



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

### 1.1. Product identifier

Name of product elma lab clean A10 (ELC A10)  
UFI: TM60-40WN-J00G-SY1U

### 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

#### ! Product categories [PC]

PC35 - Washing and cleaning products

#### ! Process categories [PROC]

PROC7 - Industrial spraying  
PROC8a - Transfer of substance or mixture (charging and discharging) at non- dedicated facilities  
PROC9 - Transfer of substance or mixture 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 - Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor)  
ERC8b - Widespread use of reactive processing aid (no inclusion into or onto article, indoor)  
ERC6b - Use of reactive processing aid at industrial site (no inclusion into or onto article)

#### Recommended intended purpose(s)

Aqueous alkaline 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
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Met. Corr. 1	H290	Expert judgement and weight of evidence determination.
Skin Irrit. 2	H315	Calculation method.
Eye Dam. 1	H318	Calculation method.

#### Hazard Statements

H290 May be corrosive to metals.



H315 Causes skin irritation.  
H318 Causes serious eye damage.

## 2.2. Label elements

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



GHS05

#### Signal word

Danger

#### Hazard Statements

H290 May be corrosive to metals.  
H315 Causes skin irritation.  
H318 Causes serious eye damage.

#### Precautionary Statements

P261 Avoid breathing mist/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, isotridecanol, ethoxylated, potassium hydroxide

#### 2.3. Other hazards

Acute Tox. 5 (oral + inhalation) H303 + H333: May be harmful if swallowed 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 and may cause respiratory irritation.

#### 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

Aqueous alkaline foam-inhibited mixture of amphoteric and non-ionic surfactants, complexing agents, phosphates, potassium hydroxide and dye.



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

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**! Hazardous ingredients**

CAS No	EC No	Name	[% weight]	Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]
166736-08-9		C10- fatty alcohol, alkoxyated	< 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
1310-58-3	215-181-3	potassium hydroxide	< 2	Met. Corr. 1, H290 / Acute Tox. 3, H301 / Skin Corr. 1A, H314 / Eye Dam. 1, H318
7320-34-5	230-785-7	tetrapotassium pyrophosphate	< 5	Eye Irrit. 2, H319
27458-92-0	248-469-2	isotridecanol	< 0,2	Skin Irrit. 2, H315 / Aquatic Acute 1, H400 M=1 / Aquatic Chronic 1, H410 M=1

**REACH**

CAS No	Name	REACH registration number
166736-08-9	C10- fatty alcohol, alkoxyated	Not relevant (polymer).
69011-36-5	isotridecanol, ethoxylated	Not relevant (polymer).
1310-58-3	potassium hydroxide	01-2119487136-33
7320-34-5	tetrapotassium pyrophosphate	01-2119489369-18
27458-92-0	isotridecanol	Not relevant (impurity).

**SECTION 4: First aid measures**

**4.1. Description of first aid measures**

**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 with 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.



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## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

#### Suitable extinguishing media

water

Fire-extinguishing activities according to surrounding.

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:

Nitrogen oxides (NO<sub>x</sub>)

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.

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## 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, sawdust, general-purpose binder, kieselguhr).

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

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 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 not combustible.

#### 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

Keep at distance to strong acids.

##### 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

##### Ingredients with occupational exposure limits to be monitored

CAS No	Name	Code	[mg/m <sup>3</sup> ]	[ppm]	Remark
1310-58-3	Potassium hydroxide	8 hours Short-term	2		R22, 35

##### DNEL-/PNEC-values

###### DNEL worker

CAS No	Substance name	Value	Code	Remark
1310-58-3	potassium hydroxide	1 mg/m <sup>3</sup>	DNEL long-term inhalative (local)	

###### PNEC

CAS No	Substance name	Value	Code	Remark
1310-58-3	potassium hydroxide			No data available
7320-34-5	tetrapotassium pyrophosphate	0,05 mg/l	PNEC aquatic, freshwater	
		50 mg/l	PNEC sewage treatment plant (STP)	

#### ! Additional advice

Occupational exposure limits for potassium hydroxide.

#### 8.2. Exposure controls

##### Respiratory protection

Breathing apparatus in the event of aerosol or mist formation.  
Short term: filter apparatus, Filter P2

##### Hand protection

chemical-resistant gloves

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



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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, permeation time/life]: NR, 0,5mm, >=8h.

**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**

liquid

**Colour**

dark green

**Odour**

mild

**Odour threshold**

not determined

**Important health, safety and environmental information**

	Value	Temperature	at	Method	Remark
<b>pH value</b>	11,4				
<b>boiling range</b>	>= 100 °C				
<b>solidifying range</b>	not determined				
<b>Flash point</b>					No flash point below 100 °C.
<b>Flammable (solid)</b>	not relevant				
<b>Flammability (gas)</b>	not relevant				
<b>Ignition temperature</b>	not determined				
<b>Self ignition temperature</b>					not spontaneously flammable
<b>Lower explosion limit</b>	not relevant				
<b>Upper explosion limit</b>	not relevant				
<b>Vapour pressure</b>	ca. 23 hPa	20 °C			
<b>Relative density</b>	ca. 1,08 g/cm <sup>3</sup>				
<b>Vapour density</b>	not available				
<b>Solubility in water</b>					miscible



	Value	Temperature	at	Method	Remark
<b>Solubility/other</b>	not determined				
<b>Partition coefficient n-octanol/water (log P O/W)</b>	ca. -2				Value of tetrapotassium pyrophosphate
<b>Decomposition temperature</b>	>= 100 °C				
<b>Viscosity dynamic</b>	6,5 mPa*s	20 °C			
<b>Solvent content</b>	0 %				
<b>Vapourisation rate</b> Water: 0.36 (ASTM D3539).					
<b>Oxidising properties</b> no					
<b>Explosive properties</b> no					
<b>9.2. Other information</b> No further relevant informations available.					

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Evolution of heat under influence of acids.  
No further hazardous reactions known if used as directed.

### 10.2. Chemical stability

Stable at ambient temperature.

### 10.3. Possibility of hazardous reactions

Reactions with strong acids.  
Reactions with light metals, with evolution of hydrogen.

### 10.4. Conditions to avoid

Heat and direct solar radiation.

### 10.5. Incompatible materials

#### Substances to avoid

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

### 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
<b>LD50 acute oral</b>	3787 mg/kg		ATE (acute toxicity estimate)	
<b>LD50 acute dermal</b>	> 5000 mg/kg		ATE (acute toxicity estimate)	
<b>LC50 acute inhalation</b>	5,3 mg/l ()		ATE (acute toxicity estimate)	dust/mist
<b>Skin irritation</b>	irritant			
<b>Eye irritation</b>	irritant - risk of strong eye injuries			
<b>Skin sensitization</b>	non-sensitizing			

#### Specific target organ toxicity (single exposure)

The mixture is not classified as specific target organ toxicant (single exposure).  
Inhalation of spray 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.  
potassium hydroxide : LD50(oral, rat): 273 mg/kg .

#### Experiences made from practice

Has a degreasing effect on the skin.

## ! SECTION 12: Ecological information

### 12.1. Toxicity

#### Ecotoxicological effects

	Value	Species	Method	Validation
<b>Fish</b>	LC50 11,1 mg/l		calculated	
<b>Daphnia</b>	EC50 9,2 mg/l		calculated	
<b>Algae</b>	EC50 6,7 mg/l		calculated	

### 12.2. Persistence and degradability

<b>Physico-chemical degradability</b>	100 %		Neutralization, pH-measurement	Alkaline properties can be eliminated up to 100% by neutralization.
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	Elimination rate	Method of analysis	Method	Validation
<b>Biological degradability</b>	>= 65 %	DOC decrease	calculated	Moderately/partially biodegradable

**12.3. Bioaccumulative potential**

isotridecanol, ethoxylated: Bioaccumulation is improbable.  
tetrapotassium pyrophosphate: Bioaccumulation is improbable.  
potassium hydroxide: Accumulation in organisms is not expected.  
C10- fatty alcohol, alkoxyated: Accumulation in organisms is not expected.  
isotridecanol: Has the potential to bioaccumulate (log Pow: 5.57).

**12.4. Mobility in soil**

isotridecanol, ethoxylated: Koc: >5000, strong adsorption on soil, immobile.  
potassium hydroxide: Dissolves in water. Highly mobile in soil.  
tetrapotassium pyrophosphate: moderately mobile in soil (Koc: ~150).  
C10- fatty alcohol, alkoxyated: Adsorption on soil is possible.  
isotridecanol: 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
<b>COD</b>	ca. 368 mgO2/g	calculated	
<b>AOX</b>	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.  
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.	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.  
Suitable for neutralization are acetic acid (60%, liquid) or citric acid (solid powder, crystallized) if a stainless steel bath is used.  
Product is allowed to discharge into sewage treatment plants, but in accordance with official regulations.

**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 1814	UN 1814	UN 1814
14.2. UN proper shipping name	POTASSIUM HYDROXIDE SOLUTION	POTASSIUM HYDROXIDE SOLUTION	POTASSIUM HYDROXIDE SOLUTION
14.3. Transport hazard class(es)	8	8	8
14.4. Packing group	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		
<b>Land and inland navigation transport ADR/RID</b>			
Hazard label(s)	8		
Tunnel restriction code	E		

## ! 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 0 %

### 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: 1.3

### Sources of key data used

Own measurements.

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

Informations from our suppliers.



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- H290 May be corrosive to metals.
- H301 Toxic if swallowed.
- H302 Harmful if swallowed.
- H314 Causes severe skin burns and eye damage.
- H315 Causes skin irritation.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.