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

* 1.1 Product identifier

Trade name/designation elma clean 212 (EC 212)

Unique Formula Identifier UFI: DN10-S0VM-S00T-D583

Product category PC-CLN-OTH Other cleaning, care and maintenance products (excludes biocidal products)

Hazard components
decan-1-ol, ethoxylated, cocosfattyaminoxethylate, fattyalcoholethoxylate

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

Sector of uses [SU]
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
Cleaning amplifier to be used with e.g. elma clean 112 for immersion and ultrasonic cleaning, deemulsifing, suitable for membrane filtration.

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
Acute Tox. 4, H302	Calculation method.
Eye Dam. 1, H318	Calculation method.
Aquatic Chronic 3, H412	Calculation method.

Hazard statements for health hazards
H302 Harmful if swallowed.
H318 Causes serious eye damage.

Hazard statements for environmental hazards
H412 Harmful to aquatic life with long lasting effects.

*** 2.2 Label elements**

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

Hazard pictograms


GHS05


GHS07

Signal word
Danger

Hazard statements
H302 Harmful if swallowed.
H318 Causes serious eye damage.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements
P280 Wear eye/face 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.
P310 Immediately call a doctor.
P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P302 + P352 IF ON SKIN: Wash with plenty of water.

*** Other labelling**
Labelling for contents according to regulation (EC) No. 648/2004:
≥ 30% non-ionic surfactants

*** 2.3 Other hazards**

*** Adverse human health effects and symptoms**
Acute Tox. 5 (dermal) H313: May be harmful in contact with skin.
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**
Aquatic Acute 2 H401: Toxic to aquatic life.
This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

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**

Hazardous ingredients

CAS No.	EC No.	Substance name	Concentration	Classification according to Regulation (EC) No 1272/2008 [CLP]	SCL/ M/ ATE
26183-52-8		decan-1-ol, ethoxylated	40 - 70 weight-%	Acute Tox. 4; H302 Eye Dam. 1; H318	

CAS No.	EC No.	Substance name	Concentration	Classification according to Regulation (EC) No 1272/2008 [CLP]	SCL/ M/ ATE
61791-14-8		cocosfattyaminoxethylate	15 - 30 weight-%	Acute Tox. 4; H302 Eye Dam. 1; H318 Aquatic Chronic 3; H412	
61827-42-7		fattyalcoholethoxylate	< 10 weight-%	Acute Tox. 4; H302 Eye Dam. 1; H318	

REACH No.	Substance name
Not relevant (polymer).	decan-1-ol, ethoxylated
Not relevant (polymer).	cocosfattyaminoxethylate
Not relevant (polymer).	fattyalcoholethoxylate

Additional information
Aqueus, mildly alkaline cleaning amplifier with nonionic surfactants.

* SECTION 4: First aid measures

* 4.1 Description of first aid measures

General information
Remove contaminated, saturated clothing immediately.
In the event of persistent symptoms receive medical treatment.

* **Following skin contact**
In case of contact with skin wash off immediately with plenty of 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
Do NOT induce vomiting.
Seek medical advice immediately.
Rinse mouth immediately and drink plenty of water.
Medical treatment necessary.

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 spray jet

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products
In case of fire formation of dangerous gases possible.
In the event of fire the following can be released:
Nitrogen oxides (NOx)
Carbon monoxide

* 5.3 Advice for firefighters

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

*** Additional information**
Fire class
B (Fires of liquids or liquid turning substances).
Co-ordinate fire-fighting measures to the fire surroundings.
Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

* SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel
Use personal protection equipment.
Special danger of slipping by leaking/spilling product.

For emergency responders
Personal protection equipment
Use personal protection.
Forms slippery surfaces with water.
Special danger of slipping by leaking/spilling product.

6.2 Environmental precautions

Do not allow to enter into surface water or drains.
Do not allow to enter into soil/subsoil.

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 water.
After taking up the material dispose according to regulation.

* 6.4 Reference to other sections

Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

* SECTION 7: Handling and storage

*** 7.1 Precautions for safe handling**

*** Protective measures**
Handle and open container with care.
Avoid:
generation/formation of aerosols
Do not inhale aerosols
Avoid contact with eyes and skin.
Keep the packing dry and well sealed to prevent contamination and absorbtion of humidity.
Keep in a cool, well-ventilated place.
The product is:
Not readily flammable.
Usual measures for fire prevention.

Advices on general occupational hygiene
Make available sufficient washing facilities
Keep away from food and drink.
Wash hands before breaks and after work.
Use protective skin cream before handling the product.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels
Provide for retaining containers, e.g. floor pan without outflow.
Keep/Store only in original container.

Storage class
10 Combustible liquids that cannot be assigned to any of the above storage classes

Further information on storage conditions
Keep locked up and out of reach of children.
Keep locked up.
Store in a place accessible by authorized persons only.
Protect from heat and direct solar radiation.
Do not keep at temperatures below -5°C.
Do not keep at temperatures above 30°C.
Storage time: 3 years.

7.3 Specific end use(s)

Recommendation
no further

* SECTION 8: Exposure controls/personal protection

*** 8.1 Control parameters**

No data available

8.2 Exposure controls

Personal protection equipment

Eye/face protection
tightly fitting goggles

Respiratory protection
Respiratory protection necessary at:
aerosol or mist formation
Suitable respiratory protection apparatus:
Short term: filter apparatus, Filter P3

Environmental exposure controls

Technical measures to prevent exposure
Avoid penetration into the subsoil/soil.
Do not discharge into the drains/surface waters/groundwater.

Additional information
Occupational exposure limits: No relevant informations available.

* SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state
liquid

Colour
yellowish

Odour
mild

Safety relevant basis data

	Value	Method	Source, Remark
Odour threshold:			not determined
Melting point/freezing point	melting range		not determined
Boiling point or initial boiling point and boiling range	≥ 100 °C		
flammability	solid		not applicable
flammability	gaseous		not applicable
Lower and upper explosion limit	Upper explosion limit		not relevant
Lower and upper explosion limit	Lower explosion limit		not relevant
Flash point	> 100 °C		
Auto-ignition temperature			No informations available.
Decomposition temperature	≥ 100 °C		
pH	in delivery state 9- 10.5 (20°C) Concentration 20 g/L		
Viscosity	dynamic 207 mPa*s (20°C)		
Solubility(ies)	Water solubility		miscible
Partition coefficient n-octanol/water (log value)			No informations available.
Vapour pressure	approx. 23 hPa (20°C)		
Density and/or relative density	1.024- 1.036 g/cm³ (20°C)		
Relative vapour density	0.62		Value of Water.
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**

Safety characteristics

	Value	Method, Result	Source, Remark
Flash point (°C)	> 100 °C		

* **Assessment/classification**
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**

* **Assessment/classification**
The mixture does not contain any substances corrosive to metals.
Based on available data, the classification criteria are not met.

* **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).
Solvent content	0 %		
Explosive properties			none
Oxidising properties			none

* **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 acids.

10.4 Conditions to avoid

Heat and direct solar radiation.

10.5 Incompatible materials

Reactions with strong acids.
Oxidising agent

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	612 mg/kg	ATE: Acute Toxicity Estimate	
	CAS No.26183-52-8 decan-1-ol, ethoxylated LD50: 500- 2000 mg/kg Species Rat		
	CAS No.61791-14-8 cocosfattyaminoxethylate LD50: 750 mg/kg Species Rat		
	CAS No.61827-42-7 fattyalcoholethoxylate LD50: 500- 2000 mg/kg Species Rat		
Acute dermal toxicity	2000- 3000 mg/kg	ATE: Acute Toxicity Estimate	
Acute inhalation toxicity	Acute inhalation toxicity (vapour)		not relevant

* **Assessment/classification**
Harmful if swallowed.
May be harmful in contact with skin.

Skin corrosion/irritation

Animal data

Result / Evaluation	Method	Source, Remark
non-irritant.	Calculation method.	

Serious eye damage/irritation

Animal data

Result / Evaluation	Method	Source, Remark
Risk of serious damage to eyes.	Calculation method.	

* **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**

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

11.2 Information on other hazards

Symptoms related to the physical, chemical and toxicological characteristics

	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**

Has 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: 3.9 mg/L	calculated.	
	CAS No.61791-14-8 cocosfattyaminoxethylate LC50: 2.3 mg/L		
Chronic (long-term) fish toxicity	not determined		

	Effective dose	Method,Evaluation	Source, Remark
Acute (short-term) toxicity to crustacea	EC50 1- 10 mg/L	calculated.	
	CAS No.61791-14-8 cocosfattyaminoxethylate EC50 4.4 mg/L		
Chronic (long-term) toxicity to aquatic invertebrate	not determined		
Acute (short-term) toxicity to algae and cyanobacteria	EC50 1- 10 mg/L	calculated.	
	CAS No.61791-14-8 cocosfattyaminoxethylate EC50 1.9 mg/L		
Chronic (long-term) toxicity to aquatic algae and cyanobacteria	CAS No.61791-14-8 cocosfattyaminoxethylate NOEC: 0.41 mg/L		
Toxicity to other aquatic plants/organisms	not determined		
Toxicity to microorganisms	not determined		

* **Assessment/classification**
Toxic to aquatic life.
Harmful to aquatic life with long lasting effects.

12.2 Persistence and degradability

	Value	Method	Source, Remark
Biodegradation	Degradation rate > 70 %	calculated.	DOC reduction Biodegradable.
Biodegradation	Degradation rate 100 %	Neutralization, pH-measurement	Alkaline properties can be eliminated up to 100% by neutralization.
Biodegradation	Degradation rate 76 % Test duration 28 d	OECD 302B/ ISO 9888/ EEC 92/69/V, C.9	CAS No.61791-14-8 cocosfattyaminoxethylate
Biodegradation	Degradation rate > 60 %	OECD 301B/ ISO 9439/ EEC 92/69/V, C.4-C	CAS No.26183-52-8 decan-1-ol, ethoxylated
Biodegradation	Degradation rate ≥ 90 % Test duration 28 d	OECD 301E/ EEC 92/69/V, C.4-B	CAS No.26183-52-8 decan-1-ol, ethoxylated
Biodegradation	Degradation rate > 60 % Test duration 28 d	OECD 301B/ ISO 9439/ EEC 92/69/V, C.4-C	CAS No.61827-42-7 fattyalcoholethoxylate
Biodegradation	Degradation rate ≥ 90 % Test duration 28 d	OECD 301E/ EEC 92/69/V, C.4-B	CAS No.61827-42-7 fattyalcoholethoxylate

12.3 Bioaccumulative potential

Assessment/classification
decan-1-ol, ethoxylated: not available.
cocosfattyaminoxethylate: not available.
fattyalcoholethoxylate: not available.

12.4 Mobility in soil

Assessment/classification
decan-1-ol, ethoxylated: not available.
cocosfattyaminoxethylate: not available.
fattyalcoholethoxylate: not available.

12.5 Results of PBT and vPvB assessment

The product does not contain any PBT-/vPvB-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)	1950 mgO2/g		
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.
Acute aquatic environmental hazards: Aquatic Acute 2 H401: Toxic to aquatic life.
Chronic aquatic environmental hazards: Aquatic Chronic 3 H412: Harmful to aquatic life with long lasting effects.
Product is not allowed to be discharged into aquatic environment, drains or sewage treatment plants.
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
200129 *	detergents containing hazardous substances

Appropriate disposal / Product
Do not dispose with household waste. Do not discharge into the drains.
In accordance with regulations for special waste, must be taken after pretreatment to an authorised special waste disposal site or incineration plant.

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	No	No	No

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 - 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, delivery state 0 %

15.2 Chemical Safety Assessment

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)
DOC: Dissolved Organic Carbon
IATA: International Air Transport Association
ICAO: International Civil Aviation Organization
IMDG: International Maritime Dangerous Goods
IMO: International Maritime Organization
JArbSchG: Youth Labor Protection Act (DE)
OECD: Organisation for Economic Cooperation and Development
PBT: persistent and bioaccumulative and toxic
RID: Dangerous goods regulations for transport by rail
TI: Technical Instruction
VOC: Volatile organic compounds
vPvB: very persistent, very bioaccumulative

Key literature references and sources for data
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)

H302	Harmful if swallowed.
H318	Causes serious eye damage.
H412	Harmful to aquatic life with long lasting effects.

Indication of changes
* Data changed compared with the previous version