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DCA Deblocking Reagent (3% ; 5% ; 10% Dichloroacetic Acid in Toluene)

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Issue date: 7/6/2023 Revision date: 10/26/2023 Supersedes version of: 10/10/2023 Version: 3.2

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

1.1. Product identifier

Product form	:	Mixture
Trade name	:	DCA Deblocking Reagent (3% ; 5% ; 10% Dichloroacetic Acid in Toluene)
Product code	:	NC-0402; NC-0406; NC-0409
Type of product	:	Synthesis Reagent
Synonyms	:	DCA in Toluene
Product group	:	End product

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

1.2.1. Relevant identified uses

Main use category	:	Laboratory chemical,Industrial use
Industrial/Professional use spec	:	Industrial For professional use only
Use of the substance/mixture	:	Laboratory chemicals Substance manufacture
Function or use category	:	Laboratory chemicals

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

emp Biotech GmbH GmbH
Robert-Rössle-Str. 10
DE– 13125 Berlin
Deutschland
T +49 (0)30 94 89 22 01 (Monday-Friday, 9:00 am-5:00 pm) - F +49 (0)30 94 89 32 01
info@empbiotech.com - www.empbiotech.com

1.4. Emergency telephone number

Emergency number	:	Giftnotruf Berlin +49 30 30686700 (Beratung in Deutsch), 24 Stunden, 7 Tage/Woche; International: INFOTRAC +1-352-323-3500 (Phone) or in the US 800-535-5053 (toll-free), 24 hours/day, 7 days/week

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flam. Liq. 2	H225
Skin Irrit. 2	H315
Eye Dam. 1	H318
Carc. 2	H351
Repr. 1B	H360FD
STOT SE 3	H336
STOT RE 2	H373
Asp. Tox. 1	H304
Aquatic Acute 1	H400
Aquatic Chronic 3	H412

Full text of hazard classes, H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :

GHS02 GHS05 GHS07 GHS08 GHS09

Signal word (CLP) : Danger

Hazard statements (CLP) : H225 - Highly flammable liquid and vapour.
H304 - May be fatal if swallowed and enters airways.
H315 - Causes skin irritation.
H318 - Causes serious eye damage.
H336 - May cause drowsiness or dizziness.
H351 - Suspected of causing cancer.
H360FD - May damage fertility. May damage the unborn child.
H373 - May cause damage to organs through prolonged or repeated exposure.
H410 - Very toxic to aquatic life with long lasting effects.

Precautionary statements (CLP) : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P273 - Avoid release to the environment.
P280 - Wear protective gloves, protective clothing, eye protection, face protection.
P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER, a doctor.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P331 - Do NOT induce vomiting.

2.3. Other hazards

Other hazards which do not result in classification : This substance / mixture does not contain any components of 0.1% or higher that are either classified as persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB).

Contains no PBT/vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

Component	
Toluene (anhydrous) (108-88-3)	
Dichloroacetic acid (79-43-6)	

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

Component	
Toluene (anhydrous)(108-88-3)	
Dichloroacetic acid(79-43-6)	

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Toluene (anhydrous)	CAS-No.: 108-88-3 EC-No.: 203-625-9 EC Index-No.: 601-021-00-3 REACH-no: 01-2119471310-51	85 – 100	Flam. Liq. 2, H225 Repr. 2, H361d Asp. Tox. 1, H304 STOT RE 2, H373 Skin Irrit. 2, H315 STOT SE 3, H336
Dichloroacetic acid	CAS-No.: 79-43-6 EC-No.: 201-207-0 EC Index-No.: 607-066-00-5 REACH-no: 01-2120767065-52-0000	1 – 15	Met. Corr. 1, H290 Acute Tox. 3 (Dermal), H311 Skin Corr. 1A, H314 Eye Dam. 1, H318 Carc. 2, H351 Repr. 1B, H360FD Lact., H362 STOT RE 2, H373 Aquatic Acute 1, H400

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

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Consult a doctor. Show this safety data sheet to the doctor in attendance.

First-aid measures after inhalation : Move person to fresh air and ensure comfortable breathing. Call a physician immediately.

First-aid measures after skin contact : Rinse skin with water/shower. Take off immediately all contaminated clothing. Get immediate medical advice/attention.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if possible. Continue rinsing. Get immediate medical advice/attention.

First-aid measures after ingestion : Drink water immediatly (max. 2 cups). Do not induce vomiting. Pulmonary failure possible after aspiration of vomit. Call a physician immediately. No attempts at neutralization.

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

Symptoms/effects : The most important known symptoms and effects are described on the label (see 2.2) and / or in section 11.

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Carbon dioxide. Dry powder. Foam. Water spray.

Unsuitable extinguishing media : There are no extinguishing agent restrictions for this substance.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Combustible.

Explosion hazard : Vapors are heavier than air and may spread along floors. Development of hazardous combustion gases or vapours possible in the event of fire. Forms explosive mixtures with air at ambient temperatures.

Hazardous decomposition products in case of fire : Carbon oxides. Hydrogen chloride gas
. Be careful to flashback of fire.

5.3. Advice for firefighters

Protection during firefighting	:	Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.
Other information	:	Remove container from danger zone and cool with water. Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment	:	For personal protection see section 8.
Emergency procedures	:	Avoid breathing vapours, mist, gas, spray. Avoid substance contact. Ensure adequate ventilation, observe emergency procedures, consult an expert. Keep away from heat and sources of ignition. . Evacuate area.

6.1.2. For emergency responders

Protective equipment	:	Wear recommended personal protective equipment.

6.2. Environmental precautions

Do not allow to enter drains or water courses. Be careful of explosion risk.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up	:	Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully with liquid-absorbent material (e.g. Chemizorb®). Dispose of properly. Clean up affected area.

6.4. Reference to other sections

Information on exposure controls/personal protective equipment and on Instructions for disposal can be found in sections 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	:	Use under laboratory hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols. Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.
Hygiene measures	:	Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Remove contaminated clothes.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	:	Do not use metal containers. Keep container tightly closed in a dry, well-ventilated place. Keep away from heat and sources of ignition. Keep locked up or in an area accessible only to qualified or authorized persons.
Storage temperature	:	5 – 30 °C
Storage area	:	Storage class (TRGS 510): See section 15.1.2.

7.3. Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

Toluene (anhydrous) (108-88-3)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Toluene
IOEL TWA	192 mg/m³
IOEL TWA [ppm]	50 ppm
IOEL STEL	384 mg/m³
IOEL STEL [ppm]	100 ppm Indicative: Indicates the possibility of significant absorption of the substance through the skin.
EU - Biological Limit Value (BLV)	
BLV	1.5 mg/l o-Cresol: TRGS 903 -Biological limits: Urine For long-term exposure: after several previous layers End of exposure or end of shift
Germany - Occupational Exposure Limits (TRGS 900)	
Local name	Toluol
AGW (OEL TWA) [1]	190 mg/m³
AGW (OEL TWA) [2]	50 ppm Remark: Skin resorptive: There is no reason to fear a risk of damage to the developing embryo or foetus when AGW and BGW are adhered to. Source: DFG, EU
Germany - Biological limit values (TRGS 903)	
Biological limit value	75 µg/l Urine Remark: End of exposure or end of shift

Dichloroacetic acid (79-43-6)	
Germany - Occupational Exposure Limits (TRGS 900)	
AGW (OEL TWA) [1]	1.1 mg/m³ vapour and aerosol
AGW (OEL TWA) [2]	0.2 ppm vapour and aerosol

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

8.2.2. Personal protection equipment

Personal protective equipment symbol(s):

8.2.2.1. Eye and face protection

Eye protection:
Wear eye protection. Wear closed safety glasses. EN 166

8.2.2.2. Skin protection

Skin and body protection:
Wear protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Flame retardant antistatic protective clothing

Hand protection:
Wear protective gloves. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.
. Full contact-material: Viton®
Minimum layer thickness: 0,7 mm
Break through time: > 480 min. Splash contact-material: Viton®
Minimum layer thickness: 0,7 mm
Break through time: > 480 min

8.2.2.3. Respiratory protection

Respiratory protection:
Recommended filter type: Filter A. Wear respiratory protection

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:
Do not let product enter drains. Risk of explosion.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Colour	:	Colorless to light yellow to light green.
Odour	:	Toluene.
Odour threshold	:	Not available
Melting point	:	-4.1 °C (Main component)
Freezing point	:	Not available
Boiling point	:	110.5 °C At 1,013 hPa (Main component)
Flammability	:	Not available
Lower explosion limit	:	1.1 vol % (Main component)
Upper explosion limit	:	7.1 vol % (Main component)
Flash point	:	6 °C (Main component)
Auto-ignition temperature	:	Not available
Decomposition temperature	:	> 330 °C (Main component)
SADT	:	525 °C (Main component)
pH	:	Not available
Viscosity, kinematic	:	Not available
Solubility	:	Water: insoluble (Main component)
Partition coefficient n-octanol/water (Log Kow)	:	Not available

Partition coefficient n-octanol/water (Log Pow)	:	-0.54 At 25 °C (Main component)
Vapour pressure	:	29.1 hPa At 20 °C (Main component)
Vapour pressure at 50°C	:	123 hPa (Main component)
Density	:	0.87 g/cm³ At 20 °C (Main component)
Relative density	:	Not available
Relative vapour density at 20°C	:	Not available
Particle characteristics	:	Not applicable

Toluene (anhydrous)	
Boiling point	110 – 111 °C
Flash point	6 °C Closed cup
Auto-ignition temperature	480 – 536 °C Temperature class: T1
Vapour pressure	29.1 hPa at 20 °C.
Vapour pressure at 50°C	123 hPa

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Vapors can form an explosive mixture with air.

10.2. Chemical stability

The product is chemically stable under standard ambient conditions (room temperature).

10.3. Possibility of hazardous reactions

Risk of explosion with:
Fuming sulfuric acid
Nitric acid
Silver
Perchlorates
Nitrogen dioxide
Non-metallic halides
Acetic acid
Halogen-halogen compounds
Uranium hexafluoride
Organic nitro compounds
Violent reactions possible with:
Strong acids
Strong oxidizing agents
Alkalines
Reducing agents
Sulfur with heat.
Risk of ignition or formation of inflammable gases or vapours with:
Metals.

10.4. Conditions to avoid

Keep away from heat and sources of ignition.

10.5. Incompatible materials

Several plastics. Rubber. Metals.

10.6. Hazardous decomposition products

In the event 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 (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

Toluene (anhydrous) (108-88-3)	
LD50 oral rat	5580 mg/kg male (Tested according to Directive 92/69/EEC.)
LD50 dermal rabbit	> 5000 mg/kg Remarks: (ECHA)
LC50 Inhalation - Rat	25.7 mg/l/4h male and female - 4 h (OECD Test Guideline 403)

Dichloroacetic acid (79-43-6)	
LD50 oral rat	2820 mg/kg AMA Archives of Industrial Hygiene and Occupational Medicine. Vol. 4, Pg. 119, 1951.
LD50 dermal rabbit	803 mg/kg AMA Archives of Industrial Hygiene and Occupational Medicine. Vol. 4, Pg. 119, 1951.

Skin corrosion/irritation : Causes skin irritation.
Additional information : Toluene:
Skin - Rabbit
Result: irritating - 4 h
Remarks: (ECHA)
Dichloroacetic Acid:
Skin - Rabbit
Result: Causes severe burns.
Remarks: (RTECS)

Dichloroacetic acid (79-43-6)	
pH	1.2 at 20 °C; 129 g/l

Serious eye damage/irritation : Causes serious eye damage.
Additional information : Toluene:
Eyes - Rabbit
Result: slight irritation
Remarks: OECD Test Guideline 405
Dichloroacetic Acid:
Eyes - Rabbit
Result: Causes serious eye damage.
Remarks: RTECS

Dichloroacetic acid (79-43-6)	
pH	1.2 at 20 °C; 129 g/l

Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Suspected of causing cancer.
Additional information : Dichloroacetic Acid: Suspected of causing cancer.
Reproductive toxicity : May damage fertility. May damage the unborn child.

Additional information	:	Toluene: Suspected of damaging the unborn child. Dichloroacetic Acid: May damage the unborn child. May damage fertility. Studies indicating a hazard to babies during the lactation period .
STOT-single exposure	:	May cause drowsiness or dizziness.
Additional information	:	Toluene: May cause drowsiness or dizziness. - Central nervous system
STOT-repeated exposure	:	May cause damage to organs through prolonged or repeated exposure.
Additional information	:	Toluene: May cause damage to organs through prolonged or repeated exposure. - Central nervous system Dichloroacetic Acid: Oral: May cause damage to organs through prolonged or repeated exposure. -Brain, Liver, Testes
Aspiration hazard	:	May be fatal if swallowed and enters airways.
Additional information	:	Toluene: Aspiration hazard, Aspiration may cause pulmonary edema and pneumonitis.

Toluene (anhydrous) (108-88-3)	
Viscosity, kinematic	0.69 mm²/s

Dichloroacetic acid (79-43-6)	
Viscosity, kinematic	4.696 mm²/s at 20 °C.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH article 57(f) or commission delegated regulation (EU) 2017/2100 or commission regulation (EU) 2018/605 at levels of 0.1% or higher.

11.2.2. Other information

Potential adverse human health effects and symptoms : The substance should be handled with special care.

Other information : Other dangerous properties can not be excluded.
Handle in accordance with good industrial hygiene and safety practice.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - water : Very toxic to aquatic life.

Hazardous to the aquatic environment, short–term (acute) : Very toxic to aquatic life.

Hazardous to the aquatic environment, long–term (chronic) : Harmful to aquatic life with long lasting effects.

Toluene (anhydrous) (108-88-3)	
LC50 - Fish [1]	31.7 (5.5 – 340) mg/l - Geiger, D.L., L.T. Brooke, and D.J. Call 1990. Acute Toxicities of Organic Chemicals to Fathead Minnows (Pimephales promelas), Volume 5. Ctr.for Lake Superior Environ.Stud., Univ.of Wisconsin-Superior, Superior, WI :332 p.
EC50 - Crustacea [1]	9.24 (6 – 19.6) mg/l - MacLean, M.M., and K.G. Doe 1989. The Comparative Toxicity of Crude and Refined Oils to Daphnia magna and Artemia. Environment Canada, EE-111, Dartmouth, Nova Scotia :64 p.
EC50 72h - Algae [1]	12.5 mg/l - Galassi, S., M. Mingazzini, L. Vigano, D. Cesareo, and M.L.Tosato 1988. Approaches to Modeling Toxic Responses of Aquatic Organisms to Aromatic Hydrocarbons. Ecotoxicol.Environ.Saf. 16(2):158-169
NOEC (acute)	8 mg/l Pimephales promelas

Dichloroacetic acid (79-43-6)	
EC50 - Crustacea [1]	106 mg/l Daphnia magna (Water flea) - 24 h Remarks: (ECOTOX Database)

12.2. Persistence and degradability

DCA Deblocking Reagent (3% ; 5% ; 10% Dichloroacetic Acid in Toluene)	
Persistence and degradability	Not established.

Toluene (anhydrous) (108-88-3)	
Biodegradation	86 % Aerobic: Exposure time 20 d Result: Readily biodegradable. Remarks: (IUCLID)

Dichloroacetic acid (79-43-6)	
Persistence and degradability	Not established.
Biodegradation	93 % Aerobic - Exposure time 15 d Result: Readily biodegradable. Remarks: OECD Test Guideline 301F)

12.3. Bioaccumulative potential

DCA Deblocking Reagent (3% ; 5% ; 10% Dichloroacetic Acid in Toluene)	
Partition coefficient n-octanol/water (Log Pow)	-0.54 At 25 °C (Main component)
Bioaccumulative potential	Not established.

Toluene (anhydrous) (108-88-3)	
BCF - Fish [1]	0.05 mg/l Leuciscus idus (Goldorfe)
Bioconcentration factor (BCF REACH)	90
Partition coefficient n-octanol/water (Log Kow)	2.73

Dichloroacetic acid (79-43-6)	
Partition coefficient n-octanol/water (Log Kow)	0.92 Bioaccumulation is not expected.
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

Component	
Toluene (anhydrous) (108-88-3)	This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
Dichloroacetic acid (79-43-6)	This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6. Endocrine disrupting properties

Adverse effects on the environment caused by endocrine disrupting properties : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH article 57(f) or commission delegated regulation (EU) 2017/2100 or commission regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7. Other adverse effects

Toluene : Toxicity to fish:
Flow-through test: LC50 - Oncorhynchus kisutch (coho salmon): 5,5 mg/l - 96 h
Remarks: (ECHA)
Toxicity to daphnia and other aquatic invertebrates: EC50 - Ceriodaphnia dubia (water flea): 3,78 mg/l - 48 h
Remarks: (US-EPA)
Toxicity to bacteria:
Static test: EC50 - Bacteria: 84 mg/l - 24 h
Remarks: (ECHA)

Dichloroacetic Acid : Toxicity to daphnia and other aquatic invertebrates:
EC50 - Daphnia magna (Water flea): 106 mg/l - 24 h
Remarks: (ECOTOX Database)

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Product residues are to be disposed of in compliance with national and regional regulations dispose. Keep chemicals in original containers. Not with other waste mix. Uncleaned containers are to be treated according to the product. Pay attention to the waste policy 2008/98/EG.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA

ADR	IMDG	IATA
14.1. UN number or ID number		
UN 2924	UN 2924	UN 2924
14.2. UN proper shipping name		
FLAMMABLE LIQUID, CORROSIVE, N.O.S. (Solution of Dichloroacetic Acid in Toluene)	FLAMMABLE LIQUID, CORROSIVE, N.O.S. (Solution of Dichloroacetic Acid in Toluene)	Flammable liquid, corrosive, n.o.s. (Solution of Dichloroacetic Acid in Toluene)
14.3. Transport hazard class(es)		
3 (8)	3 (8)	3 (8)
		
14.4. Packing group		
II	II	II
14.5. Environmental hazards		
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No
No supplementary information available		

14.6. Special precautions for user

Overland transport

Classification code (ADR)	:	FC
Special provisions (ADR)	:	274
Limited quantities (ADR)	:	1l
Excepted quantities (ADR)	:	E2
Packing instructions (ADR)	:	P001, IBC02
Mixed packing provisions (ADR)	:	MP19
Portable tank and bulk container instructions (ADR)	:	T11
Portable tank and bulk container special provisions (ADR)	:	TP2, TP27
Tank code (ADR)	:	L4BH
Vehicle for tank carriage	:	FL
Transport category (ADR)	:	2
Special provisions for carriage - Operation (ADR)	:	S2, S20
Hazard identification number (Kemler No.)	:	338
Orange plates	:	
Tunnel restriction code (ADR)	:	D/E

Transport by sea

Special provisions (IMDG)	:	274
Limited quantities (IMDG)	:	1 L
Excepted quantities (IMDG)	:	E2
Packing instructions (IMDG)	:	P001
IBC packing instructions (IMDG)	:	IBC02
Tank instructions (IMDG)	:	T11
Tank special provisions (IMDG)	:	TP2, TP27
EmS-No. (Fire)	:	F-E
EmS-No. (Spillage)	:	S-C
Stowage category (IMDG)	:	B
Stowage and handling (IMDG)	:	SW2
Properties and observations (IMDG)	:	Causes burns to skin, eyes and mucous membranes.

Air transport

PCA Excepted quantities (IATA)	:	E2
PCA Limited quantities (IATA)	:	Y340
PCA limited quantity max net quantity (IATA)	:	0.5L
PCA packing instructions (IATA)	:	352
PCA max net quantity (IATA)	:	1L
CAO packing instructions (IATA)	:	363
CAO max net quantity (IATA)	:	5L
Special provisions (IATA)	:	A3, A803
ERG code (IATA)	:	3CH

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Seveso Directive (Disaster Risk Reduction)

Seveso Additional information	:	REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII)	: Toluene
		Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.	: FLAMMABLE LIQUIDS
			: ENVIRONMENTAL HAZARDS

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

Germany

Employment restrictions	:	Observe restrictions according Act on the Protection of Working Mothers (MuSchG). Observe restrictions according Act on the Protection of Young People in Employment (JArbSchG).
Water hazard class (WGK)	:	WGK 3, Highly hazardous to water (Classification according to AwSV, Annex 1).
Storage class (LGK, TRGS 510)	:	LGK 3 - Flammable liquids.
Chemicals Prohibition Ordinance (ChemVerbotsV)	:	This product is subject to ChemVerbotsV Annex 2 Entry 1. The following requirements must be observed: authorization requirement (according to § 6 paragraph 1 sentence 1), basic requirements for carrying out the delivery (according to § 8 paragraph 1, 3 and 4), identification and documentation (according to § 9 paragraph 1 to 3) and exclusion of the shipping route (according to § 10).
Hazardous Incident Ordinance (12. BImSchV)	:	Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

15.2. Chemical safety assessment

For this product a chemical safety assessment was not carried out.

SECTION 16: Other information

Data sources	:	REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.
Other information	:	None.

Full text of H- and EUH-statements:	
Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
Asp. Tox. 1	Aspiration hazard, Category 1
Carc. 2	Carcinogenicity, Category 2
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Flam. Liq. 2	Flammable liquids, Category 2
H225	Highly flammable liquid and vapour.
H290	May be corrosive to metals.
H304	May be fatal if swallowed and enters airways.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer.
H360FD	May damage fertility. May damage the unborn child.
H361d	Suspected of damaging the unborn child.
H362	May cause harm to breast-fed children.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H412	Harmful to aquatic life with long lasting effects.
Lact.	Reproductive toxicity, Additional category, Effects on or via lactation
Met. Corr. 1	Corrosive to metals, Category 1
Repr. 1B	Reproductive toxicity, Category 1B
Repr. 2	Reproductive toxicity, Category 2
Skin Corr. 1A	Skin corrosion/irritation, Category 1, Sub-Category 1A
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Narcosis

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.