



SAFETY DATA SHEET

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SECTION 1 PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: **Cobalt (II) Chloride, Anhydrous**
PRODUCT NUMBER: 1501
CAS NUMBER: 7646-79-9
SYNONYMS: Cobaltous chloride, cobalt dichloride
MANUFACTURER:

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SECTION 2 HAZARDS IDENTIFICATION

CLASSIFICATION OF SUBSTANCE OR MIXTURE

Pictogram



Signal Word

Danger

Hazard Statements

H302	Harmful if swallowed.
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.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary Phrases

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/vapors/spray.
P270	Do not eat, drink, or smoke when using this product.
P272	Contaminated clothing should not be allowed out of the workplace.
P273	Avoid release into the environment.
P301+P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P363	Wash contaminated clothing before reuse.

SECTION 2 HAZARDS IDENTIFICATION (Cont.)

HMIS CLASSIFICATION:

Health: 2 Chronic: * Fire: 0 Reactivity Hazard: 0

NFPA RATING:

Health: 2 Flammability: 0 Reactivity Hazard: 0

EYE CONTACT: May cause severe irritation of the eyes.

SKIN CONTACT: May cause moderate irritation of the skin. May cause dermatitis.

INHALATION: Dust may be irritating to the nose, mucous membranes, and respiratory tract. May cause shortness of breath.

INGESTION: Ingestion of moderate amounts may lead to dizziness, abdominal cramps, vomiting, bloody diarrhea, weakness, shock, and convulsions.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Formula: CoCl_2

Molecular Weight: 129.84

CHEMICAL NAME	CAS#	%
Cobalt (II) Chloride, Anhydrous	7646-79-9	100

SECTION 4 FIRST AID MEASURES

EYE EXPOSURE: Immediately flush the eyes with copious amounts of water for at least 15 minutes. Assure flushing under eyelids. A victim may need assistance in keeping their eyelids open. Get immediate competent medical attention.

SKIN EXPOSURE: Wash affected area with plenty of water. Remove contaminated clothes if necessary. Seek medical assistance if irritation persists.

INHALATION: Remove to fresh air and keep at rest. Closely monitor the victim for signs of respiratory problems, such as difficulty in breathing, coughing, wheezing, or pain. In such cases, seek immediate medical assistance.

INGESTION: Seek medical assistance immediately. Keep the victim calm. Give the victim water (only if conscious). Induce vomiting only if directed by medical personnel.

SECTION 5 FIREFIGHTING MEASURES

FLASH POINT: Product is not flammable

AUTO IGNITION TEMPERATURE: Not available

EXPLOSION LIMITS: Not available

EXTINGUISHING MEDIUM: Use fire fighting measures that suit the surrounding fire.

SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.

HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS: Hydrogen chloride and Cobalt oxides.

SECTION 6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Wear all appropriate equipment when using this material. Ensure adequate ventilation. Avoid the formation of dust. Avoid breathing vapors, mist, gas, or dust.

ENVIRONMENTAL PRECAUTIONS: Prevent spillage from entering drains or allowing to be released into the environment.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP: Sweep up and place in suitable container for proper disposal.

SECTION 7 HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Wear appropriate personal protective equipment. Avoid contact with skin and eyes. Use with adequate ventilation. Avoid formation of dusts and aerosols.

CONDITIONS FOR SAFE STORAGE: Store in cool, dry, and well-ventilated area. Hygroscopic. Store away from oxidizing agents, strong bases, water, and moisture. Store under dry inert gas. Protect from humidity and water.

SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

EXPOSURE CONTROLS:

Component	Exposure Limits	Basis	Entity
Cobalt (II) chloride	0.02 mg/m ³	TLV	ACGIH
	0.1 mg/m ³	PEL	OSHA
	0.05 mg/m ³	REL	NIOSH

TLV: Threshold Limit Value over 8 hours of work.

REL: Recommended Exposure Limit

PEL: Permissible Exposure Limit

EYE PROTECTION: Wear chemical safety glasses or goggles and face shield.

SKIN PROTECTION: Wear nitrile or rubber gloves, and a complete suit protecting against chemicals.

VENTILATION: Provide local exhaust, preferably mechanical.

RESPIRATOR: Use an approved respirator.

ADDITIONAL PROTECTION: Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

COLOR AND FORM: Light blue powder

ODOR: None

MOLECULAR WEIGHT: 129.84

BOILING POINT: 1049° C

MELTING POINT: 735° C

SPECIFIC GRAVITY: 3.367 gm/ml

VAPOR DENSITY: 100hPa (75mmHg) at 818°C. 53hPa (40mmHg) at 770°C.

SOLUBILITY: Soluble

SECTION 10 STABILITY AND REACTIVITY

STABILITY: Stable

HAZARDOUS POLYMERIZATION: Will not occur

CONDITIONS TO AVOID: Avoid moisture

INCOMPATIBILITY: Oxidizing agents, bases, water, and moisture, and alkali metals.

DECOMPOSITION PRODUCTS: Hydrogen chloride and Cobalt oxides

SECTION 11 TOXICOLOGICAL DATA

ACUTE TOXICITY: LD50 Oral – rat – 418mg/kg.

CARCINOGENIC EFFECTS: May cause cancer. IARC-2B: Possibly carcinogenic to humans: limited evidence in humans in the absence of sufficient evidence in experimental animals. ACGIH A3: Animal carcinogen: Agent is carcinogenic in experimental animals at a relatively high dose, by route(s) of administration, at site(s), of histologic type(s), or by mechanism(s) not considered relevant to worker exposure.

MUTAGENIC EFFECTS: Bacteria, Human, HeLa cell, DNA inhibition

TETRAOGENIC EFFECTS: Reproductive effector

CHRONIC TOXICITY: Cobalt is an experimental neoplastigen and tumorigen. It is an experimental carcinogen of the connective tissue and lungs. Cobalt metal and inorganic compounds are classified as an animal carcinogen by the ACGIH. Ingestion may cause burning in the mouth, esophagus, and stomach. Inhalation of the dusts and fumes may cause irritation of the respiratory tract, labored breathing, and coughing. Sensitization, nausea, flushing of the face, and ringing in the ears is also possible. Chronic ingestion may result in pericardial effusion, polycardial effusion, polycythemia, cardiac failure, vomiting, convulsions, and thyroid enlargement

RTECS: GF9800000

To the best of our knowledge the toxicological effects of this compound have not been fully investigated.

SECTION 12 ECOLOGICAL DATA

TOXICITY TO FISH: LC50 – *Cyprinus carpio* (Carp) – 0.33mg/l – 96h.

TOXICITY TO DAPHNIA AND OTHER AQUATIC INVERTEBRATES: Mortality NOEC – *Daphnia* - < 0.05mg/L – 7d. EC50 – *Daphnia magna* (water flea) – 1.1-1.6 mg/l – 48h

TOXICITY TO ALGAE: EC50 *Chlorella vulgaris* (Fresh water algae) – 0.52 mg/l – 96h

Do not allow product to reach ground water, watercourse, or sewage system, even in small quantities. Danger to drinking water if even extremely small quantities leak into the ground. Also poisonous for fish and plankton in water bodies. May cause long lasting harmful effects to aquatic life. Very toxic for aquatic organisms.

SECTION 13 DISPOSAL CONSIDERATIONS

Dispose of in according to local, state, and federal regulations.

SECTION 14 TRANSPORTATION DATA

UN3077

Environmentally hazardous substances, solid, n.o.s.

(Cobalt chloride)

CLASS 9

PG III

Marine Pollutant: No

SECTION 15 REGULATORY INFORMATION

TSCA: Listed in the TSCA inventory

SARA 302/304: Not Listed

SARA 311/312: Acute Health Hazard, Chronic Health Hazard

SARA (TITLE 313): Cobalt (II) chloride

CALIFORNIA PROP. 65: Not Listed

MASSACHUSETTS RIGHT TO KNOW COMPONENTS: No components are subject to the Massachusetts Right to Know Act.

NEW JERSEY RIGHT TO KNOW COMPONENTS: Cobalt (II) chloride

PENNSYLVANIA RIGHT TO KNOW COMPONENTS: Cobalt (II) chloride

SECTION 16 OTHER INFORMATION

DISCLAIMER: The information herein is believed to be accurate and reliable as of the date compiled. However, Prochem, Inc. makes no representation, warranty, or guarantee of any kind with respect to the information in this document or any use of the product based on the information.

DATE PREPARED: 02/15

SDS DEPT.