



LTS Research Laboratories, Inc.
Safety Data Sheet
Cobalt Terbium Alloy

1. Product and Company Identification

Trade Name: Cobalt terbium
Chemical Formula: Co-Tb
Recommended Use: Scientific research and development

Manufacturer/Supplier: LTS Research Laboratories, Inc.
Street: 37 Ramland Road
City: Orangeburg
State: New York
Zip Code: 10962
Country: USA
Tel #: 855-587-2436 / 855-lts-chem

24-Hour Emergency Contact: 800-424-9300 (US & Canada)
+1-703-527-3887 (International)

2. Hazards Identification

Signal Word: Danger



Hazard Statements: H228 Flammable solid
H260 In contact with water releases flammable gases which may ignite
H334 May cause allergy or asthma symptoms if inhaled
H317 May cause allergic skin reaction

Precautionary Statements: P210 Keep away from heat/sparks/open flames; no smoking
P231+P232 Handle under inert gas. Protect from moisture.
P261 Avoid breathing dust/fume/vapor
P370+P378 In case of fire, use for extinction: Special powder for metal fires

HMIS Health Ratings (0-4):

Health: 1
Flammability: 3
Physical: 2

3. Composition

Chemical Family: Metal alloy
Additional Names: N/A

Cobalt (Co):
Percentage: 0-100 wt%
CAS #: 7440-48-4
EC #: 231-158-0

Terbium (Tb):
Percentage: 0-100 wt%
CAS #: 7440-27-9
EC #: 231-137-6

4. First Aid Procedures

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|---------------------|---|
| General Treatment: | Seek medical attention if symptoms persist. |
| Special Treatment: | None |
| Important Symptoms: | None |
| Inhalation: | Remove victim to fresh air. Supply oxygen if breathing is difficult. |
| Ingestion: | Give one to two glasses of water and induce vomiting. Never induce vomiting or give anything by mouth to an unconscious person. |
| Skin: | Wash affected area with mild soap and water. Remove any contaminated clothing. |
| Eyes: | Flush eyes with water, blinking often for several minutes. Remove contact lenses if present and easy to do. Continue rinsing |

5. Firefighting Measures

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| Flammability: | Highly flammable as powder May be flammable in bulk form |
| Extinguishing Media: Spec. Fire Fighting Procedure: | Do not use water for metal fires – use CO ₂ , sand, extinguishing powder. 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

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| 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

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| Handling Conditions: | Wash thoroughly after handling. |
| Storage Conditions: | Store in a cool dry place in a tightly sealed container. 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. |
| Ventilation: | Provide sufficient ventilation to maintain concentration at or below threshold limit. |

8. Exposure Controls and Personal Protection

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| Permissible Exposure Limits: | 0.1 mg/m ³ as Co, long-term value |
| Threshold Limit Value: | 0.02 mg/m ³ as Co, long-term value |
| Special Equipment: | None |
| Respiratory Protection: | Dust Respirator |
| Protective Gloves: | Rubber gloves |
| Eye Protection: | Safety glasses or goggles |
| Body Protection: | Protective work clothing. Wear close-toed shoes and long sleeves/pants. |

9. Physical and Chemical Characteristics

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|---------------------------|--|
| Color | Metallic grey |
| Form: | Powder, Granules, Pellets, Sputtering target, Custom parts |
| Odor: | Odorless |
| Water Solubility: | May react |
| Boiling Point: | N/A |
| Melting Point: | >1000 °C |
| Flash Point: | N/A |
| Autoignition Temperature: | N/A |
| Density: | 8-9 g/cc |
| Molecular weight: | N/A |

10. Reactivity

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|-----------------------------------|---|
| Stability: | Stable under recommended storage conditions |
| Reacts With: | Oxidizing agents, Water |
| Incompatible Conditions: | Moisture |
| Hazardous Decomposition Products: | Metal oxide fume |

11. Toxicological Information

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| Potential Health Effects: | |
| Eyes: | May cause irritation |
| Skin: | May cause irritation, allergic reaction |
| Ingestion: | May cause irritation |
| Inhalation: | May cause irritation, allergy or asthma symptoms |
| Chronic: | N/A |
| Signs & Symptoms: | N/A |
| Aggravated Medical Conditions: | N/A |
| Median Lethal Dose: | 6171 mg/kg for rat by mouth as Co |
| Carcinogen: | N/A |

12. Ecological Information

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| Aquatic Toxicity: | Low |
| Persistent Bioaccumulation Toxicity: | No |
| Very Persistent, Very Bioaccumulative: | No |
| Notes: | N/A |

13. Disposal Considerations

Dispose of in accordance with local, state, national, and international regulations.

14. Transportation Data

Hazardous: Hazardous for transportation.



Hazard Class: 4.1 Flammable solids
Packing Group: III, II if > 90% Tb
UN Number: UN3178 (bulk), UN3089 (powder)
Proper Shipping Name: Flammable solid, inorganic, n.o.s. (Cobalt terbium)
Metal powders, flammable, n.o.s. (Cobalt terbium)

15. Regulatory Information

Sec 302 Extremely Hazardous: No
Sec 304 Reportable Quantities: N/A
Sec 313 Toxic Chemicals: Component - Co

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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