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Emergency Information 24hr: 703-527-3887

Material Safety Data Sheet

1. Identification of the Substance / Preparation and of the Company

Trade Name: Cobalt Carbonate
Chemical Name: Cobalt(II) Carbonate Hydrate

Chemical characterization:

Molecular Weight: 118.94
CAS No.: 513-79-1
EINECS No. 208-169-4
Chemical Formula: $\text{CoCO}_3 \cdot x\text{H}_2\text{O}$

2. Composition / Information on Ingredients

CAS#	Chemical Name	%	EINECS#
513-79-1	Cobalt(II) Carbonate Hydrate	Ca. 100	208-169-4

Hazard Symbol: X N

Risk Phrases: 20/21/22 36

3. Hazards Identification

EMERGENCY OVERVIEW

Appearance: Red-violet crystals. Warning! May cause skin irritation. Air sensitive. Cancer suspect agent. Harmful if swallowed. May cause kidney damage. May cause respiratory and digestive tract irritation. Causes eye irritation.

Target Organs: Kidneys.

Potential Health Effects

Eye: Cause mild eye irritation.

Skin: May cause skin irritation. May cause allergic contact dermatitis.

Ingestion: Harmful if swallowed. May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May cause kidney damage. Effects may be cumulative. Human fatalities have been reported from acute poisoning.

Inhalation: May cause respiratory tract irritation. May cause pulmonary fibrosis and permanent damage. Systemic intoxication is cumulative and has been fatal.

Chronic: Repeated exposure may cause sensitization dermatitis. Cobalt compounds may cause cancer based upon animal studies.

4. First-aid Measures

- Eyes : Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids.
- Skin : Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes.
- Ingestion: Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.
- Inhalation : Remove from exposure to fresh air immediately.
- Notes to Physician: Treat symptomatically and supportively.

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 and highly toxic gases may be generated by thermal decomposition or combustion. Use extinguishing media appropriate to the surrounding fire. Substance is noncombustible.
- Extinguishing Media: Substance is noncombustible; use agent most appropriate to extinguish surrounding fire.
- Autoignition Temperature: Not available.
- Flash Point: Not available.
- Explosion Limits, lower: Not available.
- Explosion Limits, upper: Not available.
- NFPA Rating: (estimated) Health:2; Flammability:0; Instability:0

6. Accidental Release Measures

- General Information: Use proper personal protective equipment as indicated in Section 8.
- Spills / Leaks: Vacuum or sweep up material and place into a suitable disposal container. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up, then place into a suitable container for disposal. Avoid generating dusty conditions. Place under an inert atmosphere.

7. Handling & Storage

- Handling: Wash thoroughly after handling. Wash hands before eating. Use only in a well-ventilated area. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation. Handle under an inert atmosphere. Store protected from air. Use only in a chemical fume hood. Wash clothing before reuse.
- Storage: Keep from contact with oxidizing materials. Store in a cool, dry, well-ventilated area away from incompatible substances. Keep container tightly closed. Do not expose to air. Store under an inert atmosphere.

8. Exposure Controls / Personal Protection

Engineering Controls:

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.

Exposure Limits:

Chemical Name	ACGIH	NIOSH	OSHA-Final PELs
Cobalt(II) Carbonate Hydrate	0.02mg/m ³ TWA(as Co) (listed under **no name**).	None listed.	None listed.

OSHA Vacated PELs:

Cobalt(II) Carbonate Hydrate: No OSHA Vacated PELs are listed for this chemical.

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 gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to minimize contact with skin.

Respirators: A NOISH/MSHA approved or European Standard EN 149 air purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected. 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.

9. Physical & Chemical Properties

Physical State:	Crystals
Appearance:	Red-violet
Odor :	None reported.
pH	Not available.
Vapor Pressure:	Not available.
Vapor Density;	Not available.
Evaporation Rate:	Not available.
Viscosity:	Not available.
Boiling Point:	Not available.
Freezing/Melting Point:	Not available.
Decomposition Temperature:	
Solubility in water:	practically insoluble
Specific Gravity/Density:	4.1300g/cm ³
Molecular Formula :	CoCO ₃ • H ₂ O
Molecular Weight :	118.94

10. Stability & Reactivity

Chemical Stability:

Stable under normal temperatures and pressures. Oxidizes when exposed to air.

Conditions to Avoid:

Incompatible materials, dust generation, exposure to air, excess heat, oxidizers.

Incompatibilities with Other Materials: Oxidizing agents, air.

Hazardous Decomposition Products:

Carbon monoxide, irritating and toxic fumes and gases, carbon dioxide.

Hazardous Polymerization: Has not been reported.

11. Toxicological Information

RTECS #: CAS # 513-79-1; FF9450050

LD50 / LC50 : CAS # 513-79-1: Oral, rat: LD50=640 mg/kg;

Carcinogenicity: Cobalt(II) Carbonate Hydrate-

- ACGIH:A3-Animal Carcinogen(as Co)(listed as**undefined**)

IARC: Group 2B carcinogen(listed as **undefined**).

Epidemiology: Contains an ingredient on IARC as animal sufficient evidence. It contains an ingredient which may cause cancer based on animal data.

Teratogenicity: No information found.

Reproductive Effects : No information found.

Neurotoxicity : No information found.

Mutagenicity: No information found.

Other Studies: No data available.

12. Ecological Information

Other: No information available.

13. Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.

RCRA U-Series: None listed.

14. Transport Information

US DOT : No information available.

Canadian TDG No information available.

15. Regulatory Information

US FEDERAL

TSCA CAS # 513-79-1 is listed on the TSCA inventory.

Health & Safety Reporting List:

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules:

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b:

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule:

None of the chemicals in this material have a SNUR under TSCA.

SARA

CERCLA Hazardous Substances and corresponding RQs:

None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances:

None of the chemicals in this product have a TPQ.

SARA codes: CAS # 513-79-1: acute, chronic.

Section 313:

This material contains Cobalt(II) Carbonate Hydrate (listed as **undefined**), 100%, (CAS#513-79-1) which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 372.

Clean Air Act:

- CAS # 513-79-1 listed as **no name** is listed as a hazardous air pollutant(HAP).
- This material does not contain any Class 1 Ozone depletors.
- This material does not contain any Class 2 Ozone depletors.

Clean Water Act:

- None of the chemicals in this product are listed as Hazardous Substances under the CWA.
- None of the chemicals in this product are listed as Priority Pollutants under the CWA.
- None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

- None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

Cobalt(II) Carbonate Hydrate can be found on the following state right to know lists :Minnesota(listed as **no name**).

California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations:

- Hazard Symbols: X N
- Risk Phrases:
 - R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
 - R36 Irritating to eyes.
- Safety Phrases:
 - S22 Do not breathe dust.

WGK (Water Danger/Protection)

- CAS # 513-79-1: No information available.

United Kingdom Occupational Exposure Limits

United Kingdom Maximum Exposure Limits

- CAS # 513-79-1: MEL-United Kingdom, TWA (listed as ****undefined****):
0.1mg/cm³ TWA(as Co)

Canada

- CAS # 513-79-1 is listed on Canada's DSL List.
- This product has a WHMIS classification of D1B.
- CAS # 513-79-1 is not listed on Canada's Ingredient Disclosure List.

Exposure Limits:

- CAS # 513-79-1:Not available.

16. Other Information

MSDS Creation Date: 08/10/2006.

The information above is believed to be accurate and represents the best information currently available to us. However, we made no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if the company has been advised of the possibility of such damages.

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