

[Copper\(II\) Acetylacetonate](#)

Linear Formula	Cu(C <sub>5</sub> H <sub>7</sub> O <sub>2</sub> ) <sub>2</sub>
Pubchem CID	53384494
MDL Number	MFCD00000016
EC No.	236-477-9
IUPAC Name	copper; (E)-4-oxopent-2-en-2-olate
Beilstein Registry No.	4157957
SMILES	CC(=CC(=O)C)[O-].CC(=CC(=O)C)[O-].[Cu+2]
Inchl Identifier	InChI=1S/2C5H8O2.Cu/c2*1-4(6)3-5(2)7;/h2*3,6H,1-2H3;/q;+2/p-2/b2*4-3+;
Inchl Key	QYJPSWYYEKYVEJ-SYWGCQIGSA-L

<b>Signal Word</b>	Warning
<b>Hazard Statements</b>	H315-H319-H335
<b>Hazard Codes</b>	Xi
<b>Precautionary Statements</b>	P261-P305 + P351 + P338
<b>Risk Codes</b>	R36/37/38
<b>Safety Statements</b>	S26-36
<b>RTECS Number</b>	GL6520000
<b>Transport Information</b>	NONH for all modes of transport
<b>WGK Germany</b>	3

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## SAFETY DATA SHEET

Date Accessed: 09/22/2019

Date Revised: 05/15/2015

### SECTION 1. IDENTIFICATION

**Product Identifiers:** All applicable American Elements product codes for CAS #13395-16-9

**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

OSHA Haz Com: CFR 1910.1200: Acute Toxicity -  
Oral [Category 4]

Acute Toxicity - Dermal [Category 4]

Acute Toxicity - Inhalation [Category 4]

Skin Corrosion/Irritation [Category 2]

Eye Damage/Irritation [Category 2A]

Toxic to Reproduction [Category 2]

Signal word: Warning!

Hazard Statement(s): Causes serious eye irritation

Causes skin irritation

Harmful if swallowed

Harmful in contact with skin

Harmful if inhaled

Suspected of damaging fertility or the unborn child

Pictogram(s) or Symbol(s):



Precautionary Statement(s):

[Prevention] Do not eat, drink or smoke when using  
this product. Wash hands and face thoroughly after  
handling. Wear

protective gloves and protective clothing. Avoid  
breathing dusts or mists. Use only outdoors or in a  
wellventilated

area. Wear protective gloves. Wear eye and face  
protection. Obtain special instructions before  
use. Do not handle until all safety precautions have  
been read and understood. Wear protective gloves,  
protective clothing, eye protection and face protection.

[Response] If swallowed: Immediately call a poison  
center or doctor. Rinse mouth. If on skin: Wash with  
plenty of

water. Call a poison center or doctor if you feel unwell.

Take off contaminated clothing and wash it before  
reuse. If inhaled: Remove person to fresh air and  
keep comfortable for breathing. If skin irritation or rash  
occurs: Get medical advice/attention. If in eyes: Rinse  
cautiously with water for several minutes. Remove  
contact lenses, if present and easy to do. Continue  
rinsing. If eye irritation persists: Get medical advice or

attention. If exposed: Call a poison center or doctor.  
[Storage] Store locked up.  
[Disposal] Dispose of contents and container in accordance with US EPA guidelines for the classification and determination of hazardous waste listed in 40 CFR 261.3. (See Section 13)

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

Substance/Mixture: Substance  
Components: Bis(2,4-pentanedionato)copper(II)  
Percent: >97.0%(T)  
CAS Number: 13395-16-9  
Molecular Weight: 261.76  
Chemical Formula: C<sub>10</sub>H<sub>14</sub>CuO<sub>4</sub>  
Synonyms: Acetylacetonate Copper(II) Salt , Copper(II) Acetylacetonate , Cupric Acetylacetonate

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

Inhalation: Call a poison center or doctor if you feel unwell. Effects of exposure (inhalation) to substance may be delayed. Inhalation of vapors or contact with substance will result in contamination and potential harmful effects. Move victim to fresh air. Give artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult. Keep victim warm and quiet. Treat symptomatically and supportively. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

Skin contact: Call a poison center or doctor if you feel unwell. Effects of exposure (skin contact) to substance may be delayed. Remove and wash contaminated clothing before re-use. Remove and isolate contaminated clothing and shoes. In case of contact with substance, immediately flush skin with running water for at least 20 minutes. Treat symptomatically and supportively. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

Eye contact: IMMEDIATELY flush eyes with running water for at least 15 minutes, keeping eyelids open. Contact with material may irritate or burn eyes. Call emergency

medical service. Move victim to fresh air. Check for and remove any contact lenses. Keep victim warm and quiet. Treat symptomatically and supportively. Effects of exposure to substance may be delayed. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. Ingestion: Harmful if swallowed. Do not induce vomiting without medical advice. Effects of exposure (ingestion) to substance may be delayed. Call a physician or Poison Control Center immediately. Do not use mouth-to-mouth method if victim ingested the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Loosen tight clothing such as a collar, tie, belt or waistband. If a person vomits place them in the recovery position so that vomit will not reenter the mouth and throat. Rinse mouth. Keep victim warm and quiet. Treat symptomatically and supportively. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

Symptoms/effects:

Acute: Redness.

Delayed: No data available

Immediate medical attention: WARNING: It might be hazardous to the person providing aid to give mouth-to-mouth respiration, because the inhaled material is harmful. CAUTION: Victim may be a source of contamination. If breathing has stopped, perform artificial respiration. Use first aid treatment according to the nature of the injury. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

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## **SECTION 5. FIREFIGHTING MEASURES**

Suitable extinguishing media: Dry chemical, CO<sub>2</sub>, water spray, or alcohol-resistant foam. Consult with local fire authorities before attempting large scale fire fighting operations.

Specific hazards arising from the chemical

Hazardous combustion products: These products include: Carbon oxides Metallic oxides

Other specific hazards: Closed containers may explode from heat of a fire.

Special precautions for fire-fighters:

Use water spray or fog; do not use straight streams.

Dike fire-control water for later disposal; do not scatter the material. Containers may explode when heated. Move containers from fire area if you can do it without risk.

Special protective equipment for fire-fighters:

Wear positive pressure self-contained breathing apparatus (SCBA). Structural fire fighters' protective clothing provides limited protection in fire situations ONLY; it may not be effective in spill situations. Wear chemical protective clothing which is specifically recommended by the manufacturer. It may provide little or no thermal protection.

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

Personal precautions: Avoid contact with skin, eyes, and clothing. Keep people away from and upwind of spill/leak. Do not touch

damaged containers or spilled material unless wearing appropriate protective clothing (Section 8).

Warn

unnecessary personnel to move away. Stop leak if you can do it without risk. Ensure adequate ventilation.

Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

Personal protective equipment: Wear eye protection (splash goggles) and face protection (full length face shield). Wear protective clothing (chemical resistant suit and chemical resistant boots).

Dust respirator. Be sure to use a MSHA/NIOSH approved respirator or equivalent. Wear protective gloves (nitrile).

Emergency procedures: Prevent dust cloud. Do not clean-up or dispose except under supervision of a specialist. In case of a spill

and/or a leak, always shut off any sources of ignition, ventilate the area, and exercise caution. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Warn personnel to move away. Prevent entry into sewers, basements or confined areas; dike if needed.

Methods and materials for containment and cleaning up:

ELIMINATE all ignition sources (no smoking, flares, sparks, or flames in immediate area). Stop leak if without risk. Ventilate the area. Absorb with an inert material and put the spilled material in an appropriate waste disposal container. Use clean non-sparking tools to collect absorbed material.

Environmental precautions:

Keep away from living quarters. Prevent further

leakage or spillage if safe to do so. Water runoff can cause environmental damage. Prevent entry into sewers, basements or confined areas; dike if needed

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

Precautions for safe handling: Avoid inhalation of vapor or mist. Manipulate under an adequate fume hood. Do not ingest. Avoid contact with skin and eyes. Avoid contact with skin. Avoid contact - obtain special instructions before use. Avoid prolonged or repeated exposure. Normal measures for preventive fire protection. Good general ventilation should be sufficient to control airborne levels. Keep container dry. Handle and open container with care. Wear suitable protective clothing, gloves and eye/face protection. When using do not eat, drink, or smoke. Keep away from sources of ignition.

Conditions for safe storage: Store locked up. Keep containers tightly closed in a cool, well-ventilated place. Keep away from incompatibles. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Avoid prolonged storage periods.

Storage incompatibilities: Store away from oxidizing agents

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

Exposure limits: No data available

Appropriate engineering controls:

Handle only in a fully enclosed system and equipment. Good general ventilation should be sufficient to control airborne levels. Ventilation is normally

required when handling or using this product.

Eyewash fountains should be provided in areas where there is any possibility that workers could be exposed to the substance. Follow safe industrial engineering/laboratory practices when handling any chemical.

Personal protective equipment

Respiratory protection: Dust respirator. Be sure to use a MSHA/NIOSH approved respirator or equivalent.

Hand protection: Nitrile gloves.

Eye protection: Safety glasses.

Skin and body protection: Lab coat.

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

Physical state (20°C): Solid  
Form: No data available  
Color: No data available  
Odor: No data available  
Odor threshold: No data available  
Melting point/freezing point: 288°C (dec.) (550°F)  
Boiling point/range: 160°C (320°F)/1.3kPa  
Decomposition temperature: No data available  
Relative density: No data available  
Kinematic Viscosity: No data available  
Partition coefficient: No data available  
n-octanol/water (log Pow)  
Flash point: No data available  
Flammability (solid, gas): No data available

pH: No data available  
Vapor pressure: No data available  
Vapor density: No data available  
Dynamic Viscosity: No data available  
Evaporation rate: No data available  
(Butyl Acetate = 1)  
Autoignition temperature: No data available  
Flammability or explosive limits: No data available  
Lower: No data available  
Upper: No data available

Solubility(ies):  
Soluble: Chloroform

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

Reactivity: Not Available.  
Chemical Stability: Stable under recommended storage conditions. (See Section 7)  
Possibility of Hazardous Reactions: No hazardous reactivity has been reported.  
Conditions to avoid: Avoid excessive heat and light.  
Incompatible materials: Oxidizing agents  
Hazardous Decomposition Products: No data available

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## **SECTION 11. TOXICOLOGICAL INFORMATION**

RTECS Number: GL6520000

Acute Toxicity:  
ipr-mus LD50:19 mg/kg ivn-mus LD50:10 mg/kg  
Skin corrosion/irritation:

No data available  
Serious eye damage/irritation:  
No data available  
Respiratory or skin sensitization:  
No data available  
Germ cell mutagenicity:  
No data available  
Carcinogenicity:  
No data available  
IARC: No data available NTP: No data available  
OSHA: No data available  
Reproductive toxicity:  
No data available  
Routes of Exposure: Inhalation, Eye contact,  
Ingestion, Skin contact.  
Symptoms related to exposure:  
Overexposure may result in serious illness or death.  
Skin contact may result in inflammation; characterized  
by itching, scaling, reddening, or occasionally  
blistering. Skin contact may result in redness, pain or  
dry skin. Eye contact may result in redness or pain.  
Potential Health Effects:  
Skin and eye contact may result in irritation.  
Target organ(s): No data available

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## **SECTION 12. ECOLOGICAL INFORMATION**

Ecotoxicity  
Fish: No data available  
Crustacea: No data available  
Algae: No data available  
Persistence and degradability: No data available  
Bioaccumulative potential (BCF): No data available  
Mobility in soil: No data available  
Partition coefficient:  
n-octanol/water (log Pow)  
No data available  
Soil adsorption (Koc): No data available  
Henry's Law:  
constant (PaM<sup>3</sup>/mol)  
No data available

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## **SECTION 13. DISPOSAL CONSIDERATIONS**

Disposal of product: Recycle to process if possible. It  
is the generator's responsibility to comply with  
Federal, State and Local  
rules and regulations. You may be able to dissolve or  
mix material with a combustible solvent and burn in a  
chemical incinerator equipped with an afterburner and



scrubber system. This section is intended to provide assistance but does not replace these laws, nor does compliance in accordance with this section ensure regulatory compliance according to the law. US EPA guidelines for Identification and Listing of Hazardous Waste are listed in 40 CFR Parts 261. The product should not be allowed to enter the environment, drains,

water ways, or the soil.

Disposal of container: Dispose of as unused product.

Do not re-use empty containers.

Other considerations: Observe all federal, state and local regulations when disposing of the substance.

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## **SECTION 14. TRANSPORT INFORMATION**

DOT (US) Non-hazardous for transportation.

IATA Non-hazardous for transportation.

IMDG Non-hazardous for transportation.

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## **SECTION 15. REGULATORY INFORMATION**

Toxic Substance Control Act (TSCA 8b.):

This product is ON the EPA Toxic Substances Control Act (TSCA) inventory.

US Federal Regulations

CERCLA Hazardous substance and Reportable

Quantity:

SARA 313: Not Listed

SARA 302: Not Listed

State Regulations

State Right-to-Know

Massachusetts Not Listed

New Jersey Not Listed

Pennsylvania Not Listed

California Proposition 65: Not Listed

Other Information

NFPA Rating:

Health: 2

Flammability: 0

Instability: 0

HMIS Classification:

Health: 2

Flammability: 0

Physical: 0

International Inventories

WHMIS hazard class: D2A: Materials causing other toxic effects. (Very Toxic)

D2B: Materials causing other toxic effects. (Toxic)

EC-No: 236-477-9

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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 1997-2016 AMERICAN ELEMENTS. LICENSED GRANTED TO MAKE UNLIMITED PAPER COPIES FOR INTERNAL USE ONLY.

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