

Safety Data Sheet

Globally Harmonized System (GHS) Rev.6

Printing date 27.04.2023

Version number 72

Revision: 16.03.2023

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

- **1.1 Product identifier**
- Trade name: **Copper Carbonate green prec. 54/56 % Cu**
- **Article number:** 201536
- **CAS Number:**
12069-69-1
- **EC number:**
235-113-6
- **Index number:**
029-020-00-8
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture**
Electroplating auxiliary
Catalyst
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
TIB Chemicals AG
Muelheimer Str. 16-22
D-68219 Mannheim/Germany
- **Informing department:**
PRODUKTSERVICE
e-mail: Produktservice@tib-chemicals.com
Mo-Fr 9-15 h: Tel.: +49(0)621 8901 710
- **1.4 Emergency telephone number:** 24 h Tel.: +49 (0) 621 / 8901 - 700

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**

| | |
|-------------------|--|
| Acute Tox. 4 | H302 Harmful if swallowed. |
| Acute Tox. 5 | H313 May be harmful in contact with skin. |
| Acute Tox. 4 | H332 Harmful if inhaled. |
| Eye Irrit. 2 | H319 Causes serious eye irritation. |
| Aquatic Acute 1 | H400 Very toxic to aquatic life. |
| Aquatic Chronic 1 | H410 Very toxic to aquatic life with long lasting effects. |
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The substance is classified and labelled according to the CLP regulation.
- **Hazard pictograms**




GHS07 GHS09
- **Signal word** Warning
- **Hazard-determining components of labelling:**
copper(II) carbonate--copper(II) hydroxide(1:1)

(Contd. on page 2)

Safety Data Sheet

Globally Harmonized System (GHS) Rev.6

Printing date 27.04.2023

Version number 72

Revision: 16.03.2023

Trade name: Copper Carbonate green prec. 54/56 % Cu

(Contd. of page 1)

- **Hazard statements**

- H302+H332 Harmful if swallowed or if inhaled.
- H313 May be harmful in contact with skin.
- H319 Causes serious eye irritation.
- H410 Very toxic to aquatic life with long lasting effects.

- **Precautionary statements**

- P260 Do not breathe dust.
- P273 Avoid release to the environment.
- P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
- P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P391 Collect spillage.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **2.3 Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- **3.1 Chemical characterisation: Substances**

- **CAS No. Designation:**
12069-69-1 copper(II) carbonate--copper(II) hydroxide(1:1)
- **Identification number(s):**
- **EC number:** 235-113-6
- **Index number:** 029-020-00-8
- **Description:** Mixture consisting of the following components.

SECTION 4: First aid measures

- **4.1 Description of first aid measures**

- **General information**

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

- **After inhalation** Supply fresh air; consult doctor in case of symptoms.

- **After skin contact**

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

- **After eye contact** Rinse opened eye for several minutes under running water.

- **After swallowing** Instantly call for doctor.

- **4.2 Most important symptoms and effects, both acute and delayed**

No further relevant information available.

- **4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**

- **Suitable extinguishing agents**

CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

(Contd. on page 3)

Safety Data Sheet

Globally Harmonized System (GHS) Rev.6

Printing date 27.04.2023

Version number 72

Revision: 16.03.2023

Trade name: Copper Carbonate green prec. 54/56 % Cu

(Contd. of page 2)

- **For safety reasons unsuitable extinguishing agents** Water with a full water jet.
- **5.2 Special hazards arising from the substance or mixture**
Formation of toxic gases is possible during heating or in case of fire.
Can be released in case of fire :
 - carbon dioxide, carbon monoxide
 - Copper oxides
- **5.3 Advice for firefighters**
- **Protective equipment:** Put on breathing apparatus.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Avoid causing dust.
Wear protective clothing.
- **6.2 Environmental precautions:**
Do not allow product to reach sewage system or water bodies.
Inform respective authorities in case product reaches water or sewage system.
- **6.3 Methods and material for containment and cleaning up:**
Dispose of contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **6.4 Reference to other sections**
See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment.
See Section 13 for information on disposal.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Thorough dedusting.
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of dust.
- **Information about protection against explosions and fires:** The product is not flammable
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and containers:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Store under dry conditions.
Keep container tightly sealed.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Additional information about design of technical systems:** No further data; see item 7.
- **Components with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists that were valid during the compilation were used as basis.

(Contd. on page 4)

Safety Data Sheet

Globally Harmonized System (GHS) Rev.6

Printing date 27.04.2023

Version number 72

Revision: 16.03.2023

Trade name: Copper Carbonate green prec. 54/56 % Cu

(Contd. of page 3)

- **8.2 Exposure controls**
- **Personal protective equipment**
- **General protective and hygienic measures**
Do not eat, drink or smoke while working.
Keep away from foodstuffs, beverages and food.
Wash hands during breaks and at the end of the work.
- **Breathing equipment:**
In case of formation of vapours/dusts:
In case of brief exposure or low pollution use breathing filter apparatus. In case of intensive or longer exposure use breathing apparatus that is independent of circulating air.
- **Recommended filter device for short term use:** Filter P2
- **Protection of hands:**
Rubber gloves
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Not required.
- **Body protection:** Protective work clothing.

SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

| | |
|----------------|------------|
| Form: | Powder |
| Colour: | Dark green |
| Odour: | Odourless |
- **pH-value:** Not applicable.
- **Change in condition**

| | |
|---|----------------|
| Melting point/freezing point: | 200 °C |
| Initial boiling point and boiling range: | Not determined |
- **Flash point:** Not applicable
- **Inflammability (solid, gaseous)** Product is not inflammable.
- **Explosive properties:** Product is not explosive.
- **Explosion limits:**

| | |
|---------------|-----------------|
| Lower: | Not determined. |
| Upper: | Not determined. |
- **Vapour pressure:** Not applicable.
- **Density at 20 °C:** 4 g/cm³

(Contd. on page 5)

Safety Data Sheet

Globally Harmonized System (GHS) Rev.6

Printing date 27.04.2023

Version number 72

Revision: 16.03.2023

Trade name: Copper Carbonate green prec. 54/56 % Cu

(Contd. of page 4)

| | |
|--|---|
| · Bulk density: | 1.5-1.8 kg/m ³ |
| · Solubility in / Miscibility with Water: | Insoluble Not miscible or difficult to mix |
| · Partition coefficient: n-octanol/water: | Not determined. |
| · Viscosity: | |
| dynamic: | Not applicable. |
| kinematic: | Not applicable. |
| · Surface tension: | |
| Solids content: | 100.0 % |
| · 9.2 Other information | No further relevant information available. |

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.3 Possibility of hazardous reactions** Reacts with acids
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:**
Carbon monoxide and carbon dioxide
Metal oxide smoke in a fire

SECTION 11: Toxicological information

· 11.1 Information on toxicological effects

· Acute toxicity

Harmful if swallowed or if inhaled.
May be harmful in contact with skin.

· LD/LC50 values that are relevant for classification:

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

| | | |
|------------|----------|--|
| Oral | LD50 | 500 mg/kg (ATE) 1,291 mg/kg (rat) (Acute Oral Toxicity) |
| Dermal | LD50 | >2,000 mg/kg (rat) (Acute Dermal Toxicity) |
| Inhalative | LC50/4 h | 1.2 mg/l (ATE) |

· Primary irritant effect:

· **Skin corrosion/irritation** Based on available data, the classification criteria are not met.

· Serious eye damage/irritation

Causes serious eye irritation.

· **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.

· Additional toxicological information:

· CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):

· **Germ cell mutagenicity** Based on available data, the classification criteria are not met.

· **Carcinogenicity** Based on available data, the classification criteria are not met.

· **Reproductive toxicity** Based on available data, the classification criteria are not met.

· **STOT-single exposure** Based on available data, the classification criteria are not met.

(Contd. on page 6)

Safety Data Sheet

Globally Harmonized System (GHS) Rev.6

Printing date 27.04.2023

Version number 72

Revision: 16.03.2023

Trade name: Copper Carbonate green prec. 54/56 % Cu

(Contd. of page 5)

- **STOT-repeated exposure** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Very toxic for fish
- **Additional ecological information:**
- **General notes:**
Also poisonous for fish and plankton in water bodies.
Very toxic for aquatic organisms
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation** Must be specially treated under adherence to official regulations.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

- | | |
|---------------------------------------|---|
| · 14.1 UN-Number | |
| · ADR, IMDG, IATA | UN3077 |
| · 14.2 UN proper shipping name | |
| · ADR | UN3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (COPPER HYDROXIDE CARBONATE) |
| · IMDG | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (COPPER HYDROXIDE CARBONATE), MARINE POLLUTANT |
| · IATA | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (COPPER HYDROXIDE CARBONATE) |

(Contd. on page 7)

WWE

Safety Data Sheet

Globally Harmonized System (GHS) Rev.6

Printing date 27.04.2023

Version number 72

Revision: 16.03.2023

Trade name: Copper Carbonate green prec. 54/56 % Cu

(Contd. of page 6)

· 14.3 Transport hazard class(es)
· ADR

· Class

9 (M7) Miscellaneous dangerous substances and articles.

· Label

9

· IMDG, IATA

· Class

9 Miscellaneous dangerous substances and articles.

· Label

9

· 14.4 Packing group
· ADR, IMDG, IATA

III

· 14.5 Environmental hazards:
· Marine pollutant:

Yes (P)

Symbol (fish and tree)

· Special marking (ADR):

Symbol (fish and tree)

· Special marking (IATA):

Symbol (fish and tree)

· 14.6 Special precautions for user

Warning: Miscellaneous dangerous substances and articles.

· Kemler Number:

90

· EMS Number:

F-A,S-F

· Segregation groups

(SGG7) Heavy metals and their salts (including their organometallic compounds)

· Stowage Category

A

· Stowage Code

SW23 When transported in BK3 bulk container, see 7.6.2.12 and 7.7.3.9.

· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable.

· Transport/Additional information:
· ADR
· Limited quantities (LQ)

5 kg

· Excepted quantities (EQ)

Code: E1

Maximum net quantity per inner packaging: 30 g

Maximum net quantity per outer packaging: 1000 g

· Transport category

3

· Tunnel restriction code

(-)

(Contd. on page 8)

Safety Data Sheet

Globally Harmonized System (GHS) Rev.6

Printing date 27.04.2023

Version number 72

Revision: 16.03.2023

Trade name: Copper Carbonate green prec. 54/56 % Cu

(Contd. of page 7)

| | |
|--|--|
| <ul style="list-style-type: none"> · IMDG · Limited quantities (LQ) · Excepted quantities (EQ) | 5 kg Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g |
| <ul style="list-style-type: none"> · UN "Model Regulation": | UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (COPPER HYDROXIDE CARBONATE), 9, III |

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **EU regulations/legislation**
- **Regulation (EC) No 1907/2006 (REACH), Annex XIV** not applicable
- **Regulation (EC) No 1907/2006 (REACH), Annex XVII** not applicable
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** Substance is not listed.
- **Seveso category E1** Hazardous to the Aquatic Environment
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 100 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 t
- **National regulations**
- **Decree to be applied in case of technical fault:**

| Class | Share in % |
|-------|------------|
| III | 100.0 |

- **Water hazard class:**
Water danger class 3 (German Regulation) (Self-classification): extremely hazardous for water.
- **Other regulations, limitations and prohibitive regulations**
BG leaflet M 050 "Handling substances hazardous to health".
- **Chemical safety assessment:** A Chemical Safety Assessment has been carried out.

SECTION 16: Other information

The information contained herein is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
 ICAO: International Civil Aviation Organisation
 ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
 IMDG: International Maritime Code for Dangerous Goods
 IATA: International Air Transport Association
 P: Marine Pollutant
 GHS: Globally Harmonised System of Classification and Labelling of Chemicals
 EINECS: European Inventory of Existing Commercial Chemical Substances
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 LC50: Lethal concentration, 50 percent

(Contd. on page 9)

Safety Data Sheet
Globally Harmonized System (GHS) Rev.6

Printing date 27.04.2023

Version number 72

Revision: 16.03.2023

Trade name: Copper Carbonate green prec. 54/56 % Cu

(Contd. of page 8)

LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Acute Tox. 4: Acute toxicity – Category 4
Acute Tox. 5: Acute toxicity – Category 5
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1
· * **Data compared to the previous version altered.**

WWE