

## ***Material Safety Data Sheet***

Identity: Erbium Fluoride

Formula: ErF<sub>3</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**

Erbium Fluoride	
Concentration %	100
CAS #	13760-83-3
ACGIH-TLV:	2.5mg (F) /m <sup>3</sup>

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### **Section III - Physical/Chemical Characteristics**

Boiling Point: 2200°C	Specific Gravity (water=1): NA
Melting Point: 1350°C	Vapor Pressure: 0
Physical States: Solid	Vapor Density: NA
Evaporation Rate: 0	Solubility in water: Insoluble

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

Flammability: No                      Flash point: N/A  
Means of Extinction: Wear protective fire fighting clothing and self-contained breathing apparatus. Do not use water. Use carbon dioxide, dry chemical extinguishing agents, dry sand, or dry ground dolomite.

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### **Section V - Reactivity Data**

*Stability:* Stable

*Conditions to Avoid:*

*Incompatibility - Materials to Avoid: Acids*

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

Mode of Entry: Inhalation: Yes                      Skin: Yes

Carcinogenicity: NTP: No    IARC: No    OSHA: No

*Acute Exposure:*

*Eyes:*

May cause burning sensation, irritation, redness and watering.

*Skin:*

May cause irritation, itching and dermatitis.

*Ingestion:*

May cause nausea, vomiting, diarrhea, abdominal burning and cramp-like pain.

*Inhalation:*

Fibrosis may cause sclerosis of the bones, calcification of ligaments, mottled teeth, osteosclerosis, osteomalacia, loss of weight, anorexia, wasting, cachia, and dental effects.

*Emergency and First Aid:*

In case of eye contact, flush eyes with lukewarm water for 15 minutes, seek medical attention.

In case of skin contact, brush material off skin. Wash affected area with soap and water, seek medical attention.

In case of inhalation, remove victim to fresh air, administer oxygen if breathing is difficult. Seek medical attention.

In case of ingestion, do induce vomiting. Give large quantities of water or milk if available.

Contact a physician.

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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.

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### **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.