Telefax: +49 (621) 8504200



Safety Data Sheet

according to Regulation (EC) No 1907/2006

Kupferpaste

Revision date: 19.03.2018 Product code: RCSO-FDT-042 Page 1 of 10

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

1.1. Product identifier

Kupferpaste

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

Use of the substance/mixture

coating

Uses advised against

Only use for the intended purpose.

The product is intended for professional use.

1.3. Details of the supplier of the safety data sheet

Company name: FDT Flachdach Technologie GmbH & Co. KG

Street: Eisenbahnstraße 6-8 Place: D-68199 Mannheim Telephone: +49 (621) 8504100

kundenservice@fdt.de e-mail:

Contact person: Marco Anderer Telephone: +49 (621) 8504563

e-mail: marco.anderer@fdt.de Internet: http://www.fdt.de

Responsible Department: Arbeitssicherheit und Umweltschutz

1.4. Emergency telephone Poison Control Center (Mayence, GER): +49 (0)6131 - 19240 (24h - de, en)

number: Emergency Action: In the event of a medical enquiry involving this product,

please contact your doctor or local hospital accident and emergency department

or the NHS enquiry service.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Hazard categories:

Acute toxicity: Acute Tox. 3 Acute toxicity: Acute Tox. 4

Serious eye damage/eye irritation: Eye Irrit. 2

Hazardous to the aquatic environment: Aquatic Acute 1 Hazardous to the aquatic environment: Aquatic Chronic 1

Hazard Statements: Toxic if inhaled. Harmful if swallowed. Causes serious eye irritation.

Very toxic to aquatic life.

Very toxic to aquatic life with long lasting effects.

2.2. Label elements

Regulation (EC) No. 1272/2008

Hazard components for labelling

copper flakes (coated with aliphatic acid)

Signal word: Danger

Pictograms:







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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

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P311 Call a POISON CENTER/doctor.

P337+P313 If eye irritation persists: Get medical advice/attention.

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

P501 Dispose of contents/container in accordance with national disposal regulations.

2.3. Other hazards

Flammable solid substance.

The components in this mixture do not meet the criteria for classification as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

CAS No	Chemical name	mical name			
	EC No	Index No	REACH No		
	Classification according to Regulation (EC) No. 1272/2008 [CLP]				
-	copper flakes (coated with aliphatic acid)			50-100 %	
	-	029-019-01-X			
	Acute Tox. 3, Acute Tox. 4, Eye Irrit. 2, Aquatic Acute 1 (M-Factor = 10), Aquatic Chronic 1 (M-Factor = 10); H331 H302 H319 H400 H410				
64742-48-9	Naphtha (petroleum), hydrotreated heavy; Low boiling point hydrogen treated naphtha			10-<20 %	
	265-150-3	649-327-00-6	01-2119457273-39		
	Asp. Tox. 1; H304				

Full text of H and EUH statements: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In case of troubles or persistent symptoms, consult an doctor/physician.

Remove persons from danger area and lie them down. Never orally infuse something to an unconscious person. No special first aid measures necessary. A vomiting, supine person must be brought into recovery position.

After inhalation

Provide fresh air. In case of respiratory tract irritation, consult a physician.

In case of irregular breathing or respiratory arrest, perform artificial respiration.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Change contaminated clothing. In case of skin irritation, consult a physician.

After contact with eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.





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Continue rinsing. If eye irritation persists: Get medical advice/attention.

After ingestion

Keep the respiratory system clear. Do not give milk or alcoholic drinks. Never orally infuse something to an unconscious person. In case of persistent symptoms of irritation or other symptoms seek medical advise.

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

Harmful if swallowed.

Causes serious eye irritation.

Toxic by inhalation.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Special powder for metal fires, dry sand, ABC powder.

Unsuitable extinguishing media

Water

High power water jet.

5.2. Special hazards arising from the substance or mixture

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

<u>5.3. Advice for firefighters</u>

Co-ordinate fire-fighting measures to the fire surroundings. Wear a self-contained breathing apparatus and chemical protective clothing.

Additional information

Remove fire residues according to the regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Remove persons to safety.

Provide adequate ventilation. Keep away from sources of ignition - No smoking.

Avoid contact with skin, eyes and clothes. Wear personal protection equipment.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

In the case of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

6.3. Methods and material for containment and cleaning up

Take up mechanically.

Pick up and place in appropriately marked containers. Do not rinse with water. Contain and pick up leaking material with non-combustible, absorbent material (such as sand, earth, diatomaceous earth, vermiculite) and place in container for disposal in accordance with local / national regulations (see section 13). Place into suitable closed containers for disposal.

6.4. Reference to other sections

Safe handling: see section 7

Personal precautions: refer to section 8.

Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Do not breathe vapours/dust. Do not eat, drink or smoke when using this product.



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Avoid contact with skin and eyes. Wear personal protection equipment (refer to section 8).

Provide adequate ventilation as well as local exhaustion at critical locations. Handle and open container with

care.

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges. Avoid dust formation.

Further information on handling

Consider the usual precautions for handling chemicals.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Store only in original container. Keep container tightly closed in a cool, well-ventilated place.

Advice on storage compatibility

Do not store together with oxidizing or self-igniting substances.

Keep away from strong acids, strong bases and strong oxidisers to avoid exothermic reactions.

Further information on storage conditions

Protect from humidity and water.. Protect against direct sunlight.

7.3. Specific end use(s)

coating

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

DNEL/DMEL values

CAS No	Substance			
DNEL type		Exposure route	Effect	Value
64742-48-9	64742-48-9 Naphtha (petroleum), hydrotreated heavy; Low boiling point hydrogen treated naphtha			
Worker DNEL, long-term		dermal	systemic	300 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	300 mg/kg bw/day
Consumer DNEL, long-term		dermal	systemic	300 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	900 mg/m³

PNEC values

CAS No	Substance	
Environmenta	Environmental compartment	
-	copper flakes (coated with aliphatic acid)	
Freshwater		0,0078 mg/l
Marine water		0,0052 mg/l
Freshwater sediment		87 mg/kg
Micro-organisms in sewage treatment plants (STP)		0,23 mg/l
Soil		65,5 mg/kg

8.2. Exposure controls

Protective and hygiene measures

Change contaminated clothing. Wash hands before breaks and after work. When using do not eat or drink. Avoid skin, eye and clothing contact. After contact with skin, wash immediately with plenty of water and soap or a suitable cleaning agent.

Eye/face protection

Tighty fitting safety glasses with side shields.

In case of handling difficulties wear face shield and protective suit.





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Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.

Wear solvent-resistant protective gloves. (Butyl caoutchouc (butyl rubber))

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

The exact break-through time must be obtained from the manufacturer of the protective gloves and adhered to.

Skin protection

Full cover clothing covering arms and legs.

Respiratory protection

Use protective filter mask in case of short-term and low exposure; in case of intense or longer exposure, use respiratory protection device operating independently from circulating air.

Environmental exposure controls

Preferably prevent the material from infiltrating the canalization or water courses. Do not contaminate surface waters.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: paste-like
Colour: Copper
Odour: characteristic

pH-Value: No data available

Changes in the physical state

Initial boiling point and boiling range: 180 °C Flash point: 36 °C

Explosive properties

No data available

Auto-ignition temperature

Solid: No data available

Decomposition temperature: No data available

Oxidizing properties

Flammable solid substance

Density: No data available
Bulk density: No data available
Water solubility: Immiscible

Solubility in other solvents

No data available

Partition coefficient:

Viscosity / dynamic:

No data available

No data available

Viscosity / kinematic:

No data available

Flow time:

No data available

9.2. Other information

No further information available.

SECTION 10: Stability and reactivity



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10.1. Reactivity

No dangerous reactivity under regular conditions.

10.2. Chemical stability

The product is stable under regular conditions.

10.3. Possibility of hazardous reactions

Keep away from strong acids, strong bases and strong oxidisers to avoid exothermic reactions.

10.4. Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Prevent evaporation to dryness.

10.5. Incompatible materials

Acids. Alkalis, strong. Oxidizing agents.

10.6. Hazardous decomposition products

Thermal decomposition can lead to harmful gases and vapours.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Based on available data, the classification criteria are not met.

The product is:

Harmful if swallowed.

Toxic if inhaled.

ATEmix calculated

ATE (oral) 625,0 mg/kg; ATE (inhalation vapour) 3,75 mg/l; ATE (inhalation aerosol) 0,875 mg/l

CAS No	Chemical name					
	Exposure route	Dose		Species	Source	Method
-	copper flakes (coated with aliphatic acid)					
	oral	LD50 mg/kg	500	Rat		OECD 423
	dermal	LD50 mg/kg	>2000	Rat		OECD 402
	inhalation vapour	ATE	3 mg/l			
	inhalation (4 h) aerosol	LC50	0,7 mg/l	Rat		OECD 403
64742-48-9	Naphtha (petroleum), hydrotreated heavy; Low boiling point hydrogen treated naphtha					
	oral	LD50 mg/kg	> 5000	Rat		
	dermal	LD50 mg/kg	> 5000	Rabbit		

Irritation and corrosivity

Based on available data, the classification criteria are not met.

The product:

Causes serious eye irritation.

May cause skin irritation in susceptible persons.

Sensitising effects

Based on available data, the classification criteria are not met.

Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.





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STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1. Toxicity

Very toxic to aquatic life.

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

The components in this mixture do not meet the criteria for classification as PBT or vPvB.

12.6. Other adverse effects

An environmental hazard cannot be ruled out in case of improper handling or disposal.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Disposal according to official regulations.

Consult the local waste disposal expert about waste disposal. According to EAKV, allocation of waste identity numbers/waste descriptions must be carried out in a specific way for every industry and process.

Waste disposal number of waste from residues/unused products

120104 WASTES FROM SHAPING AND PHYSICAL AND MECHANICAL SURFACE TREATMENT OF

METALS AND PLASTICS; wastes from shaping and physical and mechanical surface treatment of

metals and plastics; non-ferrous metal dust and particles

Contaminated packaging

Disposal like unused product. Dispose of waste according to applicable legislation.

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SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number: UN 3077

14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

(Copper metal powder)

14.3. Transport hazard class(es):

14.4. Packing group:
Hazard label:

Classification code:

Special Provisions: 274 335 375 601



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Limited quantity: 5 kg
Excepted quantity: E1
Transport category: 3
Hazard No: 90
Tunnel restriction code: -

Inland waterways transport (ADN)

14.1. UN number: UN 3077

14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

(Copper metal powder)

14.3. Transport hazard class(es):914.4. Packing group:IIIHazard label:9



Classification code: M7

Special Provisions: 274 335 375 601

Limited quantity: 5 kg
Excepted quantity: E1

Marine transport (IMDG)

14.1. UN number: UN 3077

14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

(Copper metal powder)

14.3. Transport hazard class(es):914.4. Packing group:IIIHazard label:9



Special Provisions: 274, 335, 966, 967, 969

Limited quantity: 5 kg
Excepted quantity: E1
EmS: F-A, S-F

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN 3077

14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

(Copper metal powder)

14.3. Transport hazard class(es):914.4. Packing group:IIIHazard label:9



Special Provisions: A97 A158 A179 A197

Limited quantity Passenger: 30 kg G Passenger LQ: Y956 Excepted quantity: E1

IATA-packing instructions - Passenger: 956
IATA-max. quantity - Passenger: 400 kg





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IATA-packing instructions - Cargo: 956
IATA-max. quantity - Cargo: 400 kg

14.6. Special precautions for user

For single packagings <= 5 L / 5 kg net, and for composite packagings consisting of inner packagings of <= 5 L / 5 kg net per inner pack, SV375 ADR, 2.10.2.7 IMDG code, A197 IATA-DGR may be used.

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

not applicable

SECTION 15: Regulatory information

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

EU regulatory information

Additional information

Regulation (EC) No. 1005/2009 on substances that lead to the depletion of the ozone layer: not applicable

Regulation (EC) No. 648/2004 (Detergents regulation): not applicable

Regulation (EC) No 850/2004 on persistent organic pollutants: not applicable

Regulation (EC) No 649/2012 of the European Parliament and of the Council concerning the export and import of dangerous chemicals: This mix contains no chemicals that are subject to the export notification procedures (annex 1).

This mixture contains the following substances of very high concern (SVHC) which are included in the Candidate List according to Article 59 of REACH: none

This mixture contains the following substances of very high concern (SVHC) which are subject to authorisation according to Annex XIV of REACH: none

National regulatory information

Water contaminating class (D): 3 - highly water contaminating

15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out: Naphtha (petroleum), hydrotreated heavy; Low boiling point hydrogen treated naphtha

SECTION 16: Other information

Changes

Version 1,00 - Creation - 19.03.2018

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

BImSchV (Fed.Imm.Prot.Act): Directive on the Implementation of the Federal Immission Protection Act

CAS: Chemical Abstracts Service

EC: Effective Concentration

EG: European Community (Europäische Gemeinschaft)

EN: European Norm

IATA: International Air Transport Association

IBC Code: International Code for the Construction and Equipment of ships carrying Dangerous Chemicals in

Bulk

ICAO: International Civil Aviation Organization

IMDG: International Maritime Code for Dangerous Goods

CLP: Classification, Labeling, Packaging

IUCLID: International Uniform Chemical Information Database

LC: Lethal concentration

LD: Lethal dose

log Kow: Octanol/water partition coefficient

MARPOL: Maritime Pollution Convention = Convention for the Prevention of Maritime Pollution from Ships



FDT Flachdach Technologie GmbH & Co. KG

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OECD: Organisation for Economic Co-operation and Development

PBT: Persistent, bio-cumulative, toxic

RID: Regulation Concerning the International Transport of Dangerous Goods by Rail

TRGS: Technische Regeln für Gefahrstoffe

VOC: Volatile Organic Compounds

vPvB: very persistent and very bio-cumulative

VwVwS: Administrative Regulation for Water Pollutants

WGK: German Water Hazard Class

GHS: Globally Harmonized System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

DNEL: Derived No Effect Level

PNEC: Predicted No Effect Concentration

TLV: Threshold Limiting Value STOT: Specific Target Organ Toxicity

Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]

Classification	Classification procedure
Acute Tox. 3; H331	Calculation method
Acute Tox. 4; H302	Calculation method
Eye Irrit. 2; H319	Calculation method
Aquatic Acute 1; H400	Calculation method
Aquatic Chronic 1; H410	Calculation method

Relevant H and EUH statements (number and full text)

H302	Harmful if swallowed.
H.5U/	Harmiui ii swallowed
LIOUZ	I Iai i i iui i i swaiiuwe

H304 May be fatal if swallowed and enters airways.

H319 Causes serious eye irritation.

H331 Toxic if inhaled.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

Further Information

The information given in this safety data sheet is to describe the product's safety regulations. It is not for guaranteeing certain characteristics and is based on today's knowledge. The safety data sheet was generated upon information of pre-suppliers by:

REACHECK Solutions GmbH, Frohsinnstraße 28, 63739 Aschaffenburg, Germany

Phone: +49 (0)6021 - 1 50 86-0, Fax: +49 (0)6021 - 1 50 86-77, E-Mail: eu-sds@reacheck.eu,

www.reacheck.eu

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)