# SIGMA-ALDRICH

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# SAFETY DATA SHEET

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1. PRODUCT AND COMPANY IDENTIFICATION				
Product name	:	Copper(II) acetate		
Product Number Brand Product Use	:	326755 Aldrich For laboratory research purposes.		
Supplier	:	Sigma-Aldrich Canada Co. 2149 Winston Park Drive OAKVILLE ON L6H 6J8 CANADA	Manufactur <sup>:</sup> er	Sigma-Aldrich Corporation 3050 Spruce St. St. Louis, Missouri 63103 USA
Telephone	:	+1 9058299500		
Fax	:	+1 9058299292		
Emergency Phone # (For both supplier and manufacturer)	:	1-800-424-9300		
Preparation Information	:	Sigma-Aldrich Corporation Product Safety - Americas Region 1-800-521-8956		

# 2. HAZARDS IDENTIFICATION

# **Emergency Overview**

# **Target Organs**

Liver, Lungs

# WHMIS Classification

D2B

**Toxic Material Causing Other Toxic Effects** 

Moderate skin irritant Moderate respiratory irritant Moderate eye irritant

# **GHS Classification**

Acute toxicity, Oral (Category 4) Skin corrosion/irritation (Category 2) Serious eye damage/eye irritation (Category 2A) Specific target organ toxicity - single exposure (Category 3), Respiratory system Acute aquatic toxicity (Category 1) Chronic aquatic toxicity (Category 1)

# GHS Label elements, including precautionary statements

Pictogram



Signal word

Warning

Hazard statement(s)	
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 statement(s) P261

Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

P273	Avoid release to the environment.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P501	Dispose of contents/ container to an approved waste disposal plant.
HMIS Classification	
Health hazard:	2
Chronic Health Hazard:	*
Flammability:	0
Physical hazards:	0
Potential Health Effects	
Inhalation	May be harmful if inhaled. Causes respiratory tract irritation

Inhalation	May be harmful if inhaled. Causes respiratory tract irritation.
Skin	Harmful if absorbed through skin. Causes skin irritation.
Eyes	Causes eye irritation.
Ingestion	Harmful if swallowed.

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

Synonyms	:	Cupric acetate
Formula	:	C <sub>4</sub> H <sub>6</sub> CuO <sub>4</sub>
Molecular weight	:	181.63 g/mol

EC-No.	Index-No.	Concentration
205-553-3	-	<=100%

# **4. 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.

# **5. FIREFIGHTING MEASURES**

# **Conditions of flammability**

Not flammable or combustible.

# Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

# Special protective equipment for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

# Hazardous combustion products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Copper oxides

Explosion data - sensitivity to mechanical impact No data available

Explosion data - sensitivity to static discharge No data available

# 6. ACCIDENTAL RELEASE MEASURES

# Personal precautions

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

# **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.

# 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.

# Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place.

Store under inert gas. Moisture sensitive. Keep in a dry place.

# 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

# Personal protective equipment

# **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).

#### Hand 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.

Full contact Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: 480 min Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M)

Splash contact Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: 480 min Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374 If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

# Eye 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 and 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.

#### **Hygiene measures**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

# Specific engineering controls

#### Use mechanical exhaust or laboratory fumehood to avoid exposure. 9. PHYSICAL AND CHEMICAL PROPERTIES

# Appearance

••	
Form	powder
Colour	blue
Safety data	
рН	No data available
Melting point/freezing point	No data available
Boiling point	No data available
Flash point	No data available
Ignition temperature	No data available
Auto-ignition temperature	No data available
Lower explosion limit	No data available
Upper explosion limit	No data available
Vapour pressure	No data available
Density	No data available
Water solubility	No data available
Partition coefficient: n-octanol/water	No data available
Relative vapour density	No data available
Odour	No data available
Odour Threshold	No data available
Evaporation rate	No data available

# **10. STABILITY AND REACTIVITY**

#### Chemical stability

Stable under recommended storage conditions.

# Possibility of hazardous reactions No data available

**Conditions to avoid** Avoid moisture.

Materials to avoid Strong oxidizing agents, Strong acids

# Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Copper oxides Other decomposition products - No data available

# **11. TOXICOLOGICAL INFORMATION**

# Acute toxicity

# Oral LD50

LD50 Oral - Rat - 501 mg/kg Remarks: Behavioral:Somnolence (general depressed activity). Behavioral:Convulsions or effect on seizure threshold.

# Inhalation LC50

# Dermal LD50

No data available

#### Other information on acute toxicity No data available

#### Skin corrosion/irritation No data available

Serious eye damage/eye irritation No data available

**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.

# Reproductive toxicity

Reproductive toxicity - Rat - Subcutaneous Effects on Fertility: Other measures of fertility

No data available

Teratogenicity

No data available

Specific target organ toxicity - single exposure (Globally Harmonized System) Inhalation - May cause respiratory irritation.

Specific target organ toxicity - repeated exposure (Globally Harmonized System) No data available

Aspiration hazard No data available

# Potential health effects

Inhalation	May be harmful if inhaled. Causes respiratory tract irritation.
Ingestion	Harmful if swallowed.
Skin	Harmful if absorbed through skin. Causes skin irritation.
Eyes	Causes eye irritation.

# Signs and Symptoms of Exposure

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., Gastrointestinal disturbance, Blood disorders, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

# Synergistic effects

No data available

Additional Information RTECS: AG3480000

# **12. ECOLOGICAL INFORMATION**

# Toxicity

Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 0.14 mg/l - 96.0 h

Persistence and degradability No data available

**Bioaccumulative potential** No data available

Mobility in soil No data available

**PBT and vPvB assessment** No data available

# 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.

No data available

# **13. DISPOSAL CONSIDERATIONS**

#### Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

# **Contaminated packaging**

Dispose of as unused product.

# **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(II) acetate) Marine pollutant: Marine pollutant

# ΙΑΤΑ

UN number: 3077 Class: 9 Packing group: III Proper shipping name: Environmentally hazardous substance, solid, n.o.s. (Copper(II) acetate)

# **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.

# **15. REGULATORY INFORMATION**

# WHMIS Classification

D2B

Toxic Material Causing Other Toxic Effects

Moderate skin irritant Moderate respiratory irritant Moderate eye irritant

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

# **16. OTHER INFORMATION**

# Further information

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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. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.sigma-aldrich.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.