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

1.1. Product identifier

Name of product

elma lab clean S10 (ELC S10)
UFI: 5V30-X0TX-R00P-K1DS

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

Identified uses

Sector of uses [SU]
SU22 - Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
SU3 - Industrial uses: Uses of substances as such or in preparations at industrial sites

Recommended intended purpose(s)
Aqueous 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-Informations-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
Skin Irrit. 2	**H315**	**Expert judgement and weight of evidence determination.**
Eye Dam. 1	**H318**	**Calculation method.**
STOT SE 3	**H335**	**Calculation method.**
Aquatic Chronic 3	**H412**	**Calculation method.**

Hazard Statements

H315	Causes skin irritation.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.
H412	Harmful to aquatic life with long lasting effects.

2.2. Label elements

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

GHS05

GHS07

Signal word
Danger

Hazard Statements

H315	Causes skin irritation.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.
H412	Harmful to aquatic life with long lasting effects.

Precautionary Statements

P102	Keep out of reach of children.
P261	Avoid breathing mist/vapours/spray.
P280	Wear protective gloves/eye 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.
P310	Immediately call a doctor.
P312	Call a POISON CENTER/doctor if you feel unwell.

! Hazardous ingredients for labelling
C10- fatty alcohol, alkoxylated, glycollic acid, isotridecanol, ethoxylated, isotridecanol, ethoxylated

2.3. Other hazards
Acute Tox. 5 (oral) H303: May be harmful if swallowed.

Aquatic Acute 2 H401: Toxic to aquatic life.

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
Description
Aqueous acid foam-inhibited mixture of non-ionic surfactants, complexing agents, solvents and organic acids.

! Hazardous ingredients

CAS No	EC No	Name	[% weight]	Classification according to Regulation (EC) No 1272/2008 [CLP/ GHS]
69011-36-5	931-138-8	isotridecanol, ethoxylated	< 5	Acute Tox. 4, H302 / Eye Dam. 1, H318
166736-08-9		C10- fatty alcohol, alkoxylated	5 - 15	Acute Tox. 4, H302 / Eye Dam. 1, H318
69011-36-5	931-138-8	isotridecanol, ethoxylated	5 - 15	Acute Tox. 4, H302 / Eye Dam. 1, H318

Hazardous ingredients (continued)

CAS No	EC No	Name	[% weight]	Classification according to Regulation (EC) No 1272/2008 [CLP/ GHS]
79-14-1	**201-180-5**	**glycollic acid**	**5 - 15**	**Met. Corr. 1, H290 / Acute Tox. 4, H332 / Skin Corr. 1B, H314 / Eye Dam. 1, H318 / STOT SE 3, H335**
34590-94-8	**252-104-2**	**(2-methoxymethylethoxy)-propanol**	**5 - 15**	
27458-92-0	**248-469-2**	**isotridecanol**	**< 0,5**	**Skin Irrit. 2, H315 / Aquatic Acute 1, H400 M=1 / Aquatic Chronic 1, H410 M=1**
64-18-6	**200-579-1**	**formic acid ... %**	**< 0,2**	**Flam. Liq. 3, H226 / Acute Tox. 4, H302 / Acute Tox. 3, H331 / Skin Corr. 1A, H314 / Eye Dam. 1, H318 / , EUH071 / STOT SE 1, H370**

REACH

CAS No	Name	REACH registration number
69011-36-5	isotridecanol, ethoxylated	Not relevant (polymer).
166736-08-9	C10- fatty alcohol, alkoxylated	Not relevant (polymer).
69011-36-5	isotridecanol, ethoxylated	Not relevant (polymer).
79-14-1	glycollic acid	01-2119485579-17
34590-94-8	(2-methoxymethylethoxy)-propanol	01-2119450011-60
27458-92-0	isotridecanol	Not relevant (impurity).
64-18-6	formic acid ... %	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.
Refer to medical treatment.
If swallowed seek medical advice immediately and show the doctor packing or label.
Rinse out mouth and give plenty of water to drink.

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

Physician's information / possible symptoms
No further informations available.

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

Treatment (Advice to doctor)
No further informations available.

SECTION 5: Firefighting measures

5.1. Extinguishing media
Suitable extinguishing media
water
Alcohol-resistant foam
Dry powder
Carbon dioxide

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:
Corrosive gases/vapours
Carbon monoxide (CO)
Phosphorus oxides (e.g. phosphoruspentoxide)
Under certain fire conditions traces of other toxic substances cannot be excluded.

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.
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.

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).
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.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Advice on safe handling
Open and handle container with care!
Take the usual precautions when handling with chemicals.

General protective measures
Avoid contact with eyes and skin
Do not inhale vapours/aerosols.

Hygiene measures
Provide washing facilities at place of work.
Keep away from food and drink.

Advice on protection against fire and explosion
The product is hardly combustible.
Pay attention to general rules of internal fire prevention.

7.2. Conditions for safe storage, including any incompatibilities
Requirements for storage rooms and vessels
Keep only in unopened original container.

Advice on storage compatibility
Do not store with alkalies.
Do not store together with oxidizing agents.

Further information on storage conditions
Keep locked up, 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.

Information on storage stability
Storage time: 3 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

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/m3]	[ppm]	Remark
34590-94-8	(2-methoxymethylethoxy)-propanol	8 hours	308	50	skin

DNEL-/PNEC-values
DNEL worker

CAS No	Substance name	Value	Code	Remark
79-14-1	glycollic acid	1,53 mg/m3	DNEL long-term inhalative (local)	
		57,69 mg/ kg bw/day	DNEL long-term dermal (systemic)	
		10,56 mg/m3	DNEL long-term inhalative (systemic)	

PNEC

CAS No	Substance name	Value	Code	Remark
79-14-1	glycollic acid	7 mg/l	PNEC sewage treatment plant (STP)	
		0,031 mg/l	PNEC aquatic, freshwater	

Additional advice

8.2. Exposure controls
Respiratory protection
Breathing apparatus in the event of aerosol or mist formation.
Short term: filter apparatus, Filter A/P2

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

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
Technical exhaustion in case of longtermed exposition in sprayed aerosols.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	**Colour**	**Odour**
liquid	yellowish	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	ca. 2,5				
boiling range	>= 100 °C				
solidifying range	not determined				
Flash point					No flash point below 100°C.
Flammable (solid)	not applicable				
Flammability (gas)	not applicable				
Ignition temperature	not determined				
Self ignition temperature					not spontaneously flammable
Lower explosion limit	1,1 Vol-%				Value of (2-methoxymethylethoxy)-propanol.

	Value	Temperature	at	Method	Remark
Upper explosion limit	14 Vol-%				Value of (2-methoxymethylethoxy)-propanol.
Vapour pressure	ca. 24 hPa	20 °C			
Relative density	ca. 1,05 g/cm3				
Vapour density	5,12				Value of (2-methoxymethylethoxy)-propanol.
Solubility in water					miscible
Solubility/other	not determined				
Partition coefficient n-octanol/water (log P O/W)	5,57				Value of isotridecanol.
Decomposition temperature	>= 100 °C				
Viscosity dynamic	26,4 mPa*s	20 °C			
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
The mixture is not classified as corrosive to metals.
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 oxidising agents.
Reactions with strong alkalies.

10.4. Conditions to avoid
Heat and direct solar radiation.

10.5. Incompatible materials
Substances to avoid
Reactions with oxidising agents.
Reactions with strong alkalies.

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	2417 mg/kg		ATE (acute toxicity estimate)	
LD50 acute dermal	> 5000 mg/kg		ATE (acute toxicity estimate)	
LC50 acute inhalation	> 50 mg/l ()		ATE (acute toxicity estimate)	vapours
Skin irritation	strong irritant			
Eye irritation	risk of strong eye injuries			
Skin sensitization	The mixture is not classified as skin sensitiser.			

Specific target organ toxicity (single exposure)
Respiratory irritant effect: STOT SE 3 H335: May cause respiratory irritation.

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.

Toxicity test (Additional information)
The mixture is not classified as mutagen / not classified as carcinogen / not classified as reproductive toxicant.
Aerosols of product effect toxic in case of inhaling (Acute Tox. 4 H332: Harmful if inhaled.).
OECD 435: not corrosive to skin.

Experiences made from practice
Has a degreasing effect on the skin.

! SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicological effects

	Value	Species	Method	Validation
Fish	LC50 4,4 mg/l		calculated	
Daphnia	EC50 3,6 mg/l		calculated	
Algae	EC50 4,3 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	Biodegradable

12.3. Bioaccumulative potential

isotridecanol, ethoxylated: Bioaccumulation is improbable.
isotridecanol, ethoxylated: Bioaccumulation is improbable.
C10- fatty alcohol, alkoxylated: 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).
glycollic acid: Accumulation in organisms is not expected (log Pow: -1.11).
formic acid: Accumulation in organisms is not expected (log Pow: -0.154).

12.4. Mobility in soil

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

No further relevant informations available.

Additional ecological information

	Value	Method	Remark
COD	ca. 1,0 gO2/g	calculated	
AOX	The product does not contain any organically bound halogens according to the recipe.		

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.
Chronic aquatic environmental hazards: Aquatic Chronic 3 H412: Harmful to aquatic life with long lasting effects.
Do not allow uncontrolled leakage of product into the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste code No.	Name of waste
20 01 29*	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 fot reuse.

Recommended cleansing agent
Water

SECTION 14: Transport information

	ADR/RID	IMDG	IATA-DGR
14.1. UN number	-	-	-
14.2. UN proper shipping name	-	-	-
14.3. Transport hazard class(es)	-	-	-
14.4. Packing group	-	-	-
14.5. Environmental hazards	-	-	-

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
No dangerous goods as defined by these transport regulations.

Marine transport IMDG
No hazardous material as defined by the prescriptions.

Air transport ICAO/IATA-DGR
No hazardous material as defined by the prescriptions.

! 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.14,5 %

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: 1.2
Sources of key data used
Own measurements.
European Chemicals Agency, http://echa.europa.eu/.
Informations from our suppliers.

EUH071	Corrosive to the respiratory tract.
H226	Flammable liquid and vapour.
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.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H370	Causes damage to organs (or state all organs affected, if known) (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.