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

1.1 Product identifier

Trade name/designation	EC 25
Unique Formula Identifier	UFI: CC00-60HP-600D-G1H4
Product category	PC-CLN-OTH Other cleaning, care and maintenance products (excludes biocidal products)

1.2 Relevant identified uses of the substance or mixture and uses advised against

Sector of uses [SU]
SU20 Health services
SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
SU3 Industrial uses

Process categories [PROC]
PROC8a Transfer of substance or mixture (charging and discharging) at non- dedicated facilities
PROC9 Transfer of substance or mixture into small containers (dedicated filling line, including weighing)
PROC13 Treatment of articles by dipping and pouring

Environmental release categories [ERC]
ERC8a Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor)

Product Categories [PC]
PC35 Washing and cleaning products

Use of the substance/mixture
Ready-to-use ultrasonic cleaning solution for removing dental plasters and alginates from impression trays, instruments etc., made of stainless steel, glass, ceramic and plastics.

1.3 Details of the supplier of the safety data sheet

Supplier
Elma Schmidbauer GmbH
Gottlieb-Daimler-Str. 17
D-78224 Singen (Htwl.)
Telephone +49 7731 882-0
Telefax +49 7731 882-266
E-mail info@elma-ultrasonic.com
Website www.elma-ultrasonic.com

Department responsible for information:
Chemie/Labor: Email: chemlab@elma-ultrasonic.com

* 1.4 Emergency telephone number

Vergiftungs-Informations-Zentrale Freiburg (Sprache/Language: DE, EN) +49 761 19240

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]	Classification procedure
Eye Irrit. 2, H319	Expert judgement and weight of evidence determination.

Hazard statements for health hazards
H319 Causes serious eye irritation.

2.2 Label elements

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

Hazard pictograms



GHS07

Signal word
Warning

Hazard statements
H319 Causes serious eye irritation.

Precautionary statements
P102 Keep out of reach of children.
P280 Wear eye protection.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/attention.
P301 + P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

Other labelling
Labelling for contents according to regulation (EC) No. 648/2004:
< 5% anionic surfactants

2.3 Other hazards

Adverse human health effects and symptoms
This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

Adverse environmental effects
This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

Other adverse effects
not relevant

* **Results of PBT and vPvB assessment**
The product does not contain any PBT-/vPvB-substances according to the recipe.
The product does not contain any PMT-/vPvM-substances according to the recipe.

SECTION 3: Composition / information on ingredients

3.1 Substances

not applicable

3.2 Mixtures

Hazardous ingredients

CAS No	EC No	Index No	Substance name	Concentration	Classification according to Regulation (EC) No 1272/2008 [CLP]	SCL/ M/ ATE
107-98-2	203-539-1	603-064-00-3	1-methoxy-2-propanol	5 - 10 weight-%	Flam. Liq. 3; H226 STOT SE 3; H336	
71-23-8	200-746-9	603-003-00-1	n-propanol	5 - 10 weight-%	Flam. Liq. 2; H225 Eye Dam. 1; H318 STOT SE 3; H336	

REACH No.	Substance name
01-2119457435-35	1-methoxy-2-propanol
01-2119486761-29	n-propanol

Additional information
Aqueous, mildly alkaline mixture with complexing agent, anionic surfactants and cosolvent.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information
Remove contaminated, saturated clothing immediately.

Following skin contact
In case of contact with skin wash off with warm water.
In case of skin irritation, consult a physician.

After eye contact
After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Following ingestion
Medical treatment necessary.
If swallowed seek medical advice immediately and show the doctor packing or label.
Rinse mouth immediately and drink plenty of water.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms
No further informations available.

4.3 Indication of any immediate medical attention and special treatment needed

Notes for the doctor
No further informations available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media
Water
alcohol resistant foam
Extinguishing powder
Carbon dioxide (CO_2)

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products
In case of fire formation of dangerous gases possible.

5.3 Advice for firefighters

Special protective equipment for firefighters
Do not inhale explosion and combustion gases.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel
Use personal protection equipment.

For emergency responders
Personal protection equipment
Use personal protection.

6.2 Environmental precautions

Do not allow to enter into surface water or drains.

6.3 Methods and material for containment and cleaning up

For containment
Suitable material for taking up:
Sand
Sawdust
Universal binder
Kieselguhr
Flush away residues with hot water.

6.4 Reference to other sections

Safe handling: see section 7
Personal protection equipment: see section 8

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures
Care for thoroughly room ventilation.
Avoid contact with eyes and skin.
Take the usual precautions when handling with chemicals.
No special fire protection measures are necessary.

Advices on general occupational hygiene
Make available sufficient washing facilities
Keep away from food and drink.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels
Keep/Store only in original container.
Keep container tightly closed.

Materials to avoid
Do not store together with:
Oxidising agent

Further information on storage conditions
Keep locked up and out of reach of children.
Protect from heat and direct solar radiation.
Do not keep at temperatures below 5°C.
Do not keep at temperatures above 35°C.
Storage time: 5 years.

7.3 Specific end use(s)

Recommendation
see section 8.
no further

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

CAS No	EC No	Substance name	occupational exposure limit value
107-98-2	203-539-1	1-Methoxypropanol-2	100 [ml/m³(ppm)] 375 [mg/m³] Short-term(ml/m³) 150 Short-term(mg/m³) 568 Skin 2000/39/EC (IOELV)

CAS No	EC No	Substance name	occupational exposure limit value
107-98-2	203-539-1	1-Methoxypropan-2-ol	100 [ml/m³(ppm)] 375 [mg/m³] Short-term(ml/m³) 150 (1) Short-term(mg/m³) 568 (1) (1) 15 minutes reference period (IE)
71-23-8	200-746-9	Propan-1-ol	10 [ml/m³(ppm)] (IE)
107-98-2	203-539-1	1-Methoxypropan-2-ol	100 [ml/m³(ppm)] 375 [mg/m³] Short-term(ml/m³) 150 Short-term(mg/m³) 560 (UK)
71-23-8	200-746-9	Propan-1-ol	200 [ml/m³(ppm)] 500 [mg/m³] Short-term(ml/m³) 250 Short-term(mg/m³) 625 (UK)

DNEL worker

CAS No	Substance name	DNEL value	DNEL type	Remark
107-98-2	1-methoxy-2-propanol	183 mg/kg bw/day	long-term dermal (systemic)	
107-98-2	1-methoxy-2-propanol	369 mg/m³	long-term inhalative (systemic)	
71-23-8	n-propanol	136 mg/kg bw/day	long-term dermal (systemic)	
71-23-8	n-propanol	268 mg/m³	long-term inhalative (systemic)	Assessment factor 7.5

PNEC

CAS No	Substance name	PNEC Value	PNEC type	Remark
107-98-2	1-methoxy-2-propanol	10 mg/L	aquatic, freshwater	Assessment factor 100
107-98-2	1-methoxy-2-propanol	100 mg/L	sewage treatment plant (STP)	Assessment factor 10
71-23-8	n-propanol	6.83 mg/L	aquatic, freshwater	Assessment factor 10
71-23-8	n-propanol	96 mg/L	sewage treatment plant (STP)	Assessment factor 100

8.2 Exposure controls

Appropriate engineering controls

Technical measures to prevent exposure
Technical exhaustion for long-term expositions or higher bath temperatures.

Personal protection equipment

Eye/face protection
safety goggles

Environmental exposure controls

Technical measures to prevent exposure
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

Physical state
liquid

Colour
yellowish

Odour
like:
Alcohol

Safety relevant basis data

	Value	Method	Source, Remark
Odour threshold:			1-methoxy-2-propanol: 38 - 360 mg/m3 (10 - 96 ppm). 1-propanol: 0.075 - 150 mg/m3 (0.03 - 60 ppm).
Melting point/freezing point	Solidifying point ≤ 0 °C		
Boiling point or initial boiling point and boiling range	≥ 90 °C		
flammability	solid		not applicable
flammability	gaseous		not applicable
Lower and upper explosion limit	Upper explosion limit 13.7 Vol-%		Value of 1-methoxy-2-propanol.
Lower and upper explosion limit	Lower explosion limit 1.5 Vol-%		Value of 1-methoxy-2-propanol.
Flash point	38.5 °C	DIN EN ISO 13736	Does not maintain the combustion.
Auto-ignition temperature	270 °C		Value of 1-methoxy-2-propanol.
Decomposition temperature	≥ 90 °C		
pH	in delivery state approx. 11.7 (20°C)		
Viscosity	dynamic 4.3 mPa*s (20°C)		
Viscosity	kinematic 3.9 mm²/s (20°C)	calculated.	
Solubility(ies)	Water solubility		miscible
Solubility(ies)			not determined
Partition coefficient n-octanol/water (log value)	0.34		Value of 1-propanol.
Vapour pressure	23- 56 hPa (20°C)		
Density and/or relative density	1.098 g/cm³ (20°C)		
Relative vapour density	3.11		Value of 1-methoxy-2-propanol.
particle characteristics			not applicable (liquid).

9.2 Other information

Information with regard to physical hazard classes

Explosives

Assessment/classification
The mixture does not contain any explosive substances (CLP I 2.1.4.3 a).
CLP I 2.1.4.3 a: The classification procedure needs not to be applied because there are no chemical groups present in the molecule which are associated with explosive properties.

flammable gases

Assessment/classification
not applicable (liquid).

Aerosols

Assessment/classification
not relevant - no aerosol.
The classification criteria for this hazard class are not met by definition.

Oxidising gas

Assessment/classification
not applicable (liquid).

Gases under pressure

Assessment/classification
not applicable (liquid - no dissolved gas).

flammable liquids

Assessment/classification
Flash point > 35 °C, does not maintain the combustion.
The mixture is not classified as flammable liquids.

flammable solids

Assessment/classification
not applicable (liquid).

Self-reactive substances and mixtures

Assessment/classification
The mixture does not contain any self-reactive substances (CLP I 2.8.4.2 a).
CLP I 2.8.4.2 a: There are no chemical groups present in the molecule associated with explosive or self reactive properties.

Pyrophoric liquids

Assessment/classification
The mixture does not contain any pyrophoric substances - not spontaneously flammable (CLP I 2.9.4.1).
CLP I 2.9.4.1: The classification procedure for pyrophoric liquids need not be applied when experience in manufacture or handling shows that the substance or mixture does not ignite spontaneously on coming into contact with air at normal temperatures (i.e. the substance is known to be stable at room temperature for prolonged periods of time (days)).

Pyrophoric solids

Assessment/classification
not applicable (liquid).

self-heating substances and mixtures

Assessment/classification
The mixture does not contain any self-heating substances.

Substances or mixtures which, in contact with water, emit flammable gases

Assessment/classification
not relevant - in contact with water releases no flammable gases (CLP I 2.12.4.1).
CLP I 2.12.4.1: The classification procedure for this class need not be applied if: (a) the chemical structure of the substance or mixture does not contain metals or metalloids; or (b) experience in production or handling shows that the substance or mixture does not react with water, e.g. the substance is manufactured with water or washed with water; or (c) the substance or mixture is known to be soluble in water to form a stable mixture.

Oxidising liquids

Assessment/classification
The mixture does not contain any oxidising substances.

Oxidising solids

Assessment/classification
not applicable (liquid).

Organic peroxides

Assessment/classification
The mixture does not contain any organic peroxides.

Corrosive to metals

Safety characteristics

	Value	Method, Result	Source, Remark
Corrosion rate (mm aluminium/year)	0.29 mm/a	UN Test, Part III of sub-section 37.4	
Corrosion rate (mm steel/year)	0.05 mm/a	UN Test, Part III of sub-section 37.4	

Assessment/classification
The mixture is not classified as corrosive to metals.

Desensitised explosives

Assessment/classification
The mixture does not contain any desensitised explosive substances.

Other safety characteristics

	Value	Method	Source, Remark
Evaporation rate			Water: 0.36 (ASTM D3539). 1-methoxy-2-propanol: 0.75 (ASTM D3539) / 22 (DIN 53170) . 1-propanol: 0.89 (ASTM D3539) / 16 (DIN 53170) .
Solvent content	< 15 %		
Explosive properties			none
Oxidising properties			none

Other information
No further relevant informations available.

SECTION 10: Stability and reactivity

10.1 Reactivity

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

10.2 Chemical stability

Stable at ambient temperature.

10.3 Possibility of hazardous reactions

Reactions with strong oxidising agents.

10.4 Conditions to avoid

Heat and direct solar radiation.

10.5 Incompatible materials

Oxidising agent, strong

10.6 Hazardous decomposition products

No decomposition if used as directed.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Animal data

	Effective dose	Method,Evaluation	Source, Remark
Acute oral toxicity	LD50: > 5000 mg/kg Species Rat	calculated	
Acute dermal toxicity	> 5000 mg/kg	ATE (acute toxicity estimate)	
Acute inhalation toxicity	Acute inhalation toxicity (vapour) > 50 mg/L	ATE (acute toxicity estimate)	
	CAS No71-23-8 n-propanol Acute inhalation toxicity (vapour) LC50: > 33.8 mg/L Species Rat Exposure time 4 h		
	CAS No107-98-2 1-methoxy-2-propanol Acute inhalation toxicity (vapour) 25.5 mg/L Species Rat Exposure time 4 h	OECD 403	LCLo

Assessment/classification
Based on available data, the classification criteria are not met.

Skin corrosion/irritation

Animal data

Result / Evaluation	Method	Source, Remark
slightly irritant	Expert judgement and weight of evidence determination.	

Serious eye damage/irritation

Animal data

Result / Evaluation	Method	Source, Remark
Irritant.	Expert judgement and weight of evidence determination.	

Sensitisation to the respiratory tract

Assessment/classification
Based on available data, the classification criteria are not met.

Skin sensitisation

Animal data

Result / Evaluation	Dose / Concentration	Method	Source, Remark
not sensitising.		Calculation method.	

Germ cell mutagenicity

Assessment/classification
Based on available data, the classification criteria are not met.

Carcinogenicity

Assessment/classification
Based on available data, the classification criteria are not met.

Reproductive toxicity

Assessment/classification
Based on available data, the classification criteria are not met.

Overall Assessment on CMR properties

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

STOT-single exposure

STOT SE 1 and 2

Assessment/classification
The mixture is not classified as specific target organ toxicant (single exposure).
Based on available data, the classification criteria are not met.

STOT SE 3

Irritation to respiratory tract

Assessment/classification
Based on available data, the classification criteria are not met.

Narcotic effects

Assessment/classification
Based on available data, the classification criteria are not met.

STOT-repeated exposure

Assessment/classification
The mixture is not classified as specific target organ toxicant (repeated exposure).
Based on available data, the classification criteria are not met.

Aspiration hazard

Remark
The mixture is not classified as aspiration hazardous.
Based on available data, the classification criteria are not met.

11.2 Information on other hazards

Information on other hazards

	Effective dose	Method,Evaluation	Source, Remark
Endocrine disrupting properties			This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

Other information

OECD 437: not serious eye damaging.
Has a degreasing effect on the skin.

* SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity

	Effective dose	Method,Evaluation	Source, Remark
Acute (short-term) fish toxicity	LC50: > 150 mg/L	calculated.	
Chronic (long-term) fish toxicity	not determined		
Acute (short-term) toxicity to crustacea	EC50 > 200 mg/L	calculated.	
Chronic (long-term) toxicity to aquatic invertebrate	not determined		
Acute (short-term) toxicity to algae and cyanobacteria	EC50 128 mg/L	calculated.	
Chronic (long-term) toxicity to aquatic algae and cyanobacteria	not determined		
Toxicity to other aquatic plants/organisms	not determined		
Toxicity to microorganisms	not determined		

12.2 Persistence and degradability

	Value	Method	Source, Remark
Biodegradation	Degradation rate > 90 %	calculated.	DOC reduction Readily biodegradable (according to OECD criteria).
Biodegradation	Degradation rate 100 %	Neutralization, pH-measurement	Alkaline properties can be eliminated up to 100% by neutralization.
Biodegradation	Degradation rate 83- 92 % Test duration 28 d	OECD 301F/ ISO 9408/ EEC 92/69/V, C.4-D	CAS No71-23-8 n-propanol
Biodegradation	Degradation rate 96 % Test duration 28 d	OECD 301E/ EEC 92/69/V, C.4-B	CAS No107-98-2 1-methoxy-2-propanol

12.3 Bioaccumulative potential

Assessment/classification
1-methoxy-2-propanol: Accumulation in organisms is not expected.
1-propanol: Accumulation in organisms is not expected (log Pow: 0.34).

12.4 Mobility in soil

Assessment/classification
1-methoxy-2-propanol: Dissolves in water. Highly mobile in soil.
1-propanol: Adsorption on soil is not expected.

* 12.5 Results of PBT and vPvB assessment

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

12.6 Endocrine disrupting properties

	Effective dose	Method,Evaluation	Source, Remark
Endocrine disrupting properties			This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7 Other adverse effects

	Value	Method	Source, Remark
Ozone depletion potential (ODP):			Based on available data, the classification criteria are not met.

Additional ecotoxicological information

	Value	Method	Source, Remark
Chemical oyxgen demand (COD)	380 mgO2/g	calculated.	
AOX			The product does not contain any organically bound halogens according to the recipe.

Additional information
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 discharge of product into the environment.
No further relevant informations available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste codes/waste designations according to EWC/AVV

Waste code product	Waste name
070699	wastes not otherwise specified
200130	detergents other than those mentioned in 20 01 29

Appropriate disposal / Product
Do not dispose with household waste.
Suitable for neutralization are acetic acid or citric acid if a stainless steel bath is used.
Product is allowed to discharge into sewage treatment plants, but in accordance with official regulations.

Appropriate disposal / Package
Non-contaminated packages may be recycled.

SECTION 14: Transport information

	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1 UN number or ID 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

none

14.7 Maritime transport in bulk according to IMO instruments

not relevant

Land transport (ADR/RID)

Remark
Not classified for this transport carrier.

Sea transport (IMDG)

Remark
No hazardous material as defined by the prescriptions.

Air transport (ICAO-TI / IATA-DGR)

Remark
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

EU legislation

Authorisations
not relevant

Restrictions on use
Regulation (EC) No 1907/2006 (REACH), Annex XVII No 3 + 40 - not relevant if used as directed.
Regulation (EC) No 1907/2006 (REACH), Annex XVII No 75 - not relevant if used as directed.

Restrictions of occupation
Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

Other regulations (EU)

To follow:
Regulation (EC) No. 648/2004 (Detergents regulation)
Directive 2012/18/EU, Annex I: not mentioned.

Directive 2010/75/EU on industrial emissions [Industrial Emissions Directive] VOC
VOC content, ready-to-use condition 11.1 %
VOC content, delivery state 11.1 %

15.2 Chemical Safety Assessment

National regulations

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

SECTION 16: Other information

Abbreviations and acronyms
For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
ASTM: American Society for Testing and Materials
ATE: Acute Toxicity Estimate
AVV: Waste Shipment Ordinance (DE)
DGR: Dangerous Goods Regulations (IATA)
DIN: German Institute for Standardization / German Industrial Standard
DNEL: derived no-effect level
DOC: Dissolved Organic Carbon
EN: European Standard
IATA: International Air Transport Association
ICAO: International Civil Aviation Organization
IMDG: International Maritime Dangerous Goods
IMO: International Maritime Organization
ISO: International Organization for Standardization
JArbSchG: Youth Labor Protection Act (DE)
LDL0: Lowest Lethal (fatal) Dose
OECD: Organisation for Economic Cooperation and Development
PBT: persistent and bioaccumulative and toxic
PNEC: Predicted No Effect Concentration
RID: Dangerous goods regulations for transport by rail
SCL: Specific concentration limit
TI: Technical Instruction
TRGS: Technical Rules for Hazardous Substances
VOC: Volatile organic compounds
vPvB: very persistent, very bioaccumulative
Flam. Liq. 2: Flammable Liquids, Category 2
Flam. Liq. 3: Flammable Liquids, Category 3
Eye Dam. 1: Serious eye damage, Category 1
Eye Irrit. 2: Eye irritation, Category 2
STOT SE 3, H336: Specific target organ toxicity (single exposure), Category 3 (narcotic effects)

Key literature references and sources for data
Own measurements.
European Chemicals Agency, https://echa.europa.eu/.
Informations from our suppliers.

Additional information
National and local regulations concerning chemicals shall be observed.
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.

Relevant H- and EUH-phrases (Number and full text)

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H318	Causes serious eye damage.
H336	May cause drowsiness or dizziness.

Indication of changes
* Data changed compared with the previous version