

SAFETY DATA SHEET

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

CLEAMEN 610

Date of issue: 25. 09. 2020

Version: 1.0

Date of revision: -

Replaced version from: -

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

1.1. Product identifier

Product Name

CLEAMEN 610 Foaming alkaline cleaner

Product code

VC610060099

VC610120099

VC610240099

VC610925099

Mixture description

Aqueous solution of hydroxides, surfactants and other chemicals

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

Identified uses

Liquid highly concentrated alkaline foam cleaner. For professional use only.

Uses advised against

Not recommended for use on surfaces made of aluminum or non-ferrous metals.

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.

Průmyslová 1420

593 01 Bystřice nad Pernštejnem

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), 998 (fire brigade), 999 (ambulance service).

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Classification according to 1272/2008/EC

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Met. Corr. 1; H290

Skin Corr. 1A; H314

Eye Dam. 1; H318

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

The most important adverse physicochemical, human health and environmental effects

May be corrosive to metals. Causes severe skin burns and eye damage.

2.2. Label elements

Hazard pictograms



Signal word

Danger

Components of the mixture to be placed on the label

Contain: Potassium hydroxide, Sodium hydroxide, Disodium metasilicate pentahydrate, D-Glucopyranose, oligomeric, C10-16 alkyl glycosides.

Hazard statements

H290 - May be corrosive to metals.

H314 - Causes severe skin burns and eye damage.

Precautionary statements

P234 - Keep only in original packaging.

P280 - Wear protective gloves/protective clothing/eye protection/face protection.

P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

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.

Supplemental hazard information

Mandatory additional information is not required according to CLP regulation.

Composition: < 5 % non-ionic surfactants, phosphonates.

2.3. Other hazards

Mixture or its components are not classified as PBT or vPvB, not the date of issue of the safety data sheet kept on the candidate list for Annex XIV of the REACH Regulation.

SECTION 3: Composition/information on ingredients

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3.2. Mixtures

3.2.1. Components of a mixture classified as hazardous

Identification of substance		Content wt. %	Classification according to 1272/2008/EC
Potassium hydroxide; Caustic potash			
CAS Number	1310-58-3	< 16	Met. Corr. 1; H290 Acute Tox. 4; H302 Skin Corr. 1A; H314
EC Number	215-181-3		
Index Number	019-002-00-8		
Registration Number	01-2119487136-33-XXXX		
The substance has specific concentration limits:			
Skin Corr. 1A; H314	C ≥ 5 %		
Skin Corr. 1B; H314	2 % ≤ C < 5 %		
Skin Irrit. 2; H315	0.5 % ≤ C < 2 %		
Eye Irrit. 2; H319	0.5 % ≤ C < 2 %		
Sodium hydroxide; Caustic soda			
CAS Number	1310-73-2	< 11	Met. Corr. 1; H290 Skin Corr. 1A; H314 Eye Dam. 1; H318
EC Number	215-185-5		
Index Number	011-002-00-6		
Registration Number	01-2119457892-27-XXXX		
The substance has specific concentration limits:			
Skin Corr. 1A; H314	C ≥ 5 %		
Skin Corr. 1B; H314	2 % ≤ C < 5 %		
Skin Irrit. 2; H315	0.5 % ≤ C < 2 %		
Eye Irrit. 2; H319	0.5 % ≤ C < 2 %		
Disodium metasilicate pentahydrate			
CAS Number	10213-79-3	≤ 5	Met. Corr. 1; H290 Skin Corr. 1B; H314 Eye Dam. 1; H318 STOT SE 3; H335
EC Number	229-912-9		
Index Number	014-010-00-8		
Registration Number	01-2119449811-37-XXXX		
D-Glucopyranose, oligomeric, C10-16 alkyl glycosides			
CAS Number	110615-47-9	< 4.5	Skin Irrit. 2; H315 Eye Dam. 1; H318
EC Number	600-975-8		
Index Number	not given		
Registration Number	01-2119489418-23-XXXX		
The substance has specific concentration limits:			
Eye Dam. 1; H318	C > 12 %		

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Skin Irrit. 2; H315		C > 30 %	
Etidronic acid			
CAS Number	2809-21-4		
EC Number	220-552-8		Met. Corr. 1; H290
Index Number	not given	< 3.5	Acute Tox. 4; H302
Registration Number	01-2119510391-53-XXXX		Eye Dam. 1; H318
Acetic acid			
CAS Number	64-19-7		
EC Number	200-580-7		Flam. Liq. 3; H226
Index Number	607-002-00-6	< 0.03	Skin Corr. 1A; H314
Registration Number	not yet available		
The substance has specific concentration limits:			
Skin Corr. 1A; H314		C ≥ 90 %	
Skin Corr. 1B; H314		25 % ≤ C < 90 %	
Skin Irrit. 2; H315		10 % ≤ C < 25 %	
Eye Irrit. 2; H319		10 % ≤ C < 25 %	
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. An unconscious person never give anything. Protect yourself during rescue work.			
4.1. Description of first aid measures			
Inhalation			
Interrupt the exposure, transfer the person to the fresh air. In case of persistent nausea, seek medical advice.			
Skin contact			
Remove contaminated clothing, shoes, and wash thoroughly with water (preferably lukewarm) and soap. Do not use solvents or thinners. 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.			

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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

The product is non-flammable. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

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: silicon oxides, carbon oxides, phosphor 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 aerosol and vapour. 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 aerosol and vapour.

Smoking, eating and drinking should be prohibited at the place of use. In place of use should be forbidden to smoke, eat or drink. Do not use dirty clothing. After work wash yourself carefully with warm water and soap, take a shower. Use protective cream.

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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)

Highly alkaline concentrated cleaning foam agent, which is characterized by a very good cleaning ability. It is suitable for both hand washing and foaming equipment. It removes organic impurities very well from various alkali-resistant surfaces. It reliably removes dirt even from very dirty floors. It is applicable to all types of food businesses and catering establishments. It can be universally used for removing strong grease, starch and protein coatings not only from surfaces but also dishes.

The composition can be used on stainless steel, ceramic and alkali-resistant plastics surfaces. Do not use on aluminum and non-ferrous metal surfaces. Working solution: 0.5 - 5%.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. Exposure limit value

Acetic acid		CAS: 64-19-7		
Limit values - Eight hours		Limit values - Short-term		Note
25 mg/m ³	10 ppm	50 mg/m ³	20 ppm	none

8.1.2. Biological limit values

Not are determined in EU

8.1.3. DNEL and PNEC values

Potassium hydroxide				CAS: 1310-58-3
DNEL				
Area of use	Route of exposure	Effect	Exposure time	Value
Workers	Inhalation	Local effect	Long term	1 mg/m³
General population	Inhalation	Local effect	Long term	1 mg/m³
PNEC - not yet available				
Sodium hydroxide				CAS: 1310-73-2
DNEL				
Area of use	Route of exposure	Effect	Exposure time	Value
Workers	Inhalation	Local effect	Long term	1 mg/m³
General population	Inhalation	Local effect	Long term	1 mg/m³
PNEC - not yet available				
Disodium metasilicate				ES: 229-912-9
DNEL				
Area of use	Route of exposure	Effect	Exposure time	Value
Workers	Inhalation	Systemic effect	Long term	6.22 mg/m³
Workers	Dermal	Systemic effect	Long term	1.49 mg/kg/den

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General population	Inhalation	Systemic effect	Long term	1.55 mg/m ³
General population	Dermal	Systemic effect	Long term	0.74 mg/kg/den
General population	Oral	Systemic effect	Long term	0.74 mg/kg/den
PNEC				
Fresh water	Marine water	Intermittent releases		Sewage Treatment Plant (STP)
7.5 mg/l	1 mg/l	Fresh water	Marine water	1 000 mg/l
		7.5 mg/l	not given	
PNEC				
Sediment (freshwater)	Sediment (marine water)	Air	Soil	Hazard for predators
no effect	no effect	no effect	no effect	no effect
D-Glucopyranose, Oligomeric, C10-16 Alkyl Glycosides				CAS: 110615-47-9
DNEL				
Area of use	Route of exposure	Effect	Exposure time	Value
Workers	Inhalation	Systemic effect	Long term	420 mg/m ³
Workers	Dermal	Systemic effect	Long term	595 000 mg/kg/den
General population	Inhalation	Systemic effect	Long term	124 mg/m ³
General population	Dermal	Systemic effect	Long term	357 000 mg/kg/den
General population	Oral	Systemic effect	Long term	35.7 mg/kg/den
PNEC				
Fresh water	Marine water	Intermittent releases		Sewage Treatment Plant (STP)
0.176 mg/l	0.018 mg/l	Fresh water	Marine water	5 000 mg/l
		0.029 mg/l	not given	
PNEC				
Sediment (freshwater)	Sediment (marine water)	Air	Soil	Hazard for predators
1.516 mg/l	0.065 mg/kg	not given	0.654 mg/kg	111.11 mg/kg food
Etidronic acid				CAS: 2809-21-4
DNEL				
Area of use	Route of exposure	Effect	Exposure time	Value
Workers	Inhalation	Systemic effect	Long term	12 mg/m ³
Workers	Dermal	Systemic effect	Long term	34 mg/kg/den
General population	Inhalation	Systemic effect	Long term	2.95 mg/m ³
General population	Dermal	Systemic effect	Long term	17 mg/kg/den
General population	Oral	Systemic effect	Long term	1.7 mg/kg/den
PNEC				
Fresh water	Marine water	Intermittent releases		

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		Fresh water	Marine water	Sewage Treatment Plant (STP)
0.068 mg/l	0.007 mg/l	not given	not given	40 mg/l
PNEC				
Sediment (freshwater)	Sediment (marine water)	Air	Soil	Hazard for predators
136 mg/kg	13.6 mg/kg	no effect	10 mg/kg	3.7 mg/kg food
8.2. Exposure controls				
8.2.1. Workers exposure 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.				
Respiratory protection				
Not necessary in case of compliance concentration limits (if they were exceeded, use a respirator against vapour). In the event of an accident or a fire use self-contained breathing apparatus.				
Hand protection				
Chemically resistant protective gloves. Suitable gloves material: polyvinylchloride, neoprene, nature rubber, butyl-rubber, breakthrough time: 480 min. Unsuitable gloves material: leather 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.				
Eye/face protection				
Wear safety goggles or face shield.				
Skin protection				
Suitable protective working clothing and footwear.				
8.2.3. Environmental exposure controls				
Uncontrolled release of the mixture into environment is to be avoided. Observe the emission limits.				
SECTION 9: Physical and chemical properties				
9.1. Information on basic physical and chemical properties				
Physical state	liquid			
Colour	colourless			
Odour	characteristic			
Odour threshold	not determined			
pH	14 (20 °C)			

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Melting point/freezing point	not determined
Initial boiling point and boiling range	100 C
Flash point	not determined
Evaporation rate	not determined
Flammability (solid, gas)	not determined
Lower flammability or explosive limits	not determined
	not determined
Upper flammability or explosive limits	not determined
Vapour pressure	23 hPa
Vapour density	not determined
Relative density	1.4 (water = 1)
Solubility in water	miscible
Solubility in organic solvents	not determined
Partition coefficient: n-octanol/water	not determined
Auto-ignition temperature	not determined
Decomposition temperature	not determined
Viscosity	not determined
Explosive properties	is not classified as explosive
Oxidising properties	is not classified as an oxidant

9.2. Other information

Not given

SECTION 10: Stability and reactivity

10.1. Reactivity

The mixture is stable under normal conditions of use. Dangerous reactions do not occur.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Not known.

10.4. Conditions to avoid

Protect from frost.

10.5. Incompatible materials

Strong acids, strong oxidizing agents and metals.

10.6. Hazardous decomposition products

Burning releases silicon oxides, carbon oxides, phosphor oxides, phosphine and products of incomplete combustion.

SECTION 11: Toxicological information

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11.1. Information on toxicological effects

Mixture

Acute toxicity

Oral

data for the mixture are not available
the mixture is not classified by the additive formula
 $ATE_{\text{mixture}} > 2\,003 \text{ mg/kg}$

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 is classified as corrosive for skin in category 1A based on the general/specific concentration limits of substance(s)

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

Specific target organ toxicity – single exposure

data for the mixture are not available
the mixture is not classified as toxic for specific target organs in a single exposure in category 3 according to the recommended concentration limits of substance(s)

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Specific target organ toxicity – repeated exposure

data for the mixture are not available

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

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.

Potassium hydroxide

CAS: 1310-58-3

Acute toxicity

Oral the substance is classified in category 4
LD₅₀ = 333 (male, conventional method)
LD₅₀ = 388 (male, up-and-down procedure)

Dermal data for the substance are not available

Inhalation data for the substance are not available

Skin corrosion/irritation

the substance classified as skin corrosion in category 1A
10% solution is strongly corrosive (reconstructed human epidermis, OECD 431)
5% solution is strongly corrosive (reconstructed human epidermis, OECD 431)

Serious eye damage/irritation

the substance classified as seriously damaging to the eyes
5% solution is extremely irritant and corrosive, 1% solution is irritant, 0.5% solution is marginal irritant, 0.1% solution is not irritant (rabbit, OECD 405)

Respiratory or skin sensitisation

based on available data, the classification criteria are not met
not skin sensitising (guinea pig, intracutaneous test)

Germ cell mutagenicity

based on available data, the classification criteria are not met
negative (Ames test)

Carcinogenicity

data for the substance are not available

Reproductive toxicity

data for the substance are not available

Specific target organ toxicity – single exposure

data for the substance are not available

Specific target organ toxicity – repeated exposure

data for the substance are not available

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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	
Sodium hydroxide	CAS: 1310-73-2
Acute toxicity	
Oral	data for the substance are not available
Dermal	data for the substance are not available
Inhalation	data for the substance are not available
Skin corrosion/irritation	
classified as skin corrosive category 1A irritating to the skin at a concentration of 0.95 % by weight - intact skin - mean erythema score = 2 after 24 hours, 1.7 after 72 hours, 0.7 after 8 days (irreversible for 1/6 animals, scale on the skin) and edema = 0.3 after 24 h, 0 after 72 h, 0 after 8 d (fully reversible in 72 h), broken skin - mean erythema score = 2.3 after 24 h, 2 after 72 h, 2.7 after 8 d (irreversible for 1/6 animals, skin necrosis) and edema = 2 after 24 h, 0.3 after 72 h, 0 after 8 d (fully reversible in 8 days), primary dermal irritation index PDII = 2.7 (rabbit, Draize test) corrosive skin at a concentration of 4.98% by weight - intact skin - mean erythema score = 4 after 24 h, 4 after 72 h, 4 after 8 d (irreversible, skin necrosis) and edema = 2 after 24 h, 1 after 72 h, 1 after 8 days (irreversible for 8 days), broken skin - mean erythema score = 4 after 24 h, 4 after 72 h, 4 after 8 d (irreversible, skin necrosis) and edema = 2 after 24 h, after 72 hours, 1 after 8 days (irreversible for 8 days), primary dermal irritation index PDII = 5.6 (rabbit, Draize test)	
Serious eye damage/irritation	
classified as serious eye damage mean corneal opacity > 2, conjunctival redness > 2.5 (2 wt.%, rabbit, 72 h, OECD 405)	
Respiratory or skin sensitisation	
based on available data, the classification criteria are not met not skin sensitising (human)	
Germ cell mutagenicity	
data for the substance are not available	
Carcinogenicity	
data for the substance are not available	
Reproductive toxicity	
data for the substance are not available	
Specific target organ toxicity – single exposure	
data for the substance are not available	
Specific target organ toxicity – repeated exposure	
data for the substance are not available	
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	
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Acute toxicity	

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Oral	based on available data, the classification criteria are not met LD ₅₀ = 1 152 - 1 349 mg/kg (rat, female, toxicity based on corrosive effect)
Dermal	based on available data, the classification criteria are not met LD ₅₀ > 5 000 mg/kg (rat)
Inhalation	data for the substance are not available based on available data, the classification criteria are not met LC ₅₀ > 2.06 mg/l (vapour, rat, 4 hrs, toxicity based on corrosive effect)

Skin corrosion/irritation

classified as skin corrosive category 1B
corrosive - primary dermal irritation index (PDII) = 8 (not reversible), mean erythema score = 4 (not reversible) and edema = 4 (not reversible) (humidified, rabbit, OECD 404)
irritant - primary dermal irritation index (PDII) = 3.67, mean erythema score = 2.33 and edema = 1.33 (50% aqueous solution, rabbit, OECD 404)
slightly irritant - primary dermal irritation index (PDII) = 1.22, mean erythema score = 1.11 and edema = 0.11 (10% aqueous solution, rabbit, OECD 404)

Serious eye damage/irritation

classified as serious eye damage

Respiratory or skin sensitisation

based on available data, the classification criteria are not met
not skin sensitising (mouse, OECD 429)

Germ cell mutagenicity

based on available data, the classification criteria are not met
negative (OECD 471, OECD 473, OECD 476)

Carcinogenicity

data for the substance are not available

Reproductive toxicity

based on available data, the classification criteria are not met
NOAEL > 159 mg/kg/day (mortality, rat, female, oral, generation P0)

Specific target organ toxicity – single exposure

the substance may cause respiratory irritation

Specific target organ toxicity – repeated exposure

based on available data, the classification criteria are not met
NOAEL > 227 - 237 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 mm²/s or less at 40 °C

D-Glucopyranose, Oligomeric, C10-16 Alkyl Glycosides

CAS: 110615-47-9

Acute toxicity

Oral	based on available data, the classification criteria are not met LD ₅₀ > 5 000 mg/kg (rat)
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Dermal based on available data, the classification criteria are not met
LD₅₀ > 2 000 mg/kg (rabbit)

Inhalation data for the substance are not available

Skin corrosion/irritation

the substance classified as skin irritant
mean erythema score = 2.9 (fully reversible after 17 days) and oedema = 2.1 (fully reversible after 10 days)
(rabbit, 72 hrs., OECD 404)

Serious eye damage/irritation

the substance classified as seriously damaging to the eyes
mean corneal opacity = 0.5 (not fully reversible after 21 days), iritis = 0.3 (fully reversible after 14 days),
conjunctival redness = 2.1 (not fully reversible after 21 days), conjunctival oedema = 1 (not fully reversible
after 21 days) (rabbit, 72 h, OECD 405)

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, OECD 473, OECD 476)

Carcinogenicity

data for the substance are not available

Reproductive toxicity

based on available data, the classification criteria are not met
NOAEL = 1 000 mg/kg/day (reproductive toxicity, oral, rat, generation P0, OECD 421)

Specific target organ toxicity – single exposure

data for the substance are not available

Specific target organ toxicity – repeated exposure

based on available data, the classification criteria are not met
NOAEL = 1000 mg/kg/day (systemic and cumulative effect, rat, oral, 90 d, EU Method B.26)

Aspiration hazard

the substance is not a hydrocarbon or a chlorinated hydrocarbon with a kinematic viscosity of 20.5 mm²/s or less at 40 °C

Etidronic acid

CAS: 2809-21-4

Acute toxicity

Oral the substance is classified in category 4
LD₅₀ = 1 878 mg/kg (rat)

Dermal based on available data, the classification criteria are not met
LD₅₀ > 10 000 mg/kg (rabbit)

Inhalation data for the substance are not available

Skin corrosion/irritation

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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

based on available data, the classification criteria are not met
the substance 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 \geq 493 mg/kg/day (rat, female, oral, OECD 453)
NOAEL \geq 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)

Specific target organ toxicity – single exposure

data for the substance are not available

Specific target organ toxicity – 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 mm²/s or less at 40 °C

SECTION 12: Ecological information

12.1. Toxicity

Mixture

data for the mixture are not available

Acute aquatic toxicity

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

Chronic aquatic toxicity

the mixture does not contain substances classified as a chronic aquatic toxicity or the concentration of substance(s) is lower than the limit for inclusion in Section 3

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Potassium hydroxide	CAS: 1310-58-3
the substance is not classified as dangerous for the aquatic environment	
Fish	
LC ₅₀ , 96 hrs., Gambusia affinis: 80 mg/l (mortality)	
NOEC, 96 hrs., Gambusia affinis: 56 mg/l (mortality)	
Crustaceans	
data for the substance are not available	
Algae	
data for the substance are not available	
Sodium hydroxide	CAS: 1310-73-2
the substance is not classified as dangerous for the aquatic environment	
Fish	
LC ₅₀ , 48 hrs, Leuciscus idus: 189 mg/l (mortality)	
Crustaceans	
EC ₅₀ , 48 hrs, Ceriodaphnia sp.: 40.4 mg/l (immobility)	
Algae	
data for the substance are not available	
Disodium metasilicate	ES: 229-912-9
the substance is not classified as dangerous for the aquatic environment	
Fish	
LC ₅₀ , 96 hrs., Danio rerio: 210 mg/l	
Crustaceans	
EC ₅₀ , 48 hod., Daphnia Magna: 1 700 mg/l	
Algae	
EC ₅₀ , 72 hrs., Desmodesmus subspicatus: 207 mg/l (biomass)	
EC ₀ , 72 hrs., Desmodesmus subspicatus: > 345.4 mg/l (growth rate)	
D-Glucopyranose, Oligomeric, C10-16 Alkyl Glycosides	CAS: 110615-47-9
the substance is not classified as dangerous for the aquatic environment	
Fish	
LC ₅₀ , 96 hrs., Danio rerio: 2.95 mg/l (mortality)	
NOEC, 28 d., Danio rerio: 1.8 mg/l (mortality)	
NOEC, 28 d., Danio rerio: 3.2 mg/l (growth)	
Crustaceans	
EC ₅₀ , 48 hrs., Daphnia Magna: 7 mg/l (mobility)	
NOEC, 21 d., Daphnia Magna: 2 mg/l (reproduction)	
NOEC, 21 d., Daphnia Magna: 1 mg/l (mobility)	
Algae	

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EC₅₀, 72 hrs., Desmodesmus subspicatus: 5 mg/l (biomass)
EC₅₀, 72 hrs., Desmodesmus subspicatus: 12.5 mg/l (growth rate)
EC₁₀, 72 hrs., Desmodesmus subspicatus: 1.45 mg/l (biomass)
EC₁₀, 72 hrs., Desmodesmus subspicatus: 4.15 mg/l (growth rate)

Etidronic acid

CAS: 2809-21-4

the substance is not classified as dangerous for the aquatic environment

Fish

LC₅₀, 96 hrs., Oncorhynchus mykiss: 195 mg/l (mobility)
NOEC, 14 d., Oncorhynchus mykiss: 60 mg/l (behaviour, loss of equilibrium)

Crustaceans

EC₅₀, 48 hrs., Daphnia Magna: 527 mg/l (mobility)
NOEC, 28 d., Daphnia Magna: 60 mg/l (adult survival and number of pups)

Algae

data for the substance are not available

12.2. Persistence and degradability

Mixture

data for the mixture are not available
The surfactants contained in this preparation in accordance with the biodegradability criteria according to Regulation (EC) No. 648/2004 on detergents.

Potassium hydroxide

CAS: 1310-58-3

not determined, it is an inorganic substance

Sodium hydroxide

CAS: 1310-73-2

not determined, it is an inorganic substance

Disodium metasilicate

ES: 229-912-9

not determined, it is an inorganic substance

D-Glucopyranose, Oligomeric, C10-16 Alkyl Glycosides

CAS: 110615-47-9

readily biodegradable: 88 % after 28 days (c = 2 mg/l, O₂ consumption, OECD 301 D)
readily biodegradable: 60 % after 28 days (c = 5 mg/l, O₂ consumption, OECD 301 D)

Etidronic acid

CAS: 2809-21-4

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

12.3. Bioaccumulative potential

Mixture

data for the mixture are not available

Potassium hydroxide

CAS: 1310-58-3

not determined, it is an inorganic substance

Sodium hydroxide

CAS: 1310-73-2

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not determined, it is an inorganic substance	
Disodium metasilicate	ES: 229-912-9
not determined, it is an inorganic substance	
D-Glucopyranose, Oligomeric, C10-16 Alkyl Glycosides	CAS: 110615-47-9
log Pow \leq -0.07 (20 °C, OECD 117)	
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 (OECD 117)	
12.4. Mobility in soil	
Mixture	
data for the mixture are not available	
Potassium hydroxide	CAS: 1310-58-3
not determined, it is an inorganic substance	
Sodium hydroxide	CAS: 1310-73-2
not determined, it is an inorganic substance	
Disodium metasilicate	ES: 229-912-9
not determined, it is an inorganic substance	
D-Glucopyranose, Oligomeric, C10-16 Alkyl Glycosides	CAS: 110615-47-9
log Koc = 1.7 (25 °C)	
Etidronic acid	CAS: 2809-21-4
log Koc = 4.22	
12.5. Results of PBT and vPvB assessment	
Mixture or its components are not classified as PBT or vPvB, not the date of issue of the safety data sheet kept on the candidate list for Annex XIV of the REACH Regulation.	
12.6. 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	
Delete according to the applicable European and local regulations (eg. in a hazardous waste incinerator). Never remove flushing into sewer! Do not contaminate ponds or ditches with chemical or used container. Residual amounts and solutions to a licensed disposal company. For classifying the waste and the removal of waste producer responsibility.	
Possible waste code	
07 06 01* - aqueous washing liquids and mother liquors (mixture), 15 01 10* - packaging containing residues of or contaminated by dangerous substances (contaminated packaging), 15 01 02 - plastic packaging (clear packaging)	

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Physical/chemical properties that may affect waste treatment options

Metal corrosion.

Special precautions recommended for waste management

None known.

Waste legislation

Directive 2008/98/EC

SECTION 14: Transport information

14.1. UN number

3266

14.2. UN proper shipping name

ADR/RID/IMDG/IATA

CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Potassium hydroxide, Sodium hydroxide)

14.3. Transport hazard class(es)

8

14.4. Packing group

I

14.5. Environmental hazards

it is not dangerous for the environment during transport

14.6. Special precautions for user

not given

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

not available

14.8. Other information

Labeling according to ADR



Additional data for ADR/RID

classification code	C5
labels	8
hazard identification code	88
tunnel restriction code	E (ADR), - (RID)
limited quantities	0
excepted quantities	not be transported as exempted quantities

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transport category 1

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 subsequently amended (REACH)

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

Regulation No. 648/2004/EC on detergents

15.2. Chemical safety assessment

No data available

SECTION 16: Other information

Reason for the revision of the safety data sheet

First edition.

Key or legend to abbreviations and acronyms

Acute Tox. 4	Acute toxicity, cat. 4
Eye Dam. 1	Serious eye damage, cat. 1
Eye Irrit. 2	Eye irritation, cat. 2
Flam. Liq. 3	Flammable liquid, cat. 3
Met. Corr. 1	Substance or mixture corrosive to metals, cat. 1
Skin Corr. 1A	Skin corrosion, cat. 1A
Skin Corr. 1B	Skin corrosion, cat. 1B
Skin Irrit. 2	Skin irritation, cat. 2
STOT SE 3	Specific target organ toxicity - single exposure, cat. 3
ADR	Accord Dangereuses Route
CLP	Regulation No. 1272/2008/EC
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
RID	Regulation concerning the International Carriage of Dangerous Goods by Rail
vPvB	Very persistent and very bioaccumulative substance

Sources of key data used to compile the Safety Data Sheet

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

List of H- and P- phrases

H226	Flammable liquid and vapour.
H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
P234	Keep only in original packaging.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
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.

Training advice

According to MSDS.

Other information

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

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