KU F 120 Kupferpulver

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

1.1 Product identifier

Trade name	:	KU F 120 Kupferpulver
Product code	:	021778VZ0
Substance name	:	copper flakes (coated with aliphatic acid)
EC-No.	:	231-159-6
Index-No.	:	029-019-01-X

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 of person responsible for the SDS	:	msds.eckart@altana.com

1.4 Emergency telephone

NCEC: +44 1235 239670 (Europe)
Call and response in your language is possible.
Contract no.: ECKART29003-NCEC.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567)

Acute toxicity, Category 4	H302: Harmful if swallowed.
Acute toxicity, Category 3	H331: Toxic if inhaled.
Eye irritation, Category 2	H319: Causes serious eye irritation.
Short-term (acute) aquatic hazard, Category 1	H400: Very toxic to aquatic life.
Long-term (chronic) aquatic hazard, Cat-	H410: Very toxic to aquatic life with long lasting

egory 1 effects.

2.2 Label elements

Labeling (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567)

Hazard pictograms :

Signal Word : Danger

Hazard Statements :

H302	Harmful if swallowed.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary Statements :

Prevention:

P261	Avoid breathing dust.
P264	Wash skin thoroughly after handling.
P273	Avoid release to the environment.
P280	Wear eye protection/ face protection.

Response:

P391	Collect spillage.

Storage:

P403 + P233	Store in a well-ventilated place. Keep container tightly closed.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.1 Substances

Index-No. : 029-019-01-X

EC-No. : 231-159-6

Components

Chemical name	CAS-No. EC-No.	Concentration (% w/w)	M-Factor, SCL, ATE
copper flakes (coated with aliphatic acid)	7440-50-8 231-159-6	>= 50 - <= 100	M-Factor (Acute aquatic toxicity): 1010

			M-Factor (Chronic aquatic toxicity): 1Acute toxicity estimate Acute oral toxicity: 500 mg/kg Acute inhalation toxicity (dust/mist): 0.733 mg/l

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice : Take the victim into 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.

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

Risks : Harmful if swallowed.
Causes serious eye irritation.
Toxic if inhaled.

4.3 Indication of any immediate medical attention and special treatment needed

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

5.3 Advice for firefighters

Special protective equipment for fire-fighters	:	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.

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. 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 material for containment and cleaning up

Methods for cleaning up	:	Use mechanical handling equipment. Pick up and transfer to properly labeled 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 vapors/dust. Avoid contact with skin and eyes. For personal 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 re-sealed 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.
Dampness	:	Keep in a dry, cool and well-ventilated place.
Further information on storage stability	:	Keep in a dry place. No decomposition if stored and applied as directed.

7.3 Specific end use(s)

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
copper flakes (coated with aliphatic acid)	7440-50-8	TWA (Fumes)	0.2 mg/m3 (Copper)	GB EH40
		TWA (Dusts and mists)	1 mg/m3 (Copper)	GB EH40
		STEL (Dusts and mists)	2 mg/m3 (Copper)	GB EH40

Derived No Effect Level (DNEL)

Substance name	End Use	Routes of exposure	Potential health effects	Value
copper flakes (coated with aliphatic acid)	Workers	Inhalation	Acute systemic effects	9 mg/m3
	Workers	Dermal	Long-term systemic effects	137 mg/kg
	Workers	Dermal	Acute systemic effects	273 mg/kg
	Consumers	Inhalation	Long-term local effects	1 mg/m3
	Consumers	Inhalation	Acute local effects	1 mg/m3
	Consumers	Dermal	Long-term systemic effects	137 mg/kg
	Consumers	Dermal	Acute systemic effects	273 mg/kg
	Consumers	Oral	Long-term systemic effects	0.041 mg/kg

Predicted No Effect Concentration (PNEC)

Substance name	Environmental Compartment	Value
copper flakes (coated with aliphatic acid)	Fresh water	0.0078 mg/l
	Sea water	0.0052 mg/l
	STP	0.230 mg/l
	Fresh water sediment	87 mg/kg
	Sea sediment	676 mg/kg
	Soil	65 mg/kg

8.2 Exposure controls

Personal protective equipment

Eye/face 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

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form	:	powder
Color	:	copper
Odor	:	characteristic
Odor Threshold	:	No data available
pH	:	substance/mixture is non-soluble (in water)
Melting point/ range	:	> 900 °C
	:	Not applicable
Flash point	:	Not applicable
Flammability	:	Combustible Solids
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapor pressure	:	No data available

Relative vapor density	:	No data available
Relative density	:	No data available
Density	:	8 - 9 g/cm3
Solubility(ies)		
Water solubility	:	insoluble
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Autoignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity, kinematic	:	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 : No data available

10.5 Incompatible materials

10.6 Hazardous decomposition products

This information is not available.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity
Harmful if swallowed.
Toxic if inhaled.

Components:

copper flakes (coated with aliphatic acid):

Acute oral toxicity	:	Acute toxicity estimate: 500 mg/kg Method: Expert judgment
Acute inhalation toxicity	:	Acute toxicity estimate: Test atmosphere: dust/mist Method: Expert judgment Assessment: Not classified due to data which are conclusive although insufficient for classification.
Acute dermal toxicity	:	LD50 (Rat, male and female): > 2,000 mg/kg Method: OECD Test Guideline 402 Assessment: The substance or mixture has no acute dermal toxicity

Skin corrosion/irritation
Not classified due to lack of data.

Product:

Remarks	:	May cause skin irritation in susceptible persons.

Serious eye damage/eye irritation
Causes serious eye irritation.

Product:

Remarks	:	May cause irreversible eye damage.

Components:

copper flakes (coated with aliphatic acid):

Result	:	Eye irritation

Respiratory or skin sensitization

Skin sensitization
Not classified due to lack of data.

Respiratory sensitization
Not classified due to lack of data.

Germ cell mutagenicity
Not classified due to lack of data.

Carcinogenicity
Not classified due to lack of data.

Reproductive toxicity
Not classified due to lack of data.

STOT-single exposure
Not classified due to lack of data.

STOT-repeated exposure
Not classified due to lack of data.

Aspiration toxicity
Not classified due to lack of data.

Further information

Product:

Remarks	:	No data available

SECTION 12: Ecological information

12.1 Toxicity

Components:

copper flakes (coated with aliphatic acid):

M-Factor (Short-term (acute) aquatic hazard)	:	10
M-Factor (Long-term (chronic) aquatic hazard)	:	1

Ecotoxicology Assessment

Acute aquatic toxicity	:	Very toxic to aquatic life.
Chronic aquatic toxicity	:	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

Product:

Assessment	:	This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

Product:

Endocrine disrupting potential	:	This substance/mixture does not contain components considered to have endocrine disrupting properties for environment

according to UK REACH Article 57(f) at levels of 0.1% or higher.

Additional ecological information : An environmental hazard cannot be excluded in the event of 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 : UN 3077

IMDG : UN 3077

IATA : UN 3077

14.2 UN proper shipping name

ADR : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
(Copper metal powder)

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(es)

		Class	Subsidiary risks
ADR	:	9	
IMDG	:	9	
IATA	:	9	

14.4 Packing group

ADR

Packing group	:	III
Classification Code	:	M7
Hazard Identification Number	:	90
Labels	:	9
Tunnel restriction code	:	(-)

IMDG

Packing group	:	III
Labels	:	9
EmS Code		F-AS-F
EmS Code (EmS Code)	:	F-A, S-F
Remarks	:	IMDG Code segregation group 7 - Heavy metals and their salts

IATA (Cargo)

Packing instruction (cargo aircraft)	:	956
Packing instruction (LQ)	:	Y956
Packing group	:	III
Labels	:	9

IATA (Passenger)

Packing instruction (passenger aircraft)	:	956
Packing instruction (LQ)	:	Y956
Packing group	:	III
Labels	:	9

14.5 Environmental hazards

ADR

Environmentally hazardous	:	yes

IMDG

Marine pollutant	:	yes

14.6 Special precautions for user

Remarks	:	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.

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

Relevant EU provisions transposed through retained EU law

UK REACH List of restrictions (Annex 17)	:	Not applicable

UK REACH Candidate list of substances of very high concern (SVHC) for Authorisation	:	Not applicable
The Persistent Organic Pollutants Regulations (retained Regulation (EU) 2019/1021 as amended for Great Britain)	:	Not applicable
Regulation (EU) No 2024/590 on substances that deplete the ozone layer	:	Not applicable
UK REACH List of substances subject to authorisation (Annex XIV)	:	Not applicable
GB Export and import of hazardous chemicals - Prior Informed Consent (PIC) Regulation	:	Not applicable
Control of Major Accident Hazards Regulations 2015 (COMAH)	H2	ACUTE TOXIC
	E1	ENVIRONMENTAL HAZARDS

15.2 Chemical Safety Assessment

No data available

SECTION 16: Other information

Full text of other abbreviations

GB EH40	:	UK. EH40 WEL - Workplace Exposure Limits
GB EH40 / TWA	:	Long-term exposure limit (8-hour TWA reference period)
GB EH40 / STEL	:	Short-term exposure limit (15-minute reference period)

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; BGW - Biological Limit Values; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardization; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organization for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); LSPN - List of Hazardous Notified Substances (Chile); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS

- Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorization and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - substance of very high concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Further information

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 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.

GB / EN