



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

1.1. Product identifier

Name of product elma tec clean A1

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)

Mildly alkaline emulgating cleaning concentrate for glass 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
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; R41

R-phrases

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
--------------------------------------	-------------------	--------------------------

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 or doctor/physician.

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.

P331 Do NOT induce vomiting.

P332 + P313 If skin irritation occurs: Get medical advice/attention.

! Hazardous ingredients for labeling

isotridecanol, ethoxylated, 1-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 67/548/EEC
69011-36-5	931-138-8	isotridecanol, ethoxylated	< 5	Xn R22; Xi R41
97489-15-1	307-055-2	Sulfonic acids, C14-17-sec-alkane, sodium salts	5 - 15	Xn R22; Xi R38-41
71-23-8	200-746-9	1-propanol	< 15	F R11; Xi R41; R67

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



Hazardous ingredients (continued)

CAS No	EC No	Name	[% weight]	Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]
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
71-23-8	200-746-9	1-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).
97489-15-1	Sulfonic acids, C14-17-sec-alkane, sodium salts	01-2119489924-20
71-23-8	1-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 (NO_x)

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.



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

Additional advice

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

liquid

Colour

yellowish

Odour

alcoholic

Odour threshold

1-propanol: 0.075 - 150 mg/m3.

Important health, safety and environmental information

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



Safety Data Sheet according to Regulation (EC)

No. 1907/2006 (REACH)

Printed 14.10.2014

revision 13.10.2014 (GB) Version 1.4

elma tec clean A1

	Value	Temperature	at	Method	Remark
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/cm ³	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 concentration	< 15 %				
Vapourisation rate					
Water: 0.36 (ASTM D3539).					
1-propanol: 0.89 (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 strong oxidising agents.

Reactions with strong acids.



10.4. Conditions to avoid

Heat and direct solar radiation.

10.5. Incompatible materials

Materials 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/Irritability/Sensitization

	Value/Validation	Species	Method	Remark
LD50 acute oral	5089 mg/kg		ATE (acute toxicity estimate)	
LD50 acute dermal	> 5000 mg/kg		ATE (acute toxicity estimate)	
LC50 acute inhalation	> 34 mg/l (4 h)	rat		Value of 1-propanol.
Irritability skin	low irritant effect			
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.

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



Safety Data Sheet according to Regulation (EC)
No. 1907/2006 (REACH)

Printed 14.10.2014
revision 13.10.2014 (GB) Version 1.4

elma tec clean A1

	Value	Species	Method	Validation
Fish	LC50 15 mg/l		calculated	
Daphnia	EC50 19,9 mg/l		calculated	
Algae	EC50 22,7 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 mgO ₂ /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 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	-	-	-
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: 1.3

Sources of key data used

Own measurements.

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

R 11 Highly flammable.

R 22 Harmful if swallowed.

R 38 Irritating to skin.

R 41 Risk of serious damage to eyes.

R 67 Vapours may cause drowsiness and dizziness.

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.