



## Safety Data Sheet

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

#### Product identifier:

Product name: Copper oxide–magnesium oxide(1:4)

SDS No. : Q9387E–2

#### Details of the supplier of the safety data sheet

Manufacturer/Supplier: KISHIDA CHEMICAL CO., LTD.

Address: 3–1, Honmachibashi, Chuo–ku,Osaka ,JAPAN

Division: Safety Management Dept. of Chemicals

Telephone number: +81–6–6946–8061

FAX: +81–6–6946–1607

e–mail address: kagakuhinanzenkanri@kishida.co.jp

### 2. Hazards identification

#### GHS classification and label elements of the product

#### Classification of the substance or mixture

##### HEALTH HAZARDS

Serious eye damage/eye irritation: Category 2

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

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

#### Label elements



Signal word: Danger

#### HAZARD STATEMENT

Causes serious eye irritation

May cause an allergic skin reaction

Causes damage to organs after single exposure(systemic toxicity)

May cause respiratory irritation

Very toxic to aquatic life

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.

Wear eye protection/face protection.

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

##### Response



Collect spillage.

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

IF exposed or concerned: Call a POISON CENTER or 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.

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.

#### Storage

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

#### Disposal

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

---

### 3. Composition/information on ingredients

#### Mixture/Substance selection:

##### Mixture

Ingredient name:Copper(II) oxide

Content (%):20

Chemical formula:CuO

Chemicals No, Japan:1-297

CAS No.:1317-38-0

MW:79.55

ECNO:215-269-1

Ingredient name:Magnesium oxide

Content (%):80

Chemical formula:MgO

Chemicals No, Japan:1-465

CAS No.:1309-48-4

MW:40.30

ECNO:215-171-9

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

---

### 4. First-aid measures

#### Descriptions of first-aid measures

##### General measures

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

##### IF INHALED

Remove person to fresh air and keep comfortable for breathing.

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

##### IF ON SKIN (or hair)

Take off immediately all contaminated clothing. Rinse skin with water/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 or doctor/physician if you feel unwell.

---

## 5. Fire-fighting measures

### Extinguishing media

#### Suitable extinguishing media

Use appropriate extinguishing media suitable for surrounding facilities.

#### 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.

### Advice for firefighters

#### Specific fire-fighting measures

Evacuate non-essential personnel to safe area.

#### Special protective equipment and precautions for fire-fighters

Wear fire/flame resistant/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.

---

## 6. Accidental release measures

### Personnel precautions, protective equipment and emergency procedures

Ventilate area until material pick up is complete.

Wear proper protective equipment.

### Environmental precautions

Prevent spills from entering sewers, watercourses or low areas.

### 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.

---

## 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/sparks/open flames/hot surfaces. – 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 or face protection.

Wear eye protection/face protection.

When using do not eat, drink or smoke.

#### Any incompatibilities

See "10.Stability and Reactivity"

#### 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**

Keep container tightly closed.  
Store in a cool, dry place. Do not store in direct sunlight.

**Container and packaging materials for safe handling**

Glass  
Polyethylene

---

**8. Exposure controls/personal protection****Control parameters****Adopted value**

(Magnesium oxide)  
ACGIH(2000) TWA: 10mg/m<sup>3</sup>(I) (URT; metal fume fever)

**OSHA–PEL**

(Magnesium oxide)  
TWA: 15mg/m<sup>3</sup>

**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.

**Eye protection**

Wear eye/face protection.

---

**9. Physical and Chemical Properties****Information on basic physical and chemical properties**

Physical state: Granular

Color: Dark yellow

Odor: None

Melting point/Freezing point data is not available.

Boiling point or initial boiling point data is not available.

Boiling range data is not available.

Flammability (gases, liquids and solids) data is not available.

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

Flash point data is not available.

Auto–ignition temperature data is not available.

Decomposition temperature data is not available.

pH data is not available.

Kinematic viscosity data is not available.

**Solubility:**

Solubility in water: Insoluble

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

Vapor pressure data is not available.



Density and/or relative density data is not available.

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

No Particle characteristics data is not available.

---

## 10. Stability and Reactivity

### Reactivity

Not available.

### Chemical stability

Stable under normal storage/handling conditions.

### Possibility of hazardous reactions

(Magnesium oxide)

Reacts violently with strong acids. (ICSC 0504)

### Conditions to avoid

Contact with incompatible materials.

Contact with fire source.

### Incompatible materials

Strong acids

### Hazardous decomposition products

Not available.

---

## 11. Toxicological Information

### Information on toxicological effects

#### Acute toxicity

##### Acute toxicity (Oral)

[GHS Cat. Japan, base data]

(Copper(II) oxide)

rat LD50>2000mg/kg (SIAP, 2014)

##### Acute toxicity (Dermal)

[GHS Cat. Japan, base data]

(Copper(II) oxide)

rat LD50>2000mg/kg (SIAP, 2014)

#### Irritant properties

Skin corrosion/irritation data is not available.

#### Serious eye damage/irritation

[GHS Cat. Japan, base data]

(Magnesium oxide)

human mild eyes irritation (ACGIH 7th, 2003)

#### Sensitization

##### Skin sensitization

[GHS Cat. Japan, base data]

(Copper(II) oxide)

cat. 1A; JSOH, 2016

Mutagenic effects data is not available.

#### Carcinogenicity

(Magnesium oxide)

ACGIH-A4(2000) : Not Classifiable as a Human Carcinogen

Reproductive toxicity data is not available.

#### STOT

##### STOT-single exposure

[cat.1]

[GHS Cat. Japan, base data]

(Copper(II) oxide)



systemic toxicity (DFGOT vol. 22, 2004 et al.)  
[cat.3 (resp. irrit.)]  
[GHS Cat. Japan, base data]  
(Copper(II) oxide)  
respiratory tract irritation (DFGOT vol. 22, 2004)  
(Magnesium oxide)  
respiratory tract irritation (HSDB, 2015)  
STOT–repeated exposure data is not available.  
Aspiration hazard data is not available.

---

## 12. Ecological Information

### Ecotoxicity

#### Aquatic toxicity

Very toxic to aquatic life

Very toxic to aquatic life with long lasting effects

Hazardous to the aquatic environment (Acute)

[GHS Cat. Japan, base data]

(Copper(II) oxide)

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

Hazardous to the aquatic environment (Long-term)

[GHS Cat. Japan, base data]

(Copper(II) oxide)

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

#### Water solubility

(Magnesium oxide)

poor (ICSC, 2010)

#### 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.

---

## 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 (– if this is not the intended use).

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

---

## 14. Transport Information

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

Special provisions No.: 274; 331; 335; 375

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  
Special provisions No.: 274; 335; 966; 967; 969

**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  
Special provisions No.: A97; A158; A179; A197

**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

---

**15. Regulatory Information**

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

Chemicals listed in TSCA Inventory

Magnesium oxide; Copper(II) oxide

Other regulatory information

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

---

**16. Other information**

GHS classification and labelling

Eye Irrit. 2: H319 Causes serious eye irritation  
Skin Sens. 1A: H317 May cause an allergic skin reaction  
STOT SE 1: H370 Causes damage to organs after single exposure  
STOT SE 3: H335 May cause respiratory irritation  
Aquatic Acute 1: H400 Very toxic to aquatic life  
Aquatic Chronic 1: H410 Very toxic to aquatic life with long lasting effects

Reference Book

Globally Harmonized System of classification and labelling of chemicals, (7th revised edition, 2017), UN  
Recommendations on the TRANSPORT OF DANGEROUS GOODS 20th edit., 2017 UN  
IMDG Code, 2018 Edition (Incorporating Amendment 39–18)  
IATA Dangerous Goods Regulations (61th Edition) 2020  
Classification, labelling and packaging of substances and mixtures (Table 3 ECNO6182012)  
2016 EMERGENCY RESPONSE GUIDEBOOK (US DOT)  
2020 TLVs and BEIs. (ACGIH)  
<http://monographs.iarc.fr/ENG/Classification/index.php>  
Supplier's data/information

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).