

# Material Safety Data Sheet

## Copper (II) Carbonate Basic Monohydrate

ACC# 05610

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** Copper (II) Carbonate Basic Monohydrate**Catalog Numbers:** S72897, S79986, C453 500, C453-500, C453500**Synonyms:** Basic Copper Carbonate; Copper (II) Carbonate Hydroxide; Cupric Carbonate; Diccopper Dihydroxycarbonate.**Company Identification:**

Fisher Scientific  
1 Reagent Lane  
Fair Lawn, NJ 07410

**For information, call:** 201-796-7100**Emergency Number:** 201-796-7100**For CHEMTREC assistance, call:** 800-424-9300**For International CHEMTREC assistance, call:** 703-527-3887

### Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
12069-69-1	Copper (II) carbonate hydroxide Monohydrate	100	235-113-6

**Hazard Symbols:** XN**Risk Phrases:** 22

### Section 3 - Hazards 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 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 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 and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.

**Notes to Physician:** Treat symptomatically and supportively.

**Antidote:** The use of d-Penicillamine as a chelating agent should be determined by qualified medical personnel.

## 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.

**Autoignition 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

**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, 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 low.

**Exposure Limits**

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

**OSHA Vacated PELs:** Copper (II) carbonate hydroxide 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 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:** Cu<sub>2</sub>CH<sub>2</sub>O<sub>5</sub>.H<sub>2</sub>O

**Molecular Weight:** 221.103

## Section 10 - Stability and Reactivity

**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 react explosively with nitromethane.

**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;

**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

	US DOT	IATA	RID/ADR	IMO	Canada TDG
<b>Shipping Name:</b>	No information available.				No information available.
<b>Hazard Class:</b>					
<b>UN Number:</b>					
<b>Packing Group:</b>					

## 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 Monohydrate (listed as Copper), 100%, (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:

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

#### 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**

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)/m<sup>3</sup> (fume)  
 OEL-AUSTRALIA:TWA 0.2 mg(Cu)/m<sup>3</sup> (fume) OEL-AUSTRALIA:TWA 1 mg(Cu)/m<sup>3</sup>  
 3 (dust) OEL-BELGIUM:TWA 0.2 mg(Cu)/m<sup>3</sup> (fume) OEL-BELGIUM:TWA 1 mg(Cu)/m<sup>3</sup>  
 (dust) OEL-DENMARK:TWA 0.1 mg(Cu)/m<sup>3</sup> (fume) OEL-DENMARK:TWA 1 mg(Cu)/m<sup>3</sup>  
 (dust) OEL-FINLAND:TWA 0.2 mg(Cu)/m<sup>3</sup> (fume) OEL-FINLAND:TWA 1 mg(Cu)/m<sup>3</sup>  
 (dust) OEL-FINLAND:TWA 1 mg(Cu)/m<sup>3</sup> (dust) OEL-FRANCE:TWA 0.2 mg(Cu)/m<sup>3</sup>  
 (fume) OEL-FRANCE:TWA 1 mg(Cu)/m<sup>3</sup>;STEL 2 mg(Cu)/m<sup>3</sup> (dust) OEL-GERMANY:TWA 0.1 mg(Cu)/m<sup>3</sup>  
 (fume) OEL-GERMANY:TWA 1 mg(Cu)/m<sup>3</sup> OEL-GERMANY:TWA 1 mg(Cu)/m<sup>3</sup> (dust) OEL-HUNGARY:TWA 0.2 mg(Cu)/m<sup>3</sup>;STEL 0.4 mg(Cu)/m<sup>3</sup>  
 (dust) OEL-INDIA:TWA 0.2 mg(Cu)/m<sup>3</sup> (fume) OEL-THE NETHERLANDS:TWA 0.2 mg(Cu)/m<sup>3</sup>  
 (fume) OEL-THE NETHERLANDS:TWA 1 mg(Cu)/m<sup>3</sup> (dust) OEL-THE PHILIPPINES:TWA 1.0 mg(Cu)/m<sup>3</sup>  
 (fume) JAN9 OEL-POLAND:TWA 0.1 mg(Cu)/m<sup>3</sup> (fume) OEL-RUSSIA:STEL 0.5 ppm (1 mg(Cu)/m<sup>3</sup>) (dust) JAN 9  
 OEL-SWEDEN:TWA 0.2 mg(Cu)/m<sup>3</sup> (resp. dust) OEL-SWEDEN:TWA 0.2 mg(Cu)/m<sup>3</sup> (fume)  
 OEL-SWEDEN:TWA 1 mg(Cu)/m<sup>3</sup> (total dust) OEL-SWITZERLAND:TWA 0.1 mg(Cu)/m<sup>3</sup>;STEL 0.2 mg(Cu)/m<sup>3</sup>  
 (fume) OEL-SWITZERLAND:TWA 1 mg(Cu)/m<sup>3</sup>;STEL 1 mg(Cu)/m<sup>3</sup> OEL-THAILAND:TWA 0.1 mg(Cu)/m<sup>3</sup>  
 (fume) OEL-THAILAND:TWA 1 mg(Cu)/m<sup>3</sup> OEL-U

## Section 16 - Additional Information

**MSDS Creation Date:** 6/03/1998

**Revision #3 Date:** 3/18/2003

*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.*