



Ultrasonics.Steam.Ultraclean.

Safety Data Sheet according to Regulation (EC)

No. 1907/2006 (REACH)

Printed 06.08.2018

Revision 06.08.2018 (GB) Version 1.9

elma clean 305 (EC 305)

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

1.1. Product identifier

Name of product elma clean 305 (EC 305)

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

Uses advised against

Remark

Do not use for injecting or spraying.

Recommended intended purpose(s)

Strongly alkaline cleaning concentrate with solvent.

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 Corr. 1B	H314	Calculation method.
Eye Dam. 1	H318	Calculation method.

Hazard Statements

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

2.2. Label elements



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



GHS05

Signal word

Danger

Hazard Statements

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

Precautionary Statements

P102 Keep out of reach of children.

P234 Keep only in original packaging.

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

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

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.

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

P405 Store locked up.

Hazardous ingredients for labeling

potassium-hydroxide, tripotassium orthophosphate

2.3. Other hazards

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

Aquatic Acute 2 H401: Toxic to aquatic life.

Information pertaining to special dangers for human and environment

Inhalation of spray may cause respiratory irritation.

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-alkaline cleaning agent with wetting agent, potassium phosphate and hydroxide, complexing agent and hydrotropic component.

Hazardous ingredients



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Hazardous ingredients (continued)

CAS No	EC No	Name	[% weight]	Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]
1310-58-3	215-181-3	potassium-hydroxide	< 5	Met. Corr. 1, H290 / Acute Tox. 3, H301 / Skin Corr. 1A, H314 / Eye Dam. 1, H318
7778-53-2	231-907-1	tripotassium orthophosphate	< 5	Met. Corr. 1, H290 / Skin Irrit. 2, H315 / Eye Dam. 1, H318 / STOT SE 3, H335
112-34-5	203-961-6	2-(2-butoxyethoxy)ethanol	10 - 20	Met. Corr. 1, H290 / Eye Irrit. 2, H319

REACH

CAS No	Name	REACH registration number
1310-58-3	potassium-hydroxide	01-2119487136-33
7778-53-2	tripotassium orthophosphate	01-2119971078-30
112-34-5	2-(2-butoxyethoxy)ethanol	01-2119475104-44

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 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.

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

water

Fire-extinguishing activities according to surrounding.



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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

Nitrogen oxides (NO_x)

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.

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. general-purpose binder).

Flush away residues with water.

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

Use only alkali-resistant equipment.

Open and handle container with care!

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 not combustible.



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7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Provide alkali-resistant floor.

Keep only in original container.

Advice on storage compatibility

Do not store with acids.

Further information on storage conditions

Store only in closed original container at cool and aired place.

Keep locked up, out of reach of children

Protect from heat and direct solar radiation.

Do not store at temperature above 25°C (=77°F).

Do not keep at temperatures below 5°C.

Information on storage stability

Storage time: 3 years.

7.3. Specific end use(s)

Recommendation(s) for intended use

See section 1.2

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Ingredients with occupational exposure limits to be monitored

CAS No	Name	Code	[mg/m3]	[ppm]	Remark
1310-58-3	Potassium hydroxide	8 hours Short-term	2		R22, 35
112-34-5	2-(2-butoxyethoxy)ethanol	WEL, 8 hours Short-term	67.5 101.2	10 15	R36

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
112-34-5	2-(2-butoxyethoxy)ethanol	8 hours Short-term	67,5 101,2	10 15	

DNEL-/PNEC-values

DNEL worker

CAS No	Substance name	Value	Code	Remark
1310-58-3	potassium-hydroxide	1 mg/m3	DNEL long-term inhalative (local)	
7778-53-2	tripotassium orthophosphate	8,17 mg/m3	DNEL long-term inhalative (systemic)	

PNEC

CAS No	Substance name	Value	Code	Remark
1310-58-3	potassium-hydroxide			No data available

Additional advice

8.2. Exposure controls

Hand protection

Gloves (alkali- and solvent-resistant)

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

Glove material specification [make/type, thickness, permeation time/life]: FKM, 0,4mm, >=8h.



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Eye protection

tightly fitting goggles

Other protection measures

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

Technical exhaustion if there is a long-term exposition

! SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

liquid

Colour

yellowish

Odour

of organic solvents

Odour threshold

not determined

Important health, safety and environmental information

	Value	Temperature	at	Method	Remark
pH value	12	20 °C	10 g/l		
starts to boil	> 100 °C				
solidifying range	< 5 °C				
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	0,7 Vol-%				Value of 2-(2-butoxyethoxy) ethanol.
Upper explosion limit	5,9 Vol-%				Value of 2-(2-butoxyethoxy) ethanol.
Vapour pressure	23 - 24 hPa	20 °C			
Relative density	1,07 g/cm ³	20 °C			



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	Value	Temperature	at	Method	Remark
Vapour density	5,58				Value of 2-(2-butoxyethoxy) ethanol.
Solubility in water					miscible
Solubility/other	not determined				
Partition coefficient n-octanol/water (log P O/W)	1				Value of 2-(2-butoxyethoxy) ethanol.
Decomposition temperature	> 100 °C				
Viscosity	not determined				
Solvent content	19 %				
! Vapourisation rate					
Water: 0.36 (ASTM D3539). 2-(2-butoxyethoxy)ethanol: 0.01 (ASTM D3539) / 1 200 (DIN 53170).					

Oxidising properties

no

Explosive properties

no

9.2. Other information

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 oxidising agents.

Strong exothermic reaction with 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 oxidising agents.

Reactions with light metals, with evolution of hydrogen.

Corrodes aluminium.



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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	4802 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	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).
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.
Causes corrosions.

! SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicological effects

	Value	Species	Method	Validation
Fish	LC50 13 mg/l		calculated	
Daphnia	EC50 12 mg/l		calculated	



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	Value	Species	Method	Validation
Algae	EC50 5,6 mg/l		calculated	After neutralization a reduction in harmful effect can be observed.

12.2. Persistence and degradability

Physico-chemical degradability	100 %		Neutralization, pH-measurement	Alkaline properties can be eliminated up to 100% by neutralization.
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Biological degradability	> 70 %	DOC decrease		Biodegradable
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12.3. Bioaccumulative potential

potassium hydroxide: Accumulation in organisms is not expected.
2-(2-butoxyethoxy)ethanol: Significant accumulation in organisms is not expected (log Pow: 1.0).
tripotassium orthophosphate: not available.

12.4. Mobility in soil

potassium hydroxide: Dissolves in water. Highly mobile in soil.
2-(2-butoxyethoxy)ethanol: not available.
tripotassium orthophosphate: 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	498 mgO2/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. 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 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.



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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		
Land and inland navigation transport ADR/RID			
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 + 55 - 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 19 %

15.2. Chemical Safety Assessment

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



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! 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: 1.8

! Sources of key data used

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

Informations from our suppliers.

H290	May be corrosive to metals.
H301	Toxic if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.