



## Material Safety Data Sheet

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

Trade Name: **Copper Carbonate**  
Chemical Name: Basic Copper Carbonate  
Chemical characterization:  
Molecular Weight: 221. 103  
CAS No.: 12069- 69- 1  
EINECS No. 235- 113- 6  
Chemical Formula:  $\text{Cu}_2\text{CH}_2\text{O}_5 \cdot \text{H}_2\text{O}$

Supplier: *Palm International, 1289 Bridgestone Pkwy, Lavergne, TN*  
*Phone: 615-793-1990 Fax: 615-793-1995*

### 2. Composition / Information on Ingredients

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

Hazard Symbol: XN

Risk Phrases: 22

### 3. Hazards Identification

#### ENERGENCY 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.

### 4. First-Aid Measures

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and Blower 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

#### 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

#### 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.

#### 7. Handling & 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.

#### 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.

## 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.

## 9. Physical & 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

## 10. Stability & 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 reacts explosively with nitro-methane.

**Hazardous Decomposition Products:** Oxides of copper, acrid smoke and fumes.

Hazardous Polymerization: Has not been reported.

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.

12. Ecological Information

Ecotoxicity: No data available. Treatment microorganisms.

Environmental: No information available.

Physical: No information available.

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

USDOT : No information available.

Canadian TDG No information available.

15. Regulatory Information

US FEDERAL TSCA : CAS# 12069-69-1 is listed on the TSCA inventory.

Health & Safety Reporting List: None of the chemical 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 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: 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

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> (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 1mg(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>

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 0.4mg(Cu)/m<sup>3</sup> (dust)  
OEL-INDIA: TWA 0.2 mg(Cu)/m<sup>3</sup> (fume)  
OEL-THE NETHERLANDS: TWA 02 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) JAN9  
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:TWA0.1mg(Cu)/m<sup>3</sup>;STEL0.2mg(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>

16. Other Information

*MSDS Creation Date: January 14, 2004/MJL Palm international Inc.*

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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