

GADOLINIUM METAL

Section I

Kurt J. Lesker Company 1925 Worthington Avenue Clairton, PA 15025 Ph: 412/387-9200 Fax: 412/233-4275		Emergency Phone Numbers Chemtrec 800/424-9300 Poison Center 800/562-8236	
Chemical Name and Synonyms Gadolinium Metal		Date of Last Revision 1/28/91	
Formula Gd	Chemical Family Metal	Chemical Abstract No. 7440-54-2	
TSCA Listed		Calc. Molecular Wt. 157.25	

Section II Hazardous Ingredients

Hazardous Ingredients	CAS #	%	TLV	OSHA PEL
Gadolinium	7440-54-2	>99	10mg/m ³	15mg/m ³
				5mg/m ³

Section III Physical Data

Boiling Point (0°C): 3266	Density (gmcc): 7.9004
Vapor Pressure: NA	% Volatile by Volume: 0
Reaction with Water:	Evaporation Rate (H ₂ O -1): NA
Solubility in Water: Reacts slowly with water to liberate H ₂ O	Melting Point (°C): 1313
Appearance and Odor: Light yellow metallic solid	Other Comments: Tarnishes in moist air

Section IV Fire & Explosion Hazard Data

Flash Point (method) unknown	Autoignition Temp. unknown	Flammability	LEI	UEI
Extinguishing Media: Agent for metal fires (like G-1 powder, Met-L-X, or TEC)				
Special Fire Fighting Procedures: Do not use water.				
Unusual Fire and Explosion Hazards: Flammable in the form of dust or fine powder.				

Section V Spill or Leak Process

Steps to be Taken in Case Material is Released or Spilled
Waste Disposal Method (Consult federal, state or local authorities for proper disposal procedures.): Not a hazardous waste. Ignite small quantities in well-vented hood to form oxide. Dispose of oxide with normal refuse.

Section VI Health Hazard Data

Toxicity Data		HMIS Hazard Rating Health: Flammability: Reactivity: Personal Protection:	
Route(s) of Entry	Inhalation X	Skin X	Ingestion X
Effects of Overexposure (acute and chronic) Inhalation: Dermal/Eye Contact: May cause mild irritation Other (specify): Extreme overexposure may cause pulmonary edema. As a lanthanide, gadolinium may act as a blood anticoagulant. No specific data is available for gadolinium. Handle with care.			
Medical Conditions Generally Aggravated by Exposure			
Carcinogenicity	NTP: No	IARC Monographs: No	OSHA Regulations: No
Emergency and First Aid Procedures Ingestion: Get medical attention Inhalation: Remove to fresh air Skin Contact: Flush with soap and water Eye Contact: Flush with plenty of water for at least 15 minutes			

Section VII Reactivity Data

Stable: X Unstable:	Conditions Contributing to Instability: Halogens
Incompatibility (materials to avoid): Strong oxidizers, halogens	
Hazardous Decomposition Products - Thermal and Other (list): None	
Hazardous Polymerization May Occur: Will Not Occur: X	Conditions to Avoid

Section VIII Special Protective Information

Respiratory Protection (specify type). Use Only Niosh Approved Equip. Filter/dust/fume/mist respirator	
Ventilation (always maintain exposure below permissible limits) Local Exhaust: recommended Mechanical (general): Special: Other:	
Protective Gloves: Neoprene	Eye Protection: Safety Glasses
Other Protective Equipment/Work Practices: Handle in drybox to prevent contact with air or moisture. If dust is being generated, a half-mask air	

purifying respirator should be worn.

Section IX Special Precautions

Precautions to be Taken in Handling and Storing: Wash thoroughly after handling. Do not breathe dust, vapor, mist, or gas. Keep container closed. Keep away from heat sparks and open flames. Store in tightly closed containers.

Transportation Requirements
DOT Class: Flammable solid
UN Number: 1325
IMCO Class: 4.3
Other:

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ND = NO DATA FOUND NA = NOT APPLICABLE