SAFETY DATA SHEET

according to Regulation No. 1907/2006 of the European Parliament and of the Council, as subsequently amended

CLEAMEN 300/400

Date of revision:	**17. 07. 2024**	Version: **3.0**
Replaced version from:	**11. 10. 2022**	
Date of issue:	**20. 07. 2022**	

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

1.1. Product identifier

Product Name

CLEAMEN 300/400

UFI code

UFI: 18U0-60VY-M003-G40Q

Product code

TC30002.

Mixture description

Water solution.

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

Identified uses

Liquid concentrated cleaning agent.
Professional and consumer use.

Uses advised against

It is not suitable for surfaces, which are not resistant to acids.
It is recommended to use it only for the intended use. Other uses may expose users to unpredictable risks.

1.3. Details of the supplier of the safety data sheet

CORMEN s.r.o.
Věchnov 73
593 01
Czech Republic
Tel.: +420 566 550 961
Fax: +420 566 551 822
e-mail address for a competent person responsible for the SDS: info@cormen.cz

1.4. Emergency telephone number

112 (General emergency phone).

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

The mixture **is classified as hazardous** according to regulation 1272/2008/EC.

Classification according to 1272/2008/EC

Met. Corr. 1; H290
Eye Dam. 1; H318

Full text of classifications and H-phrases: see section 16.

The most important adverse physical, human health and environmental effects

May be corrosive to metals. Causes serious eye damage.

2.2. Label elements

Hazard pictograms

Signal word

Danger.

Substances of the mixture to be placed on the label

Contains Alcohols, C9-C11, ethoxylated, Etidronic acid, Alcohols, C12-13 branched and linear, ethoxylated (≥ 2.5 EO) , N,N-Dimethyldecylamine N-oxide.

Hazard statements

H290	May be corrosive to metals.
H318	Causes serious eye damage.

Precautionary statements

P102	Keep out of reach of children.
P234	Keep only in original packaging.
P280	Wear protective gloves/protective clothing/eye protection/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 POISON CENTER/doctor.
P501	Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation. Dispose of the cleaned packaging without any residual product content in the sorted waste.

Supplemental hazard information

Mandatory additional information is not required according to CLP regulation.

Composition according to regulation 648/2004/EC on detergents: ≥ 5 - < 15 % non-ionic surfactants, < 5% phosphonates, perfumes, LINALOOL, LIMONENE, HEXYL CINNAMAL, CITRONELLOL, BENZYL SALICYLATE, preservation agents (BENZYL ALCOHOL, METHYLCHLOROISOTHIAZOLINONE AND METHYLISOTHIAZOLINONE).

2.3. Other hazards

Mixture do not contain substance(s) meeting the criteria for persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB) in accordance with Annex XIII of REACH regulation. The mixture and its substances are not mentioned on the Candidate list for possible inclusion in Annex XIV of REACH at the date of the revision of the safety data sheet (established in accordance with Article 59(1) of REACH regulation. Mixture does not contain the substance(s) identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

3.2.1. Substances of a mixture classified as hazardous

Identification of substance	Content wt. %	Classification according to 1272/2008/EC
Alcohols, C9-C11, ethoxylated CAS Number 68439-46-3 EC Number 931-514-1 Index Number not given Registration Number is not subject to registration, it is a polymer	1 - < 10	Acute Tox. 4; H302 Eye Dam. 1; H318
Etidronic acid CAS Number 2809-21-4 EC Number 220-552-8 Index Number not given Registration Number 01-2119510391-53-XXXX	1 - < 10	Met. Corr. 1; H290 Acute Tox. 4; H302 Eye Dam. 1; H318
Alcohols, C12-13 branched and linear, ethoxylated (≥ 2.5 EO) CAS Number 160901-19-9 EC Number 931-954-4 Index Number not given Registration Number is not subject to registration, it is a polymer The substance has specific concentration limits: Eye Dam. 1; H318 C > 10 % Eye Irrit. 2; H319 1 % < C ≤ 10 %	1 - < 5	Acute Tox. 4; H302 Eye Dam. 1; H318 Aquatic Chronic 3; H412
N,N-Dimethyldecylamine N-oxide CAS Number 2605-79-0 EC Number 220-020-5 Index Number not given Registration Number 01-2119959297-22-XXXX	1 - < 2	Acute Tox. 4; H302 Eye Dam. 1; H318 Aquatic Acute 1; H400 Aquatic Chronic 2; H411 M=1
Ethanediol; Ethylene glycol CAS Number 107-21-1 EC Number 203-473-3 Index Number 603-027-00-1 Registration Number not yet available	< 0.001	Acute Tox. 4; H302 STOT RE 2; H373

Full text of classifications and H-phrases: see section 16.

SECTION 4: First aid measures

In all cases keep the victim at physical and mental rest and warm. In case of doubt or if symptoms persist, seek medical attention. Never give anything by mouth if victim is rapidly losing consciousness, unconscious or convulsing. Protect yourself during rescue work.

4.1. Description of first aid measures

Inhalation

Interrupt the exposure, move the person to the fresh air. In case of persistent nausea, seek medical advice.

Skin contact

Remove contaminated clothing, shoes, and wash affected skin thoroughly with water (preferably lukewarm) and soap. Do not use solvents or thinners. If the problem persists, seek medical advice.

Eye contact

Rinse with a gentle stream of water for at least 15 minutes. Keep your eyelids wide open with your thumb and forefinger. If the affected person is wearing contact lenses, remove them before rinsing eyes if it is easy. Seek medical advice.

Ingestion

Rinse your mouth and then drink plenty of water. Do not induce vomiting. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. Seek medical advice.

4.2. Most important symptoms and effects, both acute and delayed

Are not known.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically and supportively.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Small fire:

Carbon dioxide CO_2, dry extinguishing agent, sand or earth, alcohol-resistant foam.

Extensive fire:

Fragmented water streams (water mist), alcohol-resistant foam.

Unsuitable extinguishing media

Solid streams of water may be ineffective.

5.2. Special hazards arising from the substance or mixture

In case of fire extinguishing prevent leakage of water and rest of product into drains. Collect them separately and dispose of safely in accordance with current legislation and applicable local regulations.

In case of fires, hazardous combustion gases are formed: carbon oxides, phosphorus oxides, phosphine and products of incomplete combustion.

5.3. Advice for firefighters

Stop further leakage of product if possible. Spilled product, which does not burn, cover with sand or foam. Move containers and barrels away from the fire to a safe place, if possible. Cool all affected containers down with flooding quantities of water. If the fire can´t be extinguished - evacuate the premises.

In case of fire, wear suitable respiratory protective equipment and fire-fighting suit.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid contact with skin and eyes, use suitable protective equipment and clothing, see Section 8. Ensure adequate ventilation. Avoid formation of vapour and aerosol. At the point of leakage, prevent the movement of unauthorized persons.

6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so. If this cannot be avoided, inform the competent authorities (police and firefighters) immediately.

6.3. Methods and material for containment and cleaning up

According to the amount of spilled liquid, drain away the substance (large spillage) or in case of small spillage, absorb it with suitable absorbent (vermiculite, dry sand), put into labelled closed containers and dispose of them accordingly to Section 13. Flush residues with water and collect it for waste disposal. Do not use solvents or dispersants unless instructed by an expert or government authority.

If container is damaged, remove the content to the new undamaged container and label it properly again.

6.4. Reference to other sections

Refer also to the provisions of sections 7, 8 and 13 of this safety data sheet.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with skin and eyes. Personal protection see. Section 8. Ensure good ventilation to prevent formation of vapor and aerosol.

Smoking, eating and drinking should be prohibited at the place of use. Keep safety regulations for handling chemicals. Take off contaminated clothing and protective equipment before entering the dining area. Do not use dirty clothing. After work wash yourself carefully with warm water and soap, take a shower. Use protective cream.

7.2. Conditions for safe storage, including any incompatibilities

Store in original, tightly closed containers, in a dry, cool and well-ventilated place at room temperature.

Protect from frost.

Do not store together with incompatible materials (see subsection 10.5), food, drink and feed.

7.3. Specific end use(s)

Concentrated liquid agent designed for dilution according to Table for daily and periodic cleaning, for removing stains and films from all surfaces in sanitary and bathroom areas. It is not suitable for surfaces, which are not resistant to acids.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. Exposure limit value

Ethandiol		CAS: 107-21-1
Limit values - Eight hours	Limit values - Short-term	Note

52 mg/m^3	20 ppm	104 mg/m^3	40 ppm	Skin

8.1.2. Biological limit values

Not determined in EU.

8.1.3. DNEL and PNEC values

Etidronic acid CAS: 2809-21-4

DNEL

Area of use	Route of exposure	Effect	Exposure time	Value
Workers	Inhalation	Systemic effect	Long term	24mg/m^3
Workers	Dermal	Systemic effect	Long term	34 mg/kg/den
General population	Inhalation	Systemic effect	Long term	12 mg/m^3
General population	Dermal	Systemic effect	Long term	34 mg/kg/den
General population	Oral	Systemic effect	Long term	3.4 mg/kg/den
General population	Oral	Systemic effect	Acute/short term	3.4 mg/kg/den

PNEC

Fresh water	Marine water	Intermittent releases		Sewage Treatment Plant (STP)
		Fresh water	Marine water	
0.675 mg/l	0.068 mg/l	not given	not given	40 mg/l

PNEC

Sediment (freshwater)	Sediment (marine water)	Air	Soil	Hazard for predators
1350 mg/kg	135 mg/kg	no effect	4.73 mg/kg	not given

N,N-Dimethyldecylamine N-oxide CAS: 2605-79-0

DNEL

Area of use	Route of exposure	Effect	Exposure time	Value
Workers	Inhalation	Systemic effect	Long term	6.2 mg/m^3
Workers	Dermal	Systemic effect	Long term	11 mg/kg/day
General population	Inhalation	Systemic effect	Long term	1.53 mg/m^3
General population	Dermal	Systemic effect	Long term	5.5 mg/kg/day
General population	Oral	Systemic effect	Long term	0.44 mg/kg/day

PNEC

Fresh water	Marine water	Intermittent releases		Sewage Treatment Plant (STP)
		Fresh water	Marine water	
0.034 mg/l	0.003 mg/l	0.034 mg/l	0.003 mg/l	4.59 mg/l

PNEC

Sediment (freshwater)	Sediment (marine water)	Air	Soil	Hazard for predators
5.24 mg/kg	0.524 mg/kg	no effect	1.02 mg/kg	11.1 mg/kg food

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Use only in well-ventilated areas.

Observe usual safety precautions for working with chemicals. The degree of effectiveness of personal protective equipment depends on temperature and ventilation levels.

8.2.2. Individual protection measures, such as personal protective equipment

Do not eat, drink, or smoke. After work, wash thoroughly with warm water and soap and take a shower. Use protective cream. Do not soiled protective equipment to wash, do not use solvents.

Eye/face protection

Wear safety glasses or face shield (EN 166, EN 149+A1).

Skin protection - hand protection

Wear protective gloves when manufacturing and handling the product (EN 374-1, EN 374-2).

The selection of the glove material on consideration of the breakthrough time, permeability, degradation and next relevant factors; other chemicals that may come into contact, physical requirements (cut and puncture protection, dexterity, thermal protection), possible body reactions to the glove material and the glove supplier's instructions and specifications. In case of repeated use of gloves, clean and keep them in a well-ventilated place before taking off.

Skin protection - other

Suitable protective working clothing and protective footwear.

Respiratory protection

Not necessary in case of compliance concentration limits (if they were exceeded, use respiratory protection). In the event of an accident or a fire use self-contained breathing apparatus.

Thermal hazards

In normal use is not necessarily protective equipment to be worn for materials that represent a thermal hazard.

8.2.3. Environmental exposure controls

Uncontrolled release of the mixture into environment is to be avoided. Keep the emission limits according to national legislation.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Mixture

Physical state	Liquid.
Colour	Pink.
Odour	Characteristic.
Melting point/freezing point	Not determined.
Boiling point or initial boiling point and boiling range	100 °C.
Flammability	Not determined.
Lower explosion limit	Not determined.
Upper explosion limit	Not determined.
Flash point	> 60 °C.

Auto-ignition temperature	Not determined.
Decomposition temperature	Not determined, the mixture does not contain self-reactive substances or organic peroxides.
pH	1.0 – 2.0.
Kinematic viscosity	Not determined, the mixture does not contain a substance classified as aspiration toxic, or the sum of the concentrations of substances classified as aspiration toxic is less than 10 wt. %.
Solubility	Miscible.
Partition coefficient n-octanol/water (log value)	Does not apply to mixture.
Vapour pressure	23 hPa.
Density and/or relative density	Not determined.
Relative vapour density	Not determined.
Particle characteristics	Does not apply to liquid.
Etidronic acid	CAS: 2809-21-4
Physical state	Solid.
Colour	Not determined.
Odour	Not determined.
Melting point/freezing point	≥ 450 °C (EU method A.1).
Boiling point or initial boiling point and boiling range	Not determined.
Flammability	The substance is not classified as flammable (EU method A.10).
Lower explosion limit	Does not apply to solid.
Upper explosion limit	Does not apply to solid.
Flash point	Does not apply to solid.
Auto-ignition temperature	Does not apply to solid.
Decomposition temperature	Not determined, it is not a self-reactive substance or an organic peroxide or a substance that may decompose.
pH	Not determined.
Kinematic viscosity	Does not apply to solid.
Solubility	690 g/l (20 °C, literature).
Partition coefficient n-octanol/water (log value)	log Pow = -3.5 (literature).
Vapour pressure	Not determined, the substance has melting point higher than 300 °C.
Density and/or relative density	1 450 - 1 490 kg/m^3 (literature).
Relative vapour density	Does not apply to solid.
Particle characteristics	Not determined.
N,N-Dimethyldecylamine N-oxide	CAS: 2605-79-0

Physical state	Solid.
Colour	White.
Odour	Not determined.
Melting point/freezing point	133 -136 °C (literature).
Boiling point or initial boiling point and boiling range	Not determined.
Flammability	The substance is not classified as flammable (EU method A.10).
Lower explosion limit	Does not apply to solid.
Upper explosion limit	Does not apply to solid.
Flash point	Does not apply to solid.
Auto-ignition temperature	Does not apply to solid.
Decomposition temperature	Not determined, it is not a self-reactive substance or an organic peroxide or a substance that may decompose.
pH	Not determined.
Kinematic viscosity	Does not apply to solid.
Solubility	409.5 g/l.
Partition coefficient n-octanol/water (log value)	log Pow = 0.95 (calculation)
Vapour pressure	0 Pa (25 °C, calculation)
Density and/or relative density	D_4^{23} = 0.716 (EU method A.3).
Relative vapour density	Does not apply to solid.
Particle characteristics	Not determined.

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Mixture

Explosives

Data for the mixture are not available.

The mixture does not contain substances classified as explosives or oxidising, or the concentration of substance(s) is lower than the limit for inclusion in Section 3.

Flammable gases

It is not gas.

Aerosols

It is not aerosol.

Oxidising gases

It is not gas.

Gases under pressure

It is not gas.

Flammable liquids

Data for the mixture are not available.

The mixture does not contain substances classified as flammable liquids or the concentration of substance(s) is lower than the limit for inclusion in Section 3.

Flammable solids

It is not solid.

Self-reactive substances and mixtures

Data for the mixture are not available.

The mixture does not contain substances classified as self-reactive substances or explosives or organic peroxides or oxidising, or the concentration of substance(s) is lower than the limit for inclusion in Section 3.

Pyrophoric liquids

Data for the mixture are not available.

The mixture does not contain substances classified as pyrophoric liquids or the concentration of substance(s) is lower than the limit for inclusion in Section 3.

Pyrophoric solids

It is not solid.

Self-heating substances and mixtures

Data for the mixture are not available.

The mixture does not contain substances classified as self-heating or pyrophoric substances or the concentration of substance(s) is lower than the limit for inclusion in Section 3.

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

Data for the mixture are not available.

The mixture does not contain substances classified as substances, which emit flammable gases in contact with water or the concentration of substance(s) is lower than the limit for inclusion in Section 3.

Oxidising liquids

Data for the mixture are not available.

The mixture does not contain substances classified as oxidising liquids or the concentration of substance(s) is lower than the limit for inclusion in Section 3.

Oxidizing solids

It is not solid.

Organic peroxides

Data for the mixture are not available.

The mixture does not contain substances classified as organic peroxides or the concentration of substance(s) is lower than the limit for inclusion in Section 3.

Corrosive to metals

Data for the mixture are not available.

The mixture is classified as corrosive to metal category 1 according to the etidronic acid content.

Desensitised explosives

Data for the mixture are not available.

The mixture does not contain substances classified as explosives or desensitised explosives, or the concentration of substance(s) is lower than the limit for inclusion in Section 3.

Etidronic acid	CAS: 2809-21-4
Explosives	
Data for the substance are not available. The substance does not contain chemical groups associated with explosive properties.	
Flammable gases	
It is not gas.	
Aerosols	
It is not aerosol.	
Oxidising gases	
It is not gas.	
Gases under pressure	
It is not gas.	
Flammable liquids	
It is not liquid.	
Flammable solids	
The substance is not classified as flammable, burning time = 2 minutes (EU method A.10).	
Self-reactive substances and mixtures	
Data for the substance are not available. The substance is not classified as self-reactive substances.	
Pyrophoric liquids	
It is not liquid.	
Pyrophoric solids	
Data for the substance are not available. The substance is stable in air, there is no spontaneous ignition.	
Self-heating substances and mixtures	
Data for the substance are not available. The substance is not classified as self-heating.	
Substances and mixtures, which emit flammable gases in contact with water	
Data for the substance are not available. The chemical structure of the substance does not contain metals or metalloids. The substance is soluble in water and forms a stable mixture with it.	
Oxidising liquids	
It is not liquid.	
Oxidizing solids	
Data for the substance are not available. It is an organic substance that does not contain oxygen, fluorine or chlorine, or these elements are chemically bounded only to carbon or hydrogen.	
Organic peroxides	

Data for the substance are not available.
The substance does not contain a bivalent group -O-O- with at least one organic radical.

Corrosive to metals

Data for the substance are not available.
The substance is classified as corrosive to metal.

Desensitised explosives

Data for the substance are not available.
The substance does not contain chemical groups associated with explosive properties.

N,N-Dimethyldecylamine N-oxide CAS: 2605-79-0

Explosives

Data for the substance are not available.
The substance contains chemical groups associated with explosive properties, but the calculated oxygen balance is less than -200.
Calculated oxygen balance = - 290.

Flammable gases

It is not gas.

Aerosols

It is not aerosol.

Oxidising gases

It is not gas.

Gases under pressure

It is not gas.

Flammable liquids

It is not liquid.

Flammable solids

The substance is not classified as flammable solid (EU method A.10).

Self-reactive substances and mixtures

Data for the substance are not available.
The substance is not classified as self-reactive.

Pyrophoric liquids

It is not liquid.

Pyrophoric solids

Data for the substance are not available.
The substance is stable in air, there is no spontaneous ignition.

Self-heating substances and mixtures

Data for the substance are not available.
The substance is not classified as self-heating.

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

Data for the substance are not available.
The chemical structure of the substance does not contain metals or metalloids.
The substance is soluble in water and forms a stable mixture with it.

Oxidising liquids

It is not liquid.

Oxidizing solids

Data for the substance are not available.
It is an organic substance does not contain chemical groups associated with oxidising properties.

Organic peroxides

Data for the substance are not available.
The substance does not contain a bivalent group -O-O- with at least one organic radical.

Corrosive to metals

Data for the substance are not available.
The substance is not classified as corrosive to metal.

Desensitised explosives

Data for the substance are not available.
The substance is not classified as explosive or desensitised explosive.

9.2.2. Other safety characteristics

Mechanical sensitivity	Not determined, it is not an explosive substance.
Self-accelerating polymerisation temperature	Not determined, it is not a polymerising substance.
Formation of explosible dust/air mixtures	Not determined, it is not a dust.
Acid/alkaline reserve	Not determined.
Evaporation rate	Not determined.
Miscibility	Not determined.
Conductivity	Not determined.
Corrosiveness	Not determined.
Gas group	Not determined, it is not gas.
Redox potential	Not determined.
Radical formation potential	Not determined.
Photocatalytic properties	Not determined.

SECTION 10: Stability and reactivity

10.1. Reactivity

The mixture is stable under normal conditions of use. There aren´t any hazardous reaction.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions aren´t known under normal conditions of use.

10.4. Conditions to avoid

Protect from temperatures below 0 °C.

10.5. Incompatible materials

Strong oxidizing agents. It is not suitable for surfaces, which are not resistant to acids.

10.6. Hazardous decomposition products

They do not form under normal use. Burning releases carbon oxides, phosphorus oxides, phosphine and products of incomplete combustion.

SECTION 11: Toxicological information

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

Mixture

Acute toxicity

The mixture is not classified as toxic for all routes of exposure.

Oral Data for the mixture are not available.

The mixture is not classified by the additive formula.

$ATE_{mixture}$ > 2 543 mg/kg.

Dermal Data for the mixture are not available.

The mixture does not contain substances classified as an acute toxicity by dermal route of exposure or the concentration of substance(s) is lower than the limit for inclusion in Section 3.

Inhalation Data for the mixture are not available.

The mixture does not contain substances classified as an acute toxicity by inhalation route of exposure or the concentration of substance(s) is lower than the limit for inclusion in Section 3.

Skin corrosion/irritation

Data for the mixture are not available.

The mixture does not contain substances classified as hazardous to skin or the concentration of substance(s) is lower than the limit for inclusion in Section 3.

Serious eye damage/irritation

Data for the mixture are not available.

The mixture is classified as causes serious eye damage based on the general/specific concentration limits of substance(s).

Respiratory or skin sensitisation

Data for the mixture are not available.

The mixture does not contain substances classified as sensitizing or the concentration of substance(s) is lower than the limit for inclusion in Section 3.

Germ cell mutagenicity

Data for the mixture are not available.

The mixture does not contain substances classified as mutagenicity or the concentration of substance(s) is lower than the limit for inclusion in Section 3.

Carcinogenicity

Data for the mixture are not available.

The mixture does not contain substances classified as carcinogenicity or the concentration of substance(s) is lower than the limit for inclusion in Section 3.

Reproductive toxicity

Data for the mixture are not available.

The mixture does not contain substances classified as toxic for reproduction or the concentration of substance(s) is lower than the limit for inclusion in Section 3.

STOT – single exposure

Data for the mixture are not available.

The mixture does not contain substances classified as toxic for specific target organs in a single exposure or the concentration of substance(s) is lower than the limit for inclusion in Section 3.

STOT – repeated exposure

Data for the mixture are not available.

The mixture is not classified as toxic for specific target organs in a repeated exposure according to the general/specific concentration limits of substance(s).

Aspiration hazard

Data for the mixture are not available.

The mixture does not contain substances classified as aspiration hazard or the concentration of substance(s) is lower than the limit for inclusion in Section 3.

Other information

See section 2 and 4.

Etidronic acid CAS: 2809-21-4

Acute toxicity

Oral	The substance is classified in category 4. LD_{50} = 1 878 mg/kg (rat, OECD 401).
Dermal	Based on available data, the classification criteria are not met. LD_{50} > 3 505 mg/kg (rabbit, OECD 402).
Inhalation	Data for the substance are not available.

Skin corrosion/irritation

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

Mean erythema score = 0 and oedema = 0 (rabbit, 72 hrs., OECD 404).

Serious eye damage/irritation

The substance is classified as seriously damaging to the eyes.

Maximum irritation score = ca. 90 of 110 (irreversible, rabbit, 72 hours, OECD 405).

Respiratory or skin sensitisation

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

Not skin sensitising (guinea pig, maximization test).

Germ cell mutagenicity

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

Negative (OECD 471, OECD 476, OECD 487).

Carcinogenicity

Based on available data, the classification criteria are not met.
NOAEL ≥ 493 mg/kg/day (rat, female, oral, OECD 453).
NOAEL ≥ 384 mg/kg/day (rat, female, oral, OECD 453).

Reproductive toxicity

Based on available data, the classification criteria are not met.
NOAEL = 92 mg/kg/day (rat, female, oral, generation P0, OECD 416).
NOAEL = 92 mg/kg/day (rat, female, oral, generation F1, OECD 416).

STOT – single exposure

Data for the substance are not available.

STOT – repeated exposure

Based on available data, the classification criteria are not met.
NOAEL = 34 mg/kg/day (juvenile rats, rat, male, oral, 90 d., OECD 408).
LOAEL = 139 mg/kg/day (anemia, rat, male, oral, 90 d., OECD 408).

Aspiration hazard

The substance is not a hydrocarbon or a chlorinated hydrocarbon with a kinematic viscosity of 20.5 mm^2/s or less at 40 °C.

N,N-Dimethyldecylamine N-oxide CAS: 2605-79-0

Acute toxicity

Oral	The substance is classified in category 4. LD_{50} > 300 - < 2 000 mg/kg (rat, female). ATE = 500 mg/kg (for calculation by additive formula).
Dermal	Based on available data, the classification criteria are not met. LD_{50} > 2 000 mg/kg (rat).
Inhalation	Data for the substance are not available.

Skin corrosion/irritation

Based on available data, the classification criteria are not met.
Mean erythema score = 1 (fully reversible after 7 days) and oedema = 0 (rabbit, 72 hrs., OECD 404).

Serious eye damage/irritation

The substance is classified as seriously damaging to the eyes.
Mean irritation score = 16.3 (chicken, Hen's Egg Test - Chorioallantoic Membrane (HET-CAM) Test Method).

Respiratory or skin sensitisation

Based on available data, the classification criteria are not met.
Not skin sensitising (guinea pig, OECD 406).

Germ cell mutagenicity

Based on available data, the classification criteria are not met.
Negative (OECD 471, EU method B.17, OECD 487).

Carcinogenicity

Data for the substance are not available.

Reproductive toxicity

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

NOAEL = 40 mg/kg/day (rat, oral, generation P0, OECD 422).

NOAEL = 100 mg/kg/day (rat, oral, generation F1, OECD 422).

STOT – single exposure

Data for the substance are not available.

STOT – repeated exposure

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

NOAEL = 88 mg/kg/day (rat, oral, 90 days, OECD 408).

Aspiration hazard

The substance is not a hydrocarbon or a chlorinated hydrocarbon with a kinematic viscosity of 20.5 mm^2/s or less at 40 °C.

11.2. Information on other hazards

Mixture do not contain substance(s) meets meeting the criteria for persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB) in accordance with Annex XIII of REACH regulation. The mixture and its substances are not mentioned on the Candidate list for possible inclusion in Annex XIV of REACH at the date of the revision of the safety data sheet and given in the list (established in accordance with Article 59(1) for having endocrine disrupting properties of REACH regulation.

Mixture does not contain the substance(s) identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.There is no other relevant information on adverse health effects that is not required according to the classification criteria set out in CLP Regulation.

SECTION 12: Ecological information

12.1. Toxicity

Mixture

Acute aquatic toxicity

The mixture is not classified as acute aquatic toxicity based on calculation according to the summation method.

category 1	∑ < 2

Chronic aquatic toxicity

The mixture is not classified as chronic aquatic toxicity based on calculation according to the summation method.

category	1	2	3	4
∑	0	< 2	< 25	< 7

Etidronic acid CAS: 2809-21-4

The substance is not classified as hazardous for the aquatic environment.

Fish

LC_{50}, 96 hrs., Oncorhynchus mykiss: 195 mg/l (mobility, OECD 204).

NOEC, 14 d., Oncorhynchus mykiss: 60 mg/l (behaviour, loss of equilibrium, OECD 204).

Crustaceans

EC_{50}, 48 hrs., Daphnia Magna: 527 mg/l (mobility, OECD 202).
NOEC, 28 d., Daphnia Magna: 60 mg/l (adult survival and number of pups, EPA 66013-75-009).

Algae

Data for the substance are not available.

N,N-Dimethyldecylamine N-oxide CAS: 2605-79-0

The substance is classified as Aquatic Acute 1; H400 (M = 1) and Aquatic Chronic 2; H411.

Fish

LC_{50}, 96 hrs., Danio rerio: 31.8 mg/l (mortality).
NOEC, 15 d., Pimephales promelas: 0.495 mg/l (survival and mean length).

Crustaceans

EC_{50}, 48 hrs., Daphnia Magna: 2.9 mg/l (mobility).
NOEC, 21 d., Daphnia Magna: 0.7 mg/l.

Algae

EC_{50}, 72 hrs, Pseudokirchneriella subcapitata: 0.205 mg/l (biomass).
EC_{50}, 72 hrs, Pseudokirchneriella subcapitata: 0.266 mg/l (growth rate).
NOEC, 72 hrs, Pseudokirchneriella subcapitata: 0.078 mg/l (growth rate).

12.2. Persistence and degradability

Mixture

Data for the mixture are not available.

Etidronic acid CAS: 2809-21-4

Not readily biodegradable: BOD5/COD = 23 % (OECD 301 D).
BOD - Biological Oxygen Demand.
COD - Chemical Oxygen Demand.

N,N-Dimethyldecylamine N-oxide CAS: 2605-79-0

Readily biodegradable: 97 % after 28 days (removal of dissolved organic carbon, OECD 301 E).

12.3. Bioaccumulative potential

Mixture

Data for the mixture are not available.

Etidronic acid CAS: 2809-21-4

BCF < 7 (Cyprinus carpio, dose 0.06 mg/l).
BCF < 2 (Cyprinus carpio, dose 0.6 mg/l).
log Pow = -3.5 (literature).

N,N-Dimethyldecylamine N-oxide CAS: 2605-79-0

log Pow = 0.95 (calculation).

12.4. Mobility in soil

Mixture

Data for the mixture are not available.

Etidronic acid CAS: 2809-21-4

log Koc = 4.22.

N,N-Dimethyldecylamine N-oxide CAS: 2605-79-0

Koc = 307 - > 2 113 (by kind of soil, 23.6 °C).

12.5. Results of PBT and vPvB assessment

Mixture do not contain substance(s) meeting the criteria for persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB) in accordance with Annex XIII of REACH Regulation. The mixture and its substances are not mentioned on the Candidate list for possible inclusion in Annex XIV of REACH at the date of the revision of the safety data sheet (established in accordance with Article 59(1) of REACH Regulation.

12.6. Endocrine disrupting properties

The mixture and its substances are not mentioned on the Candidate list for possible inclusion in Annex XIV of REACH at the date of the revision of the safety data sheet (established in accordance with Article 59(1) of REACH Regulation. Mixture does not contain the substance(s) identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

12.7. Other adverse effects

Data are not available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal methods of the substance or mixture and the contaminated packaging

Dispose according to the applicable European and local regulations (eg. in a hazardous waste incinerator). Do not empty unused product into drainage systems. Do not contaminate ponds or ditches with the product or used container. Hand over the residual amounts and solutions to a licensed disposal company.

Hand over the remaining quantities and unregenerate solutions to an authorized person (specialized company with authorization) or to the collection yard in the hazardous waste section according to the worker's instructions. Empty, cleaned packaging can be stored at a landfill of the appropriate category or handed over for recycling.

Possible waste code

07 06 01* - aqueous washing liquids and mother liquors or 20 01 29* - detergents containing hazardous substances (mixture), 15 01 10* - packaging containing residues of or contaminated by hazardous substances (contaminated packaging), 15 01 02 - plastic packaging (clear packaging).

Physical/chemical properties that may affect waste treatment options

Metal corrosion.

Special precautions recommended for waste management

Not known.

Waste legislation

Directive 2008/98/EC on waste and repealing certain Directives, as amended.

SECTION 14: Transport information

14.1. UN number or ID number

UN 3265

14.2. UN proper shipping name

CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Etidronic acid).

14.3. Transport hazard class(es)

8

14.4. Packing group

III

14.5. Environmental hazards

It is not dangerous for the environment during transport.

14.6. Special precautions for user

Not given.

14.7. Maritime transport in bulk according to IMO instruments

Not available.

14.8. Other information

Labeling according to ADR

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Additional data for ADR/RID

Classification code	C3
Labels	8
Hazard identification code	80
Tunnel restriction code	E (ADR), - (RID).
Limited quantities	5l
Excepted quantities	Maximum net quantity per inner packaging: 30 ml. Maximum net quantity per outer packaging: 1 000 ml.
Transport category	3

Additional data for IMDG

Emergency Schedules (EmS)	F-A, S-B

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulation No. 1907/2006/EC, concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals, as amended (REACH)

Regulation No. 1272/2008/EC, on Classification, Labelling and Packaging of substances and mixtures, as amended (CLP)

Regulation No. 648/2004/EC on detergents, as amended

15.2. Chemical safety assessment

Has not been carried out for mixture.

SECTION 16: Other information

Reason for the revision of the safety data sheet

Change classification and labeling of the mixture. Change in the composition of the mixture in section 3 and related changes in the other sections.

Key or legend to abbreviations and acronyms

Acute Tox. 4	Acute toxicity, cat. 4
Aquatic Acute 1	Acute aquatic hazard, cat. 1
Aquatic Chronic 2	Chronic aquatic hazard, cat. 2
Aquatic Chronic 3	Chronic aquatic hazard, cat. 3
Eye Dam. 1	Serious eye damage, cat. 1
Eye Irrit. 2	Eye irritation, cat. 2
Met. Corr. 1	Substance or mixture corrosive to metals, cat. 1
STOT RE 2	Specific target organ toxicity - repeated exposure, cat. 2
M	Multiplying factor
ADR	Accord Dangereuses Route
CLP	Regulation No. 1272/2008/EC, on Classification, Labelling and Packaging of substances and mixtures
DNEL	Derived No Effect Level
ICAO/IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
PBT	Persistent, bioaccumulative, toxic substance
PNEC	Predicted No Effect Concentration
REACH	Regulation No. 1907/2006/EC, concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Regulation concerning the International Carriage of Dangerous Goods by Rail
STOT	Specific target organ toxicity
vPvB	Very persistent and very bioaccumulative substance

Sources of key data used to compile the Safety Data Sheet

European legislation, manufacturer's safety data sheet, registration dossier of substances.

List of H- and P- phrases

H290	May be corrosive to metals.
H302	Harmful if swallowed.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H373	May cause damage to organs through prolonged or repeated exposure.

H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
P102	Keep out of reach of children.
P234	Keep only in original packaging.
P280	Wear protective gloves/protective clothing/eye protection/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 POISON CENTER/doctor.
P501	Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation. Dispose of the cleaned packaging without any residual product content in the sorted waste.

Training advice

According to SDS.

Other information

Classification according to data from the manufacturer. The mixture is classified using calculation methods according to Regulation CLP and tests. Use only for the purposes designated by the manufacturer, will prevent health and environmental risks.

The information in this SDS was obtained from sources, which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

The safety data sheet is created in accordance with Regulation No. 2020/878/EC. There is no additional information in accordance with the local and national legislation of the Member State in the European Union, in the safety data sheet.

The safety data sheet was created by company LACHEPRA s.r.o.