



LTS Research Laboratories, Inc.  
Safety Data Sheet  
Cesium chromate

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1. Product and Company Identification

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Trade Name:	Cesium chromate
Chemical Formula:	$\text{Cs}_2\text{CrO}_4$
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:

H272: May intensify fire; oxidizer  
H317: May cause an allergic skin reaction.  
H350: May cause cancer  
H410: Very toxic to aquatic life with long lasting effects

Precautionary Statements:

P201: Obtain special instructions before use  
P202: Do not handle until all safety precautions have been read and understood  
P210: Keep away from heat/sparks/open flames/hot surfaces – No smoking  
P220: Keep/Store away from clothing/combustible materials  
P221: Take any precaution to avoid mixing with combustibles  
P261: Avoid breathing dust/fume/gas/mist/vapors/spray.  
P272: Contaminated work clothing should not be allowed out of the workplace.  
P273: Avoid release to the environment  
P280: Wear eye protection/ face protection.  
P302+P352: IF ON SKIN: Wash with soap and water  
P308+P313: IF exposed or concerned: Get medical advice/attention  
P333+P313: If skin irritation or a rash occurs: Get medical advice/attention  
P363: Wash contaminated clothing before reuse  
P370+P378: In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.  
P391: Collect spillage  
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:	2

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## 3. Composition

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Chemical Family: Salt  
Additional Names: Cesium Chromium Oxide

Cesium chromate (Cs<sub>2</sub>CrO<sub>4</sub>):  
Percentage: 100 wt%  
CAS #: 13454-78-9  
EC #: 236-640-4

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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. Keep patient warm. Seek immediate medical attention.
Ingestion:	Seek immediate medical attention.
Skin:	Immediately 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
Extinguishing Media:	No special restrictions – use suitable extinguishing agent for surrounding material and type of fire.
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. Keep unprotected persons away. Isolate spill area and provide ventilation. Acts as an oxidizer on organic materials such as wood, paper and fats. Keep away from combustible material. 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:	Avoid contact with skin and eyes. Wash thoroughly after handling.
Storage Conditions:	Store in a cool dry place in a tightly sealed container. Store away from flammable substances, reducing agents, metal powders. Do not store with organic materials. 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:	0.005 mg/m <sup>3</sup> as Cr, long-term value
Threshold Limit Value:	0.05 mg/m <sup>3</sup> as Cr, long-term value
Special Equipment:	Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.
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.

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## 9. Physical and Chemical Characteristics

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Color	Yellow
Form:	Powder
Odor:	Odorless
Water Solubility:	714 g/l
Boiling Point:	N/A
Melting Point:	N/A
Flash Point:	N/A
Autoignition Temperature:	N/A
Density:	4.237 g/cc
Molecular weight:	381.81 g/mol

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## 10. Reactivity

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Stability:	Stable under recommended storage conditions
Reacts With:	Flammable substances, reducing agents, metal powders, organic materials, acids
Incompatible Conditions:	None
Hazardous Decomposition Products:	Metal oxide fume, cesium/cesium oxides, chromium oxides

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## 11. Toxicological Information

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### Potential Health Effects:

Eyes:	Causes serious eye irritation.
Skin:	Causes skin irritation. May cause an allergic skin reaction.
Ingestion:	May cause irritation
Inhalation:	Causes respiratory irritation.
Chronic:	Chromium (IV) may cause skin ulceration, gastrointestinal irritation with vomiting and diarrhea, kidney and liver damage. Overexposure may be fatal. Dusts are extremely irritating to the eyes, nose, throat and bronchial tubes. May cause cancers of the lungs, nasal cavity, sinuses, stomach and larynx. Cesium compound may cause hyper-irritability, including spasms, dizziness, abdominal cramps, vomiting, diarrhea, convulsions and collapse. Chronic ingestion of cesium has been fatal to laboratory animals, possibly due to the replacement of potassium. Chronic exposure also can have blood and neuromuscular effects.

Signs & Symptoms: N/A

Aggravated Medical Conditions: N/A

Median Lethal Dose: N/A

Carcinogen: IARC: 1 - Group 1: Carcinogenic to humans (Cesium chromate)  
EPA-A: human carcinogen: sufficient evidence from epidemiologic studies to support a causal association between exposure and cancer.  
NTP-K: Known to be carcinogenic: sufficient evidence from human studies.  
OSHA: OSHA specifically regulated carcinogen (Cesium chromate)  
ACGIH A1: Confirmed human carcinogen: Agent is carcinogenic to humans based on epidemiologic studies of, of convincing clinical evidence in, exposed humans.

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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:	Very toxic to aquatic life. Do not allow material to be released to the environment without proper governmental permits. Do not allow product to reach ground water, water course or sewage system. Avoid transfer into the environment. Danger to drinking water if even small quantities leak into the ground. Also poisonous for fish and plankton in water bodies. May cause long lasting harmful effects to aquatic life.

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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: 5.1 Oxidizing substances  
Packing Group: II  
UN Number: UN1479  
Proper Shipping Name: Oxidizing solid, n.o.s. (Cesium chromate)

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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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