

Page 1 of 11

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 01.11.2021 / 0014

Replacing version dated / version: 13.06.2019 / 0013

Valid from: 01.11.2021 PDF print date: 01.11.2021

Kupferpaste Copper Paste

## Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

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

#### 1.1 Product identifier

## **Kupferpaste**

## **Copper Paste**

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

Lubricant

## **Uses advised against:**

No information available at present.

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

LIQUI MOLY GmbH Jerg-Wieland-Str. 4 89081 Ulm-Lehr Tel.: (+49) 0731-1420-0

Fax: (+49) 0731-1420-88

Qualified person's e-mail address: info@chemical-check.de, k.schnurbusch@chemical-check.de Please DO NOT use for requesting Safety Data Sheets.

#### 1.4 Emergency telephone number

Emergency information services / official advisory body:

#### Telephone number of the company in case of emergencies:

+49 (0) 700 / 24 112 112 (LMR) +1 872 5888271 (LMR)

#### **SECTION 2: Hazards identification**

#### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) 1272/2008 (CLP) Hazard class Hazard category **Hazard statement** 

Aquatic Acute H400-Very toxic to aquatic life.

Aquatic Chronic 2 H411-Toxic to aquatic life with long lasting effects.

#### 2.2 Label elements

Labeling according to Regulation (EC) 1272/2008 (CLP)



Page 2 of 11

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 01.11.2021 / 0014 Replacing version dated / version: 13.06.2019 / 0013

Valid from: 01.11.2021 PDF print date: 01.11.2021

Kupferpaste Copper Paste



Warning

H410-Very toxic to aquatic life with long lasting effects.

P273-Avoid release to the environment.

P391-Collect spillage.

P501-Dispose of contents / container to an approved waste disposal facility.

#### 2.3 Other hazards

The mixture does not contain any vPvB substance (vPvB = very persistent, very bioaccumulative) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).

The mixture does not contain any PBT substance (PBT = persistent, bioaccumulative, toxic) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).

The mixture does not contain any substance with endocrine disrupting properties (< 0,1 %).

## **SECTION 3: Composition/information on ingredients**

#### 3.1 Substances

## n.a. **3.2 Mixtures**

Copper	
Registration number (REACH)	01-2119480154-42-XXXX
Index	
EINECS, ELINCS, NLP, REACH-IT List-No.	231-159-6
CAS	7440-50-8
content %	2,5-<10
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Acute Tox. 3, H331
	Acute Tox. 4, H302
	Eye Irrit. 2, H319
	Aquatic Acute 1, H400 (M=10)
	Aquatic Chronic 1, H410 (M=1)

For the text of the H-phrases and classification codes (GHS/CLP), see Section 16.

The substances named in this section are given with their actual, appropriate classification!

For substances that are listed in appendix VI, table 3.1 of the regulation (EC) no. 1272/2008 (CLP regulation) this means that all notes that may be given here for the named classification have been taken into account.

#### **SECTION 4: First aid measures**

#### 4.1 Description of first aid measures

First-aiders should ensure they are protected!

Never pour anything into the mouth of an unconscious person!

#### Inhalation

Supply person with fresh air and consult doctor according to symptoms.



Page 3 of 11

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 01.11.2021 / 0014 Replacing version dated / version: 13.06.2019 / 0013

Valid from: 01.11.2021 PDF print date: 01.11.2021

Kupferpaste Copper Paste

#### **Skin contact**

Remove polluted, soaked clothing immediately, wash thoroughly with plenty of water and soap, in case of irritation of the skin (flare), consult a doctor

#### Eye contact

Remove contact lenses.

Wash thoroughly for several minutes using copious water. Seek medical help if necessary.

#### Ingestion

Rinse the mouth thoroughly with water.

Do not induce vomiting. Consult doctor immediately.

#### 4.2 Most important symptoms and effects, both acute and delayed

Where relevant delayed occuring symptomes and effects will be found in section 11. or at the exposure routes under section 4.1.

In certain cases, the symptoms of poisoning may only appear after an extended period / after several hours.

With oil mist formation:

Irritation of the respiratory tract

Headaches

Nausea

breathing difficulties

With long-term contact:

reddening of the skin

Irritation of the skin.

Ingestion:

Malaise

## 4.3 Indication of any immediate medical attention and special treatment needed

Symptomatic treatment.

## **SECTION 5: Firefighting measures**

# 5.1 Extinguishing media Suitable extinguishing media

CO2

Foam

Dry extinguisher

#### Unsuitable extinguishing media

High volume water jet

#### 5.2 Special hazards arising from the substance or mixture

In case of fire the following can develop:

Oxides of carbon

Toxic gases

Irritating gases

Metal oxides

### 5.3 Advice for firefighters

For personal protective equipment see Section 8.

In case of fire and/or explosion do not breathe fumes.

Protective respirator with independent air supply.

According to size of fire

Full protection, if necessary.

Dispose of contaminated extinction water according to official regulations.

#### **SECTION 6: Accidental release measures**

## 6.1 Personal precautions, protective equipment and emergency procedures

## 6.1.1 For non-emergency personnel

In case of spillage or accidental release, wear personal protective equipment as specified in section 8 to prevent contamination.

Ensure sufficient ventilation, remove sources of ignition.

Avoid dust formation with solid or powder products.

Leave the danger zone if possible, use existing emergency plans if necessary.

Ensure sufficient supply of air.



Page 4 of 11

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 01.11.2021 / 0014

Replacing version dated / version: 13.06.2019 / 0013

Valid from: 01.11.2021 PDF print date: 01.11.2021

Kupferpaste Copper Paste

Avoid contact with eyes or skin.

If applicable, caution - risk of slipping.

### 6.1.2 For emergency responders

See section 8 for suitable protective equipment and material specifications.

#### 6.2 Environmental precautions

If leakage occurs, dam up.

Resolve leaks if this possible without risk.

Prevent from entering drainage system.

Prevent surface and ground-water infiltration, as well as ground penetration.

#### 6.3 Methods and material for containment and cleaning up

Soak up with absorbent material (e.g. universal binding agent, sand, diatomaceous earth, sawdust) and dispose of according to Section 13. Or:

Pick up mechanically and dispose of according to Section 13.

Fill the absorbed material into lockable containers.

#### 6.4 Reference to other sections

For personal protective equipment see Section 8 and for disposal instructions see Section 13.

## **SECTION 7: Handling and storage**

In addition to information given in this section, relevant information can also be found in section 8 and 6.1.

#### 7.1 Precautions for safe handling

#### 7.1.1 General recommendations

Ensure good ventilation.

Avoid contact with eyes.

Avoid long lasting or intensive contact with skin.

Eating, drinking, smoking, as well as food-storage, is prohibited in work-room.

Do not carry cleaning cloths soaked in product in trouser pockets.

Observe directions on label and instructions for use.

Use working methods according to operating instructions.

Remove possible causes of ignition - do not smoke.

#### 7.1.2 Notes on general hygiene measures at the workplace

General hygiene measures for the handling of chemicals are applicable.

Wash hands before breaks and at end of work.

Keep away from food, drink and animal feedingstuffs.

Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

### 7.2 Conditions for safe storage, including any incompatibilities

Keep out of access to unauthorised individuals.

Not to be stored in gangways or stair wells.

Store product closed and only in original packing.

Under all circumstances prevent penetration into the soil.

Do not store over 45°C.

Store in a well-ventilated place.

Store cool.

#### 7.3 Specific end use(s)

No information available at present.

### **SECTION 8: Exposure controls/personal protection**

#### 8.1 Control parameters

© Chemical Name Copper	
WEL-TWA: 1 mg/m3 (dusts and mists, as Cu)	WEL-STEL: 2 mg/m3 (dusts and mists, as Cu)
Monitoring procedures:	ISO 15202 (Workplace air - Determination of metals and metalloids in airborne
	particulate matter by Inductively Coupled Plasma Atomic Emission Spectrometry), Part
	1-3 - 2012(Part 1), 2012(Part 2), 2004 (Part 3) - EU project BC/CEN/ENTR/000/2002-
	- 16 card 84-1 (2004)
	MDHS 91/2 (Metals and metalloids in workplace air by X-ray fluorescence
	- spectrometry) - 2015 - EU project BC/CEN/ENTR/000/2002-16 card 84-2 (2004)



(GB)-

Page 5 of 11

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 01.11.2021 / 0014

Replacing version dated / version: 13.06.2019 / 0013

Valid from: 01.11.2021 PDF print date: 01.11.2021

Kupferpaste Copper Paste

BMGV: ---

-	NIOSH 7029 (Copper (dust and fume)) - 1994
-	NIOSH 7300 (ELEMENTS by ICP (Nitric/Perchloric Acid Ashing)) - 2003
_	NIOSH 7301 (Elements by ICP (aqua regia ashing)) - 2003
-	NIOSH 7303 (Elements by ICP (Hot block HCI/HNO3 digestion)) - 2003
	OSHA ID-121 (Metal and metalloid particulates in workplace atmospheres (Atomic
_	absorption)) - 2002 - EU project BC/CEN/ENTR/000/2002-16 card 84-10 (2004)
	OSHA ID-125G (Metal and metalloid particulates in workplace atmospheres (ICP)) -
_	2002
	OSHA ID-206 (ICP analysis of metal/metallloid particulates from solder operations) -
-	1991

Œ	Chemical Name	Oil mist, mineral			
V	VEL-TWA: 5 mg/m3 (Mineral oil, e	excluding metal	WEL-STEL:		
v	orking fluids, ACGIH)				
N	Nonitoring procedures:	-	Draeger - Oil Mist 1/a (67 33 031)		
E	MGV:			Other information:	-

Other information: ---

WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period) EH40. AGW = "Arbeitsplatzgrenzwert" (workplace limit value, Germany).

(8) = Inhalable fraction (Directive 2017/164/EU, Directive 2004/37/CE). (9) = Respirable fraction (Directive 2017/164/EU, Directive 2004/37/CE). (11) = Inhalable fraction (Directive 2004/37/CE). (12) = Inhalable fraction. Respirable fraction in those Member States that implement, on the date of the entry into force of this Directive, a biomonitoring system with a biological limit value not exceeding 0,002 mg Cd/g creatinine in urine (Directive 2004/37/CE). | WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period).

(8) = Inhalable fraction (2017/164/EU, 2017/2398/EU). (9) = Respirable fraction (2017/164/EU, 2017/2398/EU). (10) = Short-term exposure limit value in relation to a reference period of 1 minute (2017/164/EU). | BMGV = Biological monitoring guidance value EH40. BGW = "Biologischer Grenzwert" (biological limit value, Germany) | Other information: Sen = Capable of causing occupational asthma. Sk = Can be absorbed through skin. Carc = Capable of causing cancer and/or heritable genetic damage.

\*\* = The exposure limit for this substance is repealed through the TRGS 900 (Germany) of January 2006 with the goal of revision.

(13) = The substance can cause sensitisation of the skin and of the respiratory tract (Directive 2004/37/CE), (14) = The substance can cause sensitisation of the skin (Directive 2004/37/CE).

#### 8.2 Exposure controls

#### 8.2.1 Appropriate engineering controls

Ensure good ventilation. This can be achieved by local suction or general air extraction.

If this is insufficient to maintain the concentration under the WEL or AGW values, suitable breathing protection should be worn. Applies only if maximum permissible exposure values are listed here.

Suitable assessment methods for reviewing the effectiveness of protection measures adopted include metrological and non-metrological investigative techniques.

These are specified by e.g. EN 14042.

EN 14042 "Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents".

#### 8.2.2 Individual protection measures, such as personal protective equipment

General hygiene measures for the handling of chemicals are applicable.

Wash hands before breaks and at end of work.

Keep away from food, drink and animal feedingstuffs.

Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

Eye/face protection:

With danger of contact with eyes.

Tight fitting protective goggles with side protection (EN 166).

Skin protection - Hand protection:

Protective nitrile gloves (EN ISO 374).

Minimum layer thickness in mm:

>= 0,38

Permeation time (penetration time) in minutes:

> 480

The breakthrough times determined in accordance with EN 16523-1 were not obtained under practical conditions.

The recommended maximum wearing time is 50% of breakthrough time.

Protective hand cream recommended.



Page 6 of 11

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 01.11.2021 / 0014

Replacing version dated / version: 13.06.2019 / 0013

Valid from: 01.11.2021 PDF print date: 01.11.2021

Kupferpaste Copper Paste

Skin protection - Other:

Protective working garments (e.g. safety shoes EN ISO 20345, long-sleeved protective working garments).

Respiratory protection: Normally not necessary. With oil mist formation:

In aerosol misting:

Filter A P2 (EN 14387), code colour brown, white

Observe wearing time limitations for respiratory protection equipment.

Thermal hazards: Not applicable

Additional information on hand protection - No tests have been performed.

In the case of mixtures, the selection has been made according to the knowledge available and the information about the contents. Selection of materials derived from glove manufacturer's indications.

Final selection of glove material must be made taking the breakthrough times, permeation rates and degradation into account. Selection of a suitable glove depends not only on the material but also on other quality characteristics and varies from manufacturer to manufacturer.

In the case of mixtures, the resistance of glove materials cannot be predicted and must therefore be tested before use.

The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.

#### 8.2.3 Environmental exposure controls

No information available at present.

### **SECTION 9: Physical and chemical properties**

#### 9.1 Information on basic physical and chemical properties

Physical state: Paste, solid.
Colour: Copper
Odour: Characteristic

Melting point/freezing point:

There is no information available on this parameter.

Boiling point or initial boiling point and boiling range:

There is no information available on this parameter.

Flammability: Flammable

Lower explosion limit:Does not apply to solids.Upper explosion limit:Does not apply to solids.Flash point:>150 °C (Mineral oil)Auto-ignition temperature:Does not apply to solids.

Decomposition temperature:

There is no information available on this parameter.

pH: Mixture is non-soluble (in water). Kinematic viscosity: Does not apply to solids.

Solubility: Insoluble

Partition coefficient n-octanol/water (log value):

Does not apply to mixtures.

Vapour pressure: There is no information available on this parameter.

Density and/or relative density: <1 g/cm3 (25°C)
Relative vapour density: Does not apply to solids.

9.2 Other information

Explosives: Product is not explosive. Oxidizing solids: No

## **SECTION 10: Stability and reactivity**

#### 10.1 Reactivity

Stable when handled and stored correctly.

#### 10.2 Chemical stability

Stable with proper storage and handling.

## 10.3 Possibility of hazardous reactions

No dangerous reactions are known.

#### 10.4 Conditions to avoid



GB)

Page 7 of 11

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 01.11.2021 / 0014

Replacing version dated / version: 13.06.2019 / 0013

Valid from: 01.11.2021 PDF print date: 01.11.2021

Kupferpaste Copper Paste

## Heating 10.5 Incompatible materials

Avoid contact with strong oxidizing agents.

## 10.6 Hazardous decomposition products

No decomposition when used as directed.

## **SECTION 11: Toxicological information**

## 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Possibly more information on health effects, see Section 2.1 (classification).

Kupferpaste						
Copper Paste						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	ATE	3419	mg/kg			calculated value
Acute toxicity, by dermal route:						n.d.a.
Acute toxicity, by inhalation:	ATE	7	mg/l/4h			calculated value, Mist
Acute toxicity, by inhalation:	ATE	>20	mg/l/4h			calculated value, Vapours
Skin corrosion/irritation:						n.d.a.
Serious eye damage/irritation:						n.d.a.
Respiratory or skin						n.d.a.
sensitisation:						
Germ cell mutagenicity:						n.d.a.
Carcinogenicity:						n.d.a.
Reproductive toxicity:						n.d.a.
Specific target organ toxicity -						n.d.a.
single exposure (STOT-SE):						
Specific target organ toxicity -						n.d.a.
repeated exposure (STOT-RE):						
Aspiration hazard:						n.d.a.
Symptoms:						n.d.a.

## 11.2. Information on other hazards

Kupferpaste						
Copper Paste						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Endocrine disrupting properties:						Does not apply
						to mixtures.
Other information:						No other
						relevant
						information
						available on
						adverse effects
						on health.

## **SECTION 12: Ecological information**

Possibly more information on environmental effects, see Section 2.1 (classification).

Kupterpaste							
Copper Paste							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:							n.d.a.
12.1. Toxicity to daphnia:							n.d.a.
12.1. Toxicity to algae:							n.d.a.
12.2. Persistence and							Isolate as much
degradability:							as possible with
							an oil separator.
12.3. Bioaccumulative							n.d.a.
potential:							



Page 8 of 11

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 01.11.2021 / 0014

Replacing version dated / version: 13.06.2019 / 0013

Valid from: 01.11.2021 PDF print date: 01.11.2021

Kupferpaste Copper Paste

12.4. Mobility in soil:			n.d.a.
12.5. Results of PBT			n.d.a.
and vPvB assessment			1
12.6. Endocrine			Does not apply
disrupting properties:			to mixtures.
12.7. Other adverse			No information
effects:			available on
			other adverse
			effects on the
			environment.

## **SECTION 13: Disposal considerations**

#### 13.1 Waste treatment methods

#### For the substance / mixture / residual amounts

Do not carry cleaning cloths soaked in product in trouser pockets.

Soaked polluted cloths, paper or other organic materials represent a fire hazard and should be controlled, collected and disposed of.

EC disposal code no .:

The waste codes are recommendations based on the scheduled use of this product.

Owing to the user's specific conditions for use and disposal, other waste codes may be

allocated under certain circumstances. (2014/955/EU)

13 08 99 wastes not otherwise specified

Recommendation:

Sewage disposal shall be discouraged.

Pay attention to local and national official regulations.

E.g. dispose at suitable refuse site.

E.g. suitable incineration plant.

#### For contaminated packing material

Pay attention to local and national official regulations.

Empty container completely.

Uncontaminated packaging can be recycled.

Dispose of packaging that cannot be cleaned in the same manner as the substance.

## **SECTION 14: Transport information**

Ш

M7

#### **General statements**

14.1. UN number or ID number: 3077

#### Transport by road/by rail (ADR/RID)

14.2. UN proper shipping name:

UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (COPPER)

14.3. Transport hazard class(es):
14.4. Packing group:
Classification code:

14.5. Environmental hazards: environmentally hazardous

Tunnel restriction code:

## Transport by sea (IMDG-code)

14.2. UN proper shipping name:

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (COPPER)

14.3. Transport hazard class(es):

9

14.4. Packing group:

III

EmS:

F-A, S-F

14.5. Environmental hazards: environmentally hazardous

## Transport by air (IATA)

Marine Pollutant:

14.2. UN proper shipping name:

Environmentally hazardous substance, solid, n.o.s. (COPPER)

14.3. Transport hazard class(es):
9
14.4. Packing group:
III









Page 9 of 11

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 01.11.2021 / 0014

Replacing version dated / version: 13.06.2019 / 0013

Valid from: 01.11.2021 PDF print date: 01.11.2021

Kupferpaste Copper Paste

14.5. Environmental hazards:

environmentally hazardous

#### 14.6. Special precautions for user

Persons employed in transporting dangerous goods must be trained. All persons involved in transporting must observe safety regulations.

Precautions must be taken to prevent damage.

#### 14.7. Maritime transport in bulk according to IMO instruments

Freighted as packaged goods rather than in bulk, therefore not applicable.

Minimum amount regulations have not been taken into account.

Danger code and packing code on request.

Comply with special provisions.

### **SECTION 15: Regulatory information**

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

Observe restrictions:

Comply with trade association/occupational health regulations.

Directive 2012/18/EU ("Seveso III"), Annex I, Part 1 - The following categories apply to this product (others may also need to be considered

according to storage, handling etc.):

Hazard categories	Notes to Annex I	Qualifying quantity (tonnes) of	Qualifying quantity (tonnes) of
		dangerous substances as	dangerous substances as
		referred to in Article 3(10) for the	referred to in Article 3(10) for the
		application of - Lower-tier	application of - Upper-tier
		requirements	requirements
E1		100	200
E2		200	500

The Notes to Annex 1 of Directive 2012/18/EU, in particular those named in the tables here and notes 1-6, must be taken into account when assigning categories and qualifying quantities.

Directive 2010/75/EU (VOC):

< 3 %

Observe incident regulations.

#### 15.2 Chemical safety assessment

A chemical safety assessment is not provided for mixtures.

#### **SECTION 16: Other information**

Revised sections:

1-16

Employee training in handling dangerous goods is required.

These details refer to the product as it is delivered.

Employee instruction/training in handling hazardous materials is required.

# Classification and processes used to derive the classification of the mixture in accordance with the ordinance (EG) 1272/2008 (CLP):

Classification in accordance with regulation (EC) No. 1272/2008 (CLP)	Evaluation method used
Aquatic Acute 1, H400	Classification according to calculation procedure.
Aquatic Chronic 2, H411	Classification according to calculation procedure.

The following phrases represent the posted Hazard Class and Risk Category Code (GHS/CLP) of the product and the constituents (specified in Section 2 and 3).

H302 Harmful if swallowed.

H319 Causes serious eye irritation.

H331 Toxic if inhaled.



Page 10 of 11

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 01.11.2021 / 0014

Replacing version dated / version: 13.06.2019 / 0013

Valid from: 01.11.2021 PDF print date: 01.11.2021

Kupferpaste Copper Paste

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

Aquatic Acute — Hazardous to the aquatic environment - acute Aquatic Chronic — Hazardous to the aquatic environment - chronic

Acute Tox. — Acute toxicity - inhalation

Acute Tox. — Acute toxicity - oral

Eye Irrit. — Eye irritation

#### **Key literature references and sources for data:**

Regulation (EC) No 1907/2006 (REACH) and Regulation (EC) No 1272/2008 (CLP) as amended.

Guidelines for the preparation of safety data sheets as amended (ECHA).

Guidelines on labelling and packaging according to the Regulation (EG) Nr. 1272/2008 (CLP) as amended (ECHA).

Safety data sheets for the constituent substances.

ECHA Homepage - Information about chemicals.

GESTIS Substance Database (Germany).

German Environment Agency "Rigoletto" information site on substances that are hazardous to water (Germany).

EU Occupation Exposure Limits Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, (EU) 2017/164, (EU) 2019/1831, each as amended.

National Lists of Occupational Exposure Limits for each country as amended.

Regulations on the transport of hazardous goods by road, rail, sea and air (ADR, RID, IMDG, IATA) as amended.

## Any abbreviations and acronyms used in this document:

acc., acc. to according, according to

Accord européen relatif au transport international des marchandises Dangereuses par Route (= European Agreement concerning the International Carriage of Dangerous Goods by Road)

AOX Adsorbable organic halogen compounds

approx. approximately

Art., Art. no. Article number

ASTM ASTM International (American Society for Testing and Materials)

Acute Toxicity Estimate ATF

BAM Bundesanstalt für Materialforschung und -prüfung (Federal Institute for Materials Research and Testing, Germany) BAuA Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (= Federal Institute for Occupational Health and Safety, Germany)

BCF Bioconcentration factor

**BSEF** The International Bromine Council

body weight bw

CAS Chemical Abstracts Service

CLP Classification, Labelling and Packaging (REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures)

CMR carcinogenic, mutagenic, reproductive toxic

DMEL Derived Minimum Effect Level DNEL Derived No Effect Level DOC Dissolved organic carbon

dw dry weight

for example (abbreviation of Latin 'exempli gratia'), for instance e.a.

Effect Concentration/Level of x % on reduction of the biomass (algae, plants) EbCx, EyCx, EbLx (x = 10, 50)

**European Community** EC ECHA European Chemicals Agency

ECx, ELx (x = 0, 3, 5, 10, 20, 50, 80, 100) Effect Concentration/Level for x % effect

EEC European Economic Community

**EINECS** European Inventory of Existing Commercial Chemical Substances

European List of Notified Chemical Substances **ELINCS** 

FΝ European Norms

**EPA** United States Environmental Protection Agency (United States of America)

ErCx,  $E\mu Cx$ , ErLx (x = 10, 50) Effect Concentration/Level of x % on inhibition of the growth rate (algae, plants)

etc. et cetera EU European Union

EVAL Ethylene-vinyl alcohol copolymer

Fax. Fax number gen. general



Page 11 of 11

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 01.11.2021 / 0014

Replacing version dated / version: 13.06.2019 / 0013

Valid from: 01.11.2021 PDF print date: 01.11.2021

Kupferpaste Copper Paste

Globally Harmonized System of Classification and Labelling of Chemicals GHS

**GWP** Global warming potential

Adsorption coefficient of organic carbon in the soil Koc

octanol-water partition coefficient Kow

**IARC** International Agency for Research on Cancer International Air Transport Association IATA IBC (Code) International Bulk Chemical (Code)

International Maritime Code for Dangerous Goods IMDG-code

including, inclusive

**IUCLID** International Uniform Chemical Information Database IUPAC International Union for Pure Applied Chemistry LC50 Lethal Concentration to 50 % of a test population

LD50 Lethal Dose to 50% of a test population (Median Lethal Dose)

Logarithm of adsorption coefficient of organic carbon in the soil Log Koc Logarithm of octanol-water partition coefficient

Log Kow, Log Pow

LQ **Limited Quantities** 

MARPOL International Convention for the Prevention of Marine Pollution from Ships

not applicable n.a. not available n.av. not checked n.c. n.d.a. no data available

NIOSH National Institute for Occupational Safety and Health (USA)

No-longer-Polymer

NOEC, NOEL No Observed Effect Concentration/Level OECD Organisation for Economic Co-operation and Development

org.

OSHA Occupational Safety and Health Administration (USA)

persistent, bioaccumulative and toxic PBT

PΕ Polyethylene

PNEC Predicted No Effect Concentration

parts per million ppm PVC Polyvinylchloride

REACHRegistration, Evaluation, Authorisation and Restriction of Chemicals (REGULATION (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals)

REACH-IT List-No. 9xx-xxx-x No. is automatically assigned, e.g. to pre-registrations without a CAS No. or other numerical identifier. List Numbers do not have any legal significance, rather they are purely technical identifiers for processing a submission via REACH-IT.

Règlement concernant le transport International ferroviaire de marchandises Dangereuses (= Regulation concerning the International Carriage of Dangerous Goods by Rail)

SVHC Substances of Very High Concern

Tel. Telephone

TOC Total organic carbon

**UN RTDG** United Nations Recommendations on the Transport of Dangerous Goods

VOC Volatile organic compounds

vPvB very persistent and very bioaccumulative

wet weight

The statements made here should describe the product with regard to the necessary safety precautions - they are not meant to guarantee definite characteristics - but they are based on our present up-to-date knowledge.

These statements were made by

### Chemical Check GmbH, Chemical Check Platz 1-7, D-32839 Steinheim, Tel.: +49 5233 94 17 0, Fax: +49 5233 94 17 90

© by Chemical Check GmbH Gefahrstoffberatung. The copying or changing of this document is forbidden except with consent of the Chemical Check GmbH Gefahrstoffberatung.