

SAFETY DATA SHEET

PRODUCT NAME: COPPER OXIDE

1 – IDENTIFICATION OF MATERIAL AND SUPPLIER

SUPPLIER: _____

ADDRESS: _____

TELEPHONE: _____

FACSIMILIE: _____

EMERGENCY: _____

WEB SITE: _____

E-MAIL: _____

PRODUCT NAME: Copper Oxide (CuO).

PRODUCT NUMBER: RM036

CAS NO: 1317-38-0

USES: CERAMIC GLAZES

ISSUED DATE: Tuesday, 8 May 2018

2 – HAZARDS IDENTIFICATION

GHS LABEL ELEMENTS:

HAZARD STATEMENTS:

H302: Harmful if swallowed.
H315: Causes skin irritation.
H319: Causes serious eye irritation.
H335: May cause respiratory irritation.
H410: Very toxic to aquatic life with long lasting effects.

PRECAUTIONARY STATEMENTS:

P264: Wash hands thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P261: Avoid breathing dust.
P271: Use only outdoors or in a well-ventilated area.
P273: Avoid release to the environment.

SIGNAL WORD: WARNING

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UN NUMBER: UN3077
PACKING GROUP: None allocated
HAZCHEM CODE: None allocated

DG CODE: None allocated
SUBSIDURARY RISK: None allocated

3 – COMPOSITION / INFORMATION ON INGREDIENTS

| ENTITY | CAS NO | CLASSIFICATION | % |
|--------------|-----------|--|------|
| Copper Oxide | 1317-38-0 | Acute Tox. 4 H302; Aquatic Acute 1 H400; Aquatic Chronic 2 H411; Eye Irrit. 2 H319 STOT SE 3 H335; Skin Irrit 2 H315 | 100% |

4 – FIRST AID MEASURES

EYE:

Flush eyes with large quantities of water for at least 15 minutes. If irritation persists after washing, contact a doctor.

INHALED:

Ventilate the premises. The patient is to be removed immediately from the contaminated premises and made to rest in a well ventilated area. Should the patient feel unwell, contact a doctor.

SKIN:

Wash off immediately with soap and plenty of water. Remove and wash contaminated clothing before re-use. If symptoms persist, call a doctor.

SWALLOWED:

Contact a doctor and present the safety-data sheet. Do not induce vomiting. Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person.

ADVICE TO DOCTOR:

Treat symptomatically.

5 – FIRE FIGHTING MEASURES

FLAMMABILITY:

Non Flammable.

FIRE & EXPLOSION:

No fire or explosion hazard exists.

EXTINGUISHING:

Use an extinguishing agent suitable for the surrounding fire.

PROTECTIVE EQUIPMENT:

Use respiratory protection.

HAZCHEM CODE:

None allocated.

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6 – ACCIDENTAL RELEASE MEASURES

SPILLAGE:

Use gloves and protective clothing. In the event of particulates aerosols use respiratory protection. Keep away from drains, surface- and ground-water and soil. Limit leakages with earth or sand. If the product has escaped into a water course, into the drainage system, or has contaminated the ground or vegetation, notify the competent authorities. Remove the waste materials with a suitable device (for instance a suction pump) and dispose. After the product has been recovered, rinse the area and materials involved with water.

7 – STORAGE AND HANDLING

STORAGE:

Keep containers tightly closed in a dry, cool and well-ventilated place

HANDLING:

Avoid dust formation. Do not breathe vapors/dust. Handle in accordance with good industrial hygiene and safety practice. Use only in area provided with appropriate exhaust ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Do not eat, drink, or smoke in areas of use or storage. Do not take internally. Wash thoroughly after handling.

8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE STANDARDS:

INGREDIENT

COPPER OXIDE

TWA
ppm mg/m³
- -

STEL
ppm mg/m³
- -

ACGIH
TLV
ppm mg/m³
0.1 (fume as Cu)
1 (dust and mist
as Cu)

BIOLOGICAL LIMITS:

No biological limits allocated.

ENGINEERING CONTROLS:

Use in well ventilated area. Where an inhalation risk exists, mechanical extraction ventilation is recommended. Maintain vapor levels below the recommended exposure standard.

PPE

Eye / Face

Wear appropriate eye protection / safety glasses.

Hands

Impervious gloves.

Body

Wear appropriate clean, protective clothing such as, but not limited to, overalls, smocks, and aprons.

Respiratory

Use a NIOSH approved respirator in case of insufficient ventilation.

WORK/HYGENIC PRACTICES:

When products are in use, do not eat, drink, or smoke. Wash hands immediately after use.

9 – PHYSICAL AND CHEMICAL PROPERTIES

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| | |
|------------------------------|---------------|
| APPEARANCE: | Black powder |
| ODOUR: | None |
| BOILING POINT: | N/A |
| MELTING POINT: | >150°C |
| VAPOUR PRESSURE: | NOT AVAILABLE |
| SPECIFIC GRAVITY: | N/A |
| FLASH POINT: | NOT RELEVANT |
| FLAMMABILITY LIMITS: | NON FLAMMABLE |
| SOLUBILITY IN WATER: | Insoluble |
| VISCOSITY: | No data |
| pH: | N/A |
| % VOLATILES | N/A |
| EVAPORATION RATE | NOT AVAILABLE |
| UPPER EXPLOSION LIMIT | NOT RELEVANT |
| LOWER EXPLOSION LIMIT | NOT RELEVANT |

10 – STABILITY AND REACTIVITY

| | |
|---------------------------------|---|
| REACTIVITY: | None known. |
| CHEMICAL STABILITY: | Stable. |
| CONDITIONS TO AVOID: | Fumes from firing in kiln; Mist created from spray application. Avoid contact with incompatible substances. |
| INCOMPATIBLE MATERIAL: | None known. |
| HAZARDOUS DECOMPOSITION: | No decomposition if stored normally. Thermal decomposition can lead to release of irritating gases and vapors. Metal compounds. |
| HAZARDOUS REACTIONS: | None known. |

11 – TOXICOLOGICAL INFORMATION

| | |
|---|--|
| HEALTH HAZARD SUMMARY: ACUTE & CHRONIC | Prolonged or repeated contact may cause drying, cracking and defatting of the skin. Prolonged or repeated overexposure may cause liver, kidney and blood system effects. May be harmful if inhaled. Inhalation of dust or fumes may cause irritation of the nose, throat and upper respiratory tract. Symptoms may include coughing, choking and wheezing. With adequate ventilation, dust control and good personal hygiene, symptoms of overexposure should not occur. Ingestion of large amounts may cause irritation of the gastrointestinal tract, nausea, vomiting and diarrhea. Advise regular medical monitoring of employees by a physician competent in industrial health. |
| EYE: | May cause serious eye irritation. |
| INHALATION: | Prolonged inhalation of dust or metal dust, and fume or mist containing copper may cause an irritation of respiratory organs. |
| SKIN: | Prolonged exposure may produce irritation. |

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INGESTION: Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

TOXICITY DATA: Copper Carbonate
LD50 (oral) 1291 mg/kg (rat)
LD50 (dermal) > 2000 mg/kg (rabbit)

12 – ECOLOGICAL INFORMATION

ENVIRONMENT: No data is available on the product itself. The product should not be allowed to enter drains or water courses, or be deposited where it can affect ground or surface waters. This product contains the following substance which may also be hazardous for the environment: Copper carbonate. The acute toxicity of copper carbonate is (ECHA):

Toxicity to fish - LC50/96h/Oncorhynchus mykiss (rainbow trout) = 0.068 - 0.094 mg/L

Toxicity to daphnia - LC50/48h/Daphnia magna (Water flea) = 0.03 - 0.063 mg/L

Toxicity to algae EC50/72h/algae = 0.032 - 0.245 mg/L NOEC = 0.057 mg/L/72h

13 – DISPOSAL CONSIDERATIONS

WASTE DISPOSAL: Contain spillage and scoop or vacuum. Avoid making dust put in appropriate container for disposal. Waste disposal method in accordance with Federal, State and Local Laws.

LEGISLATION: Dispose of in accordance with relevant local legislation.

14 – TRANSPORTATION

NOT CLASSIFIED AS DANGEROUS GOODS BY THE CRITERIA OF THE ADG CODE.

| | LAND TRANSPORT (ADG) | SEA TRANSPORT (IMDG/IMO) | AIR TRANSPORT (IATA/ICAO) |
|-------------------------|-------------------------|-----------------------------|------------------------------|
| UN NUMBER | None Allocated | UN3077 | None Allocated |
| PROPER SHIPPING NAME | Copper Oxide | Copper Oxide | Copper Oxide |
| DG CLASS / DIVISION | None Allocated | None Allocated | None Allocated |
| SUBSIDIARY RISKS | None Allocated | None Allocated | None Allocated |
| PACKING GROUP | None Allocated | None Allocated | None Allocated |
| HAZCHEM CODE | None Allocated | None Allocated | None Allocated |

15 – REGULATORY INFORMATION

INVENTORY LISTINGS: AUSTRALIA:
All components are listed on AICS or are exempt.

USA:
***SARA 313

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Sec. 313, Toxic Chemicals Notification, 40 CFR 372: This material is not subject to SARA notification requirements, since it does not contain any Toxic Chemical constituents above de minimus concentrations.

All ingredients are on TSCA inventory.

CANADA:
All ingredients are on DSL inventory.

EUROPE:
All ingredients are on EC inventory or exempt.

CHEMICAL SAFETY ASSESSMENT: EU:
Warning label required according to the EU guidelines/Dangerous Chemicals Ordinance.

16 – OTHER INFORMATION

ADDITIONAL INFORMATION:

PERSONAL PROTECTIVE EQUIPMENT GUIDLEINES:

The recommendation for protective equipment contained within this report is provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment made.

HEALTH EFFECTS FROM EXPOSURE:

It should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

ABBREVIATIONS:

| | |
|-------------------|--|
| AICS | Australian Inventory of Chemical Substances |
| ACGIH | American Conference of Governmental Industrial Hygienists |
| CAS # | Chemical Abstracts Service Number |
| CNS | Central Nervous System |
| EC No. | EC No – European Community Mumber |
| GHS | Globally Harmonized System |
| IARC | International Agency for Research on Cancer |
| LD50 | Lethal Dose, 50% / Median Lethal Dose |
| mg/m ³ | Milligrams per cubic meter |
| PEL | Permissible Exposure Limit |
| pH | Acidity < 7 – Alkalinity > 7 measure |
| ppm | Parts Per Million |
| REACH | Regulation on Registration, Evaluation, Authorization and Restriction of Chemicals |
| STOT-RE | Specific target organ toxicity (repeated exposure) |
| STOT-SE | Specific target organ toxicity (single exposure) |
| SUSMP | Standard for the Uniform Scheduling of Medicines and Poisons |
| TLV | Threshold Limit Value |
| TWA/OEL | Time Weighted Average of Occupational Exposure Limit |

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STEL Short Term Exposure Limit
TSCA Toxic Substances Control Act

REVISION HISTORY:

| Revision | Description |
|----------|-------------|
| 1.0 | Creation |
| | |

REPORT STATUS:

The report has been by Chrysanthos Color Company Limited – China. The information provided on safety and handling represents the current knowledge at the time of writing. We should be contacted directly for further clarification regarding any aspect of the product if required.

The SDS has been prepared with all due care to include accurate and up-to-date information. We do not however provide any warranty as to accuracy or completeness. As far as lawfully possible, Chrysanthos Color Company Limited – China accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained herein.

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End of SDS