

# 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](mailto: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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<b>Propan-1-ol; n-Propanol</b>			
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
<b>Ethanol; Ethyl alcohol</b>			
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 %	
<b>Propan-2-ol; Isopropyl alcohol; Isopropanol</b>			
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
<b>Butanone; Ethyl methyl ketone</b>			
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.			
<b>SECTION 4: First aid measures</b>			
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.			
<b>4.1 Description of first aid measures</b>			
<b>Inhalation</b>			
Interrupt the exposure, transfer the person to the fresh air. In case of persistent nausea, seek medical advice.			
<b>Skin contact</b>			
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.			
<b>Eye contact</b>			
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.			
<b>Ingestion</b>			

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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 CO<sub>2</sub>, 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 <sup>3</sup>	200 ppm	900 mg/m <sup>3</sup>	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 <sup>3</sup>
Workers	Inhalation	Systemic effect	Acute/short term	1 723 mg/m <sup>3</sup>
Workers	Dermal	Systemic effect	Long term	136 mg/kg/day
General population	Inhalation	Systemic effect	Long term	80 mg/m <sup>3</sup>
General population	Inhalation	Systemic effect	Acute/short term	1 036 mg/m <sup>3</sup>
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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<b>PNEC</b>				
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
<b>Ethanol</b>				CAS: 64-17-5
<b>DNEL</b>				
Area of use	Route of exposure	Effect	Exposure time	Value
Workers	Inhalation	Systemic effect	Long term	950 mg/m <sup>3</sup>
Workers	Dermal	Systemic effect	Long term	343 mg/kg/day
General population	Inhalation	Systemic effect	Long term	114 mg/m <sup>3</sup>
General population	Dermal	Systemic effect	Long term	206 mg/kg/day
General population	Oral	Systemic effect	Long term	87 mg/kg/day
<b>PNEC</b>				
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
<b>PNEC</b>				
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
<b>Propan-2-ol</b>				CAS: 67-63-0
<b>DNEL</b>				
Area of use	Route of exposure	Effect	Exposure time	Value
Workers	Inhalation	Systemic effect	Long term	500 mg/m <sup>3</sup>
Workers	Dermal	Systemic effect	Long term	888 mg/kg/day
General population	Inhalation	Systemic effect	Long term	89 mg/m <sup>3</sup>
General population	Dermal	Systemic effect	Long term	319 mg/kg/day
General population	Oral	Systemic effect	Long term	26 mg/kg/day
<b>PNEC</b>				
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
<b>PNEC</b>				
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
<b>Butanone</b>				CAS: 78-93-3
<b>DNEL</b>				



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

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

### 9.2 Other information

<b>Organic solvents</b>	60.0 %
<b>Water</b>	39.9 %
<b>VOC</b>	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  
LD<sub>50</sub> = ca. 8 000 mg/kg (rat)

#### **Dermal**

based on available data, the classification criteria are not met  
LD<sub>50</sub> = 4 032 mg/kg (rabbit, male)

#### **Inhalation**

based on available data, the classification criteria are not met  
LC<sub>50</sub> > 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/m<sup>3</sup> (rat, vapour, OECD 413)

### **Aspiration hazard**

the substance is not a hydrocarbon or a chlorinated hydrocarbon with a kinematic viscosity of 20.5 mm<sup>2</sup>/s or less at 40 °C

## **Ethanol**

CAS: 64-17-5

### **Acute toxicity**

**Oral** based on available data, the classification criteria are not met  
LD<sub>50</sub> = 10 470 mg/kg (rat)

**Dermal** data for the substance are not available

**Inhalation** based on available data, the classification criteria are not met  
LC<sub>50</sub> = 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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<b>Specific target organ toxicity – single exposure</b>	
data for the substance are not available	
<b>Specific target organ toxicity – repeated exposure</b>	
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)	
<b>Aspiration hazard</b>	
the substance is not a hydrocarbon or a chlorinated hydrocarbon with a kinematic viscosity of 20.5 mm <sup>2</sup> /s or less at 40 °C	
<b>Propan-2-ol</b>	CAS: 67-63-0
<b>Acute toxicity</b>	
<b>Oral</b>	based on available data, the classification criteria are not met LD <sub>50</sub> = 5 840 mg/kg (rat)
<b>Dermal</b>	based on available data, the classification criteria are not met LD <sub>50</sub> = 16.4 ml/kg (12 792 mg/kg at a density of 0.78 g/cm <sup>3</sup> , rabbit)
<b>Inhalation</b>	data for the substance are not available LC <sub>50</sub> > 10 000 ppm (vapour, 6 h)
<b>Skin corrosion/irritation</b>	
based on available data, the classification criteria are not met mean erythema score = 0 and oedema = 0 (rabbit, 72 h, OECD 404)	
<b>Serious eye damage/irritation</b>	
classified as irritating to eyes, total mean irritation score = 1.89 (rabbit, 72 h, OECD 405)	
<b>Respiratory or skin sensitisation</b>	
based on available data, the classification criteria are not met not skin sensitising (guinea pig, OECD 406)	
<b>Germ cell mutagenicity</b>	
based on available data, the classification criteria are not met negative (OECD 471, OECD 476)	
<b>Carcinogenicity</b>	
based on available data, the classification criteria are not met NOAEL = 5 000 ppm (testicular tumors, rat, male, vapour, OECD 451)	
<b>Reproductive toxicity</b>	
based on available data, the classification criteria are not met NOAEL = 853 mg/kg/day (rat, oral, generation P0, OECD 415)	
<b>Specific target organ toxicity – single exposure</b>	
the substance may cause drowsiness or dizziness	
<b>Specific target organ toxicity – repeated exposure</b>	

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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 mm<sup>2</sup>/s or less at 40 °C

**Butanone**

CAS: 78-93-3

### **Acute toxicity**

**Oral** based on available data, the classification criteria are not met  
LD<sub>50</sub> = 2 193 mg/kg (rat)

**Dermal** based on available data, the classification criteria are not met  
LD<sub>50</sub> > 8 100 mg/kg (rabbit, > 10 ml/kg, density = 0.81 g/cm<sup>3</sup>)

**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 mm<sup>2</sup>/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<sub>50</sub>, 96 hrs., Pimephales promelas: 4 555 mg/l (mortality)

#### Crustaceans

EC<sub>50</sub>, 48 hrs., Daphnia Magna: 3 644 mg/l (mobility)

NOEC, 21 d., Daphnia Magna: 68.3 mg/l (reproduction)

#### Algae

EC<sub>50</sub>, 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<sub>50</sub>, 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<sub>50</sub>, 48 hrs., Ceriodaphnia dubia: 5 012 mg/l (mobility)

NOEC, 10 d., Ceriodaphnia dubia: 9.6 mg/l (reproduction)

#### Algae

EC<sub>50</sub>, 3 d., Chlorella vulgaris: 275 mg/l (growth rate)

EC<sub>10</sub>, 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<sub>50</sub>, 96 hrs., Pimephales promelas: 9 640 - 10 000 mg/l (mortality)

#### Crustaceans

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



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<b>Mixture</b>	
data for the mixture are not available	
<b>Propan-1-ol</b>	CAS: 71-23-8
data for the substance are not available	
<b>Ethanol</b>	CAS: 64-17-5
Koc = 0.2 (calculation)	
<b>Propan-2-ol</b>	CAS: 67-63-0
data for the substance are not available	
<b>Butanone</b>	CAS: 78-93-3
data for the substance are not available	
<b>12.5 Results of PBT and vPvB assessment</b>	
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.	
<b>12.6 Other adverse effects</b>	
data are not available	
<b>SECTION 13: Disposal considerations</b>	
<b>13.1 Waste treatment methods</b>	
<b>Disposal methods of the substance or mixture and the contaminated packaging</b>	
Delete according to the applicable European and local regulations (eg. in a hazardous waste incinerator). <b>Never remove flushing into sewer!</b> 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.	
<b>Possible waste code</b>	
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)	
<b>Physical/chemical properties that may affect waste treatment options</b>	
Flammability.	
<b>Special precautions recommended for waste management</b>	
None known.	
<b>Waste legislation</b>	
Directive 2008/98/EC	
<b>SECTION 14: Transport information</b>	
<b>14.1 UN number</b>	
1987	
<b>14.2 UN proper shipping name</b>	
ADR/RID/IMDG/IATA	ALCOHOLS, N.O.S (Propan-1-ol, Ethanol)

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## CLEAMEN 540

### 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.
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### **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.