

MATERIAL SAFETY DATA SHEET

I PRODUCT IDENTIFICATION

Trade Name:	Gadolinium Oxide	Chemical Nature:	Lanthanides
Formula:	Gd ₂ O ₃	CAS #:	12064-92-9

II HAZARDOUS INGREDIENTS

Hazardous Components	%	OSHA/PEL	ACGIH/TLV
Gadolinium Oxide	0-100	N/E	N/E

III PHYSICAL DATA

Boiling Point:	No data	Melting Point:	2350 °C
Specific Gravity:	7.407 g/cc at 15 °C	Vapor Density:	N/A
Vapor Pressure:	Essentially 0	Solubility in H₂O:	Insoluble
Appearance and Odor:	White odorless powder	% Volatiles:	0

IV FIRE AND EXPLOSION HAZARDS DATA

Flash Point (Method Used): N/A	Autoignition Temperature: N/A
Flammable Limits: Upper: N/A	Flammable Limits: Lower: N/A

Extinguishing Media: Not combustible. If involved in a fire, use water, carbon dioxide, dry chemical extinguishing agents, dry sand or dry ground dolomite.

Special Fire Fighting Procedures: Wear NIOSH/MSHA approved self-contained breathing apparatus, flame and chemical resistant clothing; hats, boots, and gloves. If without risk, remove material from fire area. Cool container with water from maximum distance.

Unusual Fire & Explosion Hazard: None

V HEALTH HAZARD INFORMATION

Effects of Exposure:

Acute Effects:

Inhalation: May irritate nose and throat.

Ingestion: May cause irritation of digestive tract.

Skin: May cause skin irritation. Contact with broken skin may be severely irritating.

Eye: Can cause particle irritation.

Other: Rare earth compounds may delay blood clotting.

Chronic Effects: Inhalation may cause lung fibrosis. No other chronic effects known.

Most Likely Routes of Entry: Ingestion

Medical Conditions Generally Aggravated by Exposure: None known

Carcinogenicity: NTP: No IARC: No OSHA: No

EMERGENCY AND FIRST AID PROCEDURES:

INHALATION: No specific information available, one should obtain medical attention.

INGESTION: Seek medical attention.

SKIN: Remove contaminated clothing, flood skin with large amounts of water for at least 15 minutes. Call a physician.

EYE: Immediately flush eyes, including under eyelids, with large amounts of water for at least 15 minutes. Call a physician.

VI REACTIVITY DATA

Stability: Stable

Conditions to Avoid: Thermal decomposition

Incompatibility (Material to Avoid): Strong acids

Hazardous Decomposition Products: None known

Hazardous Polymerization: Will not occur

Other: Hygroscopic - absorbs H₂O and CO₂ from the air.

VII SPILL OR LEAK PROCEDURES

Steps to Be Taken in Case Material Is Released or Spilled: Wearing full protective equipment, cover spill with dry sand or vermiculite. Mix well and carefully transfer to a container.

Waste Disposal Method: In accordance with Local, State and Federal Waste Disposal Regulations.

VIII SPECIAL PROTECTION INFORMATION

Respiratory Protection (Specify Type): High efficiency particle respirator.

Ventilation: Laboratory fume hood

Protective Gloves: Rubber

Eye Protection: ANSI approved safety goggles

Other Protective Equipment: None

IX SPECIAL PRECAUTIONS

Precautions to Be Taken in Handling and Storage: Keep container tightly closed. Store in a cool, dry, well-ventilated area. Wash thoroughly after use.

Work Practices: Lab coat and apron, flame and chemical resistant coveralls, eyewash capable of sustained flushing, safety drench shower and hygienic facilities for washing.

The above information is believed to be correct, but does not purport to be all inclusive and shall be used only as a guide. ESPI shall not be held liable for any damages resulting from handling or from contact with the above product.

Issued by: S. Dierks

Date: November 1995