



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

1.1. Product identifier

Name of product elma tec clean A5

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)

Alkaline cleaning powder for aqueous immersion cleaning with ultrasonics of metal, light metal and plastic surfaces. Contains inhibitors protecting amphoteric metals (aluminium a.s.o.).

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 67/548/EEC or 1999/45/EC

C; R34

Xi; R37

R-phrases

34 Causes burns.
37 Irritating to respiratory system.

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

Hazard classes and Hazard categories	Hazard Statements	Classification procedure
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Acute Tox. 4	H302	Calculation method.
Acute Tox. 4	H332	Calculation method.
Skin Corr. 1B	H314	Calculation method.
Eye Dam. 1	H318	Calculation method.
STOT SE 3	H335	Calculation method.

Hazard Statements

H302 + H332 Harmful if swallowed or if inhaled.
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
H335 May cause respiratory irritation.



2.2. Label elements

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



GHS05



GHS07

! Signal word

Danger

Hazard Statements

H302 + H332 Harmful if swallowed or if inhaled.
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
H335 May cause respiratory irritation.

Precautionary Statements

P102 Keep out of reach of children.
P260 Do not breathe dust.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
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 POISON CENTER or doctor/physician.
P312 Call a POISON CENTER or doctor/physician if you feel unwell.
P332 + P313 If skin irritation occurs: Get medical advice/attention.
P405 Store locked up.

! Hazardous ingredients for labeling

cocosfattyaminooxethylate, decan-1-ol, ethoxylated, disodium metasilicate, Reaction product of Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. and Benzenesulfonic acid, 4-methyl- and sodium hydroxid, tetrasodium pyrophosphate

2.3. Other hazards

Inhalation of dust may cause irritation of the respiratory system.

Aquatic Acute 3 H402: Harmful 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

Mixture (powder) with silikates, carbonates, phosphates of alkalies, anionic and nonionic surfactants.



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 67/548/EEC
61791-14-8		cocosfattyaminoxethylate	< 5	Xn R22; Xi R36; N R51/53
7722-88-5	217-671-6	tetrasodium pyrophosphate	5 - 15	Xn R22; Xi R41
497-19-8	207-838-8	sodium carbonate	5 - 15	Xi R36
6834-92-0	229-912-9	disodium metasilicate	20 - 40	C R34; Xi R37
	932-051-8	Reaction product of Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. and Benzenesulfonic acid, 4-methyl- and sodium hydroxid	5 - 10	Xi R41-38
26183-52-8		decan-1-ol, ethoxylated	< 5	Xn R22; Xi R41

CAS No	EC No	Name	[% weight]	Classification according to Regulation (EC) No 1272/2008 [CLP/ GHS]
61791-14-8		cocosfattyaminoxethylate	< 5	Acute Tox. 4, H302 / Eye Irrit. 2, H319 / Aquatic Chronic 2, H411
7722-88-5	217-671-6	tetrasodium pyrophosphate	5 - 15	Acute Tox. 4, H302 / Eye Dam. 1, H318
497-19-8	207-838-8	sodium carbonate	5 - 15	Eye Irrit. 2, H319
6834-92-0	229-912-9	disodium metasilicate	20 - 40	Acute Tox. 4, H302 / Skin Corr. 1B, H314 / Eye Dam. 1, H318 / STOT SE 3, H335
	932-051-8	Reaction product of Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. and Benzenesulfonic acid, 4-methyl- and sodium hydroxid	5 - 10	Skin Irrit. 2, H315 / Eye Dam. 1, H318 / Aquatic Chronic 3, H412
26183-52-8		decan-1-ol, ethoxylated	< 5	Acute Tox. 4, H302 / Eye Dam. 1, H318

REACH

CAS No	Name	REACH registration number
61791-14-8	cocosfattyaminoxethylate	Not relevant (polymer).
7722-88-5	tetrasodium pyrophosphate	01-2119489794-17
497-19-8	sodium carbonate	01-2119485498-19
6834-92-0	disodium metasilicate	01-2119449811-37
	Reaction product of Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. and Benzenesulfonic acid, 4-methyl- and sodium hydroxid	01-2119565112-48
26183-52-8	decan-1-ol, ethoxylated	Not relevant (polymer).

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Remove contaminated soaked clothing immediately and dispose it safely.
Take affected person into fresh air.

In case of inhalation

Ensure of fresh air.
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.
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

Fire-extinguishing activities according to surrounding.

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_x)

Carbon monoxide (CO)

Phosphorus oxides (e.g. phosphoruspentoxide)

Carbon dioxide (CO₂)

Sulfur oxide

Silicon dioxide

5.3. Advice for firefighters

Special protective equipment for fire-fighters

Use breathing apparatus with independent air supply.

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

Keep people away and stay on the upwind side.

Avoid dust formation.

Use personal protection.

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

! For emergency responders

Keep people away and stay on the upwind side.

Avoid dust formation.

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.

Knock down dust with water spray jet.

Do not discharge into the subsoil/soil.



6.3. Methods and material for containment and cleaning up

Flush away residues with water.
After taking up the material dispose according to regulation.
Take up mechanically.

6.4. Reference to other sections

Informations for safe handling see chapter 7.
Informations for personal protective equipment see chapter 8.
Informations for disposal see chapter 13.

! SECTION 7: Handling and storage

7.1. Precautions for safe handling

! Advice on safe handling

Avoid the formation and deposition of dust.
Care for thoroughly room ventilation, if necessary use in well ventilated area with local exhaust ventilation at workplace.
Use only alkali-resistant equipment.
Open and handle container with care!

General protective measures

Avoid contact with eyes and skin
Do not inhale dust.

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

Provide alkali-resistant floor.
Keep only in original container.

Advice on storage compatibility

Do not store with acids.

Further information on storage conditions

Keep locked up, out of reach of children
Keep container dry and tightly closed.
Product is hygroscopic.

Information on storage stability

Storage time: 5 years.

7.3. Specific end use(s)

Recommendation(s) for intended use

no further

! 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
7722-88-5	tetrasodium pyrophosphate	WEL, 8 hours	5		



! Additional advice

Occupational exposure limits for dust.

8.2. Exposure controls

Respiratory protection

Particle filter P2

In case of dust formation wear micro dust mask.

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]: NR, 0,5mm.

Eye protection

tightly fitting goggles

Other protection measures

Alkali-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

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

powder

Colour

white

Odour

characteristic

Odour threshold

not determined

Important health, safety and environmental information

	Value	Temperature	at	Method	Remark
pH value	ca. 12	20 °C	10 g/l		
boiling range	not determined				
melting range	not determined				
Flash point	not applicable				
Flammable (solid)	no				
Flammability (gas)	not applicable				
Ignition temperature					no
Self ignition temperature					not spontaneously flammable



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	Value	Temperature	at	Method	Remark
Lower explosion limit	not applicable				
Upper explosion limit	not applicable				
Vapour pressure	not available				
Relative density	not determined				
Bulk density	920 kg/m ³				
Vapour density	not applicable				
Solubility in water	100 g/l	20 °C			
Solubility/other	not determined				
Partition coefficient n-octanol/water (log P O/W)	0,7				Value of Reaction product of Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. and Benzenesulfonic acid, 4-methyl- and sodium hydroxid.
Decomposition temperature	not determined				
Viscosity	not applicable				
Solvent concentration	0 %				
! Vapourisation rate Water: 0.36 (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**

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 acids.

10.4. Conditions to avoid

not relevant

10.5. Incompatible materials

Materials to avoid

Reactions with acids.

10.6. Hazardous decomposition products

No decomposition if used as directed.

! SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity/Irritability/Sensitization

	Value/Validation	Species	Method	Remark
LD50 acute oral	1000 - 2000 mg/kg		ATE (acute toxicity estimate)	
LD50 acute dermal	> 5000 mg/kg		ATE (acute toxicity estimate)	
LC50 acute inhalation	ca. 2,3 mg/l ()		ATE (acute toxicity estimate)	dust/mist
Irritability skin	corrosive			
Irritability eye	corrosive			
Skin sensitization	non-sensitizing			

! 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.
disodium trioxosilicate : LD50(oral, rat): 600-1350 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 32 mg/l		calculated	
Daphnia	EC50 38 mg/l		calculated	
Algae	EC50 43 mg/l		calculated	

12.2. Persistence and degradability

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

12.3. Bioaccumulative potential

disodium metasilicate: Accumulation in organisms is not expected.
sodium carbonate: No bioaccumulation.
cocofattyaminoxethylate: not available.
Reaction product of Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. and Benzenesulfonic acid, 4-methyl- and sodium hydroxid: Bioaccumulation is improbable.
tetrasodium pyrophosphate: Bioaccumulation is improbable.
decan-1-ol, ethoxylated: not available.

12.4. Mobility in soil

sodium carbonate: not available.
disodium metasilicate: not available.
cocofattyaminoxethylate: not available.
Reaction product of Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs. and Benzenesulfonic acid, 4-methyl- and sodium hydroxid: Adsorption on soil is not expected.
tetrasodium pyrophosphate: not available.
decan-1-ol, ethoxylated: 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. 0,2 gO ₂ /g		
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 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.

20 01 29*

Name of waste

detergents containing dangerous 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.

In accordance with local official regulations take to chemical / physical treatment plant.

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 3253	UN 3253	UN 3253
14.2. UN proper shipping name	DISODIUM TRIOXOSILICATE	DISODIUM TRIOXOSILICATE	DISODIUM TRIOXOSILICATE
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 - 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

Wording of the R/H-phrases specified in chapter 3 (not the classification of the mixture!)

R 22 Harmful if swallowed.

R 34 Causes burns.

R 36 Irritating to eyes.

R 37 Irritating to respiratory system.

R 38 Irritating to skin.

R 41 Risk of serious damage to eyes.

R 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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.

H335 May cause respiratory irritation.

H411 Toxic to aquatic life with long lasting effects.

H412 Harmful to aquatic life with long lasting effects.