



SILVER FERN CHEMICAL

Material Safety Data Sheet

Copper Carbonate

SECTION 1: IDENTIFICATION

Product Name: Copper Carbonate

CAS Number: 12069-69-1

Chemical Name: Copper Carbonate

Synonyms:

Company

Silver Fern Chemical, Inc.
2226 Queen Anne Avenue North
Suite #C
Seattle WA 98109, USA

Business Contact

Customer Service: 206-282-3376
info@silverfernchemical.com

24 Hour Emergency Contact

Infotrac 800-535-5053
Outside USA & Canada 352-323-3500

SECTION 2: HAZARD IDENTIFICATION

EMERGENCY OVERVIEW

Appearance: green to blue solid. **Warning!** The toxicological properties of this material have not been fully investigated. May cause eye and skin irritation. May cause respiratory and digestive tract irritation. May be harmful if swallowed. May cause kidney damage.

Target Organs: Kidneys, brain.

Potential Health Effects

Eye: May cause mild eye irritation.

Skin: May cause skin irritation.

Ingestion: May cause irritation of the digestive tract. May be harmful if swallowed

Inhalation: May cause respiratory tract irritation. The toxicological properties of this substance have not been fully investigated.

Chronic: Individuals with Wilson's disease are unable to metabolize copper. Thus, copper accumulates in various tissues and may result in liver, kidney, and brain damage.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Composition / Information on Ingredients

CAS#	Chemical Name	%	EINECS#
12069-69-1	Copper (II) Carbonate Hydroxide	>55	235-113-6



SILVER FERN CHEMICAL

Material Safety Data Sheet

Copper Carbonate

Hazard Symbol: XN

Risk Phrases: 22

SECTION 4: FIRST AID MEASURES

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin: Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.

Wash clothing before reuse.

Ingestion: Do NOT induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid.

Inhalation: Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician: Treat symptomatically and supportively.

Antidote: qualified medical personnel should determine the use of d-Penicillamine as a chelating agent

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. Non-combustible, substance itself does not burn but may decompose upon heating to produce irritating, corrosive and/or toxic fumes.

Extinguishing Media: Substance is noncombustible; use agent most appropriate to extinguish surrounding fire.

Flash Point: Not applicable. Auto-ignition Temperature: Not applicable.

Explosion Limits, Lower: Not available.

Upper: Not available.

NFPA Rating: (estimated) Health: 1; 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.

Clean up spills immediately, observing precautions in the Protective Equipment section.

Avoid generating dusty conditions. Provide ventilation.

SECTION 7: HANDLING AND STORAGE



SILVER FERN CHEMICAL

Material Safety Data Sheet

Copper Carbonate

Handling: Wash thoroughly after handling. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation.
Storage: Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Copper (II) carbonate hydroxide	none listed	none listed	none listed

OSHA Vacated PELs:

Copper (II) carbonate hydroxide: 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 to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Solid

Appearance: Green to blue

Odor: None reported

pH: Not available.

Vapor Pressure: Not available.

Vapor Density: Not available.

Evaporation Rate: Not available.

Viscosity: Not available.

Boiling Point: 464 deg F

Freezing/Melting Point: 392 deg F

Decomposition Temperature: 392 deg F

Solubility: Insoluble in water.

Specific Gravity/Density: 4.0

Molecular Formula: $\text{Cu}_2\text{CH}_2\text{O}_5 \cdot \text{H}_2\text{O}$

Molecular Weight: 221.103

SECTION 10: STABILITY AND REACTIVITY



SILVER FERN CHEMICAL

Material Safety Data Sheet

Copper Carbonate

Chemical Stability: Stable at room temperature in closed containers under normal storage and handling conditions.
Conditions to Avoid: Incompatible materials, dust generation, excess heat, strong oxidants.
Incompatibilities with Other Materials: Copper salts + hydrazine reacts explosively with nitro-methane.
Hazardous Decomposition Products: Oxides of copper, acrid smoke and fumes.
Hazardous Polymerization: Has not been reported.

SECTION 11: TOXICOLOGICAL INFORMATION

RTECS#: CAS # 12069-69-1: GL6910000
LD50/LC50: CAS # 12069-69-1: Oral, rabbit: LD50 = 159 mg/kg;
Oral, rat: LD50 = 1350 mg/kg;
Oral, rat: LD50 = 159 mg/kg;<BR.
Carcinogenicity:
CAS # 12069-69-1: Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.
Epidemiology: No information found.
Teratogenicity: No information found.
Reproductive Effects: No information found.
Neurotoxicity: No information found.
Mutagenicity: No information found.
Other Studies: See actual entry in RTECS for complete information.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity: No data available. Treatment microorganisms.
Environmental: No information available.
Physical: No information available.
Other: 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

USDOT: No information available.
Canadian TDG: No information available.



SILVER FERN CHEMICAL

Material Safety Data Sheet

Copper Carbonate

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

SECTION 15: REGULATORY INFORMATION

US FEDERAL TSCA: CAS# 12069-69-1 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 # 12069-69-1: acute, chronic.

Section 313

This material contains Copper (II) carbonate hydroxide (listed as Copper), 55%, (CAS# 12069-69-1) which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

Clean Air Act: This material does not contain any hazardous air pollutants. This material does not contain any Class 1 Ozone depleters. This material does not contain any Class 2 Ozone depleters.

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: OSHA considers none of the chemicals in this product highly hazardous.

STATE CAS# 12069-69-1 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

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: XN

Risk Phrases: R 22 Harmful if swallowed.

Safety Phrases: S 24/25 Avoid contact with skin and eyes.

WGK (Water Danger/Protection)

CAS# 12069-69-1: No information available.

Canada - DSL/NDSL

CAS# 12069-69-1 is listed on Canada's DSL List.

Canada – WHMIS This product has a WHMIS classification of D2B.

Canadian Ingredient Disclosure List



SILVER FERN CHEMICAL

Material Safety Data Sheet

Copper Carbonate

CAS# 12069-69-1 is listed on the Canadian Ingredient Disclosure List.

Exposure Limits

CAS# 12069-69-1: OEL-ARAB Republic of Egypt: TWA 0.1 mg(Cu)/m³ (fume)

OEL-AUSTRALIA: TWA 0.2 mg(Cu)/m³ (fume)

OEL-AUSTRALIA: TWA 1 mg(Cu)/m³ (dust)

OEL-BELGIUM: TWA 0.2 mg(Cu)/m³ (fume)

OEL-BELGIUM: TWA 1 mg(Cu)/m³ (dust)

OEL-DENMARK: TWA 0.1 mg(Cu)/m³ (fume)

OEL-DENMARK: TWA 1mg(Cu)/m³ (dust)

OEL-FINLAND: TWA 0.2 mg(Cu)/m³ (fume)

OEL-FINLAND: TWA 1 mg(Cu)/m³

OEL-FINLAND: TWA 1 mg(Cu)/m³ (dust)

OEL-FRANCE: TWA 0.2 mg(Cu)/m³ (fume)

OEL-FRANCE: TWA 1 mg(Cu)/m³;STEL 2 mg(Cu)/m³ (dust)

OEL-GERMANY: TWA 0.1 mg(Cu)/m³ (fume)

OEL-GERMANY: TWA 1 mg(Cu)/m³

OEL-GERMANY: TWA 1 mg(Cu)/m³ (dust)

OEL-HUNGARY: TWA 0.2 mg(Cu)/m³;STEL 0.4mg(Cu)/m³ (dust)

OEL-INDIA: TWA 0.2 mg(Cu)/m³ (fume)

OEL-THE NETHERLANDS: TWA 0.2 mg(Cu)/m³ (fume)

OEL-THE NETHERLANDS: TWA 1 mg(Cu)/m³ (dust)

OEL-THE PHILIPPINES: TWA 1.0 mg(Cu)/m³ (fume) JAN9

OEL-POLAND: TWA 0.1 mg(Cu)/m³ (fume)

OEL-RUSSIA: STEL 0.5 ppm (1 mg(Cu)/m³) (dust) JAN9

OEL-SWEDEN: TWA 0.2 mg(Cu)/m³ (resp. dust)

OEL-SWEDEN: TWA 0.2 mg(Cu)/m³ (fume)

OEL-SWEDEN: TWA 1 mg(Cu)/m³ (total dust)

OEL-SWITZERLAND:TWA0.1mg(Cu)/m³;STEL0.2mg(Cu)/m³(fume)

OEL-SWITZERLAND: TWA 1 mg(Cu)/m³;STEL 1 mg(Cu)/m³

OEL-THAILAND: TWA 0.1 mg(Cu)/m³ (fume)

OEL-THAILAND: TWA 1 mg(Cu)/m³

SECTION 16: OTHER INFORMATION

DISCLAIMER OF RESPONSIBILITY

The information on this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, expressed or implied, regarding its correctness. Some information presented and conclusions drawn herein are from sources other than direct test data on the substance itself. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this



SILVER FERN CHEMICAL

Material Safety Data Sheet

Copper Carbonate

and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage, or expense arising out of or in any way connected with handling, storage, use, or disposal of this product. If the product is used as a component in another product, this MSDS information may not be applicable.

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