



LTS Research Laboratories, Inc.
Safety Data Sheet
Lithium metal

1. Product and Company Identification

Trade Name: Lithium
Chemical Formula: Li
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: H260: In contact with water releases flammable gases which may ignite spontaneously
H314: Causes severe skin burns and eye damage

Precautionary Statements: P231+P232: Handle under inert gas. Protect from moisture
P261 Avoid breathing dust/fume/vapor
P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing
P405: Store locked up
P501: Dispose of contents/container in accordance with local/regional/national/international regulations

HMIS Health Ratings (0-4):
Health: 3
Flammability: 3
Physical: 3

3. Composition

Chemical Family: Alkali Metal
Additional Names: None

Lithium (Li):
Percentage: 100 wt%
CAS #: 7439-93-2
EC #: 231-102-5

4. First Aid Procedures

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| General Treatment: | Seek medical attention if symptoms persist. |
| Special Treatment: | None |
| Important Symptoms: | Causes severe skin burns. Causes severe eye damage. |
| 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 Contact with water releases flammable gas |
| 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: | N/A |
| Threshold Limit Value: | N/A |
| Special Equipment: | None |
| Respiratory Protection: | Use a respirator with type P100 (USA) or P3 (EN143) cartridges as a backup to engineering controls. Risk assessment should be performed to determine if air-purifying respirators are appropriate. Only use equipment tested and approved under appropriate government standards. |
| Protective Gloves: | Nitrile rubber, NBR 0.11mm thick. |
| Penetration time of glove material: | 480 minutes |
| Eye Protection: | Safety glasses or goggles, full face protection |
| Body Protection: | Protective work clothing. Wear close-toed shoes and long sleeves/pants. |

9. Physical and Chemical Characteristics

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| Color | Grey |
| Form: | Granules, Pellets, Sputtering target, Custom parts |
| Odor: | Odorless |
| Water Solubility: | Reacts violently |
| Boiling Point: | 1342 °C |
| Melting Point: | 180.5 °C |
| Flash Point: | N/A |
| Autoignition Temperature: | N/A |
| Density: | 0.53 g/cc |
| Molecular weight: | 6.941 g/mol |

10. Reactivity

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| Stability: | Stable under recommended storage conditions |
| Reacts With: | Water, Acids, Oxidizing agents |
| Incompatible Conditions: | Water/moisture |
| Hazardous Decomposition Products: | Lithium oxide |
| Note: | In contact with water releases flammable gases which may ignite spontaneously. |

11. Toxicological Information

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| Potential Health Effects: | |
| Eyes: | Causes serious eye damage. |
| Skin: | Causes severe skin burns. |
| Ingestion: | Strong corrosive effect on mouth and throat to the danger of perforation of esophagus and stomach. |
| 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: 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: 4.3 substances which, in contact with water, emit flammable gases.
Packing Group: I
UN Number: UN1415
Proper Shipping Name: Lithium

Notes: There are special transportation regulations regarding this material

15. Regulatory Information

Sec 302 Extremely Hazardous: No
Sec 304 Reportable Quantities: N/A
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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