



LTS Research Laboratories, Inc.  
Safety Data Sheet  
Beryllium Oxide

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1. Product and Company Identification

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Trade Name: Beryllium Oxide

Chemical Formula: BeO

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)

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2. Hazards Identification

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Signal Word: Danger



Hazard Statements:

- H301: Toxic if swallowed
- H315: Causes skin irritation
- H317: May cause an allergic skin reaction
- H319: Causes serious eye irritation
- H330: Fatal if inhaled
- H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled
- H335: May cause respiratory irritation
- H350: May cause cancer
- H372: Causes damage to organs through prolonged or repeated exposure

Precautionary Statements:

- P201: Obtain special instructions before use
- P202: Do not handle until all safety precautions have been read and understood
- 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
- P272: Contaminated work clothing should not be allowed out of the workplace
- P280: Wear protective gloves/protective clothing/eye protection/face protection
- P284: Wear respiratory protection
- P301+P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
- P302+P352: IF ON SKIN: Wash with soap and water
- P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing  
P308+P313: IF exposed or concerned: Get medical advice/attention  
P333+P313: If skin irritation or a rash occurs: Get medical advice/attention  
P337+P313: If eye irritation persists get medical advice/attention  
P362: Take off contaminated clothing and wash before reuse  
P403+P233: Store in a well-ventilated place. Keep container tightly closed  
P405: Store locked up  
P501: Dispose of contents/container in accordance with local/regional/national/international regulations

HMIS Health Ratings (0-4):

|               |   |
|---------------|---|
| Health:       | 4 |
| Flammability: | 0 |
| Physical:     | 0 |

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### 3. Composition

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|                   |           |
|-------------------|-----------|
| Chemical Family:  | Inorganic |
| Additional Names: | N/A       |

Beryllium Oxide (BeO):

|             |           |
|-------------|-----------|
| Percentage: | 0-100 wt% |
| CAS #:      | 1304-56-9 |
| EC #:       | 215-133-1 |

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### 4. First Aid Procedures

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| 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. Do not use mouth-to-mouth method if victim ingested or inhaled the substance, give artificial respiration. Seek immediate medical attention. |
|-------------|---|

|            |   |
|------------|---|
| Ingestion: | Give one to two glasses of water. Never induce vomiting or give anything by mouth to an unconscious person. Seek immediate medical attention. |
|------------|---|

|       |  |
|-------|--|
| Skin: | Wash affected area with mild soap and water. Remove any contaminated clothing. Seek immediate medical attention. |
|-------|--|

|       |   |
|-------|---|
| Eyes: | Flush eyes with water, blinking often for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Seek immediate medical attention. |
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### 5. Firefighting Measures

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|---------------|---------------|
| Flammability: | Non-flammable |
|---------------|---------------|

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| Extinguishing Media: | Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide. |
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|                                |   |
|--------------------------------|---|
| 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. |
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## 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.   |

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## 7. Handling and Storage

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|----------------------------|---|
| Handling Conditions:       | Wash thoroughly after handling.   |
| Storage Conditions:        | Keep product and empty container away from heat and sources of ignition. 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.   |

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## 8. Exposure Controls and Personal Protection

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|------------------------------|---|
| Permissible Exposure Limits: | 0.002 mg/m <sup>3</sup> as BeO, long-term value                         |
| Threshold Limit Value:       | 0.00005 mg/m <sup>3</sup> as BeO, long-term value                       |
| Special Equipment:           | None  |
| Respiratory Protection:      | Dust Respirator. Follow OSHA respiratory regulations.                   |
| Protective Gloves:           | Nitrile rubber gloves   |
| Eye Protection:              | Wear appropriate safety glasses or goggles                              |
| Body Protection:             | Protective work clothing. Wear close-toed shoes and long sleeves/pants. |

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## 9. Physical and Chemical Characteristics

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|                           |  |
|---------------------------|--|
| Color                     | White  |
| Form:                     | Powder, Granules, Pellets, Sputtering target, Custom parts |
| Odor:                     | N/A  |
| Water Solubility:         | Insoluble  |
| Boiling Point:            | 4300 °C  |
| Melting Point:            | 2572 °C  |
| Flash Point:              | N/A  |
| Autoignition Temperature: | N/A  |
| Density:                  | 3.02 g/cc  |
| Molecular weight:         | 25.01 g/mol  |

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## 10. Reactivity

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| Stability:                        | Stable under recommended storage conditions                              |
| Reacts With:                      | Strong oxidizing agents  |
| Incompatible Conditions:          | Keep product and empty container away from heat and sources of ignition. |
| Hazardous Decomposition Products: | Metal fumes or oxides (Beryllium oxides)                                 |

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## 11. Toxicological Information

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|---------------------------|----------------------|
| Potential Health Effects: |                      |
| Eyes:                     | May cause irritation |
| Skin:                     | May cause irritation |

Ingestion: May cause irritation  
Inhalation: May cause irritation  
Chronic: N/A

Signs & Symptoms: Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling, of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing

Aggravated Medical Conditions: N/A

Median Lethal Dose: N/A

Carcinogen: Possible human carcinogen  
IARC: 1 - Group 1: Carcinogenic to humans (Beryllium oxide)

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#### 12. Ecological Information

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Aquatic Toxicity: N/A  
Persistent Bioaccumulation Toxicity: N/A  
Very Persistent, Very Bioaccumulative: N/A  
Notes: Not likely mobile in the environment due to its low water solubility.

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#### 13. Disposal Considerations

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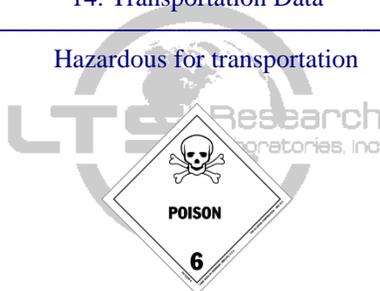
Dispose of in accordance with local, state, national, and international regulations.

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#### 14. Transportation Data

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Hazardous: Hazardous for transportation



Hazard Class: 6.1  
Packing Group: II  
UN Number: UN1566  
Proper Shipping Name: BERYLLIUM COMPOUNDS, N.O.S (Beryllium Oxide)

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#### 15. Regulatory Information

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Sec 302 Extremely Hazardous: No  
Sec 304 Reportable Quantities: N/A  
Sec 313 Toxic Chemicals: Yes

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#### 16. Other Information

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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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