

MATERIAL SAFETY DATA SHEET

1 - IDENTIFICATION OF PREPARATION AND COMPANY/BUSINESS

Preparation:

Name: COPPER CARBONATE

Manufacturer's Name Bernardy Chimle SA
Address 12, Route de Tours, 1800
City, State, Country Thenioux, France

Distributed By World Metal, LLC
104 Industrial Blvd., Suite 202
Sugar Land, Texas 77478

DATE PREPARED - February 2003
Other Information Call 281-491-7474

Emergency Telephone 1-800-424-9300 CHEMTREC

2 - INFORMATION REGARDING CONSTITUENTS

Hazardous substances present:

(present in the preparation at a sufficient concentration to give it the toxicological characteristics it would have in a 100% pure state)

COPPER CARBONATE (II) concentration from 50% to 100%. Symbols : Xn R : R22 S : S22

COPPER CARBONATE N°CAS : 12069-69-1 Formula : Cu CO₃. Cu(OH)₂

3 - IDENTIFICATION OF HAZARDS

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 CO₂ and acrid smokes.

4 - FIRST AID

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

In case of splashes or contact with eyes.
Wash with water and consult an ophthalmologist.

In case of splashes or contact with skin.
Remove all contaminated clothing and wash skin carefully with water and soap.

In case of inhalation.

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4 – FIRST AID *continued*

Keep the patient in a warm place and at rest.

If breathing is stopped or irregular, practice artificial respiration and call a doctor.

In case of swallowing.

If swallowed call a doctor, showing him the label to check if hospitalization is necessary.

5 – FIRE-FIGHTING MEASURES

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.

Extinguishing measures recommended : CO₂, foam, powder or spray water
prohibited : water jet (not to spread the product)

6 – MEASURES TO BE TAKEN IN THE EVENT OF ACCIDENTAL SPILLAGE

Safety Precautions:

Avoid contact with skin and eyes.

Contact the safety measures listed under heading 7 and 8.

If a large quantity has been split, 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

Regulations relating to storage premises apply to workshops where the product is handled.

Handling:

Handle in highly ventilated areas.

Pick up dusts if necessary

Do not smoke. Prevent access to any unauthorized personnel.

7 – HANDLING AND STORAGE *continued*

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 the preparation is used.

Storage

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

8 – EXPOSURE CONTROL – PERSONAL SAFETY

Technical measures.

- Exposure limits by INRS ND 1708-133-88 and ND 1839-144-91:
- In the United States, the average exposure limit for copper compounds, in the air of working premises, has been fixed, by the ACGIH, at 1 mg/m₃ expressed in copper.

Hand Protection

- Plastic or rubber gloves.

Eye and face protection.

- Goggles.

Skin protection.

- Suitable protective clothing.

9 – PHYSICAL PROPERTIES

Density.....	: 500 to 2000 kg/m ³
Acid/base character of preparation.....	: Basic
Solubility of preparation in water.....	: Insoluble
Vapour tension at 50°C of volatile constituents.....	: N-A
Physical state.....	: Solid (green)
Flash point interval.....	: N-A
pH of a 5% solution.....	: 7
Self-ignition temperature.....	: N-A
Decomposition temperature.....	: 200°C
Melting temperature interval.....	: N-A
Average distillation temperature of solvents contained.....	: N-A

10 – STABILITY AND REACTION

The preparation is stable at the handling and storage conditions recommended (see heading 7)
Dangerous reactions with acids : emission of CO₂

11 – TOXICOLOGICAL INFORMATION

LD50 oral (rat) : 1350mg/kg

Some copper compounds can enter into the body by inhalation or by accidental swallowing.

The following symptoms can be observed :

- astringent flavour, vomiting, colic, gastro-intestinal 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.

13 – DISPOSAL CONSIDERATIONS

Do not throw into sewers, waterways, natural environment.

Consult appropriate local authorities to ascertain proper disposal procedure.

14 – REGULATORY INFORMATION

NOTICE: The information herein is presented in good faith and believed to be accurate. However, no warranty expressed or implied is given. Regulatory requirements are subject to change and may differ from one location to another. It is the buyer's responsibility to ensure that its activities comply with Federal, State and local laws.

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

14 – REGULATORY INFORMATION *continued*

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 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

15 – SHIPPING INFORMATION

DOT Shipping Name: Cupric Chloride Basic
Non-regulated

The 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, L.L.C. 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, L.L.C. 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.