Safety Data Sheet

Cobalt Chloride, 6-Hydrate

Section 1  Product Description

Product Name: Cobalt Chloride, 6-Hydrate
Recommended Use: Science education applications
Synonyms: Cobalt (II) chloride, hexahydrate; cobalt dichloride
Distributor: Carolina Biological Supply Company
2700 York Road, Burlington, NC 27215
1-800-227-1150
Chemical Information: 800-227-1150 (8am-5pm (ET) M-F)
Chemtrec: 800-424-9300 (Transportation Spill Response 24 hours)

Section 2  Hazard Identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200;

DANGER

Toxic if swallowed. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Causes serious eye damage. May cause cancer. Very toxic to aquatic life.

GHS Classification:
Skin Corrosion/Irritation Category 1A, Serious Eye Damage/Eye Irritation Category 1, Skin Sensitisation Category 1, Carcinogenicity Category 1B, Reproductive Toxicity Category 1B, Hazardous to the aquatic environment - Acute Category 1, Acute Toxicity - Oral Category 3, Acute Toxicity - Dermal Category 5

Other Safety Precautions: IF exposed or concerned: Get medical advice/attention.

Section 3  Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS #</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cobalt (II) Chloride, 6-hydrate</td>
<td>7791-13-1</td>
<td>100</td>
</tr>
</tbody>
</table>

Section 4  First Aid Measures

Emergency and First Aid Procedures

Inhalation: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Eyes: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Skin Contact: IF ON SKIN: Gently wash with plenty of soap and water. Remove/Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation or rash occurs: Get medical advice/attention.
Ingestion: IF SWALLOWED: rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.
Section 5  
**Firefighting Procedures**

**Extinguishing Media:** Use media suitable to extinguish surrounding fire.

**Fire Fighting Methods and Protection:** Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.

**Fire and/or Explosion Hazards:** N/A

**Hazardous Combustion Products:** Carbon dioxide, Carbon monoxide, Hydrogen chloride

Section 6  
**Spill or Leak Procedures**

**Steps to Take in Case Material Is Released or Spilled:** Avoid the generation of dusts during clean-up.

**Environmental Precautions:** Do not allow the spilled product to enter public drainage system or open waterways. Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation. Collect spillage.

Section 7  
**Handling and Storage**

**Handling:** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid breathing dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. Do no eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. Use personal protective equipment as required. Store in a secure area suitable for toxic material.

**Storage:** Store locked up. Keep container tightly closed in a cool, well-ventilated place.

**Storage Code:** White - Corrosive. Separate acids from bases; separate oxidizer acids from organic acids.

Section 8  
**Protection Information**

**Chemical Name**  
Cobalt (II) Chloride, 6-hydrate

<table>
<thead>
<tr>
<th>Chemical Name (TWA)</th>
<th>ACGIH (STEL)</th>
<th>OSHA PEL (TWA)</th>
<th>OSHA PEL (STEL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cobalt (II) Chloride, 6-hydrate</td>
<td>0.02 mg/m3 TWA (as Co)</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**Control Parameters**

**Engineering Measures:** Local exhaust ventilation or other engineering controls are normally required when handling or using this product to avoid overexposure.

**Personal Protective Equipment (PPE):** Lab coat, apron, eye wash, safety shower.

**Respiratory Protection:** Respiratory protection may be required to avoid overexposure when handling this product. General or local exhaust ventilation is the preferred means of protection. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms.

**Respirator Type(s):** NIOSH approved air purifying respirator with dust/mist filter.

**Eye Protection:** Wear safety glasses with side shields and a Face shield

**Skin Protection:** Avoid skin contact by wearing chemically resistant gloves, an apron and other protective equipment depending upon conditions of use. Inspect gloves for chemical break through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.

**Gloves:** Nitrile

Section 9  
**Physical Data**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Formula: CoCl2 * 6H2O</th>
</tr>
</thead>
<tbody>
<tr>
<td>Molecular Weight:</td>
<td>237.93 g/mol</td>
</tr>
<tr>
<td>Appearance:</td>
<td></td>
</tr>
<tr>
<td>Odor:</td>
<td>No data available</td>
</tr>
<tr>
<td>Odor Threshold:</td>
<td>No data available</td>
</tr>
<tr>
<td>pH:</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting Point:</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling Point:</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash Point:</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammable Limits in Air:</td>
<td>N/A</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vapor Pressure:</td>
<td>40 mmHg at 770 °C</td>
</tr>
<tr>
<td>Evaporation Rate (BuAc=1):</td>
<td>N/A</td>
</tr>
<tr>
<td>Vapor Density (Air=1):</td>
<td>N/A</td>
</tr>
<tr>
<td>Specific Gravity:</td>
<td>1.92</td>
</tr>
<tr>
<td>Solubility in Water:</td>
<td>Slightly Soluble</td>
</tr>
<tr>
<td>Log Pow (calculated):</td>
<td>No data available</td>
</tr>
<tr>
<td>Autoignition Temperature:</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition Temperature:</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity:</td>
<td>No data available</td>
</tr>
<tr>
<td>Percent Volatile by Volume:</td>
<td>0% (21 °C)</td>
</tr>
</tbody>
</table>
Safety Data Sheet

Section 10  Reactivity Data
Reactivity: No data available
Chemical Stability: Stable under normal conditions.
Conditions to Avoid: None known.
Hazardous Decomposition Products: Hydrogen chloride, Carbon dioxide, Carbon monoxide
Hazardous Polymerization: Will not occur

Section 11  Toxicity Data
Routes of Entry: Inhalation, ingestion, eye or skin contact.
Symptoms (Acute): Respiratory disorders
Delayed Effects: No data available

Acute Toxicity:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Number</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cobalt (II) Chloride, 6-hydrate</td>
<td>7791-13-1</td>
<td>Oral LD50 GUINEA PIG 55 mg/kg</td>
<td>Dermal LD50 Rat &gt; 2000 mg/kg</td>
<td>Not determined</td>
</tr>
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</table>

Carcinogenicity:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Number</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cobalt (II) Chloride, 6-hydrate</td>
<td>7791-13-1</td>
<td>Listed</td>
<td>Not listed</td>
<td>Listed</td>
</tr>
</tbody>
</table>

Chronic Effects:
Mutagenicity: No evidence of a mutagenic effect.
Teratogenicity: No evidence of a teratogenic effect (birth defect).
Sensitization: Evidence of a sensitization effect.
Reproductive: No evidence of negative reproductive effects.
Target Organ Effects:
Acute: See Section 2
Chronic: Tests on laboratory animals indicate material may produce adverse mutagenic and reproductive effects., Mutation data cited., Reproductive data cited., Tumorigenic data cited.

Section 12  Ecological Data
Overview: This material is not expected to be harmful to the ecology.
Mobility: No data
Persistence: No data
Bioaccumulation: No data
Degradability: No data
Other Adverse Effects: No data

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Number</th>
<th>Eco Toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cobalt (II) Chloride, 6-hydrate</td>
<td>7791-13-1</td>
<td>Aquatic EC50 (48h) Daphnia = 1.1 - 1.6 MG/L</td>
</tr>
</tbody>
</table>

Section 13  Disposal Information
Disposal Methods: Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.
Waste Disposal Code(s): Not Determined

Section 14  Transport Information
Section 15   Regulatory Information

TSCA Status: A component (or components) of this product is not listed on the TSCA Inventory of Existing Chemical Substances. Product is for research and development use only.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Number</th>
<th>§ 313 Name</th>
<th>§ 304 RQ</th>
<th>CERCLA RQ</th>
<th>§ 302 TPQ</th>
<th>CAA 112(2) TQ</th>
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</thead>
<tbody>
<tr>
<td>No data available</td>
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<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
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</table>


Section 16   Additional Information

Revised: 08/21/2018  Replaces: 06/15/2018  Printed: 08-25-2018

The information provided in this (Material) Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the (Material) Safety Data Sheet.

Glossary

ACGIH  American Conference of Governmental Industrial Hygienists
CAS  Chemical Abstract Service Number
CERCLA  Comprehensive Environmental Response, Compensation, and Liability Act
DOT  U.S. Department of Transportation
IARC  International Agency for Research on Cancer
N/A  Not Available
NTP  National Toxicology Program
OSHA  Occupational Safety and Health Administration
PEL  Permissible Exposure Limit
ppm  Parts per million
RCRA  Resource Conservation and Recovery Act
SARA  Superfund Amendments and Reauthorization Act
TLV  Threshold Limit Value
TSCA  Toxic Substances Control Act
IDLH  Immediately dangerous to life and health