

## MATERIAL SAFETY DATA SHEET

### 1. IDENTIFICATION OF PREPARATION AND COMPANY/BUSINESS

**Preparation:**

**Name:** COPPER CARBONATE

**Distributed By:** World Metal, LLC  
104 Industrial Blvd., Suite 202  
Sugar Land, TX 77478

**Date Prepared –** April, 2005

**Other Information Call** 281-491-7474

**Emergency Telephone –** 1-800-424-9300 CHEMTREC

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

| Component Name | % by Wt. | CAS#      | ACGIH TLV             | OSHA PEL              |
|----------------|----------|-----------|-----------------------|-----------------------|
| Copper         |          | 7440-50-8 | 1 mg/m <sup>3</sup> * | 1 mg/m <sup>3</sup> * |

\*As copper dusts or mists.

Components not precisely identified are proprietary or not hazardous.

### 3. HAZARDOUS IDENTIFICATION

This product is not classified as flammable. Refer to the recommendations for other products present in the warehouse. Danger of harmful damage, with slight intoxication by inhalation, contact with skin, and if swallowed during decomposition, emissions of CO<sub>2</sub> and acid smokes.

### 4. FIRST AID MEASURES

As a general rule, in case of doubt or if symptoms persist, always seek medical advice.

|               |                                                                                                                                        |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------|
| Inhalation:   | Keep the patient in a warm place and at rest. If breathing is stopped or irregular, practice artificial respiration and call a doctor. |
| Eye Contact:  | Wash with water, and consult an ophthalmologist.                                                                                       |
| Skin Contact: | Remove all contaminated clothing and wash skin carefully with soap and water.                                                          |
| Ingestion:    | If swallowed, call a doctor. Show him the label to check if hospitalization is necessary.                                              |

### 5. FIRE FIGHTING MEASURES

#### FIRE FIGHTING HAZARDS & PROCEDURES

**General Hazard:** Not flammable.

Due to the toxicity of the gas emitted during decomposition of the product, fire-fighting personnel are to be equipped with autonomous insulating breathing apparatus.

## 5. FIRE FIGHTING HAZARDS & PROCEDURES CONT.

|                                |                                                                  |
|--------------------------------|------------------------------------------------------------------|
| Extinguishing Media:           | CO <sub>2</sub> , foam, powder or spray water prohibited         |
| Fire Fighting Equipment:       | Wear protective clothing and self-contained breathing apparatus. |
| Hazardous Combustion Products: | Decomposition products include CO <sub>2</sub> and acrid smokes. |

## 6. ACCIDENTAL RELEASE MEASURES

### Safety precautions:

- Avoid contact with skin and eyes.
- Contact the safety measures listed under headings 7 and 8.
- If a large quantity has been spilled, evacuate all personnel and only allow intervention by trained operators equipped with safety apparatus.

### Environmental safety precautions:

- Prevent any material from entering into sewers or waterways.
- Use drums to dispose of waste recovered in accordance with applicable regulations (See heading 13).
- If the product contaminates waterways, rivers or sewers, alert the relevant authorities in accordance with statutory procedures.

### Cleaning methods:

- Collect the product in an airtight container by sweeping and dispose of it in an authorized landfill. Clean with plenty of water.

## 7. HANDLING AND STORAGE

### General information:

- Average shelf life under proper storage conditions is at least two (2) years.

### Handling:

- Handle in highly ventilated areas. Pick up dusts if necessary. Do not smoke.
- Prevent access to any unauthorized personnel.

### Storage:

- Keep the container tightly closed in a dry and ventilated place. Keep away from food and drinks, even those for animals.

### Recommended equipment and procedures:

- Observe precautions stated on label and also industrial safety regulations. Do not breathe dusts. Avoid any contact of the product with skin and eyes.

### Prohibited equipment and procedures:

- Smoking, eating and drinking are prohibited in premises where preparation is used.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Ventilation:

- Exposure limits by INRS ND 1708-133-88 and ND 1839-144-91.
- Control enclosed spaces with adequate ventilation to prevent excessiveness of ACGIH TLV (1mg/m<sup>3</sup>).

### Eye Protection:

- Employee must wear splash proof of dust resistance safety goggles to prevent eye contact with this substance.

Protective Clothing: Employees must wear appropriate protective clothing, gloves and equipment to prevent repeated or prolonged skin contact with this substance.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

|                            |                               |
|----------------------------|-------------------------------|
| Molecular Weight:          | 211.1                         |
| Vapor Pressure:            | No data.                      |
| Density:                   | 500 to 2000 kg/m <sup>3</sup> |
| Solubility in Water:       | Insoluble.                    |
| pH:                        | 7 (water suspension 5%)       |
| Decomposition Temperature: | 200°C                         |
| Odor:                      | none                          |
| Color:                     | Green                         |
| Physical State:            | Powder                        |

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## 10. STABILITY AND REACTIVITY

|                          |                                                                                             |
|--------------------------|---------------------------------------------------------------------------------------------|
| General:                 | This material is stable at the handling and storage conditions recommended. (see heading 7) |
| Incompatible Materials:  | Dangerous reactions with acids: emissions of CO <sub>2</sub>                                |
| Conditions to Avoid:     | Excessive heat.                                                                             |
| Hazardous Decomposition: | Thermal decomposition products include emission of CO <sub>2</sub> .                        |

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## 11. TOXICOLOGICAL INFORMATION

The LD50 for copper carbonate is 135 mg/kg in rats.  
 Some copper compounds can enter into the body by inhalation or by accidental swallowing.  
 The following symptoms can be observed:

- Astringent flavor, vomiting, colic, gastrointestinal disorders.
- Cramps, asthenia, convulsions.

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## 12. ECOLOGICAL INFORMATION

|                  |                                                  |
|------------------|--------------------------------------------------|
| Mobility:        | No data available.                               |
| Persistence:     | No data available.                               |
| Bioaccumulation: | No data available                                |
| Ecotoxicity:     | Spillage in sewers or waterways must be avoided. |
| Other:           | Harmful for some marine races.                   |

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## 13. DISPOSAL CONSIDERATIONS

Do not throw into sewers, waterways, natural environment.  
 Consult appropriate local authorities to ascertain proper disposal procedure.  
 Comply with appropriate disposal regulations.  
 Use registered transporters.

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#### 14. REGULATORY INFORMATION

Toxic Substance Control Act (TSCA): Copper Carbonate (II) Hydroxide  
CAS 12069-69-1 is on the list.

U.S. Regulations SARA 313 Information: This product contains the following substance  
subject to the reporting requirements of Section 313 of Title III of the Superfund  
Amendments and the Reauthorization Act of 1986 and 40 CFR Part 372: COPPER  
COMPOUND 55-57%.

**SARA HAZARD CATEGORY:** This product has been reviewed according to the EPA  
"Hazard Categories" promulgated under Sections 311 and 312 of the Superfund  
Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under  
applicable definitions, to meet the following category: An Immediate Health Hazard.

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#### 15. SHIPPING INFORMATION

##### NOT REGULATED FOR TRANSPORT

This information contained herein is based on data considered accurate. However, no warranty is  
expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof.  
World Metal, LLC assumes no responsibility for injury to the vendee or third persons proximately caused  
by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet.  
Additionally, World Metal, LLC assumes no responsibility for injury to vendee or third persons  
proximately caused by abnormal use of the material even if reasonable safety procedures are followed.  
Furthermore, vendee assumes the risk in his use of the material.