

SAFETY DATA SHEET

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

CLEAMEN 540

Date of issue: 24. 01. 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 540

Product code

VC540010097

Mixture description

An aqueous solution of alcohols.

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

Identified uses

Alcohol based highly efficient disinfectant and cleaner. For professional use only. Type BP: 02, 04.

Uses advised against

They are not known. 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

Flam. Liq. 2; H225

Eye Dam. 1; H318

STOT SE 3; H336

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

The most important adverse physicochemical, human health and environmental effects

Highly flammable liquid and vapour. Causes serious eye damage. May cause drowsiness or dizziness.

2.2 Label elements

Hazard pictograms



Signal word

Danger

Components of the mixture to be placed on the label

Contains propan-1-ol, propan-2-ol and butanone

Hazard statements

H225 - Highly flammable liquid and vapour.

H318 - Causes serious eye damage.

H336 - May cause drowsiness or dizziness.

Precautionary statements

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

P260 - Do not breathe mist/vapours/spray.

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

P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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.

Compositions: $\geq 30\%$ disinfectants and water

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

3.2 Mixtures

3.2.1 Components of a mixture classified as hazardous

Identification of substance	Content wt. %	Classification according to 1272/2008/EC
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Propan-1-ol; n-Propanol			
CAS Number	71-23-8		
EC Number	200-746-9		Flam. Liq. 2; H225
Index Number	603-003-00-0	≤ 40	Eye Dam. 1; H318
Registration Number	01-2119486761-29-XXXX		STOT SE 3; H336
Ethanol; Ethyl alcohol			
CAS Number	64-17-5		
EC Number	200-578-6		Flam. Liq. 2; H225
Index Number	603-002-00-5	≤ 27	Eye Irrit. 2; H319
Registration Number	01-2119457610-43-XXXX		
The substance has specific concentration limits:			
Eye Irrit. 2; H319		C ≥ 50 %	
Propan-2-ol; Isopropyl alcohol; Isopropanol			
CAS Number	67-63-0		
EC Number	200-661-7		Flam. Liq. 2; H225
Index Number	603-117-00-0	≤ 3	Eye Irrit. 2; H319
Registration Number	01-2119457558-25-XXXX		STOT SE 3; H336
Butanone; Ethyl methyl ketone			
CAS Number	68039-49-6		Flam. Liq. 2; H225
EC Number	268-264-1		Eye Irrit. 2; H319
Index Number	606-002-00-3	≤ 0.3	STOT SE 3; H336
Registration Number	01-2119457290-43-XXXX		EUH066
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. If the problem persists, seek medical advice.			
Eye contact			
Rinse with a gentle stream of water for at least 15 minutes. Keep your eyelids wide open with your thumb and forefinger. If the affected person is wearing contact lenses, remove them before rinsing eyes if it is easy. Seek medical advice.			
Ingestion			

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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

Not known.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Carbon dioxide CO₂, dry extinguishing agent, sand.

Unsuitable extinguishing media

Water.

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 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

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7.1 Precautions for safe handling

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

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.

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.

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

Protect from frost.

7.3 Specific end use(s)

Liquid alcohol-based disinfectant with a broad spectrum of action. It is suitable for disinfection of smaller areas in the food and healthcare sectors, such as process equipment, operating tables, instruments, beds, rubber boots, laboratory instruments and areas requiring increased disinfection regime. The product is not suitable for long-term use on plastic surfaces.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.1.1 Exposure limit value

Butanone CAS: 78-93-3

Limit values - Eight hours		Limit values - Short-term		Note
600 mg/m ³	200 ppm	900 mg/m ³	300 ppm	not given

8.1.2 Biological limit values

Not are determined in EU

8.1.3 DNEL and PNEC values

Propan-1-ol CAS: 71-23-8

DNEL

Area of use	Route of exposure	Effect	Exposure time	Value
Workers	Inhalation	Systemic effect	Long term	268 mg/m ³
Workers	Inhalation	Systemic effect	Acute/short term	1 723 mg/m ³
Workers	Dermal	Systemic effect	Long term	136 mg/kg/day
General population	Inhalation	Systemic effect	Long term	80 mg/m ³
General population	Inhalation	Systemic effect	Acute/short term	1 036 mg/m ³
General population	Dermal	Systemic effect	Long term	81 mg/kg/day
General population	Oral	Systemic effect	Long term	61 mg/kg/day

PNEC

Fresh water	Marine water	Intermittent releases		Sewage Treatment Plant (STP)
		Fresh water	Marine water	
6.83 mg/l	0.683 mg/l	10 mg/l	not given	96 mg/l

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PNEC				
Sediment (freshwater)	Sediment (marine water)	Air	Soil	Hazard for predators
27.5 mg/kg	2.75 mg/kg	no effect	1.49 mg/kg	no effect
Ethanol				CAS: 64-17-5
DNEL				
Area of use	Route of exposure	Effect	Exposure time	Value
Workers	Inhalation	Systemic effect	Long term	950 mg/m ³
Workers	Dermal	Systemic effect	Long term	343 mg/kg/day
General population	Inhalation	Systemic effect	Long term	114 mg/m ³
General population	Dermal	Systemic effect	Long term	206 mg/kg/day
General population	Oral	Systemic effect	Long term	87 mg/kg/day
PNEC				
Fresh water	Marine water	Intermittent releases		Sewage Treatment Plant (STP)
		Fresh water	Marine water	
0.96 mg/l	0.79 mg/l	2.75 mg/l	not given	580 mg/l
PNEC				
Sediment (freshwater)	Sediment (marine water)	Air	Soil	Hazard for predators
3.6 mg/kg	2.9 mg/kg	not effect	0.63 mg/kg	0.38 g/kg food
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	Dermal	Systemic effect	Long term	888 mg/kg/day
General population	Inhalation	Systemic effect	Long term	89 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
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
Butanone				CAS: 78-93-3
DNEL				

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Area of use	Route of exposure	Effect	Exposure time	Value
Workers	Inhalation	Systemic effect	Long term	600 mg/m ³
Workers	Dermal	Systemic effect	Long term	1 161 mg/kg/day
General population	Inhalation	Systemic effect	Long term	106 mg/m ³
General population	Dermal	Systemic effect	Long term	412 mg/kg/day
General population	Oral	Systemic effect	Long term	31 mg/kg/day

PNEC

Fresh water	Marine water	Intermittent releases		Sewage Treatment Plant (STP)
		Fresh water	Marine water	
55.8 mg/l	55.8 mg/l	55.8 mg/l	not given	709 mg/l

PNEC

Sediment (freshwater)	Sediment (marine water)	Air	Soil	Hazard for predators
284.74 mg/kg	284.7 mg/kg	not given	22.5 mg/kg	1 000 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 organic vapour). In the event of an accident or a fire use self-contained breathing apparatus.

Hand protection

Chemically resistant protective gloves. As there are no tests, it is not possible to recommend the glove material for this mixture. The selection of the glove material on consideration of the breakthrough time, permeability and degradation.

All relevant factors should be considered when selecting gloves for a particular application; 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

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9.1 Information on basic physical and chemical properties

Physical state	liquid
Colour	colorless
Odour	characteristic
Odour threshold	not determined
pH	7 (at 20 °C)
Melting point/freezing point	not determined
Initial boiling point and boiling range	78 °C
Flash point	≤ 21 °C
Evaporation rate	not determined
Flammability (solid, gas)	not determined
Lower flammability or explosive limits	2.1 vol.%
Upper flammability or explosive limits	15.0 vol.%
Vapour pressure	59 hPa
Vapour density	not determined
Relative density	0.9 (20 °C, water = 1)
Solubility in water	solubility
Solubility in organic solvents	not determined
Partition coefficient: n-octanol/water	not determined
Auto-ignition temperature	360 °C
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

Organic solvents	60.0 %
Water	39.9 %
VOC	60.0 %

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

Under normal conditions of use they are not.

10.4 Conditions to avoid

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

10.5 Incompatible materials

Strong oxidizing agents.

10.6 Hazardous decomposition products

Burning releases carbon oxides and products of incomplete combustion.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Mixture

Acute toxicity

- Oral** data for the mixture are not available
the mixture does not contain substances classified as an acute toxicity by oral route of exposure or the concentration of substance(s) is lower than the limit for inclusion in Section 3
- Dermal** data for the mixture are not available
the mixture does not contain substances classified as an acute toxicity by dermal route of exposure or the concentration of substance(s) is lower than the limit for inclusion in Section 3
- Inhalation** data for the mixture are not available
the mixture does not contain substances classified as an acute toxicity by inhalation route of exposure or the concentration of substance(s) is lower than the limit for inclusion in Section 3

Skin corrosion/irritation

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

Serious eye damage/irritation

data for the mixture are not available
the mixture is classified as causes serious eye damage based on the general/specific concentration limits of substance(s)

Respiratory or skin sensitisation

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

Germ cell mutagenicity

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

Carcinogenicity

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

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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 classified as toxic for specific target organs in a single exposure in category 3 according to the recommended concentration limits of substance(s) - may cause drowsiness or dizziness

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.

Propan-1-ol

CAS: 71-23-8

Acute toxicity

Oral based on available data, the classification criteria are not met
LD₅₀ = ca. 8 000 mg/kg (rat)

Dermal based on available data, the classification criteria are not met
LD₅₀ = 4 032 mg/kg (rabbit, male)

Inhalation based on available data, the classification criteria are not met
LC₅₀ > 33.8 mg/l (vapour, rat, 4 hrs)

Skin corrosion/irritation

based on available data, the classification criteria are not met

mean erythema score = 0.17 (exposure for 15 minutes, fully reversible after 48 hours), 0.33 (exposure for 20 hours, fully reversible after 8 days) and oedema = 0 (rabbit, 72 hours, OECD 404)

Serious eye damage/irritation

the substance classified as seriously damaging to the eyes

mean score of corneal opacity = 1.7 (not fully reversible), iritis = 1 (fully reversible after 10 days), conjunctival redness = 1.5 (not fully reversible), conjunctival edema = 1.5 (not fully reversible) (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

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data for the substance are not available

Reproductive toxicity

data for the substance are not available

Specific target organ toxicity – single exposure

the substance may cause drowsiness or dizziness

Specific target organ toxicity – repeated exposure

based on available data, the classification criteria are not met

NOAEC = 8 000 mg/m³ (rat, vapour, OECD 413)

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

Ethanol

CAS: 64-17-5

Acute toxicity

Oral based on available data, the classification criteria are not met
LD₅₀ = 10 470 mg/kg (rat)

Dermal data for the substance are not available

Inhalation based on available data, the classification criteria are not met
LC₅₀ = 124.7 mg/l (vapour, potkan, 4 hrs)

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

classified as eye irritation, mean corneal opacity = 1.1 (fully reversible in 4 days), iritis = 0.44 (fully reversible in 4 days), conjunctival redness = 2.1 (fully reversible in 14 days), edema conjunctiva = 1.3 (fully reversible in 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, OECD 406)

Germ cell mutagenicity

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

Carcinogenicity

based on available data, the classification criteria are not met
NOAEC ≥ 1.3 mg/l (OECD 453)

Reproductive toxicity

based on available data, the classification criteria are not met

NOAEL = 15% ethanol in drinking water (mouse, oral, generation P0, OECD 416)

NOAEL = 10% ethanol in drinking water (at a higher dose, fewer offspring and lower sperm motility in males, mouse, oral, F1, OECD 416)

NOAEL <15% ethanol in drinking water (15% lower body weight, mouse, oral, F1, OECD 416)

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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 = 10 ml/kg (16.25% solution, oral, rat, male, OECD 408) LOAEL = 4 ml/kg (pure ethanol, oral, rat, male, 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)
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)
Inhalation	data for the substance are not available LC ₅₀ > 10 000 ppm (vapour, 6 h)
Skin corrosion/irritation	
based on available data, the classification criteria are not met mean erythema score = 0 and oedema = 0 (rabbit, 72 h, OECD 404)	
Serious eye damage/irritation	
classified as irritating to eyes, 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)	
Specific target organ toxicity – single exposure	
the substance may cause drowsiness or dizziness	
Specific target organ toxicity – repeated exposure	

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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 mm²/s or less at 40 °C

Butanone

CAS: 78-93-3

Acute toxicity

Oral based on available data, the classification criteria are not met
LD₅₀ = 2 193 mg/kg (rat)

Dermal based on available data, the classification criteria are not met
LD₅₀ > 8 100 mg/kg (rabbit, > 10 ml/kg, density = 0.81 g/cm³)

Inhalation data for the substance are not available

Skin corrosion/irritation

based on available data, the classification criteria are not met
mean erythema score = 0 and oedema = 0 (rabbit, OECD 404)

Serious eye damage/irritation

based on available data, the classification criteria are not met
classified as eye irritation, total eye irritant score = 19.2 (24 h), 10.8 (72 h) a 0.8 (7 d) (rabbit, 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

data for the substance are not available

Specific target organ toxicity – single exposure

the substance may cause drowsiness or dizziness

Specific target organ toxicity – repeated exposure

based on available data, the classification criteria are not met
NOAEC = 5 041 ppm (rat, vapour, 90 days, OECD 413)

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

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12.1 Toxicity	
Mixture	
the mixture is not classified as dangerous for the aquatic environment	
Fish	
data for the mixture are not available	
Crustaceans	
data for the mixture are not available	
Algae	
data for the mixture are not available	
Propan-1-ol	CAS: 71-23-8
the substance is not classified as dangerous for the aquatic environment	
Fish	
LC ₅₀ , 96 hrs., Pimephales promelas: 4 555 mg/l (mortality)	
Crustaceans	
EC ₅₀ , 48 hrs., Daphnia Magna: 3 644 mg/l (mobility) NOEC, 21 d., Daphnia Magna: 68.3 mg/l (reproduction)	
Algae	
EC ₅₀ , 48 hrs., Pseudokirchneriella subcapitata: 9 170 mg/l (growth rate) NOEC, 48 hrs., Chlorella pyrenoidosa: 1 150 mg/l (growth rate)	
Ethanol	CAS: 64-17-5
the substance is not classified as dangerous for the aquatic environment	
Fish	
LC ₅₀ , 96 hrs., Pimephales promelas: 15.3 g/l (mortality) NOEC, 96 hrs., Danio rerio: 250 mg/l (shortening motoneuron axons) NOEC, 96 hrs., Danio rerio: 1 000 mg/l (body length, hatching, heartbeat, tail detachment)	
Crustaceans	
EC ₅₀ , 48 hrs., Ceriodaphnia dubia: 5 012 mg/l (mobility) NOEC, 10 d., Ceriodaphnia dubia: 9.6 mg/l (reproduction)	
Algae	
EC ₅₀ , 3 d., Chlorella vulgaris: 275 mg/l (growth rate) EC ₁₀ , 3 d., Chlorella vulgaris: 11.5 mg/l (growth rate)	
Propan-2-ol	CAS: 67-63-0
the substance is not classified as dangerous for the aquatic environment	
Fish	
LC ₅₀ , 96 hrs., Pimephales promelas: 9 640 - 10 000 mg/l (mortality)	
Crustaceans	
EC ₅₀ , 24 hrs., Daphnia Magna: > 10 000 mg/l (mobility) logNOEC, 16 d., Daphnia Magna: 3.37 (growth, NOEC = 2 344 µmol/l = 140.9 mg/l)	

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Algae	
threshold toxicity, 7 d., <i>Scenedesmus quadricauda</i> : 1.800 mg/l	
Butanone	CAS: 78-93-3
the substance is not classified as dangerous for the aquatic environment	
Fish	
LC ₅₀ , 96 hrs., <i>Pimephales promelas</i> : 2 993 mg/l (mortality)	
NOEC, 34 d., <i>Pimephales promelas</i> : 1 170 mg/l (mortality)	
Crustaceans	
EC ₅₀ , 48 hrs., <i>Daphnia Magna</i> : 308 mg/l (mobility)	
NOEC, 48 hrs., <i>Daphnia Magna</i> : 68 mg/l (behaviour, lethargy)	
Algae	
EC ₅₀ , 72 hrs., <i>Pseudokirchnerella subcapitata</i> : 1 972 mg/l (growth rate)	
NOAEC, 96 hrs., <i>Pseudokirchnerella subcapitata</i> : 1 240 mg/l (growth rate)	
12.2 Persistence and degradability	
Mixture	
data for the mixture are not available	
Propan-1-ol	CAS: 71-23-8
readily biodegradable: 75 % after 28 days (O ₂ consumption)	
Ethanol	CAS: 64-17-5
readily biodegradable: ca. 84 % after 28 days (O ₂ consumption)	
Propan-2-ol	CAS: 67-63-0
readily biodegradable: 53 % after 5 days (CO ₂ evolution, OECD 301 B)	
Butanone	CAS: 78-93-3
readily biodegradable: 98 % after 28 days (O ₂ consumption, OECD 301 D)	
12.3 Bioaccumulative potential	
Mixture	
data for the mixture are not available	
Propan-1-ol	CAS: 71-23-8
log Pow = 0.2 (25 °C, OECD 117)	
Ethanol	CAS: 64-17-5
log Pow = -0.35 (24 °C, pH = 7.4)	
Propan-2-ol	CAS: 67-63-0
log Pow = 0.05 (25 °C)	
Butanone	CAS: 78-93-3
log Pow = 0.3 (40 °C, pH = 7)	
12.4 Mobility in soil	

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Mixture	
data for the mixture are not available	
Propan-1-ol	CAS: 71-23-8
data for the substance are not available	
Ethanol	CAS: 64-17-5
Koc = 0.2 (calculation)	
Propan-2-ol	CAS: 67-63-0
data for the substance are not available	
Butanone	CAS: 78-93-3
data for the substance are not available	
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)	
Physical/chemical properties that may affect waste treatment options	
Flammability.	
Special precautions recommended for waste management	
None known.	
Waste legislation	
Directive 2008/98/EC	
SECTION 14: Transport information	
14.1 UN number	
1987	
14.2 UN proper shipping name	
ADR/RID/IMDG/IATA	ALCOHOLS, N.O.S (Propan-1-ol, Ethanol)

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14.3 Transport hazard class(es)

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 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	F1
labels	3
hazard identification code	33
tunnel restriction code	D/E (ADR), - (RID)
limited quantities	1 I
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-D
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SECTION 15: Regulatory information

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

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

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

Regulation No. 528/2012/EC concerning the making available on the market and use of biocidal products

Regulation No. 648/2004/EC on detergents

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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

Eye Dam. 1	Serious eye damage, cat. 1
Eye Irrit. 2	Eye irritation, cat. 2
Flam. Liq. 2	Flammable liquid, 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
VOC	Volatile organic compound
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

EUH066	Repeated exposure may cause skin dryness or cracking.
H225	Highly flammable liquid and vapour.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
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.

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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.