

1. PRODUCT AND COMPANY IDENTIFICATION

Trade Name: Terbium Doped Gadolinium Oxysulfide

Chemical Formula: Gd₂O₂S:Tb

Manufacturer Item Number: GA-1966

Manufacturer: Lorad Chemical Corporation
1200 19th Street North
Saint Petersburg, Florida, 33713
United States of America

Telephone: +1 (727) 826-5511

Fax: +1 (727) 826-5510

Emergency Contact: (800) 255-3924 (US & Canada)
+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

Additional Names:	Gadolinium oxide sulfide, terbium doped
Percentage:	99+ wt%
CAS #:	68609-43-8
EC #:	271-827-4

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:	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.
Inhalation:	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.
Ingestion:	Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
Skin:	For skin contact, flush with large amounts of soap and water while removing contaminated clothing. Consult a physician.
Eyes:	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

Flammability:	No Data Available.
Special Hazards from Substance:	May evolve hazardous Sulfur Oxide fumes in fire.
Extinguishing Media:	Use alcohol-resistant foam, dry chemical or carbon dioxide.
Special Fire Fighting Procedures:	Wear self-contained breathing apparatus for firefighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

If Material is Released / Spilled:	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.
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:	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.
-----------------------------	--

Storage Conditions:	Keep container tightly closed in a cool, dry, and well-ventilated place.
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:	No Data Available.
Threshold Limit Value:	No Data Available.
Special Equipment:	No Data Available.
Respiratory Protection:	Wear 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.
Protective Gloves:	Handle with gloves. Gloves must be inspected prior to use. use proper glove removal technique (without touching 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 and face shield. Use equipment for eye protection tested and approved under government standards such as NIOSH (US) or EN 166(EU).
Body Protection:	Wear appropriate protective clothing.

9. PHYSICAL AND CHEMICAL CHARACTERISTICS

Color:	white
Forms:	powder
Odor:	No Data Available.
Water Solubility:	No Data Available.
Boiling Point:	No Data Available.
Melting Point:	No Data Available.
Flash Point:	No Data Available.
Autoignition Temperature:	No Data Available.
Density:	No Data Available.
Molecular Weight:	537.49 g/mol

10. REACTIVITY

Stability:	Stable under recommended storage conditions.
Reacts with:	Material slowly hydrolyzes with formation of hydrogen sulfide in moist air and / or aqueous solutions.

Incompatible Conditions: Strong acids, strong oxidizers, and flammable materials.

Hazardous Decomposition Products: Sulfur oxides, Hydrogen sulfide

11. TOXICOLOGICAL INFORMATION

Potential Health Effects:

- **Eyes** May cause irritation.
- **Skin** May cause irritation.
- **Ingestion** May cause irritation, nausea, vomiting, diarrhea, abdominal pains.
- **Inhalation** May cause serious irritation.
- **Chronic** No Data Available.

Signs and Symptoms: No Data Available.

Aggravate Medical Conditions: No Data Available.

Median Lethal Dose: No Data Available.

Carcinogen: This material has not been identified as a known or suspected carcinogen by NTP, IARC, or 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

Packing Group: N/A

UN Number: N/A

Proper Shipping Name: N/A

15. REGULATORY INFORMATION

SARA 302 Components	No chemical 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 minimus) reporting levels established by SARA Title III, Section 313.
SARA 311/312 Hazards	Acute Health Hazard, Chronic Health Hazard
Massachusetts Right to Know Components	No components are subject to Ma. Right to Know Act.
Pennsylvania Right to Know Components	Gadolinium Oxysulfide: Terbium Doped (CAS No. 68609-43-8)
New Jersey Right to Know Components	Gadolinium Oxysulfide: Terbium Doped (CAS No. 68609-43-8)
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 2017 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.

Revision Date: 8/01/2017