

# **Material Safety Data Sheet**

Version:01 Revision Date 27/4/2025

| Section 1. Product Information and Company Identification |   |  |  |  |
|---|---|--|--|--|
| Product name  | Copper Metal Turning  |  |  |  |
| Mol. formula  | Cu CAS No. 7440-50-8  |  |  |  |
| Mol.wt  | 63.55 g/mol   |  |  |  |
| Manufacturer name   | Pioneers for laboratory chemicals                                   |  |  |  |
| Brand name  | Piochem   |  |  |  |
| Address   | Area 540, Industrial Zone 6 <sup>th</sup> October city Giza, Egypt. |  |  |  |
| Website   | www.piochem.com   |  |  |  |
| E-mail  | info@piochem.com  |  |  |  |
| Phone number  | +201225728304 , +201023932115                                       |  |  |  |

# **SECTION 2: Hazards identification**

# 2.1 Classification of the substance or mixture

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

Warning

# 2.2 Label elements

Labelling according Regulation (EC) No 1272/2008 Pictogram



Signal word Hazard statement(s) H411

Toxic to aquatic life with long lasting effects.



Precautionary statement(s)P273Avoid release to the environment.P280Wear protective gloves/ protective clothing.Supplemental HazardnoneStatementsStatements

# 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

# **SECTION 3: Composition/information on ingredients**

# 3.1 Substances

| Formula          | : | Cu          |
|------------------|---|-------------|
| Molecular weight | : | 63.55 g/mol |
| CAS-No.          | : | 7440-50-8   |
| EC-No.           | : | 231-159-6   |

No components need to be disclosed according to the applicable regulations.

# SECTION 4: 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.

# If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

# In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

# In case of eye contact

Flush eyes with water as a precaution.

# If swallowed

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

**Suitable 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 firefighting if necessary.

# 5.4 Further information No data available

No data avallable

# **SECTION 6: Accidental release measures**

6.1 Personal precautions, protective equipment and emergency procedures Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. For personal protection see section 8.

| R/D-SOP-001-F02 Page 2 of 6 Issue Date: 03/11/2024 Effective Da | e:03/12/2024 Review Date: 03/12/2027 Issue No. 01 |
|---|---|
|---|---|



### 6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

- 6.3 Methods and materials 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 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 Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

Store under inert gas. Air sensitive. Storage class (TRGS 510): 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

#### 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.

# Personal protective equipment

#### Eye/face protection

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.

#### **Body Protection**

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

#### **Respiratory protection**

Respiratory protection is not required. Where protection from nuisance le (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

### Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.



# **SECTION 9: Physical and chemical properties**

| 9.1 | Information on basic physical and chemical properties |  |                                     |  |  |
|-----|---|--|-------------------------------------|--|--|
|     | a)  | Appearance   | Form: Turnings<br>Colour: light red |  |  |
|     | b)  | Odour  | No data available                   |  |  |
|     | c)  | Odour Threshold                                    | No data available                   |  |  |
|     | d)  | рН   | No data available                   |  |  |
|     | e)  | Melting point/freezing<br>point                    | Melting point/range: 1,083.4 °C     |  |  |
|     | f)  | Initial boiling point and boiling range            | 2,567 °C                            |  |  |
|     | g)  | Flash point  | No data available                   |  |  |
|     | h)  | Evaporation rate                                   | No data available                   |  |  |
|     | i)  | Flammability (solid, gas)                          | No data available                   |  |  |
|     | j)  | Upper/lower<br>flammability or<br>explosive limits | No data available                   |  |  |
|     | k)  | Vapour pressure                                    | No data available                   |  |  |
|     | I)  | Vapour density                                     | No data available                   |  |  |
|     | m)  | Relative density                                   | 8.940 g/cm3                         |  |  |
|     | n)  | Water solubility                                   | No data available                   |  |  |
|     | 0)  | Partition coefficient: n-<br>octanol/water         | No data available                   |  |  |
|     | p)  | Auto-ignition<br>temperature                       | No data available                   |  |  |
|     | q)  | Decomposition<br>temperature                       | No data available                   |  |  |
|     | r)  | Viscosity  | No data available                   |  |  |
|     | s)  | Explosive properties                               | No data available                   |  |  |
|     | t)  | Oxidizing properties                               | No data available                   |  |  |
| 9.2 | Other safety information<br>No data available         |  |                                     |  |  |

# **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** No data available
- **10.5** Incompatible materials Strong acids, Strong oxidizing agents, Acid chlorides, Halogens

# **10.6 Hazardous decomposition products** Hazardous decomposition products formed under fire conditions. - Copper oxides

| R/D-SOP-001-F02 Page 4 of 6 Issue Date: 03/11/202 | 4 Effective Date:03/12/2024 | Review Date: 03/12/2027 | Issue No. 01 |
|---|-----------------------------|-------------------------|--------------|
|---|-----------------------------|-------------------------|--------------|



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

No data availableCopper LD50 Intraperitoneal - Mouse - 3.5 mg/kg(Copper)

**Skin corrosion/irritation** No data available(Copper)

Serious eye damage/eye irritation No data available(Copper)

**Respiratory or skin sensitisation** No data available(Copper)

# Germ cell mutagenicity

No data available(Copper)

# 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.

# **Reproductive toxicity**

No data available(Copper)

**Specific target organ toxicity - single exposure** No data available(Copper)

Specific target organ toxicity - repeated exposure No data available

Aspiration hazard No data available(Copper)

# **Additional Information**

RTECS: GL5325000

Symptoms of systemic copper poisoning may include: capillary damage, heada central nervous system excitation followed by depression, jaundice, convu renal failure. Chronic copper poisoning is typified by hepatic cirrhosis, copper deposition in the cornea as exemplified by humans with Wilson's di lead to hemolytic anemia and accelerates arteriosclerosis.(Copper)

#### **SECTION 12: Ecological information**

12.1 Toxicity No data available

#### 12.2 Persistence and degradability

- **12.3 Bioaccumulative potential** No data available
- 12.4 Mobility in soil No data available(Copper)

#### 12.5 Results of PBT and vPvB assessment

| R/D-S | SOP-001-F02 | Page 5 of 6 | Issue Date: 03/11/2024 | Effective Date:03/12/2024 | Review Date: 03/12/2027 | Issue No. 01 |
|-------|-------------|-------------|------------------------|---------------------------|-------------------------|--------------|
|-------|-------------|-------------|------------------------|---------------------------|-------------------------|--------------|



This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

## 12.6 Other adverse effects

Very toxic to aquatic life with long lasting effects.

## **SECTION 13: Disposal considerations**

#### 13.1 Waste treatment methods

#### Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chem scrubber.

#### Contaminated packaging

Dispose of as unused product.

#### **SECTION 14: Transport information**

| 14.1 | UN number<br>ADR/RID: 3   |                            | IMDG: 3077  | IATA: 3077 |
|------|---------------------------|----------------------------|---|------------|
| 14.2 |                           | ENVIRONMENTALLY H          | HAZARDOUS SUBSTANCE, SOLID,<br>HAZARDOUS SUBSTANCE, SOLID,<br>ous substance, solid, n.o.s. (Copper) |            |
| 14.3 | Transport h<br>ADR/RID: 9 | azard class(es)            | IMDG: 9   | IATA: 9    |
| 14.4 | Packaging<br>ADR/RID: I   | • •                        | IMDG: III   | IATA: III  |
| 14.5 | Environme<br>ADR/RID: y   | <b>ntal hazards</b><br>/es | IMDG Marine pollutant: no   | IATA: yes  |
| 14.6 | Special pre               | cautions for user          |   |            |

#### **Further information**

EHS-Mark required (ADR 2.2.9.1.10, IMDG code 2.10.3) for single packagings and combination packagings containing inner packagings with Dangerous Goods > 5L for liquids or > 5kg for solids.

#### **SECTION 15: Regulatory information**

**15.1** Safety, health and environmental regulations/legislation specific for the substance or mixture This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

# **15.2 Chemical safety assessment** For this product a chemical safety assessment was not carried out