

## SECTION 1. Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifiers

**Product name:** Copper Oxide Combustion Reagent, Wires, 0.5x4mm, OEA  
**Catalogue no:** R13000  
**SDS reference no:** R13000  
**Brand:** OEA Labs  
**EC index no(s):** 215-269-1  
**REACH no:** The annual tonnage does not require registration.  
**CAS no(s):** CuO [1344-70-3]

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

**Identified uses:** Elemental analysis scientific instrumentation. Not for pharmaceutical, domestic or other uses.

### 1.3 Details of the supplier of the safety data sheet

**Company name:** OEA Laboratories Limited  
 Unit C2 Florence Road Business Park  
 Kelly Bray, Callington, Cornwall  
 PL17 8EX, United Kingdom

**Telephone:** +44 (0)1579 384174

**Fax:** +44 (0)1579 384174

**Email:** sales@oealabs.com

### 1.4 Emergency telephone number

**Telephone:** +44 (0)1579 384174, +44 (0) 1579 350212, +44 (0) 7811 102906

## SECTION 2. Hazards identification

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

Hazardous to the aquatic environment, acute hazard (Category 1), H400  
 Hazardous to the aquatic environment, long term hazard (Category 3), H412

### 2.2 Labelling elements according to Regulation (EC) No 1272/2008

**Pictogram(s):**



GHS09

GHS09

**Signal word:** Warning

**Hazard statement(s):**

H400 Very toxic to aquatic life.

H412 Harmful to aquatic life with long lasting effects.

**Precautionary statement(s):**

P273 Avoid release to the environment.

Restricted to professional users.

### 2.2 Other hazards

None

## SECTION 3. Composition/information of ingredients

### 3.1 Substances

**Synonyms:** Cupric oxide

**Formula:** CuO

**Molecular weight:** 79.55

**Components:**

Copper (II) Oxide Concentration: ~100%

CAS No 1317-38-0, EC No 215-269-1, H400, Hazardous to the aquatic environment, acute hazard, Category 1; H412, Hazardous to the aquatic environment, long term hazard, Category 3;

## 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 (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.

**SECTION 6. Accidental release measures**

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

Use personal protective equipment. Avoid dust formation. Avoid breathing dust, vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe area. Avoid breathing dust.

**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 for disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

**6.4 Reference to other sections**

For safe handling see Section 7. For disposal see Section 13. For personal protection equipment see Section 8.

**SECTION 7. Handling and storage**

**7.1 Precautions for safe handling**

Ensure good ventilation of the workplace. Avoid contact with eyes and skin. Avoid formation of dust, vapours and aerosols. Follow normal measures for fire protection.

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

Keep containers tightly sealed. Store in a cool, dry place.

**7.3 Specific end uses**

Apart from uses mentioned in Section 1.2 no other specific uses are stipulated.

**SECTION 8. Exposure controls/personal protection**

**8.1 Control parameters**

**Components with workplace control parameters:**

Copper (II) Oxide

CAS No 1317-38-0, TWA, 0.2mg/m<sup>3</sup> (fume), 1mg/m<sup>3</sup> (dust), UK, EH40 WEL

**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 the workday.

**Personal protective equipment:**

**Eye/face protection:**

Safety glasses with side shields. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH(US) or EN166.

**Skin protection:**

Handle with gloves to specification EU Directive 89/686/EEC and EN374. Inspect prior to use. Use proper glove removal practice to avoid contact with product. Wash and dry hands.

**Body protection:**

Complete suit protection against chemicals. The type of protective equipment must be selected according to the concentration and amount of dangerous substance at the specific workplace.

**Respiratory protection:**

Where risk assessment shows air-purifying respirators are appropriate use a full face particle respirator type N100(US) or type P3 (EN143) respirators as a backup to engineering controls. If the respirator is the sole means of protection, use a full face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH(US) or CEN(EU).

**Environmental protection:**

Prevent further leakage or spillage if safe to do so. Do not let the 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

<b>Form:</b>	Wires, granules or powder (as product description)
<b>Colour:</b>	Black
<b>Odour:</b>	No data available
<b>Odour threshold:</b>	No data available
<b>pH:</b>	No data available
<b>Melting point:</b>	1026°C
<b>Boiling point:</b>	No data available
<b>Flash point:</b>	No data available
<b>Flammability solid/gas:</b>	No data available
<b>Upper/lower flammability or explosive limits:</b>	No data available
<b>Water solubility:</b>	0.0001g/l
<b>Autoignition temp:</b>	No data available
<b>Decomp temperature:</b>	No data available
<b>Explosive properties:</b>	No data available
<b>Oxidising properties:</b>	No data available

### 9.2 Other safety information

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

Reducing agents, hydrogen sulphide gas, aluminium, alkali metals, powdered metals

### 10.6 Hazardous decomposition products

No data available

## SECTION 11. Toxicological information

### 11.1 Information on toxicological effects

**Acute toxicity:**

LD50 Oral - rat - >2,500mg/kg (cupric oxide) (OECD Test Guideline 423)

LD50 Dermal - rat - >2,000mg/kg (cupric oxide) (OECD Test Guideline 402)

**Skin corrosion/irritation:**

Skin - rabbit - no skin irritation (cupric oxide) (OECD Test Guideline 404)

**Serious eye damage/eye irritation:**

Eyes - rabbit - mild eye irritation (cupric oxide) (OECD Test Guideline 405)

**Respiratory or skin sensitisation:**

Maximisation Test - guinea pig - does not cause skin sensitisation (cupric oxide) (OECD Test Guideline 406)

**Germ cell mutagenicity:**

No data available

**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

**Specific target organ toxicity - single exposure:**

No data available

**Specific target organ toxicity - repeated exposure:**

No data available

**Aspiration hazard:**

No data available

**Potential health effects - inhalation:**

No data available

**Potential health effects - ingestion:**

No data available

**Potential health effects - skin:**

No data available

**Potential health effects - eyes:**

No data available

**Signs and symptoms of exposure:**

No data available

**Additional information:**

RTECS: GL7900000

Symptoms of systemic copper poisoning may include: capillary damage, headache, cold sweat, weak pulse, and kidney and liver damage, central nervous system excitation followed by depression, jaundice, convulsions, paralysis, and coma. Death may occur from shock or renal failure. Chronic copper poisoning is typified by hepatic cirrhosis, brain damage and demyelination, kidney defects, and copper deposition in the cornea as exemplified by humans with Wilson's disease. It has also been reported that copper poisoning has lead to hemolytic anemia and accelerates arteriosclerosis., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

## SECTION 12. Ecological information

### 12.1 Toxicity

**Toxicity to fish:** LC50 - Oncorhynchus mykiss (rainbow trout) - 0.19 - 0.21 mg/l - 96 h

**Toxicity to daphnia and other aquatic invertebrates:** EC50 - Daphnia magna (Water flea) - 0.011 - 0.039 mg/l - 48 h

NOEC - Lamellibranchia (mussel) - 0.007 mg/l - 288 h

**Toxicity to algae:** NOEC - Phaeodactylum tricornutum - 0.0057 mg/l - 72 h

**Toxicity to bacteria:** NOEC - Phaeodactylum tricornutum - 0.0057 mg/l - 72 h

No data available

### 12.2 Persistence and degradability

The methods for determining the biological degradability are not applicable to inorganic substances.

### 12.3 Bioaccumulative potential

No data available

### 12.4 Mobility in soil

No data available

### 12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

### 12.6 Other adverse effects

Very toxic to aquatic life.

## SECTION 13. Disposal considerations

### 13.1 Waste treatment methods

**Product:**

Offer surplus and non-recyclable material to a licensed professional waste disposal company.

**Contaminated packaging:**

Dispose of as unused product.

## SECTION 14. Transport information

### 14.1 UN number

ADR/RID/IATA/IMDG: UN3077



**14.2 UN proper shipping name**

ADR/RID/IATA/IMDG: NOT RESTRICTED Special Provision A197

**14.3 Transport hazard class(es)**

ADR/RID/IATA/IMDG: 9e

**14.4 Packaging group**

ADR/RID/IATA/IMDG: III

**14.5 Environmental hazards**

ADR/RID/IATA/IMDG: Yes, marine pollutant

**14.6 Special precautions for user**

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.

**14.7 Shipping quantities**

ADR LQ maximum: 5kg

ADR EQ code: E1

ADR EQ IP/pkg: 30gm pkg to 1000gm

IATA LQ PInstruction: Y956

IATA LQ IP/pkg: 5kg (glass, plastic) to 30kg

IATA EQ code: E1

IATA EQ IP/pkg: 30gm pkg to 1000gm

De minimus:

**SECTION 15. Regulatory information**

This safety data sheet complies with the requirements of Regulation (EC) No 1907/2006

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

No data available

**15.2 Chemical safety assessment**

For this product a chemical safety assessment was not carried out.

**SECTION 16 Other information**

The above information is believed to be correct but does not purport to be all inclusive and shall be used as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. OEA Laboratories Limited shall not be held liable for any damage resulting from the handling or contact with the above product. See [www.oelabs.com](http://www.oelabs.com) for terms and conditions of sale.