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

1.1 Product identifier
HPL-Panel Cleaner

1.2 Relevant identified uses of the substance or mixture and uses advised against
Relevant identified uses
PC 35 - Washing and cleaning products

1.3 Details of the supplier of the safety data sheet
Supplier
Bio-Circle Surface Technology GmbH

Street : Berensweg 200

Postal code/City : 33334 Gütersloh

Telephone : +49 5241 9443 0

Telefax : +49 5241 9443 44

Information contact : labor@bio-circle.de

1.4 Emergency telephone number
+49 5241 9443 51 during normal office hours
(Monday to Thursday from 8 am to 4 pm and Friday from 8 am to 3 pm)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008 [CLP]
None

2.2 Label elements
Labelling according to Regulation (EC) No. 1272/2008 [CLP]
Special rules for supplemental label elements for certain mixtures

EUH210 Safety data sheet available on request.

2.3 Other hazards
None

SECTION 3: Composition/information on ingredients

3.2 Mixtures
Hazardous ingredients

AMMONIA, ANHYDROUS ; REACH No. : 01-2119488876-14-XXXX ; EC No. : 231-635-3; CAS No. : 7664-41-7

Weight fraction : ≥ 0,1 - < 0,2 %

Classification 1272/2008 [CLP] : Flam. Gas 2 ; H221 Press. Gas (Liq.) ; H280 Acute Tox. 3 ; H331 Skin Corr. 1B ; H314 Eye Dam. 1 ; H318 Aquatic Acute 1 ; H400 Aquatic Chronic 2 ; H411 EUH071

Substance with a common (EC) occupational exposure limit value.

ETHANOL ; REACH No. : 01-2119457610-43-XXXX ; EC No. : 200-578-6; CAS No. : 64-17-5

Weight fraction : ≥ 5 - < 10 %

Classification 1272/2008 [CLP] : Flam. Liq. 2 ; H225 Eye Irrit. 2 ; H319

Specific Conc. Limits : Eye Irrit. 2 ; H319: C ≥ 50 %

Further ingredients

3-METHOXYBUTAN-1-OL ; REACH No. : 01-2119548352-41-XXXX ; EC No. : 219-741-8; CAS No. : 2517-43-3

Weight fraction : ≥ 1 - < 5 %

Additional information

For full text of Hazard- and EU Hazard-statements: see SECTION 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

When in doubt or if symptoms are observed, get medical advice. Never give anything by mouth to an unconscious person or a person with cramps.

Following inhalation

In case of respiratory tract irritation, consult a physician.

In case of skin contact

After contact with skin, wash immediately with plenty of water and soap. Rub greasy ointment into the skin.

After eye contact

Protect uninjured eye. 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.

Following ingestion

Rinse mouth thoroughly with water. Let 1 glass of water be drunken in little sips (dilution effect). Do NOT induce vomiting. Call a physician immediately.

4.2 Most important symptoms and effects, both acute and delayed

None

4.3 Indication of any immediate medical attention and special treatment needed

None

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water Foam Extinguishing powder Carbon dioxide (CO2) Sand Nitrogen Extinguishing blanket

Unsuitable extinguishing media

Full water jet

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

In case of fire may be liberated: Carbon monoxide , Carbon dioxide (CO2) , Nitrogen oxides (NOx).

5.3 Advice for firefighters

In case of fire: Wear self-contained breathing apparatus. Co-ordinate fire-fighting measures to the fire surroundings. Move undamaged containers from immediate hazard area if it can be done safely.

5.4 Additional information

None

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Special danger of slipping by leaking/spilling product. Use personal protection equipment. Remove all sources of ignition. Provide adequate ventilation.

6.2 Environmental precautions

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

6.3 Methods and material for containment and cleaning up

Clear spills immediately. Wipe up with absorbent material (eg. cloth, fleece). Wash with plenty of water. Treat the recovered material as prescribed in the section on waste disposal.

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

Keep container tightly closed. Avoid: Inhalation of vapours or spray/mists ; Eye contact .

Protective measures

Open windows to ensure natural ventilation.

7.2 Conditions for safe storage, including any incompatibilities

Keep/Store only in original container. Protect against : Frost .

Hints on joint storage

Storage class (TRGS 510) : 10

7.3 Specific end use(s)

Observe technical data sheet. Observe instructions for use.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

ETHANOL ; CAS No. : 64-17-5

Limit value type (country of origin) :	TRGS 900 (D)
Limit value :	200 ppm / 380 mg/m³
Peak limitation :	4(II)
Remark :	Y
Version :	23.06.2022

AMMONIA, ANHYDROUS ; CAS No. : 7664-41-7

Limit value type (country of origin) :	TRGS 900 (D)
Limit value :	20 ppm / 14 mg/m³
Peak limitation :	2(I)
Remark :	Y
Version :	23.06.2022
Limit value type (country of origin) :	STEL (EC)
Limit value :	50 ppm / 36 mg/m³
Version :	20.06.2019
Limit value type (country of origin) :	TWA (EC)
Limit value :	20 ppm / 14 mg/m³
Version :	20.06.2019

DNEL-/PNEC-values

DNEL/DMEL

ETHANOL ; CAS No. : 64-17-5

Limit value type :	DNEL Consumer (local)
Exposure route :	Inhalation
Exposure frequency :	Short-term
Limit value :	950 mg/m³
Limit value type :	DNEL Consumer (systemic)
Exposure route :	Oral
Exposure frequency :	Long-term
Limit value :	87 mg/kg bw/day
Limit value type :	DNEL Consumer (systemic)
Exposure route :	Dermal

Exposure frequency :	Long-term
Limit value :	206 mg/kg bw/day
Limit value type :	DNEL Consumer (systemic)
Exposure route :	Inhalation
Exposure frequency :	Long-term
Limit value :	114 mg/m³
Limit value type :	DNEL worker (local)
Exposure route :	Inhalation
Exposure frequency :	Short-term
Limit value :	1900 mg/m³
Limit value type :	DNEL worker (systemic)
Exposure route :	Inhalation
Exposure frequency :	Long-term
Limit value :	380 mg/m³
Limit value type :	DNEL worker (systemic)
Exposure route :	Dermal
Exposure frequency :	Long-term
Limit value :	343 mg/kg bw/day

AMMONIA, ANHYDROUS ; CAS No. : 7664-41-7

Limit value type :	DNEL Consumer (local)
Exposure route :	Inhalation
Exposure frequency :	Short-term
Limit value :	7,2 mg/m³
Limit value type :	DNEL Consumer (local)
Exposure route :	Inhalation
Exposure frequency :	Long-term
Limit value :	2,8 mg/m³
Limit value type :	DNEL Consumer (systemic)
Exposure route :	Inhalation
Exposure frequency :	Short-term
Limit value :	23,8 mg/m³
Limit value type :	DNEL Consumer (systemic)
Exposure route :	Oral
Exposure frequency :	Long-term
Limit value :	23,8 mg/m³
Limit value type :	DNEL Consumer (systemic)
Exposure route :	Dermal
Exposure frequency :	Short-term
Limit value :	6,8 mg/kg bw/day
Limit value type :	DNEL Consumer (systemic)
Exposure route :	Dermal
Exposure frequency :	Long-term
Limit value :	6,8 mg/kg bw/day
Limit value type :	DNEL Consumer (systemic)
Exposure route :	Oral
Exposure frequency :	Short-term
Limit value :	6,8 mg/kg bw/day
Limit value type :	DNEL Consumer (systemic)
Exposure route :	Oral
Exposure frequency :	Long-term
Limit value :	6,8 mg/kg bw/day
Limit value type :	DNEL worker (local)
Exposure route :	Inhalation
Exposure frequency :	Long-term
Limit value :	14 mg/m³
Limit value type :	DNEL worker (local)

Exposure route :	Inhalation
Exposure frequency :	Short-term
Limit value :	36 mg/m³
Limit value type :	DNEL worker (systemic)
Exposure route :	Inhalation
Exposure frequency :	Long-term
Limit value :	47,6 mg/m³
Limit value type :	DNEL worker (systemic)
Exposure route :	Inhalation
Exposure frequency :	Short-term
Limit value :	47,6 mg/m³
Limit value type :	DNEL worker (systemic)
Exposure route :	Dermal
Exposure frequency :	Long-term
Limit value :	6,8 mg/kg bw/day
Limit value type :	DNEL worker (systemic)
Exposure route :	Dermal
Exposure frequency :	Short-term
Limit value :	6,8 mg/kg bw/day

PNEC

ETHANOL ; CAS No. : 64-17-5

Limit value type :	PNEC (Aquatic, freshwater)
Limit value :	0,96 mg/l
Limit value type :	PNEC (Aquatic, intermittent release)
Limit value :	2,75 mg/l
Limit value type :	PNEC (Aquatic, marine water)
Limit value :	0,79 mg/l
Limit value type :	PNEC (Sediment, freshwater)
Limit value :	3,6 mg/kg dw
Limit value type :	PNEC (Sediment, marine water)
Limit value :	2,9 mg/kg dw
Limit value type :	PNEC (Soil)
Limit value :	0,63 mg/kg dw
Limit value type :	PNEC (Secondary poisoning)
Limit value :	380 - 720 mg/kg food
Limit value type :	PNEC (Sewage treatment plant)
Limit value :	580 mg/l

3-METHOXYBUTAN-1-OL ; CAS No. : 2517-43-3

Limit value type :	PNEC (Aquatic, freshwater)
Limit value :	0,1 mg/l
Limit value type :	PNEC (Aquatic, intermittent release)
Limit value :	1 mg/l
Limit value type :	PNEC (Aquatic, marine water)
Limit value :	0,01 mg/l
Limit value type :	PNEC (Sediment, freshwater)
Limit value :	0,386 mg/kg dw
Limit value type :	PNEC (Sediment, marine water)
Limit value :	0,039 mg/kg dw
Limit value type :	PNEC (Soil)
Limit value :	0,018 mg/kg dw
Limit value type :	PNEC (Sewage treatment plant)
Limit value :	15,5 mg/l

AMMONIA, ANHYDROUS ; CAS No. : 7664-41-7

Limit value type :	PNEC (Aquatic, freshwater)
Limit value :	1,35 µg/l
Limit value type :	PNEC (Aquatic, intermittent release)

Limit value :	8,3 µg/l
Limit value type :	PNEC (Aquatic, marine water)
Limit value :	1,35 µg/l
Limit value type :	PNEC (Soil)
Limit value :	0,0221 mg/kg dw

8.2 Exposure controls

Personal protection equipment

Eye/face protection

Wear suitable safety goggles in case of splash.

Suitable eye protection

EN 166.

Skin protection

Hand protection

Suitable gloves type : EN 374.
Suitable material : NBR (Nitrile rubber)
Breakthrough time : 480 min.
Thickness of the glove material : 0.4 mm
Remark : 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.

Respiratory protection

Respiratory protection necessary at: exceeding exposure limit values

Suitable respiratory protection apparatus

Combination filtering device
Type : A

Remark

Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190).

General information

Do not put any product-impregnated cleaning rags into your trouser pockets. When using do not eat, drink, smoke, sniff. Avoid contact with skin, eyes and clothes. P362+P364 - Take off contaminated clothing and wash it before reuse. P264 - Wash hands thoroughly after handling.

8.3 Additional information

No tests have been performed. Selection made for preparations according to the best available knowledge and information on ingredients. In the case of preparations the resistance of glove materials cannot be calculated in advance so it has to be tested before use.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state : Liquid

Colour : colourless

Odour

like: Ammonia

Safety characteristics

Solidifying point :	(1013 hPa)	approx.	-4,5	°C	
Initial boiling point and boiling range :	(1013 hPa)	approx.	90	°C	
Flash point :			48	°C	DIN EN ISO 13736
Auto-ignition temperature :	(ETHANOL)		363	°C	Literature value
Flammability :			flammable		
Lower explosion limit :	(ETHANOL)		3,5	Vol-%	Literature value
Upper explosion limit :	(ETHANOL)		15	Vol-%	Literature value
Vapur pressure :	(20 °C)	<	29	hPa	Calculated
Density :	(20 °C)	approx.	0,98	g/cm³	
Water solubility :	(20 °C)		completely miscible		
pH :	(20 °C)		10,8		
Relative vapour density :	(20 °C)		not determined		
Maximum VOC content (EC) :			12	Weight-%	
Maximum VOC content (Switzerland) :			12	Weight-%	
Taxable VOC content (Switzerland) :			8,6	Weight-%	

9.2 Other information

Not sustaining combustion. UN Test L.2: Sustained combustibility test

SECTION 10: Stability and reactivity

10.1 Reactivity

This material is considered to be non-reactive under normal use conditions.

10.2 Chemical stability

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

10.3 Possibility of hazardous reactions

Do not spray on naked flames or any incandescent material.

10.4 Conditions to avoid

Avoid high temperatures or direct sunlight.

10.5 Incompatible materials

Alkali metals ; Acid, concentrated. ; Peroxides.

10.6 Hazardous decomposition products

Does not decompose when used for intended uses.
Decomposition products in case of fire: see section 5.

SECTION 11: Toxicological information

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

Acute toxicity

Acute oral toxicity

Parameter :	ATEmix
Exposure route :	Oral
Effective dose :	> 2000 mg/kg
Parameter :	LD50 (ETHANOL ; CAS No. : 64-17-5)
Exposure route :	Oral

Species :	Rat
Effective dose :	10470 mg/kg
Method :	OECD 401

Acute dermal toxicity

Parameter :	ATEmix
Exposure route :	Dermal
Effective dose :	> 2000 mg/kg

Acute inhalation toxicity

Parameter :	ATEmix
Exposure route :	Inhalation (vapour)
Effective dose :	> 20 mg/l
Parameter :	ATEmix
Exposure route :	Inhalation (gas)
Effective dose :	> 20000 ml/m^3
Parameter :	ATEmix
Exposure route :	Inhalation (dust/mist)
Effective dose :	> 5 mg/l
Parameter :	LC50 (AMMONIA, ANHYDROUS ; CAS No. : 7664-41-7)
Exposure route :	Inhalation
Effective dose :	700 ppmV
Parameter :	LC50 (AMMONIA, ANHYDROUS ; CAS No. : 7664-41-7)
Exposure route :	Inhalation
Species :	Rat
Effective dose :	9,85 mg/l
Exposure time :	60 min
Parameter :	LC50 (AMMONIA, ANHYDROUS ; CAS No. : 7664-41-7)
Exposure route :	Inhalation
Species :	Mouse
Effective dose :	4230 ppm
Exposure time :	1 h
Parameter :	LC50 (ETHANOL ; CAS No. : 64-17-5)
Exposure route :	Inhalation
Species :	Rat
Effective dose :	115,9 - 133,8 mg/l
Exposure time :	4 h
Method :	OECD 403

Corrosion

Skin corrosion/irritation

No further relevant information available.

Serious eye damage/eye irritation

Parameter :	Serious eye damage/eye irritation (ETHANOL ; CAS No. : 64-17-5)
Species :	Rabbit
Result :	Causes serious eye irritation
Method :	OECD 405

No further relevant information available.

Respiratory or skin sensitisation

Skin sensitisation

No further relevant information available.

Sensitisation to the respiratory tract

No further relevant information available.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Carcinogenicity

No further relevant information available.

Germ cell mutagenicity

No further relevant information available.

Reproductive toxicity

No further relevant information available.

STOT-single exposure

No further relevant information available.

STOT-repeated exposure

No further relevant information available.

Aspiration hazard

No further relevant information available.

11.2 Information on other hazards

Endocrine disrupting properties

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

Toxicokinetics, metabolism and distribution

There are no data available on the preparation/mixture itself.

Other adverse effects

May be absorbed through the skin. Frequently or prolonged contact with skin may cause dermal irritation. Has degreasing effect on the skin.

Additional information

Preparation not tested. The statement is derived from the properties of the single components.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity

Acute (short-term) fish toxicity

Parameter :	LC50 (3-METHOXYBUTAN-1-OL ; CAS No. : 2517-43-3)
Species :	Oncorhynchus mykiss (Rainbow trout)
Evaluation parameter :	Acute (short-term) fish toxicity
Effective dose :	> 100 mg/l
Exposure time :	96 h
Method :	OECD 203
Parameter :	LC50 (AMMONIA, ANHYDROUS ; CAS No. : 7664-41-7)
Species :	Acute (short-term) fish toxicity
Effective dose :	0,083 mg/l
Exposure time :	96 h
Parameter :	LC50 (ETHANOL ; CAS No. : 64-17-5)
Species :	Pimephales promelas (fathead minnow)
Evaluation parameter :	Acute (short-term) fish toxicity
Effective dose :	14,2 g/l
Exposure time :	96 h

Chronic (long-term) fish toxicity

Parameter :	LOEC (AMMONIA, ANHYDROUS ; CAS No. : 7664-41-7)
Species :	Oncorhynchus mykiss (Rainbow trout)
Evaluation parameter :	Chronic (long-term) fish toxicity
Effective dose :	0,022 mg/l
Exposure time :	73 D
Method :	OECD 210
Parameter :	NOEC (ETHANOL ; CAS No. : 64-17-5)
Species :	Danio rerio (zebrafish)
Evaluation parameter :	Chronic (long-term) fish toxicity
Effective dose :	250 mg/l

Exposure time : 120 h
Method : OECD 212

Acute (short-term) toxicity to crustacea

Parameter : EC50 (3-METHOXYBUTAN-1-OL ; CAS No. : 2517-43-3)
Species : Daphnia magna (Big water flea)
Evaluation parameter : Acute (short-term) toxicity to crustacea
Effective dose : > 100 mg/l
Exposure time : 48 h
Method : OECD 202

Parameter : EC50 (AMMONIA, ANHYDROUS ; CAS No. : 7664-41-7)
Species : Daphnia magna (Big water flea)
Evaluation parameter : Acute (short-term) toxicity to crustacea
Effective dose : 10 mg/l
Exposure time : 48 h

Parameter : EC50 (ETHANOL ; CAS No. : 64-17-5)
Species : Daphnia
Evaluation parameter : Acute (short-term) toxicity to crustacea
Effective dose : 5012 mg/l
Exposure time : 48 h

Chronic (long-term) toxicity to aquatic invertebrate

Parameter : NOEC (AMMONIA, ANHYDROUS ; CAS No. : 7664-41-7)
Species : Daphnia magna (Big water flea)
Evaluation parameter : Chronic (long-term) toxicity to aquatic invertebrate
Effective dose : 0,79 mg/l
Exposure time : 21 D

Parameter : NOEC (ETHANOL ; CAS No. : 64-17-5)
Species : Daphnia
Evaluation parameter : Chronic (long-term) toxicity to aquatic invertebrate
Effective dose : 9,6 mg/l
Exposure time : 10 D

Acute (short-term) toxicity to algae and cyanobacteria

Parameter : EC50 (3-METHOXYBUTAN-1-OL ; CAS No. : 2517-43-3)
Species : Pseudokirchneriella subcapitata
Evaluation parameter : Acute (short-term) toxicity to algae and cyanobacteria
Effective dose : > 100 mg/l
Exposure time : 72 h
Method : OECD 201

Parameter : EC50 (AMMONIA, ANHYDROUS ; CAS No. : 7664-41-7)
Species : Chlorella vulgaris
Evaluation parameter : Acute (short-term) toxicity to algae and cyanobacteria
Effective dose : 2700 mg/l
Exposure time : 18 D

Parameter : EC50 (ETHANOL ; CAS No. : 64-17-5)
Species : Chlorella vulgaris
Evaluation parameter : Inhibition of growth rate
Effective dose : 675 mg/l
Exposure time : 4 D
Method : OECD 201

Chronic (long-term) toxicity to aquatic algae and cyanobacteria

Parameter : NOEC (AMMONIA, ANHYDROUS ; CAS No. : 7664-41-7)
Species : Chronic (long-term) toxicity to aquatic algae and cyanobacteria
Effective dose : >= 15 mg/l
Exposure time : 72 h
Method : OECD 201

Toxicity to microorganisms

Parameter : EC50 (3-METHOXYBUTAN-1-OL ; CAS No. : 2517-43-3)

Species :	Toxicity to microorganisms
Effective dose :	> 1000 mg/l
Exposure time :	3 h
Method :	OECD 209
Parameter :	EC10 (3-METHOXYBUTAN-1-OL ; CAS No. : 2517-43-3)
Species :	Toxicity to microorganisms
Effective dose :	155 mg/l
Exposure time :	3 h
Method :	OECD 209
Parameter :	EC50 (ETHANOL ; CAS No. : 64-17-5)
Species :	Bacteria toxicity
Effective dose :	5,8 g/l
Exposure time :	4 h

12.2 Persistence and degradability

According to the recipe, contains no AOX.

Abiotic degradation

Abiotic degradation (Air)

Parameter :	Half-life time (ETHANOL ; CAS No. : 64-17-5)
Degradation rate :	38 h

Biodegradation

Parameter :	BOD (% of COD) (3-METHOXYBUTAN-1-OL ; CAS No. : 2517-43-3)
Inoculum :	Degree of elimination
Evaluation parameter :	Aerobic
Degradation rate :	80 %
Test duration :	28 D
Method :	OECD 301F
Parameter :	Biodegradation (ETHANOL ; CAS No. : 64-17-5)
Inoculum :	Biodegradation
Evaluation parameter :	Aerobic
Degradation rate :	approx. 84 %
Test duration :	20 D
Evaluation :	Readily biodegradable (according to OECD criteria).

12.3 Bioaccumulative potential

Parameter :	Log KOW (ETHANOL ; CAS No. : 64-17-5)
Value :	-0,77 - -0,3
	20 °C
Parameter :	Log KOW (3-METHOXYBUTAN-1-OL ; CAS No. : 2517-43-3)
Value :	0,002
	25 °C

No indication of bioaccumulation potential.

12.4 Mobility in soil

No information 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.

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.

12.7 Other adverse effects

No information available.

12.8 Additional ecotoxicological information

After neutralisation, reduction in toxic effects is observed.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Directive 2008/98/EC (Waste Framework Directive)

Before intended use

Waste codes/waste designations according to EWC/AVV

20 01 30 (Detergents other than those mentioned in 20 01 29)

Other disposal recommendations

Dispose of waste according to applicable legislation. Dispose of contents/container to an appropriate recycling or disposal facility. Contaminated packages must be completely emptied and can be re-used following proper cleaning (Water (with cleaning agent)). Handle contaminated packages in the same way as the substance itself.

13.2 Additional information

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

14.1 UN number or ID number

No dangerous good in sense of these transport regulations.

14.2 UN proper shipping name

No dangerous good in sense of these transport regulations.

14.3 Transport hazard class(es)

No dangerous good in sense of these transport regulations.

14.4 Packing group

No dangerous good in sense of these transport regulations.

14.5 Environmental hazards

No dangerous good in sense of these transport regulations.

14.6 Special precautions for user

None

14.7 Maritime transport in bulk according to IMO instruments

No transport as bulk according to IBC Code.

14.8 Additional information

No good of class 3 according to ADR/RID chapter 2.2.3.1.1. (combustibility is not sustained).

SECTION 15: Regulatory information

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

EU legislation

Authorisations and/or restrictions on use

Restrictions on use

Use restriction according to REACH annex XVII, no. : 40, 75

Restrictions of occupation

Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Other regulations (EU)

Labelling for contents according to regulation (EC) No. 648/2004

None

National regulations

Störfallverordnung (12. BImschV)

Category : P5b FLAMMABLE LIQUIDS

Technische Anleitung zur Reinhaltung der Luft (TA-Luft)

Weight fraction (Number 5.2.4. III) : < 1 %

Water hazard class

Classification according to AwSV - Class : 1 (Slightly hazardous to water)

15.2 Chemical Safety Assessment

For this substance a chemical safety assessment has not been carried out.

SECTION 16: Other information

16.1 Indication of changes

11. Serious eye damage/eye irritation · 12. Persistence and degradability · 12. Bioaccumulative potential · 14. Additional information

16.2 Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route (Europäisches Übereinkommen über die Beförderung gefährlicher Güter auf der Straße)
AOX: adsorbierbare organisch gebundene Halogene
AwSV: Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen
CAS: Chemical Abstracts Service (Unterabteilung der American Chemical Society)
CLP: Verordnung (EG) Nr. 1272/2008 über die Einstufung, Kennzeichnung und Verpackung von Stoffen und Gemischen (Classification Labelling and Packaging)
EAK / AVV: europäischer Abfallartenkatalog / Abfallverzeichnis-Verordnung
ECHA: Europäische Chemikalienagentur (European Chemicals Agency)
EINECS: : Altstoffverzeichnis (European Inventory of Existing Commercial Chemical Substances)
GHS: Global harmonisiertes System zur Einstufung und Kennzeichnung von Chemikalien (Globally Harmonized System of Classifiaction and Labelling of Chemicals)
IATA: Internationale Luftverkehrs-Vereinigung (International Air Transport Association)
ICAO: Internationale Zivilluftfahrtorganisation (International Civil Aviation Organization)
IMDG: Gefahrgutkennzeichnung für gefährliche Güter im Seeschiffverkehr (International Maritime Code for Dangerous Goods)
RID: Regelung zur internationalen Beförderung gefährlicher Güter im Schienenverkehr (Règlement concernant le transport international ferroviaire de marchandises dangereuses)
TRGS: Technische Regel für den Umgang mit Gefahrstoffen
VbF: Verordnung über brennbare Flüssigkeiten
VOC: flüchtige organische Verbindung (volatile organic compound)
VVEA: Verordnung über die Vermeidung und die Entsorgung von Abfällen
VwVwS: Verwaltungsvorschrift wassergefährdender Stoffe
WGK: Wassergefährdungsklasse

16.3 Key literature references and sources for data

DGUV: GESTIS-Stoffdatenbank
ECHA: Classification And Labelling Inventory
ECHA: Pre-registered Substances
ECHA: Registered Substances
EC_Safety Data Sheet of Suppliers
ESIS: European Chemical Substances Information System
GDL: Gefahrstoffdatenbank der Länder
UBA Rigoletto: Wassergefährdende Stoffe
Regulation (EC) No. 1907/2006 of the European Parliament and of the Council
|-> COMMISSION REGULATION (EU) 2020/878 of 18 June 2020
Regulation (EC) No. 1272/2008 of the European Parliament and of the Council

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

The mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

16.5 Relevant H- and EUH-phrases (Number and full text)

H221	Flammable gas.
H225	Highly flammable liquid and vapour.
H280	Contains gas under pressure; may explode if heated.
H314	Causes severe skin burns and eye damage.

H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
EUH071	Corrosive to the respiratory tract.

16.6 Training advice

None

16.7 Additional information

None

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.