

Safety Data Sheet

Section 1. Identification of the substance/mixture and of the company/undertaking

Product identifier:

Product name: Copper(I) chloride

Reference number(SDS): 18600jis_E1-4

Product type:

Reagent

Details of the supplier of the safety data sheet

Manufacturer/Supplier: JUNSEI CHEMICAL CO., LTD.

Address: 1-6, Ohmano-cho, Koshigaya-shi, Saitama 343-0844, Japan

Division: Quality Assurance Department

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Section 2. Hazards identification

GHS classification and label elements of the product**Classification of the substance or mixture****HEALTH HAZARDS**

Skin sensitization: Category 1

Specific target organ toxicity – repeated exposure: Category 2 (blood system)

ENVIRONMENT HAZARDS

Hazardous to the aquatic environment, short-term (acute): Category 1

Hazardous to the aquatic environment, long-term (chronic): Category 1

(Note) GHS classification without description: Not classified/Classification not possible

Label elements

Signal word: Warning

HAZARD STATEMENT

H317–May cause an allergic skin reaction

H373–May cause damage to organs through prolonged or repeated exposure

H400–Very toxic to aquatic life

H410–Very toxic to aquatic life with long lasting effects

PRECAUTIONARY STATEMENT**Prevention**

Avoid release to the environment.

Do not breathe dust/fume/gas/mist/vapors/spray.

Wear protective gloves.

Contaminated work clothing should not be allowed out of the workplace.

Response

Collect spillage.

Get medical advice/attention if you feel unwell.

Copper(I) chloride, JUNSEI CHEMICAL CO., LTD., 18600jis_E1-4, 27/Jun/2023

IF ON SKIN: Wash with plenty of soap and water.

If skin irritation or rash occurs: Get medical advice/attention.

Take off contaminated clothing and wash it before reuse.

Disposal

Dispose of contents/container in accordance with local/national regulation.

Section 3. Composition/information on ingredients**Mixture/Substance selection:****Substance**

Common name, synonyms: Cuprous chloride

Ingredient name: Copper(I) chloride

Content (%): 90.0 <

Chemical formula: ClCu

Chemicals No, Japan: 1-210

CAS No.: 7758-89-6

MW: 99.00

ECNO: 231-842-9

Note : The figures shown above are not the specifications of the product.

Section 4. First-aid measures**Descriptions of first-aid measures****General measures**

Get medical advice/attention if you feel unwell.

Keep victim warm and quiet.

Call emergency medical service.

Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.

IF INHALED

Remove person to fresh air and keep comfortable for breathing.

Give artificial respiration if victim is not breathing.

Administer oxygen if breathing is difficult.

Call a POISON CENTER/doctor/physician if you feel unwell.

IF ON SKIN (or hair)

Take off immediately all contaminated clothing. Rinse skin with water or shower.

Wash with plenty of soap and water.

If skin irritation or rash occurs: Get medical advice/attention.

Remove and isolate contaminated clothing and shoes.

For minor skin contact, avoid spreading material on unaffected skin.

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/attention.

IF SWALLOWED

Rinse mouth.

Call a POISON CENTER/doctor/physician if you feel unwell.

Most important symptoms and effects, both acute and delayed

Specific information on symptom and effect are unknown.

Indication of any immediate medical attention and special treatment needed

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Use appropriate extinguishing media suitable for surrounding facilities.

The product is non-flammable.

Unsuitable extinguishing media

Unsuitable extinguishing media data is not available.

Specific hazards arising from the substance or mixture

Containers may explode when heated.

Fire may produce irritating, corrosive and/or toxic gases.

Runoff from fire control or dilution water may cause pollution.

Advice for firefighters

Specific fire-fighting measures

Evacuate non-essential personnel to safe area.

Special protective equipment and precautions for fire-fighters

Wear fire resistant or flame retardant clothing.

Wear protective gloves/protective clothing/eye protection/face protection.

Firefighters should wear self-contained breathing apparatus with a full facepiece operated in the positive pressure mode.

Section 6. Accidental release measures

Personnel precautions, protective equipment and emergency procedures

Keep unauthorized personnel away.

In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.

Ventilate area until material pick up is complete.

Wear proper protective equipment.

PUBLIC SAFETY: Ventilate closed spaces before entering.

Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

EVACUATION : Spill: See the Table of Initial Isolation and Protective Action Distances for highlighted substances. For non-highlighted substances, increase, in the downwind direction, as necessary, the isolation distance shown under "PUBLIC SAFETY".

Environmental precautions

Avoid release to headsprings, rivers, lakes, ocean and groundwater.

Methods and materials for containment and cleaning up

Sweep up, place in a bag and hold for waste disposal.

Preventive measures for secondary accident

Collect spillage.

Stop leak if you can do it without risk.

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).

Prevent entry into waterways, sewers, basements or confined areas.

Do not get water inside containers.

Keep out of low areas.

Section 7. Handling and storage

Precautions for safe handling

Preventive measures

(Exposure Control for handling personnel)

Do not breathe dust/fume/gas/mist/vapors/spray.

(Protective measures against fire and explosion)

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

(Exhaust/ventilator)

Exhaust/ventilator should be available.

(Safety treatments)

Avoid contact with skin.

Avoid contact with eyes.

Safety Measures

Wear protective gloves/protective clothing/eye protection/face protection.

Use personal protective equipment as required.

When using do not eat, drink or smoke.

Any incompatibilities

Strong acids, Strong bases, Oxidizing agents, Strong oxidizing agents, Alkali metals,

Acetylene should not be mixed with the chemicals.

Advice on general occupational hygiene

Contaminated work clothing should not be allowed out of the workplace.

Take off contaminated clothing and wash it before reuse.

Storage

Conditions for safe storage

Store in a well-ventilated place. Keep container tightly closed.

Keep cool. Protect from sunlight.

Store in accordance with local/national regulation.

Container and packaging materials for safe handling data is not available.

Specific end use(s)

See information in Section 7.1 and 7.2 for handling and storage recommendations. See

Section 8 for exposure controls and personal protection recommendations.

Section 8. Exposure controls/personal protection

Control parameters

Control value in MHLW is not available.

Adopted value

Adopted value in JSOH is not available.

Adopted value in ACGIH is not available.

Exposure controls

Appropriate engineering controls

Do not use in areas without adequate ventilation.

Eye wash station should be available.

Washing facilities should be available.

Individual protection measures

Respiratory protection

Wear respiratory protection.

Hand protection

Wear protective gloves.

Consult with your glove and/or personnel equipment manufacturer for selection of appropriate compatible materials.

Eye protection

Wear chemical safety goggle.

Wear eye/face protection.

Skin and body protection

Wear impervious clothing and boots in case of repeated or prolonged treatment.

Section 9. Physical and Chemical Properties

Information on basic physical and chemical properties

Physical state: Crystalline powder or lump

Color: White

Odor: None

Odor threshold data is not available.

Melting point/Freezing point: 430°C

Boiling point or initial boiling point: 1400°C

Boiling range data is not available.

Flammability (gases, liquids and solids): Non-flammable

Lower and upper explosion limit/flammability limit data is not available.

Flash point: Non-flammable

Auto-ignition temperature data is not available.

Decomposition temperature data is not available.

Self-Accelerating Decomposition Temperature/SADT data is not available.

pH: ca. 5 (50g/L(slurry), 20°C)

Dynamic viscosity data is not available.

Kinematic viscosity data is not available.

Solubility:

Solubility in water: 47mg/L(20°C) (Soluble in hydrochloric acid and ammonium solution.)

Solubility in solvent: Practically insoluble in ethanol.

n-Octanol/water partition coefficient data is not available.

Vapor pressure data is not available.

Density and/or relative density: 4.14 g/cm³(25°C)

Relative vapor density (Air=1) data is not available.

Relative density of the Vapor/air – mixture at 20°C (Air = 1) data is not available.

Particle characteristics data is not available.

Other information

Critical temperature data is not available.

Evaporation rate data is not available.

VOC data is not available.

Section 10. Stability and Reactivity

Reactivity

Runaway polymerization will not occur.

Chemical stability

Stable under normal storage/handling conditions.

Turns green on exposure to air.

Turns to brown by light.

Possibility of hazardous reactions

Possibility of hazardous reactions data is not available.

Conditions to avoid

Contact with incompatible materials.

Heating, Light, Air.

Incompatible materials

Strong acids, Strong bases, Oxidizing agents, Alkali metals. Acetylene

Hazardous decomposition products

Copper oxides, Chlorides

Section 11. Toxicological Information

Information on toxicological effects

Acute toxicity

Acute toxicity (Oral)

[Product]

Classification not possible (Insufficient data available or no data available).

[Data for components of the product]

No data available.

Acute toxicity (Dermal)

[Product]

Based on available data, the classification criteria are not met.

[Data for components of the product]

[GHS Cat. Japan, base data]

rat (male) LD50 >2000 mg/kg (SIDS, 2006)

Acute toxicity (Inhalation)

[Product]

Classification not possible (Insufficient data available or no data available).

[Data for components of the product]

No data available.

Irritant properties

Skin corrosion/irritation

[Product]

Classification not possible (Insufficient data available or no data available).

[Data for components of the product]

No data available.

Serious eye damage/irritation

[Product]

Classification not possible (Insufficient data available or no data available).

[Data for components of the product]

No data available.

Sensitization

Respiratory sensitization

[Product]

Classification not possible (Insufficient data available or no data available).

[Data for components of the product]

No data available.

Skin sensitization

[Product]

Category 1, May cause an allergic skin reaction

[Data for components of the product]

[GHS Cat. Japan, base data]

cat. 1; JSOH

Germ cell mutagenicity

[Product]

Classification not possible (Insufficient data available or no data available).

[Data for components of the product]

No data available.

Carcinogenicity

[Product]

Classification not possible (Insufficient data available or no data available).

[Data for components of the product]

No data available.

Reproductive toxicity

[Product]

Classification not possible (Insufficient data available or no data available).

[Data for components of the product]

No data available.

Specific target organ toxicity (STOT)

STOT-single exposure

[Product]

Classification not possible (Insufficient data available or no data available).

[Data for components of the product]

No data available.

STOT-repeated exposure

[Product]

Category 2, May cause damage to organs through prolonged or repeated exposure

[Data for components of the product]

[cat.2]

[GHS Cat. Japan, base data]

blood system (SIDS, 2006)

Aspiration hazard

[Product]

Classification not possible (Insufficient data available or no data available).

[Data for components of the product]

No data available.

Section 12. Ecological Information

Toxicity

Aquatic toxicity

[Product]

Category 1, Very toxic to aquatic life

Category 1, Very toxic to aquatic life with long lasting effects

[Data for components of the product]

Hazardous to the aquatic environment, short-term (acute)

[GHS Cat. Japan, base data]

Fish (rainbow trout) LC50=0.018mg/L/96hr (ECETOC TR91, 2003)

Hazardous to the aquatic environment, long-term (chronic)

[GHS Cat. Japan, base data]

Algae (*Pseudokirchneriella subcapitata*) NOEC=0.038mg/L/72hr (SIDS, 2011)

Water solubility

[Data for components of the product]

47 mg/L(20°C) (SIDS, 2005; REACH Registration dossier)

Persistence and degradability

Persistence and degradability data is not available.

Bioaccumulative potential

Bioaccumulative potential data is not available.

Mobility in soil

Mobility in soil data is not available.

Other adverse effects

Ozone depleting chemical data is not available.

Section 13. Disposal considerations

Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging

Waste treatment methods

Avoid release to the environment.

Dispose of contents/container in accordance with local/national regulation.

Section 14. Transport Information**UN No., UN CLASS**

UN Number or ID Number : 2802
UN Proper Shipping Name : COPPER CHLORIDE
Class or division (Transport hazard class) : 8
Packing group : III
ERG GUIDE No.: 154

IMDG Code (International Maritime Dangerous Goods Regulations)

UN Number or ID Number : 2802
UN Proper Shipping Name : COPPER CHLORIDE
Class or division (Transport hazard class) : 8
Packing group : III

IATA (Dangerous Goods Regulations)

UN Number or ID Number : 2802
UN Proper Shipping Name : COPPER CHLORIDE
Class or division (Transport hazard class) : 8
Hazard labels : Corrosive
Packing group : III

Environmental hazards

Marine pollutants (yes/no) : yes

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable to Transport in bulk according to Annex II of MARPOL and the IBC Code

MARPOL Annex V – HME (Harmful to the Marine Environment)

Hazardous to the aquatic environment – short-term (acute): cat.1
Copper(I) chloride
Hazardous to the aquatic environment – long-term (chronic): cat.1, 2
Copper(I) chloride

Section 15. Regulatory Information**Safety, health and environmental regulations/legislation specific for the substance or mixture****U.S. Toxic Substances Control Act (TSCA) Inventory**

Chemicals listed in TSCA Inventory
7758-89-6

All components are listed or exempted.

Superfund Amendments and Reauthorizations Act (SARA), Title III**SARA 313 (TRI)**

Copper(I) chloride

Other regulatory information

We are not able to check up the regulatory information with regard to the substances in your country or region, therefore, we request this matter would be filled by your responsibility.

Regulatory information with regard to this substance in your country or in your region should be examined by your own responsibility.

Ensure this material in compliance with federal requirements and ensure conformity to local regulations.

Regulatory information in this section are limited to intentional ingredient(s), but does not contain information on non-intentional ingredients or impurities which are not informed by supplier(s).

Chemical safety assessment

Advice on safe handling for this product can be found in sections 7 and 8 of this SDS.

Section 16. Other information**GHS classification and labelling**

H317–Skin sensitization, Category 1: H317 May cause an allergic skin reaction

H373–STOT – Repeated exposure, Category 2: H373 May cause damage to organs through prolonged or repeated exposure

H400–Hazardous to the aquatic environment, short-term (acute), Category 1: H400 Very toxic to aquatic life

H410–Hazardous to the aquatic environment, long-term (chronic), Category 1: H410 Very toxic to aquatic life with long lasting effects

References and sources for data

Globally Harmonized System of classification and labelling of chemicals, UN

Recommendations on the TRANSPORT OF DANGEROUS GOODS 22nd edit., 2021 UN

IMDG Code, 2020 Edition (Incorporating Amendment 40–20)

IATA Dangerous Goods Regulations (64th Edition) 2023

2020 EMERGENCY RESPONSE GUIDEBOOK (US DOT)

2022 TLVs and BEIs. (ACGIH)

JIS Z 7252 : 2019

JIS Z 7253 : 2019

2022 Recommendation on TLVs (JSOH)

Notification No. 0111-1 (January 11, 2022), Chemical Hazards Control Division, Industrial

Safety and Health Department, Labour Standards Bureau, MHLW in Japan

Supplier's data/information

Chemicals safety data management system "GHS Assistant" Version 4.22 (<https://www.asahi-ghs.com/>)

NITE Chemical Risk Information Platform "NITE-CHRIP"

(https://www.nite.go.jp/en/chem/chrip/chrip_search/systemTop)

GHS Classification Guidance for Enterprises 2019 Revised Edition (Ver. 2.0) (Mar. 2020, METI)

Abbreviations and acronyms

SDS (Safety Data Sheet)

LD50 (Lethal Dose, 50%)

LC50 (Lethal Concentration, 50%)

IARC (International Agency for Research on Cancer)

ACGIH (American Conference of Governmental Industrial Hygienists)

EPA (US Environmental Protection Agency)

NTP (US National Toxicology Program)

JSOH (Japan Society for Occupational Health)

EU (European Union)

EC50 (Effective Concentration, 50%)

NOEC (No Observed Effect Concentration)

BOD (Biochemical Oxygen Demand)

COD (Chemical Oxygen Demand)

BCF (Bioconcentration Factor)

anh (anhydride)

General Disclaimer

This data sheet was created based on the information we currently have and may be revised according to new information. In addition, the precautions apply only to normal handling, and in the case of special handling, please make adequate countermeasure to maintain your safety.

The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet is to describe the products in terms of their safety requirements. The data does not signify any warranty with regard to the products' properties.

The GHS classification data given here is based on current Japan official data (NITE published in 2021).