



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

### 1.1. Product identifier

**Name of product** elma tec clean S1

### 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]

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

#### Environmental release categories [ERC]

ERC8a - Wide dispersive indoor use of processing aids in open systems

ERC6b - Industrial use of reactive processing aids

#### Recommended intended purpose(s)

Weakly acid cleaning concentrate, also usable as agent for pickling of stainless steel surfaces.

### 1.3. Details of the supplier of the safety data sheet

#### Manufacturer Address

Elma Schmidbauer GmbH  
Gottlieb-Daimler-Str. 17  
78224 Singen (Germany)

#### Supplier Address

Tovatech LLC  
205 Rutgers Street  
Maplewood, NJ 07040

#### Emergency telephone number

**Company Phone Number** 973-913-9734

**Emergency Telephone** INFOTRAC 1-352-323-3500 (International)  
1-800-535-5053 (North America)

## 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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Eye Irrit. 2	H319	Calculation method.
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#### Hazard Statements

H319 Causes serious eye irritation.

### 2.2. Label elements



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

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**elma tec clean S1**

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



GHS07

**Signal word**

Warning

**Hazard Statements**

H319 Causes serious eye irritation.

**Precautionary Statements**

P280 Wear protective gloves/eye protection.

P301 + P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

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.

P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.

P337 + P313 If eye irritation persists: Get medical advice/attention.

**! Special rules for supplemental label elements for certain mixtures**

Contains 2-methylisothiazol-3(2H)-one. May produce an allergic reaction.

**2.3. Other hazards**

not relevant

**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 acid mixture of anionic and nonionic surfactants, salts of organic acids and citric acid, chloride-free.

**! Hazardous ingredients**

CAS No	EC No	Name	[% weight]	Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]
68411-30-3	270-115-0	Alkylbenzenesulphonates, C10-13-alkylderivates, Na-salts	< 1	Acute Tox. 4, H302 / Skin Irrit. 2, H315 / Eye Dam. 1, H318 / Aquatic Chronic 3, H412
5949-29-1	201-069-1	citric acid, monohydrate	ca. 20	Eye Irrit. 2, H319
2682-20-4	220-239-6	2-methylisothiazol-3(2H)-one	>= 0, 00015 < 0,0005	Acute Tox. 3, H301 / Acute Tox. 3, H311 / Acute Tox. 2, H330 / , EUH071 / Skin Corr. 1B, H314 / Eye Dam. 1, H318 / Skin Sens. 1A, H317 / Aquatic Acute 1, H400 M=10 / Aquatic Chronic 1, H410 M=1



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## REACH

CAS No	Name	REACH registration number
68411-30-3	Alkylbenzenesulphonates, C10-13-alkylderivates, Na-salts	01-2119489428-22
5949-29-1	citric acid, monohydrate	01-2119457026-42

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## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General information

In the event of persistent symptoms receive 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 by mistake drink plenty of water and seek medical treatment.

### 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

Product does not burn, fire-extinguishing activities according to surrounding.

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:

Carbon monoxide (CO)

Sulfur oxide

### 5.3. Advice for firefighters

#### Special protective equipment for fire-fighters

Do not inhale explosion and/or combustion gases.

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## 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.

Use breathing apparatus if exposed to vapours/dust/aerosol.

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, kieselguhr, acid binder, general-purpose binder, sawdust).

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.

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## ! SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

#### ! Advice on safe handling

Avoid formation of aerosols.

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.

Wash hands before breaks and after work.

#### 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

Keep only in original container.

#### Advice on storage compatibility

Do not store with alkalies.

Do not store together with food.

#### ! Further information on storage conditions

Keep locked up, out of reach of children

Protect from heat and direct solar radiation.

Keep container dry, tightly closed and store at cool place.

Do not keep at temperatures below -5 °C.

Do not keep at temperatures above 30 °C.



**Information on storage stability**

Storage time: 3 years.

**7.3. Specific end use(s)**

**Recommendation(s) for intended use**

no further

**! SECTION 8: Exposure controls/personal protection**

**8.1. Control parameters**

**DNEL-/PNEC-values**

**DNEL worker**

CAS No	Substance name	Value	Code	Remark
68411-30-3	Alkylbenzenesulphonates, C10-13-alkylderivates, Na-salts	85 mg/kg bw/day	DNEL long-term dermal (systemic)	

**PNEC**

CAS No	Substance name	Value	Code	Remark
5949-29-1	citric acid, monohydrate	0,44 mg/l	PNEC aquatic, freshwater	
		1000 mg/l	PNEC sewage treatment plant (STP)	
68411-30-3	Alkylbenzenesulphonates, C10-13-alkylderivates, Na-salts	3,43 mg/l	PNEC sewage treatment plant (STP)	
		0,268 mg/l	PNEC aquatic, freshwater	

**! Additional advice**

Occupational exposure limits: No relevant informations available.

**8.2. Exposure controls**

**! Hand protection**

chemical-resistant 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

**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 up to dark yellow

**Odour**

fruity

**Odour threshold**

not determined



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**elma tec clean S1**

**Important health, safety and environmental information**

	Value	Temperature	at	Method	Remark
<b>pH value</b>	1,6	20 °C			
<b>starts to boil</b>	> 100 °C				
<b>solidifying range</b>	<= -5 °C				
<b>Flash point</b>					No flash point below 100°C.
<b>Flammable (solid)</b>	not applicable				
<b>Flammability (gas)</b>	not applicable				
<b>Ignition temperature</b>	not determined				
<b>Self ignition temperature</b>					not spontaneously flammable
<b>Lower explosion limit</b>	not relevant				
<b>Upper explosion limit</b>	not relevant				
<b>Vapour pressure</b>	ca. 23 hPa	20 °C			
<b>Relative density</b>	1,082 g/cm <sup>3</sup>	20 °C			
<b>Vapour density</b>	not available				
<b>Solubility in water</b>					miscible
<b>Solubility/other</b>	not determined				
<b>Partition coefficient n-octanol/water (log P O/W)</b>	-1,72	20 °C			Value of citric acid.
<b>Decomposition temperature</b>	>= 100 °C				
<b>Viscosity dynamic</b>	1,7 mPa*s	20 °C			
<b>Solvent content</b>	0 %				

**Vapourisation rate**  
Water: 0.36 (ASTM D3539).

**Oxidising properties**  
no

**Explosive properties**  
no

**9.2. Other information**

The mixture is not classified as corrosive to metals.  
No further relevant informations available.



## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No further hazardous reactions known if used as directed.  
Exothermic reaction with alkalis.

### 10.2. Chemical stability

Stable at ambient temperature.

### 10.3. Possibility of hazardous reactions

Reactions with strong alkalis.

### 10.4. Conditions to avoid

Heat and direct solar radiation.

### 10.5. Incompatible materials

#### Substances to avoid

Reactions with strong alkalis.

### 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
<b>LD50 acute oral</b>	> 5000 mg/kg		ATE (acute toxicity estimate)	
<b>LD50 acute dermal</b>	> 5000 mg/kg		ATE (acute toxicity estimate)	
<b>Skin irritation</b>	low irritant effect			
<b>Eye irritation</b>	irritant			
<b>Skin sensitization</b>	The mixture is not classified as skin sensitiser.			Contains 2-methylisothiazol-3(2H)-one. May produce an allergic reaction.

#### 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.  
OECD 435: not corrosive to skin.



**Experiences made from practice**  
Has a degreasing effect on the skin.

## ! SECTION 12: Ecological information

### 12.1. Toxicity

#### Ecotoxicological effects

	Value	Species	Method	Validation
<b>Fish</b>	LC50 177 mg/l		calculated	
<b>Daphnia</b>	EC50 132 mg/l		calculated	
<b>Algae</b>	EC50 876 mg/l		calculated	

### 12.2. Persistence and degradability

<b>Physico-chemical degradability</b>	100 %		Neutralization, pH-measurement	Acid properties can be eliminated up to 100% by neutralization.
<b>Biological degradability</b>	> 95 %	DOC decrease	calculated	readily degradable

### 12.3. Bioaccumulative potential

Alkylbenzenesulphonates, C10-13-alkylderivates, Na-salts: Significant accumulation in organisms is not expected.  
citric acid: Accumulation in organisms is not expected.  
2-methyl-2H-isothiazol-3-one: Accumulation in organisms is not expected.

### 12.4. Mobility in soil

Alkylbenzenesulphonates, C10-13-alkylderivates, Na-salts: Slightly mobile in soil.  
citric acid: Weak adsorption on soil, mobile in soil.  
2-methyl-2H-isothiazol-3-one: Weak adsorption on soil, mobile in soil.

### 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
<b>COD</b>	158 mgO <sub>2</sub> /g	calculated	
<b>AOX</b>	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.

The mixture is not classified as acute/chronic hazardous to the aquatic environment.  
Do not allow uncontrolled leakage of product into the environment.





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## 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.

Product is allowed to discharge into sewage treatment plants, but in accordance with official regulations.

Neutralize with alkalis or lime.

**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

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## 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.

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## ! 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.



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**VOC standard**  
**VOC content** 0 %

**15.2. Chemical Safety Assessment**

For this mixture a chemical safety assessment were not carried out.

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**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.

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

Informations from our suppliers.

EUH071 Corrosive to the respiratory tract.  
H301 Toxic if swallowed.  
H302 Harmful if swallowed.  
H311 Toxic in contact with skin.  
H314 Causes severe skin burns and eye damage.  
H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H318 Causes serious eye damage.  
H319 Causes serious eye irritation.  
H330 Fatal if inhaled.  
H400 Very toxic to aquatic life.  
H410 Very toxic to aquatic life with long lasting effects.  
H412 Harmful to aquatic life with long lasting effects.