

Safety Data Sheet

COBALT CHLORIDE, 2% AQUEOUS

Section 1 - Chemical Product and Company Identification

SDS Name: Cobalt Chloride, 2% Aqueous

Catalog Numbers: SO-210

Company Identification: Transene Company, Inc., DBA ROWLEY BIOCHEMICAL, Inc.
10 ELECTRONICS AVENUE
DANVERS, MA 01923

For information, call: 978-739-4883

Emergency Number: 800-424-9300

For CHEMTREC assistance, call: 800-424-9300

Section 2 - Hazards Identification

GHS Classifications

H317-Sensitisation, skin: 1

H334-Sensitisation, respiratory: 1

H341-Germ cell mutagenicity: 2

H350-Carcinogenicity: 1B

H360-Reproductive toxicity: 1B

2% of the mixture consists of ingredients of unknown acute inhalation toxicity.

Pictograms or Hazard symbols and Hazard statement(s):



Signal Word: Danger

Hazard statements:

H317-May cause an allergic skin reaction

H334-May cause allergy or asthma symptoms or breathing difficulties if inhaled

H341-Suspected of causing genetic defects

H350-May cause cancer

H360-May damage fertility or the unborn child

Precautionary Statements:

P201-Obtain special instructions before use.
P202-Do not handle until all safety precautions have been read and understood.
P261-Avoid breathing dust/fume/gas/mist/vapours/spray.
P272-Contaminated work clothing should not be allowed out of the workplace.
P280-Wear protective gloves/protective clothing/eye protection/face protection.
P284-In case of inadequate ventilation wear respiratory protection.
P302+P352-If on skin: Wash with plenty of soap and water.
P304+P340-If inhaled: Remove person to fresh air and keep comfortable for breathing.
P308+P313-If exposed or concerned: Get medical advice/attention.
P333+P313-If skin irritation or rash occurs: Get medical advice/attention.
P342+P311-If experiencing respiratory symptoms: Call a Poison Center/doctor.
P362+P364-Take off contaminated clothing and wash it before reuse.
P405-Store locked up.
P501-Dispose of contents/container in accordance with local/regional/national/international regulations.

Section 3 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent
7791-13-1	Cobalt(II) chloride hexahydrate	2.0 w/v
7732-18-5	Water	Balance

Section 4 - First Aid Measures

Eye Exposure: In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

Dermal Exposure: In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Seek medical attention.

Oral Exposure: If swallowed, seek immediate medical advice. Rinse mouth with water.

Inhalation Exposure: If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus, in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating gases may be generated by thermal decomposition or combustion.

Extinguishing Media: Use dry chemical, carbon dioxide, dry sand, water spray, or alcohol-resistant foam.

Hazardous Combustion Products: Cobalt/cobalt oxides, hydrogen chloride gas, irritating and toxic fumes and gases.

Flash Point: Not available

Auto ignition Temperature: Not available

Explosion Limits, Lower: Not available

Upper: Not available

NFPA Rating: (estimated) Health: 2; Flammability: 0; Instability: 0

Section 6 - Accidental Release Measures

Procedure(s) of Personal Precaution(s):

Wear personal protective equipment. Do not get on skin or clothing. Do not ingest or inhale. Do not get in eyes. Ensure adequate ventilation.

Methods for Cleaning up: Absorb with sand, earth, or vermiculite. Carefully sweep up and containerize for proper disposal. Do not release to the environment. Do not release to drains.

Section 7 - Handling and Storage

Use care when handling. Wear personal protective equipment. Wash thoroughly after handling. Ensure adequate ventilation. Do not get on skin or clothing. Do not ingest or inhale. Do not get in eyes. Store in a tightly closed container in a cool, dry, and well-ventilated place. Keep away from incompatible materials.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Use explosion-proof ventilation equipment. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

Exposure Limits:

Chemical Name	ACGIH - TLV	NIOSH - IDLH	OSHA - Final PELs
Cobalt(II) chloride, hexahydrate CAS#7791-13-1	0.02 mg/m3 TWA	Not listed	Not listed

Section 9 - Physical and Chemical Properties**Physical State:** Liquid**Appearance:** Red-pink solution**Odor:** Not available**Vapor Pressure:** Not available**Odor Threshold:** Not available**Vapor Density:** Not available**pH:** Approx. 3.9-5.1**Relative Density:** Not available**Melting point/freezing point:** Not available**Solubility:** Not available**Boiling Point:** Not available**Flash Point:** Not available**Evaporation Rate:** Not available**Flammability (solid, gas):** Not available**Partition coefficient: n-octanol/water:** Not available**Auto-ignition Temperature:** Not available**Decomposition Temperature:** Not available**Viscosity:** Not available**Specific Gravity/Density:** Not available**Section 10 - Stability and Reactivity****Chemical Stability:** Stable under normal temperatures and pressures.**Conditions to Avoid:** Incompatible materials, excess heat, and ignition sources. Exposure to moisture.**Incompatibilities with Other Materials:** Strong oxidizing agents and metals.**Hazardous Decomposition Products:** Cobalt/cobalt oxides, hydrogen chloride gas, irritating and toxic fumes and gases.**Section 11 - Toxicological Information****CAS#7791-13-1 Cobalt(II) chloride hexahydrate: RTECS#: GG0200000**

LD50 Oral: 766 mg/kg (rat)

LD50 Dermal: >2000 mg/kg (rat)

LC50 Inhalation: Not available

Carcinogenicity: Cobalt(II) chloride hexahydrate CAS#7791-13-1 is listed by IARC (Group 2B, Possibly Carcinogenic to Humans), NTP (Reasonably Anticipated to be a Human Carcinogen), and ACGIH (A3, Animal Carcinogen). Cobalt(II) chloride hexahydrate CAS#7791-13-1 is not listed by OSHA or California Prop 65.

Information on the likely routes of exposure: Routes of entry anticipated: oral, dermal, inhalation, and eye.

Epidemiology: Not available

Teratogenicity: Teratogenic effects have occurred in experimental animals.

Reproductive Effects: Experiments have shown reproductive toxicity effects on laboratory animals. May impair fertility.

Developmental Effects: Developmental effects have occurred in experimental animals.

Neurotoxicity: Not available

Mutagenicity: Mutagenic effects have occurred in humans. Possible risk of irreversible effects.

Specific Target Organ Toxicity, Single Exposure: Not available.

Specific Target Organ Toxicity, Repeated Exposure: Not available.

Symptoms associated with exposure: May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Symptoms of an allergic reaction may include rash, itching, flushing, swelling, trouble breathing, tingling of hands/feet, dizziness/lightheadedness, nausea, chest pain, muscle pain. This material may cause cancer, genetic defects, and damage fertility or the unborn child. This material may have a toxic effect on kidneys, heart, pancreas. Symptoms of exposure may include diarrhea, loss of appetite, a decrease in body temperature, a decrease in blood pressure.

The toxicological properties of this material have not been thoroughly investigated.

Section 12 - Ecological Information

Ecotoxicity: Do not release to the environment. Do not release to drains. Very toxic to aquatic life. May cause long-term adverse effects in the aquatic environment.

CAS#7791-13-1 Cobalt(II) chloride hexahydrate:

EC50, microtox: 16 mg/L (photobacterium phosphoreum) 15 min

EC50, microtox: 160 mg/L (photobacterium phosphoreum) 5 min

EC50, microtox: 2.8 mg/L (photobacterium phosphoreum) 30 min

Persistence and degradability: Not available.

Bio-accumulative potential: Not available.

Mobility: Will likely be mobile in the environment due to its water solubility.

Section 13 - Disposal Considerations

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

Section 14 – Transport Information

DOT

Non-Regulated

Section 15 - Regulatory Information

Canada Regulatory Information

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the SDS contains all the information required by the CPR.

Section 16 - Additional Information

SDS Creation Date: 6-26-19

Revision #1. 11-11-22

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