

### Kalling 2

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

### 1.1. Product identifier

Kalling 2

UFI: AQKD-24AX-EW09-XPYC

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

#### Use of the substance/mixture

Laboratory chemical

#### Uses advised against

Any non-intended use.

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

Company name: Schmitz-Metallographie GmbH  
Street: Kaiserstraße 100  
Place: D-52134 Herzogenrath  
Telephone: 02407 / 568296-0  
E-mail: info@schmitz-metallographie.de  
Contact person: Herr Füllmann  
E-mail: info@schmitz-metallographie.de  
Internet: www.schmitz-metallographie.de

Telefax: 02407 / 568296-9

### 1.4. Emergency telephone number:

#### Further Information

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (amended by Regulation (EU) No 2020/878)

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### Regulation (EC) No 1272/2008

Flam. Liq. 2; H225  
Met. Corr. 1; H290  
Skin Corr. 1; H314  
Eye Dam. 1; H318  
STOT SE 3; H335  
Aquatic Chronic 3; H412

Full text of hazard statements: see SECTION 16.

### 2.2. Label elements

#### Regulation (EC) No 1272/2008

##### Hazard components for labelling

hydrochloric acid  
Copper dichloride

Signal word: Danger

Pictograms:



##### Hazard statements

H225 Highly flammable liquid and vapour.  
H290 May be corrosive to metals.

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H314 Causes severe skin burns and eye damage.  
H335 May cause respiratory irritation.  
H412 Harmful to aquatic life with long lasting effects.

**Precautionary statements**

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P260 Do not breathe dust/fume/gas/mist/vapours/spray.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P501 Dispose of contents/container to local/regional/national/international regulations.

**2.3. Other hazards**

In use, may form flammable/explosive vapour-air mixture.  
The substances in the mixture (> 0.1%) do not meet the PBT/vPvB criteria according to REACH, annex XIII.  
This product does not contain a substance (> 0.1%) that has endocrine disrupting properties with respect to humans as no components meets the criteria. This product does not contain a substance (> 0.1 %) that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

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

**3.2. Mixtures**

**Relevant ingredients**

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
Classification (Regulation (EC) No 1272/2008)				
64-17-5	ethanol; ethyl alcohol			45 - < 50 %
200-578-6 603-002-00-5				
Flam. Liq. 2, Eye Irrit. 2; H225 H319				
7647-01-0	hydrochloric acid			15 - < 20 %
231-595-7 017-002-01-X 01-2119484862-27				
Met. Corr. 1, Skin Corr. 1A, Eye Dam. 1, STOT SE 3; H290 H314 H318 H335				
10125-13-0	Copper dichloride			1 - < 3 %
600-176-4 01-2119970306-36				
Met. Corr. 1, Acute Tox. 4, Acute Tox. 4, Skin Irrit. 2, Eye Dam. 1, Aquatic Acute 1, Aquatic Chronic 1; H290 H312 H302 H315 H318 H400 H410				

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

**Specific Conc. Limits, M-factors and ATE**

CAS No	EC No	Chemical name	Quantity
Specific Conc. Limits, M-factors and ATE			
64-17-5	200-578-6	ethanol; ethyl alcohol	45 - < 50 %
inhalation: LC50 = 95,6 mg/l (vapours); oral: LD50 = 6200 mg/kg Eye Irrit. 2; H319: >= 50 - 100			
7647-01-0	231-595-7	hydrochloric acid	15 - < 20 %
Skin Corr. 1A; H314: >= 25 - 100 Skin Corr. 1B; H314: >= 10 - < 25 Skin Corr. 1B; H314: >= 25 - 100 Skin Irrit. 2; H315: >= 10 - < 25 Eye Dam. 1; H318: >= 1 - 100 Eye Irrit. 2; H319: >= 10 - < 25 STOT SE 3; H335: >= 10 - 100			
10125-13-0	600-176-4	Copper dichloride	1 - < 3 %
dermal: LD50 = 1224 mg/kg; oral: LD50 = 584 mg/kg			

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#### Further Information

Product does not contain listed SVHC substances > 0.1 % according to Regulation (EC) No. 1907/2006 Article 59 (REACH).

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General information

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Take off immediately all contaminated clothing.

First aider: Pay attention to self-protection!

#### After inhalation

Remove person to fresh air and keep comfortable for breathing. In case of respiratory tract irritation, consult a physician.

#### After contact with skin

Take off immediately all contaminated clothing. Wash with plenty of water. In case of skin irritation, seek medical treatment.

#### After contact with eyes

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

#### After ingestion

Rinse mouth thoroughly with water. Let water be drunk in little sips (dilution effect). Do NOT induce vomiting.

Never give anything by mouth to an unconscious person or a person with cramps. In all cases of doubt, or when symptoms persist, seek medical advice.

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

See sections 2 and 11

### 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

Carbon dioxide (CO<sub>2</sub>). Dry extinguishing powder. Alcohol resistant foam.

In case of major fire and large quantities: Atomized water.

#### Unsuitable extinguishing media

High power water jet.

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

Can be released in case of fire: Chlorine (Cl<sub>2</sub>). Hydrogen chloride (HCl).

### 5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus. In case of fire and/or explosion do not breathe fumes. Reignition possible over considerable distance.

#### Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water. Use water spray jet to protect personnel and to cool endangered containers.

In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### General advice

Do not breathe gas/vapour/aerosol. Avoid contact with skin, eyes and clothes.

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#### For non-emergency personnel

Remove persons to safety. Remove all sources of ignition. Ventilate affected area.

Wear personal protection equipment. (See section 8.)

#### For emergency responders

No special measures are necessary.

### **6.2. Environmental precautions**

Do not allow to enter into surface water or drains. Danger of explosion! Cover drains. Prevent spread over a wide area (e.g. by containment or oil barriers). In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

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

#### For containment

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Ventilate affected area.

Treat the recovered material as prescribed in the section on waste disposal.

#### For cleaning up

Clean contaminated objects and areas thoroughly observing environmental regulations.

#### Other information

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

Treat the recovered material as prescribed in the section on waste disposal.

Clean contaminated objects and areas thoroughly observing environmental regulations.

### **6.4. Reference to other sections**

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

## SECTION 7: Handling and storage

### **7.1. Precautions for safe handling**

#### Advice on safe handling

Provide adequate ventilation as well as local exhaustion at critical locations.

Do not breathe gas/vapour/aerosol. Avoid contact with skin, eyes and clothes.

Wear suitable protective clothing. (See section 8.)

#### Advice on protection against fire and explosion

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

Flammable vapours can accumulate in head space of closed systems. In use, may form flammable/explosive vapour-air mixture. Heating causes rise in pressure with risk of bursting.

#### Advice on general occupational hygiene

The usual precautions for handling chemicals should be considered.

Keep away from food, drink and animal feedingstuffs.

Always close containers tightly after the removal of product. When using do not eat, drink or smoke. Wash hands before breaks and after work. Protect skin by using skin protective cream. Take off contaminated clothing and wash it before reuse.

#### Further information on handling

General protection and hygiene measures: See section 8.

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

#### Requirements for storage rooms and vessels

Keep locked up. Keep container tightly closed and in a well-ventilated place. Keep in a cool place. Ensure adequate ventilation of the storage area.

Suitable material for Container: polyethylene. Glass.

Unsuitable container/equipment material: Metal

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**Hints on joint storage**

Do not store together with: Explosives. Oxidizing solids. Oxidizing liquids. Organic peroxides. Self-reactive substances and mixtures. Radioactive substances. Infectious substances.

**Further information on storage conditions**

Store small packages in a suitable, robust cabinet.

Recommended storage temperature: 20 °C

Protect against: frost. heat. Cold. Humidity

**7.3. Specific end use(s)**

See section 1.

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

**8.1. Control parameters**

**Occupational exposure limits**

CAS No	Substance	ppm	mg/m <sup>3</sup>	fib/cm <sup>3</sup>	Category	Origin
64-17-5	Ethanol	1000	-		STEL (15 min)	
7647-01-0	Hydrogen chloride	5	8		TWA (8 h)	
		10	15		STEL (15 min)	

**DNEL/DMEL values**

CAS No	Substance	Exposure route	Effect	Value
7647-01-0	hydrochloric acid			
Worker DNEL, long-term		inhalation	local	15 mg/m <sup>3</sup>
Worker DNEL, acute		inhalation	local	8 mg/m <sup>3</sup>

**8.2. Exposure controls**



**Appropriate engineering controls**

Technical measures and the application of suitable work processes have priority over personal protection equipment.

Provide adequate ventilation as well as local exhaustion at critical locations.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**

Recommended eye protection brand: Tightly sealed safety glasses. (EN ISO 16321-1:2022)

**Hand protection**

In case of prolonged or frequently repeated skin contact: Wear suitable gloves.

Suitable material: Butyl rubber.

Thickness of glove material: 0,5 mm

Breakthrough time >= 480 min. Penetration time (maximum wearing period): ~ 120 min. (estimated)

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 selected protective gloves have to satisfy the specifications of EU Directive EC/2016/425 and the standard EN 374 derived from it.

Before using check leak tightness / impermeability. In the case of wanting to use the gloves again, clean them before taking off and air them well.

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#### Skin protection

Wear fire/flame resistant/retardant clothing.

#### Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required.

Respiratory protection necessary at:

-Exceeding exposure limit values

-Insufficient ventilation and aerosol or mist formation

Suitable respiratory protective equipment: Combination filtering device (EN 14387) type E-P2

The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used.

#### Environmental exposure controls

Do not allow uncontrolled discharge of product into the environment.

## SECTION 9: Physical and chemical properties

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

Physical state:	liquid
Colour:	not determined
Odour:	characteristic
Odour threshold:	not determined
Melting point/freezing point:	not determined
Boiling point or initial boiling point and boiling range:	not determined
Flammability:	not determined
Lower explosion limits:	not determined
Upper explosion limits:	not determined
Flash point:	12 (Ethanol) °C
Auto-ignition temperature:	not determined
Decomposition temperature:	not determined
pH-Value:	0
Viscosity / kinematic:	not determined
Water solubility: (at 20 °C)	miscible.
Solubility in other solvents	
not determined	
Dissolution rate:	not relevant
Partition coefficient n-octanol/water:	SECTION 12: Ecological information
Dispersion stability:	not relevant
Vapour pressure: (at 20 °C)	Ethanol: 58,0 hPa
Density:	~1 g/cm³
Bulk density:	not relevant
Relative vapour density:	not determined
Particle characteristics:	not relevant

### 9.2. Other information

#### Information with regard to physical hazard classes

##### Explosive properties

In use, may form flammable/explosive vapour-air mixture.

##### Self-ignition temperature

Gas: not determined

##### Oxidizing properties

none.

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#### Other safety characteristics

Evaporation rate:	not determined
Solvent separation test:	not determined
Solvent content:	not determined
Solid content:	not determined
Sublimation point:	not relevant
Softening point:	not relevant
Pour point:	not determined
Viscosity / dynamic:	not determined
Flow time:	not determined

#### Further Information

No information available.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

May be corrosive to metals.

### 10.2. Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

### 10.3. Possibility of hazardous reactions

Violent reaction with: Base.

### 10.4. Conditions to avoid

Keep away from heat. Danger of explosion!

In use may form flammable/explosive vapour-air mixture.

Heating causes rise in pressure with risk of bursting.

### 10.5. Incompatible materials

Materials to avoid: Substances that form flammable gases in contact with water. Oxidizing agents, strong. Nitric acid. aldehydes. strong alkalis. Formaldehyde Aluminium. metal. Fluorine. Amines.

### 10.6. Hazardous decomposition products

Can be released in case of fire: Chlorine (Cl2). Hydrogen chloride (HCl).

## SECTION 11: Toxicological information

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

#### Toxicokinetics, metabolism and distribution

No information available.

#### Acute toxicity

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

#### ATEmix calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
64-17-5	ethanol; ethyl alcohol				
	oral	LD50 mg/kg	6200 Rat	IUCLID	
	inhalation (4 h) vapour	LC50	95,6 mg/l Rat	RTECS	
10125-13-0	Copper dichloride				

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	oral	LD50 mg/kg	584	Rat	ECHA Dossier; 7447-39-4	
	dermal	LD50 mg/kg	1224	Rat	ECHA Dossier; 7447-39-4	

**Irritation and corrosivity**

Skin corrosion/irritation: Causes severe skin burns and eye damage. (On basis of test data)  
Serious eye damage/eye irritation: Causes serious eye damage. (On basis of test data)

**Sensitising effects**

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

**Carcinogenic/mutagenic/toxic effects for reproduction**

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

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

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

Ethanol. (CAS-No.: 64-17-5):

In-vitro mutagenicity: No experimental indications of mutagenicity in-vitro exist.

Reproductive toxicity:

Exposure time: 18 weeks

Species: CD-1 Mouse.

Method: OECD Guideline 416

Result: NOAEL = 20700 mg/kg/day

Developmental toxicity/teratogenicity:

Exposure time: 19d

Species: Sprague-Dawley Rat.

Method: OECD Guideline 414

Result: NOAEL = 16000 ppm (maternal toxicity)

Result: NOAEL >= 20000 ppm (teratogenicity)

Literature information: ECHA Dossier

**STOT-single exposure**

May cause respiratory irritation. (hydrochloric acid)

**STOT-repeated exposure**

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

Ethanol. (CAS-No.: 64-17-5):

Subchronic oral toxicity

Exposure time: 90d; Species: Sprague-Dawley Rat.

Method: OECD Guideline 408; Result: NOAEL = 1280 mg/kg; Literature information: ECHA Dossier

**Aspiration hazard**

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

**Specific effects in experiment on an animal**

No data available.

**11.2. Information on other hazards**

**Endocrine disrupting properties**

This product does not contain a substance (> 0,1%) that has endocrine disrupting properties with respect to humans as no components meets the criteria.

**Other information**

No data available.

**SECTION 12: Ecological information**

**12.1. Toxicity**

Harmful to aquatic life with long lasting effects.

CAS No	Chemical name	Dose	[h]   [d]	Species	Source	Method
	Aquatic toxicity					

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64-17-5	ethanol; ethyl alcohol					
	Acute crustacea toxicity	EC50 9268 - 14221 mg/l	48 h	Daphnia magna	IUCLID	
7647-01-0	hydrochloric acid					
	Acute fish toxicity	LC50 3,25 mg/l	96 h	Lepomis macrochirus	ECHA Dossier	
	Acute algae toxicity	ErC50 4,7 mg/l	72 h	Chlorella vulgaris	ECHA Dossier	
	Acute crustacea toxicity	EC50 4,92 mg/l	48 h	Daphnia magna	ECHA Dossier	
	Acute bacteria toxicity	EC50 >=5 mg/l ( )	3 h	activated sludge	ECHA Dossier	
10125-13-0	Copper dichloride					
	Acute fish toxicity	LC50 0,193, mg/l	96 h	Fish	ECHA Dossier; 7447-39-4	

**12.2. Persistence and degradability**

The product has not been tested.

**12.3. Bioaccumulative potential**

The product has not been tested.

**Partition coefficient n-octanol/water**

CAS No	Chemical name	Log Pow
64-17-5	ethanol; ethyl alcohol	-0,31

**12.4. Mobility in soil**

No data available.

**12.5. Results of PBT and vPvB assessment**

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

The aforementioned statement applies to substances contained in the product with a minimum content of 0.1%.

**12.6. Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

The aforementioned statement applies to substances contained in the product with a minimum content of 0.1%.

**12.7. Other adverse effects**

No data available.

**Further information**

Do not allow to enter into surface water or drains.

**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**

**Disposal recommendations**

Dispose of waste according to applicable legislation. Consult the local waste disposal expert about waste disposal. Non-contaminated packages may be recycled. According to (EWC) European Waste Catalogue, allocation of waste identity numbers/waste descriptions must be carried out in a specific way for every industry and process.

Control report for waste code/ waste marking according to (EWC) European Waste Catalogue:

**List of Wastes Code - residues/unused products**

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110105 WASTES FROM CHEMICAL SURFACE TREATMENT AND COATING OF METALS AND OTHER MATERIALS; NON-FERROUS HYDRO-METALLURGY; wastes from chemical surface treatment and coating of metals and other materials (for example galvanic processes, zinc coating processes, pickling processes, etching, phosphating, alkaline degreasing, anodising); pickling acids; hazardous waste

#### List of Wastes Code - used product

110105 WASTES FROM CHEMICAL SURFACE TREATMENT AND COATING OF METALS AND OTHER MATERIALS; NON-FERROUS HYDRO-METALLURGY; wastes from chemical surface treatment and coating of metals and other materials (for example galvanic processes, zinc coating processes, pickling processes, etching, phosphating, alkaline degreasing, anodising); pickling acids; hazardous waste

#### List of Wastes Code - contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances; hazardous waste

#### Contaminated packaging

Handle contaminated packages in the same way as the substance itself.

## SECTION 14: Transport information

### Land transport (ADR/RID)

**14.1. UN number or ID number:** UN 2924  
**14.2. UN proper shipping name:** FLAMMABLE LIQUID, CORROSIVE, N.O.S. (Ethanol, Hydrochloric acid)  
**14.3. Transport hazard class(es):** 3  
**14.4. Packing group:** II  
Hazard label: 3+8



Classification code:

FC

Special Provisions:

274

Limited quantity:

1 L

Excepted quantity:

E2

Transport category:

2

Hazard No:

338

Tunnel restriction code:

D/E

### Inland waterways transport (ADN)

**14.1. UN number or ID number:** UN 2924  
**14.2. UN proper shipping name:** FLAMMABLE LIQUID, CORROSIVE, N.O.S. (Ethanol, Hydrochloric acid)  
**14.3. Transport hazard class(es):** 3  
**14.4. Packing group:** II  
Hazard label: 3+8



Classification code:

FC

Special Provisions:

274

Limited quantity:

1 L

Excepted quantity:

E2

### Marine transport (IMDG)

**14.1. UN number or ID number:** UN 2924

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**14.2. UN proper shipping name:** FLAMMABLE LIQUID, CORROSIVE, N.O.S. (Ethanol, Hydrochloric acid)

**14.3. Transport hazard class(es):** 3

**14.4. Packing group:** II

Hazard label:



Marine pollutant:

NO

Special Provisions:

274

Limited quantity:

1 L

Excepted quantity:

E2

EmS:

F-E, S-C

#### Air transport (ICAO-TI/IATA-DGR)

**14.1. UN number or ID number:** UN 2924

**14.2. UN proper shipping name:** FLAMMABLE LIQUID, CORROSIVE, N.O.S. (Ethanol, Hydrochloric acid)

**14.3. Transport hazard class(es):** 3

**14.4. Packing group:** II

Hazard label:



Special Provisions:

A3

Limited quantity Passenger:

0.5 L

Passenger LQ:

Y340

Excepted quantity:

E2

IATA-packing instructions - Passenger:

352

IATA-max. quantity - Passenger:

1 L

IATA-packing instructions - Cargo:

363

IATA-max. quantity - Cargo:

5 L

#### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS:

No

#### 14.6. Special precautions for user

See section 8.

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

not relevant.

### SECTION 15: Regulatory information

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

##### EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 40, Entry 75

Directive 2010/75/EU on industrial emissions:

not determined

Directive 2004/42/EC on VOC in paints and varnishes:

not determined

Information according to Directive 2012/18/EU (SEVESO III):

P5c FLAMMABLE LIQUIDS

##### Additional information

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (amended by Regulation (EU) No 2020/878)

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

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REACH 1907/2006 Appendix XVII, No (mixture): 3, 40

#### National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

Water hazard class (D): 2 - obviously hazardous to water

#### 15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out:

hydrochloric acid

Copper dichloride

### SECTION 16: Other information

#### Changes

Rev. 1,00; Initial release 28.03.2022

Rev. 2,00; Changes in section: 16; 26.01.2026

#### Abbreviations and acronyms

Met. Corr. 1: Corrosive to metals, hazard category 1

Flam. Liq. 2: Flammable liquids, hazard category 2

Acute Tox. 4: Acute toxicity, hazard category 4

Skin Corr. 1A: Skin corrosion, sub-category 1A

Skin Irrit. 2: Skin irritation, hazard category 2

Skin Corr. 1: Skin corrosion, hazard category 1

Eye Dam. 1: Serious eye damage, hazard category 1

Eye Irrit. 2: Eye irritation, hazard category 2

STOT SE 3: Specific target organ toxicity - single exposure, hazard category 3

Aquatic Acute 1: Hazardous to the aquatic environment, hazard category: Acute 1

Aquatic Chronic 1: Hazardous to the aquatic environment, long-term hazard category: Chronic 1

Aquatic Chronic 3: Hazardous to the aquatic environment, long-term hazard category: Chronic 3

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

CAS: Chemical Abstracts Service

CLP: Classification, Labelling and Packaging of substances and mixtures

DNEL: Derived No Effect Level

d: day(s)

EINECS: European INventory of Existing Commercial chemical Substances

ELINCS: European List of Notified Chemical Substances

ECHA: European Chemicals Agency

EWC: European Waste Catalogue

IARC: INTERNATIONAL AGENCY FOR RESEARCH ON CANCER

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)

h: hour

LOAEL: Lowest observed adverse effect level

LOAEC: Lowest observed adverse effect concentration

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

NOAEL: No observed adverse effect level

NOAEC: No observed adverse effect concentration

NLP: No-Longer Polymers

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N/A: not applicable

OECD: Organisation for Economic Co-operation and Development

PNEC: predicted no effect concentration

PBT: Persistent bioaccumulative toxic

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail )

REACH: Registration, Evaluation, Authorisation of Chemicals

SVHC: substance of very high concern

TRGS: Technische Regeln für Gefahrstoffe

UN: United Nations

VOC: Volatile Organic Compounds

WGK: Water Hazard Class (Germany)

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

Classification	Classification procedure
Flam. Liq. 2; H225	On basis of test data
Met. Corr. 1; H290	On basis of test data
Skin Corr. 1; H314	On basis of test data
Eye Dam. 1; H318	On basis of test data
STOT SE 3; H335	Calculation method
Aquatic Chronic 3; H412	Calculation method

**Relevant H and EUH statements (number and full text)**

H225	Highly flammable liquid and vapour.
H290	May be corrosive to metals.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

**Further Information**

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

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