



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

1.1. Product identifier

Name of product elma tec clean A2
UFI: YR40-00QW-T00M-7F7E

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

! Process categories [PROC]

PROC8a - Transfer of substance or mixture (charging and discharging) at non- dedicated facilities

PROC9 - Transfer of substance or mixture into small containers (dedicated filling line, including weighing)

PROC13 - Treatment of articles by dipping and pouring

! Environmental release categories [ERC]

ERC8a - Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor)

ERC8b - Widespread use of reactive processing aid (no inclusion into or onto article, indoor)

ERC6b - Use of reactive processing aid at industrial site (no inclusion into or onto article)

Uses advised against

! Remark

Do not use for injecting or spraying.

Recommended intended purpose(s)

Ammoniated cleaning concentrate for laboratory and workshop as well as cleaning of jewellery.

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

Hazard classes and Hazard categories	Hazard Statements	Classification procedure
Skin Irrit. 2	H315	Calculation method.
Eye Dam. 1	H318	Calculation method.
STOT SE 3	H336	Calculation method.
Aquatic Chronic 3	H412	Calculation method.

Hazard Statements

H315	Causes skin irritation.
H318	Causes serious eye damage.
H336	May cause drowsiness or dizziness.
H412	Harmful to aquatic life with long lasting effects.

2.2. Label elements

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



GHS05



GHS07

Signal word

Danger

Hazard Statements

H315	Causes skin irritation.
H318	Causes serious eye damage.
H336	May cause drowsiness or dizziness.
H412	Harmful to aquatic life with long lasting effects.

Precautionary Statements

P233	Keep container tightly closed.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/eye protection.
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.
P312	Call a POISON CENTER/doctor if you feel unwell.

Hazardous ingredients for labelling

1-methoxy-2-propanol, ammonia ...%, fatty alcohol C 10-12, ethoxylated, propan-2-ol, Sulfonic acids, C14-17-sec-alkane, sodium salts

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

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 concentrate from anionic and nonionic surfactants, ammonia solution, solvent and complexing agent.

! Hazardous ingredients

CAS No	EC No	Name	[% weight]	Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]
68920-66-1		fatty alcohol-PEG-ether	5 - 15	Acute Tox. 4, H302 / Eye Irrit. 2, H319 / Aquatic Chronic 3, H412
67254-71-1	931-952-3	fatty alcohol C 10-12, ethoxylated	< 5	Acute Tox. 4, H302 / Eye Dam. 1, H318
67-63-0	200-661-7	propan-2-ol	< 5	Flam. Liq. 2, H225 / Eye Irrit. 2, H319 / STOT SE 3, H336
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 M=1 / Aquatic Chronic 2, H411
97489-15-1	307-055-2	Sulfonic acids, C14-17-sec-alkane, sodium salts	5 - 15	Acute Tox. 4, H302 / Skin Irrit. 2, H315 / Eye Dam. 1, H318 / Aquatic Chronic 3, H412
107-98-2	203-539-1	1-methoxy-2-propanol	< 20	Flam. Liq. 3, H226 / STOT SE 3, H336
68604-33-1	271-685-3	Fatty acids, C14-18 and C16-18-unsatd., ammonium salts	5 - 15	Aquatic Chronic 3, H412

REACH

CAS No	Name	REACH registration number
68920-66-1	fatty alcohol-PEG-ether	Not relevant (polymer).
67254-71-1	fatty alcohol C 10-12, ethoxylated	Not relevant (polymer).
67-63-0	propan-2-ol	01-2119457558-25
1336-21-6	ammonia ...%	01-2119488876-14
97489-15-1	Sulfonic acids, C14-17-sec-alkane, sodium salts	01-2119489924-20
107-98-2	1-methoxy-2-propanol	01-2119457435-35
68604-33-1	Fatty acids, C14-18 and C16-18-unsatd., ammonium salts	01-2120770276-50

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Remove contaminated soaked clothing immediately.

Take affected person into fresh air.

In case of inhalation

Remove the casualty into fresh air and keep him immobile.

In the event of symptoms refer for medical treatment.

In case of skin contact

In case of contact with skin wash off with 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

Alcohol-resistant foam

Dry powder

Water spray jet

Unsuitable extinguishing media

no

5.2. Special hazards arising from the substance or mixture

In the event of fire the following can be released:

Nitrogen gases (NO_x)

Ammonia

Carbon monoxide (CO)

Sulphur dioxide (SO₂)

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.

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

For emergency responders

Ensure adequate ventilation.

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.



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

Avoid formation of aerosols.

Care for thoroughly room ventilation, if necessary use in well ventilated area with local exhaust ventilation at workplace.

Use only in well-ventilated areas.

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.

Advice on protection against fire and explosion

No special measures necessary.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep only in original container.

Advice on storage compatibility

Store cool and at distance to acids or alkalis.

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.

Do not keep at temperatures above 35 °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/m ³]	[ppm]	Remark
107-98-2	1-methoxypropan-2-ol	TWA, 8 hours	375	100	Sk, R10
		Short-term	560	150	



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Ingredients with occupational exposure limits to be monitored (continued)

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	
67-63-0	propan-2-ol	WEL, 8 hours	999	400	R11, 36, 67
		Short-term	1250	500	

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
107-98-2	1-methoxy-2-propanol	8 hours	375	100	skin
		Short-term	568	150	

DNEL-/PNEC-values

DNEL worker

CAS No	Substance name	Value	Code	Remark
107-98-2	1-methoxy-2-propanol	369 mg/m3	DNEL long-term inhalative (systemic)	
		50,6 mg/kg bw/day	DNEL long-term dermal (systemic)	
1336-21-6	ammonia ...%	14 mg/m3	DNEL long-term inhalative (local)	
		47,6 mg/m3	DNEL long-term inhalative (systemic)	
67-63-0	propan-2-ol	6,8 mg/kg	DNEL long-term dermal (systemic)	
		500 mg/m3	DNEL long-term inhalative (systemic)	
97489-15-1	Sulfonic acids, C14-17-sec-alkane, sodium salts	888 mg/kg bw/day	DNEL long-term dermal (systemic)	
		5 mg/kg bw/day	DNEL long-term dermal (systemic)	

PNEC

CAS No	Substance name	Value	Code	Remark
107-98-2	1-methoxy-2-propanol	100 mg/l	PNEC sewage treatment plant (STP)	
		10 mg/l	PNEC aquatic, freshwater	
1336-21-6	ammonia ...%	0,001 mg/l	PNEC aquatic, freshwater	
97489-15-1	Sulfonic acids, C14-17-sec-alkane, sodium salts	0,04 mg/l	PNEC aquatic, freshwater	
		600 mg/l	PNEC sewage treatment plant (STP)	

Additional advice

8.2. Exposure controls

Respiratory protection

Breathing apparatus in the event of aerosol or mist formation.

Breathing apparatus in the event of high concentrations.

Multi-purpose filter ABEK/P3



Hand protection

Gloves (alkali- and solvent-resistant)

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

Eye protection

tightly fitting goggles

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 for long-term expositions or higher bath temperatures.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

liquid

Colour

light yellow

Odour

similar to ammonia

Odour threshold

1-methoxy-2-propanol: 38 - 360 mg/m³ (10 - 96 ppm).

ammonia: 5ppm (3.5mg/m³).

propan-2-ol: 2.5 - 490 mg/m³ (1 - 196 ppm).

Important health, safety and environmental information

	Value	Temperature	at	Method	Remark
pH value	10,5 - 11	20 °C			
starts to boil	78 °C				
solidifying point	ca. 0 °C				
Flash point	36,5 °C			DIN EN ISO 13736	Does not maintain the combustion.
Flammable (solid)	not applicable				
Flammability (gas)	not applicable				
Ignition temperature	not determined				
Self ignition temperature					not spontaneously flammable
Lower explosion limit	1,5 Vol-%				Value of 1-methoxy-2-propanol.
Upper explosion limit	13,7 Vol-%				Value of 1-methoxy-2-propanol.
Vapour pressure	ca. 91 hPa	20 °C			



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	Value	Temperature	at	Method	Remark
Relative density	0,99 - 1 g/cm ³	20 °C			
Vapour density	3,11				Value of 1-methoxy-2-propanol.
Solubility in water					miscible
Solubility/other	not determined				
Partition coefficient n-octanol/water (log P O/W)	0,24				Value of Sulfonic acids, C14-17-sec-alkane, sodium salts.
Decomposition temperature	not determined				
Viscosity	not determined				
Solvent content	18 %				
Vapourisation rate	1-methoxy-2-propanol: 0.75 (ASTM D3539). propan-2-ol: 1.5 (ASTM D3539) / 11 (DIN 53170) . 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 oxidising agents.

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 oxidising agents.

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	3158 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	irritant			
Eye irritation	risk of strong eye injuries			
Skin sensitization	non-sensitizing			

Specific target organ toxicity (single exposure)

Narcotic effect: STOT SE 3 H336: May cause drowsiness or dizziness.

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 .

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 3,1 mg/l		calculated	



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	Value	Species	Method	Validation
Daphnia	EC50 8,5 mg/l		calculated	
Algae	EC50 13 mg/l		calculated	
12.2. Persistence and degradability				
Physico-chemical degradability	100 %		Neutralization, pH-measurement	
Biological degradability	>= 90 %	DOC decrease	calculated	readily degradable

12.3. Bioaccumulative potential

1-methoxy-2-propanol: Accumulation in organisms is not expected.

propan-2-ol: Accumulation in organisms is not expected (log Pow: 0.05).

ammonia: Accumulation in organisms is not expected.

Sulfonic acids, C14-17-sec-alkane, sodium salts: Accumulation in organisms is not expected (log Pow: 0.24).

fatty alcohol C 10-12, ethoxylated: Bioaccumulation is improbable.

fatty alcohol-PEG-ether: not available.

Fatty acids, C14-18 and C16-18-unsatd., ammonium salts: Because of the n-octanol/water partition coefficient accumulation in organisms is possible (log Pow >3).

12.4. Mobility in soil

propan-2-ol: Dissolves in water. Highly mobile in soil.

1-methoxy-2-propanol: Dissolves in water. Highly mobile in soil.

ammonia ...%: The ammonium ion will be adsorbed by the soil; very soluble in water.

Sulfonic acids, C14-17-sec-alkane, sodium salts: Moderate adsorption on soil.

fatty alcohol-PEG-ether: not available.

fatty alcohol C 10-12, ethoxylated: Koc: > 1816, strong adsorption on soil.

Fatty acids, C14-18 and C16-18-unsatd., ammonium salts: strong adsorption on soil, immobile.

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. 1287 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.

Chronic aquatic environmental hazards: Aquatic Chronic 3 H412: Harmful to aquatic life with long lasting effects.

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 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.

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

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 + 40 - 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 18,1 %



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: 1.7

Sources of key data used

Own measurements.

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

Informations from our suppliers.

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H290	May be corrosive to metals.
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.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.