



SAFETY DATA SHEET

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SECTION 1 PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: **Cobalt (II) Nitrate Hexahydrate**

PRODUCT NUMBER: 1514

CAS NUMBER: 10026-22-9

SYNONYMS: Cobaltous Nitrate Hexahydrate

MANUFACTURER:

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SECTION 2 HAZARDS IDENTIFICATION

CLASSIFICATION OF SUBSTANCE OR MIXTURE

Pictogram



Signal Word

Danger

Hazard Statements

H272	May intensify fire; oxidizer.
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.
P210	Keep away from heat/sparks/open flames/hot surfaces.
P220	Keep/store away from clothing/combustible material.
P221	Take any precaution to avoid mixing with combustibles.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P264	Wash skin thoroughly after handling.
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.

SECTION 2 HAZARDS IDENTIFICATION (Cont.)

P280	Wear protective gloves/protective clothing/eye protection/face protection
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
P370+P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction

HMIS CLASSIFICATION:

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

NFPA RATING:

Health: 2 Flammability: 0 Reactivity Hazard: 2 Specific Hazard: OX

EYE CONTACT: Causes eye irritation.

SKIN CONTACT: Causes skin irritation.

INHALATION: Causes respiratory irritation.

INGESTION: May be irritating if swallowed.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Formula: $\text{Co}(\text{NO}_3)_2 \cdot 6\text{H}_2\text{O}$

Molecular Weight: 291.03

CHEMICAL NAME	CAS#	%
Cobalt (II) nitrate, hexahydrate	10026-22-9	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 soap and 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: Not available

AUTO IGNITION TEMPERATURE: Not available

EXPLOSION LIMITS: Not available

EXTINGUISHING MEDIUM: Carbon dioxide, extinguishing powder, or water spray. Fight large fires with water spray or alcohol resistant foam.

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

HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS: Nitrogen oxides 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. Acts as an oxidizing agent on organic materials such as wood, paper, and fats. Keep away from combustible materials.

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. Keep away from sources of ignition – No smoking. Normal measures for preventive fire protection. Product can reduce the ignition temperature of flammable substances. This substance in an oxidizer and its heat of reaction with reducing agents or combustibles may cause ignition.

CONDITIONS FOR SAFE STORAGE: Store in cool, dry, and well-ventilated area. Store away from flammable substance, reducing agents, organic materials, and metal powders.

SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

EXPOSURE CONTROLS:

Component	Exposure Limits	Basis	Entity
Cobalt (II) nitrate	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: Red solid

ODOR: None

MOLECULAR WEIGHT: 291.03

BOILING POINT: 56° C

MELTING POINT: 74° C (dec.)

SPECIFIC GRAVITY: 1.88 gm/ml

SOLUBILITY: Soluble

SECTION 10 STABILITY AND REACTIVITY

STABILITY: Stable

HAZARDOUS POLYMERIZATION: Will not occur

CONDITIONS TO AVOID: Heat and exposure to moisture.

INCOMPATIBILITY: Organic materials, reducing agents, flammable substances, and metal powders

DECOMPOSITION PRODUCTS: Nitrogen oxides and cobalt oxides

SECTION 11 TOXICOLOGICAL DATA

ACUTE TOXICITY: LD50 Oral – rat – 691mg/kg. LD50 Oral – rat 434 mg/kg (anhydrous).

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: Not available

TETRAOGENIC EFFECTS: Not available

CHRONIC TOXICITY: This substance is toxic to lungs, gastrointestinal tract, upper respiratory tract, central nervous system (CNS).

RTECS: QU7355500

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

SECTION 12 ECOLOGICAL DATA

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

UN1477

Nitrates, inorganic, n.o.s.

(Cobalt (II) nitrate hexahydrate)

CLASS 5.1

PG III

Marine Pollutant: No

SECTION 15 REGULATORY INFORMATION

TSCA: Listed in the TSCA inventory

SARA 302/304: Not Listed

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

SARA (TITLE 313): Cobalt (II) Nitrate, hexahydrate

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) Nitrate, hexahydrate

PENNSYLVANIA RIGHT TO KNOW COMPONENTS: Cobalt (II) Nitrate, hexahydrate

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.