



MATERIAL SAFETY DATA SHEET
COMPLIES WITH 29 CFR 1910.1200.
OSHA HAZARD COMMUNICATION RULE

DATE OF LAST REVISION: 05-20-96

CHEMICAL IDENTITY

LABEL IDENTITY	SILICON MONOXIDE
CHEMICAL NAME/SYNONYMS	SILICON OXIDE
FORMULA	SiO
CHEMICAL FAMILY	METAL OXIDE
HAZARDOUS INGREDIENTS	SILICON MONOXIDE
%: 100	TLV: 10MG/M3 (As SiO2) OSHA/PEL: 10mg/m3 (As SiO2)

PHYSICAL AND CHEMICAL PROPERTIES

COLOR, FORM AND ODOR	Brownish/Black powder
BOILING POINT	1880
DENSITY (gm/cc)	2.13 (2.18)
VAPOR PRESSURE @ 20°	NA
% VOLATILE BY VOLUME (%)	NA
REACTION WITH WATER	Slight exothermic reaction poss.
EVAPORATION RATE (H2O=1)	NA
SOLUBILITY IN WATER	Insoluble
MELTING POINT	<1702 °C (Melting)

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT	NA
AUTOIGNITION TEMPERATURE (°C)	ND
FLAMMABILITY	Flammability Hazard
EXTINGUISHING MEDIA	Use dry chemical, CO₂.
SPECIAL FIRE FIGHTING PROCEDURES	Wear a self-contained breathing apparatus and full protective clothing to prevent contact with skin and eyes.
UNUSUAL FIRE & EXPLOSION HAZARDS	Material may emit toxic fumes if involved in a fire. Material EXPLODES spontaneously in air (poss Pyrophoric).

HEALTH HAZARD INFORMATION

TOXICITY DATA	ipr-mus LDLO: 40mg/kg	irp-rat LDLO: 40mg/kg
	itr-rat LDLO: 120 mg/kg	inv-cat LDLO: 15mg/kg
	ivn-rbt LDLO: 35mg/kg	
ROUTES OF ENTRY	INHALATION: Yes	
	INGESTION: Yes	



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MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: **Respiratory Disorders**

EFFECTS OF OVEREXPOSURE (acute and chronic):

INHALATION: **Respiratory irritant. Sneezing, coughing, difficulty breathing headaches and bronchitis. May cause fibrosis or silicosis.**

DERMAL/EYE: **Irritating, redness, watering and inflammation possible.**

OTHER: **Generally of low toxicity. There can be toxicity hazards due to contamination by components of manufacture.**

CARCINOGENICITY: **Cd** NTP: **Yes** IARC MONOGRAPHS: **Yes** OSHA REGULATE: **Yes**

EMERGENCY FIRST AID PROCEDURES:

INGESTION: **Administer water and induce vomiting, seek medical attention**

INHALATION: **Remove to fresh air, seek medical attention**

SKIN CONTACT: **Wash affected area with soap and water, seek medical attention**

EYE CONTACT: **Flush eyes for at least 15 minutes with lukewarm water, seek medical.**

REACTIVITY DATA

STABILITY

UnStable

INCOMPATIBILITY (MATERIALS TO AVOID)

Air, Heat, strong acids and bases

HAZARDOUS DECOMPOSITION PRODUCTS

Silicon

HAZARDOUD POLYMERZATION

Will Not Occur

CONDITIONS TO AVOID

Air, heat and incompatible mat'ls

SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Wear self-contained breathing apparatus and full protective clothing. Isolate the area where the spill occurred and insure proper ventilation is available. Vacuum up the spill using high efficiency unit and place in a container for proper disposal. Take care not to raise dust.

WASTE DISPOSAL METHOD:

Dispose of in accordance with Federal, State and Local regulation.

SPECIAL PROTECTIVE INFORMATION

RESPIRATORY PROTECTION

NIOSH approved dust-mist-fume cartridge respirator.

LOCAL EXHAUST

Maintain below TLV exposure

MECHANICAL (general)

Not recommended

SPECIAL

Handle in dry, inert atmosphere

PROTECTIVE GLOVES

Neoprene

EYE PROTECTION

Safety goggles

OTHER PROTECTIVE EQUIPMENT

Wear protective clothing to prevent contamination of skin and clothes



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SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING/STORAGE:

Store in tightly closed container in a cool dry place. Wash hands and face thoroughly after handling and before meals.

TRANSPORTATION REQUIREMENTS

DOT CLASS: **Not Classified**
UN NUMBER: **NC**
IMCO CLASS: **NC**
OTHER: ---

PRECAUTIONARY LABELING

ND

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NA= NOT APPLICABLE

ND= NO DATA FOUND