



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

1.1. Product identifier

Name of product elma tec clean A3

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

Process categories [PROC]

PROC7 - Industrial spraying

PROC11 - Non industrial spraying

Remark

Do not use for injecting or spraying.

Recommended intended purpose(s)

Alcaline cleaning concentrate for the metal cleaning (not for aluminium and light metal alloys).

1.3. Details of the supplier of the safety data sheet

Manufacturer/distributor

Elma Hans Schmidbauer GmbH & Co. KG
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.



Safety Data Sheet according to Regulation (EC)
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! 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

P102	Keep out of reach of children.
P234	Keep only in original container.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
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 minutes. 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

disodium metasilicate

2.3. Other hazards

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

Aqueous alkaline mixture of anionic and nonionic surfactants, disodium-metasilicate, complexing agents and hydrotropic component.

Hazardous ingredients

CAS No	EC No	Name	[% weight]	Classification according to 67/548/EEC
5064-31-3	225-768-6	trisodium nitrilotriacetate	< 5	Carc.Cat.3 R40; Xn R22; Xi R36
111798-26-6		Na-alkyl-PEG-ether ester of phosphoric acid	< 5	Xi R36/38; R52/53
68154-97-2		fattyalkohol, C10-12, propoxylated, ethoxylated	< 5	Xi R36
6834-92-0	229-912-9	disodium metasilicate	< 5	C R34; Xi R37
15763-76-5	239-854-6	sodium cumenesulphonate	< 5	Xi R36
164524-02-1	629-764-9	potassium cumenesulphonate	< 5	Xi R36
7320-34-5	230-785-7	tetrapotassium pyrophosphate	< 5	Xi R36

CAS No	EC No	Name	[% weight]	Classification according to Regulation (EC) No 1272/2008 [CLP/ GHS]
5064-31-3	225-768-6	trisodium nitrilotriacetate	< 5	Acute Tox. 4, H302 / Eye Irrit. 2, H319 / Carc. 2, H351
111798-26-6		Na-alkyl-PEG-ether ester of phosphoric acid	< 5	Skin Irrit. 2, H315 / Eye Irrit. 2, H319 / Aquatic Chronic 3, H412
68154-97-2		fattyalkohol, C10-12, propoxylated, ethoxylated	< 5	Eye Irrit. 2, H319
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
15763-76-5	239-854-6	sodium cumenesulphonate	< 5	Eye Irrit. 2, H319
164524-02-1	629-764-9	potassium cumenesulphonate	< 5	Eye Irrit. 2, H319
7320-34-5	230-785-7	tetrapotassium pyrophosphate	< 5	Eye Irrit. 2, H319

REACH

CAS No	Name	REACH registration number
5064-31-3	trisodium nitrilotriacetate	01-2119519239-36
111798-26-6	Na-alkyl-PEG-ether ester of phosphoric acid	Not yet known.
68154-97-2	fattyalkohol, C10-12, propoxylated, ethoxylated	Not relevant (polymer).
6834-92-0	disodium metasilicate	01-2119449811-37
15763-76-5	sodium cumenesulphonate	01-2119489411-37
164524-02-1	potassium cumenesulphonate	01-2119489427-24
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.

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)

Keep under medical supervision for at least 48 hours.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

water

Product does not burn, 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_x)

Carbon monoxide (CO)

Phosphorus oxides (e.g. phosphorus pentoxide)

Sulphur dioxide (SO₂)

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. general-purpose binder).
Flush away residues with water.
Use chemical neutralizers.
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!
Take the usual precautions when handling with chemicals.

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

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

Advice on storage compatibility

Do not store with acids.

Further information on storage conditions

Keep container tightly closed.
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

See section 1.2

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

liquid

Colour

light yellow

Odour

odourless

Odour threshold

not determined

Important health, safety and environmental information

	Value	Temperature	at	Method	Remark
pH value	13	20 °C			
boiling range	> 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	not relevant				
Upper explosion limit	not relevant				
Vapour pressure	ca. 23 hPa	20 °C			
Relative density	1,125 g/cm ³	20 °C			
Vapour density	not available				
Solubility in water					miscible
Solubility/other	not determined				



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	Value	Temperature	at	Method	Remark
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

Exothermic reaction 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

Materials to avoid

Reactions with strong acids.
Reactions with light metals.
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/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	irritant - risk of strong eye injuries			
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.
disodium trioxosilicate : LD50(oral, rat): 600-1350 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
Fish	LC50 26,4 mg/l		calculated	
Daphnia	EC50 26,5 mg/l		calculated	
Algae	EC50 27 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	> 80 %	DOC decrease	calculated	readily degradable

12.3. Bioaccumulative potential

sodium cumenesulphonate: Bioaccumulation is improbable.
potassium cumenesulphonate: Bioaccumulation is improbable.
trisodium nitrilotriacetate: Significant accumulation in organisms is not expected.
disodium metasilicate: Accumulation in organisms is not expected.



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tetrapotassium pyrophosphate: Bioaccumulation is improbable.
Na-alkyl-PEG-ether ester of phosphoric acid: not available.
fattyalkohol, C10-12, propoxylated, ethoxylated: not available.

12.4. Mobility in soil

sodium cumenesulphonate: Adsorption on soil is not expected.
potassium cumenesulphonate: Adsorption on soil is not expected.
trisodium nitrilotriacetate: Adsorption on soil is not expected.
tetrapotassium pyrophosphate: not available.
disodium metasilicate: not available.
Na-alkyl-PEG-ether ester of phosphoric acid: not available.
fattyalkohol, C10-12, propoxylated, 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. 262 mgO ₂ /g	DIN ISO 15705	
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.

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 1719	UN 1719	UN 1719
14.2. UN proper shipping name	CAUSTIC ALCALI LIQUID, N.O.S. (Disodium trioxosilicate)	CAUSTIC ALCALI LIQUID, N. O.S. (contains disodium trioxosilicate)	CAUSTIC ALCALI LIQUID, N.O.S. (contains 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: 1.4

Sources of key data used

Own measurements.



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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 36/38 Irritating to eyes and skin.
- R 37 Irritating to respiratory system.
- R 40 Limited evidence of a carcinogenic effect.
- 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.
- H351 Suspected of causing cancer (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).
- H412 Harmful to aquatic life with long lasting effects.