

Safety Data Sheet

Cobalt Chloride, 6-hydrate

CAROLINA[®]
www.carolina.com

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



Harmful if swallowed. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Causes serious eye damage. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Suspected of causing genetic defects. May cause cancer. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

GHS Classification:

Skin Corrosion/Irritation Category 1A, Serious Eye Damage/Eye Irritation Category 1, Respiratory Sensitisation Category 1, Skin Sensitisation Category 1, Carcinogenicity Category 1B, Hazardous to the aquatic environment - Acute Category 1, Hazardous to the aquatic environment - Chronic Category 1, Germ Cell Mutagenicity Category 2, Acute Toxicity - Oral Category 4

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

Section 3

Composition / Information on Ingredients

<u>Chemical Name</u>	<u>CAS #</u>	<u>%</u>
Cobalt (II) Chloride, 6-hydrate	7791-13-1	100

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. IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

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 (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. 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.

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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.
Methods for Clean-up	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. Wash thoroughly after handling. Do not 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. Wear respiratory protection. 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

<u>Chemical Name</u>	<u>ACGIH</u>		<u>OSHA PEL</u>	
	<u>(TWA)</u>	<u>(STEL)</u>	<u>(TWA)</u>	<u>(STEL)</u>
Cobalt (II) Chloride, 6-hydrate	0.02 mg/m ³ TWA (as Co)	N/A	N/A	N/A

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. NIOSH approved air purifying respirator with dust/mist filter.
Respirator Type(s):	Wear safety glasses with side shields and a Face shield
Eye 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.
Skin Protection:	
Gloves:	Nitrile

Section 9

Physical Data

Formula: CoCl ₂ * 6H ₂ O	Vapor Pressure: 40 mmHg at 770 °C
Molecular Weight: 237.93 g/mol	Evaporation Rate (BuAc=1): N/A
Appearance:	Vapor Density (Air=1): N/A
Odor: No data available	Specific Gravity: 1.92
Odor Threshold: No data available	Solubility in Water: Slightly Soluble
pH: No data available	Log Pow (calculated): No data available
Melting Point: No data available	Autoignition Temperature: No data available
Boiling Point: No data available	Decomposition Temperature: No data available
Flash Point: No data available	Viscosity: No data available

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Flammable Limits in Air: N/A

Percent Volatile by Volume: 0% (21 °C)

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:

Chemical Name	CAS Number	Oral LD50	Dermal LD50	Inhalation LC50
Cobalt (II) Chloride, 6-hydrate	7791-13-1	Oral LD50 Rat 766 mg/kg	Dermal LD50 Rat > 2000 mg/kg	Not determined

Carcinogenicity:

Chemical Name	CAS Number	IARC	NTP	OSHA
Cobalt (II) Chloride, 6-hydrate	7791-13-1	Listed	Not listed	Listed

Chronic Effects:

Mutagenicity:	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:	Extreme ecological hazard. This product may be highly toxic to plants and/or wildlife.
Mobility:	No data
Persistence:	No data
Bioaccumulation:	No data
Degradability:	No data
Other Adverse Effects:	No data

Chemical Name	CAS Number	Eco Toxicity
Cobalt (II) Chloride, 6-hydrate	7791-13-1	Aquatic LC50 (96h) CARP = 0.33 MG/L Aquatic EC50 (48h) Daphnia = 1.1 - 1.6 MG/L Aquatic LC50 (96h) = 0.5 ml/kg

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

Ground - DOT Proper Shipping Name: N/A	Air - IATA Proper Shipping Name: UN number: 3077 Class: 9 Packing group: III Proper shipping name: Environmentally hazardous substance, solid, n.o.s. (Cobalt dichloride hexahydrate)
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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.

Chemical Name**CAS
Number****§ 313 Name****§ 304 RQ****CERCLA RQ****§ 302 TPQ****CAA 112(2)
TQ**

No data available

California Prop 65:

No California Proposition 65 ingredients

Section 16

Additional Information

Revised: 06/10/2024

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