



LTS Research Laboratories, Inc.
Safety Data Sheet
Tungsten Chloride

1. Product and Company Identification

Trade Name: Tungsten Chloride
Chemical Formula: WCl_6

Recommended Use: Scientific research and development

Manufacturer/Supplier: LTS Research Laboratories, Inc.
Street: 2001 Oaks Pkwy
City: Belmont, Charlotte
State: North Carolina
Zip Code: 28012
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 Identifications

Signal Word: Danger



Hazard Statements: H302: Harmful if swallowed
H314: Causes severe skin burns and eye damage
H335: May cause respiratory irritation
H412: Harmful to aquatic life with long lasting effects

Precautionary Statements: P260: Do not breathe dust/fume/gas/mist/vapors/spray.
P264: Wash face, hands, and 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 must not be allowed out of the workplace.
P273: Avoid release to the environment.
P280: Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301 + P312 + P330: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.
P303 + P361 + P353: IF ON SKIN (or hair): Take off immediately 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 or doctor/physician.
P305+P351: If IN EYES: Rinse cautiously with water for several minutes.

P305+P351+P338+P310: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

P314: Get medical advice/ attention if you feel unwell.

P333 + P313: If skin irritation or rash occurs: Get medical advice/ attention.

P363: Wash contaminated clothing before reuse.

P403 + P233: Store in a well-ventilated place. Keep container tightly closed.

P405: Store locked up.

P501: Dispose of contents/ container to an approved waste disposal plant.

HMIS Health Ratings (0-4):

Health:	3
Flammability:	0
Reactivity:	2

3. Composition

Chemical Family:	Halide
Additional Names:	Tungsten (VI) chloride, Tungsten hexachloride, Hexachlorotungsten, Wolfram hexachloride

Tungsten Chloride (WCl₆):

Percentage :	100 wt%
CAS No:	13283-01-7
EC No:	236-293-9



4. First Aid Procedures

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. Immediate medical attention is required.
Ingestion:	Give one to two glasses of water. Never induce vomiting or give anything by mouth to an unconscious person. Immediate medical attention is required.
Skin:	Wash affected area with mild soap and water. Remove any contaminated clothing. Immediate medical attention is required.
Eyes:	Flush eyes with water, blinking often for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Immediate medical attention is required.

5. Firefighting Measures

Flammability:	Non-flammable, except as powder
Extinguishing Media:	Carbon dioxide (CO ₂), dry chemical, chemical foam.
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.

6. Accidental Release Measures

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

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

Permissible Exposure Limits:	3 mg/m ³ as WCl ₆ , long-term value
Threshold Limit Value:	3 mg/m ³ as WCl ₆ , long-term value
Special Equipment:	None
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.

9. Physical and Chemical Characteristics

Color:	Purple
Form:	Powder, Granules, Pellets, Sputtering target, Custom parts
Odor:	Slight Chlorine
Water Solubility:	Soluble
Boiling Point:	347 °C
Melting Point:	275 °C
Flash Point:	N/A
Autoignition Temperature:	N/A
Density:	3.52 g/cm ³
Molecular weight:	396.57 g/mol

10. Reactivity

Stability:	Stable under recommended storage
Reacts With:	Oxidizing agents, water
Incompatible Conditions:	Bases, Strong oxidizing agents, strong acids, reducing agents under reacts with. Avoid dust formation, excess heat, exposure to air under incompatible conditions. Moisture sensitive. Air sensitive.
Hazardous Decomposition Products:	Chlorine, Metal oxides, Hydrogen chloride gas

11. Toxicological Information

Potential Health Effects:	
Eyes:	Causes severe eye damage
Skin:	Causes severe skin burns
Ingestion:	Harmful if swallowed
Inhalation:	May cause irritation
Chronic:	N/A
Signs & Symptoms:	Ingestion causes severe swelling, severe burns on the mouth and throat and danger of perforation of the esophagus and stomach. Inhalation causes irritation, cough, shortness of breath and possible damage to respiratory tract.
Aggravated Medical Conditions:	N/A
Median Lethal Dose:	LD50 - 1.8g/kg for rat by mouth
Carcinogen:	N/A

12. Ecological Information

Aquatic Toxicity:	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Persistent Bioaccumulation Toxicity:	May persist.
Bioaccumulation:	Not bioaccumulate.
Notes:	Do not empty into drains.

13. Disposal Considerations

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

14. Transportation Data

Hazardous: Hazardous for transportation as powder only



Hazard Class:	8
Packing Group:	II
UN Number:	UN3260
Proper Shipping Name:	Corrosive solid, acidic, inorganic, n.o.s. (Tungsten Chloride)

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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