

Trade name: Basic copper carbonate

Current version : 3.0.0, issued: 16.12.2014

Replaced version: 3.0.0, issued: 07.04.2014

Region: GB

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name

Basic copper carbonate

Substance name copper(II) carbonate--copper(II) hydroxide (1:1)
REACH registration no. 01-2119513711-50-0007

Identification numbers

CAS no. 12069-69-1
EC no. 235-113-6

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

Relevant identified uses of the substance or mixture

Technical applications - wood treatent, organic chemistry, electroplating

1.3 Details of the supplier of the safety data sheet

Address

Timna Copper Mine Ltd
DOAR NA
EILOT ISRAEL 8880200

Telephone no. 972-8-6374171
Fax no. 972-8-6374174
Email timna@timna.co.il

Information provided by / telephone

972-8-6374171

Advice on Safety Data Sheet

timna@timna.co.il

Only representative according to art. 8 Regulation (EC) 1907/2006

Address

UMCO Umwelt Consult GmbH
Georg-Wilhelm-Strasse 183
21107 Hamburg
GERMANY

Telephone no. +49 (0) 79 02 36-300
Fax no. +49 (0) 79 02 36-357

1.4 Emergency telephone number

For medical advice (in German and English):
+49 (0)551 192 40 (Giftinformationszentrum Nord)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification in accordance with Regulation (EC) No 1272/2008 (CLP)

Acute Tox. 4; H302
Aquatic Acute 1; H400
Aquatic Chronic 2; H411

Classification in accordance with Directive 67/548/EEC or 1999/45/EC

N; R50
Xn; R22

| Note | Specific concentration limits | M-factor (acute) | M-factor (chronic) |
|------|-------------------------------|------------------|--------------------|
| - | - | M = 10 | - |

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2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP Regulation)

Product identifier

12069-69-1 (copper(II) carbonate--copper(II) hydroxide (1:1))

Hazard pictograms



GHS07



GHS09

Signal word

Warning

Hazard statements

H302

Harmful if swallowed.

H410

Very toxic to aquatic life with long lasting effects.

Precautionary statements

P264

Wash hands thoroughly after handling.

P273

Avoid release to the environment.

P301+P312

IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P391

Collect spillage.

2.3 Other hazards

No data available.

SECTION 3: Composition/information on ingredients

3.1 Substances

Chemical characterization

| | |
|------------------|--|
| Substance name | copper(II) carbonate--copper(II) hydroxide (1:1) |
| Formula | $\text{CuCO}_3 \times \text{Cu}(\text{OH})_2$ |
| Molecular weight | 221.11 |

Identification numbers

| | |
|---------|------------|
| CAS no. | 12069-69-1 |
| EC no. | 235-113-6 |

3.2 Mixtures

Not applicable. The product is not a mixture.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

In case of persisting adverse effects, consult a physician. Change contaminated clothing.

After inhalation

Remove affected person from the immediate area. Fresh air. Get medical attention if pain still persists.

After skin contact

Wash off immediately with soap and water.

After eye contact

Separate eyelids, wash the eyes thoroughly with water (15 min.). Seek medical assistance.

After ingestion

Seek medical advice immediately. Rinse out mouth and give plenty of water to drink. Do not induce vomiting. Never give anything by mouth to an unconscious person.

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4.2 Most important symptoms and effects, both acute and delayed

No data available.

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Product itself is non-combustible; adapt fire extinguishing measures to surrounding areas.

Unsuitable extinguishing media

No data available.

5.2 Special hazards arising from the substance or mixture

In the event of fire, the following can be released: Carbon monoxide and carbon dioxide

5.3 Advice for firefighters

Use self-contained breathing apparatus. Wear protective clothing.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Refer to protective measures listed in sections 7 and 8. Ensure adequate ventilation. Avoid dust formation.

For emergency responders

No data available. Personal protective equipment (PPE) - see Section 8.

6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

6.3 Methods and material for containment and cleaning up

Take up mechanically. When picked up, treat material as prescribed under heading "Disposal considerations".

6.4 Reference to other sections

No data available.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Avoid absolutely dust formation and dust deposition. Provide good ventilation of working area (local exhaust ventilation, if necessary). Avoid contact with skin and eyes.

General protective and hygiene measures

Do not eat or drink during work - no smoking. Keep away from foodstuffs and beverages. Wash hands before breaks and after work. Avoid contact with eyes and skin.

Advice on protection against fire and explosion

No special measures necessary.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

Keep container tightly closed in a cool, well-ventilated place.

Requirements for storage rooms and vessels

Store product in closed containers.

Advice on storage assembly

Do not store together with foodstuffs. Do not store together with acids.

7.3 Specific end use(s)

No data available.

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

DNEL and PNEC values

DNEL values (worker)

| No | Substance name | | | CAS / EC no |
|----|--|---------------------|----------|-------------------------|
| | Route of exposure | Exposure time | Effect | Value |
| 1 | copper(II) carbonate--copper(II) hydroxide (1:1) | | | 12069-69-1 235-113-6 |
| | dermal | Long term (chronic) | systemic | 137 mg/kg/day |
| | inhalative | Long term (chronic) | systemic | 1 mg/m ³ |

DNEL value (consumer)

| No | Substance name | | | CAS / EC no |
|----|--|---------------------|----------|-------------------------|
| | Route of exposure | Exposure time | Effect | Value |
| 1 | copper(II) carbonate--copper(II) hydroxide (1:1) | | | 12069-69-1 235-113-6 |
| | oral | Long term (chronic) | systemic | 0.041 mg/kg/day |

PNEC values

| No | Substance name | | CAS / EC no |
|----|--|-----------------------|-------------------------|
| | ecological compartment | Type | Value |
| 1 | copper(II) carbonate--copper(II) hydroxide (1:1) | | 12069-69-1 235-113-6 |
| | water | fresh water | 0.0078 mg Cu L-1 |
| | water | fresh water sediment | 87 mg Cu kg dwt-1 |
| | water | marine water | 0.0052 mg Cu L-1 |
| | water | marine water sediment | 676 mg Cu kg dwt-1 |
| | soil | - | 65 mg Cu kg dwt-1 |
| | sewage treatment plant | - | 0.23 mg Cu L-1 |

8.2 Exposure controls

Appropriate engineering controls

No data available.

Personal protective equipment

Respiratory protection

If workplace exposure limits are exceeded, a respiration protection approved for this particular job must be worn. In case of dust formation, take appropriate measures for breathing protection in the event workplace threshold values are not specified.

Respiratory filter (part): P2

Eye / face protection

Safety glasses (EN 166)

Hand protection

Sufficient protection is given wearing suitable protective gloves checked according to i.e. EN 374, in the event of risk of skin contact with the product. Before use, the protective gloves should be tested in any case for its specific work-station suitability (i.e. mechanical resistance, product compatibility and antistatic properties). Adhere to the manufacturer's instructions and information relating to the use, storage, care and replacement of protective gloves. Protective gloves shall be replaced immediately when physically damaged or worn. Design operations thus to avoid permanent use of protective gloves.

Other

Normal chemical work clothing.

Environmental exposure controls

No data available.

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| | |
|--|-----------------------------|
| Form/Colour | |
| Powder / granulates | |
| green | |
| Odour | |
| odourless | |
| Odour threshold | |
| No data available | |
| pH value | |
| No data available | |
| Boiling point / boiling range | |
| No data available | |
| Melting point / melting range | |
| Value | > 400 °C |
| Decomposition point / decomposition range | |
| Value | > 150 °C |
| Flash point | |
| No data available | |
| Auto-ignition temperature | |
| No data available | |
| Oxidising properties | |
| No data available | |
| Explosive properties | |
| No data available | |
| Flammability (solid, gas) | |
| No data available | |
| Lower flammability or explosive limits | |
| No data available | |
| Upper flammability or explosive limits | |
| No data available | |
| Vapour pressure | |
| No data available | |
| Vapour density | |
| No data available | |
| Evaporation rate | |
| No data available | |
| Relative density | |
| Value | 3.478 - 3.482 |
| Density | |
| Value | 1.8 - 2.1 g/cm ³ |

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| Solubility in water | | | |
|-----------------------|--------------|--------|------|
| Value | 1.59 | - 4.68 | mg/l |
| Reference temperature | | 20 | °C |
| Remarks | pH 6,2 - 6,8 | | |
| Value | | 1.16 | g/l |
| Reference temperature | | 20 | °C |
| Remarks | pH 5,6 – 5,8 | | |
| Value | | 0.01 | mg/l |
| Reference temperature | | 20 | °C |
| Remarks | pH 8,7 - 8,8 | | |

| Solubility(ies) | |
|-------------------|--|
| No data available | |

| Partition coefficient: n-octanol/water | |
|--|--|
| No data available | |

| Viscosity | |
|-------------------|--|
| No data available | |

9.2 Other information

| Other information | |
|--------------------|--|
| No data available. | |

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available.

10.2 Chemical stability

No data available.

10.3 Possibility of hazardous reactions

No data available.

10.4 Conditions to avoid

Reactions with acids.

10.5 Incompatible materials

Acids

10.6 Hazardous decomposition products

Carbon monoxide and carbon dioxide

SECTION 11: Toxicological information

11.1 Information on toxicological effects

| Acute oral toxicity | | | |
|-----------------------|--|------------|------------------|
| No | Substance name | CAS no. | EC no. |
| 1 | copper(II) carbonate--copper(II) hydroxide (1:1) | 12069-69-1 | 235-113-6 |
| LD50 | | 1385 | mg/kg bodyweight |
| Species | rat | | |
| Method | OECD 401 | | |
| Source | CSR | | |
| Acute dermal toxicity | | | |
| No | Substance name | CAS no. | EC no. |
| 1 | copper(II) carbonate--copper(II) hydroxide (1:1) | 12069-69-1 | 235-113-6 |
| LD50 | | > 2000 | mg/kg bodyweight |
| Species | rat | | |
| Method | OECD 402 | | |
| Source | CSR | | |

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| Acute inhalational toxicity | |
|-----------------------------|--|
| No data available | |

| Skin corrosion/irritation | | | |
|---------------------------|--|--------------|-----------|
| No | Substance name | CAS no. | EC no. |
| 1 | copper(II) carbonate--copper(II) hydroxide (1:1) | 12069-69-1 | 235-113-6 |
| Species | | rabbit | |
| Method | | OECD 404 | |
| Source | | CSR | |
| Evaluation | | non-irritant | |

| Serious eye damage/irritation | | | |
|-------------------------------|--|--------------|-----------|
| No | Substance name | CAS no. | EC no. |
| 1 | copper(II) carbonate--copper(II) hydroxide (1:1) | 12069-69-1 | 235-113-6 |
| Species | | rabbit | |
| Method | | OECD 405 | |
| Source | | CSR | |
| Evaluation | | non-irritant | |

| Respiratory or skin sensitisation | | | |
|-----------------------------------|--|-----------------|-----------|
| No | Substance name | CAS no. | EC no. |
| 1 | copper(II) carbonate--copper(II) hydroxide (1:1) | 12069-69-1 | 235-113-6 |
| Route of exposure | | Skin | |
| Species | | guinea pig | |
| Method | | OECD 406 | |
| Source | | CSR | |
| Evaluation | | non-sensitizing | |

| Germ cell mutagenicity | | | |
|---------------------------|--|---|-----------|
| No | Substance name | CAS no. | EC no. |
| 1 | copper(II) carbonate--copper(II) hydroxide (1:1) | 12069-69-1 | 235-113-6 |
| Source | | CSR | |
| Evaluation/classification | | Based on available data, the classification criteria are not met. | |

| Reproduction toxicity | | | |
|---------------------------|--|---|-----------|
| No | Substance name | CAS no. | EC no. |
| 1 | copper(II) carbonate--copper(II) hydroxide (1:1) | 12069-69-1 | 235-113-6 |
| Source | | CSR | |
| Evaluation/classification | | Based on available data, the classification criteria are not met. | |

| Carcinogenicity | | | |
|---------------------------|--|---|-----------|
| No | Substance name | CAS no. | EC no. |
| 1 | copper(II) carbonate--copper(II) hydroxide (1:1) | 12069-69-1 | 235-113-6 |
| Source | | CSR | |
| Evaluation/classification | | Based on available data, the classification criteria are not met. | |

| STOT-single exposure | |
|----------------------|--|
| No data available | |

| STOT-repeated exposure | |
|------------------------|--|
| No data available | |

| Aspiration hazard | |
|-------------------|--|
| No data available | |

| Symptoms related to the physical, chemical and toxicological characteristics | |
|--|--|
| Eye contact may cause mechanical irritation through dust particles. | |

| Delayed and immediate effects as well as chronic effects from short and long-term exposure | |
|--|--|
| Inhalation of dusts may irritate the respiratory tract. | |

| Other information | |
|---|--|
| Exercise customary precautions when handling chemicals. | |

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SECTION 12: Ecological information

12.1 Toxicity

| Toxicity to fish (acute) | |
|---------------------------|---|
| No | Product Name |
| 1 | Basic copper carbonate |
| Evaluation/classification | Based on available data, the classification criteria are met. |

| Toxicity to fish (chronic) | |
|----------------------------|---|
| No | Product Name |
| 1 | Basic copper carbonate |
| Evaluation/classification | Based on available data, the classification criteria are met. |

| Toxicity to Daphnia (acute) | |
|-----------------------------|---|
| No | Product Name |
| 1 | Basic copper carbonate |
| Evaluation/classification | Based on available data, the classification criteria are met. |

| Toxicity to Daphnia (chronic) | |
|-------------------------------|---|
| No | Product Name |
| 1 | Basic copper carbonate |
| Evaluation/classification | Based on available data, the classification criteria are met. |

| Toxicity to algae (acute) | |
|---------------------------|---|
| No | Product Name |
| 1 | Basic copper carbonate |
| Evaluation/classification | Based on available data, the classification criteria are met. |

| Toxicity to algae (chronic) | |
|-----------------------------|---|
| No | Product Name |
| 1 | Basic copper carbonate |
| Evaluation/classification | Based on available data, the classification criteria are met. |

| Bacteria toxicity | |
|---------------------------|---|
| No | Product Name |
| 1 | Basic copper carbonate |
| Evaluation/classification | Based on available data, the classification criteria are met. |

| Other aquatic organisms | |
|-------------------------|---|
| LC50 | 34.4 µl Cu/l |
| Species | Other aquatic organisms |
| Remarks | The stated concentration is an extrapolated value based on numerous studies taken from the CSR. |
| NOEC | 14.9 µg Cu/l |
| Species | Other aquatic organisms |
| Remarks | The stated concentration is an extrapolated value based on numerous studies taken from the CSR. |

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12.2 Persistence and degradability

No data available.

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

No data available.

12.6 Other adverse effects

No data available.

12.7 Other information

Other information

Do not discharge product unmonitored into the environment.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Allocation of a waste code number, according to the European Waste Catalogue, should be carried out in agreement with the regional waste disposal company.

Packaging

Residuals must be removed from packaging and when emptied completely disposed of in accordance with the regulations for waste removal. Incompletely emptied packaging must be disposed of in the form of disposal specified by the regional disposer.

SECTION 14: Transport information

14.1 Transport ADR/RID/ADN

| | |
|--|--|
| Class | 9 |
| Classification code | M7 |
| Packing group | III |
| Hazard identification no. | 90 |
| UN number | UN3077 |
| Technical name | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. |
| Danger releasing substance | copper(II) carbonate--copper(II) hydroxide (1:1) |
| Tunnel restriction code | E |
| Label | 9 |
| Environmentally hazardous substance mark | Symbol "fish and tree" |

14.2 Transport IMDG

| | |
|----------------------------|--|
| Class | 9 |
| Packing group | III |
| UN number | UN3077 |
| Proper shipping name | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. |
| Danger releasing substance | copper(II) carbonate--copper(II) hydroxide (1:1) |
| EmS | F-A+S-F |
| Label | 9 |
| Marine pollutant mark | Symbol "fish and tree" |

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14.3 Transport ICAO-TI / IATA

| | |
|--|--|
| Class | 9 |
| Packing group | III |
| UN number | UN3077 |
| Proper shipping name | Environmentally hazardous substance, solid, n.o.s. |
| Danger releasing substance | copper(II) carbonate--copper(II) hydroxide (1:1) |
| Label | 9 |
| Environmentally hazardous substance mark | Symbol "fish and tree" |

14.4 Other information

No data available.

14.5 Environmental hazards

Information on environmental hazards, if relevant, please see 14.1 - 14.3.

14.6 Special precautions for user

No data available.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not relevant

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU regulations

Regulation (EC) No 1907/2006 (REACH) Annex XIV (List of substances subject to authorisation)

In accordance with the Reach regulation (EC) 1907/2006, the product does not contain any substances that are considered as subject to listing in annex XIV, inventory of substances requiring authorisation.

REACH candidate list of substances of very high concern (SVHC) for authorisation

In accordance with article 57 and article 59 of the Reach regulation (EC) 1907/2006, this substance is not considered as subject to listing in annex XIV, inventory of substances requiring authorisation ("Authorization list").

Regulation (EC) No 1907/2006 (REACH) Annex XVII: RESTRICTIONS ON THE MANUFACTURE, PLACING ON THE MARKET AND USE OF CERTAIN DANGEROUS SUBSTANCES, PREPARATIONS AND ARTICLES

The substance is not subject to the provisions of annex XVII (restriction entries) of the Reach regulation (EC) 1907/2006.

Restriction of occupation

Adhere to the national sanitary and occupational safety regulations when using this product.

15.2 Chemical safety assessment

No data available.

SECTION 16: Other information

Sources of key data used to compile the data sheet:

EC Directive 67/548/EC resp. 1999/45/EC as amended in each case.

Regulation (EC) No 1907/2006 (REACH), 1272/2008 (CLP) as amended in each case.

EC Directives 2000/39/EC, 2006/15/EC, 2009/161/EU

National Threshold Limit Values of the corresponding countries as amended in each case.

Transport regulations according to ADR, RID, IMDG, IATA as amended in each case.

The data sources used to determine physical, toxic and ecotoxic data, are indicated directly in the corresponding chapter.

Full text of the R-, H- and EUH- phrases drawn up in sections 2 and 3 (provided not already drawn up in these sections)

| | |
|------|--|
| R22 | Harmful if swallowed. |
| R50 | Very toxic to aquatic organisms. |
| H400 | Very toxic to aquatic life. |
| H411 | Toxic to aquatic life with long lasting effects. |

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Department issuing safety data sheet

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This information is based on our present state of knowledge and experience.

The security data sheet describes products with a view to the security requirements.

However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.

Alterations/supplements:

Alterations to the previous edition are marked in the left-hand margin.