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

1.1. Product identifier

Name of product

elma tec clean A1
UFI: CN40-H01H-H004-J3NC

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)

Recommended intended purpose(s)
Mildly alkaline emulgating cleaning concentrate for glas and printed circuit boards (PCB's).

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
Eye Dam. 1	**H318**	**Calculation method.**

Hazard Statements
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

H318	Causes serious eye damage.

Precautionary Statements

P280	Wear eye protection/face protection.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor.
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.
P331	Do NOT induce vomiting.
P332 + P313	If skin irritation occurs: Get medical advice/attention.

Hazardous ingredients for labelling
isotridecanol, ethoxylated, n-propanol, Sulfonic acids, C14-17-sec-alkane, sodium salts

2.3. Other hazards
Skin Irrit. 3 H316: Causes mild skin irritation.

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, mildly alkaline mixture with anionic and nonionic surfactants, complexing agent and added solvent.

! Hazardous ingredients

CAS No	EC No	Name	[% weight]	Classification according to Regulation (EC) No 1272/2008 [CLP/ GHS]
69011-36-5	931-138-8	isotridecanol, ethoxylated	< 5	Acute Tox. 4, H302 / Eye Dam. 1, H318
97489-15-1	307-055-2	Sulfonic acids, C14-17-sec-alkane, sodium salts	5 < 10	Acute Tox. 4, H302 / Skin Irrit. 2, H315 / Eye Dam. 1, H318 / Aquatic Chronic 3, H412
71-23-8	200-746-9	n-propanol	< 15	Flam. Liq. 2, H225 / Eye Dam. 1, H318 / STOT SE 3, H336

REACH

CAS No	Name	REACH registration number
69011-36-5	isotridecanol, ethoxylated	Not relevant (polymer).

REACH (continued)

CAS No	Name	REACH registration number
97489-15-1	Sulfonic acids, C14-17-sec-alkane, sodium salts	01-2119489924-20
71-23-8	n-propanol	01-2119486761-29

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 with warm 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.
Refer to medical treatment.
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.

SECTION 5: Firefighting measures

5.1. Extinguishing media
Suitable extinguishing media
water
Product does not burn, fire-extinguishing activities according to surrounding.
Alcohol-resistant foam
Dry powder
Carbon dioxide
Water spray jet

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)
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
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.
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
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
No special measures necessary.

7.2. Conditions for safe storage, including any incompatibilities
Requirements for storage rooms and vessels
Keep only in original container.

! **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 30°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
71-23-8	propan-1-ol	WEL, 8 hours	500	200	Sk, R11-41-67

DNEL-/PNEC-values

DNEL worker

CAS No	Substance name	Value	Code	Remark
71-23-8	n-propanol	136 mg/kg bw/day	DNEL long-term dermal (systemic)	
		268 mg/m3	DNEL long-term inhalative (systemic)	
97489-15-1	Sulfonic acids, C14-17-sec-alkane, sodium salts	5 mg/kg bw/day	DNEL long-term dermal (systemic)	

PNEC

CAS No	Substance name	Value	Code	Remark
71-23-8	n-propanol	10 mg/l	PNEC aquatic, freshwater	
		96 mg/l	PNEC sewage treatment plant (STP)	
97489-15-1	Sulfonic acids, C14-17-sec-alkane, sodium salts	600 mg/l	PNEC sewage treatment plant (STP)	
		0,04 mg/l	PNEC aquatic, freshwater	

! **Additional advice**
Occupational exposure limits of n-propanol.

8.2. Exposure controls

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	alcoholic

Odour threshold
1-propanol: 0.075 - 150 mg/m3 (0.03 - 60 ppm).

Important health, safety and environmental information

	Value	Temperature	at	Method	Remark
pH value	ca. 10,6	20 °C			

	Value	Temperature	at	Method	Remark
starts to boil	>= 88 °C				azeotrop
solidifying range	< 0 °C				
Flash point	37,5 °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	2,1 Vol-%				Value of 1-propanol.
Upper explosion limit	13,5 Vol-%				Value of 1-propanol.
Vapour pressure	23 - 43 hPa	20 °C			
Relative density	1,018 g/cm3	20 °C			
Vapour density	2,07				Value of 1-propanol.
Solubility in water					miscible
Solubility/other	not determined				
Partition coefficient n-octanol/water (log P O/W)	0,34				Value of 1-propanol.
Decomposition temperature	>= 88 °C				
Viscosity	not determined				
Solvent content	< 15 %				

Vapourisation rate
Water: 0.36 (ASTM D3539).
1-propanol: 0.89 (ASTM D3539) / 16 (DIN 53170) .

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 strong oxidising agents.
Reactions with strong acids.

10.4. Conditions to avoid
Heat and direct solar radiation.

10.5. Incompatible materials
Substances to avoid
Reactions with strong acids.
Reactions with strong oxidising agents.

10.6. Hazardous decomposition products
No decomposition if used as directed.

! SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity/Irritation/Sensitization

	Value/Validation	Species	Method	Remark
LD50 acute oral	5075 mg/kg		ATE (acute toxicity estimate)	
LD50 acute dermal	> 5000 mg/kg		ATE (acute toxicity estimate)	
LC50 acute inhalation	> 33,8 mg/l (4 h)	rat		Value of 1-propanol.
Skin irritation	low irritant effect			
Eye irritation	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.
1-propanol: Asp. Tox. 2 H305: May be harmful if swallowed and enters airways.

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 14,8 mg/l		calculated	
Daphnia	EC50 19 mg/l		calculated	
Algae	EC50 21 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
isotridecanol, ethoxylated: Bioaccumulation is improbable.
Sulfonic acids, C14-17-sec-alkane, sodium salts: Accumulation in organisms is not expected (log Pow: 0.24).
1-propanol: Accumulation in organisms is not expected (log Pow: 0.34).

12.4. Mobility in soil
isotridecanol, ethoxylated: Koc: >5000, immobile, strong adsorption on soil.
Sulfonic acids, C14-17-sec-alkane, sodium salts: Moderate adsorption on soil.
1-propanol: Adsorption on soil is not expected.

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	578 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 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.	Name of waste
20 01 29*	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 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 + 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 <15 %

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: 1.5
Sources of key data used
Own measurements.
European Chemicals Agency, http://echa.europa.eu/.
Informations from our suppliers.

H225 Highly flammable liquid and vapour.
H302 Harmful if swallowed.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H336 May cause drowsiness or dizziness.
H412 Harmful to aquatic life with long lasting effects.