

Material Safety Data Sheet

Identity: Ytterbium

Formula: Yb

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.

Section II - Hazardous Ingredients/Identity Information

CAS # 7440-64-4

Section III - Physical/Chemical Characteristics

Boiling Point: 1194 °C (2181F) @ 760mm Hg

Specific Gravity 6.96g/cc @ 25 °C (77 F)

Melting Point: 819 °C (1506 F)

Molecular Weight: 173.04 g/mole

Physical States: Lustrous gray, silvery, solid, odorless

Vapor Density: NA

Solubility in water: Insoluble

Section IV - Fire and Explosion Hazard Data:

Flash Point: N/A

Extinguishing media:

Dry chemical, Class D extinguisher, Water NOT recommended.

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 will burn under fire conditions. Like most dry chemicals, as a powder or dust, this product (when mixed with air in critical proportions and in the presence of an ignition source) may present an explosion hazard.

Section V - Reactivity Data

Chemical Stability:

This material is stable under normal handling and storage conditions.

Conditions to be avoided:

Dusting conditions, electric arcs, open flame, spark, moisture.

Materials to be avoided: Strong acids, strong oxidizing agents, acid chlorides, halogens.

Section VI - Health Hazard Data

: Inhalation:

May cause irritation to upper respiratory system and mucous membranes.

Emergency: Remove victim to fresh air, keep warm and quiet, give oxygen if breathing is difficult, seek medical attention.

Ingestion:

Considered to have low toxicity by ingestion.

Emergency: Give 1 - 2 glasses of milk or water, induce vomiting. Never induce vomiting or give anything by mouth to an unconscious person.

Skin:

May cause irritation.

Emergency: Remove contaminated clothing, brush material off skin with mild soap and water. Seek medical attention.

Eyes:

May cause irritation.

Emergency: Flush eyes and under eyelids with lukewarm water for at least 15 minutes. 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 - 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.