



LTS Research Laboratories, Inc.
Safety Data Sheet
Terbium Oxide

1. Product and Company Identification

Trade Name:	Terbium oxide
Chemical Formula:	Tb ₄ O ₇
Recommended Use:	Scientific research and development
Manufacturer/Supplier:	LTS Research Laboratories, Inc.
Street:	2001 Oaks Pkwy
City:	Belmont
State:	North Carolina
Zip Code:	28012
Country:	USA
Tel #:	+1 (704) 899 2840
24-Hour Emergency Contact:	800-424-9300 (US & Canada) +1-703-527-3887 (International)

2. Hazards Identification

Signal Word: None

Hazard Statements: None

Precautionary Statements: None

HMIS Health Ratings (0-4):

Health:	1
Flammability:	0
Physical:	0

3. Composition

Chemical Family:	Ceramic
Additional Names:	Terbium (III,IV) oxide, Tetraterbium heptaoxide, Terbium peroxide
Terbium oxide (Tb ₄ O ₇):	
Percentage:	0-100 wt.%
CAS #:	12037-01-3
EC #:	234-856-3

4. First Aid Procedures

General Treatment:	Seek medical attention if symptoms persist.
Special Treatment:	Treat symptomatically
Important Symptoms:	None
Inhalation:	Remove victim to fresh air. Supply oxygen if breathing is difficult. Seek medical attention.
Ingestion:	Make victim drink water (two glasses at most). Clean mouth with water. Do NOT induce vomiting. Seek medical attention.
Skin:	Wash affected area with mild soap and water. Remove immediately any contaminated clothing. Seek medical attention.
Eyes:	Flush eyes with water, blinking often for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Seek medical attention.

5. Firefighting Measures

Flammability:	Non-flammable
Extinguishing Media:	Use suitable extinguishing agent for surrounding material and type of fire. Use chemical foam, carbon dioxide (CO ₂) and dry chemical.
Spec. Fire Fighting Procedure:	Use full-face, self-contained breathing apparatus with full protective clothing to prevent contact with skin and eyes. See section 10 for decomposition products.

6. Accidental Release Measures

If Material Is Released/Spilled:	Wear appropriate respiratory and protective equipment specified in special protection information. Isolate spill area and provide ventilation. Vacuum up spill using a high efficiency particulate absolute (HEPA) air filter and place in a closed container for disposal. Take care not to raise dust.
Environmental Precautions:	Isolate runoff to prevent environmental pollution.

7. Handling and Storage

Handling Conditions:	Avoid contact with skin and eyes. Do not breathe dust. Avoid contact with skin and clothing. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Do not ingest. If swallowed, then seek immediate medical assistance. Wash thoroughly after handling.
Storage Conditions:	Store in a cool dry place in a tightly sealed container. Product is hygroscopic in nature. Store apart from materials and conditions listed in section 10.
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. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and after work.
Ventilation:	Provide sufficient ventilation to maintain concentration at or below threshold limit.

8. Exposure Controls and Personal Protection

Permissible Exposure Limits:	N/A
Threshold Limit Value:	N/A
Special Equipment:	None
Respiratory Protection:	Dust Respirator. Filter type P1.
Protective Gloves:	Nitrile rubber gloves, 0.11 mm thick
Eye Protection:	Safety glasses or goggles
Body Protection:	Protective work clothing. Wear close-toed shoes and long sleeves/pants.

9. Physical and Chemical Characteristics

Color	Dark Brown
Form:	Powder, Granules, Pellets, Sputtering target, Custom parts
Odor:	Odorless
Water Solubility:	Insoluble
Boiling Point:	N/A
Melting Point:	N/A
Flash Point:	N/A
Autoignition Temperature:	N/A
Density:	7.3 g/cc
Molecular weight:	747.69 g/mol

10. Reactivity

Stability:	Stable under recommended storage conditions. Air sensitive. Hygroscopic.
Reacts With:	Strong oxidizing agents, Strong acids, finely powdered metals.
Incompatible Conditions:	Exposure to moisture
Hazardous Decomposition Products:	N/A

11. Toxicological Information

Potential Health Effects:	
Eyes:	May cause irritation
Skin:	May cause irritation
Ingestion:	May cause irritation
Inhalation:	May cause irritation
Chronic:	N/A
Signs & Symptoms:	N/A
Aggravated Medical Conditions:	N/A
Median Lethal Dose:	N/A
Carcinogen:	N/A

12. Ecological Information

Aquatic Toxicity:	Low
Persistent Bioaccumulation Toxicity:	No
Very Persistent, Very Bioaccumulative:	No
Notes:	May have some potential to bioaccumulate.

13. Disposal Considerations

Dispose of in accordance with local, state, national, and international regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

14. Transportation Data

Hazardous:	Not hazardous for transportation.
Hazard Class:	N/A
Packing Group:	N/A
UN Number:	N/A
Proper Shipping Name:	N/A

15. Regulatory Information

Sec 302 Extremely Hazardous:	No
Sec 304 Reportable Quantities:	No
Sec 313 Toxic Chemicals:	No

16. Other Information

This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfill his obligations regarding the use of hazardous products.

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