

## **MATERIAL SAFETY DATA SHEET**

### **COBALT (II) CHLORIDE 97% Hexahydrate (Cobaltous chloride) Extra Pure MSDS CAS: 7791-13-1**

#### **Section 1: Chemical Product and Company Identification**

##### **Section 1: Chemical Product**

**Product Name:** COBALT (II) CHLORIDE Hexahydrate

**CAS#:** 7791-13-1

**Synonym:** Cobalt chloride hexahydrate, Cobaltous chloride

**Chemical Name:** Cobalt (II) Chloride

**Chemical Formula:**  $\text{CoCl}_2 \cdot 6\text{H}_2\text{O}$

**Brand :** OXFORD

##### **Details Of The Supplier Of The Safety Data Sheet :**

**Company identification:** OXFORD LAB FINE CHEM LLP  
Unit. No. 12, 1st Floor, Neminath Industrial Estate No. 6,  
Navghar, Vasai (East). Palghar - 401 210.  
Mumbai, Maharashtra, INDIA.  
Tel: 91-250-2390989  
Tel/Fax: 91-250-2390032

#### **Section 2: Composition and Information on Ingredients**

##### **Composition:**

Name	CAS #	% by Weight
Cobalt (II) Chloride hexahydrate	7791-13-1	100

## Section 2: Composition and Information on Ingredients (Continued)

**Toxicological Data on Ingredients:** Cobalt (II) Chloride hexahydrate: ORAL (LD50): Acute: 766 mg/kg [Rat].

## Section 3: Hazards Identification

### **Potential Acute Health Effects:**

Hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation (lung irritant)

### **Potential Chronic Health Effects:**

Slightly hazardous in case of skin contact (sensitizer).

**CARCINOGENIC EFFECTS:** Not available.

**MUTAGENIC EFFECTS:** Mutagenic for mammalian somatic cells. Mutagenic for bacteria and/or yeast.

**TERATOGENIC EFFECTS:** Not available.

**DEVELOPMENTAL TOXICITY:** Classified Reproductive system/toxin/male [POSSIBLE].

The substance may be toxic to blood, lungs, pancreas, thyroid. Repeated or prolonged exposure to the substance can produce target organs damage.

## Section 4: First Aid Measures

### **Eye Contact:**

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention

### **Skin Contact:**

In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.

### **Serious Skin Contact:**

Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

### **Inhalation:**

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

## Section 4: First Aid Measures (Continued)

**Serious Inhalation:** Not available.

**Ingestion:**

Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

**Serious Ingestion:** Not available.

## Section 5: Fire and Explosion Data

**Flammability of the Product:** Non-flammable.

**Auto-Ignition Temperature:** Not available.

**Flash Points:** Not available.

**Flammable Limits:** Not available.

**Products of Combustion:** Not available.

**Fire Hazards in Presence of Various Substances:** Not available.

**Explosion Hazards in Presence of Various Substances:**

Risks of explosion of the product in presence of mechanical impact: Not available.

Risks of explosion of the product in presence of static discharge: Not available.

**Fire Fighting Media and Instructions:** Not available.

**Special Remarks on Fire Hazards:** Not available.

**Special Remarks on Explosion Hazards:** Not available.

## Section 6: Accidental Release Measures

### Small Spill:

Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

### Large Spill:

Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

## Section 7: Handling and Storage

### Precautions:

Do not ingest. Do not breathe dust. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents.

### Storage:

Keep container tightly closed. Keep container in a cool, well-ventilated area. Hygroscopic.

## Section 8: Exposure Controls/Personal Protection

### Engineering Controls:

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

### Personal Protection:

Splash goggles. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

### Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits: Not Available.

## Section 9: Physical and Chemical Properties

**Physical state and appearance:** Solid. (Deliquescent crystals solid.)

<b>Odor</b>	: Not available.
<b>Taste</b>	: Not available.
<b>Molecular Weight</b>	: 237.93 g/mole
<b>Color</b>	: Pink to Red. Purple.
<b>pH (1% soln/water)</b>	: Not available.
<b>Boiling Point</b>	: 1920°C (3488°F)
<b>Melting Point</b>	: 87°C (188.6°F)
<b>Critical Temperature</b>	: Not applicable.
<b>Specific Gravity</b>	: 1.924 (Water = 1)
<b>Vapor Pressure</b>	: Not applicable.
<b>Vapor Density</b>	: Not applicable.
<b>Volatility</b>	: Not available.
<b>Odor Threshold</b>	: Not applicable.
<b>Water/Oil Dist. Coeff.</b>	: Not applicable.
<b>Ionicity (in Water)</b>	: Not available.
<b>Dispersion Properties</b>	: See solubility in water, diethyl ether, and acetone.
<b>Solubility</b>	: Soluble in cold water, diethyl ether, and acetone.

## Section 10: Stability and Reactivity Data

**Stability:** The product is stable.

**Instability Temperature:** Not available.

**Conditions of Instability:** Excess heat, dust generation, incompatible materials, moisture.

**Incompatibility with various substances:** Reactive with oxidizing agents.

**Corrosivity:** Non-corrosive in presence of glass.

**Special Remarks on Reactivity:** Hygroscopic. Absorbs NH<sub>3</sub> from air. Also incompatible with alkali metals.

**Special Remarks on Corrosivity:** Not Available.

**Polymerization:** Will not occur.

## Section 11: Toxicological Information

**Routes of Entry:** Inhalation. Ingestion.

**Toxicity to Animals:**

Acute oral toxicity (LD50): 766 mg/kg [Rat].

**Chronic Effects on Humans:**

**MUTAGENIC EFFECTS:** Mutagenic for mammalian somatic cells. Mutagenic for bacteria and/or yeast.

**DEVELOPMENTAL TOXICITY:** Classified Reproductive system/toxin/male [POSSIBLE]. May cause damage to the following organs: blood, lungs, Thyroid.

**Other Toxic Effects on Humans:**

Hazardous in case of skin contact (irritant, sensitizer), of ingestion, of inhalation (lung irritant, lung sensitizer).

**Special Remarks on Toxicity to Animals:** Not Available.

**Special Remarks on Chronic Effects on Humans:**

May cause adverse reproductive effects and birth defects based on animal studies. No human data found at this time. May cause cancer (tumorigenic) based on animal studies. May affect genetic material.

**Special Remarks on other Toxic Effects on Humans:**

**Acute Potential Health Effects:** Skin: Causes skin irritation. Eyes: Causes eye irritation. May affect vision (corneal opacity and degeneration of optic nerve). Inhalation: Causes respiratory tract irritation with cough, dyspnea, and decreased pulmonary function. May cause pulmonary edema, or pulmonary fibrosis. Ingestion: May be harmful if swallowed. May cause gastrointestinal (digestive) tract irritation with nausea, vomiting hypermobility, and diarrhea. May affect behavior (somnia, convulsions, tremor), heart/cardiovascular system (hypotension, cardiac failure), thyroid gland (goiter), and metabolism (weight loss), blood (polycythemia, decreased red blood cell count, impair aggregation of platelets, changes in blood clotting time, Changes in thromboplastic activity), liver, kidneys  
**Chronic Potential Health Effects:** Skin: Chronic or repeated skin contact may cause dermatitis/skin sensitization. Chronic exposure via ingestion may affect Behavior, blood and lungs, thyroid gland (reduced thyroid activity, goiter), pancreas (hyperglycemia), liver, heart. Inhalation: Prolonged or repeated inhalation may cause respiratory hypersensitivity.

## Section 12: Ecological Information

**Ecotoxicity:** Not available.

**BOD5 and COD:** Not available.

## Section 12: Ecological Information (Continued)

### Products of Biodegradation:

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

### Toxicity of the Products of Biodegradation:

The products of degradation are less toxic than the product itself.

Special Remarks on the Products of Biodegradation: Not available.

## Section 13: Disposal Considerations

### Waste Disposal:

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

## Section 14: Transport Information

### Land transport (ADR-RID)

General information: Not regulated.

### Sea transport (IMDG) [English only]

General information: Not regulated.

### Air transport (ICAO-IATA) [English only]

General information: Not regulated.

## Section 15: Other Regulatory Information

### Federal and State Regulations:

**California prop. 65:** This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: No products were found.  
**California prop. 65:** This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: No products were found. TSCA 8(b) inventory: No products were found. SARA 313 toxic chemical notification and release reporting: Cobalt compound.

### Other Regulations:

**OSHA:** Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).  
**DSCL (EEC):** R22- Harmful if swallowed. R42- May cause sensitization by inhalation. R49- May cause cancer by inhalation. R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. S22- Do not breathe dust. S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). S53- Avoid exposure - obtain special instructions before use. S60- This material and its container must be disposed of as hazardous waste. S61- Avoid release to the environment. Refer to special instructions/Safety data sheets.

### Other Classifications:

**WHMIS (Canada):** CLASS D-2A: Material causing other toxic effects (VERY TOXIC).

### HMIS (U.S.A.):

**Health Hazard:** 2

**Fire Hazard:** 0

**Reactivity:** 0

**Personal Protection:** E

### National Fire Protection Association (U.S.A.):

**Health:** 2

**Flammability:** 0

**Reactivity:** 0

**Specific hazard:**

### Protective Equipment:

Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Splash goggles.

## **Section 16 - Additional Information**

**References:** Not available.

**Other Special Considerations:** Not available.

### ***Disclaimer:***

\*\*\*\*\*

**The information contained herein in good faith but makes no representations as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.**

**Oxford Lab Fine Chem LLP makes no representations or warranties, either express or implied, including without limitation any warranties of merchantability, fitness for a particular purpose with respect to the information set forth herein or the product to which the information refers. Accordingly, Oxford Lab Fine Chem LLP will not be responsible for damages resulting from use of or reliance upon this information.**