

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH)

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

1.1. Product identifier

Trade name/designation:

Actosed® Enzym

Article No.:

01.7603.a

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

Use of the substance/mixture:

Instrument cleaners

Concentrated Enzyme Based Cleaner and Disinfectant for Medical Devices and Endoscopes

Relevant identified uses:

Sector of uses [SU]

SU 20: Health services

1.3. Details of the supplier of the safety data sheet

Supplier (manufacturer/importer/only representative/downstream user/distributor):

ACTO GmbH

Quality Management

Büchnerstr. 11

38118 Braunschweig

Germany

Telephone: (+49) (0) 531-239 508-0

Telefax: (+49) (0) 531-239 508-11

E-mail: info@actogmbh.com

Website: <http://www.actogmbh.com>

E-mail (competent person): info@actogmbh.com

Poison Control Center-Nord (GIZ-Nord) University Medical Center Göttingen Robert-Koch-Str. 40, 37075

Göttingen Emergency number for Citizens: +49 (0) 551-19 24 0 Consulting physician: +49 (0) 551-38 31

80 E-mail: giznord@giz-nord.de Web-Page: <http://www.giz-nord.de>

1.4. Emergency telephone number

Name: Erdi Günher Profession: Chemist Certificate No.: GBF-A-0-2859 Validity: 06.08.2021 Telephone: +90 5358654635 E-mail (competent person): erdi.gunher@actopharma.com, 24h: GIZ-Nord: +49-551-19 24 0, Safety Officer: +49-531-2395080; +49-172-8560648 (Only available during office hours.)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Hazard classes and hazard categories	Hazard statements	Classification procedure
Skin corrosion/irritation (Skin Corr. 1B)	H314: Causes severe skin burns and eye damage.	
Serious eye damage/eye irritation (Eye Dam. 1)	H318: Causes serious eye damage.	
Hazardous to the aquatic environment (Aquatic Acute 1)	H400: Very toxic to aquatic life.	

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2.2. Label elements

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

Hazard pictograms:



GHS05
Corrosion



GHS09
Environment

Signal word: Danger

hazard statements for health hazards

H303	May be harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.

Hazard statements for environmental hazards

H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Supplemental Hazard information (EU)

EUH208	Contains Subtilisin, Lipase, triacylglycerol. May produce an allergic reaction.
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Precautionary statements Prevention

P264	Wash hands thoroughly after handling.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary statements Response

P301 + P330 + P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P311	Call a POISON CENTER/doctor/Physician.

Precautionary statements Disposal

P501	Dispose of contents/container to hazardous or special waste collection point.
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2.3. Other hazards

Adverse human health effects and symptoms:

Avoid contact with eyes and skin. Causes severe skin burns and eye damage.

Adverse environmental effects:

Avoid release of large amounts to the environment.

SECTION 3: Composition / information on ingredients

3.2. Mixtures

Additional information:

Within the current knowledge of the supplier, this mixture does not contain any further substances classified as health or environmental hazards in the concentrations applicable within the meaning of the Dangerous Substances Directive 67/548/EEC or Regulation (EC) No 1272/2008 and are hence require reporting in this section.

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Hazardous ingredients / Hazardous impurities / Stabilisers:

product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008 [CLP]	Concentration
CAS No.: 94667-33-1 EC No.: 619-057-3	N,N-Didecyl-N-methylpoly(oxyethyl)ammonium propionate Acute Tox. 4, Aquatic Acute 1, Aquatic Chronic 1, Skin Corr. 1B Danger H302-H314-H400-H410 M-factor (acute): 1 M-factor (chronic): 10	> 10 - < 14 Wt %
CAS No.: 107-21-1 EC No.: 203-473-3	ethane-1,2-diol Acute Tox. 4 Warning H302	> 8 - < 12 Wt %
CAS No.: 2372-82-9 EC No.: 219-145-8	N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine Acute Tox. 3, Aquatic Acute 1, Aquatic Chronic 1, STOT RE 2, Skin Corr. 1A Danger H301-H314-H373-H400 M-factor (acute): 10 M-factor (chronic): 1	> 9 - < 11 Wt %
CAS No.: 67-63-0 EC No.: 200-661-7 REACH No.: 01-2119457558-25-0000	propan-2-ol Eye Irrit. 2, Flam. Liq. 2, STOT SE 3 Danger H225-H319-H336	> 4 - < 6 Wt %
CAS No.: 64-02-8 EC No.: 200-573-9	tetrasodium ethylenediaminetetraacetate Acute Tox. 4, Eye Dam. 1 Danger H302-H318	> 2 - < 4 Wt %
CAS No.: 112-34-5 EC No.: 203-961-6	2-(2-butoxyethoxy)ethanol Eye Irrit. 2 Warning H319	≤ 1 Wt %
CAS No.: 9014-01-1 EC No.: 232-752-2	Subtilisin Eye Dam. 1, Resp. Sens. 1, STOT SE 3, Skin Irrit. 2 Danger H315-H318-H334-H335	> 0 - < 1 Wt %
CAS No.: 9001-62-1 EC No.: 232-619-9	Lipase, triacylglycerol Resp. Sens. 1 Danger H334	> 0 - < 1 Wt %

Full text of H- and EUH-phrases: see section 16.

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). Remove victim out of the danger area. Remove contaminated, saturated clothing. If unconscious place in recovery position and seek medical advice. Do not leave affected person unattended.

Following inhalation:

Remove casualty to fresh air and keep warm and at rest. If unconscious place in recovery position and seek medical advice. In case of irregular breathing or respiratory arrest provide artificial respiration. Provide fresh air. In case of respiratory tract irritation, consult a physician.

In case of skin contact:

Following skin contact Subsequently wash off with: Water and soap In case of skin irritation, consult a physician.
IF ON CLOTHING: Take off immediately all contaminated clothing. Wash contaminated clothing prior to re-use.

After eye contact:

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. Let water be drunken in little sips (dilution effect). Get medical advice/attention if you feel unwell.

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Self-protection of the first aider:

Warning First aider: Pay attention to self-protection! Use personal protection equipment.

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

Skin corrosion/irritation. Serious eye damage/eye irritation. Allergic reactions

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

Treat symptomatically.

You can refer to data sources in section 16 to find detailed toxicity information of each component.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Co-ordinate fire-fighting measures to the fire surroundings. Carbon dioxide (CO₂), Extinguishing powder, Water spray, . Suppress gases/vapours/mists with water spray jet.

5.2. Special hazards arising from the substance or mixture

In case of fire: Gases/vapours, toxic. Do not breathe gas/fumes/vapour/spray.

Hazardous combustion products:

Nitrogen oxides (NO_x), Carbon monoxide, Carbon dioxide (CO₂).

5.3. Advice for firefighters

Heating causes rise in pressure with risk of bursting. 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. Wear a self-contained breathing apparatus and chemical protective clothing.

5.4. Additional information

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Personal precautions:

Avoid contact with eyes and skin. Wear personal protection equipment. Do not breathe gas/vapour/aerosol. Provide adequate ventilation. Keep out of reach of children. Wash contaminated clothing prior to re-use.

Protective equipment:

Wear protective gloves/protective clothing/eye protection/face protection.

Emergency procedures:

Remove persons to safety. Provide eye shower and label its location conspicuously

6.1.2. For emergency responders

Personal protection equipment:

Personal protection equipment: see section 8

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

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).

For cleaning up:

Water

6.4. Reference to other sections

Safe handling: see section 7 Personal protection equipment: see section 8 Disposal: see section 13

6.5. Additional information

Use appropriate container to avoid environmental contamination.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Protective measures

Advices on safe handling:

Handle in accordance with good industrial hygiene and safety practice. Wear personal protection equipment (refer to section 8).

Fire prevent measures:

No special measures are necessary.

Environmental precautions:

Avoid release of large amounts to the environment.

Advices on general occupational hygiene

Wash hands before breaks and after work. When using do not eat, drink or smoke. Avoid contact with eyes and skin.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions:

Keep container tightly closed in a cool, well-ventilated place. storage temperature: 5-40 °C

Requirements for storage rooms and vessels:

Keep/Store only in original container. Floors should be impervious, resistant to liquids and easy to clean.

Hints on storage assembly:

Keep away from food, drink and animal feedingstuffs.

Storage class: 8B - Non-combustible corrosive substances

7.3. Specific end use(s)

Recommendation:

Medical instrument disinfectant and cleaner. Some of the uses of the product mentioned in Section 1.2. No other specific uses are stipulated. Observe instructions for use.

Industrial sector specific solutions:

Disinfectant cleaner, based on quaternary ammonium compounds, irritant

GISCODE:

GD30

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. Occupational exposure limit values

Limit value type (country of origin)	Substance name	① long-term occupational exposure limit value ② short-term occupational exposure limit value ③ Instantaneous value ④ Monitoring and observation processes ⑤ Remark
TRGS 900 (DE)	ethane-1,2-diol CAS No.: 107-21-1	① 10 ppm (26 mg/m ³) ② 20 ppm (52 mg/m ³) ⑤ (kann über die Haut aufgenommen werden)
IOELV (EU)	ethane-1,2-diol CAS No.: 107-21-1	① 20 ppm (52 mg/m ³) ② 40 ppm (104 mg/m ³) ⑤ (may be absorbed through the skin)
TRGS 900 (DE)	N-(3-aminopropyl)-N-dodecyl propane-1,3-diamine CAS No.: 2372-82-9	① 0.05 mg/m ³ ② 0.4 mg/m ³
TRGS 900 (DE)	propan-2-ol CAS No.: 67-63-0	① 200 ppm (500 mg/m ³) ② 400 ppm (1,000 mg/m ³)

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Limit value type (country of origin)	Substance name	① long-term occupational exposure limit value ② short-term occupational exposure limit value ③ Instantaneous value ④ Monitoring and observation processes ⑤ Remark
TRGS 900 (DE)	2-(2-butoxyethoxy)ethanol CAS No.: 112-34-5	① 10 ppm (67 mg/m ³) ② 15 ppm (100.5 mg/m ³)
IOELV (EU)	2-(2-butoxyethoxy)ethanol CAS No.: 112-34-5	① 10 ppm (67.5 mg/m ³) ② 15 ppm (101.2 mg/m ³)

8.1.2. Biological limit values

Limit value type (country of origin)	Substance name	Limit value	① parameter ② Test material ③ Time of sampling ④ Remark
TRGS 903 (DE)	propan-2-ol CAS No.: 67-63-0	25 mg/L	① Aceton ② Blut ③ Expositionsende bzw. Schichtende
TRGS 903 (DE)	propan-2-ol CAS No.: 67-63-0	25 mg/L	① Aceton ② Urin ③ Expositionsende bzw. Schichtende

8.1.3. DNEL-/PNEC-values

No data available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice.

8.2.2. Personal protection equipment



Eye/face protection:

Eye glasses with side protection DIN EN 166 (Berufsgenossenschaftliche Regeln (BGR) 192)

Skin protection:

Tested protective gloves must be worn EN ISO 374. Wash hands before breaks and after work. Apply skin care products after work. 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:

Use only in well-ventilated areas. With correct and proper use, and under normal conditions, breathing protection is not required.

Other protection measures:

General health and safety measures: When using do not eat, drink, smoke, sniff. Avoid contact with skin, eyes and clothes. Wash hands before breaks and after work. Wash contaminated clothing prior to re-use.

8.2.3. Environmental exposure controls

See chapter 7. No additional measures necessary.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state: Liquid

Colour: yellow

Odour: characteristic

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Safety relevant basis data

parameter		at °C	Method	Remark
pH	≥ 6 - ≤ 8	20 °C		
Melting point	<i>not determined</i>			
Freezing point	<i>not determined</i>			
Initial boiling point and boiling range	<i>not determined</i>			
Decomposition temperature	<i>not determined</i>			
Flash point	<i>not determined</i>			
Evaporation rate	<i>not determined</i>			
Auto-ignition temperature	<i>not determined</i>			
Upper/lower flammability or explosive limits	<i>not determined</i>			
Vapour pressure	<i>not determined</i>			
Vapour density	<i>not determined</i>			
Density	≥ 1 - ≤ 1.1 g/ml	20 °C		
Bulk density	<i>not determined</i>			
Water solubility	<i>not determined</i>			
Partition coefficient: n-octanol/water	<i>not determined</i>			
Dynamic viscosity	<i>not determined</i>			
Kinematic viscosity	<i>not determined</i>	40 °C		

9.2. Other information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

There is no dangerous reactions known when use as prescribed and with proper storage. The product itself does not burn.

10.2. Chemical stability

There is no stability problems observed when use as prescribed and with proper storage.

10.3. Possibility of hazardous reactions

No data available

10.4. Conditions to avoid

Heating causes rise in pressure with risk of bursting. See chapter 7. No additional measures necessary.

10.5. Incompatible materials

No data available

10.6. Hazardous decomposition products

Nitrogen oxides (NO_x) Carbon dioxide. Carbon monoxide. In case of fire: Gases/vapours, toxic. Do not breathe gas/vapour.

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SECTION 11: Toxicological information

11.1. Information on toxicological effects

CAS No.	Substance name	Toxicological information
94667-33-1	N,N-Didecyl-N-methylpoly(oxyethyl)ammonium propionate	LD₅₀ oral: 1,157 mg/kg (Ratte) OECD 401
107-21-1	ethane-1,2-diol	LD₅₀ oral: 5,840 mg/kg (Ratte) OECD LD₅₀ dermal: 9,530 mg/kg (Kaninchen)
2372-82-9	N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine	LD₅₀ oral: 261 mg/kg (Ratte) OECD 401 LD₅₀ dermal: >600 mg/kg (Ratte) OECD 402
112-34-5	2-(2-butoxyethoxy)ethanol	LD₅₀ oral: 5,660 mg/kg (Ratte) LD₅₀ dermal: 2,700 mg/kg (Kaninchen)
67-63-0	propan-2-ol	LD₅₀ oral: ≥5,050 mg/kg (Ratte) OECD LD₅₀ dermal: ≥12,800 mg/kg (Kaninchen) OECD LC₅₀ Acute inhalation toxicity (gas): ≥4 mg/l (Ratte)
64-02-8	tetrasodium ethylenediaminetetraacetate	LD₅₀ oral: >1,780 - <2,000 mg/kg (Ratte)
9014-01-1	Subtilisin	LD₅₀ oral: 1,800 mg/kg (Rat) OECD 401
9001-62-1	Lipase, triacylglycerol	LD₅₀ oral: >2,000 mg/kg OECD 401 OECD 420

Acute oral toxicity:

The classification criteria for this hazard class are not met by definition.

Acute dermal toxicity:

The classification criteria for this hazard class are not met by definition.

Acute inhalation toxicity:

The classification criteria for this hazard class are not met by definition.

Skin corrosion/irritation:

Causes severe skin burns and eye damage.

Serious eye damage/irritation:

Causes serious eye damage.

Respiratory or skin sensitisation:

May cause an allergic skin reaction.

Germ cell mutagenicity:

The classification criteria for this hazard class are not met by definition.

Carcinogenicity:

The classification criteria for this hazard class are not met by definition.

Reproductive toxicity:

The classification criteria for this hazard class are not met by definition.

STOT-single exposure:

The classification criteria for this hazard class are not met by definition.

STOT-repeated exposure:

The classification criteria for this hazard class are not met by definition.

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Aspiration hazard:

The classification criteria for this hazard class are not met by definition.

Additional information:

No data available

SECTION 12: Ecological information

12.1. Toxicity

CAS No.	Substance name	Toxicological information
94667-33-1	N,N-Didecyl-N-methylpoly(oxyethyl)ammonium propionate	LC₅₀ : 0.78 mg/l 4 d (Fische) OECD 203 (Fische, akute Toxizität) EC₅₀ : 0.07 mg/l 2 d (Daphnien) OECD 202 (Daphnien, Immobilisierung)
2372-82-9	N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine	LC₅₀ : >0.68 mg/l 4 d (Oncorhynchus mykiss (Rainbow trout)) OECD 203 NOEC : >0.024 mg/l 21 d (Daphnia magna (Big water flea)) OECD 211
67-63-0	propan-2-ol	LC₅₀ : ≥9,640 mg/l 4 d (Fische) OECD 202 (Daphnien, Immobilisierung) EC₅₀ : ≥1,400 mg/l 2 d (Daphnien) EC₅₀ : ≥1,000 mg/l 4 d (Algen)
64-02-8	tetrasodium ethylenediaminetetraacetate	LC₅₀ : 486 - 3,090 mg/l 4 d EC₅₀ : >100 mg/l 2 d (Daphnia magna (Big water flea)) DIN 38412 / part 11 NOEC : 25 mg/l 21 d (Daphnia magna (Big water flea)) OECD 211 EC₅₀ : >100 mg/l 3 d
9014-01-1	Subtilisin	LC₅₀ : 8.2 mg/l 4 d OECD 203 EC₅₀ : 0.586 mg/l 2 d OECD 202 ErC₅₀ : 0.83 mg/l 3 d OECD 201
9001-62-1	Lipase, triacylglycerol	EC₅₀ : >37.4 mg/l 2 d (Daphnia magna (Big water flea)) OECD 202 LC₅₀ : >68.3 mg/l 4 d OECD 203 ErC₅₀ : >18 mg/l 3 d OECD 201

Aquatic toxicity:

Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

12.2. Persistence and degradability

CAS No.	Substance name	Biodegradation	Remark
94667-33-1	N,N-Didecyl-N-methylpoly(oxyethyl)ammonium propionate	Yes, rapidly	Bioaccumulative potential: Readily biodegradable (according to OECD criteria). not persistent.
2372-82-9	N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine	Yes, rapidly	
67-63-0	propan-2-ol	Yes, rapidly	
9014-01-1	Subtilisin	Yes, rapidly	
9001-62-1	Lipase, triacylglycerol	Yes, rapidly	

12.3. Bioaccumulative potential

No data available

12.4. Mobility in soil

No data available

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12.5. Results of PBT and vPvB assessment

CAS No.	Substance name	Results of PBT and vPvB assessment
94667-33-1	N,N-Didecyl-N-methylpoly(oxyethyl)ammonium propionate	—
107-21-1	ethane-1,2-diol	—
2372-82-9	N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine	—
112-34-5	2-(2-butoxyethoxy)ethanol	—
67-63-0	propan-2-ol	—
64-02-8	tetrasodium ethylenediaminetetraacetate	—
9014-01-1	Subtilisin	—
9001-62-1	Lipase, triacylglycerol	—

12.6. Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Consult the appropriate local waste disposal expert about waste disposal.

13.1.1. Product/Packaging disposal

Waste codes/waste designations according to EWC/AVV

Waste code product:

07 06 99 Wastes not otherwise specified

Waste code packaging:

15 01 10 * packaging containing residues of or contaminated by dangerous substances

*: Evidence for disposal must be provided.

Waste treatment options

Appropriate disposal / Product:

Dispose of waste according to applicable legislation. Consult the appropriate local waste disposal expert about waste disposal.





Appropriate disposal / Package:

Dispose according to legislation. Consult the appropriate local waste disposal expert about waste disposal.

Other disposal recommendations:

Dispose waste in accordance with national regulations!

SECTION 14: Transport information

Land transport (ADR/RID)	Inland waterway craft (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1. UN-No.			
UN 1903	UN 1903	UN 1903	UN 1903
14.2. UN proper shipping name			
DISINFECTANT, LIQUID, CORROSIVE, N.O.S.	DISINFECTANT, LIQUID, CORROSIVE, N.O.S.	DISINFECTANT, LIQUID, CORROSIVE, N.O.S.	DISINFECTANT, LIQUID, CORROSIVE, N.O.S.
14.3. Transport hazard class(es)			
 8	 8	 8	 8

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Land transport (ADR/RID)	Inland waterway craft (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.4. Packing group			
III	III	III	III
14.5. Environmental hazards			
		 MARINE POLLUTANT	
14.6. Special precautions for user			
Special provisions: 274 Limited quantity (LQ): 5L-E1 Excepted Quantities: Hazard identification number (Kemler No.): 80 Classification code: C9-C10 tunnel restriction code: (E) Remark: P001, IBC03, LP01, R001	Special provisions: 274 Limited quantity (LQ): 5L-E1 Excepted Quantities: Classification code: C9-C10 Remark:	Special provisions: 223, 274 Limited quantity (LQ): 5L-E1 Excepted Quantities: EmS-No.: F-A; S-B Remark: P001, LP01, IBC03	Special provisions: Limited quantity (LQ): IATA-Packing instructions - Passenger: Y841 IATA-Maximum amount - Passenger: 1L IATA-Packing instructions - Passenger 852 IATA-Maximum amount - Passenger: 5L IATA-Packing instructions - Cargo: 856 IATA-Maximum amount - Cargo: 60L Excepted Quantities: Remark: ERG Code: 8L

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No data available

SECTION 15: Regulatory information

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

15.1.1. EU legislation

Authorisations:

Class II-B Medical product according to Medical Devices Directive 93/42/EEC with amendment 2007/47/EC.

Other regulations (EU):

Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work Classification according to Regulation (EC) No 1272/2008 [CLP], according to Regulation (EC) No. 1907/2006 (amended by Regulation (EU) No 453/2010). Classification according to Directive 67/548/EEC or 1999/45/EC. Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

15.1.2. National regulations

[DE] National regulations

Restrictions of occupation

5 MuSchRiV. 22 ArbSchG. 4 MuSchRiV.

Annex Chemikalien-Verbotsverordnung (ChemVerbotsV)

Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work

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Technische Anleitung Luft (TA-Luft)

Remark:

Total dust emission value may not be exceeded. (see No. 5.2.1).

Water hazard class (WGK)

WGK:

3 - Severely water-hazardous

Other regulations, restrictions and prohibition regulations

TRGS 401 "Risks resulting from skin contact - identification, assessment, measures"

TRGS 510 "Storage of hazardous substances in non-stationary containers"

BGI 595 "Instructions M 004: Irritating substances / corrosive substances"

15.2. Chemical Safety Assessment

No data available

SECTION 16: Other information

16.1. Indication of changes

No data available

16.2. Abbreviations and acronyms

No data available

16.3. Key literature references and sources for data

You can refer to data sources below to find detailed toxicity information of each component.

<http://www.baua.de/>

<http://gestis.itrust.de/>

<http://www.gefahrstoff-info.de/>

<http://esis.jrc.ec.europa.eu/>

<http://www.echemportal.org/>

<http://www.gischem.de>

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

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

Hazard classes and hazard categories	Hazard statements	Classification procedure
Skin corrosion/irritation (<i>Skin Corr. 1B</i>)	H314: Causes severe skin burns and eye damage.	
Serious eye damage/eye irritation (<i>Eye Dam. 1</i>)	H318: Causes serious eye damage.	
Hazardous to the aquatic environment (<i>Aquatic Acute 1</i>)	H400: Very toxic to aquatic life.	

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

Hazard statements	
H225	Highly flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H373	May cause damage to organs through prolonged or repeated exposure. (kidneys)
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

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according to Regulation (EC) No. 1907/2006 (REACH)

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16.6. Training advice

Do not handle until all safety precautions have been read and understood.

16.7. Additional information

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