

**1. PRODUCT AND COMPANY IDENTIFICATION**

**Trade Name:** Gadolinium Oxysulfide  
**Chemical Formula:**  $Gd_2O_2S$   
**Manufacturer Item Number:** GA-1965  
**Manufacturer:** Lorad Chemical Corporation  
 1200 19th Street North  
 Saint Petersburg, Florida, 33713  
 United States of America  
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 +1 (813) 248-0573 (International)

**2. HAZARD IDENTIFICATION**

**Signal Word:** Warning

**Pictograms:**



**Hazard Statements:** H302 Harmful if swallowed.  
 H312 Harmful in contact with skin.  
 H315 Causes skin irritation.  
 H319 Causes serious eye irritation.  
 H333 May be harmful if inhaled.  
 H335 May cause respiratory irritation.

**Precautionary Statements:** P260 Do not breathe dust / fume / gas / mist / vapors / spray.  
 P264 Wash skin thoroughly after handling.  
 P270 Do not eat, drink or smoke when using this product.  
 P271 Use only outdoors or in a well-ventilated area.  
 P280 Wear protective gloves / protective clothing / eye protection / face protection.  
 P405 Store locked up.  
 P362+363 Take off contaminated clothing. Wash contaminated clothing before reuse.  
 P301+312 IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell.  
 P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P302+332+313 IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: get medical advice/attention.  
 P337+313 If eye irritation persists get medical advice / attention.  
 P403+233 Store in a well ventilated place. Keep container tightly closed.  
 P304+340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 P501 Dispose of contents / container in accordance with local / regional / national / international regulations.

**HMIS Health Ratings (0-4)**

- Health: 2  
 - Flammability: 1  
 - Physical: 1

**3. COMPOSITION**

<b>Additional Names:</b>	Gadolinium oxide sulfide; Digadolinium dioxide sulfide; Gadox
<b>Percentage:</b>	99+ wt%
<b>CAS #:</b>	12339-07-0
<b>EC #:</b>	235-598-4

**4. FIRST AID PROCEDURES**

<b>General Treatment</b>	Consult a physician. Show this SDS to the doctor in attendance. Move out of dangerous area.
<b>Special Treatment:</b>	No Data Available.
<b>Important Symptoms:</b>	Ingestion may cause nausea, vomiting, diarrhea, and abdominal pains. Inhalation of dust may result in lung injury. Skin contact may cause a rash, redness or dermatitis. Eye contact may cause redness or irritation.
<b>Inhalation:</b>	If breathing, move person into fresh air. If not breathing, give artificial respiration. Consult a physician. If irritation or other symptoms occur, remove from exposure and consult a physician immediately.
<b>Ingestion:</b>	Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
<b>Skin:</b>	For skin contact, flush with large amounts of soap and water while removing contaminated clothing. Consult a physician.
<b>Eyes:</b>	Immediately flush eyes with fresh water for at least 15 minutes while holding the eyelids open. Remove contact lenses if worn. Consult a physician.

**5. FIREFIGHTING MEASURES**

<b>Flammability:</b>	Not Flammable.
<b>Special Hazards from Substance:</b>	May evolve hazardous Sulfur Oxide fumes in fire.
<b>Extinguishing Media:</b>	Use alcohol-resistant foam, dry chemical or carbon dioxide.
<b>Special Fire Fighting Procedures:</b>	Wear self-contained breathing apparatus for firefighting if necessary.

**6. ACCIDENTAL RELEASE MEASURES**

<b>If Material is Released / Spilled:</b>	Avoid dust formation. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. Vacuum up spillage with vacuum equipped with appropriate filter to prevent airborne dust. If dust is present, use NIOSH approved respirator. Collect in suitable container for disposal. Dispose of waste in accordance with applicable federal, state, local, and provincial environmental regulations.
<b>Environmental Precautions:</b>	Prevent further leakage or spills if safe to do so. Do not allow to enter drains, sewers, or watercourses.

**7. HANDLING AND STORAGE**

<b>Handling Conditions:</b>	Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see Section 2.
<b>Storage Conditions:</b>	Keep container tightly closed in a cool, dry, and well-ventilated place.

**SAFETY DATA SHEET**

**Work / Hygienic Maintenance:** Keep formation of airborne dusts to a minimum. Guard against dust accumulation. In case of insufficient ventilation, wear suitable respiratory equipment.

**Ventilation:** Provide appropriate exhaust ventilation at places where dust is formed. In case of insufficient ventilation wear suitable respiratory equipment.

**8. EXPOSURE CONTROLS AND PERSONAL PROTECTION**

Permissible Exposure Limits:	Authority	Basis	Limit	Remarks
	-	-	-	No Data Available.
Threshold Limit Value:	Authority	Basis	Limit	Remarks
	-	-	-	No Data Available.
<b>Special Equipment:</b>	No Data Available.			
<b>Respiratory Protection:</b>	Where respirator if there is dust formation or high concentrations of material present. In case of inadequate ventilation or risk of inhalation of dust, use suitable respiratory equipment.			
<b>Protective Gloves:</b>	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.			
<b>Eye Protection:</b>	Safety glasses and face shield. Use equipment for eye protection tested and approved under government standards such as NIOSH (US) or EN 166 (EU).			
<b>Body Protection:</b>	Wear appropriate protective clothing. The use of bodily protective equipment must be determined according to the concentration and amount of the dangerous substance at the specific workplace.			

**9. PHYSICAL AND CHEMICAL CHARACTERISTICS**

<b>Color:</b>	White	<b>Molecular Weight:</b>	378.56 g/mol
<b>Forms:</b>	Powder	<b>Density:</b>	7.32 g/cm <sup>3</sup>
<b>Odor:</b>	Odorless	<b>pH:</b>	No Data Available.
<b>Water Solubility:</b>	Insoluble	<b>Auto-Ignition Temperature:</b>	No Data Available.
<b>Boiling Point:</b>	No Data Available.	<b>Evaporation Rate:</b>	No Data Available.
<b>Melting Point / Freezing Point:</b>	No Data Available.	<b>Flammability or Explosive Limits:</b>	No Data Available.
<b>Vapor Pressure:</b>	No Data Available.	<b>Partition Coefficient: n-octanol/ water</b>	No Data Available.
<b>Vapor Density:</b>	No Data Available.	<b>Decomposition Temperature:</b>	No Data Available.
<b>Flash Point:</b>	No Data Available.	<b>Viscosity:</b>	No Data Available.

**10. REACTIVITY**

<b>Stability:</b>	Stable under recommended storage conditions.
<b>Reacts with:</b>	Material slowly hydrolyzes with formation of hydrogen sulfide in moist air and / or aqueous solutions.
<b>Incompatible Conditions:</b>	Strong acids, strong oxidizers, and flammable materials.

**Hazardous Decomposition  
Products:**

Sulfur oxides, Hydrogen sulfide

**11. TOXICOLOGICAL INFORMATION****Potential Health Effects:**

Eyes: May cause irritation or redness.

Skin: May cause irritation, rash, redness, or dermatitis.

Ingestion: May cause irritation, nausea, vomiting, diarrhea, or abdominal pains.

Inhalation: May cause irritation, inhalation of dust may cause lung injury.

Chronic: No Data Available.

**Signs and Symptoms:**

Lanthanons can cause delayed blood clotting leading to hemorrhages. Exposure may also lead to sensitivity to heat, itching, increased awareness of odor and taste, and liver damage.

**Aggravate Medical Conditions:**

Persons suffering from lung dysfunction should avoid exposure to dust.

**Median Lethal Dose:**

No Data Available.

**Carcinogen:**

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:**

Do not allow material to be released into the environment without proper government permits. Do not allow undiluted product or large quantities to reach ground water, water course, or sewage system. Avoid transfer into the environment.

**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. Empty containers should be taken to an appropriated waste handling site for recycling or disposal. Dispose of in accordance with local, state, or national regulations.

**14. TRANSPORTATION DATA****Hazardous:****DoT:** Not Dangerous Goods**IMDG:** Not Dangerous Goods**IATA:** Not Dangerous Goods**Pictogram:**

N/A

**Hazard Class:**

N/A

<b>Packing Group:</b>	N/A
<b>UN Number:</b>	N/A
<b>Proper Shipping Name:</b>	<b>DoT:</b> N/A
	<b>IMDG:</b> N/A
	<b>IATA:</b> N/A

## 15. REGULATORY INFORMATION

<b>SARA 302 Components</b>	No chemical in this material are subject to the reporting requirements of SARA Title III, Section 302.
<b>SARA 313 Components</b>	This material does not contain any chemical components with known CAS numbers that exceed the threshold (de minimus) reporting levels established by SARA Title III, Section 313.
<b>SARA 311/312 Hazards</b>	Acute Health Hazard, Chronic Health Hazard
<b>Massachusetts Right to Know Components</b>	No components are subject to Ma. Right to Know Act.
<b>Pennsylvania Right to Know Components</b>	Gadolinium Oxysulfide (CAS No. 12339-07-0)
<b>New Jersey Right to Know Components</b>	Gadolinium Oxysulfide (CAS No. 12339-07-0)
<b>California Prop. 65 Components</b>	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 2018 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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