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

1.1 Product identifier

Trade name : DETERULTRA

Product code : 000000000062691386

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

Use of the Substance/Mixture : Detergent

1.3 Details of the supplier of the safety data sheet

Company : Antec International Limited
Windham Road
CO10 2XD Sudbury / Suffolk
Chilton Industrial Estate, Great Britain

Responsible Department : +49 221 8885 2288
infosds@lanxess.com

1.4 Emergency telephone number

Emergency telephone number : For 24/7 multilingual emergency please call CHEMTREC EMEA: +44 20 3885 0382 and mention CCN1018725.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567)

Skin corrosion, Category 1	H314: Causes severe skin burns and eye damage.
Serious eye damage, Category 1	H318: Causes serious eye damage.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567)

Hazard pictograms :



Signal word : Danger

Hazard statements : H314 Causes severe skin burns and eye damage.

Precautionary statements :

Prevention:

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.

Response:

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.

P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.

P363 Wash contaminated clothing before reuse.

Storage:

P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Hazardous components which must be listed on the label:

sodium hydroxide
Glycine, N-methyl-, N-coco acyl derivs., sodium salts

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)

2-(2-butoxyethoxy)ethanol	112-34-5 203-961-6 603-096-00-8	Eye Irrit. 2; H319	>= 1 - < 10
sodium hydroxide	1310-73-2 215-185-5 011-002-00-6	Met. Corr. 1; H290 Skin Corr. 1A; H314 Eye Dam. 1; H318	>= 5 - < 10
Glycine, N-methyl-, N-coco acyl derivs., sodium salts	61791-59-1 263-193-2	Skin Irrit. 2; H315 Eye Dam. 1; H318	>= 1 - < 3
dodecan-1-ol	112-53-8 203-982-0	Eye Irrit. 2; H319 Aquatic Acute 1; H400 Aquatic Chronic 2; H411 _____ M-Factor (Acute aquatic toxicity): 1	>= 0.25 - < 1

Specific Concentration limits (Regulation (EC) No 1272/2008)

Chemical name	CAS-No. EC-No.	Classification	Concentration (%)
sodium hydroxide	1310-73-2 215-185-5	Skin Corr.1A; H314 Skin Corr.1B; H314 Skin Irrit.2; H315 Eye Irrit.2; H319	>= 5 % 2 - < 5 % 0.5 - < 2 % 0.5 - < 2 %
Glycine, N-methyl-, N-coco acyl derivs., sodium salts	61791-59-1 263-193-2	Eye Dam.1; H318 Skin Irrit.2; H315 Eye Irrit.2; H319	> 30 % > 30 % 1 - 30 %

For explanation of abbreviations see section 16.
Disclaimer: EC numbers starting with 1, 6, 7, 8, 9, or a letter in this document are ECHA List Numbers used for internal reference and do not carry legal significance as typical EC Numbers in Safety Data Sheets.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : Move out of dangerous area.
Consult a physician.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training.

If inhaled : Call a physician or poison control centre immediately.
If unconscious, place in recovery position and seek medical advice.

In case of skin contact : Wash off with soap and plenty of water.
Immediate medical treatment is necessary as untreated

wounds from corrosion of the skin heal slowly and with difficulty.

In case of eye contact	:	Immediately flush eye(s) with plenty of water. Continue rinsing eyes during transport to hospital. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.
If swallowed	:	Keep respiratory tract clear. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Take victim immediately to hospital.

4.2 Most important symptoms and effects, both acute and delayed

Risks	:	Causes serious eye damage. Causes severe burns.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment	:	Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	:	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable extinguishing media	:	High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting	:	Do not allow run-off from fire fighting to enter drains or water courses.
Hazardous combustion products	:	Carbon dioxide (CO2) Carbon monoxide Metal oxides Nitrogen oxides (NOx)

5.3 Advice for firefighters

Special protective equipment for firefighters	:	Wear self-contained breathing apparatus for firefighting if necessary.
Further information	:	Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment.
Ensure adequate ventilation.

6.2 Environmental precautions

Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Neutralise with acid.
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For personal protection see section 8., For disposal considerations see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Avoid formation of aerosol.
Do not breathe vapours/dust.
Avoid exposure - obtain special instructions before use.
Avoid contact with skin and eyes.
For personal protection see section 8.
Do not smoke.
Provide sufficient air exchange and/or exhaust in work rooms.
Dispose of rinse water in accordance with local and national regulations.

Smoking, eating and drinking should be prohibited in the application area.
Persons susceptible to skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Hygiene measures : When using do not eat or drink. When using do not smoke.
Wash hands before breaks and at the end of workday.

General industrial hygiene practice.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep container tightly closed in a dry and well-ventilated place. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.

Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Recommended storage temperature : 8 - 30 °C

Further information on storage stability : Stable under recommended storage conditions.

7.3 Specific end use(s)

No data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
2-(2-butoxyethoxy)ethanol	112-34-5	TWA	10 ppm 67.5 mg/m3	GB EH40
		STEL	15 ppm 101.2 mg/m3	GB EH40
		STEL	15 ppm 101.2 mg/m3	2006/15/EC
	Further information: Indicative			
		TWA	10 ppm 67.5 mg/m3	2006/15/EC
	Further information: Indicative			
sodium hydroxide	1310-73-2	STEL	2 mg/m3	GB EH40

8.2 Exposure controls

Engineering measures

If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Personal protective equipment

Eye/face protection : Tightly fitting safety goggles
Wear face-shield and protective suit for abnormal processing problems.

Hand protection

Material	:	Butyl rubber - IIR
Guideline	:	Equipment should conform to EN 374
Wearing time	:	< 60 min
Material	:	Nitrile rubber - NBR
Guideline	:	Equipment should conform to EN 374
Wearing time	:	< 60 min
Material	:	Polyvinyl chloride - PVC
Guideline	:	Equipment should conform to EN 374
Wearing time	:	< 60 min
Remarks	:	The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it. The suitability for a specific workplace should be discussed with the producers of the protective gloves. After contamination with product change the gloves immediately and dispose of them according to relevant national and local regulations
Skin and body protection	:	Choose body protection according to the amount and concentration of the dangerous substance at the work place. Impervious clothing
Respiratory protection	:	In the case of vapour formation use a respirator with an approved filter. Recommended Filter type:
Filter type	:	Combined inorganic and acidic gas/vapour, ammonia/amines and organic vapour type (ABEK)

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	:	liquid
Physical state	:	liquid
Colour	:	light yellow
Odour	:	slight characteristic
Odour Threshold	:	No data available

pH	:	13.7 Concentration: 100 %
Melting point/ range	:	No data available
Boiling point/boiling range	:	No data available
Flash point	:	> 100 °C Method: No information available.
Evaporation rate	:	No data available
Flammability	:	Not applicable Will not burn
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapour pressure	:	No data available
Relative vapour density	:	No data available
Relative density	:	1.08
Density	:	1.08 g/cm3 (20 °C)
Solubility(ies)		
Water solubility	:	No data available
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Decomposition temperature	:	No data available
Viscosity		
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	No data available
Explosive properties	:	Not explosive
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.

9.2 Other information

Surface tension	:	No data available
Metal corrosion rate	:	No data available
Particle size	:	Not applicable

Self-ignition : No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions :
Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid

Conditions to avoid : No data available

10.5 Incompatible materials

Materials to avoid : Acids
Oxidizing agents
Metals

10.6 Hazardous decomposition products

No hazardous decomposition products are known.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Not classified due to lack of data.

Components:

2-(2-butoxyethoxy)ethanol:

Acute oral toxicity : LD50 (Rat, male and female): > 5,000 mg/kg
Method: OECD Test Guideline 401
GLP: No

Acute inhalation toxicity : LC50 (Rat): > 29 ppm
Exposure time: 2 h
Test atmosphere: vapour
Method: Inhalation hazard test
GLP: No
Assessment: The substance or mixture has no acute inhalation toxicity
Remarks: Dosage caused no mortality

Acute dermal toxicity : LD50 (Rabbit, male): 2,764 mg/kg

Method: OECD Test Guideline 402
GLP: No
Assessment: The substance or mixture has no acute dermal toxicity
Remarks: Dosage caused no mortality

Glycine, N-methyl-, N-coco acyl derivs., sodium salts:

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg

dodecan-1-ol:

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): > 71 mg/l
Exposure time: 1 h
Test atmosphere: dust/mist
Remarks: Test results on an analogous substance/product.

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg

Skin corrosion/irritation

Causes severe burns.

Components:

2-(2-butoxyethoxy)ethanol:

Species : Rabbit
Method : OECD Test Guideline 404
Result : No skin irritation
GLP : No
Remarks : Mild skin irritation
Based on available data, the classification criteria are not met.

sodium hydroxide:

Species : Rabbit
Method : OECD Test Guideline 435
Result : Causes severe burns.
GLP : No

Glycine, N-methyl-, N-coco acyl derivs., sodium salts:

Assessment : Irritating to skin.
Remarks : Expert judgement

Species : Rabbit
Method : OECD Test Guideline 404
Result : No skin irritation
Remarks : Aqueous solution

dodecan-1-ol:

Remarks : slightly irritant
Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation

Causes serious eye damage.

Components:

2-(2-butoxyethoxy)ethanol:

Species	:	Rabbit
Method	:	OECD Test Guideline 405
Result	:	Irritating to eyes.
GLP	:	No information available.

sodium hydroxide:

Species	:	Rabbit
Method	:	OECD Test Guideline 405
Result	:	Risk of serious damage to eyes.

Glycine, N-methyl-, N-coco acyl derivs., sodium salts:

Method	:	OECD Test Guideline 405
Result	:	Risk of serious damage to eyes.

dodecan-1-ol:

Assessment	:	Irritating to eyes.

Respiratory or skin sensitisation

Skin sensitisation

Not classified due to lack of data.

Respiratory sensitisation

Not classified due to lack of data.

Components:

2-(2-butoxyethoxy)ethanol:

Test Type	:	Maximisation Test
Exposure routes	:	Skin contact
Species	:	Guinea pig
Method	:	OECD Test Guideline 406
Result	:	Did not cause sensitisation on laboratory animals.
GLP	:	No information available.

sodium hydroxide:

Species	:	Human
Assessment	:	Does not cause skin sensitisation.
GLP	:	No

dodecan-1-ol:

Exposure routes	:	Skin contact

Species	:	Guinea pig
Method	:	OECD Test Guideline 406
Result	:	Did not cause sensitisation on laboratory animals.

Germ cell mutagenicity

Not classified due to lack of data.

Components:

2-(2-butoxyethoxy)ethanol:

Genotoxicity in vitro : Test Type: Ames test
Test system: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
GLP: Yes

Test Type: Ames test
Test system: Escherichia coli
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
GLP: Yes

Test Type: Chromosome aberration test in vitro
Test system: Chinese hamster ovary cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: negative
GLP: No information available.

Test Type: In vitro mammalian cell gene mutation test
Test system: Chinese hamster ovary cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative
GLP: Yes

Genotoxicity in vivo : Test Type: Micronucleus test
Species: Mouse (male and female)
Cell type: Bone marrow
Application Route: Oral
Method: OECD Test Guideline 474
Result: negative
GLP: No information available.

sodium hydroxide:

Genotoxicity in vitro : Test Type: Ames test
Test system: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative

Genotoxicity in vivo : Test Type: Micronucleus test

Species: Mouse
Application Route: Intraperitoneal
Method: OECD Test Guideline 474
Result: negative

dodecan-1-ol:

Genotoxicity in vitro : Test system: Bacteria
Method: OECD Test Guideline 471
Result: negative

Genotoxicity in vivo : Species: Mammalian-Animal
Method: OECD Test Guideline 474
Result: negative

Carcinogenicity

Not classified due to lack of data.

Reproductive toxicity

Not classified due to lack of data.

Components:

2-(2-butoxyethoxy)ethanol:

Effects on fertility : Test Type: Fertility
Species: Rat, male and female
Application Route: Oral
Dose: 0- 250 - 500 - 1000 milligram per kilogram
General Toxicity - Parent: NOAEL: 1,000 mg/kg body weight
Fertility: NOAEL: 1,000 mg/kg body weight
Early Embryonic Development: NOAEL: 500 mg/kg body weight
Method: OECD Test Guideline 415
Result: Animal testing did not show any effects on fertility.
GLP: No information available.

Test Type: Two-generation study
Species: Mouse, male and female
Application Route: Oral
Dose: 0 - 720 - 1340 - 2050 milligram per kilogram
General Toxicity - Parent: NOAEL: 720 mg/kg body weight
Fertility: NOAEL: 720 mg/kg body weight
Early Embryonic Development: NOAEL: 720 mg/kg body weight
Method: OECD Test Guideline 416
GLP: Yes
Remarks: Test results on an analogous substance/product.

Test Type: Fertility
Species: Rat, male and female
Application Route: Dermal
Dose: 2000 milligram per kilogram
General Toxicity - Parent: NOAEL: 2,000 mg/kg body weight
Fertility: NOAEL: 2,000 mg/kg body weight
Early Embryonic Development: NOAEL: 2,000 mg/kg body

weight
Method: OECD Test Guideline 415
Result: Animal testing did not show any effects on fertility.
GLP: No information available.

Effects on foetal development : Test Type: Pre-natal
Species: Rat, female
Application Route: Oral
Dose: 0 - 25 - 115 - 633 milligram per kilogram
General Toxicity Maternal: NOAEL: >= 633 mg/kg body weight
Teratogenicity: NOAEL: >= 633 mg/kg body weight
Developmental Toxicity: NOAEL: >= 633 mg/kg body weight
Embryo-foetal toxicity: NOAEL: >= 633 mg/kg body weight
Method: OECD Test Guideline 414
Result: negative
GLP: No information available.

Test Type: Pre-natal
Species: Rabbit, female
Application Route: Dermal
Dose: 0-100-300-1000 milligram per kilogram
General Toxicity Maternal: NOAEL: 1,000 mg/kg body weight
Teratogenicity: NOAEL: 1,000 mg/kg body weight
Developmental Toxicity: NOAEL: 1,000 mg/kg body weight
Embryo-foetal toxicity: NOAEL: 1,000 mg/kg body weight
Method: OECD Test Guideline 414
Result: negative
GLP: No information available.

dodecan-1-ol:

Effects on fertility : Species: Rat
Application Route: Oral
Dose: 2000 milligram per kilogram
Duration of Single Treatment: 55 d

Effects on foetal development : Species: Rat
Application Route: Oral
Dose: 2000 milligram per kilogram
Method: OECD Test Guideline 422
Result: No effects on fertility and early embryonic development were detected.

STOT - single exposure

Not classified due to lack of data.

STOT - repeated exposure

Not classified due to lack of data.

Repeated dose toxicity

Components:

2-(2-butoxyethoxy)ethanol:

Species : Rat, male and female

NOAEL	:	250 mg/kg
LOAEL	:	1,000 mg/kg
Application Route	:	Oral
Exposure time	:	90 d
Dose	:	0- 50 - 250 - 1000 mg/kg bw/d
Method	:	OECD Test Guideline 408
GLP	:	Yes
Remarks	:	Subchronic toxicity

Species	:	Rat, male and female
NOAEL	:	0.094 mg/l
Application Route	:	inhalation (vapour)
Exposure time	:	90 d
Dose	:	0- 0,013 - 0,04 - 0,094 mg/l
Method	:	OECD Test Guideline 413
GLP	:	Yes
Remarks	:	Subchronic toxicity

Species	:	Rat, male and female
NOAEL	:	>= 2,000 mg/kg
Application Route	:	Skin contact
Exposure time	:	90 d
Dose	:	0- 200 - 600 - 2000 mg/kg bw/d
Method	:	OECD Test Guideline 411
GLP	:	No information available.
Remarks	:	Subchronic toxicity

dodecan-1-ol:

Species	:	Rat
NOAEL	:	2,000 mg/kg
Application Route	:	Oral
Dose	:	2000 mg/kg
Method	:	OECD Test Guideline 422
Remarks	:	Subchronic toxicity

Aspiration toxicity

Not classified due to lack of data.

Components:

2-(2-butoxyethoxy)ethanol:

Based on physical properties, not likely to be an aspiration hazard.

Further information

Product:

Remarks	:	No data available

SECTION 12: Ecological information

12.1 Toxicity

Components:

2-(2-butoxyethoxy)ethanol:

Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): 1,300 mg/l
Exposure time: 96 h
Test Type: static test
Analytical monitoring: No information available.
Method: OECD Test Guideline 203
GLP: No
Remarks: Fresh water
nominal concentration

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l
End point: Immobilization
Exposure time: 48 h
Test Type: static test
Analytical monitoring: No
Method: OECD Test Guideline 202
GLP: Yes
Remarks: Fresh water
nominal concentration

Toxicity to algae/aquatic plants : ErC50 (Desmodesmus subspicatus (green algae)): > 100 mg/l
End point: Growth rate
Exposure time: 96 h
Test Type: static test
Analytical monitoring: No
Method: OECD Test Guideline 201
GLP: Yes
Remarks: Fresh water
nominal concentration

NOEC (Desmodesmus subspicatus (green algae)): >= 100 mg/l
End point: Growth rate
Exposure time: 96 h
Test Type: static test
Analytical monitoring: No
Method: OECD Test Guideline 201
GLP: Yes
Remarks: Fresh water
nominal concentration

ErC50 (Raphidocelis subcapitata (freshwater green alga)): 1,101 mg/l
End point: Growth rate
Exposure time: 72 h
Test Type: static test
Analytical monitoring: No
Method: OECD Test Guideline 201

GLP: No information available.
Remarks: Fresh water
nominal concentration

Toxicity to microorganisms : EC10 (activated sludge): > 1,995 mg/l
End point: Respiration inhibition
Exposure time: 30 min
Test Type: static test
Analytical monitoring: No
Method: OECD Test Guideline 209
GLP: No
Remarks: Fresh water
nominal concentration

sodium hydroxide:

Toxicity to fish : LC50 (Trout): 45.4 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l
Exposure time: 48 h

Ecotoxicology Assessment

Acute aquatic toxicity : This product has no known ecotoxicological effects.

Chronic aquatic toxicity : This product has no known ecotoxicological effects.

dodecan-1-ol:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): > 1 - 10 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 0.1 - 1 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : NOEC (Desmodesmus subspicatus (green algae)): 0.085 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

M-Factor (Acute aquatic toxicity) : 1

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: > 0.01 - 0.1 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Method: OECD Test Guideline 211

12.2 Persistence and degradability

Product:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 97 %
Exposure time: 28 d

Method: OECD Test Guideline 301A
GLP: Yes

Components:

2-(2-butoxyethoxy)ethanol:

Biodegradability : Test Type: aerobic
Inoculum: activated sludge, non-adapted
Result: rapidly biodegradable
Biodegradation: 85 %
Exposure time: 28 d
Method: OECD Test Guideline 301C
GLP: No

sodium hydroxide:

Biodegradability : Remarks: The methods for determining biodegradability are not applicable to inorganic substances.

dodecan-1-ol:

Biodegradability : Test Type: aerobic
Result: Readily biodegradable.
Biodegradation: > 60 %
Exposure time: 28 d
Method: OECD Test Guideline 301D

12.3 Bioaccumulative potential

Components:

2-(2-butoxyethoxy)ethanol:

Bioaccumulation : Remarks: Due to the distribution coefficient n-octanol/water, accumulation in organisms is not expected.

Partition coefficient: n-octanol/water : log Pow: 1 (20 °C)
pH: 7
Method: OECD Test Guideline 117

dodecan-1-ol:

Partition coefficient: n-octanol/water : log Pow: 5.4
Method: OECD Test Guideline 107

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

Product:

Endocrine disrupting potential	:	This substance/mixture does not contain components considered to have endocrine disrupting properties for environment according to UK REACH Article 57(f) at levels of 0.1% or higher. The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.
Additional ecological information	:	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product	:	The product should not be allowed to enter drains, water courses or the soil. Send to a licensed waste management company. Do not contaminate ponds, waterways or ditches with chemical or used container.
Contaminated packaging	:	Empty remaining contents. Dispose of as unused product. Do not re-use empty containers.

SECTION 14: Transport information

14.1 UN number

ADN	:	UN 1824
ADR	:	UN 1824
RID	:	UN 1824
IMDG	:	UN 1824
IATA	:	UN 1824

14.2 UN proper shipping name

ADN	:	SODIUM HYDROXIDE SOLUTION
ADR	:	SODIUM HYDROXIDE SOLUTION
RID	:	SODIUM HYDROXIDE SOLUTION
IMDG	:	SODIUM HYDROXIDE SOLUTION

IATA : Sodium hydroxide solution

14.3 Transport hazard class(es)

		Class
ADN	:	8
ADR	:	8
RID	:	8
IMDG	:	8
IATA	:	8

14.4 Packing group

ADN

Packing group	:	II
Classification Code	:	C5
Hazard Identification Number	:	80
Labels	:	8

:



ADR

Packing group	:	II
Classification Code	:	C5
Hazard Identification Number	:	80
Labels	:	8

:



Tunnel restriction code : (E)

RID

Packing group	:	II
Classification Code	:	C5
Hazard Identification Number	:	80
Labels	:	8

:



IMDG

Packing group	:	II
Labels	:	8

:



EmS Code : F-A, S-B

IATA (Cargo)
Packing instruction (cargo aircraft) : 855 : 30.00 L
Packing group : II
Labels : 8
:



IATA (Passenger)
Packing instruction (passenger aircraft) : 851 : 1.00 L
Packing group : II
Labels : 8
:



14.5 Environmental hazards

ADN
Environmentally hazardous : no

ADR
Environmentally hazardous : no

RID
Environmentally hazardous : no

IMDG
Marine pollutant : no

14.6 Special precautions for user

Hazard and Handling Notes : Corrosive.
Keep away from acids and oxidizing agents.
Keep separated from foodstuffs.

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

Relevant EU provisions transposed through retained EU law

UK REACH List of restrictions (Annex 17)	:	Conditions of restriction for the following entries should be considered: Number on list 3 Number on list 55: 2-(2-butoxyethoxy)ethanol
UK REACH Candidate list of substances of very high concern (SVHC) for Authorisation	:	Not applicable
The Persistent Organic Pollutants Regulations (retained Regulation (EU) 2019/1021 as amended for Great Britain)	:	Not applicable
International Chemical Weapons Convention (CWC) Schedules of Toxic Chemicals and Precursors	:	Not applicable
Regulation (EU) No 2024/590 on substances that deplete the ozone layer	:	Not applicable
Council Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors.	:	Neither banned nor restricted
Council Regulation (EC) No 273/2004 on drug precursors	:	Not applicable
UK REACH List of substances subject to authorisation (Annex XIV)	:	Not applicable
GB Export and import of hazardous chemicals - Prior Informed Consent (PIC) Regulation	:	Not applicable

Control of Major Accident Hazards Regulations 2015 (COMAH)
Not applicable

according to Detergents Regulation EC 648/2004	:	less than 5 %: Anionic surfactants, Amphoteric surfactants, Non-ionic surfactants

Other regulations:

Take note of The Management of Health and Safety at Work Regulations 1999 (requirements relating to protection of young people at work contained in Regulation 19) and of Directive 94/33/EC on the protection of young people at work.

15.2 Chemical safety assessment

not applicable

SECTION 16: Other information

Full text of H-Statements

H290	:	May be corrosive to metals.
H314	:	Causes severe skin burns and eye damage.
H315	:	Causes skin irritation.
H318	:	Causes serious eye damage.
H319	:	Causes serious eye irritation.
H400	:	Very toxic to aquatic life.
H411	:	Toxic to aquatic life with long lasting effects.

Full text of other abbreviations

Aquatic Acute	:	Short-term (acute) aquatic hazard
Aquatic Chronic	:	Long-term (chronic) aquatic hazard
Eye Dam.	:	Serious eye damage
Eye Irrit.	:	Eye irritation
Met. Corr.	:	Corrosive to metals
Skin Corr.	:	Skin corrosion
Skin Irrit.	:	Skin irritation
2006/15/EC	:	Europe. Indicative occupational exposure limit values
GB EH40	:	UK. EH40 WEL - Workplace Exposure Limits
2006/15/EC / TWA	:	Limit Value - eight hours
2006/15/EC / STEL	:	Short term exposure limit
GB EH40 / TWA	:	Long-term exposure limit (8-hour TWA reference period)
GB EH40 / STEL	:	Short-term exposure limit (15-minute reference period)

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonised System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organisation; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardisation; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organisation for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Re-

striction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of very high concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Further information

Classification of the mixture:		**Classification procedure:**
Skin Corr. 1	H314	Based on product data or assessment
Eye Dam. 1	H318	Based on product data or assessment

The data contained in this Safety Data Sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered to be a guidance for processing and does not contain any warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. It is the responsibility of the recipient of the product to ensure that any proprietary rights and existing laws and legislation are observed.

Relevant changes from the previous version are marked on the left side of the Safety Data Sheet with a black double bar in appropriate places.