



Ultrasonics.Steam.Ultraclean.

Safety Data Sheet according to Regulation (EC)
No. 1907/2006 (REACH)
Printed 06.10.2017
revision 28.09.2017 (GB) Version 1.2
elma lab clean S20 (ELC S20)

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

1.1. Product identifier

Name of product elma lab clean S20 (ELC S20)

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

Identified uses

Sector of uses [SU]

SU20 - Health services

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

SU3 - Industrial uses: Uses of substances as such or in preparations at industrial sites

Product categories [PC]

PC35 - Washing and cleaning products (including solvent based products)

Process categories [PROC]

PROC7 - Industrial spraying

PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities

PROC9 - Transfer of substance or preparation into small containers (dedicated filling line, including weighing)

PROC13 - Treatment of articles by dipping and pouring

PROC11 - Non industrial spraying

Environmental release categories [ERC]

ERC8a - Wide dispersive indoor use of processing aids in open systems

ERC8b - Wide dispersive indoor use of reactive substances in open systems

Recommended intended purpose(s)

Aqueous strongly acid foam-inhibited cleaning concentrate for hard surfaces in industry and laboratory.

1.3. Details of the supplier of the safety data sheet

Manufacturer/distributor

Elma Schmidbauer GmbH
Gottlieb-Daimler-Str. 17, D-78224 Singen (Htwl.)
Phone +49 7731 882-0, Fax +49 7731 882-266
E-Mail info@elma-ultrasonic.com
Internet www.elma-ultrasonic.com

Advice

Chemie/Labor: Email: chemlab@elma-ultrasonic.com

1.4. Emergency telephone number

Emergency advice

Vergiftungs-Informationen-Zentrale Freiburg
(Sprache/Language: D, GB)
Phone +49 761 19240

! SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Hazard classes and Hazard categories	Hazard Statements	Classification procedure
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Met. Corr. 1	H290	Expert judgement and weight of evidence determination.
Acute Tox. 4	H302	Calculation method.
Skin Corr. 1B	H314	Calculation method.



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

Hazard classes and Hazard categories	Hazard Statements	Classification procedure
--------------------------------------	-------------------	--------------------------

Eye Dam. 1	H318	Calculation method.
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Hazard Statements

H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.

2.2. Label elements

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



GHS05



GHS07

! Signal word

Danger

Hazard Statements

H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.

Precautionary Statements

P260	Do not breathe mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P330 + P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P302 + P352	IF ON SKIN: Wash with plenty of water.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308	IF exposed or concerned:
P310	Immediately call a POISON CENTER/doctor.

Hazardous ingredients for labeling

C10- fatty alcohol, ethoxylated, isotridecanol, ethoxylated, isotridecanol, ethoxylated, phosphoric acid ...%

2.3. Other hazards

Acute Tox. 5 (dermal + inhalation) H313+H333: May be harmful in contact with skin or if inhaled.

Aquatic Acute 2 H401: Toxic to aquatic life.

Information pertaining to special dangers for human and environment

Inhalation of spray may be harmful, may cause strong respiratory irritation and may cause damage to mucous membranes/lung.

Results of PBT and vPvB assessment

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



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! SECTION 3: Composition/ information on ingredients

3.1. Substances

not applicable

3.2. Mixtures

Description

Strongly acid aqueous mixture of non-ionic surfactants, solvents and phosphoric acid.

! Hazardous ingredients

CAS No	EC No	Name	[% weight]	Classification according to Regulation (EC) No 1272/2008 [CLP/ GHS]
7664-38-2	231-633-2	phosphoric acid ...%	40 - 60	Met. Corr. 1, H290 / Acute Tox. 4, H302 / Skin Corr. 1B, H314 / Eye Dam. 1, H318
69011-36-5	931-138-8	isotridecanol, ethoxylated	< 5	Acute Tox. 4, H302 / Eye Dam. 1, H318
166736-08-9		C10- fatty alcohol, ethoxylated	< 5	Acute Tox. 4, H302 / Eye Dam. 1, H318
69011-36-5	931-138-8	isotridecanol, ethoxylated	< 5	Acute Tox. 4, H302 / Eye Dam. 1, H318 / Aquatic Chronic 3, H412
34590-94-8	252-104-2	(2-methoxymethylethoxy)-propanol	5 - 15	
27458-92-0	248-469-2	isotridecanol	< 0,2	Skin Irrit. 2, H315 / Aquatic Acute 1, H400 / Aquatic Chronic 1, H410

REACH

CAS No	Name	REACH registration number
7664-38-2	phosphoric acid ...%	01-2119485924-24
69011-36-5	isotridecanol, ethoxylated	Not relevant (polymer).
166736-08-9	C10- fatty alcohol, ethoxylated	Not relevant (polymer).
69011-36-5	isotridecanol, ethoxylated	Not relevant (polymer).
34590-94-8	(2-methoxymethylethoxy)-propanol	01-2119450011-60
27458-92-0	isotridecanol	Not relevant (impurity).

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Remove contaminated soaked clothing immediately and dispose it safely.

In case of inhalation

Ensure of fresh air.

In case of inhalation of mist seek medical advice.

In the event of symptoms refer for medical treatment.

In case of skin contact

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

Consult a doctor if skin irritation persists.

In case of eye contact

In case of contact with eyes rinse thoroughly with plenty of water and seek medical advice.

In case of ingestion

Do not induce vomiting.

Call for a doctor immediately.

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

Rinse out mouth and give plenty of water to drink.



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

Physician's information / possible dangers

Risk of stomach perforation

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

Treatment (Advice to doctor)

Keep under medical supervision for at least 48 hours.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Alcohol-resistant foam

Dry powder

Carbon dioxide

Water spray jet

5.2. Special hazards arising from the substance or mixture

In case of fire formation of dangerous gases possible.

In the event of fire the following can be released:

Carbon monoxide (CO)

Phosphorus oxides (e.g. phosphoruspentoxide)

5.3. Advice for firefighters

Special protective equipment for fire-fighters

Do not inhale explosion and/or combustion gases.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Use personal protection.

High risk of slipping due to leakage/spillage of product.

For emergency responders

Use personal protective clothing.

Use personal protection.

Use breathing apparatus if exposed to vapours/dust/aerosol.

Wear acid-resistant boots.

Forms slippery surfaces with water.

High risk of slipping due to leakage/spillage of product.

6.2. Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

Do not discharge into the subsoil/soil.

6.3. Methods and material for containment and cleaning up

Take up with absorbent material (e.g. sand, kieselguhr, acid binder, general-purpose binder, sawdust).

Neutralize with sodium carbonate or slaked lime.

Flush away residues with water.

After taking up the material dispose according to regulation.

6.4. Reference to other sections

Informations for safe handling see chapter 7.

Informations for personal protective equipment see chapter 8.



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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Use only acid-proof equipment.
When diluting, always stir product into water.
Open and handle container with care!

General protective measures

Avoid contact with eyes and skin
Do not inhale gases/vapours/aerosols.

Hygiene measures

Provide washing facilities at place of work.
Remove soiled or soaked clothing immediately.
Keep away from food and drink.

Advice on protection against fire and explosion

The product is not combustible.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Provide acid-resistant floor.
Keep only in unopened original container.

Advice on storage compatibility

Do not store with alkalies.

Further information on storage conditions

Keep container tightly closed, open and handle carefully.
Keep locked up, out of reach of children
Protect from heat and direct solar radiation.
Store in a dry place.
Do not keep at temperatures below -5 °C.
Do not keep at temperatures above 30 °C.

Information on storage stability

Storage time: 5 years.

7.3. Specific end use(s)

Recommendation(s) for intended use

Do not use the product itself for injecting or spraying. Use only the diluted application solution for splash cleaning.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Ingredients with occupational exposure limits to be monitored

CAS No	Name	Code	[mg/m ³]	[ppm]	Remark
7664-38-2	phosphoric acid	8 hours	1		EU
		Short-term	2		
7664-38-2	Orthophosphoric acid	WEL, 8 hours	1		R34
		Short-term	2		

Indicative occupational exposure limit values (91/322/EEC, 2000/39/EC, 2004/37/EC, 2006/15/EC or 2009/161/EU)

CAS No	Name	Code	[mg/m ³]	[ppm]	Remark
34590-94-8	(2-methoxymethylethoxy)-propanol	8 hours	308	50	skin



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DNEL-/PNEC-values

DNEL worker

CAS No	Substance name	Value	Code	Remark
7664-38-2	phosphoric acid ...%	2,92 mg/m3	DNEL long-term inhalative (local)	

PNEC

CAS No	Substance name	Value	Code	Remark
7664-38-2	phosphoric acid ...%			No data available

Additional advice

8.2. Exposure controls

Hand protection

chemical-resistant gloves

Glove material specification [make/type, thickness]: FKM, 0.4mm.

Glove material specification [make/type, thickness]: Butyl, 0.5mm.

Eye protection

tightly fitting goggles

Other protection measures

Acid-resistant protective clothing

Limitation and surveillance of the environment

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.

Appropriate engineering controls

Splash cleaning only in enclosed systems.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

liquid

Colour

colourless

Odour

characteristic

Odour threshold

(2-methoxymethylethoxy)-propanol: 210 - 600mg/m3 (34 - 97 ppm).

Important health, safety and environmental information

	Value	Temperature	at	Method	Remark
pH value	< 1				
boiling range	>= 100 °C				
solidifying range	< -5 °C				
Flash point					No flash point below 100 °C.
Flammable (solid)	not applicable				
Flammability (gas)	not applicable				



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revision 28.09.2017 (GB) Version 1.2

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	Value	Temperature	at	Method	Remark
Ignition temperature	not determined				
Self ignition temperature					not spontaneously flammable
Lower explosion limit	1,1 Vol-%				Value of (2-methoxymethyl ethoxy)-propanol.
Upper explosion limit	14 Vol-%				Value of (2-methoxymethyl ethoxy)-propanol.
Vapour pressure	17 - 24 hPa	20 °C			
Relative density	ca. 1,32 g/cm ³				
Vapour density	5,12				Value of (2-methoxymethyl ethoxy)-propanol.
Solubility in water					miscible
Solubility/other	not determined				
Partition coefficient n-octanol/water (log P O/W)	-0,77				Value of phosphoric acid.
Decomposition temperature	>= 100 °C				
Viscosity	not determined				
Solvent content	5 - 15 %				
Vapourisation rate					
Water: 0.36 (ASTM D3539).					
(2-methoxymethylethoxy)-propanol: ~0.02 (ASTM D3539).					
Oxidising properties					no
Explosive properties					no
9.2. Other information					No further relevant informations available.



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! SECTION 10: Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

Stable at ambient temperature.

10.3. Possibility of hazardous reactions

Reactions with alkalis.

10.4. Conditions to avoid

Heat and direct solar radiation.

10.5. Incompatible materials

! Substances to avoid

Reactions with strong oxidising agents.
Corrodes aluminium.
Reactions with alkalis.

10.6. Hazardous decomposition products

No decomposition if used as directed.

! SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity/Irritation/Sensitization

	Value/Validation	Species	Method	Remark
LD50 acute oral	1904 mg/kg		ATE (acute toxicity estimate)	
LD50 acute dermal	4281 mg/kg		ATE (acute toxicity estimate)	
LC50 acute inhalation	5,2 mg/l ()		ATE (acute toxicity estimate)	dust/mist
Skin irritation	corrosive			
Eye irritation	corrosive			
Skin sensitization	The mixture is not classified as skin sensitiser.			

Specific target organ toxicity (single exposure)

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

Specific target organ toxicity (repeated exposure)

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

Aspiration hazard

The mixture is not classified as aspiration hazardous.



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Toxicity test (Additional information)

The mixture is not classified as mutagen / not classified as carcinogen / not classified as reproductive toxicant.
 In case of ingestion, severe burns of the mouth and throat and risk of perforation of esophagus and stomach.
 Inhalation of spray may cause strong respiratory irritation and may cause damage to mucous membranes/lung.
 phosphoric acid : LD50(oral, rat): 1530 mg/kg, LD50(dermal, rabbit): 2740 mg/kg .

Experiences made from practice

Has a degreasing effect on the skin.
 Causes corrosions.

! SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicological effects

	Value	Species	Method	Validation
Fish	LC50 3,3 mg/l		calculated	
Daphnia	EC50 5,9 mg/l		calculated	
Algae	EC50 6,9 mg/l		calculated	

12.2. Persistence and degradability

Physico-chemical degradability	100 %		Neutralization, pH-measurement	Acid properties can be eliminated up to 100% by neutralization.
Biological degradability	> 80 %	DOC decrease	calculated	readily degradable

12.3. Bioaccumulative potential

isotridecanol, ethoxylated: Bioaccumulation is improbable.
 isotridecanol, ethoxylated: Bioaccumulation is improbable.
 phosphoric acid: Accumulation in organisms is not expected.
 C10- fatty alcohol, ethoxylated: Accumulation in organisms is not expected.
 isotridecanol: Has the potential to bioaccumulate (log Pow: 5.57).
 (2-methoxymethylethoxy)-propanol: Accumulation in organisms is not expected (log Pow: 0.004).

12.4. Mobility in soil

isotridecanol, ethoxylated: Koc: >5000, immobile, strong adsorption on soil.
 isotridecanol, ethoxylated: Koc: >5000, strong adsorption on soil, immobile.
 phosphoric acid: not available.
 C10- fatty alcohol, ethoxylated: Adsorption on soil is possible.
 isotridecanol: not available.
 (2-methoxymethylethoxy)-propanol: Dissolves in water. Highly 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. Other adverse effects

No further relevant informations available.

Additional ecological information

	Value	Method	Remark
COD	ca. 500 mgO2/g	calculated	
AOX	The product does not contain any organically bound halogens according to the recipe.		



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elma lab clean S20 (ELC S20)

General regulation

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.

The mixture is not classified as chronic hazardous to the aquatic environment.

Do not allow uncontrolled leakage of product into the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste code No.

20 01 29*

Name of waste

detergents containing hazardous substances

Wastes marked with an asterisk are considered to be hazardous waste pursuant to Directive 2008/98/EC on hazardous waste.

Recommendations for the product

Do not dispose with household waste.

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

Neutralize with alkalies or lime.

Recommendations for packaging

Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse.

Recommended cleansing agent

Water

! SECTION 14: Transport information

	ADR/RID	IMDG	IATA-DGR
14.1. UN number	UN 1805	UN 1805	UN 1805
14.2. UN proper shipping name	PHOSPHORIC ACID, SOLUTION	PHOSPHORIC ACID SOLUTION	PHOSPHORIC ACID, SOLUTION
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

no

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not relevant

Land and inland navigation transport ADR/RID

Hazard label(s) 8

tunnel restriction code E



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revision 28.09.2017 (GB) Version 1.2
elma lab clean S20 (ELC S20)

! SECTION 15: Regulatory information

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

Authorizations

not relevant

! Application restrictions

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

Other regulations (EU)

Regulation (EC) No 648/2004 (Detergents regulation).

Directive 2012/18/EU, Annex I: not mentioned.

VOC standard

VOC content ca.7,5 %

15.2. Chemical Safety Assessment

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

! SECTION 16: Other information

Recommended uses and restrictions

National and local regulations concerning chemicals shall be observed.

Further information

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.

Indication of changes: "!" = Data changed compared with the previous version. Previous version: 1.1

! Sources of key data used

Own measurements.

European Chemicals Agency, <http://echa.europa.eu/>.

Informations from our suppliers.

H290 May be corrosive to metals.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H318 Causes serious eye damage.
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.