



LTS Research Laboratories, Inc.
Safety Data Sheet
Cobalt Chloride

1. Product and Company Identification

Trade Name: Cobalt Chloride
Chemical Formula: CoCl_2
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 / 845-lts-chem

24-Hour Emergency Contact: 800-424-9300 (US & Canada)
+1-703-527-3887 (International)

2. Hazards Identification

Signal Word: Danger



Hazard Statements:

- H302: Harmful if swallowed
- H317: May cause allergic skin reaction
- H318: Causes serious eye damage
- H341: Suspected of causing genetic defects
- H332: Harmful if inhaled
- H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H341: Suspected of causing genetic defects.
- H350: May cause cancer
- H360: May damage fertility or the unborn child
- 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
- P271: Use only outdoors or in a well-ventilated area
- P261: Avoid breathing dust/fume/vapor/spray
- P264: Wash skin thoroughly after handling.
- P270: Do not eat, drink or smoke when using this product
- P280: Wear protective gloves/clothing/eyewear
- P272: Contaminated work clothing should not be allowed out of the workplace
- P273: Avoid release to the environment
- P280: Wear protective gloves/ protective clothing/ eye protection/ face protection.
- P285: In case of inadequate ventilation wear respiratory protection
- P301 + P312 + P330: IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth.

P501: Dispose of contents/container in according with local/regional/national/international regulations
 P284: in case of inadequate ventilation wear respiratory protection
 P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 P303+P361+P533: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
 P301+P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
 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
 P308 + P313 IF exposed or concerned: Get medical advice/ attention
 P342+P311: If experiencing respiratory symptoms: Call a POISON CENTER/doctor
 P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention
 P363: Wash contaminated clothing before reuse
 P391: Collect spillage
 P405: Store locked up
 P501: Dispose of contents/container to an approved waste disposal plant.

HMIS Health Ratings (0-4):

Health:	2
Flammability:	0
Physical:	1

3. Composition

Chemical Family:
 Additional Names:

Salt
 Cobalt(II) Chloride, Cobalt dichloride, Cobaltous Chloride

Cobalt Chloride (CoCl₂):

Percentage:	100 wt.%
CAS #:	7646-79-9
EC #:	231-589-4

4. First Aid Procedures

General Treatment:
 Special Treatment:
 Important Symptoms:

Seek medical attention if symptoms persist.
 None
 None

Inhalation:
 Ingestion:

Remove victim to fresh air. Supply oxygen if breathing is difficult.
 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

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.

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:	Handle under dry protective gas. 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:	0.1 mg/m ³ as Co metal dust and fume, long-term value
Threshold Limit Value:	0.02 mg/m ³ as Co, inhalable fraction/vapors
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	Pale blue
Form:	Powder, Beads, Granules, Pellets, Sputtering target, Custom parts
Odor:	Odorless
Water Solubility:	Soluble
Boiling Point:	1049 °C
Melting Point:	724 °C
Flash Point:	N/A
Autoignition Temperature:	N/A
Density:	3.367 g/cc
Molecular weight:	1g/mol

10. Reactivity

Stability:	Stable under recommended storage conditions
Reacts with:	Strong Oxidizing agents, Metals
Incompatible Conditions:	Moisture, Alkali metals, Oxidizing agents
Hazardous Decomposition Products:	Hydrogen Chloride, Metal oxide fumes, Cobalt oxides

11. Toxicological Information

Potential Health Effects:

Eyes:	May cause irritation
Skin:	May cause irritation, may cause allergic reaction
Ingestion:	Harmful if swallowed
Inhalation:	May cause irritation
Chronic:	N/A
Germ cell mutagenicity:	Suspected of causing genetic defects

Signs & Symptoms: Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing

Aggravated Medical Conditions: N/A

Median Lethal Dose: 418 mg/kg (rat) by Oral Route
LD₅₀ > 2 g/kg (rat) by Dermal Route

Carcinogen: IARC: 2B - Group 2B: Possibly carcinogenic to humans (Cobalt dichloride)
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
ACGIH A3: Animal carcinogen: Agent is carcinogenic in experimental animals at a relatively high dose, by route(s) of administration at site(s), of histologic types(s), or by mechanism(s) not considered relevant to worker exposure. Available epidemiologic studies do not confirm an increased risk of cancer in exposed humans. Available evidence suggests that the agent is not likely to cause cancer in humans except under uncommon or unlikely routes or levels of exposure. The Registry of Toxic Effects of Chemical Substances (RTECS) contains tumorigenic and/or carcinogenic and/or neoplastic data for this substance.

12. Ecological Information

Aquatic Toxicity: Toxicity to fish LC50 -
-Cyprinus carpio (Carp) - 0.33 mg/l - 96 h
Toxicity to daphnia and other aquatic invertebrates-
-mortality NOEC - Daphnia (water flea) - < 0.05 mg/l - 7 d
EC50-
- Daphnia magna (Water flea) - 1.1 - 1.6 mg/l - 48 h
Toxicity to algae EC50-
- Chlorella vulgaris (Fresh water algae) - 0.52 mg/l - 96 h
Very toxic to aquatic organisms

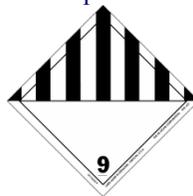
Persistent Bioaccumulation Toxicity: N/A
Very Persistent, Very Bioaccumulative: N/A
Notes: Very Toxic for aquatic organisms
Do not allow undiluted material to reach ground water, water course or sewage system
Danger to drinking water if even small quantities leak into the ground
Also poisonous for fish and plankton in water bodies
May cause long lasting harmful effects to aquatic life
Avoid transfer into the environment
Very toxic for aquatic organisms

13. Disposal Considerations

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

14. Transportation Data

Hazardous: Hazardous for transportation



Hazard Class: 9 Miscellaneous
Packing Group: PG III
UN Number: UN3077
Proper Shipping Name: Environmentally hazardous substance, solid, n.o.s (Cobalt (II) Chloride, anhydrous)

15. Regulatory Information

Sec 302 Extremely Hazardous: No
Sec 304 Reportable Quantities: N/A
Sec 313 Toxic Chemicals: Yes

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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