



Ultrasonics.Steam.Ultraclean.

Safety Data Sheet according to Regulation (EC)

No. 1907/2006 (REACH)

Printed 16.07.2019

Revision 01.07.2019 (GB) Version 1.7

**elma noble clean**

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

### 1.1. Product identifier

Name of product elma noble clean

### 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

#### Uses advised against

#### Remark

Do not use for injecting or spraying.

#### Recommended intended purpose(s)

Aqueous jewellery cleaner.

### 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
--------------------------------------	-------------------	--------------------------

Met. Corr. 1	H290	On basis of test data.
Eye Irrit. 2	H319	Calculation method.
Skin Sens. 1	H317	Calculation method.
Carc. 2	H351	Calculation method.
Repr. 2	H361d	Calculation method.
Aquatic Chronic 3	H412	Calculation method.

#### Hazard Statements

H290	May be corrosive to metals.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H351	Suspected of causing cancer.
H361d	Suspected of damaging the unborn child.
H412	Harmful to aquatic life with long lasting effects.



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## 2.2. Label elements

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



GHS05



GHS07



GHS08

### Signal word

Warning

### Hazard Statements

H290	May be corrosive to metals.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H351	Suspected of causing cancer.
H361d	Suspected of damaging the unborn child.
H412	Harmful to aquatic life with long lasting effects.

### Precautionary Statements

P102	Keep out of reach of children.
P201	Obtain special instructions before use.
P234	Keep only in original packaging.
P261	Avoid breathing mist/vapours/spray.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face 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.
P308 + P313	IF exposed or concerned: Get medical advice/attention.
P405	Store locked up.

### Hazardous ingredients for labeling

thiourea

## 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 and acid mixture with nonionic tensides, complexing agent and co-solvent.



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**Hazardous ingredients**

CAS No	EC No	Name	[% weight]	Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]
7664-38-2	231-633-2	phosphoric acid ...%	< 5	Met. Corr. 1, H290 / Acute Tox. 4, H302 / Skin Corr. 1B, H314 / Eye Dam. 1, H318
67-63-0	200-661-7	propan-2-ol	< 10	Flam. Liq. 2, H225 / Eye Irrit. 2, H319 / STOT SE 3, H336
62-56-6	200-543-5	thiourea	5 - 10	Carc. 2, H351 / Repr. 2, H361d / Acute Tox. 4, H302 / Skin Sens. 1, H317 / Aquatic Chronic 2, H411

**REACH**

CAS No	Name	REACH registration number
7664-38-2	phosphoric acid ...%	01-2119485924-24
67-63-0	propan-2-ol	01-2119457558-25
62-56-6	thiourea	Not yet available from supplier.

**SECTION 4: First aid measures**

**4.1. Description of first aid measures**

**General information**

Remove contaminated soaked clothing immediately.

**In case of inhalation**

In case of inhalation of mist seek medical advice.

**In case of skin contact**

In case of contact with skin wash off immediately with soap and 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 dangers**

Risk of the aspiration of the lung.

**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**

Alcohol-resistant foam

Dry powder

Carbon dioxide

Water spray jet



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**Unsuitable extinguishing media**

no

**5.2. Special hazards arising from the substance or mixture**

Risk of formation of toxic pyrolyse products.

In the event of fire the following can be released:

Nitrogen gases (NO<sub>x</sub>)

Carbon monoxide (CO)

Phosphorus oxides (e.g. phosphoruspentoxide)

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.

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.

Informations for disposal see chapter 13.

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**! SECTION 7: Handling and storage**

**7.1. Precautions for safe handling**

**Advice on safe handling**

Open and handle container with care!

**General protective measures**

Avoid contact with eyes and skin

Do not inhale aerosols

**Hygiene measures**

Provide washing facilities at place of work.

Keep away from food and drink.

Wash hands before breaks and after work.



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**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**

Provide acid-resistant floor.

Keep only in original container.

**Advice on storage compatibility**

Do not store with alkalies.

**! Further information on storage conditions**

Keep barrel tightly closed.

Keep locked up, out of reach of children

Protect from heat and direct solar radiation.

Keep under lock and key or accessible only to specialists or people authorized by them.

Do not keep at temperatures below 5 °C.

Do not keep at temperatures above 30 °C.

**! Information on storage stability**

Storage time: 4 years.

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

**Recommendation(s) for intended use**

See section 1.2

**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
7664-38-2	Orthophosphoric acid	WEL, 8 hours Short-term	1 2		R34
67-63-0	propan-2-ol	WEL, 8 hours Short-term	999 1250	400 500	R11, 36, 67

**DNEL-/PNEC-values**

**DNEL worker**

CAS No	Substance name	Value	Code	Remark
67-63-0	propan-2-ol	888 mg/kg bw/day	DNEL long-term dermal (systemic)	
		500 mg/m3	DNEL long-term inhalative (systemic)	
7664-38-2	phosphoric acid ...%	1 mg/m3	DNEL long-term inhalative (local)	

**PNEC**

CAS No	Substance name	Value	Code	Remark
7664-38-2	phosphoric acid ...%			No data available

**Additional advice**

**8.2. Exposure controls**

**Hand protection**

Gloves (acid-resistant)

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



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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

**Other protection measures**

Light protective clothing.

**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**

transparent

**Odour**

of isopropanol

**Odour threshold**

propan-2-ol: 2.5 - 490 mg/m<sup>3</sup> (1 - 196 ppm).

**Important health, safety and environmental information**

	Value	Temperature	at	Method	Remark
<b>pH value</b>	1,2	20 °C			
<b>starts to boil</b>	>= 78 °C				
<b>solidifying range</b>	not determined				
<b>Flash point</b>	ca. 40 °C			DIN 51755	Does not maintain the combustion.
<b>Flammable (solid)</b>	not applicable				
<b>Flammability (gas)</b>	not applicable				
<b>Ignition temperature</b>	425 °C				Value of propan-2-ol.
<b>Self ignition temperature</b>					not spontaneously flammable
<b>Lower explosion limit</b>	2 Vol-%				Value of propan-2-ol.
<b>Upper explosion limit</b>	ca. 12 Vol-%				Value of propan-2-ol.
<b>Vapour pressure</b>	ca. 31 hPa	20 °C			
<b>Relative density</b>	1,022 g/cm <sup>3</sup>	20 °C			
<b>Vapour density</b>	2,07				Value of propan-2-ol.



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	Value	Temperature	at	Method	Remark
<b>Solubility in water</b>					miscible
<b>Solubility/other</b>	not determined				
<b>Partition coefficient n-octanol/water (log P O/W)</b>	0,05	20 °C			Value of propan-2-ol.
<b>Decomposition temperature</b>	> 78 °C				
<b>Viscosity</b>	not determined				
<b>Solvent content</b>	< 10 Gew-%				

### Vapourisation rate

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

No hazardous reactions known if used as directed.

### 10.2. Chemical stability

Stable at ambient temperature.

### 10.3. Possibility of hazardous reactions

Reactions with oxidising agents.  
Reactions with strong alkalis.

### 10.4. Conditions to avoid

Heat and direct solar radiation.

### 10.5. Incompatible materials

#### Substances to avoid

Reactions with oxidising agents.  
Corrodes aluminium.  
Reactions with strong alkalis.

### 10.6. Hazardous decomposition products

Possible in traces: Hydrogen sulphide (H<sub>2</sub>S).



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## 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>LC50 acute inhalation</b>	> 50 mg/l ()		ATE (acute toxicity estimate)	vapours
<b>Skin irritation</b>	low irritant effect			
<b>Eye irritation</b>	irritant			
<b>Skin sensitization</b>	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.

#### Toxicity test (Additional information)

The mixture is not classified as mutagen.

The mixture is classified as carcinogen: Carc. 2 H351: Suspected of causing cancer.

The mixture is classified as reproductive toxicant: Repr. 2 H361d: Suspected of damaging the unborn child.

thiourea : LD50(oral, rat): 1750 mg/kg, LD50(dermal, rabbit): > 2800 mg/kg .

#### Experiences made from practice

Has a degreasing effect on the skin.

Frequent persistent contact with the skin may cause skin irritation.

## SECTION 12: Ecological information

### 12.1. Toxicity

#### Ecotoxicological effects

	Value	Species	Method	Validation
<b>Fish</b>	LC50 52 mg/l		calculated	
<b>Daphnia</b>	EC50 46,9 mg/l		calculated	
<b>Algae</b>	EC50 38 mg/l		calculated	
<b>Bacteria</b>	EC10 1265 mg/l (18 h)	Pseudomonas putida		Value of pure thiourea.

### 12.2. Persistence and degradability





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<b>Physico-chemical degradability</b>	100 %	Neutralization, pH-measurement	Acid properties can be eliminated up to 100% by neutralization.
<b>Biological degradability</b>			Moderately/partially biodegradable

The product is biodegradable after lengthy adaptation.

**12.3. Bioaccumulative potential**

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

phosphoric acid: Accumulation in organisms is not expected.

thiourea: Accumulation in organisms is not expected (log Pow: -0.92).

**12.4. Mobility in soil**

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

phosphoric acid: not available.

thiourea: Low adsorption on soil (Koc: 30,5).

**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>	ca. 205 mgO2/g	calculated	
<b>BOD 5 d</b>	13 mgO2/g		Value of pure thiourea.
<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.

Acute aquatic environmental hazards: Aquatic Acute 3 H402: Harmful 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.	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.

Neutralize with alkalis or lime.

Remove in accordance with local 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



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## SECTION 14: Transport information

	ADR/RID	IMDG	IATA-DGR
<b>14.1. UN number</b>	UN 1805	UN 1805	UN 1805
<b>14.2. UN proper shipping name</b>	PHOSPHORIC ACID, SOLUTION	PHOSPHORIC ACID SOLUTION	PHOSPHORIC ACID, SOLUTION
<b>14.3. Transport hazard class(es)</b>	8	8	8
<b>14.4. Packing group</b>	III	III	III
<b>14.5. Environmental hazards</b>	No	No	No
<b>14.6. Special precautions for user</b>	no		
<b>14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	not relevant		
<b>Land and inland navigation transport ADR/RID</b>			
Hazard label(s)	8		
tunnel restriction code	E		

## ! 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** 5,3 %

**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: 1.6

**Sources of key data used**

Own measurements.

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

Informations from our suppliers.



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- H225 Highly flammable liquid and vapour.
- H290 May be corrosive to metals.
- H302 Harmful if swallowed.
- H314 Causes severe skin burns and eye damage.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H336 May cause drowsiness or dizziness.
- H351 Suspected of causing cancer (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).
- H361d Suspected of damaging fertility or the unborn child (state specific effect if known) (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).
- H411 Toxic to aquatic life with long lasting effects.