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

1.1. Product identifier

Name of product elma tec clean A4

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)**
This data sheet holds beginning from lot-No. 06, week 10, 2014.
Universal alkaline cleaning concentrate.

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
Phone +49 7731 882-287
Fax +49 7731 882-266

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

Xi; R38
Xi; R41

R-phrases

38	Irritating to skin.
41	Risk of serious damage to eyes.

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

Hazard classes and Hazard categories	Hazard Statements	Classification procedure
Skin Irrit. 2	**H315**	**Bridging principle ' Substantially similar mixtures.'**
Eye Dam. 1	**H318**	**On basis of test data.**

Hazard Statements

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

H315	Causes skin irritation.
H318	Causes serious eye damage.

Precautionary Statements

P280	Wear protective gloves/eye 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 soap and water.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minuts. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or doctor/physician.
P332 + P313	If skin irritation occurs: Get medical advice/attention.

! **Hazardous ingredients for labeling**
Cocosfatty acid amidopropyldimethylaminoxide, disodium metasilicate

2.3. Other hazards
not relevant

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 mixture from anionic and amphoteric surfactants, sodium trioxosilicate and complexing agents.

Hazardous ingredients

CAS No	EC No	Name	[% weight]	Classification according to 67/548/EEC
111798-26-6		Na-alkyl-PEG-ether ester of phosphoric acid	5 - 15	Xi R36/38; R52/53
68155-09-9	268-938-5	Cocosfatty acid amidopropyldimethylaminoxide	< 5	Xi R38-41; N R51/53
6834-92-0	229-912-9	disodium metasilicate	< 5	C R34; Xi R37
7320-34-5	230-785-7	tetrapotassium pyrophosphate	5 - 15	Xi R36

Hazardous ingredients (continued)

CAS No	EC No	Name	[% weight]	Classification according to Regulation (EC) No 1272/2008 [CLP/ GHS]
111798-26-6		Na-alkyl-PEG-ether ester of phosphoric acid	5 - 15	Skin Irrit. 2, H315 / Eye Irrit. 2, H319 / Aquatic Chronic 3, H412
68155-09-9	268-938-5	Cocosfatty acid amidopropyldimethylaminoxide	< 5	Skin Irrit. 2, H315 / Eye Dam. 1, H318 / Aquatic Chronic 2, H411
6834-92-0	229-912-9	disodium metasilicate	< 5	Acute Tox. 4, H302 / Skin Corr. 1B, H314 / Eye Dam. 1, H318 / STOT SE 3, H335
7320-34-5	230-785-7	tetrapotassium pyrophosphate	5 - 15	Eye Irrit. 2, H319

REACH

CAS No	Name	REACH registration number
111798-26-6	Na-alkyl-PEG-ether ester of phosphoric acid	Not yet known.
68155-09-9	Cocosfatty acid amidopropyldimethylaminoxide	Not yet registered (ECHA).
6834-92-0	disodium metasilicate	01-2119449811-37
7320-34-5	tetrapotassium pyrophosphate	01-2119489369-18

! 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 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.
Medical treatment.
Seek medical advice 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 symptoms
No further informations available.

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.
Foam
Dry powder
Carbon dioxide

Unsuitable extinguishing media
no

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 (NOx)
Carbon monoxide (CO)
Phosphorus oxides (e.g. phosphoruspentoxide)
Silicon dioxide

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.
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. 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.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Advice on safe handling
Open and handle container with care!

General protective measures
Avoid contact with eyes and skin

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 original container.

Advice on storage compatibility
Do not store with 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.

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
Additional advice
Occupational exposure limits: not relevant.

8.2. Exposure controls
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]: NR, 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.

! SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	**Colour**	**Odour**
liquid	yellowish up to beige	mild

Odour threshold
not determined

Important health, safety and environmental information

	Value	Temperature	at	Method	Remark
pH value	ca. 13	20 °C			
starts to boil	> 100 °C				

	Value	Temperature	at	Method	Remark
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	not relevant				
Upper explosion limit	not relevant				
Vapour pressure	ca. 23 hPa	20 °C			
Relative density	1,132 g/cm3	20 °C			
Vapour density	not available				
Solubility in water					miscible
Solubility/other	not determined				
Partition coefficient n-octanol/water (log P O/W)	ca. -2				Value of tetrapotassium pyrophosphate.
Decomposition temperature	>= 100 °C				
Viscosity	not determined				
Solvent concentration	0 %				

Vapourisation rate
Water: 0.36 (ASTM D3539).

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 acids.

10.4. Conditions to avoid
Heat and direct solar radiation.

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	> 5000 mg/kg	rat	calculated	
LD50 acute dermal	> 5000 mg/kg		ATE (acute toxicity estimate)	
Irritability skin	irritant			
Irritability eye	risk of strong eye injuries		OECD 437	
Skin sensitization	non-sensitizing			

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

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.

! **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 114 mg/l		calculated	
Daphnia	EC50 433 mg/l		calculated	
Algae	EC50 115 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.
tetrapotassium pyrophosphate: Bioaccumulation is improbable.
Na-alkyl-PEG-ether ester of phosphoric acid: not available.
Cocosfatty acid amidopropyldimethylaminoxide: not available.

12.4. Mobility in soil

tetrapotassium pyrophosphate: not available.
disodium metasilicate: not available.
Na-alkyl-PEG-ether ester of phosphoric acid: not available.
Cocosfatty acid amidopropyldimethylaminoxide: 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	165 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.
The mixture is not classified as acute/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 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.

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 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: 2.0
Sources of key data used
Own measurements.

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

R 34 Causes burns.
R 36 Irritating to eyes.
R 36/38 Irritating to eyes and skin.
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.
R 52/53 Harmful 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.