



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/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-Informationen-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 Irrit. 2 | H319 | Calculation method. |
|--------------|------|---------------------|

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 |



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 |

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.

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.



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.

! 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



Safety Data Sheet according to Regulation (EC)

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elma tec clean S1**Important health, safety and environmental information**

| | Value | Temperature | at | Method | Remark |
|--|-------------------------|-------------|----|--------|-----------------------------|
| pH value | 1,6 | 20 °C | | | |
| starts to boil | > 100 °C | | | | |
| solidifying range | <= -5 °C | | | | |
| Flash point | | | | | No flash point below 100°C. |
| Flammable (solid) | not applicable | | | | |
| Flammability (gas) | not applicable | | | | |
| Ignition temperature | not determined | | | | |
| Self ignition temperature | | | | | not spontaneously flammable |
| Lower explosion limit | not relevant | | | | |
| Upper explosion limit | not relevant | | | | |
| Vapour pressure | ca. 23 hPa | 20 °C | | | |
| Relative density | 1,082 g/cm ³ | 20 °C | | | |
| Vapour density | not available | | | | |
| Solubility in water | | | | | miscible |
| Solubility/other | not determined | | | | |
| Partition coefficient n-octanol/water (log P O/W) | -1,72 | 20 °C | | | Value of citric acid. |
| Decomposition temperature | >= 100 °C | | | | |
| Viscosity dynamic | 1,7 mPa*s | 20 °C | | | |
| Solvent content | 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 |
|---------------------------|---|---------|-------------------------------|--|
| LD50 acute oral | > 5000 mg/kg | | ATE (acute toxicity estimate) | |
| LD50 acute dermal | > 5000 mg/kg | | ATE (acute toxicity estimate) | |
| Skin irritation | low irritant effect | | | |
| Eye irritation | irritant | | | |
| Skin sensitization | 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 |
|----------------|---------------|---------|------------|------------|
| Fish | LC50 177 mg/l | | calculated | |
| Daphnia | EC50 132 mg/l | | calculated | |
| Algae | EC50 876 mg/l | | calculated | |

12.2. Persistence and degradability

| | | | | |
|---------------------------------------|--------|--------------|--------------------------------|---|
| Physico-chemical degradability | 100 % | | Neutralization, pH-measurement | Acid properties can be eliminated up to 100% by neutralization. |
| Biological degradability | > 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 |
|------------|--|------------|--------|
| COD | 158 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.

The mixture is not classified as acute/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.

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

Neutralize with alkalies 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

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 - 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: 1.4

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.