

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878 Issue date: 21/10/2021 Revision date: 21/10/2021 Version: 1.00

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

1.1. Product identifier

Trade name : Instru Sept AF

UFI : K2Y0-A0CA-M005-CSTE

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

1.2.1. Relevant identified uses

Use of the substance/mixture : Medical device

IIb

instruments disinfection

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Manufacturer/Supplier

Laboratorium Dr. Deppe GmbH Hooghe Weg 35 D-47906 Kempen T +49 21 52 55 65 0 - F +49 21 52 50 84 9 sdb@dr-deppe.de - www.dr-deppe.de

Email competent person

sdb@dr-deppe.de

H225

1.4. Emergency telephone number

Emergency number : INTERNATIONAL: +49 - (0) 6132 - 84463, GBK GmbH (24h - 7d/w - 365d/a)

SECTION 2: Hazards identification

Flammable liquids, Category 2

2.1. Classification of the substance or mixture

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

Acute toxicity (oral), Category 4	H302
Skin corrosion/irritation, Category 1	H314
Serious eye damage/eye irritation, Category 1	H318
Respiratory sensitisation, Category 1	H334
Skin sensitisation, Category 1	H317
Specific target organ toxicity — Single exposure, Category 3, Respiratory	H335
tract irritation	
Specific target organ toxicity — Repeated exposure, Category 2	H373
Hazardous to the aquatic environment — Acute Hazard, Category 1	H400
Hazardous to the aquatic environment — Chronic Hazard, Category 2	H411
Full text of H- and EUH-statements: see section 16	

Adverse physicochemical, human health and environmental effects

Highly flammable liquid and vapour. May cause damage to organs through prolonged or repeated exposure. Harmful if swallowed. Causes serious eye damage. May cause an allergic skin reaction. Causes severe skin burns and eye damage. Very toxic to aquatic life. Toxic to aquatic life with long lasting effects. May cause respiratory irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

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2.2. Label elements

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

Hazard pictograms (CLP)











Signal word (CLP)

Contains

: Danger

Alcohols, C9-11-iso-, C10-rich, ethoxylated, Tetrasodium ethylenediaminetetraacetate, didecyldimethylammonium chloride, Amines, N-C12-14-alkyltrimethylenedi-, N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine, 2-aminoethanol, piperazine; [solid]

Hazard statements (CLP) : H225 - Highly flammable liquid and vapour.

H302 - Harmful if swallowed.

H314 - Causes severe skin burns and eye damage.

H317 - May cause an allergic skin reaction.

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 - May cause respiratory irritation.

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.

P261 - Avoid breathing mist, vapours, spray. P273 - Avoid release to the environment.

P280 - Wear protective gloves, protective clothing, eye protection, face protection.

P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated

clothing. Rinse skin with water/shower.

P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position

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. P310 - Immediately call a POISON CENTER or doctor/physician.

EUH-statements : EUH071 - Corrosive to the respiratory tract.

2.3. Other hazards

PBT: not relevant – no registration required vPvB: not relevant – no registration required

Component	
(2-Methoxymethylethoxy)propanol (34590-94-8)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
2-aminoethanol (141-43-5)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
didecyldimethylammonium chloride (7173-51-5)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Alcohols, C9-11-iso-, C10-rich, ethoxylated (78330-20-8)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
ethanol (64-17-5)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

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Component	
tetrasodium ethylene diamine tetraacetate (64-02-8)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Amines, N-C12-14-alkyltrimethylenedi- (90640-43-0)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
propan-2-ol (67-63-0)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine (2372-82-9)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
dodecylamine (124-22-1)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

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]
(2-Methoxymethylethoxy)propanol substance with national workplace exposure limit(s) (GB); substance with a Community workplace exposure limit	CAS-No.: 34590-94-8 EC-No.: 252-104-2 REACH-no: 01-2119450011- 60-xxxx	≥ 10 – < 20	Not classified
2-aminoethanol substance with national workplace exposure limit(s) (GB); substance with a Community workplace exposure limit	CAS-No.: 141-43-5 EC-No.: 205-483-3 EC Index-No.: 603-030-00-8 REACH-no: 01-2119486455- 28-xxxx	≥ 10 - < 20	Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg bodyweight) Acute Tox. 4 (Dermal), H312 (ATE=1100 mg/kg bodyweight) Acute Tox. 4 (Inhalation:vapour), H332 (ATE=11 mg/l/4h) Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Chronic 3, H412
didecyldimethylammonium chloride	CAS-No.: 7173-51-5 EC-No.: 230-525-2 EC Index-No.: 612-131-00-6 REACH-no: 01-2119945987- 15-xxxx	≥ 5 - < 10	Acute Tox. 3 (Oral), H301 (ATE=264 mg/kg bodyweight) Skin Corr. 1B, H314 Eye Dam. 1, H318 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 2, H411
Alcohols, C9-11-iso-, C10-rich, ethoxylated	CAS-No.: 78330-20-8	≥ 5 – < 10	Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg bodyweight) Eye Dam. 1, H318

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
ethanol substance with national workplace exposure limit(s) (GB)	CAS-No.: 64-17-5 EC-No.: 200-578-6 EC Index-No.: 603-002-00-5 REACH-no: 01-2119457610- 43-xxxx	≥ 2.5 – < 5	Flam. Liq. 2, H225 Eye Irrit. 2, H319
tetrasodium ethylene diamine tetraacetate	CAS-No.: 64-02-8 EC-No.: 200-573-9 EC Index-No.: 607-428-00-2 REACH-no: 01-2119486762- 27-xxxx	≥ 2.5 – < 5	Acute Tox. 4 (Oral), H302 (ATE=1780 mg/kg bodyweight) Acute Tox. 4 (Inhalation), H332 (ATE=1.5 mg/l/4h) STOT RE 2, H373
Amines, N-C12-14-alkyltrimethylenedi-	CAS-No.: 90640-43-0 EC-No.: 292-562-0 REACH-no: 01-2119957843- 25-xxxx	≥ 2.5 – < 5	Acute Tox. 3 (Oral), H301 (ATE=200 mg/kg bodyweight) Skin Corr. 1B, H314 STOT RE 1, H372 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410
propan-2-ol substance with national workplace exposure limit(s) (GB)	CAS-No.: 67-63-0 EC-No.: 200-661-7 EC Index-No.: 603-117-00-0 REACH-no: 01-2119457558- 25-xxxx	≥ 2.5 – < 5	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine	CAS-No.: 2372-82-9 EC-No.: 219-145-8 REACH-no: 01-2119980592- 29-xxxx	≥ 2.5 – < 5	Acute Tox. 3 (Oral), H301 (ATE=261 mg/kg bodyweight) Skin Corr. 1B, H314 STOT RE 2, H373 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410
piperazine; [solid]	CAS-No.: 110-85-0 EC-No.: 203-808-3 EC Index-No.: 612-057-00-4 REACH-no: 01-2119480384- 35-xxxx	≥1-<2.5	Flam. Sol. 1, H228 Skin Corr. 1B, H314 Resp. Sens. 1, H334 Skin Sens. 1, H317 Repr. 2, H361fd
	CAS-No.: 5538-95-4 EC-No.: 226-902-6	≥ 0.25 – < 1	Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg bodyweight) Skin Corr. 1A, H314 Eye Dam. 1, H318 Aquatic Acute 1, H400
dodecylamine	CAS-No.: 124-22-1 EC-No.: 204-690-6	< 0.1	Skin Corr. 1B, H314 STOT SE 3, H335 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=10)

Specific concentration limits:		
Name	Product identifier	Specific concentration limits
2-aminoethanol	CAS-No.: 141-43-5 EC-No.: 205-483-3 EC Index-No.: 603-030-00-8 REACH-no: 01-2119486455- 28-xxxx	(5 ≤C < 100) STOT SE 3, H335

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Specific concentration limits:		
Name	Product identifier	Specific concentration limits
ethanol	CAS-No.: 64-17-5 EC-No.: 200-578-6 EC Index-No.: 603-002-00-5 REACH-no: 01-2119457610- 43-xxxx	(50 ≤C < 100) Eye Irrit. 2, H319

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 : Call a physician immediately.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Call a physician

immediately.

First-aid measures after skin contact : Rinse skin with water/shower. Take off immediately all contaminated clothing. Call a

physician immediately.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy

to do. Continue rinsing. Call a physician immediately.

First-aid measures after ingestion : Rinse mouth. Do not induce vomiting. Call a physician immediately.

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

Symptoms/effects after inhalation : May cause respiratory irritation. May cause allergy or asthma symptoms or breathing

difficulties if inhaled.

Symptoms/effects after skin contact : May cause an allergic skin reaction. Burns. Repeated exposure may cause skin dryness or

cracking.

Symptoms/effects after eye contact : Serious damage to eyes.

Symptoms/effects after ingestion : Burns.

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 : Use extinguishing media appropriate for surrounding fire. Water spray. Dry powder. Foam.

Carbon dioxide.

Unsuitable extinguishing media : Strong water jet.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Highly flammable liquid and vapour.

Explosion hazard : Explosive vapour/air mixtures may be formed.

Hazardous decomposition products in case of fire : Toxic fumes may be released. Carbon dioxide. Carbon monoxide. chlorine dioxide. Sulphur

oxides. Nitrogen oxides.

5.3. Advice for firefighters

Firefighting instructions : Protect container with water spray.

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained

breathing apparatus. Complete protective clothing.

Other information : Do not allow run-off from fire fighting to enter drains or water courses. Disposal must be

done according to official regulations.

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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. No open flames, no sparks, and no smoking. Do not breathe

dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information

refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Notify authorities if product enters sewers or public waters. Avoid sub-soil penetration. Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.

Methods for cleaning up Take up liquid spill into absorbent material. Take up mechanically (sweeping, shovelling)

and collect in suitable container for disposal. Notify authorities if product enters sewers or

public waters.

Other information : Disposal must be done according to official regulations.

6.4. Reference to other sections

Information for safe handling. See section 7. Concerning personal protective equipment to use, see section 8. For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed

Precautions for safe handling

: In use, may form flammable vapour-air mixture.

: Ensure good ventilation of the work station. Wear personal protective equipment. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapours may accumulate in

the container. Use explosion-proof equipment. Do not breathe

dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes. Use only outdoors or

in a well-ventilated area.

Hygiene measures Do not eat, drink or smoke when using this product. Always wash hands after handling the

product. Contaminated work clothing should not be allowed out of the workplace. Wash

contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures

: Ground/bond container and receiving equipment.

Storage conditions Heat and ignition sources Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No

smoking. Keep away from heat and direct sunlight.

Information about storage in one common storage

facility

: Keep away from food, drink and animal feeding stuffs.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

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ethanol (64-17-5)			
United Kingdom - Occupational Exposure Limits			
Local name	Ethanol		
WEL TWA (OEL TWA) [1]	1920 mg/m³		
WEL TWA (OEL TWA) [2]	1000 ppm		
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE		
(2-Methoxymethylethoxy)propanol (34590-94-	8)		
EU - Indicative Occupational Exposure Limit (IOEL)			
Local name	(2-Methoxymethylethoxy)-propanol		
IOEL TWA	308 mg/m³		
IOEL TWA [ppm]	50 ppm		
Remark	Skin		
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC		
United Kingdom - Occupational Exposure Limits			
Local name	(2-methoxymethylethoxy) propanol		
WEL TWA (OEL TWA) [1]	308 mg/m³		
WEL TWA (OEL TWA) [2]	50 ppm		
Remark	Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)		
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE		
propan-2-ol (67-63-0)			
United Kingdom - Occupational Exposure Limits			
Local name	Propan-2-ol		
WEL TWA (OEL TWA) [1]	999 mg/m³		
WEL TWA (OEL TWA) [2]	400 ppm		
WEL STEL (OEL STEL)	1250 mg/m³		
WEL STEL (OEL STEL) [ppm]	500 ppm		
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE		
2-aminoethanol (141-43-5)	2-aminoethanol (141-43-5)		
EU - Indicative Occupational Exposure Limit (IOEL)	EU - Indicative Occupational Exposure Limit (IOEL)		
Local name	2-Aminoethanol		
IOEL TWA	2.5 mg/m³		
IOEL TWA [ppm]	1 ppm		
IOEL STEL	7.6 mg/m³		
IOEL STEL [ppm]	3 ppm		
Remark	Skin		
Regulatory reference	COMMISSION DIRECTIVE 2006/15/EC		
United Kingdom - Occupational Exposure Limits			
Local name	2-Aminoethanol		
WEL TWA (OEL TWA) [1]	2.5 mg/m³		

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2-aminoethanol (141-43-5)	
WEL TWA (OEL TWA) [2]	1 ppm
WEL STEL (OEL STEL)	7.6 mg/m³
WEL STEL (OEL STEL) [ppm]	3 ppm
Remark	Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

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

8.1.4. DNEL and PNEC		
ethanol (64-17-5)		
DNEL/DMEL (Workers)		
Long-term - systemic effects, dermal	343 mg/kg bodyweight/day	
Long-term - systemic effects, inhalation	950 mg/m³	
DNEL/DMEL (General population)		
Long-term - systemic effects,oral	87 mg/kg bodyweight/day	
Long-term - systemic effects, inhalation	114 mg/m³	
Long-term - systemic effects, dermal	206 mg/kg bodyweight/day	
PNEC (Water)		
PNEC aqua (freshwater)	0.96 mg/l	
PNEC aqua (marine water)	0.79 mg/l	
PNEC aqua (intermittent, freshwater)	2.75 mg/l	
PNEC (Sediment)		
PNEC sediment (freshwater)	3.6 mg/kg dwt	
PNEC sediment (marine water)	2.9 mg/kg dwt	
PNEC (Soil)		
PNEC soil	0.63 mg/kg dwt	
PNEC (Oral)	PNEC (Oral)	
PNEC oral (secondary poisoning)	0.38 kg/kg food	
PNEC (STP)		
PNEC sewage treatment plant	580 mg/l	
tetrasodium ethylene diamine tetraacetate (64-02-8)		
DNEL/DMEL (Workers)		
Acute - local effects, inhalation	3 mg/m³	
Long-term - local effects, inhalation	1.5 mg/m³	
DNEL/DMEL (General population)		
Acute - local effects, inhalation	1.2 mg/m³	
Long-term - systemic effects,oral	25 mg/kg bodyweight/day	

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tetrasodium ethylene diamine tetraacetate (64-02-8)			
Long-term - local effects, inhalation	0.6 mg/m³		
PNEC (Water)	PNEC (Water)		
PNEC aqua (freshwater)	2.2 mg/l		
PNEC aqua (marine water)	0.22 mg/l		
PNEC aqua (intermittent, freshwater)	1.2 mg/l		
PNEC (Soil)			
PNEC soil	0.72 mg/kg dwt		
PNEC (STP)			
PNEC sewage treatment plant	43 mg/l		
didecyldimethylammonium chloride (7173-51-	5)		
PNEC (Water)			
PNEC aqua (freshwater)	0.0011 mg/l		
PNEC aqua (marine water)	0.00011 mg/l		
PNEC aqua (intermittent, freshwater)	0.00021 mg/l		
PNEC aqua (intermittent, marine water)	0.000021 mg/l		
PNEC (Sediment)			
PNEC sediment (freshwater)	61.86 mg/kg dwt		
PNEC sediment (marine water)	6.186 mg/kg dwt		
PNEC (Soil)			
PNEC soil	1.4 mg/kg dwt		
PNEC (STP)			
PNEC sewage treatment plant	0.14 mg/l		
Amines, N-C12-14-alkyltrimethylenedi- (90640	-43-0)		
DNEL/DMEL (Workers)			
Long-term - systemic effects, dermal	5.6 µg/kg bodyweight/day		
Long-term - systemic effects, inhalation	39.5 μg/m³		
DNEL/DMEL (General population)			
Long-term - systemic effects,oral	2 μg/kg bodyweight/day		
Long-term - systemic effects, inhalation	6.96 µg/m³		
Long-term - systemic effects, dermal	2 μg/kg bodyweight/day		
PNEC (Water)			
PNEC aqua (freshwater)	0.0032 mg/l		
PNEC aqua (marine water)	0.00032 mg/l		
PNEC aqua (intermittent, marine water)	0.00065 mg/l		
PNEC (Sediment)			
PNEC sediment (freshwater)	1.72 mg/kg dwt		
PNEC sediment (marine water)	0.172 mg/kg dwt		

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Amines, N-C12-14-alkyltrimethylenedi- (90640-43-0)		
PNEC (Soil)		
PNEC soil	10 mg/kg dwt	
PNEC (Oral)		
PNEC oral (secondary poisoning)	0.0089 mg/kg food	
PNEC (STP)		
PNEC sewage treatment plant	0.205 mg/l	
N-(3-aminopropyl)-N-dodecylpropane-1,3-diam	mine (2372-82-9)	
DNEL/DMEL (Workers)		
Long-term - systemic effects, dermal	8.96 mg/kg bodyweight/day	
Long-term - systemic effects, inhalation	0.789 mg/m³	
DNEL/DMEL (General population)		
Long-term - systemic effects,oral	0.04 mg/kg bodyweight/day	
Long-term - systemic effects, inhalation	0.118 mg/m³	
Long-term - systemic effects, dermal	3.2 mg/kg bodyweight/day	
PNEC (Water)		
PNEC aqua (freshwater)	0.001 mg/l	
PNEC aqua (marine water)	0.0001 mg/l	
PNEC aqua (intermittent, freshwater)	0.00015 mg/l	
PNEC (Sediment)		
PNEC sediment (freshwater)	3.2 mg/kg dwt	
PNEC sediment (marine water)	0.13 mg/kg dwt	
PNEC (Soil)		
PNEC soil	45.34 mg/kg dwt	
PNEC (STP)		
PNEC sewage treatment plant	0.18 mg/l	
2-aminoethanol (141-43-5)		
DNEL/DMEL (Workers)		
Long-term - systemic effects, dermal	3 mg/kg bodyweight/day	
Long-term - systemic effects, inhalation	1 mg/m³	
Long-term - local effects, inhalation	0.51 mg/m³	
DNEL/DMEL (General population)		
Long-term - systemic effects,oral	1.5 mg/kg bodyweight/day	
Long-term - systemic effects, inhalation	0.18 mg/m³	
Long-term - systemic effects, dermal	1.5 mg/kg bodyweight/day	
Long-term - local effects, inhalation	0.28 mg/m³	
PNEC (Water)		
PNEC aqua (freshwater)	0.07 mg/l	
PNEC aqua (marine water)	0.007 mg/l	

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2-aminoethanol (141-43-5) PNEC aqua (intermittent, freshwater) 0.028 mg/l PNEC (Sediment) PNEC (Sediment) PNEC (Sediment (freshwater) 0.357 mg/kg dwt PNEC (Sediment (marine water) 0.036 mg/kg dwt PNEC (SID) 1.29 mg/kg dwt PNEC (STP) PNEC (STP) PNEC (STP) 1.00 mg/l PNEL/DMEL (Workers)		
PNEC (sediment) PNEC sediment (trashwater) 0.367 mg/kg dwt PNEC sediment (marine water) 0.036 mg/kg dwt PNEC (Soil) 1.29 mg/kg dwt PNEC (Soil) PNEC sexige treatment plant 100 mg/l PNEC sexige treatment plant 100 mg/l PONEL/DMEL (Workers) Acute - systemic effects, dermal 0.042 mg/kg bodyweight/day Acute - systemic effects, inhalation 0.3 mg/m³ Acute - local effects, inhalation 0.3 mg/m³ Acute - local effects, inhalation 0.3 mg/m³ Acute - local effects, inhalation 0.1 mg/m³ Long-term - systemic effects, inhalation 0.1 mg/m³ Acute - local effects, inhalation 0.1 mg/m³ DNEL/DMEL (General population) Long-term - systemic effects, inhalation 0.1 mg/m³ DNEC Meters PNEC aqua (freshwater) 1.25 mg/l PNEC waters PNEC sediment) PNEC sediment) PNEC sedimen	2-aminoethanol (141-43-5)	
PNEC sediment (freshwater) 0.367 mg/kg dwt PNEC (Soil) PNEC soil 1.29 mg/kg dwt PNEC Soil 1.29 mg/kg dwt PNEC Soil 1.29 mg/kg dwt PNEC Servage treatment plant 100 mg/l POBLE/DMEL (Workers) Nacuse - systemic effects, dermal 0.042 mg/kg bodyweight/day Acuse - systemic effects, inhalation 0.3 mg/m³ Acuse - systemic effects, colsmal 0.014 mg/kg bodyweight/day Long-term - systemic effects, inhalation 0.1 mg/m³ Long-term - systemic effects, inhalation 0.1 mg/m³ Long-term - systemic effects, oral 1.5 mg/kg bodyweight/day DNEL/DMEL (General population) Long-term - systemic effects, oral 1.5 mg/kg bodyweight/day PNEC Quag (freshwater) 1.25 mg/l PNEC Quag (freshwater) 1.25 mg/l PNEC Quag (freshwater) 0.125 mg/l PNEC Sediment (freshwater) 4.5 mg/kg dwt PNEC Sediment (freshwater) 4.5 mg/kg dwt	PNEC aqua (intermittent, freshwater)	0.028 mg/l
PNEC sediment (marine water) 0.936 mg/kg dwt PNEC (Soil) PNEC soil 1.29 mg/kg dwt PNEC Servage treatment plant 100 mg/l POPEC (STP) DNEL/DMEL (Workers) Acute - systemic effects, dermal 0.042 mg/kg bodyweight/day Acute - systemic effects, inhalation 0.3 mg/m³ Acute - local effects, inhalation 0.3 mg/m³ Acute - systemic effects, inhalation 0.1 mg/m³ Acute - systemic effects, inhalation 0.1 mg/m³ Long-term - systemic effects, inhalation 0.1 mg/m³ DNEL/DMEL (General population) DNEL/DMEL (General population) Long-term - systemic effects, oral 1.5 mg/kg bodyweight/day PNEC Water) PNEC Water) PNEC Genal (reshwater) 1.25 mg/l PNEC aqua (freshwater) 1.25 mg/l PNEC Sediment (freshwater) 4.5 mg/kg dwt PNEC Sediment (marine water) 0.45 mg/kg dwt PNEC (Soil) <	PNEC (Sediment)	
PNEC (soil) 1.29 mg/kg dwt PNEC (STP) PNEC sewage treatment plant 100 mg/l PINEC sewage treatment plant 100 mg/l DNEL/DMEL (Workers) Acute - systemic effects, dermal 0.042 mg/kg bodyweight/day Acute - systemic effects, inhalation 0.3 mg/m³ Acute - local effects, inhalation 0.3 mg/m³ Long-term - systemic effects, dermal 0.014 mg/kg bodyweight/day Long-term - systemic effects, inhalation 0.1 mg/m³ Long-term - systemic effects, inhalation 0.1 mg/m³ Long-term - systemic effects, oral 1.5 mg/kg bodyweight/day DNEL/DMEL (General population) Long-term - systemic effects, oral 1.5 mg/kg bodyweight/day PNEC (Water) PNEC (Water) PNEC quau (freshwater) 1.25 mg/l PNEC aqua (intermittent, freshwater) 2.5 mg/l PNEC (Sediment) PNEC (Sediment) PNEC (Sediment) PNEC (Sediment) <td>PNEC sediment (freshwater)</td> <td>0.357 mg/kg dwt</td>	PNEC sediment (freshwater)	0.357 mg/kg dwt
PNEC (SITP) PNEC sewage treatment plant 100 mg/l piperazine; [solid] (110-85-0) DNEL/DMEL (Workers) Acute - systemic effects, dermal 0.042 mg/kg bodyweight/day Acute - systemic effects, inhalation 0.3 mg/m³ Acute - local effects, inhalation 0.3 mg/m³ Long-term - systemic effects, dermal 0.014 mg/kg bodyweight/day Long-term - systemic effects, inhalation 0.1 mg/m³ Long-term - systemic effects, inhalation 0.3 mg/m³ DNEL/DMEL (General population) 0.3 mg/m³ Long-term - systemic effects, oral 1.5 mg/kg bodyweight/day PNEC (Mater) 1.5 mg/kg bodyweight/day PNEC (Mater) 1.25 mg/l PNEC aqua (freshwater) 1.25 mg/l PNEC aqua (marine water) 0.125 mg/l PNEC aqua (intermittent, freshwater) 1.25 mg/l PNEC (Sediment) 4.5 mg/kg dwt PNEC Sediment (freshwater) 4.5 mg/kg dwt PNEC (Soil) 1.5 mg/kg dwt PNEC (Soil) 1.5 mg/kg food PNEC (Sorl) 4.6 mg/kg food	PNEC sediment (marine water)	0.036 mg/kg dwt
PNEC (STP) PNEC sewage treatment plant 100 mg/l piperazine; [solid] (110-85-0) DNEL/DMEL (Workers) Acute - systemic effects, dermal 0.042 mg/kg bodyweight/day Acute - systemic effects, inhalation 0.3 mg/m³ Acute - local effects, inhalation 0.3 mg/m³ Long-term - systemic effects, inhalation 0.1 mg/m³ Long-term - local effects, inhalation 0.1 mg/m³ Long-term - systemic effects, oral 1.5 mg/kg bodyweight/day DNEL/DMEL (General population) Long-term - systemic effects, oral 1.5 mg/kg bodyweight/day PNEC (Water) PNEC aqua (freshwater) 1.25 mg/l PNEC aqua (intermittent, freshwater) 1.25 mg/l PNEC aqua (intermittent, freshwater) 1.25 mg/l PNEC (Sediment) PNEC sediment (freshwater) 4.5 mg/kg dwt PNEC (Sediment (marine water) 0.45 mg/kg dwt PNEC (Soil) PNEC (Soil) PNEC (Soil) PNEC (Soil)	PNEC (Soil)	
PNEC sewage treatment plant piperazine; [solid] (110-85-0) DNEL/DMEL (Workers) Acute - systemic effects, dermal 0.042 mg/kg bodyweight/day Acute - systemic effects, inhalation 0.3 mg/m³ Acute - local effects, inhalation 0.3 mg/m³ Acute - local effects, inhalation 0.1 mg/m³ Long-term - systemic effects, dermal 0.014 mg/kg bodyweight/day Long-term - local effects, inhalation 0.3 mg/m³ DNEL/DMEL (General population) Long-term - systemic effects, oral 1.5 mg/kg bodyweight/day PNEC (Water) PNEC aqua (freshwater) 1.25 mg/l PNEC aqua (intermittent, freshwater) 1.25 mg/l PNEC aqua (intermittent, freshwater) 1.25 mg/l PNEC sediment (freshwater) 4.5 mg/kg dwt PNEC sediment (freshwater) 0.45 mg/kg dwt PNEC sediment (marine water) 0.45 mg/kg dwt PNEC soil 11.5 mg/kg dwt PNEC (Soil) PNEC (Oral) PNEC (Oral) PNEC (SECONIA) PNEC	PNEC soil	1.29 mg/kg dwt
DNEL/DMEL (Workers) Acute - systemic effects, dermal 0.042 mg/kg bodyweight/day Acute - systemic effects, inhalation 0.3 mg/m³ Acute - local effects, inhalation 0.3 mg/m³ Acute - local effects, inhalation 0.14 mg/kg bodyweight/day Long-term - systemic effects, dermal 0.014 mg/kg bodyweight/day Long-term - systemic effects, inhalation 0.1 mg/m² Long-term - systemic effects, inhalation 0.3 mg/m³ DNEL/DMEL (General population) Long-term - systemic effects, inhalation 0.3 mg/m³ DNEL/DMEL (General population) Long-term - systemic effects, oral 1.5 mg/kg bodyweight/day PNEC (Water) PNEC aqua (freshwater) 1.25 mg/l PNEC aqua (intermittent, freshwater) 0.125 mg/l PNEC aqua (intermittent, freshwater) 1.25 mg/l PNEC sediment) PNEC sediment (freshwater) 4.5 mg/kg dwt PNEC sediment (freshwater) 0.45 mg/kg dwt PNEC (Soil) PNEC (Soil) PNEC (Oral) PNEC (Gral) PNEC (SECONDATY poisoning) 4.6 mg/kg food	PNEC (STP)	
DNEL/DMEL (Workers) Acute - systemic effects, dermal 0.042 mg/kg bodyweight/day Acute - systemic effects, inhalation 0.3 mg/m³ Acute - local effects, inhalation 0.3 mg/m³ Acute - local effects, inhalation 0.1 mg/m³ Long-term - systemic effects, dermal 0.014 mg/kg bodyweight/day Long-term - systemic effects, inhalation 0.1 mg/m³ Long-term - systemic effects, inhalation 0.3 mg/m³ DNEL/DMEL (General population) Long-term - systemic effects, acral 1.5 mg/kg bodyweight/day PNEC (Water) PNEC aqua (freshwater) 1.25 mg/l PNEC aqua (freshwater) 1.25 mg/l PNEC aqua (intermittent, freshwater) 1.25 mg/l PNEC aqua (intermittent, freshwater) 1.25 mg/l PNEC sediment (freshwater) 4.5 mg/kg dwt PNEC sediment (freshwater) 0.45 mg/kg dwt PNEC sediment (freshwater) 1.5 mg/kg dwt PNEC soil 1.5 mg/kg dwt PNEC (Soil) PNEC (Oral) PNEC (Oral) PNEC (Oral) PNEC (STP)	PNEC sewage treatment plant	100 mg/l
Acute - systemic effects, inhalation 0.3 mg/m³ Acute - local effects, inhalation 0.3 mg/m³ Long-term - systemic effects, inhalation 0.1 mg/kg bodyweight/day Long-term - systemic effects, inhalation 0.1 mg/m³ Long-term - systemic effects, inhalation 0.1 mg/m³ Long-term - local effects, inhalation 0.3 mg/m³ NEL/DMEL (General population) Long-term - systemic effects, ornal 1.5 mg/kg bodyweight/day PNEL/OMEL (General population) Long-term - systemic effects, oral 1.5 mg/kg bodyweight/day PNEC (Water) PNEC aqua (freshwater) 1.25 mg/l PNEC aqua (marine water) 0.125 mg/l PNEC aqua (intermittent, freshwater) 1.25 mg/l PNEC aqua (intermittent, freshwater) 1.25 mg/l PNEC sediment (freshwater) 4.5 mg/kg dwt PNEC sediment (freshwater) 0.45 mg/kg dwt PNEC sediment (marine water) 0.45 mg/kg dwt PNEC sediment (marine water) 1.5 mg/kg dwt PNEC soil 11.5 mg/kg dwt PNEC (oral) PNEC oral (secondary poisoning) 4.6 mg/kg food PNEC (STP)	piperazine; [solid] (110-85-0)	
Acute - systemic effects, inhalation 0.3 mg/m³ Acute - local effects, inhalation 0.3 mg/m³ Long-term - systemic effects, inhalation 0.1 mg/m³ Long-term - local effects, inhalation 0.1 mg/m³ Long-term - local effects, inhalation 0.3 mg/m³ DNEL/DMEL (General population) Long-term - systemic effects, oral 1.5 mg/kg bodyweight/day PNEC (Water) PNEC aqua (freshwater) 1.25 mg/l PNEC aqua (marine water) 0.125 mg/l PNEC aqua (intermittent, freshwater) 1.25 mg/l PNEC sediment (freshwater) 4.5 mg/kg dwt PNEC sediment (freshwater) 4.5 mg/kg dwt PNEC sediment (marine water) 0.45 mg/kg dwt PNEC sediment (marine water) 1.5 mg/kg dwt PNEC sediment (systemater) 1.5 mg/kg dwt PNEC soil 1.5 mg/kg dwt PNEC soil 1.5 mg/kg dwt PNEC soil 1.5 mg/kg dwt PNEC (Soil) PNEC soil 3.6 mg/kg food PNEC (STP)	DNEL/DMEL (Workers)	
Acute - local effects, inhalation 0.3 mg/m³ Long-term - systemic effects, dernal 0.014 mg/kg bodyweight/day Long-term - systemic effects, inhalation 0.1 mg/m³ Long-term - local effects, inhalation 0.3 mg/m³ DNEL/DMEL (General population) Long-term - systemic effects, oral 1.5 mg/kg bodyweight/day PNEC (Water) PNEC aqua (freshwater) 1.25 mg/l PNEC aqua (marine water) 0.125 mg/l PNEC aqua (intermittent, freshwater) 1.25 mg/l PNEC sediment (freshwater) 4.5 mg/kg dwt PNEC sediment (freshwater) 0.45 mg/kg dwt PNEC sediment (marine water) 0.45 mg/kg dwt PNEC sediment (marine water) 1.5 mg/kg dwt PNEC sediment (marine water) 0.45 mg/kg dwt PNEC sediment (marine water) 0.45 mg/kg dwt PNEC soil 1.5 mg/kg dwt PNEC (Soil) PNEC (Soil) PNEC (Oral) PNEC (Oral) PNEC (SETP)	Acute - systemic effects, dermal	0.042 mg/kg bodyweight/day
Long-term - systemic effects, dermal 0.014 mg/kg bodyweight/day Long-term - systemic effects, inhalation 0.1 mg/m³ Long-term - local effects, inhalation 0.3 mg/m³ DNEL/DMEL (General population) Long-term - systemic effects, oral 1.5 mg/kg bodyweight/day PNEC (Water) PNEC aqua (freshwater) 1.25 mg/l PNEC aqua (marine water) 0.125 mg/l PNEC aqua (intermittent, freshwater) 1.25 mg/l PNEC sediment) PNEC sediment (freshwater) 4.5 mg/kg dwt PNEC sediment (marine water) 0.45 mg/kg dwt PNEC sediment (marine water) 1.5 mg/kg dwt PNEC sediment (marine water) 4.5 mg/kg dwt PNEC sediment (marine water) 4.5 mg/kg dwt PNEC sediment (marine water) 4.5 mg/kg dwt PNEC (Soil) PNEC (Soil) PNEC (Soil) PNEC (Oral) PNEC (Oral) PNEC (STP)	Acute - systemic effects, inhalation	0.3 mg/m³
Long-term - systemic effects, inhalation 0.1 mg/m³ DNEL/DMEL (General population) Long-term - systemic effects, oral 1.5 mg/kg bodyweight/day PNEC (Water) PNEC aqua (freshwater) 1.25 mg/l PNEC aqua (marine water) 0.125 mg/l PNEC aqua (intermittent, freshwater) 1.25 mg/l PNEC sediment (freshwater) 1.25 mg/l PNEC sediment (freshwater) 4.5 mg/kg dwt PNEC sediment (marine water) 0.45 mg/kg dwt PNEC sediment (marine water) 1.5 mg/kg dwt PNEC sediment (marine water) 4.5 mg/kg dwt PNEC sediment (marine water) 4.5 mg/kg dwt PNEC soil 11.5 mg/kg dwt PNEC (Soil) PNEC (Soil) PNEC (Soil) PNEC (Soil) 1.5 mg/kg food PNEC (StP)	Acute - local effects, inhalation	0.3 mg/m³
Long-term - local effects, inhalation 0.3 mg/m³ DNEL/DMEL (General population) Long-term - systemic effects, oral 1.5 mg/kg bodyweight/day PNEC (Water) PNEC aqua (freshwater) 1.25 mg/l PNEC aqua (marine water) 0.125 mg/l PNEC aqua (intermittent, freshwater) 1.25 mg/l PNEC sediment(freshwater) 4.5 mg/kg dwt PNEC sediment (freshwater) 0.45 mg/kg dwt PNEC sediment (marine water) 0.45 mg/kg dwt PNEC sediment (marine water) 1.5 mg/kg dwt PNEC sediment (marine water) 4.5 mg/kg dwt PNEC (Soil) PNEC (Soil) 11.5 mg/kg dwt PNEC (Oral) PNEC (Oral) 4.6 mg/kg food PNEC (STP)	Long-term - systemic effects, dermal	0.014 mg/kg bodyweight/day
DNEL/DMEL (General population) Long-term - systemic effects, oral 1.5 mg/kg bodyweight/day PNEC (Water) PNEC aqua (freshwater) 1.25 mg/l PNEC aqua (marine water) 0.125 mg/l PNEC aqua (intermittent, freshwater) 1.25 mg/l PNEC (Sediment) PNEC (Sediment) PNEC sediment (freshwater) 4.5 mg/kg dwt PNEC sediment (marine water) 0.45 mg/kg dwt PNEC sediment (marine water) 1.5 mg/kg dwt PNEC (Soil) PNEC (Soil) PNEC (Soil) PNEC (Oral) PNEC oral (secondary poisoning) 4.6 mg/kg food PNEC (STP)	Long-term - systemic effects, inhalation	0.1 mg/m³
Long-term - systemic effects,oral PNEC (Water) PNEC aqua (freshwater) PNEC aqua (marine water) PNEC aqua (intermittent, freshwater) PNEC (sediment) PNEC (sediment) PNEC sediment (freshwater) PNEC sediment (marine water) PNEC sediment (marine water) PNEC soil PNEC (soil) PNEC (soil) PNEC (soil) PNEC (soil) PNEC (oral) PNEC (oral) PNEC (secondary poisoning) 4.6 mg/kg food PNEC (STP)	Long-term - local effects, inhalation	0.3 mg/m³
PNEC (Water) PNEC aqua (freshwater) 1.25 mg/l PNEC aqua (marine water) 0.125 mg/l PNEC aqua (intermittent, freshwater) 1.25 mg/l PNEC (Sediment) PNEC (Sediment) PNEC sediment (freshwater) 4.5 mg/kg dwt PNEC sediment (marine water) 0.45 mg/kg dwt PNEC (Soil) PNEC (Soil) PNEC (Soil) PNEC (Oral) PNEC oral (secondary poisoning) 4.6 mg/kg food PNEC (STP)	DNEL/DMEL (General population)	
PNEC aqua (freshwater) PNEC aqua (marine water) PNEC aqua (intermittent, freshwater) PNEC (Sediment) PNEC sediment (freshwater) PNEC sediment (marine water) PNEC sediment (marine water) PNEC sediment (marine water) PNEC (Soil) PNEC (Soil) PNEC (Soil) PNEC (Oral) PNEC (STP)	Long-term - systemic effects,oral	1.5 mg/kg bodyweight/day
PNEC aqua (marine water) 0.125 mg/l PNEC aqua (intermittent, freshwater) 1.25 mg/l PNEC (Sediment) PNEC sediment (freshwater) 4.5 mg/kg dwt PNEC sediment (marine water) 0.45 mg/kg dwt PNEC (Soil) PNEC (Soil) PNEC (Oral) PNEC (Oral) PNEC (STP)	PNEC (Water)	
PNEC aqua (intermittent, freshwater) PNEC (Sediment) PNEC sediment (freshwater) 4.5 mg/kg dwt PNEC sediment (marine water) 0.45 mg/kg dwt PNEC (Soil) PNEC (Soil) PNEC (Soil) PNEC (Oral) PNEC (Oral) PNEC (STP)	PNEC aqua (freshwater)	1.25 mg/l
PNEC (Sediment (freshwater) 4.5 mg/kg dwt PNEC sediment (marine water) 0.45 mg/kg dwt PNEC (Soil) PNEC soil 11.5 mg/kg dwt PNEC (Oral) PNEC (oral (secondary poisoning) 4.6 mg/kg food PNEC (STP)	PNEC aqua (marine water)	0.125 mg/l
PNEC sediment (freshwater) 4.5 mg/kg dwt PNEC sediment (marine water) 0.45 mg/kg dwt PNEC (Soil) PNEC soil PNEC soil PNEC oral (secondary poisoning) 4.6 mg/kg food PNEC (STP)	PNEC aqua (intermittent, freshwater)	1.25 mg/l
PNEC sediment (marine water) O.45 mg/kg dwt PNEC (Soil) PNEC soil 11.5 mg/kg dwt PNEC (Oral) PNEC oral (secondary poisoning) 4.6 mg/kg food PNEC (STP)	PNEC (Sediment)	
PNEC (Soil) PNEC soil 11.5 mg/kg dwt PNEC (Oral) PNEC oral (secondary poisoning) 4.6 mg/kg food PNEC (STP)	PNEC sediment (freshwater)	4.5 mg/kg dwt
PNEC soil 11.5 mg/kg dwt PNEC (Oral) PNEC oral (secondary poisoning) 4.6 mg/kg food PNEC (STP)	PNEC sediment (marine water)	0.45 mg/kg dwt
PNEC (Oral) PNEC oral (secondary poisoning) 4.6 mg/kg food PNEC (STP)	PNEC (Soil)	
PNEC oral (secondary poisoning) 4.6 mg/kg food PNEC (STP)	PNEC soil	11.5 mg/kg dwt
PNEC (STP)	PNEC (Oral)	
	PNEC oral (secondary poisoning)	4.6 mg/kg food
PNEC sewage treatment plant 54 mg/l	PNEC (STP)	
	PNEC sewage treatment plant	54 mg/l

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

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8.2.2. Personal protection equipment

8.2.2.1. Eye and face protection

Eye protection:

Wear closed safety glasses. EN 166. Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing. EN ISO 13688. EN 13034

Hand protection:

Chemically resistant protective gloves. Nitrile rubber. EN 374. Choosing the proper glove is a decision that depends not only on the type of material, but also on other quality features, which differ for each manufacturer. Please follow the instructions related to the permeability and the penetration time provided by the manufacturer. Gloves must be replaced after each use and whenever signs of wear or perforation appear

8.2.2.3. Respiratory protection

Respiratory protection:

In case of unintentional release of substance, exceeding the occupational exposure limit value. Breathing apparatus with filter. A2-P2. EN 143. Breathing equipment is only to be used in order to handle the residual risk of short term jobs if all other risk minimizing measures have been carried out e.g. retention and/or local exhaust.

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

Other information:

Do not eat, drink or smoke when using this product. Avoid contact with skin and eyes. Always wash hands after handling the product.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

: Liquid Physical state yellowish. Colour Appearance : clear. : Not available Odour Odour threshold : Not available Melting point : Not applicable Freezing point : Not available Boiling point : Not available Flammability (solid, gas) : Not applicable

Explosive properties : Product is not explosive. Explosive vapour/air mixtures may be formed.

Oxidising properties : Non oxidizing. Explosive limits : Not available Lower explosive limit (LEL) : Not available : Not available Upper explosive limit (UEL) Flash point : Not available : Not available Auto-ignition temperature : Not available Decomposition temperature рΗ : 11.5 – 12.5 (20° C) Viscosity, kinematic : Not available Not available Solubility Partition coefficient n-octanol/water (Log Kow) : Not available Vapour pressure Not available Vapour pressure at 50 °C Not available Density $0.98 - 1 \text{ g/cm}^3$ Not available Relative density Relative vapour density at 20 °C Not available Particle size Not applicable Particle size distribution : Not applicable

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Particle shape : Not applicable
Particle aspect ratio : Not applicable
Particle aggregation state : Not applicable
Particle agglomeration state : Not applicable
Particle specific surface area : Not applicable
Particle dustiness : Not applicable

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

The product is non-reactive under normal conditions of use, storage and transport. Highly flammable liquid and vapour.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

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

Acute toxicity (oral) : Harmful if swallowed.

Acute toxicity (dermal) : Not classified (Based on available data, the classification criteria are not met)

Acute toxicity (inhalation) : Not classified (Based on available data, the classification criteria are not met)

Instru Sept AF			
ATE CLP (oral)	996.57 mg/kg bodyweight		
ATE CLP (dermal)	> 5000 mg/kg bodyweight		
ATE CLP (vapours) 37.5 mg/l/4h			
Alcohols, C9-11-iso-, C10-rich, ethoxylated (78330-20-8)			
LD50 oral rat 300 – 2000 mg/kg bodyweight			
LD50 dermal rat > 5000 mg/kg bodyweight			
tetrasodium ethylene diamine tetraacetate (64-02-8)			
LD50 oral rat	1780 mg/kg bodyweight		
LC50 Inhalation - Rat ≈ 30 mg/m³ air (OECD 412 method)			

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didecyldimethylammonium chloride (7173-51	-5)		
LD50 oral rat	264 mg/kg bodyweight (female; (OECD 401 method))		
LD50 dermal rat	> 2000 mg/kg bodyweight (OECD 402 method)		
Amines, N-C12-14-alkyltrimethylenedi- (90640	0-43-0)		
LD50 oral rat	200 mg/kg bodyweight (OECD 423 method)		
N-(3-aminopropyl)-N-dodecylpropane-1,3-dia	mine (2372-82-9)		
LD50 oral rat	261 mg/kg (OECD 401 method)		
LD50 dermal rat	> 2000 mg/kg		
2-aminoethanol (141-43-5)			
LD50 oral rat	≈ 1089 mg/kg (OECD 401 method)		
LD50 dermal rabbit	2504 mg/kg bodyweight (male; (OECD 402 method))		
LC50 Inhalation - Rat (Vapours)	> 1.3 mg/l (6 h; Maximum concentration)		
Skin corrosion/irritation :	Causes severe skin burns. pH: 11.5 – 12.5 (20° C)		
Serious eye damage/irritation :	Causes serious eye damage. pH: 11.5 – 12.5 (20° C)		
Respiratory or skin sensitisation :	May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.		
3 ,	Not classified (Based on available data, the classification criteria are not met)		
Carcinogenicity : Reproductive toxicity :	Not classified (Based on available data, the classification criteria are not met) Not classified (Based on available data, the classification criteria are not met)		
2-aminoethanol (141-43-5)	Not classified (based on available data, the classification citiena are not met)		
NOAEL (animal/male, F0/P)	300 mg/kg bodyweight/day (rat (OECD 416 method))		
NOAEL (animal/female, F0/P)	300 mg/kg bodyweight/day (rat (OECD 416 method))		
NOAEL (animal/male, F1)	1000 mg/kg bodyweight/day (rat (OECD 416 method))		
NOAEL (animal/female, F1)	1000 mg/kg bodyweight/day (rat (OECD 416 method))		
STOT-single exposure	May cause respiratory irritation.		
dodecylamine (124-22-1)			
STOT-single exposure	May cause respiratory irritation.		
2-aminoethanol (141-43-5)			
STOT-single exposure	May cause respiratory irritation.		
STOT-repeated exposure :	May cause damage to organs through prolonged or repeated exposure.		
tetrasodium ethylene diamine tetraacetate (64-02-8)			
NOAEL (oral, rat, 90 days)	≥ 500 mg/kg bodyweight/day Read-across		
NOAEC (inhalation, rat, dust/mist/fume, 90 days)	> 15 mg/m³ Read-across		
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.		
Amines, N-C12-14-alkyltrimethylenedi- (90640-43-0)			
STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure.		
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine (2372-82-9)			
STOT-repeated exposure	May cause damage to organs (kidneys) through prolonged or repeated exposure.		

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dodecylamine (124-22-1)	
STOT-repeated exposure	May cause damage to organs (liver, immune system, intestinal tract) through prolonged or repeated exposure (oral).
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Hazardous to the aquatic environment, short-term : Very toxic to aquatic life.

(acute)

Hazardous to the aquatic environment, long-term : Toxic to aquatic life with long lasting effects.

Toxic to aquatic life with long lasting effects.			
8330-20-8)			
10 – 100 mg/l			
10 – 100 mg/l			
tetrasodium ethylene diamine tetraacetate (64-02-8)			
41 mg/l (96h; Lepomis macrochirus; very soft water; Read-across)			
140 mg/l (48h; Daphnia magna; Read-across)			
> 100 mg/l (Pseudokirchneriella subcapitata; Read-across)			
25 mg/l (21d; Daphnia magna)			
≥ 25.7 mg/l (35d; Danio rerio; (OECD 210 method))			
didecyldimethylammonium chloride (7173-51-5)			
0.49 mg/l (96 h; Brachydanio rerio (zebra-fish); (OECD 203 method))			
≈ 0.057 mg/l (48 h; Daphnia magna; (OECD 202 method))			
≈ 0.062 mg/l (72h; Pseudokirchneriella subcapitata; (OECD 201 method))			
0.062 mg/l (72 h; Pseudokirchnerella subcapitata (OECD 201 method))			
0.021 mg/l (21 d; Daphnia magna; (OECD 211 method))			
0.013 mg/l (OECD 201 method)			
-43-0)			
0.148 mg/l (96 h; Danio rerio; Read-across; (OECD 203 method))			
0.0652 mg/l (72 h; Pseudokirchneriella subcapitata; (OECD 201 method))			
0.032 mg/l (21 d; Daphnia magna; (OECD 211 method)			
0.0406 mg/l (EC10: 72 h; Pseudokirchneriella subcapitata; (OECD 201 method))			
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine (2372-82-9)			
0.431 mg/l (96 h; Danio rerio; (OECD 203 method))			
0.078 mg/l (48h; Daphnia magna; (OECD 202 method))			
0.015 mg/l (72 h; Pseudokirchneriella subcapitata; (OECD 201 method))			
0.024 mg/l (21 d; Daphnia magna; (OECD 211 method))			
0.009 mg/l (72 h; Desmodesmus subspicatus; (OECD 201 method))			

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dodecylamine (124-22-1)				
LC50 - Fish [1] 0.42 mg/l (96 h; Danio rerio; (OECD 203 method))				
EC50 - Crustacea [1]	0.15 mg/l (48 h; Daphnia magna; (OECD 202 method))			
ErC50 algae	0.05 mg/l (72 h; Pseudokirchneriella subcapitata; (OECD 201 method))			
NOEC chronic crustacea	0.013 mg/l (21 d; Daphnia magna; Read-across; (OECD 211 method))			
2-aminoethanol (141-43-5)				
LC50 - Fish [1]	349 mg/l (96 h; Cyprinus carpio; Directive 92/69/EEC, C.1)			
EC50 - Crustacea [1]	27.04 mg/l (48 h; Daphnia magna; (OECD 202 method))			
ErC50 algae	2.8 mg/l (72 h; Pseudokirchneriella subcapitata; (OECD 201 method))			
NOEC chronic fish	1.24 mg/l (41 d; Oryzias latipes; (OECD 210 method))			
NOEC chronic crustacea	0.85 mg/l (21 d; Daphnia magna; (OECD 202 method))			
NOEC chronic algae	1 mg/l (72 h; Pseudokirchneriella subcapitata; (OECD 201 method))			
12.2. Persistence and degradability				
ethanol (64-17-5)				
Persistence and degradability	Readily biodegradable.			
Biodegradation	84 % (20 d)			
(2-Methoxymethylethoxy)propanol (34590-94-8)				
Persistence and degradability	Readily biodegradable.			
Biodegradation	96 % (28 d; (OECD 301F method))			
tetrasodium ethylene diamine tetraacetate (64	4-02-8)			
Persistence and degradability	Biodegradable.			
Biodegradation	54.9 % (20d; Read-across)			
propan-2-ol (67-63-0)				
Persistence and degradability	Readily biodegradable.			
Biodegradation	53 % (5 d ; Test method EU C.5)			
didecyldimethylammonium chloride (7173-51	-5)			
Persistence and degradability	Readily biodegradable.			
Biodegradation	69 % (28d)			
Amines, N-C12-14-alkyltrimethylenedi- (90640-43-0)				
Persistence and degradability	Readily biodegradable.			
Biodegradation	66 % (28 d; Read-across; (OECD 301D method))			
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine (2372-82-9)				
Persistence and degradability	Readily biodegradable.			
Biodegradation	79 % (28 d; (OECD 301D method))			
dodecylamine (124-22-1)				
Persistence and degradability	Readily biodegradable.			

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2-aminoethanol (141-43-5)	
Readily biodegradable.	
> 90 % (21 d; (OECD 301A method))	

12.3. Bioaccumulative potential

12.0. Biodocamaidative potential			
ethanol (64-17-5)			
Partition coefficient n-octanol/water (Log Kow)	-0.35 (20 °C)		
Bioaccumulative potential	Bioaccumulation unlikely.		
(2-Methoxymethylethoxy)propanol (34590-94-	8)		
Partition coefficient n-octanol/water (Log Pow)	0.004 (25 °C; pH 7.5 - 7.7; (OECD 107 method))		
Bioaccumulative potential	Bioaccumulation unlikely.		
tetrasodium ethylene diamine tetraacetate (64	I-02-8)		
BCF - Fish [1]	1.1 (28d; Lepomis macrochirus)		
propan-2-ol (67-63-0)			
Partition coefficient n-octanol/water (Log Pow)	0.05 (25 °C)		
Bioaccumulative potential	Bioaccumulation unlikely.		
didecyldimethylammonium chloride (7173-51-5)			
Partition coefficient n-octanol/water (Log Pow) 2.59 (20 °C; (OECD 105 method))			
Amines, N-C12-14-alkyltrimethylenedi- (90640	Amines, N-C12-14-alkyltrimethylenedi- (90640-43-0)		
Partition coefficient n-octanol/water (Log Pow) -0.61 (24,7 °C, pH 6,8; (OECD 123 method))			
N-(3-aminopropyl)-N-dodecylpropane-1,3-diar	N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine (2372-82-9)		
Partition coefficient n-octanol/water (Log Pow)	0.34 (20 °C; Quantitative structure-activity relationship (QSAR))		
dodecylamine (124-22-1)			
Partition coefficient n-octanol/water (Log Pow)	1.16 – 9.16 At 20-25°C		
2-aminoethanol (141-43-5)			
BCF - Fish [1]	2.5 l/kg (Quantitative structure-activity relationship (QSAR))		
Partition coefficient n-octanol/water (Log Pow)	-2.3 (25 °C; pH 6.8 - 7.3; (OECD 107 method))		
Bioaccumulative potential	Bioaccumulation unlikely.		

12.4. Mobility in soil

ethanol (64-17-5)			
Surface tension 22.31 mN/m (20 °C)			
(2-Methoxymethylethoxy)propanol (34590-94-8)			
Surface tension 68.7 mN/m (20 °C; 1 g/L; (OECD 115 method))			
tetrasodium ethylene diamine tetraacetate (64-02-8)			
Ecology - soil No additional information available.			
propan-2-ol (67-63-0)			
Ecology - soil	Expected to be highly mobile in soil.		

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didecyldimethylammonium chloride (7173-51-5)		
Surface tension 25.82 mN/m (OECD 115 method)		
2-aminoethanol (141-43-5)		
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	0.067 (25 °C; Quantitative structure-activity relationship (QSAR))	

12.5. Results of PBT and vPvB assessment

Instru Sept AF			
PBT: not relevant – no registration required			
vPvB: not relevant – no registration required	vPvB: not relevant – no registration required		
Component			
(2-Methoxymethylethoxy)propanol (34590-94-8)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII		
2-aminoethanol (141-43-5)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII		
didecyldimethylammonium chloride (7173-51-5)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII		
Alcohols, C9-11-iso-, C10-rich, ethoxylated (78330-20-8)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII		
ethanol (64-17-5)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII		
tetrasodium ethylene diamine tetraacetate (64-02-8)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII		
Amines, N-C12-14-alkyltrimethylenedi- (90640-43-0)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII		
propan-2-ol (67-63-0)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII		
N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine (2372-82-9)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII		
dodecylamine (124-22-1)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII		

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

Product/Packaging disposal recommendations

13.1. Waste treatment methods

Additional information

Waste treatment methods : Disposal must be done according to official regulations. European waste catalogue. Do not discharge into drains or the environment. Do not dispose of with domestic waste.

: Recycle or dispose of in compliance with current legislation.

: Flammable vapours may accumulate in the container.

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HP Code

- : HP3 "Flammable:"
 - flammable liquid waste: liquid waste having a flash point below 60 °C or waste gas oil, diesel and light heating oils having a flash point > 55 °C and ≤ 75 °C;
 - flammable pyrophoric liquid and solid waste: solid or liquid waste which, even in small quantities, is liable to ignite within five minutes after coming into contact with air;
 - flammable solid waste: solid waste which is readily combustible or may cause or contribute to fire through friction;
 - flammable gaseous waste: gaseous waste which is flammable in air at 20 °C and a standard pressure of 101.3 kPa;
 - water reactive waste: waste which, in contact with water, emits flammable gases in dangerous quantities;
 - other flammable waste: flammable aerosols, flammable self-heating waste, flammable organic peroxides and flammable self-reactive waste.
 - HP5 "Specific Target Organ Toxicity (STOT)/Aspiration Toxicity:" waste which can cause specific target organ toxicity either from a single or repeated exposure, or which cause acute toxic effects following aspiration.
 - HP8 "Corrosive:" waste which on application can cause skin corrosion.
 - HP14 "Ecotoxic:" waste which presents or may present immediate or delayed risks for one or more sectors of the environment
 - HP6 "Acute Toxicity:" waste which can cause acute toxic effects following oral or dermal administration, or inhalation exposure.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID n	umber			
UN 2920	UN 2920	UN 2920	UN 2920	UN 2920
14.2. UN proper shippin	g name			
CORROSIVE LIQUID, FLAMMABLE, N.O.S. (ethanol; 2-aminoethanol)	CORROSIVE LIQUID, FLAMMABLE, N.O.S. (ethanol; 2-aminoethanol)	Corrosive liquid, flammable, n.o.s. (ethanol; 2- aminoethanol)	CORROSIVE LIQUID, FLAMMABLE, N.O.S. (ethanol ; 2-aminoethanol)	CORROSIVE LIQUID, FLAMMABLE, N.O.S. (ethanol; 2-aminoethanol)
Transport document descr	iption			
UN 2920 CORROSIVE LIQUID, FLAMMABLE, N.O.S. (ethanol; 2- aminoethanol), 8 (3), II, (D/E), ENVIRONMENTALLY HAZARDOUS	UN 2920 CORROSIVE LIQUID, FLAMMABLE, N.O.S. (ethanol; 2- aminoethanol), 8 (3), II, MARINE POLLUTANT/ENVIRONME NTALLY HAZARDOUS	UN 2920 Corrosive liquid, flammable, n.o.s. (ethanol; 2-aminoethanol), 8 (3), II, ENVIRONMENTALLY HAZARDOUS	UN 2920 CORROSIVE LIQUID, FLAMMABLE, N.O.S. (ethanol; 2- aminoethanol), 8 (3), II, ENVIRONMENTALLY HAZARDOUS	UN 2920 CORROSIVE LIQUID, FLAMMABLE, N.O.S. (ethanol; 2- aminoethanol), 8 (3), II, ENVIRONMENTALLY HAZARDOUS
14.3. Transport hazard	class(es)			
8 (3)	8 (3)	8 (3)	8 (3)	8 (3)
8	8 3	8 3	8 3	8 3
14.4. Packing group				
II	II	II	II	II

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ADR	IMDG	IATA	ADN	RID
14.5. Environmental hazards				
Dangerous for the environment: Yes	Dangerous for the environment: Yes Marine pollutant: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes
No supplementary information available				

14.6. Special precautions for user

Overland transport

Classification code (ADR) : CF1
Special provisions (ADR) : 274
Limited quantities (ADR) : 11
Excepted quantities (ADR) : E2
Transport category (ADR) : 2
Hazard identification number (Kemler No.) : 83

Orange plates :

83 2920

Tunnel restriction code (ADR) : D/E
EAC code : •3W
APP code : A(fl)

Transport by sea

Special provisions (IMDG) : 274
Limited quantities (IMDG) : 1 L
Excepted quantities (IMDG) : E2
EmS-No. (Fire) : F-E
EmS-No. (Spillage) : S-C
Stowage and handling (IMDG) : SW1, SW2

Air transport

PCA Excepted quantities (IATA) : E2
PCA Limited quantities (IATA) : Y840
PCA limited quantity max net quantity (IATA) : 0.5L
PCA packing instructions (IATA) : 851
PCA max net quantity (IATA) : 1L
CAO max net quantity (IATA) : 30L

Inland waterway transport

Classification code (ADN) : CF1
Special provisions (ADN) : 274
Limited quantities (ADN) : 1 L
Excepted quantities (ADN) : E2
Carriage permitted (ADN) : T
Additional requirements/Remarks (ADN) :

Rail transport

Classification code (RID) : CF1
Special provisions (RID) : 274
Limited quantities (RID) : 1L
Excepted quantities (RID) : E2
Transport category (RID) : 2
Hazard identification number (RID) : 83

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

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SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

EU restriction list (REACH Annex XVII)		
Reference code	Applicable on	
3(a)	Instru Sept AF ; ethanol ; propan-2-ol	
3(b)	Instru Sept AF; ethanol; Alcohols, C9-11-iso-, C10-rich, ethoxylated; propan-2-ol; Amines, N-C12-14-alkyltrimethylenedi-; N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine; ; 2-aminoethanol	
3(c)	Instru Sept AF; Amines, N-C12-14-alkyltrimethylenedi-; N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine; ; 2-aminoethanol	
40.	Instru Sept AF; ethanol; propan-2-ol; piperazine; [solid]	

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Substances subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 july 2012 concerning the export and import of hazardous chemicals: Didecyldimethylammonium chloride (7173-51-5)

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

Other information, restriction and prohibition regulations

: Take note of Directive 94/33/EC on the protection of young people at work. Regulation (EU) 2017/745 of the European Parliament and of the Council of 5 April 2017 on medical devices, amending Directive 2001/83/EC, Regulation (EC) No 178/2002 and Regulation (EC) No 1223/2009 and repealing Council Directives 90/385/EEC and 93/42/EEC.

Directive 2012/18/EU (SEVESO III)

Seveso III Part I (Categories of dangerous substances)	Qualifying quantity (tonnes)	
	Lower-tier	Upper-tier
P5c FLAMMABLE LIQUIDS Flammable liquids, Categories 2 or 3 not covered by P5a and P5b	5000	50000
E1 Hazardous to the Aquatic Environment in Category Acute 1 or Chronic 1	100	200

15.1.2. National regulations

United Kingdom

National regulations

: This safety data sheet is for informational purposes only and does not comply with national legal requirements without reference to a national distributor. The national distributor is responsible for a legally compliant safety data sheet.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:		
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways	
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road	
ATE	Acute Toxicity Estimate	
BCF	Bioconcentration factor	
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008	
DMEL	Derived Minimal Effect level	

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Abbreviations and acronyms:		
DNEL	Derived-No Effect Level	
EC50	Median effective concentration	
IARC	International Agency for Research on Cancer	
IATA	International Air Transport Association	
IMDG	International Maritime Dangerous Goods	
LC50	Median lethal concentration	
LD50	Median lethal dose	
LOAEL	Lowest Observed Adverse Effect Level	
NOAEC	No-Observed Adverse Effect Concentration	
NOAEL	No-Observed Adverse Effect Level	
NOEC	No-Observed Effect Concentration	
OECD	Organisation for Economic Co-operation and Development	
PBT	Persistent Bioaccumulative Toxic	
PNEC	Predicted No-Effect Concentration	
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006	
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail	
SDS	Safety Data Sheet	
STP	Sewage treatment plant	
TLM	Median Tolerance Limit	
vPvB	Very Persistent and Very Bioaccumulative	

Data sources : Information provided by the manufacturer. MSDSs of the suppliers. European Chemicals

Agency, http://echa.europa.eu/.

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Department issuing data specification sheet:

Full text of H- and EUH-statements:		
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3	
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4	
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4	
Acute Tox. 4 (Inhalation:vapour)	Acute toxicity (inhalation:vapour) Category 4	
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4	
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1	
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1	
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2	
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3	

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Full text of H- and EUH-statements:			
Asp. Tox. 1	Aspiration hazard, Category 1		
EUH071	Corrosive to the respiratory tract.		
Eye Dam. 1	Serious eye damage/eye irritation, Category 1		
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2		
Flam. Liq. 2	Flammable liquids, Category 2		
Flam. Sol. 1	Flammable solids, Category 1		
H225	Highly flammable liquid and vapour.		
H228	Flammable solid.		
H301	Toxic if swallowed.		
H302	Harmful if swallowed.		
H304	May be fatal if swallowed and enters airways.		
H312	Harmful in contact with skin.		
H314	Causes severe skin burns and eye damage.		
H317	May cause an allergic skin reaction.		
H318	Causes serious eye damage.		
H319	Causes serious eye irritation.		
H332	Harmful if inhaled.		
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.		
H335	May cause respiratory irritation.		
H336	May cause drowsiness or dizziness.		
H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.		
H372	Causes damage to organs through prolonged or repeated exposure.		
H373	May cause damage to organs through prolonged or repeated exposure.		
H400	Very toxic to aquatic life.		
H410	Very toxic to aquatic life with long lasting effects.		
H411	Toxic to aquatic life with long lasting effects.		
H412	Harmful to aquatic life with long lasting effects.		
Repr. 2	Reproductive toxicity, Category 2		
Resp. Sens. 1	Respiratory sensitisation, Category 1		
Skin Corr. 1	Skin corrosion/irritation, Category 1		
Skin Corr. 1A	Skin corrosion/irritation, Category 1, Sub-Category 1A		
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B		
Skin Sens. 1	Skin sensitisation, Category 1		
STOT RE 1	Specific target organ toxicity — Repeated exposure, Category 1		
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2		
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation		

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:		
Flam. Liq. 2	H225	Calculation method

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Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:		
Acute Tox. 4 (Oral)	H302	Calculation method
Skin Corr. 1	H314	On basis of test data
Eye Dam. 1	H318	On basis of test data
Resp. Sens. 1	H334	Calculation method
Skin Sens. 1	H317	Calculation method
STOT SE 3	H335	Calculation method
STOT RE 2	H373	Calculation method
Aquatic Acute 1	H400	Calculation method
Aquatic Chronic 2	H411	Calculation method

KFT SDS EU 01

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.