



<a href="#">Copper Oxychloride</a>		<a href="#">Pricing &gt;</a>
<b>Linear Formula</b>	(CuCl) $\cdot$ [Cu(OH) <sub>2</sub> ] <sub>3</sub>	
<b>Pubchem CID</b>	16101495	
<b>MDL Number</b>	MFCD00151229	
<b>EC No.</b>	603-724-0	
<b>IUPAC Name</b>	tetracopper; dichloride; hexahydroxide	
<b>SMILES</b>	O[Cu]O.O[Cu]O.O[Cu]O.Cl[Cu]Cl	
<b>Inchl Identifier</b>	InChI=1S/2ClH.4Cu.6H2O/h2*1H;;;;;6*1H2/q;;4*+2;;;;;/p-8	
<b>Inchl Key</b>	JNPOSJBMZIQEKM-UHFFFAOYSA-F	
<b>Signal Word</b>	Danger	
<b>Hazard Statements</b>	H302-H314	
<b>Hazard Codes</b>	Xi,N	
<b>Precautionary Statements</b>	P280-P305 + P351 + P338-P310	
<b>Flash Point</b>	Not applicable	
<b>Risk Codes</b>	N/A	
<b>Safety Statements</b>	N/A	
<b>RTECS Number</b>	N/A	
<b>Transport Information</b>	UN 3261 8 / PGIII	
<b>WGK Germany</b>	3	
<b>GHS Pictograms</b>	<p><b><u>GHS03</u></b> <b><u>Oxidizer</u></b></p>  <p><b><u>GHS05</u></b> <b><u>Corrosive</u></b></p> 	

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## SAFETY DATA SHEET

Date Accessed: 04/23/2024

## SECTION 1. IDENTIFICATION

**Product Identifiers:** All applicable American Elements product codes for CAS #1332-40-7

**Relevant identified uses of the substance:**  
Scientific research and development

Supplier details:  
American Elements  
10884 Weyburn Ave.  
Los Angeles, CA 90024  
Tel: +1 310-208-0551  
Fax: +1 310-208-0351

Emergency telephone number:  
Domestic, North America +1 800-424-9300  
International +1 703-527-3887

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## SECTION 2. HAZARDS IDENTIFICATION

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)  
Acute toxicity, Oral (Category 4), H302  
Acute aquatic toxicity (Category 1), H400  
Chronic aquatic toxicity (Category 1), H410

GHS Label elements, including precautionary statements



environment.gif

Pictogram  
Signal word Warning  
Hazard statement(s)  
H302 Harmful if swallowed.  
H410 Very toxic to aquatic life with long lasting effects.  
Precautionary statement(s)  
P264 Wash skin thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P273 Avoid release to the environment.  
P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell.  
P330 Rinse mouth.  
P391 Collect spillage.  
P501 Dispose of contents/ container to an approved

waste disposal plant.

Hazards not otherwise classified (HNOC) or not covered by GHS - none

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### **SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substances

Synonyms: Copper chloride, Mixture with copper oxide (CuO), Hydrate

Formula:  $\text{H}_6\text{Cl}_2\text{Cu}_4\text{O}_6$

Molecular weight: 427.13 g/mol

CAS-No.: 1332-40-7

Hazardous components

Component

Copper chloride, Mixture with copper oxide (CuO), Hydrate

Classification

Acute Tox. 4; Aquatic Acute 1;

Aquatic Chronic 1; H302, H410

Concentration

$\leq 100\%$

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### **SECTION 4. FIRST AID MEASURES**

Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

Move out of dangerous area.

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

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11

Indication of any immediate medical attention and

special treatment needed  
No data available

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## **SECTION 5. FIREFIGHTING MEASURES**

Extinguishing media  
Suitable extinguishing media  
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture  
Hydrogen chloride gas, Copper oxides

Advice for firefighters  
Wear self-contained breathing apparatus for firefighting if necessary.

Further information  
No data available

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## **SECTION 6. ACCIDENTAL RELEASE MEASURES**

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

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.

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.

Reference to other sections  
For disposal see section 13.

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## **SECTION 7. HANDLING AND STORAGE**

Precautions for safe handling  
Avoid contact with skin and eyes. Avoid formation of dust and aerosols.  
Provide appropriate exhaust ventilation at places

where dust is formed.  
For precautions see section 2.

Conditions for safe storage, including any incompatibilities  
Keep container tightly closed in a dry and well-ventilated place.

Specific end use(s)  
Apart from the uses mentioned in section 1 no other specific uses are stipulated

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## **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Control parameters  
Components with workplace control parameters  
Component  
Copper chloride, Mixture with copper oxide (CuO), Hydrate  
CAS-No. 1332-40-7  
Value TWA  
Control parameters 1.000000 mg/m<sup>3</sup>  
Basis  
USA. NIOSH Recommended Exposure Limits

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  
Safety glasses with side-shields conforming to EN166  
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  
Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.  
Respiratory protection  
For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. 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.

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## **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Information on basic physical and chemical properties

a) Appearance

Form: solid

Color: green

b) Odor No data available

c) Odor Threshold No data available

d) pH 7.6 at 10 at 20 °C (68 °F)

e) Melting point/freezing point No data available

f) Initial boiling point and boiling range No data available

g) Flash point No data available

h) Evaporation rate No data available

i) Flammability (solid, gas) No data available

j) Upper/lower flammability or explosive limits No data available

k) Vapor pressure No data available

l) Vapor density No data available

m) Relative density No data available

n) Water solubility No data available

o) Partition coefficient: n-octanol/water No data available

p) Auto-ignition temperature No data available

q) Decomposition temperature No data available

r) Viscosity No data available

s) Explosive properties No data available

t) Oxidizing properties No data available

Other safety information

No data available

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## **SECTION 10. STABILITY AND REACTIVITY**

Reactivity No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

No data available

Conditions to avoid

No data available

Incompatible materials  
Strong oxidizing agents

Hazardous decomposition products  
Other decomposition products-No data available

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## **SECTION 11. TOXICOLOGICAL INFORMATION**

Information on toxicological effects

Acute toxicity

Skin corrosion/irritation

Serious eye damage/eye irritation

Respiratory or skin sensitisation

No data available

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.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

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

Additional Information

RTECS: Not available

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## **SECTION 12. ECOLOGICAL INFORMATION**

Toxicity

Toxicity to daphnia and other aquatic invertebrates

EC50 - Daphnia magna (Water flea) - 0.5 mg/l - 48 h

Persistence and degradability

No data available

Bioaccumulative potential  
No data available

Mobility in soil  
No data available

Results of PBT and vPvB assessment  
PBT/vPvB assessment not available as chemical  
safety assessment not required/not conducted

Other adverse effects  
An environmental hazard cannot be excluded in the  
event of unprofessional handling or disposal.  
Very toxic to aquatic life with long lasting effects.

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## **SECTION 13. DISPOSAL CONSIDERATIONS**

Waste treatment methods  
Product  
Offer surplus and non-recyclable solutions to a  
licensed disposal company.  
Contaminated packaging  
Dispose of as unused product.

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## **SECTION 14. TRANSPORT INFORMATION**

DOT (US)  
Not dangerous goods  
IMDG  
UN number: 3077  
Class: 9  
Packing group: III  
EMS-No: F-A, S-F  
Proper shipping name: ENVIRONMENTALLY  
HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Copper  
chloride, Mixture with copper oxide (CuO), Hydrate)  
Marine pollutant:yes  
IATA  
UN number:3077  
Class: 9  
Packing group: III  
Proper shipping name: Environmentally hazardous  
substance, solid, n.o.s. (Copper chloride, Mixture with  
copper oxide (CuO), Hydrate)

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.



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## **SECTION 15. REGULATORY INFORMATION**

### **SARA 302 Components**

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

### **SARA 313 Components**

The following components are subject to reporting levels established by SARA Title III, Section 313:

Copper chloride, Mixture with copper oxide (CuO), Hydrate

CAS-No. 1332-40-7

Revision Date 2007-07-01

### **SARA 311/312 Hazards**

Acute Health Hazard

### **Massachusetts Right To Know Components**

No components are subject to the Massachusetts Right to Know Act.

### **Pennsylvania Right To Know Components**

Copper chloride, Mixture with copper oxide (CuO), Hydrate

CAS-No.1332-40-7

Revision Date 2007-07-01

### **New Jersey Right To Know Components**

Copper chloride, Mixture with copper oxide (CuO), Hydrate

CAS-No. 1332-40-7

Revision Date 2007-07-01

### **California Prop. 65 Components**

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

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## **16. OTHER INFORMATION**

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH). The above information is believed to be correct but does not purport to be all inclusive and shall be used only 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. American Elements shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. COPYRIGHT 1997-2022 AMERICAN ELEMENTS. LICENSED GRANTED TO MAKE UNLIMITED PAPER COPIES FOR INTERNAL

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