



elma lab clean A25 (ELC A25)

Print date 16.11.2022
Revision date 16.11.2022
Version 1.9 (en)
replaces version of 15.07.2022 (1.8)

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

1.1 Product identifier

Trade name/designation elma lab clean A25 (ELC A25)
Unique Formula Identifier UFI: 1F60-40HU-X00H-F8VQ
Product category PC-CLN-OTH Other cleaning, care and maintenance products (excludes biocidal products)

Hazard components

potassium hydroxide, isotridecanol, ethoxylated, C10- fatty alcohol, alkoxyated

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

Sector of uses [SU]

SU20 Health services
SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
SU3 Industrial uses

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)

Product Categories [PC]

PC35 Washing and cleaning products

Use of the substance/mixture

Aqueous, strongly alkaline, foam-inhibited cleaning concentrate for ultrasonic, immersion and splash cleaning of alkali-resistant parts and medical devices.

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
Met. Corr. 1, H290	Expert judgement and weight of evidence determination.
Skin Corr. 1A, H314	Calculation method.
Eye Dam. 1, H318	Calculation method.



elma lab clean A25 (ELC A25)

Print date 16.11.2022
Revision date 16.11.2022
Version 1.9 (en)
replaces version of 15.07.2022 (1.8)

Hazard statements for physical hazards

H290 May be corrosive to metals.

Hazard statements for health hazards

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]

Hazard pictograms



GHS05

Signal word

Danger

Hazard statements

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

Precautionary statements

P405 Store locked up.

P102 Keep out of reach of children.

P234 Keep only in original packaging.

P260 Do not breathe mist/spray.

P280 Wear protective gloves/protective clothing and eye/face protection.

P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.

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.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

P332 + P313 If skin irritation occurs: Get medical advice/attention.

Other labelling

Labelling for contents according to regulation (EC) No. 648/2004:

5 - 15% amphoteric surfactants

5 - 15% non-ionic surfactants

< 5% phosphates

< 5% polycarboxylates

2.3 Other hazards

Adverse human health effects and symptoms

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

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

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 2 H401: Toxic 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.



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Print date 16.11.2022
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replaces version of 15.07.2022 (1.8)

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
1310-58-3	215-181-3	potassium hydroxide	5 - 9 weight-%	Met. Corr. 1 ; H290 Acute Tox. 3; H301 Skin Corr. 1A; H314 Eye Dam. 1; H318	Skin Corr. 1A;H314: C>=5% Skin Corr. 1B;H314: 2%<=C<5% Skin Irrit. 2;H315: 0.5%<=C<2% Eye Dam. 1;H318: C>=2% Eye Irrit. 2;H319: 0.5%<=C<2% ATE(oral): 273 mg/kg
7320-34-5	230-785-7	tetrapotassium pyrophosphate	< 5 weight-%	Eye Irrit. 2; H319	
69011-36-5	931-138-8	isotridecanol, ethoxylated	< 5 weight-%	Acute Tox. 4; H302 Eye Dam. 1; H318	Eye Dam. 1;H318: C>10% Eye Irrit. 2;H319: 1%<C=10% ATE(oral): 500 mg/kg
166736-08-9		C10- fatty alcohol, alkoxyated	1 - 2 weight-%	Acute Tox. 4; H302 Eye Dam. 1; H318	ATE(oral): 500 mg/kg
27458-92-0	248-469-2	isotridecanol	< 0.2 weight-%	Skin Irrit. 2; H315 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	M=1 (Aquatic Acute 1) M=1 (Aquatic Chronic 1)

REACH No.	Substance name
01-2119487136-33	potassium hydroxide
01-2119489369-18	tetrapotassium pyrophosphate
Not relevant (polymer).	isotridecanol, ethoxylated
Not relevant (polymer).	C10- fatty alcohol, alkoxyated
Not relevant (impurity).	isotridecanol

Additional information

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



elma lab clean A25 (ELC A25)

Print date 16.11.2022
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replaces version of 15.07.2022 (1.8)

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

Remove contaminated, saturated clothing immediately.
Symptoms may develop several hours following exposure; medical observation therefore necessary for at least 48 hours.

Following inhalation

Provide fresh air.
In case of inhaling spray mist, consult a physician.
In the event of symptoms refer for medical treatment.

Following skin contact

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

Do NOT induce vomiting.
Call a physician immediately.
Medical treatment necessary.
Rinse mouth immediately and drink plenty of water.

4.2 Most important symptoms and effects, both acute and delayed

Effects

Risk of stomach perforation.

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

Water
Foam
Extinguishing powder
Carbon dioxide (CO₂)

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:
Corrosive gases/vapours
Nitrogen oxides (NO_x)
Carbon monoxide
Phosphorus oxides

* 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.
Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.



elma lab clean A25 (ELC A25)

Print date 16.11.2022
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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 equipment.
Special danger of slipping by leaking/spilling product.

For emergency responders

Remove persons to safety.
Personal protection equipment
Use personal protection.
Use breathing apparatus if exposed to vapours/dust/aerosol.
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

Suitable material for taking up:
Sand
Sawdust
Universal binder
Kieselguhr
Flush away residues with water.
Use chemical neutralizers.
After taking up the material dispose according to regulation.

*** 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

Do not inhale aerosols
Handle and open container with care.
Use only alkali-resistant equipment.
When diluting/dissolving, always have the water ready first, then slowly stir in the product.
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.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Suitable floor material:
Alkali-resistant
Keep only in unopened original container.
Keep container tightly closed.

Storage class

8B Non-combustible corrosive substances

Materials to avoid

Do not store together with:
Acid



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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

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**

Occupational exposure limit values

CAS No.	EC No.	Substance name	occupational exposure limit value
1310-58-3	215-181-3	Potassium hydroxide	Short-term(mg/m ³) 2 (1) 15 minutes reference period (IE)
1310-58-3	215-181-3	Potassium hydroxide	Short-term(mg/m ³) 2 (UK)

*** DNEL worker**

CAS No.	Substance name	DNEL value	DNEL type	Remark
1310-58-3	potassium hydroxide	1 mg/m ³	long-term inhalative (local)	Assessment factor 1

8.2 Exposure controls

Appropriate engineering controls

Technical measures to prevent exposure
Splash cleaning only in enclosed systems.

Personal protection equipment

Eye/face protection
tightly fitting goggles

Hand protection

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

Body protection:

Required properties:
alkali-resistant

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 for potassium hydroxide.



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*** SECTION 9: Physical and chemical properties**

*** 9.1 Information on basic physical and chemical properties**

Physical state

liquid

*

Colour

yellowish up to brown

Odour

mild

Safety relevant basis data

	Value	Method	Source, Remark
Odour threshold:			not determined
Melting point/freezing point	solidifying range		not determined
Boiling point or initial boiling point and boiling range	≥ 100 °C		
flammability	solid		not relevant
flammability	gaseous		not relevant
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	230 °C		Value of isotridecanol.
Decomposition temperature	≥ 100 °C		
pH	in delivery state 12- 12.5 (20°C) Concentration 10 g/L		strong alkaline
Viscosity	dynamic 8.2 mPa*s (20°C)		
Solubility(ies)	Water solubility		miscible
Partition coefficient n-octanol/water (log value)	approx. -2		Value of tetrapotassium pyrophosphate.
Vapour pressure	approx. 23 hPa (20°C)		
Density and/or relative density	approx. 1.15 g/cm ³ (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.



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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 under pressure).

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.



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Version 1.9 (en)
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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
Corrosion rate (mm aluminium/year)	> 6.25 mm/a	Expert judgement and weight of evidence determination.	
Corrosion rate (mm steel/year)			not available

Assessment/classification
The mixture is classified as corrosive to metals (Met. Corr. 1 H290).

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
Oxidising properties			none

Other information
No further relevant informations available.

SECTION 10: Stability and reactivity

10.1 Reactivity

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

10.2 Chemical stability

Stable at ambient temperature.

10.3 Possibility of hazardous reactions

Exothermic reaction with:
Acid
Reactions with light metals, with evolution of hydrogen.

10.4 Conditions to avoid

Heat and direct solar radiation.

10.5 Incompatible materials

Reactions with strong acids.
Oxidising agent, strong
Corrodes aluminium.



elma lab clean A25 (ELC A25)

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Revision date 16.11.2022
Version 1.9 (en)
replaces version of 15.07.2022 (1.8)

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	2000- 2100 mg/kg	ATE: Acute Toxicity Estimate	The acute oral toxicity is corresponding to GHS-category 5.
	CAS No.1310-58-3 potassium hydroxide LD50: 273 mg/kg Species Rat		
	CAS No.69011-36-5 isotridecanol, ethoxylated 500 mg/kg	ATE: Acute Toxicity Estimate	
	CAS No.166736-08-9 C10- fatty alcohol, alkoxyated 500 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

Skin corrosion/irritation

Animal data

Result / Evaluation	Method	Source, Remark
strongly corrosive.	Calculation method.	

Serious eye damage/irritation

Animal data

Result / Evaluation	Method	Source, Remark
strongly 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
not 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.



elma lab clean A25 (ELC A25)

Print date 16.11.2022
Revision date 16.11.2022
Version 1.9 (en)
replaces version of 15.07.2022 (1.8)

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

Other information

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

Assessment/classification

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

Other information

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

Assessment/classification

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

* **Aspiration hazard**

* **Remark**

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			This product contains a substance that has endocrine disrupting properties with respect to humans.

* **Other information**

If swallowed danger of perforation of the esophagus and the stomach (strong corrosive effects).
Inhalation of spray may cause strong respiratory irritation and may cause damage to mucous membranes/lung.
Aerosols of product effect toxic in case of inhaling (Acute Tox. 4 H332: Harmful if inhaled.).
Causes strong corrosions.

**elma lab clean A25 (ELC A25)**

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replaces version of 15.07.2022 (1.8)

SECTION 12: Ecological information**12.1 Toxicity****Aquatic toxicity**

	Effective dose	Method, Evaluation	Source, Remark
Acute (short-term) fish toxicity	LC50: 10- 15 mg/L CAS No.27458-92-0 isotridecanol LC50: 0.55 mg/L Species Danio rerio (zebrafish) Test duration 96 h	calculated. OECD 203	
Chronic (long-term) fish toxicity	not determined		
Acute (short-term) toxicity to crustacea	EC50 9- 10 mg/L CAS No.27458-92-0 isotridecanol EC50 0.391 mg/L Species Daphnia magna (Big water flea) Test duration 48 h	calculated. OECD 202	
Chronic (long-term) toxicity to aquatic invertebrate	CAS No.27458-92-0 isotridecanol NOEC 0.0036 mg/L Species Daphnia magna (Big water flea) Test duration 21 d		
Acute (short-term) toxicity to algae and cyanobacteria	EC50 2.8 mg/L CAS No.27458-92-0 isotridecanol EC50 0.297 mg/L Species Desmodesmus subspicatus Test duration 72 h	calculated. OECD 201	
Chronic (long-term) toxicity to aquatic algae and cyanobacteria	not determined		
Toxicity to other aquatic plants/organisms	not determined		
Toxicity to microorganisms	not determined		

Assessment/classification

Toxic to aquatic life.

12.2 Persistence and degradability

	Value	Method	Source, Remark
Biodegradation	Degradation rate \geq 70 %	calculated.	DOC reduction Moderately/partially biodegradable.
Biodegradation	Degradation rate 100 %	Neutralization, pH-measurement	Alkaline properties can be eliminated up to 100% by neutralization.
Biodegradation			CAS No.1310-58-3 potassium hydroxide Inorganic product which is not eliminable from water through biological cleaning processes.



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

elma lab clean A25 (ELC A25)

Print date 16.11.2022
Revision date 16.11.2022
Version 1.9 (en)
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	Value	Method	Source, Remark
Biodegradation			CAS No.7320-34-5 tetrapotassium pyrophosphate Inorganic product which is not eliminable from water through biological cleaning processes.
Biodegradation	Degradation rate > 60 % Test duration 28 d	OECD 301B/ ISO 9439/ EEC 92/69/V, C.4-C	CAS No.69011-36-5 isotridecanol, ethoxylated
Biodegradation	Degradation rate > 60 % Test duration 28 d	OECD 301B/ ISO 9439/ EEC 92/69/V, C.4-C	CAS No.166736-08-9 C10- fatty alcohol, alkoxyated
Biodegradation	Degradation rate 90- 100 % Test duration 28 d	OECD 301F/ ISO 9408/ EEC 92/69/V, C.4-D	CAS No.27458-92-0 isotridecanol

12.3 Bioaccumulative potential

Assessment/classification

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

Assessment/classification

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 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 oxygen demand (COD) AOX	0.3- 0.35 gO2/g	calculated.	The product does not contain any organically bound halogens according to the recipe.



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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 2 H401: Toxic to aquatic life. After neutralization: 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.

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.

Appropriate disposal / Package

Non-contaminated packages may be recycled.

Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1 UN number or ID number	1814	1814	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	II	II	II
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	1814
UN proper shipping name	POTASSIUM HYDROXIDE SOLUTION
Transport hazard class(es)	8
Hazard label(s)	8
Classification code	C5
Packing group	II
Environmental hazards	No
Limited quantity (LQ)	1 L



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replaces version of 15.07.2022 (1.8)

Special provisions -
Tunnel restriction code E

Sea transport (IMDG)

UN number or ID number 1814
UN proper shipping name POTASSIUM HYDROXIDE SOLUTION
Transport hazard class(es) 8
Packing group II
Environmental hazards No
Limited quantity (LQ) 1 L
Marine pollutant No
EmS F-A, S-B

Air transport (ICAO-TI / IATA-DGR)

UN number or ID number 1814
UN proper shipping name Potassium hydroxide solution
Transport hazard class(es) 8
Packing group II
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

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



elma lab clean A25 (ELC A25)

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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

Own measurements.

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)

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.

Indication of changes

* Data changed compared with the previous version