



LTS Research Laboratories, Inc.  
Material Safety Data Sheet  
Cesium Metal

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1. Product and Company Identification

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Trade Name: Cesium metal  
Chemical Formula: Cs  
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: H250 Catches fire spontaneously if exposed to air  
H260 In contact with water releases flammable gases which may ignite spontaneously  
H314 Causes severe skin burns and eye damage

Precautionary Statements: P223 Keep away from any possible contact with water, because of violent reaction and possible flash fire.  
P231+P232 Handle under inert gas. Protect from moisture.  
P260 Do not breathe dust/fume/vapor  
P264 Wash skin thoroughly after handling.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
P303+P361+P353 IF ON SKIN (or hair): 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.  
P335 + P334 Brush off loose particles from skin. Immerse in cool water/ wrap in wet bandages.  
P363 Wash contaminated clothing before reuse.  
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.  
P402 + P404 Store in a dry place. Store in a closed container.  
P405 Store locked up.  
P501 Dispose of contents/ container to an approved waste disposal plant.

HMIS Health Ratings (0-4):

Health: 3  
Flammability: 4  
Physical: 3

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3. Composition

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Chemical Family: Metal  
Additional Names: Caesium

Cesium (Cs):  
Percentage: 100 wt%  
CAS #: 7440-46-2  
EC #: 231-155-4

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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. Seek immediate medical attention.

Ingestion: Give one to two glasses of water and induce vomiting. 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. Fire and Explosion Hazards Data

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Flammability: Pyrophoric: Ignites spontaneously in air.  
Reacts violently with water/ice above -116 °C.

Flash Point: N/A

Autoignition Temperature: N/A

Extinguishing Media: Do not use water for metal fires – Use dry sand, dry chemical or alcohol-resistant foam for extinction.

Spec. Fire Fighting Procedure: Use full-face, self-contained breathing apparatus with full protective clothing to prevent contact with skin and eyes.

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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: Handle under dry protective gas.  
Wash thoroughly after handling.

Storage Conditions: Store in a cool dry place in a tightly sealed container.

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

Permissible Exposure Limits:	None
Threshold Limit Value:	None
Special Equipment:	None
Respiratory Protection:	Dust Respirator, NIOSH approved
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

Color	Metallic grey
Form:	Powder, Granules, Pellets, Sputtering target, Custom parts
Odor:	Odorless
Water Solubility:	Reacts violently
Boiling Point:	671 °C
Melting Point:	28.4 °C (near room temperature)
Density:	1.873 g/cc
Molecular weight:	132.91 g/mol

#### 10. Reactivity

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

#### 11. Toxicological Information

Potential Health Effects:	
Eyes:	Causes severe burns
Skin:	Causes severe burns
Ingestion:	Strong burns and danger of perforation of esophagus and stomach.
Inhalation:	Causes severe burns
Chronic:	N/A
Signs & Symptoms:	N/A
Aggravated Medical Conditions:	N/A
Median Lethal Dose:	N/A
Carcinogen:	N/A

#### 12. Ecological Information

Ecological data is not available.

#### 13. Disposal Considerations

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: 4.3 Substances which, in contact with water, emit flammable gases.  
Packing Group: I  
UN Number: UN1407  
Proper Shipping Name: Caesium

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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: No

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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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