



**elma clean 145 (EC 145)**

Print date 14.12.2022  
Revision date 28.09.2022  
Version 2.2 (en)  
replaces version of 26.03.2020 (2.1)

**\* 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, cocosfattyaminooxethylate, 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

**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, +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
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, cocosfattyaminooxethylate, 2-methylisothiazol-3(2H)-one



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**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/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 (<500 ppm)

\* **2.3 Other hazards**

\* **Adverse human health effects and symptoms**

Acute Tox. 5 (oral) H303: May be harmful if swallowed.  
The product does not contain any substances with endocrine-disrupting properties  $\geq 0.1\%$ .

\* **Adverse environmental effects**

Aquatic Acute 3 H402: Harmful to aquatic life.  
The product does not contain any substances with endocrine-disrupting properties  $\geq 0.1\%$ .

**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
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	



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
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	1,2-benzisothiazol-3(2H)-one	> 0.005 < 0.05 weight-%	Acute Tox. 4 ; H302 Acute Tox. 2; H330 Skin Irrit. 2; H315 Eye Dam. 1; H318 Skin Sens. 1B; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	Skin Sens. 1;H317: C>=0.05% M=10 (Aquatic Acute 1) M=1 (Aquatic Chronic 1)
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.



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**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<sub>2</sub>)  
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<sub>2</sub>)

\* **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-resistant 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.



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**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.

**Storage class**

8B Non-combustible corrosive substances

**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.]	12 mg/m <sup>3</sup>	long-term inhalative (systemic)	
85536-14-7	alkylbenzenesulfonic acid [Benzenesulfonic acid, 4-C10-13- sec-alkyl derivs.]	170 mg/kg bw/day	long-term dermal (systemic)	



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\*

**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		



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	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/cm <sup>3</sup> (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).



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\* **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**

**Safety characteristics**

Value	Method, Result	Source, Remark
		The mixture does not contain any substances corrosive to metals.

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

\* **Desensitised explosives**

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



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**Other safety characteristics**

	Value	Method	Source, Remark
Evaporation rate			Water: 0.36 (ASTM D3539).
Solvent content	0 %		
Explosive properties			none
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	3831 mg/kg	ATE: Acute Toxicity Estimate	The acute oral toxicity is corresponding to GHS-category 5.
	CAS No.26183-52-8 decan-1-ol, ethoxylated LD50: 500- 2000 mg/kg Species Rat		
	CAS No.61791-14-8 cocofattyaminoxethylate LD50: 750 mg/kg Species Rat		
	CAS No.85536-14-7 alkylbenzenesulfonic acid [Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.] LD50: 1470 mg/kg Species Rat		



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	Effective dose	Method, Evaluation	Source, Remark
Acute dermal toxicity	> 5000 mg/kg	ATE: Acute Toxicity Estimate	
Acute inhalation toxicity	Acute inhalation toxicity (vapour)		not relevant

\* **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.



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\* **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**

**Symptoms related to the physical, chemical and toxicological characteristics**

	Effective dose	Method,Evaluation	Source, Remark
Endocrine disrupting properties			The product does not contain any substances with endocrine-disrupting properties >=0.1%.

\* **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: 11.9 mg/L CAS No.61791-14-8 cocofattyaminoxethylate LC50: 2.3 mg/L CAS No.85536-14-7 alkylbenzenesulfonic acid [Benzenesulfonic acid, 4- C10-13-sec-alkyl derivs.] LC50: 1.67 mg/L Species Lepomis macrochirus (Bluegill) Test duration 96 h	calculated.	
Chronic (long-term) fish toxicity	CAS No.85536-14-7 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 17.5 mg/L CAS No.61791-14-8 cocofattyaminoxethylate EC50 4.4 mg/L CAS No.85536-14-7 alkylbenzenesulfonic acid [Benzenesulfonic acid, 4- C10-13-sec-alkyl derivs.] EC50 2.4 mg/L Test duration 48 h	calculated.	



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	Effective dose	Method, Evaluation	Source, Remark
Chronic (long-term) toxicity to aquatic invertebrate	CAS No.85536-14-7 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 21.7 mg/L	calculated.	
	CAS No.61791-14-8 cocofattyaminoxethylate EC50 1.9 mg/L		
	CAS No.85536-14-7 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 No.61791-14-8 cocofattyaminoxethylate NOEC: 0.41 mg/L		
	CAS No.85536-14-7 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 No.61791-14-8 cocofattyaminoxethylate
Biodegradation	Degradation rate > 60 %	OECD 301B/ ISO 9439/ EEC 92/69/V, C.4-C	CAS No.26183-52-8 decan-1-ol, ethoxylated
Biodegradation	Degradation rate ≥ 90 % Test duration 28 d	OECD 301E/ EEC 92/69/V, C.4-B	CAS No.26183-52-8 decan-1-ol, ethoxylated
Biodegradation	Degradation rate 48- 56 % Test duration 28 d	OECD 301B/ ISO 9439/ EEC 92/69/V, C.4-C	CAS No.2682-20-4 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 No.2634-33-5 1,2- benzothiazol-3(2H)-one



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	Value	Method	Source, Remark
Biodegradation	Degradation rate 94 % Test duration 28 d	OECD 301A/ ISO 7827/ EEC 92/69/V, C.4-A	CAS No.85536-14-7 alkylbenzenesulfonic acid [Benzenesulfonic acid, 4- C10-13-sec-alkyl derivs.]
Biodegradation	Degradation rate 85 % Test duration 28 d	OECD 306	CAS No.133-37-9 (+-)- 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: not available.

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: not available.

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			The product does not contain any substances with endocrine-disrupting properties >=0.1%.

### \* 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) AOX	577 mgO2/g		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.



**elma clean 145 (EC 145)**

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**\* 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.  
Neutralize with alkalis or lime.  
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.

**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)
<b>14.1 UN number or ID number</b>	UN 2586	UN 2586	UN 2586
<b>14.2 UN proper shipping name</b>	ALKYLSULPHONIC ACID, LIQUID	ALKYLSULPHONIC ACIDS, LIQUID	Alkylsulphonic acids, liquid
<b>14.3 Transport hazard class(es)</b>	8	8	8
<b>14.4 Packing group</b>	III	III	III
<b>14.5 Environmental hazards</b>	No	No	No
<b>14.6 Special precautions for user</b>	none		
<b>14.7 Maritime transport in bulk according to IMO instruments</b>	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



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**Sea transport (IMDG)**

UN number or ID number UN 2586  
UN proper shipping name ALKYL SULPHONIC 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.



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**\* 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)

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

**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