

Material Safety Data Sheet

Cobalt(II) carbonate hydrate

ACC# 23567

Section 1 - Chemical Product and Company Identification

MSDS Name: Cobalt(II) carbonate hydrate**Catalog Numbers:** AC192100000, AC192100010, AC192100500, AC192102500**Synonyms:** Carbonic acid, cobalt(2+) salt (1:1), hydrate; Cobalt carbonate (CoCO₃) hydrate; Cobaltous carbonate hydrate; Cobalt monocarbonate hydrate.**Company Identification:**

Acros Organics N.V.

One Reagent Lane

Fair Lawn, NJ 07410

For information in North America, call: 800-ACROS-01**For emergencies in the US, call CHEMTREC:** 800-424-9300

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
57454-67-8	Cobalt(II) carbonate hydrate	100	unlisted

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: pink or light purple crystals.

Warning! May cause asthma. Harmful if swallowed. Causes eye irritation. May cause allergic respiratory and skin reaction. May cause skin and respiratory tract irritation. May cause lung damage. Air sensitive.**Target Organs:** Lungs.**Potential Health Effects****Eye:** Causes 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 pulmonary fibrosis and permanent damage. Systemic intoxication is cumulative and has been fatal. Numerous studies have linked pulmonary effects with exposure to cobalt and its compounds. Exposure at 0.1 mg/m³ or less of cobalt metal and inorganic compounds of cobalt caused asthma and changes in pulmonary function.**Chronic:** Repeated exposure may cause sensitization dermatitis. Cobalt compounds may cause cancer based upon animal studies.

Section 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 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 and move to fresh air immediately.

Notes to Physician: Treat symptomatically and supportively.

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 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.

Flash Point: Not available.

Autoignition 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

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.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. 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.

Storage: Keep from contact with oxidizing materials. Store in a cool, dry, well-ventilated area away from incompatible substances. Keep containers tightly closed. Do not expose to air. Store under an inert atmosphere.

Section 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	0.02 mg/m ³ TWA (as Co) (listed under Cobalt, inorganic compounds).	none listed	none listed
Cobalt(II) carbonate anhydrous	0.02 mg/m ³ TWA (as Co) (listed under Cobalt, inorganic compounds).	none listed	none listed
Carbonic acid, cobalt salt (cobalt valence not specified) CH ₂ O ₃ .xCo	none listed	none listed	none listed
Cobalt(II) carbonate monohydrate	none listed	none listed	none listed

OSHA Vacated PELs: Cobalt(II) carbonate hydrate: No OSHA Vacated PELs are listed for this chemical.
 Cobalt(II) carbonate anhydrous: No OSHA Vacated PELs are listed for this chemical.
 Carbonic acid, cobalt salt (cobalt valence not specified) CH₂O₃.xCo: No OSHA Vacated PELs are listed for this chemical.
 Cobalt(II) carbonate monohydrate: 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 protective gloves and clothing to prevent skin exposure.

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

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 respirator use.

Section 9 - Physical and Chemical Properties

Physical State: Crystals

Appearance: red-violet - pink or light purple

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: Not available.

Solubility: practically insoluble

Specific Gravity/Density: 4.13 g/cm³

Molecular Formula: CCoO₃.xH₂O

Molecular Weight:136.94

Section 10 - Stability and Reactivity

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

Conditions to Avoid: Dust generation, exposure to air, excess heat.

Incompatibilities with Other Materials: Oxidizing agents.

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, cobalt/cobalt oxides.

Hazardous Polymerization: Will not occur.

Section 11 - Toxicological Information

RTECS#:

CAS# 57454-67-8 unlisted.

CAS# 513-79-1: FF9450050

CAS# 7542-09-8 unlisted.

CAS# 137506-60-6 unlisted.

LD50/LC50:

Not available.

CAS# 513-79-1:

Oral, rat: LD50 = 640 mg/kg;

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CAS# 7542-09-8:

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CAS# 137506-60-6:

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Carcinogenicity:

CAS# 57454-67-8:

- **ACGIH:** A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans (listed as 'Cobalt, inorganic compounds').
- **California:** Not listed.
- **NTP:** Not listed.
- **IARC:** Group 2B carcinogen (listed as Cobalt compounds).

CAS# 513-79-1:

- **ACGIH:** A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans (listed as 'Cobalt, inorganic compounds').
- **California:** Not listed.
- **NTP:** Not listed.
- **IARC:** Group 2B carcinogen

CAS# 7542-09-8: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

CAS# 137506-60-6: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: No data available.

Teratogenicity: No information available.

Reproductive Effects: No information available.

Mutagenicity: No information available.

Neurotoxicity: No information available.

Other Studies:

Section 12 - Ecological Information

No information available.

Section 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.

Section 14 - Transport Information

	US DOT	Canada TDG
Shipping Name:	Not regulated as a hazardous material	No information available.
Hazard Class:		
UN Number:		
Packing Group:		

Section 15 - Regulatory Information

US FEDERAL

TSCA

CAS# 57454-67-8 is not on the TSCA Inventory because it is a hydrate. It is considered to be listed if the CAS number for the anhydrous form is on the inventory (40CFR720.3(u)(2)).

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

CAS# 7542-09-8 is not listed on the TSCA inventory. It is for research and development use only.

CAS# 137506-60-6 is not on the TSCA Inventory because it is a hydrate. It is considered to be listed if the CAS number for the anhydrous form is on the inventory (40CFR720.3(u)(2)).

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.

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: immediate, delayed.

Section 313

This material contains Cobalt(II) carbonate hydrate (listed as Cobalt, inorganic compounds), 100%, (CAS# 57454-67-8) which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

This material contains Cobalt(II) carbonate anhydrous (listed as Cobalt, inorganic compounds), -%, (CAS# 513-79-1) which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

Clean Air Act:

CAS# 57454-67-8 (listed as Cobalt compounds) is listed as a hazardous air pollutant (HAP).

CAS# 513-79-1 (listed as Cobalt compounds) 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

CAS# 57454-67-8 can be found on the following state right to know lists: New Jersey, (listed as Cobalt compounds), Pennsylvania, (listed as Cobalt compounds), Minnesota, (listed as Cobalt, inorganic compounds).

CAS# 513-79-1 can be found on the following state right to know lists: New Jersey, (listed as Cobalt compounds), Pennsylvania, (listed as Cobalt compounds), Minnesota, (listed as Cobalt, inorganic compounds).

CAS# 7542-09-8 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

CAS# 137506-60-6 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

California Prop 65

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

European/International Regulations**European Labeling in Accordance with EC Directives****Hazard Symbols:**

T N

Risk Phrases:

R 42/43 May cause sensitization by inhalation and skin contact.

R 49 May cause cancer by inhalation.

R 60 May impair fertility.

R 50/53 Very toxic to aquatic organisms, may cause long-term

adverse effects in the aquatic environment.
R 68 Possible risk of irreversible effects.

Safety Phrases:

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S 53 Avoid exposure - obtain special instructions before use.
S 60 This material and its container must be disposed of as hazardous waste.
S 61 Avoid release to the environment. Refer to special instructions /safety data sheets.

WGK (Water Danger/Protection)

CAS# 57454-67-8: No information available.
CAS# 513-79-1: No information available.
CAS# 7542-09-8: No information available.
CAS# 137506-60-6: No information available.

Canada - DSL/NDSL

CAS# 513-79-1 is listed on Canada's DSL List.
CAS# 7542-09-8 is listed on Canada's DSL List.

Canada - WHMIS

This product has a WHMIS classification of D2A, D2B.
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List

CAS# 57454-67-8 is not listed on the Canadian Ingredient Disclosure List.
CAS# 513-79-1 is not listed on the Canadian Ingredient Disclosure List.

Section 16 - Additional Information
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MSDS Creation Date: 1/07/1999

Revision #5 Date: 11/20/2008

The information above is believed to be accurate and represents the best information currently available to us. However, we make 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 event shall Fisher 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 Fisher has been advised of the possibility of such damages.