



LTS Research Laboratories, Inc.  
Safety Data Sheet  
Cesium Hydroxide Hydrate

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1. Product and Company Identification

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Trade Name: Cesium Hydroxide Hydrate  
Chemical Formula: CsOH.xH<sub>2</sub>O  
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: H302: Harmful if swallowed  
H314: Causes severe skin burns and eye damage

Precautionary Statements: 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  
P280: Wear protective gloves/protective clothing/eye protection/face protection  
P301 + P312 + P330: IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.  
P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting  
P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower  
P304+P340+ P310: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER/ doctor.  
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing  
P310: Immediately call a POISON CENTER or doctor/physician  
P363: Wash contaminated clothing before reuse  
P405: Store locked up  
P501: Dispose of contents/container in accordance with local/regional/national/international regulations

HMIS Health Ratings (0-4):  
Health: 2  
Flammability: 0  
Physical: 0

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### 3. Composition

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Chemical Family: Metal Hydroxide  
Additional Names: Cesium hydroxide

#### Cesium Hydroxide (CsOH.xH<sub>2</sub>O)

Percentage: 100 wt%  
CAS #: 12260-45-6  
EC #: 244-344-1

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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 the victim to fresh air. Supply oxygen if breathing is difficult. Seek medical attention  
Ingestion: Rinse mouth with water. Do not induce vomiting. Seek medical attention.  
Skin: Wash the affected area with mild soap and water. and plenty of water. Remove any contaminated clothing. Seek medical attention.  
Eyes: Flush eyes with water, blinking often for several minutes. Remove contact lenses if presented and easy to do. Continue rinsing. Seek medical attention.

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### 5. Firefighting Measures

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Flammability: Non-flammable  
Extinguishing Media: No special restrictions – use suitable extinguishing agent for surrounding material and type of fire. Do not use water for metal fires – use CO<sub>2</sub>, sand, and extinguishing powder.  
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 the spill using a high-efficiency particulate absolute (HEPA) air filter and place it 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: Avoid contact with skin and eyes. Do not breathe dust.  
Storage Conditions: Keep in a dry, cool, and well-ventilated place. Keep the container tightly closed. Protect from direct sunlight. Incompatible Materials. Strong oxidizing agents. Metals.  
Work/Hygienic Maintenance: Do not use tobacco or food in the 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 the threshold limit.

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## 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 recommended dust respirator or mask. Only use equipment tested and approved under appropriate government standards.  
Protective Gloves: Nitrile or rubber gloves  
Eye Protection: 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: N/A  
Boiling Point: N/A  
Melting Point: 272 °C (522 °F) - lit.  
Flash Point: N/A  
Autoignition Temperature: N/A  
Density: 3.68 g/cm<sup>3</sup> at 25 °C (77 °F) - lit.  
Molecular weight: 149.91 g/mol

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## 10. Reactivity

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Stability: Stable under recommended storage conditions  
Reacts With: Strong oxidizing agents, Acids, Water, Corrosive to glass  
Incompatible Conditions: Moisture, Strong oxidizing agents  
Hazardous Decomposition Products: Cesium oxides

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## 11. Toxicological Information

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Potential Health Effects:  
Eyes: Causes serious damage  
Skin: Causes severe burns  
Ingestion: Harmful if swallowed  
Inhalation: May cause irritation  
Chronic: N/A

Signs & Symptoms: Cough, Shortness of breath, Headache, Nausea, Vomiting  
Aggravated Medical Conditions: N/A  
Median Lethal Dose: N/A  
Carcinogen: N/A

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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: N/A

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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 as powder only



Hazard Class: 8 Corrosives  
Packing Group: II  
UN Number: UN2682  
Proper Shipping Name: Cesium Hydroxide

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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 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 mandatory regulations mentioned aim to help the user fulfill his obligations regarding the use of hazardous products.

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