

1. PRODUCT AND COMPANY IDENTIFICATION

Trade Name: Gadolinium(III) Oxide

Chemical Formula: Gd₂O₃

Manufacturer Item Number: GA-1961

Manufacturer: Lorad Chemical Corporation
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2. HAZARD IDENTIFICATION

Signal Word: Warning

Pictograms:



Hazard Statements: H319 Causes serious eye irritation.

Precautionary Statements: P264 Wash skin thoroughly after handling.
P280 Wear eye protection / face protection.
P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+313 If eye irritation persists: Get medical advice / attention.

HMIS Ratings (0-4)

- Health: 2
- Flammability: 0
- Physical: 0

3. COMPOSITION

Additional Names: Gadolinia; Gadolinium Trioxide; Digadolinium Trioxide; Gadolinium Sesquioxide

Percentage: 100 wt%

CAS #: 12064-62-9

EC #: 235-060-9

4. FIRST AID PROCEDURES

General Treatment Consult a physician. Show this SDS to the doctor in attendance. Move out of dangerous area.

Special Treatment:	No Data Available.
Important Symptoms:	No Data Available.
Inhalation:	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
Ingestion:	Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
Skin:	Wash off with soap and plenty of water. Consult a physician.
Eyes:	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

5. FIREFIGHTING MEASURES

Flammability:	Not Flammable.
Special Hazards from Substance:	Gadolinium Oxides
Extinguishing Media:	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special Fire Fighting Procedures:	Wear self-contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

If Material is Released / Spilled:	Use appropriate personal protective equipment. Avoid dust formation. Avoid breathing dust, vapors, mist, or gas. Isolate spill area and provide ventilation. Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.
Environmental Precautions:	Prevent further leakage or spills if safe to do so. Do not allow to enter drains, sewers, or watercourses.

7. HANDLING AND STORAGE

Handling Conditions:	Use appropriate personal protective equipment. Ensure adequate ventilation. Avoid contact with skin, eyes, and clothing. Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust should be taken into consideration before additional processing occurs.
Storage Conditions:	Keep container tightly closed in a dry and well-ventilated place. Hygroscopic. Store under inert gas.
Work / Hygienic Maintenance:	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.
Ventilation:	Provide appropriate exhaust ventilation at places where dust is formed.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Permissible Exposure Limits:	Authority	Basis	Limit	Remarks
	-	-	-	Contains no substances with occupational exposure limits.
Threshold Limit Value:	Authority	Basis	Limit	Remarks
	-	-	-	Contains no substances with occupational exposure limits.
Special Equipment:	No Data Available.			

Respiratory Protection:	Respiratory protection is not required. Where protection from nuisance levels of dust are desired, use type N95 (US) or type P1 (EU EN 143) particle r (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
Protective Gloves:	Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching the glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
Eye Protection:	Safety glasses with side-shields. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).
Body Protection:	Wear appropriate protective clothing.

9. PHYSICAL AND CHEMICAL CHARACTERISTICS

Color:	White	Molecular Weight:	362.5 g/mol
Forms:	Powder	Density:	7.07 g/cm ³
Odor:	Odorless	pH:	No Data Available.
Water Solubility:	Insoluble	Auto-Ignition Temperature:	No Data Available.
Boiling Point:	No Data Available.	Evaporation Rate:	No Data Available.
Melting Point / Freezing Point:	> 2,420°C (> 4,388°F)	Flammability or Explosive Limits:	No Data Available.
Vapor Pressure:	No Data Available.	Partition Coefficient: n-octanol/ water	No Data Available.
Vapor Density:	No Data Available.	Decomposition Temperature:	No Data Available.
Flash Point:	No Data Available.	Viscosity:	No Data Available.

10. REACTIVITY

Stability:	Stable under recommended storage conditions.
Reacts with:	Strong acids
Incompatible Conditions:	No Data Available.
Hazardous Decomposition Products:	Under fire conditions may form Gadolinium oxide fumes.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity	Eyes: Causes serious eye irritation.
	Skin: No Data Available.
	Ingestion: No Data Available.
	Inhalation: No Data Available.
Chronic Toxicity	Skin Corrosion / Irritation: No Data Available.
	Serious Eye Damage / Irritation: Causes serious eye irritation.
	Respiratory / Skin Sensitization: No Data Available.
	Mutagenic Effects: No Data Available.
	Reproductive / Teratogenic Effects: No Data Available.
	Specific Target Organ Toxicity: No Data Available. (single exposure)
	Specific Target Organ Toxicity: No Data Available. (repeated exposure)
	Aspiration Hazard: No Data Available.
	Other Adverse Effects: To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
Carcinogenicity:	IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable or confirmed human carcinogen by IARC.
	ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
	NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
	OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

12. ECOLOGICAL INFORMATION

Aquatic Toxicity:	No Data Available.
Persistence and degradability:	No Data Available.
Bioaccumulative potential:	No Data Available.
Notes:	No Data Available.

13. DISPOSAL CONSIDERATIONS

Disposal:	Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.
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14. TRANSPORTATION DATA

Hazardous: **DoT:** Not Dangerous Goods.
IMDG: Not Dangerous Goods.
IATA: Not Dangerous Goods.

Pictogram: N/A

Hazard Class: N/A

Packing Group: N/A

UN Number: N/A

US DoT **Proper Name:** N/A

Marine Pollutant:

IMDG **Proper Name:** N/A

EMS-No:

IATA **Proper Name:** N/A

15. REGULATORY INFORMATION

SARA 302 Components No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components This material does not contain any chemical components with known CAS numbers that exceed the threshold (de minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards Acute Health Hazard.

Massachusetts Right to Know Components No components are subject to the Ma. Right to Know Act.

Pennsylvania Right to Know Components Gadolinium(III) Oxide (CAS No. 12064-62-9)

New Jersey Right to Know Components Gadolinium(III) Oxide (CAS No. 12064-62-9)

California Prop. 65 Components This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

Copyright 2019 Lorad Chemical Corporation. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document does not constitute a hazard assessment and should not be used in place of the user's own assessment of work place risks as required by other health and safety legislation. The information in this sheet does not represent a guarantee of the properties of the product. Lorad Chemical Corporation and its Affiliates make no warranty with respect to the accuracy of the information or the suitability of this product for any particular application, and shall not be held liable for any damage resulting from handling or from contact with the above product.

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