

Micro etching solution according to Fry suitable for the visualization of lines of action

Revision date: 27.05.2022

Product code: 14062

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

1.1. Product identifier

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

Use of the substance/mixture

Laboratory chemicals

Industrial uses: Uses of substances as such or in preparations at industrial sites

Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Uses advised against

Do not use for private purposes (household).

1.3. Details of the supplier of the safety data sheet

Company name:	Fa. Bernd Kraft GmbH	
Street:	Stempelstraße 6	
Place:	D-47167 Duisburg	
Telephone:	0203/5194-0	Telefax: 0203/5194-290
e-mail:	info@berndkraft.de	
Contact person:	Abteilung Produktsicherheit	Telephone: 0203/5194-107/117
e-mail:	produktsicherheit@berndkraft.de	
Internet:	www.berndkraft.de	
Responsible Department:	Abteilung Produktsicherheit	

1.4. Emergency telephone number:

For Hazardous Materials [or Dangerous Goods] Incidents Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 Outside USA and Canada: +1 703-741-5970 (collect calls accepted)

Further Information

This product is a mixture. REACH Registration Number see section 3.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Met. Corr. 1; H290
Flam. Liq. 2; H225
Skin Irrit. 2; H315
Eye Dam. 1; H318
Skin Sens. 1; H317
Aquatic Acute 1; H400
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

Kupfer-II-chlorid-2-hydrat
Hydrochloric acid
iron trichloride

Signal word: Danger

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Pictograms:



Hazard statements

- H225 Highly flammable liquid and vapour.
- H290 May be corrosive to metals.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H400 Very toxic to aquatic life.
- H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

- P273 Avoid release to the environment.
- P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P310 Immediately call a POISON CENTER/doctor.
- P391 Collect spillage.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Mixtures

Hazardous components

CAS No	Chemical name	Quantity
	EC No Index No REACH No	
	Classification (Regulation (EC) No 1272/2008)	
64-17-5	ethanol	70 - < 75 %
	200-578-6 603-002-00-5 01-2119457610-43	
	Flam. Liq. 2, Eye Irrit. 2; H225 H319	
10125-13-0	Kupfer-II-chlorid-2-hydrat	5 - < 10 %
	01-2119970306-36	
	Acute Tox. 4, Acute Tox. 4, Skin Irrit. 2, Eye Dam. 1, Aquatic Acute 1, Aquatic Chronic 2; H312 H302 H315 H318 H400 H411	
7647-01-0	Hydrochloric acid	1 - < 5 %
	231-595-7 017-002-01-X 01-2119484862-27	
	Skin Corr. 1B, STOT SE 3; H314 H335	
7705-08-0	iron trichloride	1 - < 5 %
	231-729-4 01-2119497998-05	
	Met. Corr. 1, Acute Tox. 4, Skin Irrit. 2, Eye Dam. 1, Skin Sens. 1; H290 H302 H315 H318 H317	

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

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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	70 - < 75 %
		inhalation: LC50 = 124,7 mg/l (vapours); oral: LD50 = 10470 mg/kg Eye Irrit. 2; H319: >= 50 - 100	
10125-13-0		Kupfer-II-chlorid-2-hydrat	5 - < 10 %
		dermal: LD50 = > 2000 mg/kg; oral: LD50 = 584 mg/kg M acute; H400: M=10	
7647-01-0	231-595-7	Hydrochloric acid	1 - < 5 %
		Skin Corr. 1B; H314: >= 25 - 100 Skin Irrit. 2; H315: >= 10 - < 25 Eye Irrit. 2; H319: >= 10 - < 25 STOT SE 3; H335: >= 10 - 100	
7705-08-0	231-729-4	iron trichloride	1 - < 5 %
		oral: ATE = 500 mg/kg	

Further Information

This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of = 0.1 % (w/w).

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

No data available

After inhalation

Provide fresh air.
If breathing is irregular or stopped, administer artificial respiration.
Call a physician immediately.

After contact with skin

After contact with skin, wash immediately with polyethylene glycol, followed by plenty of water. Take off immediately all contaminated clothing and wash it before reuse. Medical treatment necessary.

After contact with eyes

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

After ingestion

Rinse mouth immediately and drink plenty of water.
Observe risk of aspiration if vomiting occurs.
Call a physician immediately.

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

Irritant
Allergic reactions

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

Water spray jet, Carbon dioxide (CO2), Foam, Extinguishing powder.

Unsuitable extinguishing media

no restriction

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5.2. Special hazards arising from the substance or mixture

Combustible liquids
Hazardous combustion products
In case of fire may be liberated:
Carbon dioxide (CO₂) Carbon monoxide
Hydrochloric gas
Metal oxide smoke, toxic
Vapours are heavier than air, spread along floors and form explosive mixtures with air.
Heating causes rise in pressure with risk of bursting.

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.
Avoid contact with skin, eyes and clothes.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.
Move undamaged containers from immediate hazard area if it can be done safely.
Use water spray jet to protect personnel and to cool endangered containers.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

Keep away from sources of ignition - No smoking.
This material can be ignited by heat, sparks, flames, or other sources of ignition (e.g., static electricity, pilot lights, mechanical/electrical equipment, and electronic devices such as cell phones, computers, calculators, and pagers which have not been certified as intrinsically safe).
Take action to prevent static discharges.
Corrosive to metals.

For non-emergency personnel

Provide adequate ventilation.
Use personal protection equipment.
Avoid contact with skin, eyes and clothes.
Remove persons to safety.
Emergency procedures
Do not breathe dust/fume/gas/mist/vapours/spray.

For emergency responders

Precautionary statements For emergency responders : Personal protection equipment: see section 8

6.2. Environmental precautions

Do not allow to enter into surface water or drains.
The vapour of the product is heavier than air and may accumulate below ground level, in pits, channels and basements in higher concentration.
Danger of explosion

6.3. Methods and material for containment and cleaning up

For containment

Cover drains.
Prevent spread over a wide area (e.g. by containment or oil barriers).
Collect in closed and suitable containers for disposal.
Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

For cleaning up

Clean contaminated articles and floor according to the environmental legislation.

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Other information

- Provide adequate ventilation.
- Do not breathe dust/fume/gas/mist/vapours/spray.
- Wear breathing apparatus if exposed to vapours/dusts/aerosols.

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

- Read label before use. Handle and open container with care.
- When using do not eat, drink, smoke, sniff. Keep container tightly closed.
- Use personal protection equipment. Use extractor hood (laboratory).
- Do not breathe gas/fumes/vapour/spray. Provide adequate ventilation.

Advice on protection against fire and explosion

- Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges.
- Vapours can form explosive mixtures with air.

Advice on general occupational hygiene

- Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

Further information on handling

- Take off immediately all contaminated clothing and wash it before reuse.
- Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. If handled uncovered, arrangements with local exhaust ventilation have to be used.
- Store in a place accessible by authorized persons only.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

- Keep container tightly closed.
- Store in a place accessible by authorized persons only.
- Provide adequate ventilation as well as local exhaustion at critical locations.
- Keep in a cool, well-ventilated place.
- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- Unsuitable container/equipment material:
Metal.

Hints on joint storage

- Do not store together with: Oxidising agent. Pyrophoric or self-heating substances.

Further information on storage conditions

- Keep cool. Protect from sunlight.

7.3. Specific end use(s)

- Laboratory chemicals

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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Occupational exposure limits

CAS No	Substance	ppm	mg/m ³	fib/cm ³	Category	Origin
64-17-5	Ethyl alcohol	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
64-17-5	ethanol			
	Worker DNEL, long-term	inhalation	systemic	950 mg/m ³
	Worker DNEL, long-term	dermal	systemic	343 mg/kg bw/day
	Consumer DNEL, long-term	inhalation	systemic	114 mg/m ³
	Consumer DNEL, long-term	dermal	systemic	206 mg/kg bw/day
	Consumer DNEL, long-term	oral	systemic	87 mg/kg bw/day
7647-01-0	Hydrochloric acid			
	Worker DNEL, long-term	inhalation	local	8 mg/m ³
	Worker DNEL, acute	inhalation	local	15 mg/m ³
	Consumer DNEL, long-term	inhalation	local	8 mg/m ³
	Consumer DNEL, acute	inhalation	local	15 mg/m ³

PNEC values

CAS No	Substance	Environmental compartment	Value
64-17-5	ethanol		
	Freshwater		0,96 mg/l
	Freshwater (intermittent releases)		2,75 mg/l
	Marine water		0,79 mg/l
	Freshwater sediment		3,6 mg/kg
	Marine sediment		2,9 mg/kg
	Secondary poisoning		380 mg/kg
	Micro-organisms in sewage treatment plants (STP)		580 mg/l
	Soil		0,63 mg/kg
10125-13-0	Kupfer-II-chlorid-2-hydrat		
	Freshwater		0,0078 mg/l
	Marine water		0,0052 mg/l
	Freshwater sediment		87 mg/kg
	Marine sediment		676 mg/kg
	Micro-organisms in sewage treatment plants (STP)		0,23 mg/l
	Soil		65 mg/kg

8.2. Exposure controls

Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

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Individual protection measures, such as personal protective equipment

Eye/face protection

Suitable eye protection: goggles.

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. 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.

Protective gloves are recommended Company KCL GmbH, D-36124 Eichenzell, email: vertrieb@kcl.de With specification (test according to EN374):

By long-term hand contact

Trade name/designation KCL 897 Butoject®

Suitable material: Butyl caoutchouc (butyl rubber) 0,3 mm

Wearing time with permanent contact: > 480 min

By short-term hand contact

Trade name/designation KCL 720 Camapren®

Suitable material: CR (polychloroprene, chloroprene rubber) 0,65 mm

Wearing time with occasional contact (splashes): > 60 min

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types. This recommendation applies only to the product stated in the safety data sheet<-> supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Skin protection

Flame-retardant protective clothing. Wear anti-static footwear and clothing

Respiratory protection

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

Environmental exposure controls

Do not allow to enter into surface water or drains.

Due to danger of explosion, prevent leakage of vapours into cellars, flues and ditches.

Danger of explosion

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	green
Odour:	characteristic

Changes in the physical state

Melting point/freezing point:	not determined
Boiling point or initial boiling point and boiling range:	78 °C
Sublimation point:	No data available
Softening point:	No data available
Pour point:	No data available

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:	No data available
Flash point:	18 °C
Flammability	
Solid/liquid:	not applicable
Gas:	not applicable
Explosive properties	
Vapours are heavier than air, spread along floors and form explosive mixtures with air.	
Lower explosion limits:	not determined
Upper explosion limits:	not determined
Auto-ignition temperature:	No data available
Self-ignition temperature	
Solid:	not applicable
Gas:	not applicable
Decomposition temperature:	not determined
pH-Value:	not determined
Viscosity / dynamic:	No data available
Viscosity / kinematic:	No data available
Flow time:	No data available
Solubility in other solvents	
not determined	
Partition coefficient n-octanol/water:	not determined
Vapour pressure:	No data available
Vapour pressure:	No data available
Density:	0,90530 g/cm ³
Bulk density:	No data available
Relative vapour density:	not determined

9.2. Other information

Information with regard to physical hazard classes

Oxidizing properties
Not oxidising.

Other safety characteristics

Solvent separation test:	No data available
Solid content:	not determined
Evaporation rate:	not determined

Further Information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

Corrosive to metals. Highly flammable.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Oxidising agent

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10.4. Conditions to avoid

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Vapours can form explosive mixtures with air.

10.5. Incompatible materials

Keep away from: Metal.

10.6. Hazardous decomposition products

SECTION 5: Firefighting measures

Further information

No data available

SECTION 11: Toxicological information

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

Toxicokinetics, metabolism and distribution

There are no data available on the mixture itself.

Acute toxicity

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

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
64-17-5	ethanol				
	oral	LD50 10470 mg/kg	Rat	Study report (1976)	OECD Guideline 401
	inhalation (4 h) vapour	LC50 124,7 mg/l	Rat	Study report (1980)	OECD Guideline 403
10125-13-0	Kupfer-II-chlorid-2-hydrat				
	oral	LD50 584 mg/kg	Rat	Publication (1991)	The test material was administered to gr
	dermal	LD50 > 2000 mg/kg	Rat	Study report (2003)	OECD Guideline 402
7705-08-0	iron trichloride				
	oral	ATE 500 mg/kg			

Irritation and corrosivity

Causes skin irritation.

Causes serious eye damage.

Sensitising effects

May cause an allergic skin reaction. (iron trichloride)

Carcinogenic/mutagenic/toxic effects for reproduction

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

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.

Information on likely routes of exposure

There are no data available on the mixture itself.

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Specific effects in experiment on an animal

There are no data available on the mixture itself.

Additional information on tests

There are no data available on the mixture itself.

Practical experience

There are no data available on the mixture itself.

11.2. Information on other hazards

Endocrine disrupting properties

There are no data available on the mixture itself.

Other information

There are no data available on the mixture itself.

Further information

There are no data available on the mixture itself.

SECTION 12: Ecological information

12.1. Toxicity

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

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CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
64-17-5	ethanol					
	Acute fish toxicity	LC50 15400 mg/l	96 h	Lepomis macrochirus	Bulletin of Environmental Contamination	other: EPA-660/3-75-009, 1975
	Acute algae toxicity	ErC50 ca. 22000 mg/l	96 h	Pseudokirchneriella subcapitata	Ecotoxicology and Environmental Safety 7	OECD Guideline 201
	Acute crustacea toxicity	EC50 > 10000 mg/l	48 h	Daphnia magna	Water Research 23(4): 495-499 (1989)	other: DIN 38412 Teil 11
	Algae toxicity	NOEC 5400 mg/l	5 d	Skeletonema costatum	Environ Toxicol Chem 8(5):451-455. (1989)	Study to determine the sensitivity of a
	Crustacea toxicity	NOEC 2 mg/l	10 d	Ceriodaphnia dubia	Arch Environ Contam Toxicol 20(2):211-21	Follows the basic methodology for the th
10125-13-0	Kupfer-II-chlorid-2-hydrat					
	Acute fish toxicity	LC50 0,193 mg/l	96 h	Pimephales promelas	Study report (1996)	measurements were conducted by standard
	Acute algae toxicity	ErC50 0,152 mg/l	72 h	Pseudokirchneriella subcapitata	Publication (2005)	OECD Guideline 201
	Acute crustacea toxicity	EC50 0,007 mg/l	48 h	Daphnia magna	Study report (1978)	- Test were conducted on Daphnia magna t
	Fish toxicity	NOEC 0,123 mg/l	12 d	Atherinops affinis	Mar. Environ. Res. 31: 17-35 (1991)	Three tests are reported, designed to de
	Algae toxicity	NOEC 0,0102 mg/l	19 d	other aquatic plant: giant kelp Macrocystis pyrife	Mar. Ecol. Prog. Ser. 68: 147 - 156 (199)	Tests were conducted to determine the ef
	Crustacea toxicity	NOEC 0,033 mg/l	14 d	Penaeus mergulensis and Penaeus monodon	Bull. Environ. Contain. Toxicol. (1995)	The effects of dissolved copper on the g
7647-01-0	Hydrochloric acid					
	Acute fish toxicity	LC50 862 mg/l	96 h	Leuciscus idus		

12.2. Persistence and degradability

There are no data available on the mixture itself.

12.3. Bioaccumulative potential

There are no data available on the mixture itself.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
64-17-5	ethanol	-0,77

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BCF

CAS No	Chemical name	BCF	Species	Source
64-17-5	ethanol	1	Cyprinus carpio	Comparative Biochemi
10125-13-0	Kupfer-II-chlorid-2-hydrat	0,02 - 20	Crangon crangon	Symp. Biologica. Hun

12.4. Mobility in soil

There are no data available on the mixture itself.

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.

There are no data available on the mixture itself.

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.

There are no data available on the mixture itself.

12.7. Other adverse effects

Avoid release to the environment.

Further information

Do not allow to enter into surface water or drains.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

Send to a physico-chemical treatment facility under observation of official regulations.

Do not empty into drains.

Contaminated packaging

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

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

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

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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
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
 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: 3+8
 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: Yes
 Danger releasing substance: copper (I) chloride

14.6. Special precautions for user

Warning: Combustible liquid. strongly corrosive.

14.7. Maritime transport in bulk according to IMO instruments

not applicable

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

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): 3 - highly hazardous to water
 Skin resorption/Sensitization: Causes allergic hypersensitivity reactions.

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

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SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 1,14.

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)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

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

CAS: Chemical Abstracts Service

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

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

Classification	Classification procedure
Met. Corr. 1; H290	On basis of test data
Flam. Liq. 2; H225	On basis of test data
Skin Irrit. 2; H315	Calculation method
Eye Dam. 1; H318	Calculation method
Skin Sens. 1; H317	Calculation method
Aquatic Acute 1; H400	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.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H411	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 hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)