

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

Revision date: 17.02.2026

**Copper metallizing coating spray**

Product code: 0107-Spray

Page 1 of 13

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Copper metallizing coating spray

UFI: 6CMJ-D9N8-C00W-V7TD

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

Use restriction according to REACH annex XVII, no.: 40

**1.3. Details of the supplier of the safety data sheet**

|                          |                             |                            |
|--------------------------|-----------------------------|----------------------------|
| Company name:            | MARAWE GmbH & Co. KG        |                            |
| Street:                  | An der Irler Höhe 3b        |                            |
| Place:                   | D-93055 Regensburg          |                            |
| Telephone:               | +49 941 37847200            | Telefax: +49 941 290205-93 |
| E-mail:                  | info@marawe.de              |                            |
| E-mail (Contact person): | produktsicherheit@marawe.de |                            |
| Internet:                | www.marawe.de               |                            |

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Regulation (EC) No 1272/2008**

Aerosol 1; H222-H229  
Acute Tox. 4; H332  
Eye Irrit. 2; H319  
STOT SE 3; H336  
Aquatic Acute 1; H400  
Aquatic Chronic 1; H410

Full text of hazard statements: see SECTION 16.

**2.2. Label elements****Regulation (EC) No 1272/2008****Hazard components for labelling**

acetone; propan-2-one; propanone  
ethyl acetate  
copper powder (coated with aliphatic acid)  
n-butyl acetate

**Signal word:** Danger**Pictograms:****Hazard statements**

|      |                                                       |
|------|-------------------------------------------------------|
| H222 | Extremely flammable aerosol.                          |
| H229 | Pressurised container: May burst if heated.           |
| H319 | Causes serious eye irritation.                        |
| H332 | Harmful if inhaled.                                   |
| H336 | May cause drowsiness or dizziness.                    |
| H410 | Very toxic to aquatic life with long lasting effects. |

**Precautionary statements**

|      |                                                                       |
|------|-----------------------------------------------------------------------|
| P101 | If medical advice is needed, have product container or label at hand. |
| P102 | Keep out of reach of children.                                        |

# Safety Data Sheet

according to Regulation (EC) No 1907/2006

## Copper metallizing coating spray

Revision date: 17.02.2026

Product code: 0107-Spray

Page 2 of 13

### Precautionary statements

|           |                                                                                                |
|-----------|------------------------------------------------------------------------------------------------|
| P210      | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P211      | Do not spray on an open flame or other ignition source.                                        |
| P251      | Do not pierce or burn, even after use.                                                         |
| P271      | Use only outdoors or in a well-ventilated area.                                                |
| P273      | Avoid release to the environment.                                                              |
| P391      | Collect spillage.                                                                              |
| P405      | Store locked up.                                                                               |
| P410+P412 | Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.                   |
| P501      | Dispose of contents/container to .                                                             |

### Special labelling of certain mixtures

|        |                                                       |
|--------|-------------------------------------------------------|
| EUH066 | Repeated exposure may cause skin dryness or cracking. |
|--------|-------------------------------------------------------|

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

#### Relevant ingredients

| CAS No   | Chemical name                                                                                                                                     | Quantity         |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
|          | EC No                                                                                                                                             | Index No         |
|          | Classification (Regulation (EC) No 1272/2008)                                                                                                     | REACH No         |
| 115-10-6 | dimethyl ether                                                                                                                                    | 35 - < 40 %      |
|          | 204-065-8                                                                                                                                         | 01-2119472128-37 |
|          | Flam. Gas 1A, Compressed gas; H220 H280                                                                                                           |                  |
| 67-64-1  | acetone                                                                                                                                           | 25 - < 30 %      |
|          | 200-662-2                                                                                                                                         | 01-2119471330-49 |
|          | Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336 EUH066                                                                                      |                  |
|          | copper powder (coated with aliphatic acid)                                                                                                        | 10 - < 15 %      |
|          | Acute Tox. 3, Acute Tox. 4, Eye Irrit. 2, Aquatic Acute 1, Aquatic Chronic 1; H331 H302 H319 H400 H410                                            |                  |
| 123-86-4 | n-butyl acetate                                                                                                                                   | 5 - < 10 %       |
|          | 204-658-1                                                                                                                                         | 01-2119485493-29 |
|          | Flam. Liq. 3, STOT SE 3; H226 H336 EUH066                                                                                                         |                  |
|          | xylene                                                                                                                                            | 1.9 - < 5 %      |
|          | 905-588-0                                                                                                                                         | 01-2119488216-32 |
|          | Flam. Liq. 3, Acute Tox. 4, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, STOT SE 3, STOT RE 2, Asp. Tox. 1; H226 H332 H312 H315 H319 H335 H373 H304 |                  |
| 71-36-3  | n-butanol                                                                                                                                         | 1 - < 1.9 %      |
|          | 200-751-6                                                                                                                                         |                  |
|          | Flam. Liq. 3, Acute Tox. 4, Skin Irrit. 2, Eye Dam. 1, STOT SE 3, STOT SE 3; H226 H302 H315 H318 H335 H336                                        |                  |

Full text of H and EUH statements: see section 16.

### Specific Conc. Limits, M-factors and ATE

| CAS No  | EC No     | Chemical name                                                                                  | Quantity    |
|---------|-----------|------------------------------------------------------------------------------------------------|-------------|
|         |           | Specific Conc. Limits, M-factors and ATE                                                       |             |
| 67-64-1 | 200-662-2 | acetone                                                                                        | 25 - < 30 % |
|         |           | inhalation: LC50 = 76 mg/l (vapours); dermal: LD50 = 7426-15800 mg/kg; oral: LD50 = 5800 mg/kg |             |

# Safety Data Sheet

according to Regulation (EC) No 1907/2006

## Copper metallizing coating spray

Revision date: 17.02.2026

Product code: 0107-Spray

Page 3 of 13

### Specific Conc. Limits, M-factors and ATE

| CAS No   | EC No     | Chemical name                                                                                                                                                         | Quantity    |
|----------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
|          |           | Specific Conc. Limits, M-factors and ATE                                                                                                                              |             |
|          |           | copper powder (coated with aliphatic acid)                                                                                                                            | 10 - < 15 % |
|          |           | inhalation: LC50 = 0,7 mg/l (dusts or mists); dermal: LD50 = > 2000 mg/kg; oral: LD50 = 300 - 500 mg/kg Aquatic Acute 1; H400: M=100<br>Aquatic Chronic 1; H410: M=10 |             |
| 123-86-4 | 204-658-1 | n-butyl acetate                                                                                                                                                       | 5 - < 10 %  |
|          |           | inhalation: LC50 = > 21 mg/l (dusts or mists); dermal: LD50 = > 14112 mg/kg; oral: LD50 = 10760 mg/kg                                                                 |             |
|          | 905-588-0 | xylene                                                                                                                                                                | 1.9 - < 5 % |
|          |           | inhalation: LC50 = 29000 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); dermal: LD50 = 2000 mg/kg; oral: LD50 = 3523 mg/kg                              |             |
| 71-36-3  | 200-751-6 | n-butanol                                                                                                                                                             | 1 - < 1.9 % |
|          |           | inhalation: LC50 = 17000 mg/l (vapours); dermal: LD50 = 3430 mg/kg; oral: LD50 = 2292 mg/kg                                                                           |             |

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### After inhalation

Provide fresh air. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). If unconscious but breathing normally, place in recovery position and seek medical advice.

#### After contact with skin

Gently wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse.

#### After ingestion

Rinse mouth immediately and drink 1 glass of water. Seek medical advice immediately.

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

Causes serious eye irritation.

Vapours may cause drowsiness and dizziness.

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

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

#### Suitable extinguishing media

Carbon dioxide (CO2), Foam, Extinguishing powder.

### 5.2. Special hazards arising from the substance or mixture

Extremely flammable aerosol. Pressurized container: May burst if heated. Vapours can form explosive mixtures with air.

### 5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

### Additional information

Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

Revision date: 17.02.2026

**Copper metallizing coating spray**

Product code: 0107-Spray

Page 4 of 13

### SECTION 6: Accidental release measures

#### **6.1. Personal precautions, protective equipment and emergency procedures**

##### **General advice**

Remove all sources of ignition. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

#### **6.2. Environmental precautions**

Do not allow uncontrolled discharge of product into the environment. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.  
Explosion risk.

#### **6.3. Methods and material for containment and cleaning up**

##### **For cleaning up**

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

#### **6.4. Reference to other sections**

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

### SECTION 7: Handling and storage

#### **7.1. Precautions for safe handling**

##### **Advice on safe handling**

Do not pierce or burn, even after use. If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

##### **Advice on protection against fire and explosion**

Do not spray on naked flames or any incandescent material. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges. Vapours can form explosive mixtures with air.

##### **Advice on general occupational hygiene**

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat, drink, smoke, sniff. Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat, drink, smoke, sniff.

#### **7.2. Conditions for safe storage, including any incompatibilities**

##### **Requirements for storage rooms and vessels**

Keep container tightly closed. Keep locked up. Store in a place accessible by authorized persons only. Provide adequate ventilation as well as local exhaustion at critical locations. Keep in a cool, well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

##### **Hints on joint storage**

Do not store together with: Oxidizing agent. Pyrophoric or self-heating substances.

### SECTION 8: Exposure controls/personal protection

#### **8.1. Control parameters**

##### **Occupational exposure limit values**

| CAS No   | Name of agent   | ppm  | mg/m <sup>3</sup> | fib/cm <sup>3</sup> | Category      | Origin |
|----------|-----------------|------|-------------------|---------------------|---------------|--------|
| 67-64-1  | Acetone         | 500  | 1210              |                     | TWA (8 h)     |        |
| 115-10-6 | Dimethylether   | 1000 | 1920              |                     | TWA (8 h)     |        |
| 123-86-4 | n-Butyl acetate | 50   | 241               |                     | TWA (8 h)     |        |
|          |                 | 150  | 723               |                     | STEL (15 min) |        |

# Safety Data Sheet

according to Regulation (EC) No 1907/2006

Revision date: 17.02.2026

## Copper metallizing coating spray

Product code: 0107-Spray

Page 5 of 13

### DNEL/DMEL values

| CAS No                   | Name of agent   | Exposure route | Effect   | Value                  |
|--------------------------|-----------------|----------------|----------|------------------------|
| 67-64-1                  | acetone         |                |          |                        |
| Consumer DNEL, long-term |                 | oral           | systemic | 62 mg/kg bw/day        |
| Worker DNEL, long-term   |                 | dermal         | systemic | 186 mg/kg bw/day       |
| Consumer DNEL, long-term |                 | dermal         | systemic | 62 mg/kg bw/day        |
| Worker DNEL, acute       |                 | inhalation     | local    | 2420 mg/m <sup>3</sup> |
| Worker DNEL, long-term   |                 | inhalation     | systemic | 1210 mg/m <sup>3</sup> |
| Consumer DNEL, long-term |                 | inhalation     | systemic | 200 mg/m <sup>3</sup>  |
| 123-86-4                 | n-butyl acetate |                |          |                        |
| Consumer DNEL, acute     |                 | oral           | systemic | 2 mg/kg bw/day         |
| Consumer DNEL, long-term |                 | oral           | systemic | 2 mg/kg bw/day         |
| Worker DNEL, acute       |                 | dermal         | systemic | 11 mg/kg bw/day        |
| Worker DNEL, long-term   |                 | dermal         | systemic | 7 mg/kg bw/day         |
| Consumer DNEL, acute     |                 | dermal         | systemic | 6 mg/kg bw/day         |
| Consumer DNEL, long-term |                 | dermal         | systemic | 3,4 mg/kg bw/day       |
| Worker DNEL, acute       |                 | inhalation     | systemic | 600 mg/m <sup>3</sup>  |
| Worker DNEL, acute       |                 | inhalation     | local    | 600 mg/m <sup>3</sup>  |
| Worker DNEL, long-term   |                 | inhalation     | systemic | 300 mg/m <sup>3</sup>  |
| Worker DNEL, long-term   |                 | inhalation     | local    | 300 mg/m <sup>3</sup>  |
| Consumer DNEL, acute     |                 | inhalation     | systemic | 300 mg/m <sup>3</sup>  |
| Consumer DNEL, acute     |                 | inhalation     | local    | 300 mg/m <sup>3</sup>  |
| Consumer DNEL, long-term |                 | inhalation     | systemic | 12 mg/m <sup>3</sup>   |
| Consumer DNEL, long-term |                 | inhalation     | local    | 35,7 mg/m <sup>3</sup> |

### PNEC values

| CAS No                                           | Name of agent   | Value        |
|--------------------------------------------------|-----------------|--------------|
| 67-64-1                                          | acetone         |              |
| Freshwater                                       |                 | 10,6 mg/l    |
| Freshwater (intermittent releases)               |                 | 21 mg/l      |
| Marine water                                     |                 | 1,06 mg/l    |
| Marine water (intermittent releases)             |                 | 21 mg/l      |
| Freshwater sediment                              |                 | 30,4 mg/kg   |
| Marine sediment                                  |                 | 3,04 mg/kg   |
| Micro-organisms in sewage treatment plants (STP) |                 | 100 mg/l     |
| Soil                                             |                 | 29,5 mg/kg   |
| 123-86-4                                         | n-butyl acetate |              |
| Freshwater                                       |                 | 0,18 mg/l    |
| Freshwater (intermittent releases)               |                 | 0,36 mg/l    |
| Marine water                                     |                 | 0,018 mg/l   |
| Freshwater sediment                              |                 | 0,981 mg/kg  |
| Marine sediment                                  |                 | 0,0981 mg/kg |
| Micro-organisms in sewage treatment plants (STP) |                 | 35,6 mg/l    |
| Soil                                             |                 | 0,0903 mg/kg |

### 8.2. Exposure controls



Appropriate engineering controls

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Copper metallizing coating spray**

Revision date: 17.02.2026

Product code: 0107-Spray

Page 6 of 13

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

**Individual protection measures, such as personal protective equipment****Hand protection**

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

**Skin protection**

Flame-retardant protective clothing. Wear anti-static footwear and clothing

**Respiratory protection**

In case of inadequate ventilation wear respiratory protection.

**Thermal hazards**

Flame-retardant protective clothing. Wear anti-static footwear and clothing Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

|                                                           |                                                                                                  |                                  |
|-----------------------------------------------------------|--------------------------------------------------------------------------------------------------|----------------------------------|
| Physical state:                                           | Aerosol                                                                                          |                                  |
| Melting point/freezing point:                             |                                                                                                  | not determined                   |
| Boiling point or initial boiling point and boiling range: |                                                                                                  | not determined                   |
| Flammability:                                             |                                                                                                  | not applicable<br>not applicable |
| Lower explosion limits:                                   |                                                                                                  | 2,1 g/m <sup>3</sup>             |
| Upper explosion limits:                                   |                                                                                                  | 18,6 g/m <sup>3</sup>            |
| Flash point:                                              |                                                                                                  | -42 °C                           |
| Auto-ignition temperature:                                |                                                                                                  | 235 °C                           |
| Decomposition temperature:                                |                                                                                                  | not determined                   |
| pH-Value:                                                 |                                                                                                  | not applicable                   |
| Water solubility:                                         | The study does not need to be conducted because the substance is known to be insoluble in water. |                                  |
| Solubility in other solvents                              | not determined                                                                                   |                                  |
| Partition coefficient n-octanol/water:                    |                                                                                                  | not determined                   |
| Vapour pressure (at 20 °C):                               |                                                                                                  | 5100 hPa                         |
| Density:                                                  |                                                                                                  | not determined                   |
| Relative vapour density:                                  |                                                                                                  | not determined                   |

**9.2. Other information****Information with regard to physical hazard classes****Explosive properties**

Heating may cause an explosion.

**Self-ignition temperature**

Gas: not determined

**Oxidizing properties**

The product is not: oxidising.

**Other safety characteristics**

Evaporation rate: not determined

# Safety Data Sheet

according to Regulation (EC) No 1907/2006

## Copper metallizing coating spray

Revision date: 17.02.2026

Product code: 0107-Spray

Page 7 of 13

Solvent content: 58 %  
Solid content: 20,70 %

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Extremely flammable aerosol. Pressurized container: May burst if heated.

### 10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

### 10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

### 10.4. Conditions to avoid

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Vapours can form explosive mixtures with air.

### 10.5. Incompatible materials

Materials to avoid: Acids,

### 10.6. Hazardous decomposition products

No known hazardous decomposition products.

## SECTION 11: Toxicological information

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

#### Acute toxicity

Harmful if inhaled.

#### ATEmix calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) 4,072 mg/l

| CAS No   | Chemical name                              |                       |           |                          |          |
|----------|--------------------------------------------|-----------------------|-----------|--------------------------|----------|
|          | Exposure route                             | Dose                  | Species   | Source                   | Method   |
| 67-64-1  | acetone                                    |                       |           |                          |          |
|          | oral                                       | LD50 5800 mg/kg       | Rat       | Pre-supplier/manufaturer |          |
|          | dermal                                     | LD50 7426-15800 mg/kg | Rabbit    | Pre-supplier/manufaturer |          |
|          | inhalation (4 h) vapour                    | LC50 76 mg/l          | Rat       | Pre-supplier/manufaturer |          |
|          | copper powder (coated with aliphatic acid) |                       |           |                          |          |
|          | oral                                       | LD50 300 - 500 mg/kg  | Rat       | Manufacturer             |          |
|          | dermal                                     | LD50 > 2000 mg/kg     | Rat       | Manufacturer             |          |
|          | inhalation (4 h) dust/mist                 | LC50 0,7 mg/l         | rat, male | Manufacturer             |          |
| 123-86-4 | n-butyl acetate                            |                       |           |                          |          |
|          | oral                                       | LD50 10760 mg/kg      | Rat       | Pre-supplier/manufaturer | OECD 423 |
|          | dermal                                     | LD50 > 14112 mg/kg    | Rabbit    | Pre-supplier/manufaturer | OECD 402 |
|          | inhalation (4 h) dust/mist                 | LC50 > 21 mg/l        | Rat       | Pre-supplier/manufaturer |          |



# Safety Data Sheet

according to Regulation (EC) No 1907/2006

## Copper metallizing coating spray

Revision date: 17.02.2026

Product code: 0107-Spray

Page 8 of 13

| CAS No  | Chemical name           |                 |         |              |        |
|---------|-------------------------|-----------------|---------|--------------|--------|
|         | Exposure route          | Dose            | Species | Source       | Method |
|         | xylene                  |                 |         |              |        |
|         | oral                    | LD50 3523 mg/kg | Rat     | Manufacturer |        |
|         | dermal                  | LD50 2000 mg/kg | Rabbit  | Manufacturer |        |
|         | inhalation (4 h) vapour | LC50 29000 mg/l | Rat     | Manufacturer |        |
|         | inhalation dust/mist    | ATE 1,5 mg/l    |         |              |        |
| 71-36-3 | n-butanol               |                 |         |              |        |
|         | oral                    | LD50 2292 mg/kg | Rat     | Manufacturer |        |
|         | dermal                  | LD50 3430 mg/kg | Rabbit  | Manufacturer |        |
|         | inhalation vapour       | LC50 17000 mg/l | Rat     | Manufacturer |        |

### Irritation and corrosivity

Serious eye damage/eye irritation: Causes serious eye irritation.

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

Repeated exposure may cause skin dryness or cracking.

### Sensitising effects

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

### Carcinogenic/mutagenic/toxic effects 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

May cause drowsiness or dizziness. (acetone)

### STOT-repeated exposure

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

### Aspiration hazard

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

### Further information

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

## SECTION 12: Ecological information

### 12.1. Toxicity

Toxic to aquatic life with long lasting effects.

| CAS No  | Chemical name                              |                   |        |                                     |                           |        |
|---------|--------------------------------------------|-------------------|--------|-------------------------------------|---------------------------|--------|
|         | Aquatic toxicity                           | Dose              | [h][d] | Species                             | Source                    | Method |
| 67-64-1 | acetone                                    |                   |        |                                     |                           |        |
|         | Acute fish toxicity                        | LC50 5540 mg/l    | 96 h   | Oncorhynchus mykiss (Rainbow trout) | Pre-supplier/manufacturer |        |
|         | Acute algae toxicity                       | ErC50 7500 mg/l   | 96 h   | Selenastrum capricornutum           | Pre-supplier/manufacturer |        |
|         | Acute crustacea toxicity                   | EC50 8800 mg/l    | 48 h   | Daphnia magna (Big water flea)      | Pre-supplier/manufacturer |        |
|         | copper powder (coated with aliphatic acid) |                   |        |                                     |                           |        |
|         | Acute fish toxicity                        | LC50 0,02 mg/l    | 96 h   |                                     | Manufacturer              |        |
|         | Acute crustacea toxicity                   | EC50 0,0092 mg/l  | 48 h   | Bosmina longirostris                | Manufacturer              |        |
|         | Fish toxicity                              | NOEC 0,00743 mg/l | 4 d    |                                     | Manufacturer              |        |



## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Copper metallizing coating spray

Revision date: 17.02.2026

Product code: 0107-Spray

Page 9 of 13

| CAS No   | Chemical name            |                |        |                                      |                           |          |
|----------|--------------------------|----------------|--------|--------------------------------------|---------------------------|----------|
|          | Aquatic toxicity         | Dose           | [h][d] | Species                              | Source                    | Method   |
| 123-86-4 | n-butyl acetate          |                |        |                                      |                           |          |
|          | Acute fish toxicity      | LC50 18 mg/l   | 96 h   | Pimephales promelas (fathead minnow) | Pre-supplier/manufacterer | OECD 203 |
|          | Acute algae toxicity     | ErC50 397 mg/l | 72 h   | Selenastrum capricornutum            | Pre-supplier/manufacterer | OECD 201 |
|          | Acute crustacea toxicity | EC50 44 mg/l   | 48 h   | Daphnia magna (Big water flea)       | Pre-supplier/manufacterer | OECD 202 |
|          | xylene                   |                |        |                                      |                           |          |
|          | Acute fish toxicity      | LC50 13,5 mg/l | 96 h   |                                      | Manufacturer              |          |
|          | Acute crustacea toxicity | EC50 7,4 mg/l  | 48 h   | Daphnia magna (Big water flea)       | Manufacturer              |          |
| 71-36-3  | n-butanol                |                |        |                                      |                           |          |
|          | Acute fish toxicity      | LC50 1376 mg/l | 96 h   |                                      | Manufacturer              |          |

#### 12.2. Persistence and degradability

The product has not been tested.

| CAS No   | Chemical name                            |       |   |        |
|----------|------------------------------------------|-------|---|--------|
|          | Method                                   | Value | d | Source |
|          | Evaluation                               |       |   |        |
| 67-64-1  | acetone                                  |       |   |        |
|          | DOC reduction                            | 82%   |   |        |
| 123-86-4 | n-butyl acetate                          |       |   |        |
|          | DOC reduction (OECD 301D)                | 83%   |   |        |
|          | Niedriges Potenzial für Bioakkumulation. |       |   |        |

#### 12.3. Bioaccumulative potential

The product has not been tested.

#### Partition coefficient n-octanol/water

| CAS No   | Chemical name   | Log Pow |
|----------|-----------------|---------|
| 67-64-1  | acetone         | -0,24   |
| 123-86-4 | n-butyl acetate | 2,3     |

#### BCF

| CAS No   | Chemical name   | BCF  | Species   | Source |
|----------|-----------------|------|-----------|--------|
| 123-86-4 | n-butyl acetate | 15,3 | berechnet |        |

#### 12.4. Mobility in soil

The product has not been tested.

#### 12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

The product has not been tested.

#### 12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

#### 12.7. Other adverse effects

No information available.

#### Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

Revision date: 17.02.2026

**Copper metallizing coating spray**

Product code: 0107-Spray

Page 10 of 13

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

##### Disposal recommendations

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.

##### List of Wastes Code - residues/unused products

080111 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU and removal of paint and varnish; waste paint and varnish containing organic solvents or other hazardous substances; hazardous waste

##### List of Wastes Code - used product

080111 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU and removal of paint and varnish; waste paint and varnish containing organic solvents or other hazardous substances; hazardous waste

##### Contaminated packaging

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

### SECTION 14: Transport information

#### Land transport (ADR/RID)

**14.1. UN number or ID number:** UN 1950  
**14.2. UN proper shipping name:** AEROSOLS  
**14.3. Transport hazard class(es):** 2  
**14.4. Packing group:** -  
 Hazard label: 2.1



Classification code: 5F  
 Special Provisions: 190 327 344 625  
 Limited quantity: 1 L  
 Excepted quantity: E0  
 Transport category: 2  
 Tunnel restriction code: D

#### Inland waterways transport (ADN)

**14.1. UN number or ID number:** UN 1950  
**14.2. UN proper shipping name:** AEROSOLS  
**14.3. Transport hazard class(es):** 2  
**14.4. Packing group:** -  
 Hazard label: 2.1



Classification code: 5F  
 Special Provisions: 190 327 344 625  
 Limited quantity: 1 L  
 Excepted quantity: E0

#### Marine transport (IMDG)

# Safety Data Sheet

according to Regulation (EC) No 1907/2006

Revision date: 17.02.2026

**Copper metallizing coating spray**

Product code: 0107-Spray

Page 11 of 13

**14.1. UN number or ID number:** UN 1950  
**14.2. UN proper shipping name:** AEROSOLS  
**14.3. Transport hazard class(es):** 2.1  
**14.4. Packing group:** -  
Hazard label: 2.1



Special Provisions: 63, 190, 277, 327, 344, 381, 959  
Limited quantity: 1000 mL  
Excepted quantity: E0  
EmS: F-D, S-U

## Air transport (ICAO-TI/IATA-DGR)

**14.1. UN number or ID number:** UN 1950  
**14.2. UN proper shipping name:** AEROSOLS, FLAMMABLE  
**14.3. Transport hazard class(es):** 2.1  
**14.4. Packing group:** -  
Hazard label: 2.1



Special Provisions: A145 A167 A802  
Limited quantity Passenger: 30 kg G  
Passenger LQ: Y203  
Excepted quantity: E0  
IATA-packing instructions - Passenger: 203  
IATA-max. quantity - Passenger: 75 kg  
IATA-packing instructions - Cargo: 203  
IATA-max. quantity - Cargo: 150 kg

## 14.6. Special precautions for user

Warning: Flammable gases.

## 14.7. Maritime transport in bulk according to IMO instruments

not applicable

## SECTION 15: Regulatory information

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

#### EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 40

Information according to Directive 2012/18/EU (SEVESO III): E1 Hazardous to the Aquatic Environment

Additional information: P3a

Marketing and use of explosives precursors (Regulation (EU) 2019/1148):

This product is regulated by Regulation (EU) 2019/1148: all suspicious transactions, and significant disappearances and thefts should be reported to the relevant national contact point.

#### Additional information

Aerosol Directive (75/324/).

#### National regulatory information

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Copper metallizing coating spray**

Revision date: 17.02.2026

Product code: 0107-Spray

Page 12 of 13

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

Water hazard class (D): 2 - obviously hazardous to water

**15.2. Chemical safety assessment**

Chemical safety assessments for substances in this mixture were not carried out.

**SECTION 16: Other information****Abbreviations and acronyms**

Flam. Gas: Flammable gases  
Aerosol: Aerosol  
Compressed gas  
Flam. Liq: Flammable liquid  
Acute Tox: Acute toxicity  
Asp. Tox: Aspiration hazard  
Skin Irrit: Skin irritation  
Eye Dam: Eye damage  
Eye Irrit: Eye irritation  
STOT SE: Specific target organ toxicity - single exposure  
STOT RE: Specific target organ toxicity - repeated exposure  
Aquatic Acute: Acute aquatic hazard  
Aquatic Chronic: Chronic aquatic hazard  
ADR: Accord européen sur le transport 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  
GHS: Globally Harmonized System of Classification and Labelling of Chemicals  
EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
CAS: Chemical Abstracts Service  
LC50: Lethal concentration, 50%  
LD50: Lethal dose, 50%  
CLP: Classification, labelling and Packaging  
REACH: Registration, Evaluation and Authorization of Chemicals  
GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals  
UN: United Nations  
DNEL: Derived No Effect Level  
DMEL: Derived Minimal Effect Level  
PNEC: Predicted No Effect Concentration  
ATE: Acute toxicity estimate  
LL50: Lethal loading, 50%  
EL50: Effect loading, 50%  
EC50: Effective Concentration 50%  
ErC50: Effective Concentration 50%, growth rate  
NOEC: No Observed Effect Concentration  
BCF: Bio-concentration factor  
PBT: persistent, bioaccumulative, toxic  
vPvB: very persistent, very bioaccumulative  
RID: Regulations concerning the international carriage of dangerous goods by rail  
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways  
(Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures)  
EmS: Emergency Schedules  
MFAG: Medical First Aid Guide  
ICAO: International Civil Aviation Organization  
MARPOL: International Convention for the Prevention of Marine Pollution from Ships  
IBC: Intermediate Bulk Container  
VOC: Volatile Organic Compounds  
SVHC: Substance of Very High Concern  
For abbreviations and acronyms, see table at <http://abbrev.esdscom.eu>

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Copper metallizing coating spray**

Revision date: 17.02.2026

Product code: 0107-Spray

Page 13 of 13

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

**Classification for mixtures and used evaluation method according to Regulation (EC) No 1272/2008 [CLP]**

| Classification          | Classification procedure      |
|-------------------------|-------------------------------|
| Aerosol 1; H222-H229    | On basis of test data         |
| Acute Tox. 4; H332      | Bridging principle "Aerosols" |
| Eye Irrit. 2; H319      | Bridging principle "Aerosols" |
| STOT SE 3; H336         | Bridging principle "Aerosols" |
| Aquatic Acute 1; H400   | Calculation method            |
| Aquatic Chronic 1; H410 | Calculation method            |

**Relevant H and EUH statements (number and full text)**

|        |                                                                    |
|--------|--------------------------------------------------------------------|
| H220   | Extremely flammable gas.                                           |
| H222   | Extremely flammable aerosol.                                       |
| H225   | Highly flammable liquid and vapour.                                |
| H226   | Flammable liquid and vapour.                                       |
| H229   | Pressurised container: May burst if heated.                        |
| H280   | Contains gas under pressure; may explode if heated.                |
| H302   | Harmful if swallowed.                                              |
| H304   | May be fatal if swallowed and enters airways.                      |
| H312   | Harmful in contact with skin.                                      |
| H315   | Causes skin irritation.                                            |
| H318   | Causes serious eye damage.                                         |
| H319   | Causes serious eye irritation.                                     |
| H331   | Toxic if inhaled.                                                  |
| H332   | Harmful if inhaled.                                                |
| H335   | May cause respiratory irritation.                                  |
| H336   | May cause drowsiness or dizziness.                                 |
| H373   | May cause damage to organs through prolonged or repeated exposure. |
| H400   | Very toxic to aquatic life.                                        |
| H410   | Very toxic to aquatic life with long lasting effects.              |
| EUH066 | Repeated exposure may cause skin dryness or cracking.              |

**Further Information**

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

*(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*