

Material Safety Data Sheet

Identity: Holmium oxide
Chemical Family: Metal oxide

Formula: Ho₂O₃

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

Hazardous Components	CAS #	OSHA PEL	ACGIH TLV	%
	12055-62-8	N/E	N/E	100

Section III - Physical/Chemical Characteristics

Boiling Point: NA
Melting Point: NA
Physical States: Solid
Evaporation Rate: NA
Specific Gravity (water=1): 8.25 gm/cc
Vapor Pressure: NA
Vapor Density: NA
Solubility in water: Insoluble
Percent Volatile: NA

Appearance and odor: Tan to light yellow powder or pieces with no odor.

Section IV - Fire and Explosion Hazard Data:

Flash Point: NE or N/A

Extinguishing media:

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:

When heated to decomposition, holmium oxide may emit toxic fumes.

Section V - Reactivity Data

Stability: Stable

Conditions to Avoid: None

Incompatibility - Materials to Avoid: Strong acids.

Hazardous Decomposition or Byproducts: None recorded.

Hazardous Polymerization: None.

Section VI - Health Hazard Data

Routes of exposure:

Inhalation:

Acute: May cause irritation to upper respiratory system and mucous membranes.

Chronic: May cause writhing, ataxia, labored respiration, walking on toes with arched back, sedation, pneumonconiosis, hemoglobinemia, and lung granuloma.

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

Ingestion:

Acute: Considered to have low toxicity by ingestion.

Chronic: May act as a blood coagulant.

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

Skin:

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

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

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

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.