

## Safety Data Sheet

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

Product identifier:

Product name: Copper(II) oxide, granular 14~24mesh

Reference number(SDS):32266jis\_E-1

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

Telephone number: +81-48-986-6161

FAX: +81-48-989-2787

e-mail address: shiyaku-t@junsei.co.jp

### 2. Hazards identification

GHS classification and label elements of the product

Classification of the substance or mixture

**HEALTH HAZARDS**

Skin sensitization: Category 1A

Specific target organ toxicity – single exposure: Category 1(systemic toxicity)

Specific target organ toxicity – single exposure: Category 3 (Respiratory tract irritation)

**ENVIRONMENT HAZARDS**

Hazardous to the aquatic environment (Acute): Category 1

Hazardous to the aquatic environment (Long-term): Category 1

Label elements



Signal word: Danger

**HAZARD STATEMENT**

H317-May cause an allergic skin reaction

H370-Causes damage to organs

H335-May cause respiratory irritation

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.

Use only outdoors or in a well-ventilated area.

Wash contaminated parts thoroughly after handling.

Wear protective gloves.

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

Do not eat, drink or smoke when using this product.

**Response**

Collect spillage.

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

Copper(II) oxide, granular 14~24mesh,  
JUNSEI CHEMICAL CO., LTD.,32266jis\_E-1,2021/07/29

IF exposed or concerned: Call a POISON CENTER/doctor/physician.  
IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
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.

#### Storage

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

#### Disposal

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

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### 3. Composition/information on ingredients

Mixture/Substance selection:

Substance

Common name, synonyms: Cupric oxide

Ingredient name:Copper(II) oxide

Content (%):98.0 <

Chemical formula:CuO

Chemicals No, Japan:1-297

CAS No.:1317-38-0

MW:79.54

ECNO:215-269-1

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### 4. First-aid measures

Descriptions of first-aid measures

General measures

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

Call emergency medical service.

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.

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.

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### 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Use appropriate extinguishing media suitable for surrounding facilities.

The product is non-flammable.

Copper(II) oxide, granular 14~24mesh,  
JUNSEI CHEMICAL CO., LTD.,32266jis\_E-1,2021/07/29

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 full face piece operated positive pressure mode.

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## 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.

Do not touch or walk through spilled material.

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.

Prevent dust cloud.

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## 7. Handling and storage

Precautions for safe handling

Preventive measures

(Exposure Control for handling personnel)

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

Avoid breathing 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

Use only outdoors or in a well-ventilated area.

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

Wear protective gloves.

Use personal protective equipment as required.

When using do not eat, drink or smoke.

Copper(II) oxide, granular 14~24mesh,  
JUNSEI CHEMICAL CO., LTD.,32266jis\_E-1,2021/07/29

Any incompatibilities

Strong acids, Strong bases, Strong oxidizing agents, Hydrazine, Titanium, Sodium should not be mixed with the chemicals.

Advice on general occupational hygiene

Wash contaminated parts thoroughly after handling.

Do not eat, drink or smoke when using this product.

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.

Store locked up.

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.

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## 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 safety glasses with side-shields.

Wear eye/face protection.

##### Skin and body protection

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

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## 9. Physical and Chemical Properties

### Information on basic physical and chemical properties

Physical state: Granular

Color: Black

Odor: None

Odor threshold data is not available.

Melting point/Freezing point: 1326°C

Boiling point or initial boiling point: 1026°C

Boiling range data is not available.

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JUNSEI CHEMICAL CO., LTD.,32266jis\_E-1,2021/07/29

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: 1026°C  
Self-Accelerating Decomposition Temperature/SADT data is not available.  
pH data is not available.  
Dynamic viscosity data is not available.  
Kinematic viscosity data is not available.  
Solubility:  
    Solubility in water: Insoluble(Soluble in acids.)  
    Solubility in solvent: Insoluble in ethanol.  
n-Octanol/water partition coefficient data is not available.  
Vapor pressure data is not available.  
Vapor density data is not available.  
VOC data is not available.  
Evaporation rate data is not available.  
Density and/or relative density: 6.315(14/4°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.  
Critical temperature data is not available.  
Particle characteristics: Particle size (14~24 mesh): >=60%

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## 10. Stability and Reactivity

### Reactivity

Runaway polymerization will not occur.

### Chemical stability

Stable under normal storage/handling conditions.

### Possibility of hazardous reactions

Possibility of hazardous reactions data is not available.

### Conditions to avoid

Contact with incompatible materials.

Heat.

### Incompatible materials

Strong acids, Strong bases, Strong oxidizing agents, Hydrazine, Titanium, Sodium.

### Hazardous decomposition products

Copper oxides

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## 11. Toxicological Information

### Information on toxicological effects

#### Acute toxicity

##### Acute toxicity (Oral)

[GHS Cat. Japan, base data]  
rat LD50>2000mg/kg (SIAP, 2014)

##### Acute toxicity (Dermal)

[GHS Cat. Japan, base data]  
rat LD50>2000mg/kg (SIAP, 2014)

#### Irritant properties

Skin corrosion/irritation data is not available.

Serious eye damage/irritation data is not available.

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JUNSEI CHEMICAL CO., LTD.,32266jis\_E-1,2021/07/29

#### Sensitization

##### Skin sensitization

[GHS Cat. Japan, base data]

cat. 1A; JSOH, 2016

Mutagenic effects data is not available.

Carcinogenic effects data is not available.

Reproductive toxicity data is not available.

#### STOT

##### STOT-single exposure

[cat.1]

[GHS Cat. Japan, base data]

systemic toxicity (DFGOT vol. 22, 2004 et al.)

[cat.3 (resp. irrit.)]

[GHS Cat. Japan, base data]

respiratory tract irritation (DFGOT vol. 22, 2004)

STOT-repeated exposure data is not available.

Aspiration hazard data is not available.

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## 12. Ecological Information

### Ecotoxicity

#### Aquatic toxicity

H410-Very toxic to aquatic life with long lasting effects

Hazardous to the aquatic environment (Acute)

[GHS Cat. Japan, base data]

Algae (*Pseudokirchneriella subcapitata*) LC50=3.1 ppb (unknown time) (US EPA: RED, 2009)

Hazardous to the aquatic environment (Long-term)

[GHS Cat. Japan, base data]

Algae (*Pseudokirchneriella subcapitata*) NOEC=0.2 ppb (unknown time) (US EPA: RED, 2009)

#### 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.

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## 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.

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## 14. Transport Information

### UN No., UN CLASS

UN No. or ID No.: 3077

UN Proper Shipping Name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

Class or division (Transport hazard class) : 9

Packing group : III

ERG GUIDE No.: 171

Copper(II) oxide, granular 14~24mesh,  
JUNSEI CHEMICAL CO., LTD.,32266jis\_E-1,2021/07/29

IMDG Code (International Maritime Dangerous Goods Regulations)

UN No.: 3077

Proper Shipping Name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

Class or division : 9

Packing group : III

IATA Dangerous Goods Regulations

UN No.: 3077

Proper Shipping Name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

Class or division : 9

Hazard labels : Miscellaneous & Environmentally hazardous

Packing group : III

Environmental hazards

MARPOL Annex III – Prevention of pollution by harmful substances

Marine pollutants (yes/no) : yes

MARPOL Annex V – Prevention of pollution by garbage discharge

Hazardous to the aquatic environment – acute hazard: cat.1

Copper(II) oxide

Hazardous to the aquatic environment – long-term hazard: cat.1, 2

Copper(II) oxide

Maritime transport in bulk according to IMO instruments

Not applicable to Maritime transport in bulk according to IMO instruments

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## 15. Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Chemicals listed in TSCA Inventory

Copper(II) oxide

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.

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## 16. Other information

GHS classification and labelling

H317–Skin Sens. 1A: H317 May cause an allergic skin reaction

H370–STOT SE 1: H370 Causes damage to organs

H335–STOT SE 3: H335 May cause respiratory irritation

H410–Aquatic Chronic 1: H410 Very toxic to aquatic life with long lasting effects

Reference Book

Globally Harmonized System of classification and labelling of chemicals, UN

Recommendations on the TRANSPORT OF DANGEROUS GOODS 21th edit., 2019 UN

IMDG Code, 2018 Edition (Incorporating Amendment 39–18)

IATA Dangerous Goods Regulations (62nd Edition) 2021

Copper(II) oxide, granular 14~24mesh,  
JUNSEI CHEMICAL CO., LTD.,32266jis\_E-1,2021/07/29

2020 EMERGENCY RESPONSE GUIDEBOOK (US DOT)

2021 TLVs and BEIs. (ACGIH)

JIS Z 7252 : 2019

JIS Z 7253 : 2019

2020 Recommendation on TLVs (JSOH)

Supplier's data/information

Chemicals safety data management system "GHS Assistant" Version 4.11 (<https://www.asahi-ghs.com/>)

NITE Chemical Risk Information Platform "NITE-CHRIP"

([https://www.nite.go.jp/en/chem/chrip/chrip\\_search/systemTop](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)

#### Definitions and Abbreviations

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 2019).