



SECTION 1: Identification of the substance/mixture

1.1. Product identifier

| | |
|------------------|---|
| Product form | : Substance |
| Substance name | : Copper(II) carbonate basic |
| Formula | : $\text{Cu}_2(\text{OH})_2\text{CO}_3$ |
| Molecular weight | : 221.12 g/mol |
| CAS No. | : 12069-69-1 |
| Product code | : LW-CUCARB |
| Synonyms | : Copper Carbonate Hydroxide |

1.2. Relevant identified uses of the substance or mixture and uses advised against

| | |
|------------------------------|---|
| Use of the substance/mixture | : Laboratory chemicals, Synthesis of substances |
|------------------------------|---|

1.3. Emergency telephone number

| | |
|------------------|---|
| Emergency number | : 1.800.424.9300 (USA) +1.703.527.3887 (INT) |
|------------------|---|

SECTION 2: Hazards Identification

2.1. Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Acute toxicity, Oral (Category 4), H302

Skin irritation (Category 2), H315

Eye irritation (Category 2A), H319

Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2. GHS Label elements, including precautionary statements

| | |
|----------------------------|-------------------------------------|
| Pictogram | : |
| Signal word | : Warning |
| Hazard statement(s) | |
| H302 | : Harmful if swallowed. |
| H315 | : Causes skin irritation. |
| H319 | : Causes serious eye irritation. |
| H335 | : May cause respiratory irritation. |
| Precautionary statement(s) | |

Copper Carbonate

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| | |
|--------------------|--|
| P261 | : Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray. |
| P264 | : Wash skin thoroughly after handling. |
| P270 | : Do not eat, drink or smoke when using this product. |
| P271 | : Use only outdoors or in a well-ventilated area. |
| P280 | : Wear eye protection/ face protection. |
| P280 | : Wear protective gloves. |
| P301 + P312 + P330 | : IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth. |
| P302 + P352 | : IF ON SKIN: Wash with plenty of soap and water. |
| P304 + P340 + P312 | : IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell. |
| P305 + P351 + P338 | : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P332 + P313 | : If skin irritation occurs: Get medical advice/ attention. |
| P337 + P313 | : If eye irritation persists: Get medical advice/ attention. |
| P362 | : Take off contaminated clothing and wash before reuse. |
| P403 + P233 | : Store in a well-ventilated place. Keep container tightly closed. |
| P405 | : Store locked up. |
| P501 | : Dispose of contents/ container to an approved waste disposal plant. |

2.3. Hazards not otherwise classified (HNOC) or not covered by GHS

none

SECTION 3: Composition/information on ingredients

3.1. Substances

| | |
|------------------|---|
| Formula | : $\text{Cu}_2(\text{OH})_2\text{CO}_3$ |
| Synonyms | : Copper(II) carbonate basic |
| Molecular Weight | : 221.12 g/mol |
| CAS-No. | : 12069-69-1 |

Hazardous components

| Component | Classification | Concentration |
|--|--|---------------|
| Copper(II) carbonate--Copper(II) hydroxide (1:1) | Acute Tox. 4; Skin Irrit. 2; Eye Irrit. 2A; STOT SE 3; H302, | <= 100 % |

Copper Carbonate

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| | | |
|--|------------------|--|
| | H315, H319, H335 | |
|--|------------------|--|

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: Description of first aid measures

4.1. Description of first aid measures

- General advice : Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.
- First-aid measures after inhalation : If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
- First-aid measures after skin contact : Wash off with soap and plenty of water. Consult a physician.
- First-aid measures after eye contact : Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
- First-aid measures after ingestion : Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2. Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

4.3. Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2. Special hazards arising from the substance or mixture

Copper oxides

5.3. Advice for firefighters

Wear self-contained breathing apparatus for fire-fighting if necessary.

5.4. More Information

No data available

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

For personal protection see section 8.

Copper Carbonate

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

6.2. Environmental precautions

Do not let product enter drains.

6.3. Methods and material for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4. Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs.

Provide appropriate exhaust ventilation at places where dust is formed.

For precautions see section 2.2.

7.2. Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

Keep in a dry place.

Storage class (TRGS 510): Non Combustible Solids

7.3. Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Components with workplace control parameters

| Component | CAS-No. | Value | Control parameters | Basis |
|---|------------|-------|--------------------|---|
| Copper(II) carbonate-- Copper(II) hydroxide (1:1) | 12069-69-1 | TWA | 1.000000 mg/m3 | USA. NIOSH Recommended Exposure Limits |
| | | TWA | 1.000000 mg/m3 | USA. NIOSH Recommended Exposure Limits |
| | | TWA | 1 mg/m3 | USA. NIOSH Recommended Exposure Limits |

Copper Carbonate

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

8.2. Exposure controls

Appropriate engineering controls : Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

8.3. Personal protective equipment

Eye protection : Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin Protection : Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method:

EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body protection : Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Copper Carbonate

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

- Respiratory protection : For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
- Environmental exposure controls : Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- Appearance : Form: powder
Color: green
- Odor : No data available
- Odor Threshold : No data available
- pH : No data available
- Melting point/freezing point : Not applicable
- Initial boiling point and boiling range : No data available
- Flash point : No data available
- Evaporation rate : No data available
- Flammability (solid, gas) : No data available
- Upper/lower flammability or explosive limits : No data available
- Vapor pressure : No data available
- Vapor density : No data available
- Relative density : 4.000 g/cm³
- Water solubility : No data available
- Partition coefficient: n-octanol/water : No data available
- Auto-ignition temperature : No data available
- Decomposition temperature : No data available
- Viscosity : No data available
- Explosive properties : No data available
- Oxidizing properties : No data available

9.2. Other safety information

No data available

Copper Carbonate

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

No data available

10.4. Conditions to avoid

Exposure to moisture

10.5. Incompatible materials

Strong acids

10.6. Hazardous decomposition products

Other decomposition products - No data available

In the event of fire: see section 5

SECTION 11: Toxicological information

11.1. Information on toxicological effects

| | | |
|-----------------------------------|---|--|
| Acute toxicity | : | LD50 Oral - Rat - 1,350 mg/kg Remarks: Behavioral: Somnolence (general depressed activity). Diarrhea Blood: Normocytic anemia. Sigma-Aldrich - 207896 Page 6 of 8 Dermal: No data available No data available |
| Skin corrosion/irritation | : | No data available |
| Serious eye damage/irritation | : | No data available |
| Respiratory or skin sensitization | : | No data available |
| Germ cell mutagenicity | : | No data available |
| Carcinogenicity | | |
| IARC | : | No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. |
| NTP | : | No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP. |

Copper Carbonate

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| | | |
|--|---|--|
| OSHA | : | No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA. |
| Reproductive toxicity | : | No data available |
| Specific target organ toxicity (single exposure) | : | No data available |
| Specific target organ toxicity (repeated exposure) | : | No data available |
| Aspiration hazard | : | No data available |
| Additional Information | : | RTECS: Not available Cough, Difficulty in breathing, Gastrointestinal disturbance, Nausea, Vomiting, Symptoms of systemic copper poisoning may include: capillary damage, headache, cold sweat, weak pulse, and kidney and liver damage, central nervous system excitation followed by depression, jaundice, convulsions, paralysis, and coma. Death may occur from shock or renal failure. Chronic copper poisoning is typified by hepatic cirrhosis, brain damage and demyelination, kidney defects, and copper deposition in the cornea as exemplified by humans with Wilson's disease. It has also been reported that copper poisoning has lead to hemolytic anemia and accelerates arteriosclerosis. |

SECTION 12: Ecological information

| | | |
|--|---|--|
| 12.1. Toxicity | : | No data available |
| 12.2. Persistence and degradability | : | No data available |
| 12.3. Bioaccumulative potential | : | No data available |
| 12.3. Mobility in soil | : | No data available |
| 12.4. Results of PBT and vPvB assessment | : | PBT/vPvB assessment not available as chemical safety assessment not required/not conducted |
| 12.6. Other adverse effects | : | No data available |

SECTION 13: Disposal considerations

13.1. Waste treatment methods

| | | |
|------------------------|---|--|
| Product | : | Offer surplus and non-recyclable solutions to a licensed disposal company. |
| Contaminated Packaging | : | Dispose of as unused product. |

Copper Carbonate

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 14: Transport information

DOT (US)

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

SECTION 15: Regulatory information

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

The following components are subject to reporting levels established by SARA Title III, Section 313:

| Copper(II) carbonate--Copper(II) hydroxide (1:1) | CAS-No. | Revision Date |
|--|------------|---------------|
| | 12069-69-1 | 2007-07-01 |

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

| Copper(II) carbonate--Copper(II) hydroxide (1:1) | CAS-No. | Revision Date |
|--|------------|---------------|
| | 12069-69-1 | 2007-07-01 |

New Jersey Right To Know Components

| Copper(II) carbonate--Copper(II) hydroxide (1:1) | CAS-No. | Revision Date |
|--|------------|---------------|
| | 12069-69-1 | 2007-07-01 |

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

| | |
|------------|---------------------------|
| Acute Tox. | : Acute toxicity |
| Eye Irrit. | : Eye irritation |
| H302 | : Harmful if swallowed. |
| H315 | : Causes skin irritation. |

Copper Carbonate

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

H319 : Causes serious eye irritation.
H335 : May cause respiratory irritation.
Skin Irrit. : Skin irritation

HMIS Rating

Health Hazard : 2
Chronic Health Hazard : *
Flammability : 0
Physical Hazard : 0

NFPA Rating

Health hazard : 2
Fire Hazard : 0
Reactivity Hazard : 0

Further Information

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