

# MATERIAL SAFETY DATA SHEET

Product: **Cobalt Chloride**

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## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

### Material Identity

Product Name: Cobalt Chloride, Hexahydrate, Crystal, A.C.S.

Product Code: CH-7791131A

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

General or Generic ID: Cobalt (II) Chloride hexahydrate.

### Company

ArtChemicals.com  
2300 Davis Street  
San Leandro, CA 94577-2204  
510-639-4670

### Emergency Telephone Number:

1-800-451-8346

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## 2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>CAS No.</u>	<u>Chemical Identity</u>	<u>Common Name</u>	<u>%</u>
7791-13-1	N/A	Cobalt chloride	100

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## 3. HAZARDS IDENTIFICATION

### Potential Health Effects

#### Eye:

Hazardous in case of eye contact (irritant). Symptoms include stinging, tearing, redness and impairment of vision. The degree of injury will depend on the amount of material that gets into the eye and the speed and thoroughness of the first aid treatment.

#### Skin:

Hazardous in case of skin contact (irritant). The degree of injury will depend on the amount of material that gets on the skin and the speed and thoroughness of the first aid treatment.

#### Ingestion:

Hazardous in case of ingestion. Severe over-exposure can produce lung damage, choking, unconsciousness or death.

# MATERIAL SAFETY DATA SHEET

Product: **Cobalt Chloride**

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## **Inhalation:**

Hazardous in case of inhalation (lung irritant). Inhalation of dust will produce irritation to gastrointestinal or respiratory tract, characterized by burning, sneezing and coughing. Severe over-exposure can produce lung damage, choking, unconsciousness or death.

## **Symptoms of Exposure:**

Not available.

## **Development Information:**

ORAL (LD50): Acute: Not available.

The substance may be toxic to pancreas, thyroid, lungs, blood.

Repeated or prolonged exposure to the substance can produce target organs damage.

## **Cancer Information:**

Not available.

## **Primary Route(s) of Entry:**

Inhalation, skin absorption, skin contact, and eye contact.

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## **4. FIRST AID MEASURES**

### **Inhalation:**

If affected, promptly remove individual to fresh air. If not breathing, give artificial respiration. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Get medical attention immediately.

### **Ingestion:**

Do NOT induce vomiting. Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingested; the absence of such signs, however, is not conclusive. Loosen tight clothing such as a collar, tie, belt or waistband. Call physician immediately.

### **Eyes:**

Remove contact lenses if worn. In case of contact, immediately flush with water for at least 15 minutes. Do not use eye ointment. Seek medical attention immediately.

### **Skin:**

Immediately remove contaminated clothing and thoroughly flush skin with plenty of water (15 minutes). Wash thoroughly with disinfectant soap and water. Cold water may be use. Launder clothing before reuse. Get medical attention immediately.

# MATERIAL SAFETY DATA SHEET

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## Note to Physicians:

Not available.

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## 5. FIRE FIGHTING MEASURES

**Flash Point:** Non-flammable. Not applicable.

**Explosive Limit:** Not applicable.

**Auto-ignition Temperature:** Not applicable.

**Hazardous Products of Combustion:** Not applicable..

**Extinguishing Media:** Not applicable.

**SPECIAL FIRE-FIGHTING PROCEDURES:** Not available.

**NFPA CODES:** Health = 2                      Flammability = 0                      Reactivity = 0

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## 6. PRECAUTIONS FOR SAFE HANDLING AND USE

### Steps To Be Taken In Case Material Is Released Or Spilled:

#### 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.

#### Large Spill:

Use shovel to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface. Call for assistance on disposal.. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

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## 7. PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

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

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## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Respiratory Protection:

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Be sure to use an approved/certified respirator or equivalent.

### Skin Protection:

Wear resistant gloves. To prevent repeated or prolonged skin contact, wear impervious clothing and boots or lab coat.

### Eye Protection:

Chemical splash goggles in compliance with OSHA regulations are advised. Face shield. Ensure that eyewash stations and safety showers are proximal to the work-station location.

### Other Protective Clothing or Equipment:

Provide sufficient mechanical ventilation to maintain exposure below level of overexposure. Boots. Full suit. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling product.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance and Odor:** Pink/Purple crystalline solid. (Odor not available.)

**Molecular Weight:** 237.93 g/mole

**pH:** Not available.

**Boiling Point:** 1920 °C (3488 °F).

**Melting Point:** 87 °C (188.6 °F).

**Specific Gravity:** 1.924 (Water=1).

**Vapor Pressure:** Not applicable.

**Evaporation Rate:** Not available.

**Solubility in Water:** Soluble in cold water.

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## 10. STABILITY AND REACTIVITY

**Incompatibility:** Excess heat, oxidizing materials, dust generation, moisture.

**Stability:** Stable.

**Hazardous Decomposition:** N/A

**Hazardous Polymerization:** Will not occur.

# MATERIAL SAFETY DATA SHEET

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

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## 11. TOXICOLOGICAL INFORMATION

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

**CARCINOGENIC EFFECTS:** Not available.

**MUTAGENIC EFFECTS:** Not available. Mutagenic for mammalian somatic cells. Mutagenic for bacteria and/or yeast.

### 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, 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 hypermotility, 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.

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## 12. ECOLOGICAL INFORMATION

Not available.

# MATERIAL SAFETY DATA SHEET

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

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## 13. DISPOSAL CONSIDERATION

### **Waste Disposal Method:**

Dispose of in accordance with all applicable local, state and federal regulations.

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## 14. DOT SHIPPING NAME & IDENTIFICATION:

NON-REGULATED. Not a DOT controlled material (United States).

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## 15. OTHER INFORMATION

The information accumulated herein is believed to be accurate but is not warranted to be, whether originating with the company or not. Recipients are advised to confirm in advance of need that information is current, applicable, and suitable to their circumstances.