



Ultrasonics.Steam.Ultraclean.

Safety Data Sheet according to Regulation (EC)

No. 1907/2006 (REACH)

Printed 07.09.2016

revision 07.09.2016 (GB) Version 1.2

elma lab clean A20sf (ELC A20sf)

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

1.1. Product identifier

Name of product elma lab clean A20sf (ELC A20sf)

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

! Product categories [PC]

PC35 - Washing and cleaning products (including solvent based products)

! Process categories [PROC]

PROC7 - Industrial spraying

PROC8a - Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities

PROC9 - Transfer of substance or preparation 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 - Wide dispersive indoor use of processing aids in open systems

ERC8b - Wide dispersive indoor use of reactive substances in open systems

ERC6b - Industrial use of reactive processing aids

Recommended intended purpose(s)

Aqueous cleaning concentrate without surfactants.

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

Additional hints

The product is not classified as dangerous according to Directives 67/548/EEC or 1999/45/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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Skin Irrit. 2	H315	Calculation method.
Eye Irrit. 2	H319	Calculation method.

Hazard Statements

H315 Causes skin irritation.
H319 Causes serious eye irritation.

2.2. Label elements

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



GHS07

Signal word

Warning

Hazard Statements

H315 Causes skin irritation.
H319 Causes serious eye irritation.

Precautionary Statements

P233 Keep container tightly closed.
P261 Avoid breathing gas/mist/vapours/spray.
P280 Wear protective gloves/eye protection.
P301 + P312 IF SWALLOWED: Call a POISON CENTER/doctor/... if you feel unwell.
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.
P337 + P313 If eye irritation persists: Get medical advice/attention.

2.3. Other hazards

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 mixture of phosphates, complexing agents, carbonates and ammonia.



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Hazardous ingredients

CAS No	EC No	Name	[% weight]	Classification according to 67/548/EEC
497-19-8	207-838-8	sodium carbonate	< 5	Xi R36
1336-21-6	215-647-6	ammonia%	< 5	C R34; N R50
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]
497-19-8	207-838-8	sodium carbonate	< 5	Eye Irrit. 2, H319
1336-21-6	215-647-6	ammonia%	< 5	Met. Corr. 1, H290 / Acute Tox. 4, H302 / Acute Tox. 4, H332 / Skin Corr. 1B, H314 / Eye Dam. 1, H318 / STOT SE 3, H335 / Aquatic Acute 1, H400 / Aquatic Chronic 2, H411
7320-34-5	230-785-7	tetrapotassium pyrophosphate	< 5	Eye Irrit. 2, H319

REACH

CAS No	Name	REACH registration number
497-19-8	sodium carbonate	01-2119485498-19
1336-21-6	ammonia%	01-2119488876-14
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 inhalation

Ensure of fresh air.

In the event of symptoms 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

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)

No further informations available.



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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

water

Product does not burn, 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:

Ammonia

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

Ensure adequate ventilation.

Use personal protection.

! For emergency responders

Ensure adequate ventilation.

Use personal protective clothing.

Use personal protection.

6.2. Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

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.

Take up mechanically and send for disposal.

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 in well-ventilated areas.

Take the usual precautions when handling with chemicals.

General protective measures

Avoid contact with eyes and skin

Do not inhale gases/vapours/aerosols.

Hygiene measures

Provide washing facilities at place of work.

Keep away from food and drink.



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Advice on protection against fire and explosion

The product is not combustible.

No special measures necessary.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep only in unopened original container.

Advice on storage compatibility

Store cool and at distance to alkalies.

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

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
7664-41-7	ammonia	8 hours	14	20	EU
		Short-term	36	50	
7664-41-7	Ammonia, anhydrous	WEL, 8 hours	18	25	R10-23-34-50
		Short-term	25	35	

DNEL-/PNEC-values

DNEL worker

CAS No	Substance name	Value	Code	Remark
1336-21-6	ammonia%	14 mg/m3	DNEL long-term inhalative (local)	
		47,6 mg/m3	DNEL long-term inhalative (systemic)	
		6,8 mg/kg	DNEL long-term dermal (systemic)	
497-19-8	sodium carbonate	10 mg/m3	DNEL long-term inhalative (local)	

8.2. Exposure controls

Respiratory protection

Short term: filter apparatus, combination filter K-P2

Breathing apparatus in the event of high concentrations.

Hand protection

Protective gloves

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.

Eye protection

tightly fitting goggles



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Limitation and surveillance of the environment

Avoid penetration into the subsoil/soil.

Do not discharge into surface waters.

Neutralization is necessary before a waste water is discharged into sewage treatment plants.

Appropriate engineering controls

Technical exhaustion in case of longtermed exposition in sprayed aerosols.

! SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

liquid

Colour

brownish

Odour

of ammonia

Odour threshold

ammonia: 5ppm (3.5mg/m3).

Important health, safety and environmental information

	Value	Temperature	at	Method	Remark
pH value	10,5 - 11	20 °C			
starts to boil	>= 100 °C				
solidifying point	ca. 0 °C				
Flash point					no
Flammable (solid)	not applicable				
Flammability (gas)	not applicable				
Ignition temperature	not determined				
Self ignition temperature					not spontaneously flammable
Lower explosion limit	15,4 Vol-%				Value of ammonia.
Upper explosion limit	33,6 Vol-%				Value of ammonia.
Vapour pressure	ca. 45 hPa	20 °C			
Relative density	ca. 1,12 g/cm3	20 °C			
Vapour density	0,586				Value of ammonia.
Solubility in water					miscible
Solubility/other	not determined				
Partition coefficient n-octanol/water (log P O/W)	-1,14				Value of ammonia.



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	Value	Temperature	at	Method	Remark
Decomposition temperature	not determined				
Viscosity	not determined				
Solvent content	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

No decomposition if used as directed.

10.3. Possibility of hazardous reactions

Reactions with strong acids and alkalies.
 Evolution of ammonia under influence of alkalies.

10.4. Conditions to avoid

Heat and direct solar radiation.

10.5. Incompatible materials

! Substances to avoid

Reactions with strong acids.
 Reactions with alkalies.

10.6. Hazardous decomposition products

Ammonia

! SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity/Irritation/Sensitization

	Value/Validation	Species	Method	Remark
LD50 acute oral	> 5000 mg/kg		ATE (acute toxicity estimate)	



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	Value/Validation	Species	Method	Remark
LD50 acute dermal	> 5000 mg/kg		ATE (acute toxicity estimate)	
LC50 acute inhalation	> 50 mg/l ()		ATE (acute toxicity estimate)	vapours
Skin irritation	irritant			
Eye irritation	irritant			
Skin sensitization	non-sensitizing			

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.
ammonia : LD50(oral, rat): 350 mg/kg, LC50(inhalation, rat, 1h): 11.59 mg/l .

! SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicological effects

	Value	Species	Method	Validation
Fish	LC50 8,7 mg/l		calculated	After neutralization there is a reduction in the harmfulness: LC50(Fish, calculated, after neutralization): >100mg/l.
Daphnia	EC50 143 mg/l		calculated	
Algae	EC50 308 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.
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12.3. Bioaccumulative potential

ammonia: Accumulation in organisms is not expected.
tetrapotassium pyrophosphate: Bioaccumulation is improbable.
sodium carbonate: No bioaccumulation.

12.4. Mobility in soil

ammonia ...%: The ammonium ion will be adsorbed by the soil; very soluble in water.
tetrapotassium pyrophosphate: not available.
sodium carbonate: not available.



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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. 153 mgO2/g	calculated	

AOX The product does not contain any organically bound halogens according to the recipe.

! General regulation

Acute aquatic environmental hazards: Aquatic Acute 2 H401: Toxic to aquatic life. After neutralization: not classified as acute hazardous to the aquatic environment.

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 30

Name of waste

detergents other than those mentioned in 20 01 29

Recommendations for the product

Do not dispose with household waste.

Suitable for neutralization are acetic acid or citric acid 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	-	-	-
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		



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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: 1.1

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 50 Very toxic to aquatic organisms.

H290 May be corrosive to metals.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H400 Very toxic to aquatic life.
H411 Toxic to aquatic life with long lasting effects.