

## Material Safety Data Sheet

Identity: Cerium oxide

Formula: CeO<sub>2</sub>

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### 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 we assume no liability resulting from its use.

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### Section II - Hazardous Ingredients/Identity Information

Synonyms: Niobium carbide; niobium monocarbide

Hazardous Components	CAS #	OSHA PEL	ACGIH TLV	%
	1306-38-3	NE	NE	100

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### Section III - Physical/Chemical Characteristics

Boiling Point: No data

Specific Gravity (water=1): 7.132 @ 23°C

Melting Point: 2600 °C

Vapor Pressure: Essentially 0

Physical States: Solid

Vapor Density: NA

Evaporation Rate: 0

Solubility in water: insoluble

Percent Volatile: 0

*Appearance and odor:* Pale yellow to brown powder.

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### Section IV - Fire and Explosion Hazard Data:

*Flash Point:* NA*Extinguishing Media:* Non-combustible. Use water, carbon dioxide, dry chemical extinguishing agents, dry sand or dry ground dolomite.*Unusual Fire and Explosion Hazards:* None

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### Section V - Reactivity Data

*Stability:* Stable*Conditions to Avoid:* No Data*Incompatibility - Materials to Avoid:* No Data

Hazardous Decomposition or Byproducts: No data

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### **Section VI - Health Hazard Data**

*Health Hazards (Acute and Chronic):*

*Inhalation:*

*Acute:* May cause irritation to the nose, throat, and lungs.

*Chronic:* May cause scarring of lung tissue.

*Emergency:* Seek medical attention. *Ingestion:*

*Acute:* May cause irritation of the digestive tract.

*Chronic:* None known. *Emergency:* Seek medical attention.

*Skin:*

*Acute:* May cause irritation, possibly severe.

*Chronic:* No chronic health effects recorded.

*Emergency:* Remove contaminated clothing, flood skin with large amounts of water. Seek medical attention.

*Eye:*

*Acute:* May cause irritation.

*Chronic:* No chronic health effects recorded.

*Emergency:* Flush eyes including under eyelids with large amounts of water for at least 15 minutes.

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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 and extinguish sources of ignition. 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. Use non-sparking tools.

*Waste disposal method:*

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

*Hazard Label Information:*

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

### **Section VIII - Control Measures**

*Protective Equipment Summary - Hazard Label Information:*

NIOSH/MSHA approved respirator, Impervious gloves, Safety glasses, clothes to prevent skin contact.

*Respiratory Protection (Specify Type) - NIOSH - approved dust respirator.*

*Ventilation:*

Local Exhaust: To maintain concentration at low exposure levels.

Mechanical (General): Recommended.

*Protective Gloves:* Rubber gloves. *Eye Protection:* Safety glasses.

*Other Protective Clothing or Equipment:* Protective gear suitable to prevent contamination.

*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 and smoking. Do not blow dust off clothing or skin with compressed air.