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

1.1 Product identifier

Trade name/designation elma clean 145 (EC 145)

Unique Formula Identifier UFI: 5D10-80TE-V00A-E4GW

Product category PC-CLN-OTH Other cleaning, care and maintenance products (excludes biocidal products)

Hazard components
alkylbenzenesulfonic acid [Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.], decan-1-ol, ethoxylated, (+-)-tartaric acid, cocosfattyaminoxethylate, 2-methylisothiazol-3(2H)-one

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
Cleaning concentrate, gentle deoxidizing coloured metals.

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
Website www.elma-ultrasonic.com

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

1.4 Emergency telephone number

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

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]	Classification procedure
Skin Corr. 1C, H314	Calculation method.
Eye Dam. 1, H318	Calculation method.
Skin Sens. 1A, H317	Calculation method.

Hazard statements for health hazards
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.

2.2 Label elements

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

Hazard components
alkylbenzenesulfonic acid [Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.], decan-1-ol, ethoxylated, (+-)-tartaric acid, cocosfattyaminoxethylate, 2-methylisothiazol-3(2H)-one

Hazard pictograms



GHS05



GHS07

Signal word
Danger

Hazard statements
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.

Precautionary statements
P405 Store locked up.
P102 Keep out of reach of children.
P280 Wear protective gloves/protective clothing and eye protection/face protection.
P260 Do not breathe mist/spray.
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.
P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.

Special rules for supplemental label elements for certain mixtures
EUH208 Contains 1,2-benzisothiazol-3(2H)-one.

Other labelling
Labelling for contents according to regulation (EC) No. 648/2004:
5 - 15% anionic surfactants
5 - 15% non-ionic surfactants
Methylisothiazolinone (<100 ppm)
Benzisothiazolinone (<100 ppm)

2.3 Other hazards

Adverse human health effects and symptoms
Acute Tox. 5 (oral) H303: May be harmful if swallowed.
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 3 H402: Harmful 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	Index No	Substance name	Concentration	Classification according to Regulation (EC) No 1272/2008 [CLP]	SCL/ M/ ATE
85536-14-7	287-494-3		alkylbenzenesulfonic acid [Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.]	5 - 10 weight-%	Acute Tox. 4; H302 Skin Corr. 1C; H314 Eye Dam. 1; H318 Aquatic Chronic 3; H412	
26183-52-8			decan-1-ol, ethoxylated	5 - 10 weight-%	Acute Tox. 4; H302 Eye Dam. 1; H318	
133-37-9	205-105-7		(+-)-tartaric acid	3 - 7 weight-%	Eye Dam. 1; H318	
61791-14-8			cocosfattyaminoxethylate	< 4 weight-%	Acute Tox. 4; H302 Eye Dam. 1; H318 Aquatic Chronic 3; H412	
2634-33-5	220-120-9	613-088-00-6	1,2-benzisothiazol-3(2H)-one	> 0.0036 - 0.01 weight-%	Acute Tox. 4 ; H302 Acute Tox. 2; H330 Skin Irrit. 2; H315 Eye Dam. 1; H318 Skin Sens. 1A; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	Skin Sens. 1A;H317: C>=0.036% M=1 (Aquatic Acute 1) M=1 (Aquatic Chronic 1) ATE(oral): 450 mg/kg ATE(inhalation dust/mist): 0.21 mg/L
2682-20-4	220-239-6		2-methylisothiazol-3(2H)-one	> 0.0015 - 0.01 weight-%	Acute Tox. 3; H301 Acute Tox. 3; H311 Acute Tox. 2; H330 Skin Corr. 1B; H314 Eye Dam. 1; H318 Skin Sens. 1A; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410; EUH071	Skin Sens. 1A;H317: C>=0,0015% M=10 (Aquatic Acute 1) M=1 (Aquatic Chronic 1)

REACH No.	Substance name
01-2119490234-40	alkylbenzenesulfonic acid [Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.]
Not relevant (polymer).	decan-1-ol, ethoxylated
01-2119537204-47	(+-)-tartaric acid
Not relevant (polymer).	cocosfattyaminoxethylate

Additional information
Aqueous acid mixture of anionic and nonionic tensides, organic acids and corrosion inhibitors.

Remark
Liquid acid cleaning concentrate with brightening action (removal of oxides) for metallic surfaces containing copper (for example brass).

SECTION 4: First aid measures

4.1 Description of first aid measures

General information
Remove contaminated, saturated clothing immediately.

Following inhalation
In case of inhaling spray mist, consult a physician.

Following skin contact
After contact with skin, wash immediately with plenty of water and soap.
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
Give activated charcoal.
Do NOT induce vomiting.
Call a physician immediately.
Rinse mouth immediately and drink plenty of water.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms
No further informations available.

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
Foam
Extinguishing powder
Carbon dioxide (CO_2)
Water spray jet

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:
Carbon monoxide
Sulphur dioxide (SO_2)

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.
The product itself does not burn.

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.
Wear acid-resistent boots.
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
Take up with absorbent material (e.g. acid binder).
Flush away residues with water.

6.4 Reference to other sections

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

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures
Handle and open container with care.
Do not inhale aerosols
Avoid contact with eyes and skin.
The product is not combustible.

Advices on general occupational hygiene
Make available sufficient washing facilities
Remove contaminated, saturated clothing immediately.
Keep away from food and drink.
Wash hands before breaks and after work.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels
Suitable floor material:
Acid-resistant
Keep/Store only in original container.
Keep container tightly closed.

Materials to avoid
Do not store together with:
alkali

Further information on storage conditions
Keep locked up and out of reach of children.
Protect from heat and direct solar radiation.
Do not keep at temperatures below -5°C.
Do not keep at temperatures above 30°C.
Storage time: 3 years.

7.3 Specific end use(s)

Recommendation
See section 1.2
no further

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

DNEL worker

CAS No	Substance name	DNEL value	DNEL type	Remark
85536-14-7	alkylbenzenesulfonic acid [Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.]	170 mg/kg bw/day	long-term dermal (systemic)	
85536-14-7	alkylbenzenesulfonic acid [Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.]	12 mg/m³	long-term inhalative (systemic)	

PNEC

CAS No	Substance name	PNEC Value	PNEC type	Remark
85536-14-7	alkylbenzenesulfonic acid [Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.]	0.287 mg/L	aquatic, freshwater	
85536-14-7	alkylbenzenesulfonic acid [Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.]	3.43 mg/L	sewage treatment plant (STP)	

8.2 Exposure controls

Personal protection equipment

Eye/face protection
tightly fitting goggles

Hand protection
Gloves (acid-resistant)
Glove material specification [make/type, thickness, permeation time/life]: Butyl, 0,5mm, >=8h.
Glove material specification [make/type, thickness, permeation time/life]: NBR, 0,35mm, >=8h.
Glove material specification [make/type, thickness, permeation time/life]: FKM, 0,4mm, >=8h.
Glove material specification [make/type, thickness]: CR, 0.6mm.

Body protection:
Required properties:
acid-resistant

Respiratory protection
Respiratory protection necessary at:
aerosol or mist formation
Suitable respiratory protection apparatus:
Short term: filter apparatus, Filter P2

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: No relevant informations available.

* SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state
liquid

Colour
light brown

Odour
fruity

Safety relevant basis data

	Value	Method	Source, Remark
Odour threshold:			not determined
Melting point/freezing point	solidifying range approx. -5 °C		
Boiling point or initial boiling point and boiling range	≥ 100 °C		

	Value	Method	Source, Remark
flammability	solid		not applicable
flammability	gaseous		not applicable
Lower and upper explosion limit	Upper explosion limit		not relevant
Lower and upper explosion limit	Lower explosion limit		not relevant
Flash point			No flash point up to 100 °C.
Auto-ignition temperature	380 °C		Value of alkylbenzenesulfonic acid.
Decomposition temperature	≥ 100 °C		
pH	in delivery state 0.9- 1.3 (20°C)		
Viscosity			not determined
Solubility(ies)	Water solubility		miscible
Partition coefficient n-octanol/water (log value)	3.2		Value of alkylbenzenesulfonic acid.
Vapour pressure	23 mbar (20°C)		
Density and/or relative density	1.04 g/cm³ (20°C)		
Relative vapour density	0.62		Value of Water.
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.

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.

Oxidising solids

Assessment/classification
not applicable (liquid).

Organic peroxides

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

* **Corrosive to metals**

* **Assessment/classification**
The mixture does not contain any substances corrosive to metals.
Based on available data, the classification criteria are not met.

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).
Solvent content	0 %		
Explosive properties			none

	Value	Method	Source, Remark
Oxidising properties			none

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

SECTION 10: Stability and reactivity

10.1 Reactivity

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

10.2 Chemical stability

Stable at ambient temperature.

10.3 Possibility of hazardous reactions

Reactions with strong alkalies.

10.4 Conditions to avoid

Heat and direct solar radiation.

10.5 Incompatible materials

Reactions with strong alkalies.

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	3806 mg/kg	ATE: Acute Toxicity Estimate	The acute oral toxicity is corresponding to GHS-category 5.
	CAS No26183-52-8 decan-1-ol, ethoxylated LD50: 500- 2000 mg/kg Species Rat		
	CAS No61791-14-8 cocosfattyaminoxethylate LD50: 750 mg/kg Species Rat		
	CAS No85536-14-7 alkylbenzenesulfonic acid [Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.] LD50: 1470 mg/kg Species Rat		
	CAS No2634-33-5 1,2-benzisothiazol-3(2H)-one 450 mg/kg	ATE: Acute Toxicity Estimate	
Acute dermal toxicity	> 5000 mg/kg	ATE: Acute Toxicity Estimate	
Acute inhalation toxicity	Acute inhalation toxicity (vapour)		not relevant

	Effective dose	Method,Evaluation	Source, Remark
	CAS No2634-33-5 1,2-benzisothiazol-3(2H)-one Acute inhalation toxicity (dust/mist) 0.21 mg/L	ATE: Acute Toxicity Estimate	

Assessment/classification
May be harmful if swallowed.

Skin corrosion/irritation

Animal data

Result / Evaluation	Method	Source, Remark
Corrosive.	Calculation method.	

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
sensitising.		Calculation method.	

Germ cell mutagenicity

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

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

Assessment/classification
The mixture is not classified as specific target organ toxicant (single exposure).
Based on available data, the classification criteria are not met.

STOT SE 3

Irritation to respiratory tract

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

Assessment/classification
The mixture is not classified as specific target organ toxicant (repeated exposure).
Based on available data, the classification criteria are not met.

Aspiration hazard

Assessment/classification
The mixture is not classified as aspiration hazardous.
Based on available data, the classification criteria are not met.

11.2 Information on other hazards

Information on other hazards

	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

In case of ingestion, severe burns of the mouth and throat and risk of perforation of esophagus and stomach.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity

	Effective dose	Method,Evaluation	Source, Remark
Acute (short-term) fish toxicity	LC50: 12.4 mg/L	calculated.	
	CAS No61791-14-8 cocosfattyaminoxethylate LC50: 2.3 mg/L		
	CAS No85536-14-7 alkylbenzenesulfonic acid [Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.] LC50: 1.67 mg/L Species Lepomis macrochirus (Bluegill) Test duration 96 h		
Chronic (long-term) fish toxicity	CAS No85536-14-7 alkylbenzenesulfonic acid [Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.] NOEC 0.25 mg/L Test duration 90 d		
Acute (short-term) toxicity to crustacea	EC50 17.7 mg/L	calculated.	
	CAS No61791-14-8 cocosfattyaminoxethylate EC50 4.4 mg/L		

	Effective dose	Method,Evaluation	Source, Remark
	CAS No85536-14-7 alkylbenzenesulfonic acid [Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.] EC50 2.4 mg/L Test duration 48 h		
Chronic (long-term) toxicity to aquatic invertebrate	CAS No85536-14-7 alkylbenzenesulfonic acid [Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.] NOEC 1.18 mg/L Species Daphnia magna (Big water flea) Test duration 21 d	OECD 211	
Acute (short-term) toxicity to algae and cyanobacteria	EC50 29.2 mg/L	calculated.	
	CAS No61791-14-8 cocosfattyaminoxethylate EC50 1.9 mg/L		
	CAS No85536-14-7 alkylbenzenesulfonic acid [Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.] EC50 14 mg/L Species Scenedesmus subspicatus Test duration 72 h		
Chronic (long-term) toxicity to aquatic algae and cyanobacteria	CAS No61791-14-8 cocosfattyaminoxethylate NOEC: 0.41 mg/L		
	CAS No85536-14-7 alkylbenzenesulfonic acid [Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.] NOEC: 0.5 mg/L Species Selenastrum capricornutum Test duration 96 h		
Toxicity to other aquatic plants/organisms	not determined		
Toxicity to microorganisms	not determined		

Assessment/classification
Harmful to aquatic life.

12.2 Persistence and degradability

	Value	Method	Source, Remark
Biodegradation	Degradation rate > 70 %	calculated.	DOC reduction Biodegradable.
Biodegradation	Degradation rate 100 %	Neutralization, pH-measurement	Acid properties can be eliminated up to 100% by neutralization.
Biodegradation	Degradation rate 76 % Test duration 28 d	OECD 302B/ ISO 9888/ EEC 92/69/V, C.9	CAS No61791-14-8 cocosfattyaminoxethylate
Biodegradation	Degradation rate > 60 %	OECD 301B/ ISO 9439/ EEC 92/69/V, C.4-C	CAS No26183-52-8 decan-1-ol, ethoxylated
Biodegradation	Degradation rate ≥ 90 % Test duration 28 d	OECD 301E/ EEC 92/69/V, C.4-B	CAS No26183-52-8 decan-1-ol, ethoxylated

	Value	Method	Source, Remark
Biodegradation	Degradation rate 48- 56 % Test duration 28 d	OECD 301B/ ISO 9439/ EEC 92/69/V, C.4-C	CAS No2682-20-4 2-methylisothiazol-3(2H)-one
Biodegradation	Degradation rate 24 % Test duration 28 d	OECD 301B/ ISO 9439/ EEC 92/69/V, C.4-C	CAS No2634-33-5 1,2-benzisothiazol-3(2H)-one
Biodegradation	Degradation rate 94 % Test duration 28 d	OECD 301A/ ISO 7827/ EEC 92/69/V, C.4-A	CAS No85536-14-7 alkylbenzenesulfonic acid [Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.]
Biodegradation	Degradation rate 85 % Test duration 28 d	OECD 306	CAS No133-37-9 (+-)-tartaric acid

12.3 Bioaccumulative potential

Assessment/classification
alkylbenzenesulfonic acid: Because of the n-octanol/water partition coefficient (log Pow) accumulation in organisms is possible.
decan-1-ol, ethoxylated: not available.
D,L-tartaric acid: Accumulation in organisms is not expected (log Pow: -1.91).
cocosfattyaminoxethylate: not available.
1,2-benzisothiazol-3(2H)-one: Accumulation in organisms is not expected.
2-methyl-2H-isothiazol-3-one: Accumulation in organisms is not expected.

12.4 Mobility in soil

Assessment/classification
alkylbenzenesulfonic acid: not available.
decan-1-ol, ethoxylated: not available.
D,L-tartaric acid: not available.
cocosfattyaminoxethylate: not available.
1,2-benzisothiazol-3(2H)-one: Weak adsorption on soil, mobile in soil.
2-methyl-2H-isothiazol-3-one: Weak adsorption on soil, mobile in soil.

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 oyxgen demand (COD)	577 mgO2/g		
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 3 H402: Harmful to aquatic life.
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

* **Appropriate disposal / Product**
Do not dispose with household waste. Do not discharge into the drains.
Dispose of waste according to applicable legislation.

Appropriate disposal / Package
Non-contaminated packages may be recycled.
Handle contaminated packages in the same way as the substance itself.

* **Other disposal recommendations**
Application solution / cleaning solution :
Neutralize with alkalies or lime.
Product is allowed to discharge into sewage treatment plants, but in accordance with official regulations.

Remark
For 1 liter concentrate use about 50 ml sodium hydroxide solution (50%) for neutralization.

SECTION 14: Transport information

	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1 UN number or ID number	UN 2586	UN 2586	UN 2586
14.2 UN proper shipping name	ALKYLSULPHONIC ACID, LIQUID	ALKYLSULPHONIC ACIDS, LIQUID	Alkylsulphonic acids, liquid
14.3 Transport hazard class(es)	8	8	8
14.4 Packing group	III	III	III
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	UN 2586
UN proper shipping name	ALKYLSULPHONIC ACID, LIQUID
Transport hazard class(es)	8
Hazard label(s)	8

Classification code	C3
Packing group	III
Environmental hazards	No
Limited quantity (LQ)	5 L
Special provisions	-
Tunnel restriction code	E

Sea transport (IMDG)

UN number or ID number	UN 2586
UN proper shipping name	ALKYLSULPHONIC ACIDS, LIQUID
Transport hazard class(es)	8
Packing group	III
Environmental hazards	No
Limited quantity (LQ)	5 L
Marine pollutant	No
EmS	F-A, S-B

Air transport (ICAO-TI / IATA-DGR)

UN number or ID number	UN 2586
UN proper shipping name	Alkylsulphonic acids, liquid
Transport hazard class(es)	8
Packing group	III
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 - not relevant if used as directed.
Regulation (EC) No 1907/2006 (REACH), Annex XVII No 75 - 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 0 %

15.2 Chemical Safety Assessment

National regulations

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

* SECTION 16: Other information

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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)
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
Acute Tox. 3, H301: Acute Toxicity (oral), Category 3
Acute Tox. 4, H302: Acute Toxicity (oral), Category 4
Acute Tox. 3, H311: Acute toxicity (dermal), Category 3
Acute Tox. 2, H330: Acute Toxicity (inhalation), Category 2
Skin Corr. 1C: Skin corrosion, Sub-category 1C
Skin Irrit. 2: Skin irritation, Category 2
Eye Dam. 1: Serious eye damage, Category 1
Skin Sens. 1A: Skin sensitizer, Sub-category 1A
Aquatic Acute 1: Short-term (acute) aquatic hazard, Category 1
Aquatic Chronic 1: Long-term (chronic) aquatic hazard, Category 1
Aquatic Chronic 3: Long-term (chronic) aquatic hazard, Category 3

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)

H301	Toxic if swallowed.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H330	Fatal if inhaled.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Indication of changes
* Data changed compared with the previous version