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

### Product identifier

Name of product elma ultra clean

### 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

#### Recommended intended purpose(s)

Gentle and brightening cleaning concentrate for gold jewellery including gemstones.

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

#### Manufacturer/distributor

ELMA Hans Schmidbauer GmbH & Co KG  
Kolpingstr. 1-7, D-78224 Singen (Htwl.)  
Phone +49 7731 882-0, Fax +49 7731 882-266  
E-Mail [info@elma-ultrasonic.com](mailto:info@elma-ultrasonic.com)  
Internet [www.elma-ultrasonic.com](http://www.elma-ultrasonic.com)

#### Advice

Chemie/Labor: Email: [chemlab@elma-ultrasonic.com](mailto:chemlab@elma-ultrasonic.com)  
Phone +49 7731 882-287  
Fax +49 7731 882-266

#### Emergency telephone number

#### Emergency advice

Vergiftungs-Informations-Zentrale Freiburg  
(Sprache/Language: D, GB)  
Phone +49 761 19240

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## ! SECTION 2: Hazards identification

### Classification of the substance or mixture

#### Classification according to 67/548/EEC or 1999/45/EC

Xi; R41

R43

#### R-phrases

41 Risk of serious damage to eyes.

43 May cause sensitisation by skin contact.



## Label elements

### Labelling according to 67/548/EEC or 1999/45/EC

#### Remarks for labelling

The product is classified and labelled in accordance with EC directives/German regulations on dangerous substances.

**Xi** Irritant



#### R-phrases

41 Risk of serious damage to eyes.  
43 May cause sensitisation by skin contact.

#### S-phrases

2 Keep out of the reach of children.  
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
28 After contact with skin, wash immediately with plenty of water.  
37/39 Wear suitable gloves and eye/face protection.  
46 If swallowed, seek medical advice immediately and show this container or label.

#### Hazardous ingredients for labeling

sodium 3-nitrobenzenesulphonate

#### Other hazards

#### ! Information pertaining to special dangers for human and environment

May be harmful in contact with skin.  
Causes mild skin irritation.  
PBT/vPvB: see section 12.

## ! SECTION 3: Composition/ information on ingredients

### Mixtures

#### Description

Aqueous concentrate with anionic and nonionic surfactants, solvent, complexing agent, carbonates, desoxidizing brightening agents and odour.

#### ! Hazardous ingredients

CAS No	EC No	Name	[% weight]	Classification according to 67/548/EEC
127-68-4	204-857-3	sodium 3-nitrobenzenesulphonate	< 5	Xi R36; R43
68411-30-3	270-115-0	alkylbenzenesulphonates, C10-13-alkylderivates, Na-salts	< 5	Xn R22; Xi R38-41
26027-37-2		C18-fatty acid monoethanolamide, ethoxylated	< 5	C R34
31017-83-1	931-964-9	Laurylamine ethoxylated	< 5	Xn R22; Xi R41; R52/53
497-19-8	207-838-8	sodium carbonate	< 5	Xi R36
110-91-8	203-815-1	morpholine	5 - 15	R10; Xn R20/21/22; C R34

CAS No	EC No	Name	[% weight]	Classification according to Regulation (EC) No 1272/2008 [CLP/ GHS]
127-68-4	204-857-3	sodium 3-nitrobenzenesulphonate	< 5	Eye Irrit. 2, H319 / Skin Sens. 1, H317



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**Hazardous ingredients (continued)**

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	< 5	Acute Tox. 4, H302 / Skin Irrit. 2, H315 / Eye Dam. 1, H318
26027-37-2		C18-fatty acid monoethanolamide, ethoxylated	< 5	Skin Corr. 1B, H314 / Eye Dam. 1, H318
31017-83-1	931-964-9	Laurylamine ethoxylated	< 5	Acute Tox. 4, H302 / Eye Dam. 1, H318 / Aquatic Chronic 3, H412
497-19-8	207-838-8	sodium carbonate	< 5	Eye Irrit. 2, H319
110-91-8	203-815-1	morpholine	5 - 15	Flam. Liq. 3, H226 / Acute Tox. 4, H332 / Acute Tox. 3, H311 / Acute Tox. 4, H302 / Skin Corr. 1B, H314 / Eye Dam. 1, H318

**REACH**

CAS No	Name	REACH registration number
68411-30-3	alkylbenzenesulphonates, C10-13-alkylderivates, Na-salts	01-2119489428-22
497-19-8	sodium carbonate	01-2119485498-19
110-91-8	morpholine	01-2119496057-30

**Additional advice**

Aqueous cleaning concentrate for gentle cleaning and brightening of gold jewelry with and without ultrasonics.

**! SECTION 4: First aid measures**

**Description of first aid measures**

**! General information**

If threatening unconsciousness, position and transport in recovery position  
Remove contaminated clothing immediately and dispose it safely.  
Adhere to personal protective measures when giving first aid.

**In case of inhalation**

Ensure of fresh air.  
In the event of symptoms refer for medical treatment.

**! In case of skin contact**

In case of contact with skin wash off immediately with plenty of water.  
Consult a doctor if skin irritation persists.  
Get medical advice/attention if you feel unwell.

**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.  
Medical treatment.  
If swallowed seek medical advice immediately and show the doctor packing or label.  
Immediately rinse out mouth and give plenty of water to drink.



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**Most important symptoms and effects, both acute and delayed**

**! Physician's information / possible symptoms**

No further informations available.

**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**

**Extinguishing media**

**Suitable extinguishing media**

water

Alcohol-resistant foam

Dry powder

Carbon dioxide

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

Risk of formation of toxic pyrolyse products.

In case of fire formation of dangerous gases possible.

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

Carbon monoxide (CO)

Carbon dioxide (CO<sub>2</sub>)

**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**

**Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation.

Use personal protection.

High risk of slipping due to leakage/spillage of product.

**Environmental precautions**

Do not discharge into the drains/surface waters/groundwater.

**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.

**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**

**Precautions for safe handling**

**! Advice on safe handling**

Avoid formation of aerosols.

Care for thoroughly room ventilation, if necessary use in well ventilated area with local exhaust ventilation at workplace.

Open and handle container with care!

Take the usual precautions when handling with chemicals.

**Advice on protection against fire and explosion**

No special measures necessary.

**Conditions for safe storage, including any incompatibilities****Requirements for storage rooms and vessels**

No special measures required.

**! Advice on storage compatibility**

Do not store together with oxidizing agents.

**! 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 and aired place.

Do not keep at temperatures below 5 °C.

**Information on storage stability**

Storage time: 5 years.

**Specific end use(s)****! Recommendation(s) for intended use**

see section 8.

**! SECTION 8: Exposure controls/personal protection****Control parameters****Indicative occupational exposure limit values (91/322/EEC, 2000/39/EC, 2006/15/EC or 2009/161/EU)**

CAS No	Name	Code	[mg/m <sup>3</sup> ]	[ppm]	Remark
110-91-8	morpholine	8 hours	36	10	
		Short-term	72	20	

**Additional advice****Exposure controls****Hand protection**

chemical-resistant gloves

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

**Eye protection**

tightly fitting goggles

**! Skin protection**

Light protective clothing.

**! General protective measures**

Avoid contact with eyes and skin

Do not inhale vapours/aerosols.

**! Hygiene measures**

Provide washing facilities at place of work.

Remove soiled or soaked clothing immediately.

Keep away from food and drink.

Wash hands before breaks and after work.

**! Limitation and surveillance of the environment**

Avoid penetration into the subsoil/soil.

Do not discharge into surface waters.

**! Additional advice on system design**

Technical exhaustion for long-term expositions or higher bath temperatures.



## ! SECTION 9: Physical and chemical properties

### Information on basic physical and chemical properties

<b>Form</b> liquid	<b>Colour</b> yellowish - brown	<b>Odour</b> mild
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### Important health, safety and environmental information

	Value	Temperature	at	Method	Remark
<b>pH value in delivery state</b>	12	20 °C			
<b>starts to boil</b>	>= 100 °C				
<b>solidifying range</b>	-5 °C				
<b>Flash point</b>	> 65 °C			DIN EN ISO 13736	Does not maintain the combustion.
<b>Flammable solid</b>	not applicable				
<b>Flammability (gas)</b>	not applicable				
<b>Ignition temperature</b>	255 °C				information concern solvent
<b>Autoignition</b>	no				
<b>Lower explosion limit</b>	1,4 Vol-%				information concern solvent
<b>Upper explosion limit</b>	13,1 Vol-%				information concern solvent
<b>Vapour pressure</b>	not determined				
<b>Density</b>	1,075 g/cm <sup>3</sup>	20 °C			
<b>Rel. vapour density</b>	3				Dates refer to solvent.
<b>Solubility in water</b>					miscible
<b>Partition coefficient (log p<sub>OW</sub>)</b>	-2,55				Dates refer to solvent.
<b>Viscosity</b>	not determined				
<b>Solvent concentration</b>	5 - 15 Gew-%				
<b>Oxidizing properties</b>	no				
<b>Explosive properties</b>	no				



**Other information**

No further relevant informations available.

**! SECTION 10: Stability and reactivity**

**Reactivity**

Evolution of heat under influence of acids.  
No further hazardous reactions known if used as directed.

**Chemical stability**

Stable at ambient temperature.

**Possibility of hazardous reactions**

Exothermic reaction with strong acids.  
Violent reactions with oxidising agents.

**Conditions to avoid**

Heat and direct solar radiation.

**Incompatible materials**

**! Materials to avoid**

Reactions with strong acids.  
Reactions with oxidising agents.  
Reaction with nitric acid

**Hazardous decomposition products**

No decomposition if used as directed.

**! SECTION 11: Toxicological information**

**Information on toxicological effects**

**Acute toxicity/Irritability/Sensitization**

	Value/Validation	Species	Method	Remark
<b>LD50 acute oral</b>	> 5000 mg/kg		ATE (acute toxicity estimate)	
<b>LD50 acute dermal</b>	4000 - 5000 mg/kg		ATE (acute toxicity estimate)	
<b>Irritability skin</b>	mediocre irritant	rabbit	OECD 404	
<b>Irritability eye</b>	irritant - risk of strong eye injuries			
<b>Skin sensitization</b>	sensitizing			

**! Toxicity test (Additional information)**

morpholine : LD50(oral, rat): ~1910 mg/kg, LD50(dermal, rabbit): ~500 mg/kg, LC50(inhalation, rat, 4h): ~22.5 mg/l .

**Experiences made from practice**

Has a degreasing effect on the skin.



## ! SECTION 12: Ecological information

### Toxicity

#### Ecotoxicological effects

	Value	Species	Method	Validation
<b>Fish</b>	LC50 27 mg/l		calculated	
<b>Daphnia</b>	EC50 41 mg/l		calculated	
<b>Algae</b>	EC50 88,6 mg/l		calculated	

#### Persistence and degradability

<b>Physico-chemical degradability</b>	100 %		Neutralization, pH-measurement	
<b>Biological degradability</b>	> 80 %			readily degradable

#### Bioaccumulative potential

Morpholine: Accumulation in organisms is not expected.

Alkylbenzenesulphonates, C10-13-alkylderivates, Na-salts: Significant accumulation in organisms is not expected.

#### Mobility in soil

not available

#### Results of PBT and vPvB assessment

The product does not contain any PBT-/vPvB-substances according to the recipe.

#### Other adverse effects

No further relevant informations available.

#### Additional ecological information

	Value	Method	Remark
<b>COD</b>	ca. 0,53 gO <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.

Harmful to aquatic life.

Do not allow uncontrolled leakage of product into the environment.

## SECTION 13: Disposal considerations

### Waste treatment methods

#### Waste code No.

07 06 04\*

#### Name of waste

other organic solvents, washing liquids and mother liquors

Wastes marked with an asterisk are considered to be hazardous waste pursuant to Directive 91/689/EEC on hazardous waste.

### Recommendations for the product

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.





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**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****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.

**Special precautions for user**

no

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

not relevant

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**! SECTION 15: Regulatory information****Safety, health and environmental regulations/legislation specific for the substance or mixture****VOC standard**

VOC content 9,3 %

**Chemical Safety Assessment**

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

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**! SECTION 16: Other information****! 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.

**Sources of key data used**

Own measurements.

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

R 10 Flammable.

R 20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

R 22 Harmful if swallowed.

R 34 Causes burns.

R 36 Irritating to eyes.

R 38 Irritating to skin.

R 41 Risk of serious damage to eyes.

R 43 May cause sensitisation by skin contact.

R 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

H226 Flammable liquid and vapour.

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.



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- 
- H319 Causes serious eye irritation.  
H332 Harmful if inhaled.  
H412 Harmful to aquatic life with long lasting effects.