

SAFETY DATA SHEET

Date Accessed: 25/08/2023

Date Revised: 04/01/2023

SECTION 1. IDENTIFICATION

Product Name: Copper(II) Acetylacetonate

CAS #: 13395-16-9

Relevant identified uses of the substance: Scientific research and development

Supplier details:

Stanford Advanced Materials

E-mail: sales@samaterials.com

Tel: (949) 407-8904

Address: 23661 Birtcher Dr., Lake Forest, CA 92630 U.S.A.

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 well ventilated

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)

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: C₁₀H₁₄CuO₄

Synonyms: Acetylacetonone Copper(II) Salt , Copper(II) Acetylacetonate , Cupric Acetylacetonate

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 with out medical advice. Effects of exposure (ingestion) to

substance may be delayed. Call a physician or Poison Control Center immediately. Do not use mouth-

tomouth

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.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media: Dry chemical, CO₂, 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.

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

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

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.

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

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

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

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 (PaM³/mol)

No data available

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.

SECTION 14. TRANSPORT INFORMATION

DOT (US) Non-hazardous for transportation.

IATA Non-hazardous for transportation.

IMDG Non-hazardous for transportation.

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

SECTION 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.