



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

1.1. Product identifier

Name of product OPTO 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

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)

Mildly alkaline cleaning concentrate for the aqueous ultrasonic cleaning of glasses and frames of glasses.

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]

! Additional hints

The product is not classified as dangerous according to Regulation (EC) 1272/2008 [GHS].

Classification procedure for serious eye damage/eye irritation: Bridging principle 'Substantially similar mixtures.'

2.2. Label elements

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

Special rules for supplemental label elements for certain mixtures

Safety data sheet available on request.

2.3. Other hazards

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 from anionic and non-ionic surfactants, corrosion inhibitors, complexing agent, 1-methoxypropan-2-ol (solvent) and dye.

! Hazardous ingredients

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	Eye Dam. 1, H318 / Aquatic Chronic 3, H412
107-98-2	203-539-1	1-methoxy-2-propanol	5 - 15	Flam. Liq. 3, H226 / STOT SE 3, H336
26183-52-8		decan-1-ol, ethoxylated	< 5	Acute Tox. 4, H302 / Eye Dam. 1, H318
102-71-6	203-049-8	triethanolamine [2,2',2''-nitrilotriethanol]	< 5	

REACH

CAS No	Name	REACH registration number
69011-36-5	isotridecanol, ethoxylated	Not relevant (polymer).
107-98-2	1-methoxy-2-propanol	01-2119457435-35
26183-52-8	decan-1-ol, ethoxylated	Not relevant (polymer).
102-71-6	triethanolamine [2,2',2''-nitrilotriethanol]	01-2119486482-31

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.

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 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

Alcohol-resistant foam

Dry powder

Carbon dioxide

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)

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.

Forms slippery surfaces with water.

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

6.2. Environmental precautions

Do not discharge into surface waters/groundwater.

6.3. Methods and material for containment and cleaning up

Take up with absorbent material (e.g. general-purpose binder).

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

No special measures necessary if used correctly.

General protective measures

Avoid contact with eyes and skin

Hygiene measures

Provide washing facilities at place of work.

Keep away from food and drink.



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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

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.

Keep in a cool place.

Do not keep at temperatures below 5 °C.

Do not keep at temperatures above 30 °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
107-98-2	1-methoxypropan-2-ol	TWA, 8 hours	375	100	Sk, R10
		Short-term	560	150	

Indicative occupational exposure limit values (91/322/EEC, 2000/39/EC, 2004/37/EC, 2006/15/EC or 2009/161/EU)

CAS No	Name	Code	[mg/m3]	[ppm]	Remark
107-98-2	1-methoxy-2-propanol	8 hours	375	100	skin
		Short-term	568	150	

DNEL-/PNEC-values

DNEL worker

CAS No	Substance name	Value	Code	Remark
102-71-6	triethanolamine [2,2',2''-nitrilotriethanol]	1 mg/m3	DNEL long-term inhalative (local)	
		7,5 mg/kg bw/day	DNEL long-term dermal (systemic)	
107-98-2	1-methoxy-2-propanol	50,6 mg/kg bw/day	DNEL long-term dermal (systemic)	
		369 mg/m3	DNEL long-term inhalative (systemic)	

PNEC

CAS No	Substance name	Value	Code	Remark
102-71-6	triethanolamine [2,2',2''-nitrilotriethanol]	0,32 mg/l	PNEC aquatic, freshwater	
		10 mg/l	PNEC sewage treatment plant (STP)	
107-98-2	1-methoxy-2-propanol	10 mg/l	PNEC aquatic, freshwater	
		100 mg/l	PNEC sewage treatment plant (STP)	



! Additional advice

Occupational exposure limits for triethanolamine.

8.2. Exposure controls

Eye protection

safety goggles

Limitation and surveillance of the environment

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

pink

Odour

mild

Odour threshold

1-methoxy-2-propanol: 38 - 360 mg/m³ (10 - 96 ppm).

Important health, safety and environmental information

	Value	Temperature	at	Method	Remark
pH value	9,5 - 10	20 °C			
boiling range	>= 100 °C				
solidifying range	<= 0 °C				
Flash point	> 61 °C			DIN 51755	Does not maintain the combustion.
Flammable (solid)	not applicable				
Flammability (gas)	not applicable				
Ignition temperature	not determined				
Self ignition temperature					not spontaneously flammable
Lower explosion limit	1,5 Vol-%				Value of 1-methoxy-2-propanol.
Upper explosion limit	13,7 Vol-%				Value of 1-methoxy-2-propanol.
Vapour pressure	ca. 25 hPa	20 °C			
Relative density	1,02 g/cm ³	20 °C			
Vapour density	3,11				Value of 1-methoxy-2-propanol.



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	Value	Temperature	at	Method	Remark
Solubility in water					miscible
Solubility/other	not determined				
Partition coefficient n-octanol/water (log P O/W)	-0,437	25 °C			Value of 1-methoxy-2-propanol.
Decomposition temperature	> 100 °C				
Viscosity	not determined				
Solvent content	< 15 %				
Vapourisation rate	1-methoxy-2-propanol: 0.75 (ASTM D3539). 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 concentrated acids and alkalis above 50°C.

10.4. Conditions to avoid

Heat and direct solar radiation.

10.5. Incompatible materials

Substances to avoid

Reactions with strong acids and 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)	
LC50 acute inhalation	> 50 mg/l ()		ATE (acute toxicity estimate)	vapours
Skin irritation	non-irritant			
Eye irritation	low irritant - no labeling duty			
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.

Toxicity test (Additional information)

The mixture is not classified as mutagen / not classified as carcinogen / not classified as reproductive toxicant.

Test on similar mixture (elma opto clean, Batch 0146070646): OECD 405(rabbit): not irritating to eyes.

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 39,6 mg/l		calculated	
Daphnia	EC50 39,5 mg/l		calculated	
Algae	EC50 38,8 mg/l		calculated	

12.2. Persistence and degradability

Physico-chemical degradability	100 %		Neutralization, pH-measurement	Alkaline properties can be eliminated up to 100% by neutralization.
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	Elimination rate	Method of analysis	Method	Validation
Biological degradability	> 85 %	DOC decrease	calculated	readily degradable

12.3. Bioaccumulative potential

1-methoxy-2-propanol: Accumulation in organisms is not expected.

decan-1-ol, ethoxylated: not available.

isotridecanol, ethoxylated: Bioaccumulation is improbable.

triethanolamine: Accumulation in organisms is not expected (BCF: <0,4).

12.4. Mobility in soil

1-methoxy-2-propanol: Dissolves in water. Highly mobile in soil.

decan-1-ol, ethoxylated: not available.

isotridecanol, ethoxylated: strong adsorption on soil, immobile.

triethanolamine: Adsorption on soil is not expected (Koc: 10).

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	ca. 490 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.

20 01 30

Name of waste

detergents other than those mentioned in 20 01 29

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.

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 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.

1-methoxy-2-propanol: For this substance a chemical safety assessment has been 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: 3.0



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Sources of key data used

Own measurements.

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

Informations from our suppliers.

- H226 Flammable liquid and vapour.
- H302 Harmful if swallowed.
- H318 Causes serious eye damage.
- H336 May cause drowsiness or dizziness.
- H412 Harmful to aquatic life with long lasting effects.