (Acute and Chronic):
Inhalation: *Signs and Symptoms of Overexposure:*
Inhalation:
Acute: May cause a dry, red throat and coughing.
Chronic: May cause pneumonoconiosis and hard metal lung disease.

Ingestion:
Acute: Acute poisoning may cause severe gastrointestinal irritation, diarrhea, coma and/or death from cardiac failure.
Chronic: Chronic poisoning may cause loss of weight, anorexia, deficient lactation, male sterility, osteoporosis and bone-joint abnormalities.

Skin:
Acute: May cause redness, burning, and itching.
Chronic:

Eye:
Acute: May cause redness, burning, itching and watering.
Chronic:

Target Organ: Lungs, bones, spleen and heart.

Carcinogenicity: NTP? No IARC Monographs? No OSHA Regulated? No

Medical Conditions Aggravated by Exposure: Pre-existing lung disorders.

Emergency and First Aid Procedures:
Inhalation: Remove victim to fresh air, keep warm and quiet, and give oxygen if breathing is difficult; seek medical attention
Ingestion: Give 1-2 glasses of milk or water and 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 mild soap and water, and seek medical attention if symptoms persist.
Eye: Flush eyes with lukewarm water, lifting upper and lower eyelids for at least 15 minutes and seek medical attention.

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SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to be taken in case material is released or spilled:

Wear appropriate respiratory and protective equipment specified in section VIII-Control Measures. Isolate spill area, provide ventilation. Vacuum up spill using a high efficiency particulate absolute (HEPA) air filter and place in a closed container for proper disposal. Take care not to raise dust.

Waste disposal method:

Dispose of in accordance with state, local, and federal regulations.

Hazard Label Information:

Store in cool, dry area and in tightly sealed container. Wash thoroughly after handling.

SECTION VIII - CONTROL MEASURES

Protective Equipment Summary (Hazard Label Information):

NIOSH approved respirator, impervious gloves, safety glasses, clothes to prevent contact.

Ventilation:

Local Exhaust: To maintain concentration at low exposure levels.
Mechanical (General): Recommended.

Work/Hygienic/Maintenance Practices:

Implement engineering and work practice controls to reduce and maintain concentration of exposure at low levels. Use good housekeeping and sanitation practices. Do not use tobacco or food in work area. Wash thoroughly before eating or smoking. Do not blow dust off clothing or skin with compressed air.

Please be advised that N/A can either mean Not Applicable or No Data Has Been Established