

Globally Harmonized System of Classification and Labelling of
Chemicals (GHS)

KU F 280 Copper Powder

Version 3.0

Revision Date 26.09.2023

Print Date 27.09.2023

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier**

Trade name : KU F 280 Copper Powder
Material number : 060504VZ0

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

This information is not available.

1.3 Details of the supplier of the safety data sheet

Company : ECKART GmbH
Guentersthal 4
91235 Hartenstein
Telephone : +499152770
Telefax : +499152777008
E-mail address : msds.eckart@altana.com
Responsible/issuing person

1.4 Emergency telephone number**NCEC:**

(contract no.: ECKART29003-NCEC)

+44 1235 239671 (Middle East/Africa, call and response in your language)

+1 215 207 0061 (Americas, call and response in your language)

+65 3158 1074 (Asia-Pacific, call and response in your language)

SECTION 2: Hazards identification**GHS Classification**

: Acute toxicity, Category 4, Oral, H302
Serious eye damage/eye irritation, Category 2A, H319
Short-term (acute) aquatic hazard, Category 1, H400

Globally Harmonized System of Classification and Labelling of
Chemicals (GHS)

KU F 280 Copper Powder

Version 3.0

Revision Date 26.09.2023

Print Date 27.09.2023

Long-term (chronic) aquatic hazard, Category 1, H410

GHS-Labelling

Symbol(s)

:



Signal word

:

Warning

Hazard statements

:

H302: Harmful if swallowed.
H319: Causes serious eye irritation.
H410: Very toxic to aquatic life with long lasting effects.

Precautionary statements

:

Prevention:
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P273 Avoid release to the environment.
P280 Wear eye protection/ face protection.
Response:
P301 + P317 + P330 IF SWALLOWED: Get medical help.
Rinse mouth.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with
water for several minutes. Remove contact lenses, if present
and easy to do. Continue rinsing.
P337 + P317 If eye irritation persists: Get medical help.
P391 Collect spillage.
Disposal:
P501 Dispose of contents/ container to an approved waste
disposal plant.

Hazardous components which must be listed on the label

Identification
copper

CAS-No.

Other hazards which do not result in classification

Globally Harmonized System of Classification and Labelling of
Chemicals (GHS)

KU F 280 Copper Powder

Version 3.0

Revision Date 26.09.2023

Print Date 27.09.2023

Combustible Solids

SECTION 3: Composition/information on ingredients

Substance No. :

Hazardous components

Chemical name	CAS-No. EINECS-No.	Classification and labelling	Concentration[%]
copper	Not Assigned	Acute Tox.;4;H302 Eye Dam./Irrit.;2A;H319 Aquatic Acute;1;H400 Aquatic Chronic;1;H410	50 - 100

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures**4.1 Description of first aid measures**

- General advice : Move the victim to fresh air.
Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.
- If inhaled : If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.
- In case of skin contact : Wash off immediately with soap and plenty of water.
- In case of eye contact : Immediately flush eye(s) with plenty of water.
Remove contact lenses.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.

Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

KU F 280 Copper Powder

Version 3.0

Revision Date 26.09.2023

Print Date 27.09.2023

If swallowed : Induce vomiting immediately and call a physician.
Keep respiratory tract clear.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.

4.2 Most important symptoms and effects, both acute and delayed

This information is not available.

4.3 Indication of any immediate medical attention and special treatment needed

This information is not available.

SECTION 5: Firefighting measures**5.1 Extinguishing media**

Suitable extinguishing media : Special powder against metal fire, Dry sand, ABC powder

Unsuitable extinguishing media : Water, High volume water jet, Carbon dioxide (CO₂)

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.

5.3 Advice for firefighters

Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

Further information : Standard procedure for chemical fires.

Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

KU F 280 Copper Powder

Version 3.0

Revision Date 26.09.2023

Print Date 27.09.2023

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment.
Evacuate personnel to safe areas.
Use personal protective equipment.
Avoid dust formation.
Avoid breathing dust.

6.2 Environmental precautions

Environmental precautions : The product should not be allowed to enter drains, water courses or the soil.

Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up : Use mechanical handling equipment.
Pick up and transfer to properly labelled containers.
Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For personal protection see section 8.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Avoid creating dust. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces.

Avoid formation of respirable particles. Do not breathe vapours/dust. Avoid contact with skin and eyes. For personal

Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

KU F 280 Copper Powder

Version 3.0

Revision Date 26.09.2023

Print Date 27.09.2023

protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Dispose of rinse water in accordance with local and national regulations.

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Avoid dust formation. Provide appropriate exhaust ventilation at places where dust is formed.

Hygiene measures : General industrial hygiene practice. Do not smoke. Wash hands before breaks and at the end of workday. Keep away from food and drink. Keep away from tobacco products.

When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Electrical installations / working materials must comply with the technological safety standards.

Keep away from sources of ignition - No smoking. Do not store near combustible materials. Keep containers tightly closed in a cool, well-ventilated place. To maintain product quality, do not store in heat or direct sunlight.

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Electrical installations / working materials must comply with the technological safety standards.

Further information on storage conditions : Protect from humidity and water.

Advice on common storage : Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions. Do not store together with oxidizing and self-igniting products.

Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

KU F 280 Copper Powder

Version 3.0

Revision Date 26.09.2023

Print Date 27.09.2023

Dampness : Keep in a dry, cool and well-ventilated place.

Other data : Keep in a dry place. No decomposition if stored and applied as directed.

7.3 Specific end use(s)

This information is not available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Germany:

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Update	Basis
copper	Not Assigned	AGW (inhalable fraction)	1 mg/m3		DE TRGS 900

United States of America (USA):

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Update	Basis
copper	7440-50-8	TWA (Dust and mist)	1 mg/m3	2010-03-01	
copper	7440-50-8	TWA (Fumes)	0,2 mg/m3	2010-03-01	
copper	7440-50-8	TWA (Dust)	1 mg/m3	2013-10-08	
copper	7440-50-8	TWA (Mist)	1 mg/m3	2013-10-08	
copper	7440-50-8	TWA (dusts and mists)	1 mg/m3	2011-07-01	
copper	7440-50-8	TWA (Fumes)	0,1 mg/m3	2011-07-01	
copper	7440-50-8	PEL (Fumes)	0,1 mg/m3	2014-11-26	
copper	7440-50-8	TWA (Fumes)	0,1 mg/m3	1989-01-19	
copper	7440-50-8	TWA (Dust and mist)	1 mg/m3	1989-01-19	

Globally Harmonized System of Classification and Labelling of
Chemicals (GHS)

KU F 280 Copper Powder

Version 3.0

Revision Date 26.09.2023

Print Date 27.09.2023

8.2 Exposure controls**Personal protective equipment**

- Eye protection : Safety glasses
: Tightly fitting safety goggles
Wear face-shield and protective suit for abnormal processing problems.
- Hand protection
- Material : Leather
- Remarks : Leather gloves
The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other.
The exact break through time can be obtained from the protective glove producer and this has to be observed.
Recommended preventive skin protection
: The suitability for a specific workplace should be discussed with the producers of the protective gloves.
- Skin and body protection : Long sleeved clothing
Safety shoes
: Dust impervious protective suit
Choose body protection according to the amount and concentration of the dangerous substance at the work place.
- Respiratory protection : Use suitable breathing protection if workplace concentration requires.
Respirator with a dust filter
P1 filter

Environmental exposure controls

- General advice : The product should not be allowed to enter drains, water courses or the soil.

Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

KU F 280 Copper Powder

Version 3.0

Revision Date 26.09.2023

Print Date 27.09.2023

: Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties**

Appearance	: powder
Colour	: copper
Odour	: characteristic
pH	: substance/mixture is non-soluble (in water)
Melting point/range	: > 900 °C
Boiling point/boiling range	: No data available
Flash point	: No data available
Bulk density	: No data available
Flammability (solid, gas)	: Combustible Solids
Auto-flammability	: No data available
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Vapour pressure	: No data available
Density	: 8 - 9 g/cm ³
Solubility(ies)	
Water solubility	: insoluble
Miscibility with water	: immiscible
Solubility in other solvents	: No data available

Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

KU F 280 Copper Powder

Version 3.0

Revision Date 26.09.2023

Print Date 27.09.2023

Partition coefficient: n-octanol/water : No data available
Ignition temperature : No data available
Thermal decomposition : No data available
Viscosity, dynamic : No data available
Viscosity, kinematic : No data available
Flow time : No data available

9.2 Other information

No data available

SECTION 10: Stability and reactivity**10.1 Reactivity**

No decomposition if stored and applied as directed.

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Hazardous reactions : Stable under recommended storage conditions., No hazards to be specially mentioned.

No decomposition if stored and applied as directed.

Dust may form explosive mixture in air.

10.4 Conditions to avoid

Conditions to avoid : Heat, flames and sparks.
No data available

10.5 Incompatible materials

Materials to avoid : No data available

Globally Harmonized System of Classification and Labelling of
Chemicals (GHS)

KU F 280 Copper Powder

Version 3.0

Revision Date 26.09.2023

Print Date 27.09.2023

10.6 Hazardous decomposition products

Other information : No data available

SECTION 11: Toxicological information**11.1 Information on toxicological effects****Acute toxicity****Components:****copper :**

Acute oral toxicity : LD50 Oral Rat, male and female: 300 - 500 mg/kg

Method: OECD Test Guideline 423

The component/mixture is moderately toxic after single ingestion.

Acute dermal toxicity : LD50 Rat, male and female: > 2 000 mg/kg

Method: OECD Test Guideline 402

The substance or mixture has no acute dermal toxicity

Skin corrosion/irritation**Product**

May cause skin irritation in susceptible persons.

Serious eye damage/eye irritation

Globally Harmonized System of Classification and Labelling of
Chemicals (GHS)

KU F 280 Copper Powder

Version 3.0

Revision Date 26.09.2023

Print Date 27.09.2023

Product

May cause irreversible eye damage.

Respiratory or skin sensitisation

No data available

Carcinogenicity

No data available

Toxicity to reproduction/fertility

No data available

Reprod.Tox./Development/Teratogenicity

No data available

STOT - single exposure

No data available

STOT - repeated exposure

No data available

Aspiration toxicity

No data available

Further information**Product**

No data available

Globally Harmonized System of Classification and Labelling of
Chemicals (GHS)

KU F 280 Copper Powder

Version 3.0

Revision Date 26.09.2023

Print Date 27.09.2023

SECTION 12: Ecological information**12.1 Toxicity****Components:****copper () :**

M-Factor : 10

Ecotoxicology Assessment

Short-term (acute) aquatic hazard : Very toxic to aquatic life.

Long-term (chronic) aquatic hazard : Very toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

No data available

12.6 Other adverse effects**Product:**

Additional ecological : An environmental hazard cannot be excluded in the event of

Globally Harmonized System of Classification and Labelling of
Chemicals (GHS)

KU F 280 Copper Powder

Version 3.0

Revision Date 26.09.2023

Print Date 27.09.2023

information

unprofessional handling or disposal., Very toxic to aquatic life
with long lasting effects.

SECTION 13: Disposal considerations**13.1 Waste treatment methods**

Product	: The product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company.
Contaminated packaging	: Empty remaining contents. Dispose of as unused product. Do not re-use empty containers.

SECTION 14: Transport information**14.1 UN number****ADR** : 3077**TDG**

Not dangerous goods

CFR

Not dangerous goods

IMDG : 3077**IATA** : 3077**14.2 Proper shipping name****ADR** : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,
N.O.S.

Globally Harmonized System of Classification and Labelling of
Chemicals (GHS)

KU F 280 Copper Powder

Version 3.0

Revision Date 26.09.2023

Print Date 27.09.2023

(Copper metal powder)

TDG

Not dangerous goods

CFR

Not dangerous goods

IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,
N.O.S.

(,Copper metal powder)

IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,
N.O.S.

(Copper metal powder)

14.3 Transport hazard class**ADR** : 9**TDG**

Not dangerous goods

CFR

Not dangerous goods

IMDG : 9**IATA** : 9**14.4 Packing group****ADR**

Packaging group : III

Classification Code : M7

Hazard Identification Number : 90

Labels : 9

Tunnel restriction code : (-)

TDG

Globally Harmonized System of Classification and Labelling of
Chemicals (GHS)

KU F 280 Copper Powder

Version 3.0

Revision Date 26.09.2023

Print Date 27.09.2023

Not dangerous goods

CFR

Not dangerous goods

IMDG

Packaging group : III

Labels : 9

IATAPacking instruction (cargo
aircraft) : 956Packing instruction
(passenger aircraft) : 956

Packing instruction (LQ) : Y956

Packaging group : III

Labels : 9

14.5 Environmental hazards**IMDG** : Marine pollutant**ADR** : Environmentally hazardous**14.6 Special precautions for user****IMDG Code- segregation group:**

: IMDG Code segregation group 7 - Heavy metals and their salts

For single packagings ≤5L / 5 kg, or combination packagings containing inner packagings ≤5L / 5 kg net per inner packaging, SV375 ADR, 2.10.2.7 IMDG-Code, A197 IATA-DGR may be applied.

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

No data available

Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

KU F 280 Copper Powder

Version 3.0

Revision Date 26.09.2023

Print Date 27.09.2023

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).	: Not applicable
REACH - List of substances subject to authorisation (Annex XIV)	: Not applicable
Regulation (EC) No 1005/2009 on substances that deplete the ozone layer	: Not applicable
Regulation (EU) 2019/1021 on persistent organic pollutants (recast)	: Not applicable
REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)	: Not applicable

15.2 Chemical safety assessment

No data available

SECTION 16: Other information**Full text of H-Statements**

H302	: Harmful if swallowed.
H319	: Causes serious eye irritation.
H400	: Very toxic to aquatic life.
H410	: Very toxic to aquatic life with long lasting effects.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the

SAFETY DATA SHEET



Globally Harmonized System of Classification and Labelling of
Chemicals (GHS)

KU F 280 Copper Powder

Version 3.0

Revision Date 26.09.2023

Print Date 27.09.2023

specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.