



Super Conductor Materials, Inc.

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Chemtrec: (800) 424-9300
Poison Center: (800) 562-8236
Revision Date: January 8th, 2019

SAFETY DATA SHEET

Identity: Europium

Formula: Eu

SECTION I - GENERAL INFORMATION

Manufacturer: Super Conductor Materials, Inc.

The information below is believed to be accurate and represents the best information available to Super Conductor Materials, Inc. However, SCM 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

Molecular weight: 151.96

CAS #	OSHA PEL	ACGIH TLV	%
7440-53-1	N/A	N/A	0-100

SECTION III – PHYSICAL/CHEMICAL CHARACTERISTICS

Physical States: Solid

Boiling Point: 1597°C @ 760mm Hg

Vapor Pressure (vs. air or mmHg): N/A

Melting Point: 822°C

Density: 5.24 g/cm³ at 25°C

Evaporation Rate: N/A

Flash Point: N/A

Solubility in water: Insoluble

Appearance and odor: Lustrous gray solid, odorless

SECTION IV - FIRE AND EXPLOSION HAZARD DATA:

Explosive Limits: LEL: N/A UEL: N/A

Extinguishing Media: Use dry chemical, class D extinguisher, DO NOT USE WATER

Special Fire Fighting Procedures:

Firefighters must wear full face, self-contained 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:

Product is flammable when wet and highly oxidizable in air. May spontaneously combust in air in finely divided form. Will immediately react with water, liberating flammable, explosive hydrogen gas

SECTION V - REACTIVITY DATA

Stability: Stable

Conditions to Avoid (stability): moisture, dusting conditions, electric arcs, open flame, sparks

Incompatibility: moisture, strong acids, strong oxidizing agents, acid chlorides, halogens



Hazardous Decomposition or Byproducts: Hydrogen
Hazardous Polymerization: will not occur
Conditions to avoid (hazardous polymerization): same as above

SECTION VI - HEALTH HAZARD DATA

Route of Entry: Inhalation? Yes Skin? Yes Eyes? Yes Ingestion? Yes Other: No

To the best of our knowledge the chemical, physical and toxicological properties of Europium metal have not been thoroughly investigated and recorded.

Europium is considered a rare earth metal. These metals are moderately to highly toxic. The symptoms of toxicity of the rare earth elements include writhing, ataxia, labored respiration, walking on the toes with arched back (animals) and sedation. The rare earth elements exhibit low toxicity by ingestion exposure. However, the intraperitoneal route is highly toxic while the subcutaneous route is poison to moderately toxic. The production of skin and lung granulomas after exposure to them requires extensive protection to prevent such exposure. (Sax, Dangerous Properties of Industrial Materials, eighth edition)

Sign and Symptoms of Overexposure:

Inhalation: May cause a red, dry throat and coughing.
Ingestion: May affect the coagulation time of the blood.
Skin: May cause redness, burning, and itching.
Eye: May cause redness, burning, itching and watering.

Health Hazards (Acute and Chronic):

Inhalation:

Acute: May cause irritation to the upper respiratory system.
Chronic: May cause writhing, ataxia, labored respiration, sedation, pulmonary edema and lung granuloma

Ingestion:

Acute: Considered to have low toxicity by ingestion.
Chronic: May act as a blood anticoagulant.

Skin:

Acute: May cause irritation.
Chronic: No chronic health effects recorded.

Eye:

Acute: May cause moderate irritation.
Chronic: No chronic health effects recorded.

Target Organ: May affect the blood

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

Medical Conditions Aggravated by Exposure: Pre-existing respiratory problems

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 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



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Eye: Flush eyes with lukewarm water, lifting upper and lower eyelids for at least 15 minutes and seek medical attention

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. Isolate spill area, provide ventilation and extinguish sources of ignition. Place in a closed container for proper disposal. Take care not to raise dust. **DO NOT USE WATER. USE NON-SPARKING TOOLS.**

Waste disposal method:

Dispose of in accordance with state, local, and federal regulations. **DO NOT FLUSH**

Hazard Label Information:

Store in cool, dry area and in tightly sealed container. Wash thoroughly after handling. Store under mineral oil or under inert gas or vacuum.

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.

Notes: Pinholes may occur in thin foils as metal ages.

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