SAFETY DATA SHEET

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

CLEAMEN 141

Date of revision: **23. 10. 2023** Version: **2.0**

Replaced version from: **13. 05. 2022**

Date of issue: **13. 05. 2022**

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

1.1. Product identifier

Product Name

CLEAMEN 141

UFI code

UFI: MUQ0-F03Y-R00T-SU5N

Product code

VC141.

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 agent designed for diluting and industrial cleaning of all hard water and alkali resistant flooring surfaces such PVC, linoleums, gloss-free tiling, mat graphite and travertine surfaces, teraso, brick and concrete surfaces including cast flooring.

For professional use only.

Uses advised against

Do not use on marble surfaces, varnished parquetry, laminate flooring, wooden surfaces and rubber.

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

Flam. Liq. 3; H226
Met. Corr. 1; H290
Skin Corr. 1A; H314
Skin Sens. 1; H317
Eye Dam. 1; H318

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

The most important adverse physical, human health and environmental effects

Flammable liquid and vapour. May be corrosive to metals. Causes severe skin burns and eye damage. May cause an allergic skin reaction.

2.2. Label elements

Hazard pictograms

Signal word

Danger.

Substances of the mixture to be placed on the label

Contains Potassium hydroxide, Disodium metasilicate pentahydrate, Rosin, fumarated, polymer with glycerol, ammonium salt, Alcohols, C12-15-branched and linear, ethoxylated (> 2.5 EO), Koavone.

Hazard statements

H226	Flammable liquid and vapour.
H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.

Precautionary statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
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

Composition according to regulation 648/2004/EC on detergents: < 5% amphoteric surfactants, non-ionic surfactants, phosphates, perfumes, LIMONENE, LINALOOL, HEXYL CINNAMAL, GERANIOL, BENZYL SALICYLATE, preservation agents (BENZISOTHIAZOLINONE).

2.3. Other hazards

Mixture does 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
Potassium hydroxide; Caustic potash				
CAS Number	1310-58-3		< 5.5	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 %		
Disodium metasilicate pentahydrate				
CAS Number	10213-79-3		≤ 5.0	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			
The classification is for anhydride.				
Tetrapotassium pyrophosphate				
CAS Number	7320-34-5		≤ 5.0	Eye Irrit. 2; H319
EC Number	230-785-7			
Index Number	not given			
Registration Number	01-2119489369-18-XXXX			
Propan-2-ol; Isopropyl alcohol; Isopropanol				

CAS Number EC Number Index Number Registration Number	67-63-0 200-661-7 603-117-00-0 01-2119457558-25-XXXX	≤ 5.0	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336
2-Butoxyethanol; Ethylene glycol monobutyl ether; Butyl cellosolve			
CAS Number EC Number Index Number Registration Number	111-76-2 203-905-0 603-014-00-0 01-2119475108-36-XXXX	≤ 5.0	Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Acute Tox. 3; H331 ATE_{oral} = 1 200 mg/kg bw $ATE_{inhalation}$ = 3 mg/L (vapours)
Rosin, fumarated, polymer with glycerol, ammonium salt			
CAS Number EC Number Index Number Registration Number	68554-18-7 812-691-3 not given not yet available	< 3.0	Skin Sens. 1B; H317 Eye Irrit. 2; H319 Aquatic Chronic 4; H413
Alcohols, C12-15-branched and linear, ethoxylated (> 2.5 EO)			
CAS Number EC Number Index Number Registration Number	106232-83-1 not given not given is not subject to registration, it is a polymer	≤ 1.0	Eye Dam. 1; H318 Aquatic Acute 1; H400 Aquatic Chronic 3; H412 M=1
(Z)-3,4,5,6,6-Pentamethylhept-3-en-2-one; Koavone			
CAS Number EC Number Index Number Registration Number	81786-73-4 279-822-9 not given not yet available	< 0.25	Skin Sens. 1; H317 Aquatic Chronic 2; H411
Ammonia, solution			
CAS Number EC Number Index Number Registration Number	1336-21-6 215-647-6 007-001-01-2 not yet available	< 0.18	Skin Corr. 1B; H314 STOT SE 3; H335 Aquatic Acute 1; H400
The substance has specific concentration limits:			
STOT SE 3; H335	C ≥ 5 %		
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 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 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, silicon oxides, phosphor oxides, phosphine, nitrogen oxides, ammonia, sulphur oxides, hydrogen sulphide 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. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.

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

7.3. Specific end use(s)

Product is designed for the industrial cleaning of all hard water and alkaline resistant flooring surfaces such as PVC, linoleums, gloss-free tiling, matt graphite and travertine surfaces, teraso, brick and concrete surfaces including cast flooring.

The product is suitable for industrial food-processing and manufacturing plants.

The product is designed for mechanical cleaning, can be used for hand scraping and maintenance.

SECTION 8: Exposure controls/personal protectio

8.1. Control parameters

8.1.1. Exposure limit value

2-Butoxyethanol CAS: 111-76-2

Limit values - Eight hours		Limit values - Short-term		Note
98 mg/m^3	20 ppm	246 mg/m^3	50 ppm	skin

Ammonia anhydrous CAS: 7664-41-7

Limit values - Eight hours		Limit values - Short-term		Note
14 mg/m^3	20 ppm	36 mg/m^3	50 ppm	none

8.1.2. Biological limit values

Not 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/m^3
General population	Inhalation	Local effect	Long term	1 mg/m^3

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/m^3
Workers	Dermal	Systemic effect	Long term	1.49 mg/kg/day
General population	Inhalation	Systemic effect	Long term	1.55 mg/m^3
General population	Dermal	Systemic effect	Long term	0.74 mg/kg/day
General population	Oral	Systemic effect	Long term	0.74 mg/kg/day

PNEC

Fresh water	Marine water	Intermittent releases		Sewage Treatment Plant (STP)
		Fresh water	Marine water	
7.5 mg/l	1 mg/l	7.5 mg/l	not given	1 000 mg/l

PNEC

Sediment (freshwater)	Sediment (marine water)	Air	Soil	Hazard for predators
no effect	no effect	no effect	no effect	no effect

Tetrapotassium pyrophosphate CAS: 7320-34-5

DNEL

Area of use	Route of exposure	Effect	Exposure time	Value
Workers	Inhalation	Systemic effect	Long term	17.63 mg/m^3
General population	Inhalation	Systemic effect	Long term	4.35 mg/m^3

PNEC - not yet available

Propan-2-ol CAS: 67-63-0

DNEL

Area of use	Route of exposure	Effect	Exposure time	Value
Workers	Inhalation	Systemic effect	Long term	500 mg/m^3
Workers	Inhalation	Systemic effect	Acute/short term	1 000 mg/m^3
Workers	Dermal	Systemic effect	Long term	888 mg/kg/day
General population	Inhalation	Systemic effect	Long term	89 mg/m^3
General population	Inhalation	Systemic effect	Acute/short term	178 mg/m^3
General population	Dermal	Systemic effect	Long term	319 mg/kg/day

General population	Oral	Systemic effect	Long term	26 mg/kg/day
General population	Oral	Systemic effect	Acute/short term	51 mg/kg/day

PNEC

Fresh water	Marine water	Intermittent releases		Sewage Treatment Plant (STP)
		Fresh water	Marine water	
140.9 mg/l	140.9 mg/l	140.9 mg/l	not given	2 251 mg/l

PNEC

Sediment (freshwater)	Sediment (marine water)	Air	Soil	Hazard for predators
552 mg/kg	552 mg/kg	not given	28 mg/kg	160 mg/kg food

2-Butoxyethanol CAS: 111-76-2

DNEL

Area of use	Route of exposure	Effect	Exposure time	Value
Workers	Inhalation	Systemic effect	Long term	98 mg/m^3
Workers	Inhalation	Systemic effect	Acute/short term	1 091 mg/m^3
Workers	Inhalation	Local effect	Acute/short term	246 mg/m^3
General population	Inhalation	Systemic effect	Long term	59 mg/m^3
General population	Inhalation	Systemic effect	Acute/short term	426 mg/m^3
General population	Inhalation	Local effect	Acute/short term	147 mg/m^3
General population	Oral	Systemic effect	Long term	6.3 mg/kg/day
General population	Oral	Systemic effect	Acute/short term	26.7 mg/kg/day

PNEC

Fresh water	Marine water	Intermittent releases		Sewage Treatment Plant (STP)
		Fresh water	Marine water	
8.8 mg/l	0.88 mg/l	26.4 mg/l	not given	463 mg/l

PNEC

Sediment (freshwater)	Sediment (marine water)	Air	Soil	Hazard for predators
34.6 mg/kg	3.46 mg/kg	no effect	2.33 mg/kg	0.02 g/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 (EN 374-1, EN 374-2).

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.

Skin protection - other

Suitable protective working clothing (EN ISO 13688) and protective footwear (EN ISO 20346).

Respiratory protection

Not necessary in case of compliance concentration limits (if they were exceeded, use a respirator against organic vapour, EN 14387). In the event of an accident or a fire use self-contained breathing apparatus.

Thermal hazards

In normal use is not necessary 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	Colourless.
Odour	Characteristic.
Melting point/freezing point	Not determined.
Boiling point or initial boiling point and boiling range	82 °C.
Flammability	Not determined.
Lower explosion limit	Not determined.
Upper explosion limit	Not determined.
Flash point	36 °C.
Auto-ignition temperature	Not determined.
Decomposition temperature	Not determined, the mixture does not contain self-reactive substances or organic peroxides.
pH	> 12 (20 °C).
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	D_4^{20} = 1.1.
Relative vapour density	Not determined.
Particle characteristics	Does not apply to liquid.
Potassium hydroxide	CAS: 1310-58-3
Physical state	Solid.
Colour	White.
Odour	Odourless.
Melting point/freezing point	406 °C (literature).
Boiling point or initial boiling point and boiling range	1 327 °C (literature).
Flammability	The substance is not classified as flammable, pyrophoric or emit flammable gases under standard conditions.
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	ca. 13.5 (concentration 5.611 g/l, 25 °C, literature).
Kinematic viscosity	Does not apply to solid.
Solubility	121 g/100 g H2O (25 °C, literature).
Partition coefficient n-octanol/water (log value)	Not determined, it is an inorganic substance.
Vapour pressure	Not determined, the substance has melting point higher than 300 °C.
Density and/or relative density	2.04 g/cm^3 (20 °C, literature).
Relative vapour density	Does not apply to solid.
Particle characteristics	Not determined, solid KOH is in the form of large particles (flakes).
Disodium metasilicate	ES: 229-912-9
Physical state	Solid.
Colour	Colourless to white.
Odour	Not determined.
Melting point/freezing point	1 089 °C (literature).

Boiling point or initial boiling point and boiling range	Not determined.
Flammability	The substance is not classified as flammable, pyrophoric or emit flammable gases under standard conditions.
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	210 g/l (20 °C, pH = 12.7).
Partition coefficient n-octanol/water (log value)	Not determined, it is an inorganic substance.
Vapour pressure	Not determined, the substance has melting point higher than 300 °C.
Density and/or relative density	2.61 g/cm^3 (literature).
Relative vapour density	Does not apply to solid.
Particle characteristics	D10 = 397 µm (ISO 13320-1). D50 = 695 µm (ISO 13320-1). D90 = 1 150 µm (ISO 13320-1).
Tetrapotassium pyrophosphate	CAS: 7320-34-5
Physical state	Solid.
Colour	White.
Odour	Not determined.
Melting point/freezing point	> 300 °C (literature).
Boiling point or initial boiling point and boiling range	Not determined, the substance has a melting point higher than 300 ° C.
Flammability	The substance is not classified as flammable, pyrophoric or emit flammable gases under standard conditions.
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	67.2 - 69.9 (20 °C, pH = 10.6, EU method A.6).
Partition coefficient n-octanol/water (log value)	Not determined, it is an inorganic substance.
Vapour pressure	Not determined, the substance has melting point higher than 300 °C.
Density and/or relative density	D_4^{21} = 2.61 (EU method A.3).
Relative vapour density	Does not apply to solid.
Particle characteristics	D50 = 4.48 - 4.69 µm (literature).
Propan-2-ol	CAS: 67-63-0
Physical state	Liquid.
Colour	Colorless.
Odour	Not determined.
Melting point/freezing point	-88.5 °C (literature).
Boiling point or initial boiling point and boiling range	82.3 °C (literature).
Flammability	Highly flammable liquid.
Lower explosion limit	2 vol. % (literature).
Upper explosion limit	13 vol. % (literature).
Flash point	11.7 °C (literature).
Auto-ignition temperature	399 - 455.6 °C (literature).
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	Not determined, it is not a hydrocarbon or a chlorinated hydrocarbon.
Solubility	Miscible with water.
Partition coefficient n-octanol/water (log value)	log Pow = 0.05 (25 °C, literature).
Vapour pressure	Not determined.
Density and/or relative density	785.5 kg/m^3 (20 °C, literature).
Relative vapour density	Not determined.
Particle characteristics	Does not apply to liquid.
2-Butoxyethanol	CAS: 111-76-2
Physical state	Liquid.
Colour	Colorless.
Odour	Etheric.
Melting point/freezing point	-74.8 °C (literature).
Boiling point or initial boiling point and boiling range	173.5 °C (IP123/93).

Flammability	The substance is not classified as flammable, pyrophoric or emit flammable gases under standard conditions.
Lower explosion limit	Not determined.
Upper explosion limit	Not determined.
Flash point	67 °C (DIN 51758).
Auto-ignition temperature	230 °C (literature).
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	Not determined, it is not a hydrocarbon or a chlorinated hydrocarbon.
Solubility	900 g/l (20 °C, pH = 7, literature).
Partition coefficient n-octanol/water (log value)	log Pow = 0.81 (25 °C, pH = 7, shake-flask method).
Vapour pressure	0.8 hPa (20 °C, literature).
Density and/or relative density	900 kg/m^3 (20 °C, DIN 51 757).
Relative vapour density	Not determined.
Particle characteristics	Does not apply to liquid.

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

The mixture is classified as flammable liquid category 3 according to the value of the flash point.

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.

Oxidising 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, due to the potassium hydroxide and disodium metasilicate pentahydrate 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.

Potassium hydroxide CAS: 1310-58-3

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

Data for the substance are not available.
The substance is not classified as flammable solid.

Self-reactive substances and mixtures

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

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 substance is soluble in water and forms a stable mixture with it.

Oxidising liquids

It is not liquid.

Oxidising solids

Data for the substance are not available.
The 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 classified as corrosive to metal category 1.

Desensitised explosives

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

Disodium metasilicate ES: 229-912-9

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

Data for the substance are not available.
The substance is not classified as flammable solid.

Self-reactive substances and mixtures

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

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 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 inorganic 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 classified as corrosive to metal category 1.
Desensitised explosives
Data for the substance are not available. The substance does not contain chemical groups associated with explosive properties.
Tetrapotassium pyrophosphate CAS: 7320-34-5
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
Data for the substance are not available. The substance is not classified as flammable solid.
Self-reactive substances and mixtures
Data for the substance are not available. The substance does not contain chemical groups associated with explosive or self-reactive properties.
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 substance is soluble in water and forms a stable mixture with it.

Oxidising liquids

It is not liquid.

Oxidising solids

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

Propan-2-ol CAS: 67-63-0

Explosives

Data for the substance are not available.
The substance does not contain chemical groups associated with explosive properties.
Pure propan-2-ol is autoxidated by air and light to form an explosive cyclic triacetone triperoxide, which settles to the bottom of the vessel as a white sediment. In the event of such a finding, the container must be handled immediately and pyrotechnics called.

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

The substance is classified as flammable liquid category 2 according to the value of the flash point and boiling point.

Flammable solids

It is not solid.

Self-reactive substances and mixtures

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

Pyrophoric liquids
Data for the substance are not available. The substance is stable in air, there is no spontaneous ignition.
Pyrophoric solids
It is not solid.
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 miscible with water and forms a stable mixture with it.
Oxidising liquids
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.
Oxidizing solids
It is not solid.
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 does not contain chemical groups associated with explosive properties.
2-Butoxyethanol CAS: 111-76-2
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

The substance is not classified as flammable liquid according to the value of the flash point and boiling point.

Flammable solids

It is not solid.

Self-reactive substances and mixtures

Data for the substance are not available.

The substance does not contain chemical groups associated with explosive or self-reactive properties.

Pyrophoric liquids

Data for the substance are not available.

The substance is stable in air, there is no spontaneous ignition.

Pyrophoric solids

It is not solid.

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

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.

Oxidizing solids

It is not solid.

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 does not contain chemical groups associated with explosive properties.

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 frost. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.

10.5. Incompatible materials

Strong oxidising agents, acids. Mixture is corrosive to metals.

10.6. Hazardous decomposition products

They do not form under normal use. Burning releases carbon oxides, silicon oxides, phosphor oxides, phosphine, nitrogen oxides, ammonia, sulphur oxides, hydrogen sulphide 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.

$ATE_{mixture}$ > 4 834 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 is not classified by the additive formula. $ATE_{mixture}$ = 60 mg/l (vapour).

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 is classified as a skin sensitizing in category 1 according to the general/specific concentration limits of substance(s).

The mixture contains other sensitizing substance(s) with an elicitation limit that can cause an allergic reaction.

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 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).

STOT – 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. LD_{50} = 333 (male, conventional method). LD_{50} = 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	
Substance is classified as skin corrosive 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	
Substance is classified as serious eye damage. 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 sensitization	
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.	
STOT – single exposure	
Data for the substance are not available.	
STOT – 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.	
Disodium metasilicate	ES: 229-912-9
Acute toxicity	
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, literature).
Dermal	Based on available data, the classification criteria are not met. LD_{50} > 5 000 mg/kg (rat, EPA OPPTS 870.1200).

Inhalation	Based on available data, the classification criteria are not met. LC_{50} > 2.06 mg/l (vapour, rat, 4 hrs, toxicity based on corosive effect, EPA OPPTS 870.1300).

Skin corrosion/irritation

The substance is classified as skin corrosion in 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

The substance is classified as seriously damaging to the eyes.

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).

STOT – single exposure

The substance may cause respiratory irritation.

STOT – 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 mm^2/s or less at 40 °C.

Tetrapotassium pyrophosphate CAS: 7320-34-5

Acute toxicity

Oral	Based on available data, the classification criteria are not met. LD_{50} = 2 980 mg/kg (rat, literature).
Dermal	Based on available data, the classification criteria are not met. LD_{50} > 2 000 mg/kg (rabbit, OECD 402).
Inhalation	Data for the substance are not available. Based on available data, the classification criteria are not met. LC_{50} > 1.1 mg/l (dust, rat, 4 hrs., OECD 403).

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 eye irritant.

Mean score of corneal opacity = 0.6; 0 (fully reversible after 13 days), iritis = 0, conjunctival redness = 3; 0.3 (fully reversible after 13 days), conjunctival oedema = 2; 3 (fully reversible after 13 days) (rabbit, 72 hrs., OECD 405).

Respiratory or skin sensitisation

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

The substance is classified as skin sensitising in category 1B (mouse, OECD 429).

Germ cell mutagenicity

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

Negative (OECD 487, OECD 490).

Carcinogenicity

Data for the substance are not available.

Reproductive toxicity

Data for the substance are not available.

STOT – single exposure

Data for the substance are not available.

STOT – repeated exposure

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

NOEL = 250 mg/kg/day (hematology, rat, oral, 90 days, OECD 408).

NOAEL = 500 mg/kg/day (tubular basophilia was recorded at 1000 mg/kg/day in male and female rats, rat, orally, 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.

Propan-2-ol CAS: 67-63-0

Acute toxicity

Oral	Based on available data, the classification criteria are not met. LD_{50} = 5 840 mg/kg (rat, OECD 401).
Dermal	Based on available data, the classification criteria are not met. LD_{50} = 16.4 ml/kg (12 792 mg/kg at a density of 0.78 g/cm^3, rabbit, OECD 402).
Inhalation	Based on available data, the classification criteria are not met. LC_{50} > 10 000 ppm (vapour, 6 h, OECD 403).

Skin corrosion/irritation

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

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

Serious eye damage/irritation

The substance is classified as eye irritant.
Total mean irritation score = 1.89 (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 476).

Carcinogenicity

Based on available data, the classification criteria are not met.
NOAEL = 5 000 ppm (testicular tumors, rat, male, vapour, OECD 451).

Reproductive toxicity

Based on available data, the classification criteria are not met.
NOAEL = 853 mg/kg/day (rat, oral, generation P0, OECD 415).

STOT – single exposure

The substance may cause drowsiness or dizziness.

STOT – repeated exposure

Based on available data, the classification criteria are not met.
NOEC = 500 ppm (specific toxic effect, rat, vapour, 104 weeks, OECD 451).
NOAEC = 5 000 ppm (specific exposure-related adverse reaction, rat, vapour, 104 weeks, OECD 451).
NOEC = 5 000 ppm (effects of oncogenicity, rat, vapour, 104 weeks, OECD 451).

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.

2-Butoxyethanol CAS: 111-76-2

Acute toxicity

Oral	The substance is classified in category 4. LD_{50} = 1 414 mg/kg (rat, OECD 401). ATE = 1 200 mg/kg (according to harmonized classification).
Dermal	Based on available data, the classification criteria are not met. LD_{50} > 2 000 mg/kg (rabbit, OECD 402).
Inhalation	The substance is classified in category 3 according to harmonized classification. ATE = 3 mg/l (for calculation by additive formula, vapour).

Skin corrosion/irritation

The substance is classified as skin irritant.
Mean erythema score = 1.7 (not fully reversible after 14 days) and edema = 0.13 (not fully reversible after 14 days) (rabbit, EU method B.4).

Serious eye damage/irritation

The substance is classified as eye irritant.

Mean score of corneal opacity = 0.89 (fully reversible after 21 days), iritis = 0.56 (fully reversible after 7 days), conjunctival redness = 2.6 (fully reversible after 21 days) = 1.8 (fully reversible after 14 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, maximization test).

Germ cell mutagenicity

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

Negative (OECD 471, OECD 473, OECD 476).

Carcinogenicity

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

NOAEC = 125 ppm (liver hemangiocarcomas, rat, male, vapour, OECD 451).

NOAEC = 125 ppm (forestomach tumors, rat, female, vapour, OECD 451).

Reproductive toxicity

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

NOAEL = 720 mg/kg/day (body weight loss, mortality, reproductive performance, mouse, oral, generation P0).

LOAEL = 720 mg/kg/day (water consumption and compound intake, mouse, oral, generation P0).

NOAEL = 720 mg/kg/day (pup weight, mouse, orally, generation F1).

NOAEL = 720 mg/kg/day (no effect, mouse, oral, generation F2).

STOT – single exposure

Data for the substance are not available.

STOT – repeated exposure

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

NOAEL < 69 mg/kg/day (histopathology, rat, male, oral, 90 days, OECD 408).

NOAEL < 82 mg/kg/day (histopathology and hematology, rat, female, 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 does 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

Data for the mixture are not available.

Acute aquatic toxicity

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

category 1	∑ < 1.18

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	< 0.25	< 3.5	< 4.25

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.

Disodium metasilicate ES: 229-912-9

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

Fish

LC_{50}, 96 hrs., Danio rerio: 210 mg/l (OECD 203).

Crustaceans

EC_{50}, 48 hod., Daphnia Magna: 1 700 mg/l (OECD 202).

Algae

EC_{50}, 72 hrs., Desmodesmus subspicatus: 207 mg/l (biomass, DIN 38412).
EC_0, 72 hrs., Desmodesmus subspicatus: > 345.4 mg/l (growth rate, DIN 38412).

Tetrapotassium pyrophosphate CAS: 7320-34-5

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

Fish

LC_{50}, 96 hrs., Oncorhynchus mykiss: > 100 mg/l (mortality, OECD 203).
NOEC, 96 hrs., Oncorhynchus mykiss: 100 mg/l (mortality, OECD 203).

Crustaceans

EC_{50}, 48 hrs., Daphnia Magna: > 100 mg/l (mobility, EPA OTS 797.1300).
NOEC, 48 hrs., Daphnia Magna: 100 mg/l (mobility, EPA OTS 797.1300).

Algae

EC_{50}, 72 hrs., Desmodesmus subspicatus: > 100 mg/l (growth rate, OECD 201).
NOEC, 72 hrs., Desmodesmus subspicatus: 100 mg/l (growth rate, OECD 201).

Propan-2-ol CAS: 67-63-0

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

Fish

LC_{50}, 96 hrs., Pimephales promelas: 9 640 - 10 000 mg/l (mortality, OECD 203)

Crustaceans

EC_{50}, 24 hrs., Daphnia Magna: > 10 000 mg/l (mobility, OECD 202)
logNOEC, 16 d., Daphnia Magna: 3.37 (growth, NOEC = 2 344 µmol/l = 140.9 mg/l)

Algae

Threshold toxicity, 7 d., Scenedesmus quadricauda: 1.800 mg/l

2-Butoxyethanol CAS: 111-76-2

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

Fish

LC_{50}, 96 hrs., Oncorhynchus mykiss: 1 474 (mortality, OECD 203).
NOEC, 21 d., Brachydanio rerio: > 100 mg/l (markers for endocrine disruptive effects, OECD 204).

Crustaceans

EC_{50}, 48 hrs., Daphnia Magna: 1 550 mg/l (mobility, OECD 202).
EC_{10}, 21 d., Daphnia Magna: 1 800 mg/l (mortality, OECD 202).
NOEC, 21 d., Daphnia Magna: 100 mg/l (reproduction, OECD 202).

Algae

EC_{50}, 72 hrs., Selenastrum capricornutum: 911 mg/l (biomass, OECD 201).
EC_{50}, 72 hrs., Selenastrum capricornutum: 1 840 mg/l (growth rate, OECD 201).
EC_{10}, 72 hrs., Selenastrum capricornutum: 308 mg/l (biomass, OECD 201).
EC_{10}, 72 hrs., Selenastrum capricornutum: 679 mg/l (growth rate, OECD 201).
NOEC, 72 hrs., Selenastrum capricornutum: 88 mg/l (biomass, OECD 201).
NOEC, 72 hrs., Selenastrum capricornutum: 286 mg/l (growth rate, OECD 201).

12.2. Persistence and degradability

Mixture

Data for the mixture are not available.

Potassium hydroxide CAS: 1310-58-3

Not determined, it is an inorganic substance.

Disodium metasilicate ES: 229-912-9

Not determined, it is an inorganic substance.

Tetrapotassium pyrophosphate CAS: 7320-34-5

Not determined, it is an inorganic substance.

Propan-2-ol CAS: 67-63-0

Readily biodegradable: 53 % after 5 days (CO2 evolution, OECD 301 B).

2-Butoxyethanol	CAS: 111-76-2
Readily biodegradable: 90.4 % after 28 days (CO_2 evolution, OECD 301 B).	

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.	
Disodium metasilicate	ES: 229-912-9
Not determined, it is an inorganic substance.	
Tetrapotassium pyrophosphate	CAS: 7320-34-5
Not determined, it is an inorganic substance.	
Propan-2-ol	CAS: 67-63-0
log Pow = 0.05 (25 °C).	
2-Butoxyethanol	CAS: 111-76-2
log Pow = 0.81 (25 °C, pH = 7, shake-flask method).	

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.	
Disodium metasilicate	ES: 229-912-9
Not determined, it is an inorganic substance.	
Tetrapotassium pyrophosphate	CAS: 7320-34-5
Not determined, it is an inorganic substance.	
Propan-2-ol	CAS: 67-63-0
Data for the substance are not available.	
2-Butoxyethanol	CAS: 111-76-2
Data for the substance are not available.	

12.5. Results of PBT and vPvB assessment

Mixture does 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. Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

Possible waste code

07 06 01* - aqueous washing liquids and mother liquors (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

Corrosivity to metals.

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 2920

14.2. UN proper shipping name

CORROSIVE LIQUID, FLAMMABLE, N.O.S. (Potassium hydroxide, Propan-2-ol).

14.3. Transport hazard class(es)

8 (3)

14.4. Packing group

II

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

Additional data for ADR/RID

Classification code	CF1
Labels	8+3
Hazard identification code	83
Tunnel restriction code	D/E (ADR), - (RID)
Limited quantities	1 l.
Excepted quantities	Maximum net quantity per inner packaging: 30 ml. Maximum net quantity per outer packaging: 500 ml.
Transport category	2

Additional data for IMDG

Emergency Schedules (EmS)	F-E/S-C

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

It was not done for the mixture.

SECTION 16: Other information

Reason for the revision of the safety data sheet

Changing the label and composition of the mixture. Change in classification of butyl glycol and substance with CAS: 106232-83-1.

Key or legend to abbreviations and acronyms

Acute Tox. 3	Acute toxicity, cat. 3
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
Aquatic Chronic 4	Chronic aquatic hazard, cat. 4
Eye Dam. 1	Serious eye damage, cat. 1
Eye Irrit. 2	Eye irritation, cat. 2
Flam. Liq. 2	Flammable liquid, 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
Skin Sens. 1	Skin sensitization, cat. 1
Skin Sens. 1B	Skin sensitization, cat. 1B
STOT SE 3	Specific target organ toxicity - single exposure, cat. 3
ATE	Acute Toxicity Estimate
bw	body weight
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

H225	Highly flammable liquid and vapour.
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.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
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.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
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 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.