

## Chemical Safety Data Sheet MSDS / SDS

## Copper arsonate SDS

Revision Date:2024-04-25 Revision Number:1

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****Product identifier**

Product name: Copper arsonate

CAS: 10290-12-7

**Relevant identified uses of the substance or mixture and uses advised against**

Relevant identified uses: For R&amp;D use only. Not for medicinal, household or other use.

Uses advised against: none

**Company Identification**

Company: Chemicalbook.in

Address: 5 vasavi Layout Basaveswara Nilayam Pragathi Nagar Hyderabad, India -500090

Telephone: +91 9550333722

**SECTION 2: Hazards identification****Classification of the substance or mixture**

no data available

**GHS label elements, including precautionary statements**

Signal word                    no data available

**Hazard statement(s)**

no data available

**Precautionary statement(s)****Prevention**

no data available

**Response**

no data available

**Storage**

no data available

**Disposal**

no data available

**Other hazards which do not result in classification**

no data available

**SECTION 3: Composition/information on ingredients****Substance**

Chemical name:                Copper arsonate

Common names and  
synonyms:                    Copper arsonate

CAS number:                    10290-12-7

EC number:                      233-644-8

Concentration:                 100%

## SECTION 4: First aid measures

### Description of necessary first-aid measures

#### If inhaled

Fresh air, rest. Refer for medical attention.

#### Following skin contact

Remove contaminated clothes. Rinse and then wash skin with water and soap. Seek medical attention if you feel unwell.

#### Following eye contact

Rinse with plenty of water for several minutes (remove contact lenses if easily possible). Refer for medical attention.

#### Following ingestion

Rinse mouth. Refer immediately for medical attention.

### Most important symptoms/effects, acute and delayed

Dust irritates eyes. Ingestion causes gastric disturbance, tremors, muscular cramps, and nervous collapse that may cause death. (USCG, 1999)

### Indication of immediate medical attention and special treatment needed, if necessary

Basic treatment: Establish a patent airway. Suction if necessary. Watch for signs of respiratory insufficiency and assist ventilations if necessary. Administer oxygen by nonrebreather mask at 10 to 15 L/min. Monitor for shock and treat if necessary. For eye contamination, flush eyes immediately with water. Irrigate each eye continuously with normal saline during transport. Do not use emetics. For ingestion, rinse mouth and administer 5 ml/kg up to 200 ml of water for dilution if the patient can swallow, has a strong gag reflex, and does not drool. Administer activated charcoal. Copper and related compounds

## SECTION 5: Firefighting measures

### Suitable extinguishing media

If material involved in fire: Extinguish fire using agent suitable for type of surrounding fire. (Material itself does not burn or burns with difficulty.) Use water in flooding quantities as fog. Use foam, dry chemical, or carbon dioxide.

### Specific hazards arising from the chemical

Special Hazards of Combustion Products: Poisonous, volatile arsenic oxides may be formed in fires. (USCG, 1999)

### **Special protective actions for fire-fighters**

In case of fire in the surroundings, use appropriate extinguishing media.

## **SECTION 6: Accidental release measures**

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

Personal protection: particulate filter respirator adapted to the airborne concentration of the substance. Do NOT let this chemical enter the environment. Vacuum with specialist equipment (See Notes) or carefully sweep into containers. Carefully collect remainder. Then store and dispose of according to local regulations.

### **Environmental precautions**

Personal protection: particulate filter respirator adapted to the airborne concentration of the substance. Do NOT let this chemical enter the environment. Vacuum with specialist equipment (See Notes) or carefully sweep into containers. Carefully collect remainder. Then store and dispose of according to local regulations.

### **Methods and materials for containment and cleaning up**

Prompt cleanup and removal are necessary. Control runoff and isolate discharged material for proper disposal.

## **SECTION 7: Handling and storage**

### **Precautions for safe handling**

Handling in a well ventilated place. Wear suitable protective clothing. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Use non-sparking tools. Prevent fire caused by electrostatic discharge steam.

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

Provision to contain effluent from fire extinguishing. Separated from acids and food and feedstuffs. Well closed. Dry. Store in an area without drain or sewer access. Protect container against physical damage. Store in well ventilated area away from food or food products and combustible materials. Inorganic arsenic compd

## SECTION 8: Exposure controls/personal protection

### Control parameters

### Occupational Exposure limit values

MAK: skin absorption (H); carcinogen category: 1; germ cell mutagen group: 3A

### Biological limit values

no data available

### Appropriate engineering controls

Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the risk-elimination area.

### Individual protection measures, such as personal protective equipment (PPE)

#### Eye/face protection

Wear face shield or eye protection in combination with breathing protection if powder.

#### Skin protection

Protective gloves. Protective clothing.

#### Respiratory protection

Use closed system, ventilation or breathing protection.

#### Thermal hazards

no data available

## SECTION 9: Physical and chemical properties and safety characteristics

**Physical state:** Copper arsenite is a fine, light-green powder. It is insoluble in water. It is very toxic by ingestion. It is used as an insecticide and fungicide.

**Colour:** Yellowish-green powder

**Odour:** no data available

Melting point/freezing point:	Decomposes
Boiling point or initial boiling point and boiling range:	no data available
Flammability:	Not combustible. Gives off irritating or toxic fumes (or gases) in a fire.
Lower and upper explosion limit/flammability limit:	no data available
Flash point:	no data available
Auto-ignition temperature:	no data available
Decomposition temperature:	no data available
pH:	no data available
Kinematic viscosity:	no data available
Solubility:	Insoluble in water, ethanol; soluble in acids
Partition coefficient n-octanol/water:	no data available
Vapour pressure:	no data available
Density and/or relative density:	greater than 1.1 at 68° F (est) (USCG, 1999)
Relative vapour density:	no data available
Particle characteristics:	no data available

## SECTION 10: Stability and reactivity

**Reactivity**

5 mg/cu m (as AS); NIOSH considers arsenic (inorganic cmpd, as As) to be a potential occupational carcinogen. Arsenic (inorganic cmpd, as As)

Decomposes on heating. This produces toxic and corrosive fumes. Reacts with acids. This produces toxic fumes of arsine gas (see ICSC 0222).

**Chemical stability**

no data available

**Possibility of hazardous reactions**

COPPER ARSENITE, also known as Scheele's green, reacts with acids to release toxic fumes of arsine gas. This substance decomposes upon heating to produce toxic arsenic-containing fumes. (International Chemical Safety Card 1211)

**Conditions to avoid**

no data available

**Incompatible materials**

When water soln of arsenicals are in contact with active metals such as arsenic, iron, aluminum, zinc, ... highly toxic fumes of arsenic /including arsine are released/. arsenic cmpd

**Hazardous decomposition products**

Decomposes at melting point.

**SECTION 11: Toxicological information****Acute toxicity**

Oral: no data available

Inhalation: no data available

Dermal: no data available

**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**

Classification of carcinogenicity: 1) evidence in humans: sufficient; 2) evidence in animals: limited. Overall summary evaluation of carcinogenic risk to humans is Group 1: Carcinogenic to humans. NOTE: This evaluation applies to the group of chemicals as a whole and not necessarily to all individual chemicals within the group. Arsenic and arsenic compounds

#### **Reproductive toxicity**

no data available

#### **STOT-single exposure**

The substance is irritating to the eyes and respiratory tract. Ingestion could cause effects on the gastrointestinal tract. This may result in severe gastroenteritis, loss of fluids and electrolytes, cardiac disorders and shock. Exposure far above the OEL could cause death. The effects may be delayed. Medical observation is indicated.

#### **STOT-repeated exposure**

The substance may have effects on the skin, mucous membranes, peripheral nervous system, bone marrow and liver. This may result in pigmentation disorders, hyperkeratosis, perforation of the nasal septum, neuropathy, anaemia and liver impairment. This substance is carcinogenic to humans. Animal tests show that this substance possibly causes toxicity to human reproduction or development.

#### **Aspiration hazard**

A harmful concentration of airborne particles can be reached quickly when dispersed, especially if powdered.



## SECTION 12: Ecological information

### Toxicity

Toxicity to fish: no data available

Toxicity to daphnia and other aquatic invertebrates: no data available

Toxicity to algae: no data available

Toxicity to microorganisms: no data available

### Persistence and degradability

no data available

### Bioaccumulative potential

no data available

### Mobility in soil

no data available

### Other adverse effects

no data available

## SECTION 13: Disposal considerations

### Disposal methods

#### Product

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

#### Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas

scrubbing is possible for combustible packaging materials.

## SECTION 14: Transport information

### UN Number

ADR/RID: UN1586 (For reference only, please check.)

IMDG: UN1586 (For reference only, please check.)

IATA: UN1586 (For reference only, please check.)

### UN Proper Shipping Name

ADR/RID: COPPER ARSENITE (For reference only, please check.)

IMDG: COPPER ARSENITE (For reference only, please check.)

IATA: COPPER ARSENITE (For reference only, please check.)

### Transport hazard class(es)

ADR/RID: 6.1 (For reference only, please check.)

IMDG: 6.1 (For reference only, please check.)

IATA: 6.1 (For reference only, please check.)

### Packing group, if applicable

ADR/RID: II (For reference only, please check.)

IMDG: II (For reference only, please check.)

IATA: II (For reference only, please check.)

### Environmental hazards

ADR/RID: No

IMDG: No

IATA: No

### Special precautions for user

no data available

### Transport in bulk according to IMO instruments

no data available

### **SECTION 15: Regulatory information**

**Safety, health and environmental regulations specific for the product in question**

**European Inventory of Existing Commercial Chemical Substances (EINECS)**

Listed.

**EC Inventory**

Listed.

**United States Toxic Substances Control Act (TSCA) Inventory**

Not Listed.

**China Catalog of Hazardous chemicals 2015**

Listed.

**New Zealand Inventory of Chemicals (NZIoC)**

Not Listed.

**(PICCS)**

Listed.

**Vietnam National Chemical Inventory**

Not Listed.

**IECSC)**

Not Listed.

**Korea Existing Chemicals List (KECL)**

Listed.

### **SECTION 16: Other information**

### **Abbreviations and acronyms**

CAS: Chemical Abstracts Service

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

IMDG: International Maritime Dangerous Goods

IATA: International Air Transportation Association

TWA: Time Weighted Average

STEL: Short term exposure limit

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

EC50: Effective Concentration 50%

### **References**

IPCS - The International Chemical Safety Cards (ICSC), website: <http://www.ilo.org/dyn/icsc/showcard.home>

HSDB - Hazardous Substances Data Bank, website: <https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm>

IARC - International Agency for Research on Cancer, website: <http://www.iarc.fr/>

eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website:  
[http://www.echemportal.org/echemportal/index?pageID=0&request\\_locale=en](http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en)

CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>

ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>

ERG - Emergency Response Guidebook by U.S. Department of Transportation, website:  
<http://www.phmsa.dot.gov/hazmat/library/erg>

Germany GESTIS-database on hazard substance, website: <http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp>

ECHA - European Chemicals Agency, website: <https://echa.europa.eu/>

### **Other Information**

NEVER use a domestic-type vacuum cleaner to vacuum the substance, only use specialist equipment. Depending on the degree of exposure, periodic medical examination is suggested. Do NOT take working clothes home.

Disclaimer: 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. We as supplier shall not be held liable for any