Material Safety Data Sheet

Section 1 - Product Description

Product Name: Cobalt Chloride, 6-hydrate
Product Code(s): 85-4950, 85-4959, 85-4960, 84-0622, 84-0900
Size: 100 g, 125 g, 500 g
Chemical Name: Cobalt Chloride
CAS Number: 7791-13-1
Formula: CoCl2 * 6H2O
Synonyms: Cobalt (II) chloride, hexahydrate: cobalt dichloride
Distributor: Carolina Biological Supply Company, 2700 York Road, Burlington, NC 27215
Chemical Information: 800-227-1150 (8am-5pm (ET) M-F) Chemtrec 800-424-9300 (Transportation Spill Response 24 hours)

Section 2 - Hazard Identification

Emergency Overview: May be fatal if swallowed or inhaled.
Potential Health Effects:
- Eyes: May cause irritation.
- Skin: May cause irritation to skin.
- Ingestion: May cause gastrointestinal discomfort.
- Inhalation: May cause irritation to respiratory tract.

Section 3 - Composition / Information on Ingredients

Principal Hazardous Components: Cobalt chloride, 6-hydrate (CAS#7791-13-1) 98-100%
TLV units: ACGIH-TLV .02 mg (Co)/m3 (TWA)
PEL units: OSHA-PEL .1 mg/(Co)/m3 (TWA)

Section 4 - First Aid Measures

Emergency and First Aid Procedures:
- Eyes - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- Skin - After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of ... (Water, unless specified as a water reactive material).
- Ingestion - If swallowed, if conscious, give plenty of water and induce vomiting immediately as directed by medical personnel. Immediately call a physician or poison control center. Never give anything by mouth to an unconscious person.
- Inhalation - In case of accident by inhalation: remove casualty to fresh air and keep at rest.
Section 5 - Firefighting Procedures

Flash Point (Method Used): N/A
NFPA Rating:
  Health: 3
  Fire: 0
  Reactivity: 0
Extinguisher Media: Use media suitable to extinguish surrounding fire.
Flammable Limits in Air % by Volume: N/A
Autoignition Temperature: N/A
Special Firefighting Procedures: Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.
Unusual Fire and Explosion Hazards: N/A

Section 6 - Spill or Leak Procedures

Steps to Take in Case Material Is Released or Spilled: Ventilate area of spill. Clean-up personnel should wear proper protective equipment. Avoid creating dust. Sweep or scoop up and containerize for disposal.

Section 7 - Special Precautions

Precautions to Take in Handling or Storing: Store in a secure area suitable for toxic material. Keep container tightly closed in a cool, well-ventilated place.

Section 8 - Protection Information

Respiratory Protection (Specify Type): None needed under normal conditions of use with adequate ventilation. A NIOSH/MSHA chemical cartridge respirator should be worn if PEL or TLV is exceeded.
Ventilation:
  Local Exhaust: Yes
  Mechanical(General): Yes
  Special: No
  Other: No
Protective Gloves: Natural rubber, Neoprene, PVC or equivalent.
Eye Protection: Splash proof chemical safety goggles should be worn.
Other Protective Clothing or Equipment: Lab coat, apron, eye wash, safety shower.

Section 9 - Physical Data

Molecular Weight: 237.93 g/mol
Boiling Point: 110 °C (Decomposes)
Vapor Density(Air=1): N/A
Percent Volatile by Volume: 0% (21 °C)
Solubility in Water: Slightly Soluble
Melting Point: 86 °C
Vapor Pressure: 40 mmHg at 770 °C
Specific Gravity (H2O=1): 1.92
Evaporation Rate (BuAc=1): N/A
Appearance and Odor: Pink to red odorless powder.

Section 10 - Reactivity Data

Stability: Stable
Conditions to Avoid: Moisture; Product is hygroscopic.
Incompatibility (Materials to Avoid): Ammonia, Alkalis, Oxidizers,
Hazardous Decomposition Products: HCl,
Hazardous Polymerization: Will not occur
Section 11 - Toxicity Data

Toxicity Data: itp-rat LD50 35 mg/kg
oral-rat LD50 766 mg/kg

Effects of Overexposure:
- Acute: See Section 2
- Chronic: Tumorigenic data cited. Reproductive data cited. Mutation data cited. Tests on laboratory animals indicate material may produce adverse mutagenic and reproductive effects.

Conditions Aggravated by Overexposure: Respiratory disorders,
Target Organs: Respiratory system, Skin,
Primary Route(s) of Entry: Inhalation, ingestion, eye or skin contact.

Section 12 - Ecological Data

EPA Waste Numbers: N/A

Section 13 - Disposal Information

Waste Disposal Methods: Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.

Section 14 - Transport Information

DOT Proper Shipping Name: N/A

Section 15 - Regulatory Information

EPA TSCA Status: On TSCA Inventory
Hazard Category for SARA Section 311/312 Reporting: Chronic Acute

Name List: Cobalt chloride 6-hydrate - Yes

Chemical Category: Cobalt chloride 6-hydrate - Yes (Co Cmpds.)

CERCLA Section 103 RQ(lb.): Cobalt chloride 6-hydrate - 1 lb
RCRA Section 261.33: Cobalt chloride 6-hydrate - No

Section 16 - Additional Information

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. Any employer must carefully assess the applicability of any information contained herein in regards to the particular use to which the employer puts the material.

Glossary
ACGIH American Conference of Governmental Industrial Hygienists
CAS Number Chemical Services Abstract Number
CERCLA Comprehensive Environmental Response, Compensation, and Liability Act
DOT U.S. Department of Transportation
IARC International Agency of Research on Cancer
N/A Not Available

Product Name: COBALT CHLORIDE, 6-HYDRATE
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Full Form</th>
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</thead>
<tbody>
<tr>
<td>NTP</td>
<td>National Toxicology Program</td>
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<tr>
<td>OSHA</td>
<td>Occupational Safety and Health Administration</td>
</tr>
<tr>
<td>PEL</td>
<td>Permissible Exposure Limit</td>
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<tr>
<td>ppm</td>
<td>Parts per million</td>
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<tr>
<td>RCRA</td>
<td>Resource Conservation and Recovery Act</td>
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<tr>
<td>SARA</td>
<td>Superfund Amendments and Reauthorization Act</td>
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<tr>
<td>TLV</td>
<td>Threshold Limit Value</td>
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<tr>
<td>TSCA</td>
<td>Toxic Substances Control Act</td>
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