



elma clean 305 (EC 305)

Print date 05.08.2022
Revision date 27.07.2022
Version 2.0 (en)
replaces version of 06.08.2018 (1.9)

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

*** 1.1 Product identifier**

Trade name/designation elma clean 305 (EC 305)
Unique Formula Identifier UFI:JS20-C0US-S007-0KTX
Product category PC-CLN-OTH Other cleaning, care and maintenance products (excludes biocidal products)

Hazard components for labelling

potassium hydroxide, tripotassium orthophosphate

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

Sector of uses [SU]

SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
SU3 Industrial uses

Product Categories [PC]

PC35 Washing and cleaning products

Use of the substance/mixture

Strongly alkaline cleaning concentrate with solvent.

Uses advised against

Do not use for injecting or spraying.

1.3 Details of the supplier of the safety data sheet

Supplier

Elma Schmidbauer GmbH
Gottlieb-Daimler-Str. 17
D-78224 Singen (Htwl.)
Telephone +49 7731 882-0
Telefax: +49 7731 882-266
E-mail info@elma-ultrasonic.com

Department responsible for information:
Chemie/Labor: Email: chemlab@elma-ultrasonic.com
Website www.elma-ultrasonic.com

*** 1.4 Emergency telephone number**

Vergiftungs-Informations-Zentrale Freiburg (Sprache/Language: DE, +49 761 19240
EN)

*** SECTION 2: Hazards identification**

*** 2.1 Classification of the substance or mixture**

Classification according to Regulation (EC) No 1272/2008 [CLP]	Classification procedure
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Met. Corr. 1, H290	Expert judgement and weight of evidence determination.
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Skin Corr. 1A, H314	On basis of test data.
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Eye Dam. 1, H318	Calculation method.
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Hazard statements for physical hazards

H290 May be corrosive to metals.

Hazard statements for health hazards

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.



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Hazard pictograms



GHS05

* **2.2 Label elements**

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

Signal word

Danger

Hazard statements

H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.

* **Precautionary statements**

P405 Store locked up.
P102 Keep out of reach of children.
P234 Keep only in original packaging.
P280 Wear protective gloves/protective clothing and eye/face protection.
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 doctor.
P302 + P352 IF ON SKIN: Wash with plenty of water.
P332 + P313 If skin irritation occurs: Get medical advice/attention.
P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.

* **Other labelling**

Labelling for contents according to regulation (EC) No. 648/2004:
< 5% amphoteric surfactants
< 5% phosphates

* **2.3 Other hazards**

* **Adverse human health effects and symptoms**

Acute Tox. 5 (oral) H303: May be harmful if swallowed.
Inhalation of spray may cause respiratory irritation.
This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

* **Adverse environmental effects**

Aquatic Acute 2 H401: Toxic to aquatic life.
This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

Results of PBT and vPvB assessment

The product does not contain any PBT-/vPvB-substances according to the recipe.

* **SECTION 3: Composition / information on ingredients**

3.1 Substances

not applicable

* **3.2 Mixtures**

Hazardous ingredients

CAS No.	EC No.	Substance name	Concentration	Classification according to Regulation (EC) No 1272/2008 [CLP]	SCL/ M/ ATE
112-34-5	203-961-6	2-(2-butoxyethoxy)ethanol	10 - 20 weight-%	Met. Corr. 1; H290 Eye Irrit. 2; H319	



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

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CAS No.	EC No.	Substance name	Concentration	Classification according to Regulation (EC) No 1272/2008 [CLP]	SCL/ M/ ATE
1310-58-3	215-181-3	potassium hydroxide	< 5 weight-%	Met. Corr. 1; H290 Acute Tox. 3; H301 Skin Corr. 1A; H314 Eye Dam. 1; H318	Skin Corr. 1A; H314: C>=5% Skin Corr. 1B; H314: 2%<=C<5% Skin Irrit. 2; H315: 0.5%<=C<2% Eye Irrit. 2; H319: 0.5%<=C<2%
7778-53-2	231-907-1	tripotassium orthophosphate	< 5 weight-%	Met. Corr. 1; H290 Skin Irrit. 2; H315 Eye Dam. 1; H318 STOT SE 3; H335	
90170-43-7	290-476-8	β -Alanine, N-(2-carboxyethyl)-, N-coco alkyl derivs., disodium salts	< 5 weight-%	Eye Irrit. 2; H319	

REACH No.

01-2119475104-44

01-2119976233-35

01-2119487136-33

01-2119971078-30

Substance name

2-(2-butoxyethoxy)ethanol

β -Alanine, N-(2-carboxyethyl)-, N-coco alkyl derivs., disodium salts

potassium hydroxide

tripotassium orthophosphate

Additional information

Aqueous-alkaline cleaning agent with wetting agent, potassium phosphate and hydroxide, complexing agent and hydrotropic component.

*** SECTION 4: First aid measures**

*** 4.1 Description of first aid measures**

General information

Remove contaminated, saturated clothing immediately.

Symptoms may develop several hours following exposure; medical observation therefore necessary for at least 48 hours.

Following inhalation

Provide fresh air.

In case of inhaling spray mist, consult a physician.

*** Following skin contact**

In case of contact with skin wash off immediately with plenty of water.

In case of skin irritation, consult a physician.

After eye contact

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Following ingestion

Do NOT induce vomiting.

Call a physician immediately.

If swallowed seek medical advice immediately and show the doctor packing or label.

Rinse mouth immediately and drink plenty of water.



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

* **Effects**
Risk of stomach perforation.

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

* **Notes for the doctor**
Keep under medical supervision for at least 48 hours.

* **SECTION 5: Firefighting measures**

5.1 Extinguishing media

Suitable extinguishing media
Water

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products
In case of fire formation of dangerous gases possible.
In the event of fire the following can be released:
Corrosive gases/vapours
Nitrogen oxides (NO_x)
Carbon monoxide
Phosphorus oxides

* **5.3 Advice for firefighters**

* **Special protective equipment for firefighters**
Do not inhale explosion and combustion gases.

* **Additional information**

Co-ordinate fire-fighting measures to the fire surroundings.

* **SECTION 6: Accidental release measures**

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel
Use personal protection equipment.
Special danger of slipping by leaking/spilling product.

For emergency responders
Personal protection equipment
Use personal protection.
Use breathing apparatus if exposed to vapours/dust/aerosol.
Forms slippery surfaces with water.
Special danger of slipping by leaking/spilling product.

6.2 Environmental precautions

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

6.3 Methods and material for containment and cleaning up

For containment
Suitable material for taking up:
Universal binder
Flush away residues with water.

* **6.4 Reference to other sections**

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



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*** SECTION 7: Handling and storage**

*** 7.1 Precautions for safe handling**

*** Protective measures**
Do not inhale vapours/aerosols.
Avoid contact with eyes and skin.
Handle and open container with care.
Use only alkali-resistant equipment.
The product is not combustible.

Advices on general occupational hygiene

Make available sufficient washing facilities
Keep away from food and drink.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Suitable floor material:
Alkali-resistant
Keep/Store only in original container.

Storage class

8B Non-combustible corrosive substances

Materials to avoid

Do not store together with:
Acid

Further information on storage conditions

Keep only in the original container in a cool, well-ventilated place.
Keep container tightly closed.
Keep locked up and out of reach of children.
Protect from heat and direct solar radiation.
Do not store at temperature above 25°C (=77°F).
Do not keep at temperatures below 5°C.
Storage time: 3 years.

7.3 Specific end use(s)

Recommendation

See section 1.2

*** SECTION 8: Exposure controls/personal protection**

*** 8.1 Control parameters**

Occupational exposure limit values

CAS No.	EC No.	Substance name	occupational exposure limit value
112-34-5	203-961-6	2-(2-Butoxyethoxy)ethanol	10 [ml/m ³ (ppm)] 67,5 [mg/m ³] Short-term(ml/m ³) 15 Short-term(mg/m ³) 101,2 2006/15/EC
112-34-5	203-961-6	Diethylene glycol monobutyl ether	10 [ml/m ³ (ppm)] 67,5 [mg/m ³] Short-term(ml/m ³) 15 (1) Short-term(mg/m ³) 101,2 (1) (1) 15 minutes reference period (IE)
1310-58-3	215-181-3	Potassium hydroxide	Short-term(mg/m ³) 2 (1) 15 minutes reference period (IE)



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CAS No.	EC No.	Substance name	occupational exposure limit value
112-34-5	203-961-6	Diethylene glycol monobutyl ether	10 [ml/m ³ (ppm)] 67,5 [mg/m ³] Short-term(ml/m ³) 15 Short-term(mg/m ³) 101,2 (UK)
1310-58-3	215-181-3	Potassium hydroxide	Short-term(mg/m ³) 2 (UK)

* **DNEL worker**

CAS No.	Substance name	DNEL value	DNEL type	Remark
1310-58-3	potassium hydroxide	1 mg/m ³	long-term inhalative (local)	Assessment factor 1
7778-53-2	tripotassium orthophosphate	23.09 mg/m ³	long-term inhalative (systemic)	Assessment factor 50
90170-43-7	β -Alanine, N-(2-carboxyethyl)-, N-coco alkyl derivs., disodium salts	980 mg/m ³	long-term inhalative (systemic)	Assessment factor 30
90170-43-7	β -Alanine, N-(2-carboxyethyl)-, N-coco alkyl derivs., disodium salts	2.67 mg/kg bw/day	long-term dermal (systemic)	Assessment factor 300
	2-(2-butoxyethoxy)ethanol	67.5 mg/m ³	long-term inhalative (local)	

* **PNEC**

CAS No.	Substance name	PNEC Value	PNEC type	Remark
90170-43-7	β -Alanine, N-(2-carboxyethyl)-, N-coco alkyl derivs., disodium salts	0.1 mg/L	sediment, freshwater	Assessment factor 100
90170-43-7	β -Alanine, N-(2-carboxyethyl)-, N-coco alkyl derivs., disodium salts	0.3 mg/L	sewage treatment plant (STP)	Assessment factor 1000
	2-(2-butoxyethoxy)ethanol	1.1 mg/L	aquatic, freshwater	Assessment factor 1000

* **8.2 Exposure controls**

Appropriate engineering controls

Technical measures to prevent exposure

Technical exhaustion if there is a long-term exposition

* **Personal protection equipment**

Eye/face protection

tightly fitting goggles

Hand protection

Gloves (alkali- and solvent-resistant)

Glove material specification [make/type, thickness, permeation time/life]: Butyl, 0,5mm, >=8h.

Glove material specification [make/type, thickness, permeation time/life]: FKM, 0,4mm, >=8h.

* **Body protection:**

Protective clothing

Required properties:

alkali-resistant

Environmental exposure controls

Technical measures to prevent exposure

Neutralization is normally necessary before a waste water is discharged into sewage treatment plants.

Avoid penetration into the subsoil/soil.

Do not discharge into surface waters.

Additional information

Occupational exposure limits for potassium hydroxide.



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*** SECTION 9: Physical and chemical properties**

*** 9.1 Information on basic physical and chemical properties**

Physical state

liquid

Colour

yellowish

Odour

of organic solvents

Safety relevant basis data

	Value	Method	Source, Remark
Odour threshold:			not determined
Melting point/freezing point	solidifying range < 5 °C		
Boiling point or initial boiling point and boiling range	> 100 °C		
flammability	solid		not applicable
flammability	gaseous		not applicable
Lower and upper explosion limit	Upper explosion limit 5.9 Vol-%		Value of 2-(2- butoxyethoxy)ethanol.
Lower and upper explosion limit	Lower explosion limit 0.7 Vol-%		Value of 2-(2- butoxyethoxy)ethanol.
Flash point			No flash point up to 100 °C.
Auto-ignition temperature	225 °C		Value of 2-(2- butoxyethoxy)ethanol.
Decomposition temperature	> 100 °C		
pH	in delivery state 12 (20°C) Concentration 10 g/L		
Viscosity			not determined
Solubility(ies)	Water solubility		miscible
Partition coefficient n-octanol/water (log value)	1		Value of 2-(2- butoxyethoxy)ethanol.
Vapour pressure	23- 24 hPa (20°C)		
Density and/or relative density	1.07 g/cm ³ (20°C)		
Relative vapour density	5.58		Value of 2-(2- butoxyethoxy)ethanol.
particle characteristics			not applicable (liquid).

*** 9.2 Other information**

*** Information with regard to physical hazard classes**

*** Explosives**

*** Assessment/classification**

The mixture does not contain any explosive substances (CLP I 2.1.4.3 a).

CLP I 2.1.4.3 a: The classification procedure needs not to be applied because there are no chemical groups present in the molecule which are associated with explosive properties.



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* **flammable gases**

* **Assessment/classification**
not applicable (liquid).

* **Aerosols**

* **Assessment/classification**
not relevant - no aerosol.
The classification criteria for this hazard class are not met by definition.

* **Oxidising gas**

* **Assessment/classification**
not applicable (liquid).

* **Gases under pressure**

* **Assessment/classification**
not applicable (liquid - no dissolved gas).

* **flammable liquids**

* **Assessment/classification**
not flammable, not combustible (No flash point below 100°C).

* **flammable solids**

* **Assessment/classification**
not applicable (liquid).

* **Self-reactive substances and mixtures**

* **Assessment/classification**
The mixture does not contain any self-reactive substances (CLP I 2.8.4.2 a).
CLP I 2.8.4.2 a: There are no chemical groups present in the molecule associated with explosive or self reactive properties.

* **Pyrophoric liquids**

* **Assessment/classification**
The mixture does not contain any pyrophoric substances - not spontaneously flammable (CLP I 2.9.4.1).
CLP I 2.9.4.1: The classification procedure for pyrophoric liquids need not be applied when experience in manufacture or handling shows that the substance or mixture does not ignite spontaneously on coming into contact with air at normal temperatures (i.e. the substance is known to be stable at room temperature for prolonged periods of time (days)).

* **Pyrophoric solids**

* **Assessment/classification**
not applicable (liquid).

* **self-heating substances and mixtures**

* **Assessment/classification**
The mixture does not contain any self-heating substances.

* **Substances or mixtures which, in contact with water, emit flammable gases**

* **Assessment/classification**
not relevant - in contact with water releases no flammable gases (CLP I 2.12.4.1).
CLP I 2.12.4.1: The classification procedure for this class need not be applied if: (a) the chemical structure of the substance or mixture does not contain metals or metalloids; or (b) experience in production or handling shows that the substance or mixture does not react with water, e.g. the substance is manufactured with water or washed with water; or (c) the substance or mixture is known to be soluble in water to form a stable mixture.

* **Oxidising liquids**

* **Assessment/classification**
The mixture does not contain any oxidising substances.



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* **Oxidising solids**

* **Assessment/classification**
not applicable (liquid).

* **Organic peroxides**

* **Assessment/classification**
The mixture does not contain any organic peroxides.

* **Corrosive to metals**

Safety characteristics

	Value	Method, Result	Source, Remark
Corrosion rate (mm aluminium/year)	> 6.25 mm/a	Expert judgement and weight of evidence determination.	
Corrosion rate (mm steel/year)			not available

* **Assessment/classification**
The mixture is classified as corrosive to metals. (Met. Corr. 1 H290).

* **Desensitised explosives**

* **Assessment/classification**
The mixture does not contain any desensitised explosive substances.

Other safety characteristics

	Value	Method	Source, Remark
Evaporation rate			Water: 0.36 (ASTM D3539).
Evaporation rate			2-(2-butoxyethoxy)ethanol: 0.01 (ASTM D3539) / 1 200 (DIN 53170).
Solvent content	19 %		
Explosive properties:			none
Oxidising properties			none

* **Other information**
No further relevant informations available.

* **SECTION 10: Stability and reactivity**

* **10.1 Reactivity**

Exothermic reaction with:
Acid
No further hazardous reactions known if used as directed.

10.2 Chemical stability

Stable at ambient temperature.

10.3 Possibility of hazardous reactions

Reactions with oxidising agents.
Exothermic reaction with:
Acid
Reactions with light metals, with evolution of hydrogen.

10.4 Conditions to avoid

Heat and direct solar radiation.



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* **10.5 Incompatible materials**

Reactions with strong acids.
Oxidising agent
Light metals
Reactions with light metals, with evolution of hydrogen.
Corrodes aluminium.

10.6 Hazardous decomposition products

No decomposition if used as directed.

* **SECTION 11: Toxicological information**

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

* **Acute toxicity**

* **Animal data**

	Effective dose	Method, Evaluation	Source, Remark
Acute oral toxicity	4277 mg/kg	ATE: Acute Toxicity Estimate	The acute oral toxicity is corresponding to GHS-category 5.
Acute dermal toxicity	CAS No.1310-58-3 potassium hydroxide LD50: 273 mg/kg Species Rat > 5000 mg/kg	ATE: Acute Toxicity Estimate	
Acute inhalation toxicity	Acute inhalation toxicity (vapour) > 50 mg/L	ATE (acute toxicity estimate)	vapours

* **Skin corrosion/irritation**

Animal data

Result / Evaluation	Method	Source, Remark
strongly corrosive.	On basis of test data.	

* **Serious eye damage/irritation**

Animal data

Result / Evaluation	Method	Source, Remark
Corrosive	Calculation method.	

* **Sensitisation to the respiratory tract**

* **Assessment/classification**

Based on available data, the classification criteria are not met.

* **Skin sensitisation**

Animal data

Result / Evaluation	Dose / Concentration	Method	Source, Remark
The mixture is not classified as skin sensitiser.		Calculation method.	

* **Germ cell mutagenicity**

* **Assessment/classification**

Based on available data, the classification criteria are not met.



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* **Carcinogenicity**

* **Assessment/classification**

Based on available data, the classification criteria are not met.

* **Reproductive toxicity**

* **Assessment/classification**

Based on available data, the classification criteria are not met.

* **Overall Assessment on CMR properties**

The mixture is not classified as mutagen / not classified as carcinogen / not classified as reproductive toxicant.

* **STOT-single exposure**

* **STOT SE 1 and 2**

* **Other information**

The mixture is not classified as specific target organ toxicant (single exposure).

* **Assessment/classification**

Based on available data, the classification criteria are not met.

* **STOT SE 3**

* **Irritation to respiratory tract**

* **Other information**

Inhalation of spray may cause respiratory irritation.

* **Assessment/classification**

Based on available data, the classification criteria are not met.

* **Narcotic effects**

* **Assessment/classification**

Based on available data, the classification criteria are not met.

* **STOT-repeated exposure**

Other information

The mixture is not classified as specific target organ toxicant (repeated exposure).

* **Assessment/classification**

Based on available data, the classification criteria are not met.

* **Aspiration hazard**

* **Remark**

The mixture is not classified as aspiration hazardous.

Based on available data, the classification criteria are not met.

11.2 Information on other hazards

Symptoms related to the physical, chemical and toxicological characteristics

	Effective dose	Method, Evaluation	Source, Remark
Endocrine disrupting properties			This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

* **Other information**

OECD 431: skin corrosive category 1A.

Causes severe burns.

Has a degreasing effect on the skin.

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	Effective dose	Method, Evaluation	Source, Remark
Acute (short-term) fish toxicity	LC50: 79 mg/L	calculated.	
Chronic (long-term) fish toxicity	not determined		
Acute (short-term) toxicity to crustacea	EC50 134 mg/L	calculated.	
Chronic (long-term) toxicity to aquatic invertebrate	not determined		
Acute (short-term) toxicity to algae and cyanobacteria	EC50 9.4 mg/L	calculated.	After neutralisation, reduction in toxic effects is observed.
Chronic (long-term) toxicity to aquatic algae and cyanobacteria	not determined		
Toxicity to other aquatic plants/organisms	not determined		
Toxicity to microorganisms	not determined		

*** Assessment/classification**

Toxic to aquatic life.

12.2 Persistence and degradability

	Value	Method	Source, Remark
Biodegradation	Degradation rate > 70 %		DOC reduction Biodegradable.
Biodegradation	Degradation rate 100 %	Neutralization, pH-measurement	Alkaline properties can be eliminated up to 100% by neutralization.
Biodegradation			CAS No.1310-58-3 potassium hydroxide
Biodegradation			Inorganic product which is not eliminable from water through biological cleaning processes.
Biodegradation			CAS No.7778-53-2 tripotassium orthophosphate
Biodegradation			Inorganic product which is not eliminable from water through biological cleaning processes.
Biodegradation	Degradation rate approx. 85 % Test duration 28 d	OECD 301C/ ISO 9408/ EEC 92/69/V, C.4-F	CAS No.112-34-5 2-(2-butoxyethoxy)ethanol
Biodegradation	Degradation rate 94 % Test duration 14 d	OECD 301E/ EEC 92/69/V, C.4-B	CAS No.112-34-5 2-(2-butoxyethoxy)ethanol
Biodegradation	Degradation rate approx. 96 % Test duration 28 d	OECD 301B/ ISO 9439/ EEC 92/69/V, C.4-C	CAS No.90170-43-7 β-Alanine, N-(2-carboxyethyl)-, N-coco alkyl derivs., disodium salts



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* **12.3 Bioaccumulative potential**

* **Assessment/classification**

potassium hydroxide: Accumulation in organisms is not expected.
2-(2-butoxyethoxy)ethanol: Significant accumulation in organisms is not expected (log Pow: 1.0).
tripotassium orthophosphate: not available.
β-Alanine, N-(2-carboxyethyl)-, N-coco alkyl derivs., disodium salts: Significant accumulation in organisms is not expected (log Pow: <1).

* **12.4 Mobility in soil**

* **Assessment/classification**

potassium hydroxide: Dissolves in water. Highly mobile in soil.
2-(2-butoxyethoxy)ethanol: not available.
tripotassium orthophosphate: not available.
β-Alanine, N-(2-carboxyethyl)-, N-coco alkyl derivs., disodium salts: not available.

12.5 Results of PBT and vPvB assessment

The product does not contain any PBT-/vPvB-substances according to the recipe.

12.6 Endocrine disrupting properties

	Effective dose	Method,Evaluation	Source, Remark
Endocrine disrupting properties			This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7 Other adverse effects

	Value	Method	Source, Remark
Ozone depletion potential (ODP):			Based on available data, the classification criteria are not met.

* **Additional ecotoxicological information**

	Value	Method	Source, Remark
Chemical oxygen demand (COD)	461 mgO2/g	calculated.	
AOX			The product does not contain any organically bound halogens according to the recipe.

* **Additional information**

The surfactants in our product meet the criteria for biodegradation as laid down in Annex III of the Regulation (EC) No 648/2004 on detergents.
Acute aquatic environmental hazards: Aquatic Acute 2 H401: Toxic to aquatic life. After neutralization: not classified as acute hazardous to the aquatic environment.
The mixture is not classified as chronic hazardous to the aquatic environment.
Do not allow uncontrolled discharge of product into the environment.
No further relevant informations available.

* **SECTION 13: Disposal considerations**

* **13.1 Waste treatment methods**

Waste codes/waste designations according to EWC/AVV

Waste code product	Waste name
200129 *	detergents containing hazardous substances
Waste code packaging	Waste name
150110 *	packaging containing residues of or contaminated by hazardous substances



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Appropriate disposal / Product

Do not dispose with household waste.

Suitable for neutralization are acetic acid (60%, liquid) or citric acid (solid powder, crystallized) if a stainless steel bath is used.

Product is allowed to discharge into sewage treatment plants, but in accordance with official regulations.

*

Appropriate disposal / Package

Non-contaminated packages may be recycled.

Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1 UN number or ID number	1814	1814	1814
14.2 UN proper shipping name	POTASSIUM HYDROXIDE SOLUTION	POTASSIUM HYDROXIDE SOLUTION	Potassium hydroxide solution
14.3 Transport hazard class(es)	8	8	8
14.4 Packing group	II	II	II
14.5 Environmental hazards	No	No	No

14.6 Special precautions for user

none

14.7 Maritime transport in bulk according to IMO instruments

not relevant

Land transport (ADR/RID)

UN number or ID number	1814
UN proper shipping name	POTASSIUM HYDROXIDE SOLUTION
Transport hazard class(es)	8
Hazard label(s)	8
Classification code	C5
Packing group	II
Environmental hazards	No
Limited quantity (LQ)	1 L
Special provisions	-
Tunnel restriction code	E

Sea transport (IMDG)

UN number or ID number	1814
UN proper shipping name	POTASSIUM HYDROXIDE SOLUTION
Transport hazard class(es)	8
Packing group	II
Environmental hazards	No
Limited quantity (LQ)	1 L
Marine pollutant	No
EmS	F-A, S-B



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Air transport (ICAO-TI / IATA-DGR)

UN number or ID number 1814
UN proper shipping name Potassium hydroxide solution
Transport hazard class(es) 8
Packing group II
Environmental hazards No

*** SECTION 15: Regulatory information**

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

*** EU legislation**

Authorisations
not relevant

Restrictions on use

Regulation (EC) No 1907/2006 (REACH), Annex XVII No 3 + 55 - not relevant if used as directed.

*** Restrictions of occupation**

Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

Other regulations (EU)

To follow:

Regulation (EC) No. 648/2004 (Detergents regulation)
Directive 2012/18/EU, Annex I: not mentioned.

Directive 2010/75/EU on industrial emissions [Industrial Emissions Directive] VOC

VOC content, delivery state 19 %

15.2 Chemical Safety Assessment

*** National regulations**

For this mixture a chemical safety assessment were not carried out.

*** SECTION 16: Other information**

*** Abbreviations and acronyms**

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

ASTM: American Society for Testing and Materials

ATE: Acute Toxicity Estimate

AVV: Waste Shipment Ordinance (DE)

DGR: Dangerous Goods Regulations (IATA)

DIN: German Institute for Standardization / German Industrial Standard

DNEL: derived no-effect level

DOC: Dissolved Organic Carbon

EmS: emergency procedures

IATA: International Air Transport Association

ICAO: International Civil Aviation Organization

IMDG: International Maritime Dangerous Goods

IMO: International Maritime Organization

JArbSchG: Youth Labor Protection Act (DE)

OECD: Organisation for Economic Cooperation and Development

PBT: persistent and bioaccumulative and toxic

PNEC: Predicted No Effect Concentration

RID: Dangerous goods regulations for transport by rail

SCL: Specific concentration limit

TI: Technical Instruction

TRGS: Technical Rules for Hazardous Substances

VOC: Volatile organic compounds

vPvB: very persistent, very bioaccumulative



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

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Key literature references and sources for data

European Chemicals Agency, <http://echa.europa.eu/>.
Informations from our suppliers.

Additional information

National and local regulations concerning chemicals shall be observed.
These data are given according to our actual knowledge about this product. This data sheet does not correspond to an assurance by virtue of a contract for properties of the product.

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

H290 May be corrosive to metals.
H301 Toxic if swallowed.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.

Indication of changes

* Data changed compared with the previous version