

# SAFETY DATA SHEET

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

## CLEAMEN 322

Date of revision: 24. 03. 2025

Version: 3.0

Replaced version from: 31. 05. 2021

Date of issue: 29. 03. 2016

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

#### 1.1. Product identifier

**Product Name**

**CLEAMEN 322**

**UFI code**

UFI: J201-J0J6-R00T-H7NA

**Product code**

Are not.

**Mixture description**

Water solution.

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

**Identified uses**

They prevent limescale and uric scale sedimentation.  
Professional use.

**Uses advised against**

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.**

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](mailto: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**

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**Skin Irrit. 2; H315**

**Skin Sens. 1; H317**

**Eye Dam. 1; H318**

**Aquatic Chronic 3; H412**

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

### ***The most important adverse physical, human health and environmental effects***

Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage. Harmful to aquatic life with long lasting effects.

## **2.2. Label elements**

### ***Hazard pictograms***



### ***Signal word***

Danger.

### ***Substances of the mixture to be placed on the label***

Contains Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts, p-Mentha-1,4(8)-diene, Dipentene, Citral.

### ***Hazard statements***

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H412	Harmful to aquatic life with long lasting effects.

### ***Precautionary statements***

P261	Avoid breathing fume/mist/vapours.
P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352	IF ON SKIN: Wash with plenty of water and soap.
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.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P501	Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation. <b>Dispose of the cleaned packaging without any residual product content in the sorted waste.</b>

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### Supplemental hazard information

Contains 2 % of components with unknown hazards to the aquatic environment.

Composition according to regulation 648/2004/EC on detergents:  $\geq 15$  -  $< 30$  % anionic surfactants,  $< 5$  % perfumes, LIMONENE, DIMETHYLBENZYL CARBINYL ACETATE, CITRAL, CITRONELLOL, TERPINOLENE.

### 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
Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts			
CAS Number	68411-30-3	10 - 30	Acute Tox. 4; H302
EC Number	270-115-0		Skin Irrit. 2; H315
Index Number	not given		Eye Dam. 1; H318
Registration Number	01-2119489428-22-XXXX		Aquatic Chronic 3; H412 ATE <sub>oral</sub> = 1 080 mg/kg bw
Sodium carbonate			
CAS Number	497-19-8	1 - 3	Eye Irrit. 2; H319
EC Number	207-838-8		
Index Number	011-005-00-2		
Registration Number	01-2119485498-19-XXXX		
p-Mentha-1,4(8)-diene; Terpinolene			
CAS Number	586-62-9	1 - < 2	Asp. Tox. 1; H304
EC Number	209-578-0		Skin Sens. 1B; H317
Index Number	not given		Aquatic Acute 1; H400
Registration Number	01-2119982325-32-XXXX		Aquatic Chronic 1; H410 M=1 M(Chronic)=1
Diphenyl ether			
CAS Number	101-84-8	0.1 - 1	Eye Irrit. 2; H319
EC Number	202-981-2		Aquatic Acute 1; H400
Index Number	not given		Aquatic Chronic 3; H412
Registration Number	01-2119472545-33-XXXX		M=1
Citral; (2E)-3,7-Dimethylocta-2,6-dienal			

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CAS Number	5392-40-5		Skin Irrit. 2; H315
EC Number	226-394-6	0.1 - < 1	Skin Sens. 1; H317
Index Number	605-019-00-3		Eye Irrit. 2; H319
Registration Number	01-2119462829-23-XXXX		
<b>Dipentene; Limonene</b>			
			Flam. Liq. 3; H226
			Skin Irrit. 2; H315
CAS Number	138-86-3		Skin Sens. 1; H317
EC Number	205-341-0	0.1 - < 0.5	Aquatic Acute 1; H400
Index Number	601-029-00-7		Aquatic Chronic 1; H410
Registration Number	not yet available		M=1 M(Chronic)=1

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

## SECTION 4: First aid measures

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

### 4.1. Description of first aid measures

#### Inhalation

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

#### Skin contact

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

#### Eye contact

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

#### Ingestion

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

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

Are not known.

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

Treat symptomatically and supportively.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

#### Suitable extinguishing media

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

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### **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, 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**

Take up mechanically, place in appropriate containers for disposal and dispose of according to Section 13, unless it can be reused. Flush residues with water and collect it for waste disposal.

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.

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

### **7.3. Specific end use(s)**

See subsection 1.2.

## **SECTION 8: Exposure controls/personal protection**

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### 8.1. Control parameters

#### 8.1.1. Exposure limit value

Diphenyl ether

CAS: 101-84-8

Limit values - Eight hours	Limit values - Short-term	Note
7 mg/m <sup>3</sup> 1 ppm	14 mg/m <sup>3</sup> 2 ppm	none

#### 8.1.2. Biological limit values

Not determined in EU.

#### 8.1.3. DNEL and PNEC values

Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts

CAS: 68411-30-3

#### DNEL

Area of use	Route of exposure	Effect	Exposure time	Value
Workers	Inhalation	Systemic effect	Long term	7.6 mg/m <sup>3</sup>
Workers	Dermal	Systemic effect	Long term	119 mg/kg/day
General population	Inhalation	Systemic effect	Long term	1.3 mg/m <sup>3</sup>
General population	Dermal	Systemic effect	Long term	42.5 mg/kg/day
General population	Oral	Systemic effect	Long term	0.425 mg/kg/day

#### PNEC

Fresh water	Marine water	Intermittent releases		Sewage Treatment Plant (STP)
		Fresh water	Marine water	
0.268 mg/l	0.027 mg/l	0.017 mg/l	not given	3.43 mg/l

#### PNEC

Sediment (freshwater)	Sediment (marine water)	Air	Soil	Hazard for predators
8.1 mg/l	6.8 mg/kg	no effect	35 mg/kg	no effect

Sodium carbonate

CAS: 497-19-8

#### DNEL

Area of use	Route of exposure	Effect	Exposure time	Value
Workers	Inhalation	Local effect	Long term	10 mg/m <sup>3</sup>
General population	Inhalation	Local effect	Acute/short term	5 mg/m <sup>3</sup>

PNEC - not available

p-Mentha-1,4(8)-diene

CAS: 586-62-9

#### DNEL

Area of use	Route of exposure	Effect	Exposure time	Value
Workers	Inhalation	Systemic effect	Long term	3.6 mg/m <sup>3</sup>
Workers	Dermal	Systemic effect	Long term	0.52 mg/kg/day
Workers	Dermal	Local effect	Long term	44 µg/cm <sup>2</sup>
General population	Inhalation	Systemic effect	Long term	0.9 mg/m <sup>3</sup>



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General population	Dermal	Systemic effect	Long term	0.26 mg/kg/day
General population	Oral	Systemic effect	Long term	0.26 mg/kg/day
<b>PNEC</b>				
Fresh water	Marine water	Intermittent releases		Sewage Treatment Plant (STP)
0.634 µg/l	0.063 µg/l	Fresh water	Marine water	0.2 mg/l
6.34 µg/l			0.071 mg/l	
<b>PNEC</b>				
Sediment (freshwater)	Sediment (marine water)	Air	Soil	Hazard for predators
147 µg/kg	14.7 µg/kg	no effect	29.1 µg/kg	10.31 mg/kg food
<b>Diphenyl ether</b>				CAS: 101-84-8
<b>DNEL</b>				
Area of use	Route of exposure	Effect	Exposure time	Value
Workers	Inhalation	Systemic effect	Long term	1.8 mg/m <sup>3</sup>
Workers	Inhalation	Local effect	Long term	7 mg/m <sup>3</sup>
Workers	Inhalation	Local effect	Acute/short term	14 mg/m <sup>3</sup>
General population	Dermal	Systemic effect	Long term	0.7 mg/kg/day
<b>PNEC</b>				
Fresh water	Marine water	Intermittent releases		Sewage Treatment Plant (STP)
0.016 mg/l	0.002 mg/l	Fresh water	Marine water	10 mg/l
		0.005 mg/l	not given	
<b>PNEC</b>				
Sediment (freshwater)	Sediment (marine water)	Air	Soil	Hazard for predators
3.29 mg/kg	0.329 mg/kg	not given	0.648 mg/kg	no effect
<b>Citral</b>				CAS: 5392-40-5
<b>DNEL</b>				
Area of use	Route of exposure	Effect	Exposure time	Value
Workers	Inhalation	Systemic effect	Long term	9 mg/m <sup>3</sup>
Workers	Dermal	Systemic effect	Long term	1.7 mg/kg/day
Workers	Dermal	Local effect	Long term	140 µg/cm <sup>2</sup>
General population	Inhalation	Systemic effect	Long term	2.7 mg/m <sup>3</sup>
General population	Dermal	Systemic effect	Long term	1 mg/kg/day
General population	Dermal	Local effect	Long term	140 µg/cm <sup>2</sup>
General population	Oral	Systemic effect	Long term	0.6 mg/kg/day
<b>PNEC</b>				
Fresh water	Marine water	Intermittent releases		Sewage Treatment Plant (STP)
0.007 mg/l	0.001 mg/l	Fresh water	Marine water	1.6 mg/l
		0.068 mg/l	not given	

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### PNEC

Sediment (freshwater)	Sediment (marine water)	Air	Soil	Hazard for predators
0.125 mg/kg	0.013 mg/kg	no effect	0.021 mg/kg	no effect

### 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 goggles or face shield when manufacturing and handling the product (EN 166, EN 149+A1).

##### Skin protection - hand protection

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

Recommended gloves material:

nitrile rubber, breakthrough time: > 30 min., glove thickness: 0.4 mm

butyl rubber, breakthrough time: > 480 min., glove thickness: 0.7 mm

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

##### Skin protection - other

Suitable protective working clothing and protective footwear.

##### Respiratory protection

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

##### Thermal hazards

In normal use is not 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

<b>Physical state</b>	Solid.
<b>Colour</b>	Blue.
<b>Odour</b>	Fresh, fruity odour.
<b>Melting point/freezing point</b>	Not determined.



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<b>Boiling point or initial boiling point and boiling range</b>	Not determined.
<b>Flammability</b>	Not determined.
<b>Lower explosion limit</b>	Does not apply to solid.
<b>Upper explosion limit</b>	Does not apply to solid.
<b>Flash point</b>	Does not apply to solid.
<b>Auto-ignition temperature</b>	Does not apply to solid.
<b>Decomposition temperature</b>	Not determined, the mixture does not contain self-reactive substances or organic peroxides or other substances which may decompose.
<b>pH</b>	8 - 9 (1% solution).
<b>Kinematic viscosity</b>	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. %.
<b>Solubility</b>	Solubility.
<b>Partition coefficient n-octanol/water (log value)</b>	Does not apply to mixture.
<b>Vapour pressure</b>	Not determined.
<b>Density and/or relative density</b>	1.52 - 1.54 g/cm <sup>3</sup> .
<b>Relative vapour density</b>	Does not apply to solid.
<b>Particle characteristics</b>	Not determined.
<b>Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts</b> CAS: 68411-30-3	
<b>Physical state</b>	Solid.
<b>Colour</b>	Not determined.
<b>Odour</b>	Not determined.
<b>Melting point/freezing point</b>	> 350 °C (ISO 1218)
<b>Boiling point or initial boiling point and boiling range</b>	> 400 °C (ASTM E 737-76)
<b>Flammability</b>	The substance is not classified as flammable (EU method A.10)
<b>Lower explosion limit</b>	Does not apply to solid.
<b>Upper explosion limit</b>	Does not apply to solid.
<b>Flash point</b>	Does not apply to solid.
<b>Auto-ignition temperature</b>	Does not apply to solid.
<b>Decomposition temperature</b>	Not determined, it is not a self-reactive substance or an organic peroxide or a substance that may decompose.
<b>pH</b>	Not determined.
<b>Kinematic viscosity</b>	Does not apply to solid.
<b>Solubility</b>	250 g/l (20 °C)
<b>Partition coefficient n-octanol/water (log value)</b>	1.4 (23 °C, pH = 6.1, OECD 123)

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<b>Vapour pressure</b>	Not determined, the substance has melting point higher than 300 °C.
<b>Density and/or relative density</b>	$D_4^{20} = 0.776$ (OECD 109).
<b>Relative vapour density</b>	Does not apply to solid.
<b>Particle characteristics</b>	Not determined.
<b>Sodium carbonate</b> CAS: 497-19-8	
<b>Physical state</b>	Solid.
<b>Colour</b>	White.
<b>Odour</b>	Odourless.
<b>Melting point/freezing point</b>	851 °C (decomposition, literature).
<b>Boiling point or initial boiling point and boiling range</b>	Not determined, substance decomposes.
<b>Flammability</b>	The substance is not classified as flammable (EU method A.10).
<b>Lower explosion limit</b>	Does not apply to solid.
<b>Upper explosion limit</b>	Does not apply to solid.
<b>Flash point</b>	Does not apply to solid.
<b>Auto-ignition temperature</b>	Does not apply to solid.
<b>Decomposition temperature</b>	> 400 °C (literature).
<b>pH</b>	ca. 11.6 (ca. 0.1 M solution, literature).
<b>Kinematic viscosity</b>	Does not apply to solid.
<b>Solubility</b>	ca. 212.5 g/l (20 °C, pH > 11, OECD 105).
<b>Partition coefficient n-octanol/water (log value)</b>	Not determined, it is an inorganic substance.
<b>Vapour pressure</b>	Not determined, the substance has melting point higher than 300 °C.
<b>Density and/or relative density</b>	$D_4^{20} = 2.52 - 2.53$ (OECD 109).
<b>Relative vapour density</b>	Does not apply to solid.
<b>Particle characteristics</b>	D10 = 44 µm (OECD 110). D50 = 133 µm (OECD 110). D90 = 257 µm (OECD 110).
<b>p-Mentha-1,4(8)-diene</b> CAS: 586-62-9	
<b>Physical state</b>	Solid.
<b>Colour</b>	Colourless to pale amber.
<b>Odour</b>	Pine.
<b>Melting point/freezing point</b>	< -20 °C (OECD 102).
<b>Boiling point or initial boiling point and boiling range</b>	194 °C (OECD 103).
<b>Flammability</b>	Not determined.
<b>Lower explosion limit</b>	Not determined.
<b>Upper explosion limit</b>	Not determined.

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<b>Flash point</b>	61 °C (EU method A.9).
<b>Auto-ignition temperature</b>	220 °C (EU method A.15).
<b>Decomposition temperature</b>	Not determined, it is not a self-reactive substance or an organic peroxide or a substance that may decompose.
<b>pH</b>	Not determined.
<b>Kinematic viscosity</b>	1.1 (40 °C, OECD 114).
<b>Solubility</b>	ca. 7.03 mg/l (20 °C, pH = 5, OECD 123).
<b>Partition coefficient n-octanol/water (log value)</b>	log Pow = ca. 4.33 (20 °C, literatura).
<b>Vapour pressure</b>	ca. 101 Pa (20 °C). ca. 133 Pa (25 °C).
<b>Density and/or relative density</b>	D <sub>4</sub> <sup>20</sup> = 0.86 (OECD 109)
<b>Relative vapour density</b>	Not determined.
<b>Particle characteristics</b>	Does not apply to liquid.
<b>Diphenyl ether</b> CAS: 101-84-8	
<b>Physical state</b>	Solid.
<b>Colour</b>	White.
<b>Odour</b>	Floral.
<b>Melting point/freezing point</b>	26.87 °C (literature).
<b>Boiling point or initial boiling point and boiling range</b>	258 °C (literature).
<b>Flammability</b>	Not determined.
<b>Lower explosion limit</b>	Does not apply to solid.
<b>Upper explosion limit</b>	Does not apply to solid.
<b>Flash point</b>	Does not apply to solid.
<b>Auto-ignition temperature</b>	618 °C (literature).
<b>Decomposition temperature</b>	Not determined, it is not a self-reactive substance or an organic peroxide or a substance that may decompose.
<b>pH</b>	Not determined.
<b>Kinematic viscosity</b>	Does not apply to solid.
<b>Solubility</b>	18 mg/l (25 °C, OECD 105).
<b>Partition coefficient n-octanol/water (log value)</b>	log Pow = 4.21 (25 °C, literature).
<b>Vapour pressure</b>	0.02 mm Hg (25 °C, literature).
<b>Density and/or relative density</b>	1.075 g/cm <sup>3</sup> (20 °C, literature).
<b>Relative vapour density</b>	Does not apply to solid.
<b>Particle characteristics</b>	Not determined.
<b>Citral</b> CAS: 5392-40-5	
<b>Physical state</b>	Liquid.

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<b>Colour</b>	Slightly yellowish.
<b>Odour</b>	Not determined.
<b>Melting point/freezing point</b>	< -20 °C (literature).
<b>Boiling point or initial boiling point and boiling range</b>	ca. 230 °C (OECD 113).
<b>Flammability</b>	The substance is not classified as flammable, pyrophoric or emit flammable gases under standard conditions.
<b>Lower explosion limit</b>	Not determined.
<b>Upper explosion limit</b>	Not determined.
<b>Flash point</b>	98 °C (literature).
<b>Auto-ignition temperature</b>	225 °C (DIN 51 794).
<b>Decomposition temperature</b>	180 °C (OECD 113).
<b>pH</b>	Not determined.
<b>Kinematic viscosity</b>	Not determined, it is not a hydrocarbon or a chlorinated hydrocarbon.
<b>Solubility</b>	0.42 g/l (25 °C, OECD 105).
<b>Partition coefficient n-octanol/water (log value)</b>	2.76 (25 °C, OECD 107).
<b>Vapour pressure</b>	0.071 hPa (25 °C, dynamic method).
<b>Density and/or relative density</b>	0.89 (voda = 1, 20 °C, literature).
<b>Relative vapour density</b>	Not determined.
<b>Particle characteristics</b>	Does not apply to liquid.

## 9.2. Other information

### 9.2.1. Information with regard to physical hazard classes

#### Mixture

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

#### Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts

CAS: 68411-30-3

#### 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.

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<b>Flammable liquids</b>	
It is not liquid.	
<b>Flammable solids</b>	
The substance is not classified as flammable solid (EU method A.10).	
<b>Self-reactive substances and mixtures</b>	
Data for the substance are not available. The substance does not contain chemical groups associated with explosive or self-reactive properties.	
<b>Pyrophoric liquids</b>	
It is not liquid.	
<b>Pyrophoric solids</b>	
Data for the substance are not available. The substance is stable in air, there is no spontaneous ignition.	
<b>Self-heating substances and mixtures</b>	
Data for the substance are not available. The substance is not classified as self-heating.	
<b>Substances and mixtures, which emit flammable gases in contact with water</b>	
Data for the substance are not available. The substance is soluble in water and forms a stable mixture with it.	
<b>Oxidising liquids</b>	
It is not liquid.	
<b>Oxidizing solids</b>	
Data for the substance are not available. It is an organic substance does not contain chemical groups associated with oxidising properties.	
<b>Organic peroxides</b>	
Data for the substance are not available. The substance does not contain a bivalent group -O-O- with at least one organic radical.	
<b>Corrosive to metals</b>	
Data for the substance are not available. The substance is not classified as corrosive to metal.	
<b>Desensitised explosives</b>	
Data for the substance are not available. The substance does not contain chemical groups associated with explosive properties.	
<b>Sodium carbonate</b>	CAS: 497-19-8
<b>Explosives</b>	
Data for the substance are not available. The substance does not contain chemical groups associated with explosive properties.	
<b>Flammable gases</b>	
It is not gas.	

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### **Aerosols**

It is not aerosol.

### **Oxidising gases**

It is not gas.

### **Gases under pressure**

It is not gas.

### **Flammable liquids**

It is not liquid.

### **Flammable solids**

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

### **Self-reactive substances and mixtures**

Data for the substance are not available.

The substance 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 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.



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<b>p-Mentha-1,4(8)-diene</b>	CAS: 586-62-9
<b>Explosives</b>	
Data for the substance are not available. The substance does not contain chemical groups associated with explosive properties.	
<b>Flammable gases</b>	
It is not gas.	
<b>Aerosols</b>	
It is not aerosol.	
<b>Oxidising gases</b>	
It is not gas.	
<b>Gases under pressure</b>	
It is not gas.	
<b>Flammable liquids</b>	
The substance is not classified as flammable liquid according to the value of the flash point and boiling point.	
<b>Flammable solids</b>	
It is not solid.	
<b>Self-reactive substances and mixtures</b>	
Data for the substance are not available. The substance does not contain chemical groups associated with explosive or self-reactive properties.	
<b>Pyrophoric liquids</b>	
Data for the substance are not available. The substance is stable in air, there is no spontaneous ignition.	
<b>Pyrophoric solids</b>	
It is not solid.	
<b>Self-heating substances and mixtures</b>	
Data for the substance are not available. The substance is not classified as self-heating.	
<b>Substances and mixtures, which emit flammable gases in contact with water</b>	
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.	
<b>Oxidising liquids</b>	
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.	
<b>Oxidizing solids</b>	
It is not solid.	
<b>Organic peroxides</b>	

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## CLEAMEN 322

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.

### **Diphenyl ether**

CAS: 101-84-8

### **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**

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## CLEAMEN 322

Data for the substance are not available.

The chemical structure of the substance does not contain metals or metalloids.

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

### ***Oxidising liquids***

It is not liquid.

### ***Oxidizing solids***

Data for the substance are not available.

It is an organic substance that does not contain oxygen, fluorine or chlorine, or these elements are chemically bounded only to carbon or hydrogen.

### ***Organic peroxides***

Data for the substance are not available.

The substance does not contain a bivalent group -O-O- with at least one organic radical.

### ***Corrosive to metals***

Data for the substance are not available.

The substance is 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.

### **Citral**

CAS: 5392-40-5

### ***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***

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***

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## CLEAMEN 322

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, pH is in the range 4 - 10.

#### ***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.

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## CLEAMEN 322

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

The mixture is stable under normal conditions of use. There aren't any hazardous reaction.

#### 10.2. Chemical stability

Stable under recommended storage conditions.

#### 10.3. Possibility of hazardous reactions

Hazardous reactions aren't known under normal conditions of use.

#### 10.4. Conditions to avoid

Protect from temperatures below 0 °C.

#### 10.5. Incompatible materials

Strong oxidizing agents, strong acids and bases.

#### 10.6. Hazardous decomposition products

They do not form under normal use. Burning releases carbon oxides, 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.

ATE<sub>mixture</sub> > 2 000 mg/kg bw (estimate, low concentration of substances classified as toxic oral route of exposure).

##### Dermal

Data for the mixture are not available.

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

##### Skin corrosion/irritation

Data for the mixture are not available.

The mixture is classified as skin irritant 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 seriously damaging to the eyes based on the general/specific concentration limits of substance(s).

##### Respiratory or skin sensitisation

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## CLEAMEN 322

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

### **STOT – repeated exposure**

Data for the mixture are not available.

The mixture does not contain relevant 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 is not classified as aspiration hazard according to the general/specific concentration limits of substance(s).

### **Other information**

See sections 2 and 4.

**Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts**

CAS: 68411-30-3

### **Acute toxicity**

**Oral** The substance is classified in category 4.  
LD<sub>50</sub> = 1 080 mg/kg bw (rat, female, OECD 401).

**Dermal** Based on available data, the classification criteria are not met.  
LD<sub>50</sub> > 2 000 mg/kg bw (rabbit, OECD 402).

**Inhalation** Data for the substance are not available.

### **Skin corrosion/irritation**

The substance is classified as skin irritant.

Primary dermal irritation index PDII = 2.17 (max. 4, not fully reversible after 14 days) (rabbit, 72 hrs., OECD 404).

### **Serious eye damage/irritation**



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The substance is classified as seriously damaging to the eyes.

Overall irritation score = 1.75 (max. 4, not rinsed, not fully reversible after 14 days), 1 (max. 3, rinse after 4 seconds, reversible after 7 days), 1.06 (max. 2, rinse after 30 seconds, reversible after 14 days) (rabbit, 72 hrs., OECD 405).

### **Respiratory or skin sensitisation**

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

Not skin sensitising (guinea pig, OECD 406).

### **Germ cell mutagenicity**

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

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

### **Carcinogenicity**

Data for the substance are not available.

### **Reproductive toxicity**

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

NOAEL = 350 mg/kg/day (rat, oral, generation P0, literature).

NOAEL = 350 mg/kg/day (rat, oral, generation F1, literature).

NOAEL = 350 mg/kg/day (rat, oral, generation F2, literature).

### **STOT – single exposure**

Data for the substance are not available.

### **STOT – repeated exposure**

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

NOAEL = 85 mg/kg/day (rat, oral, literature).

LOAEL = 300 mg/kg/day (rat, oral, literature).

### **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.

**Sodium carbonate**

CAS: 497-19-8

### **Acute toxicity**

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

LD<sub>50</sub> = 2 800 mg/kg bw (rat, female)

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

LD<sub>50</sub> > 2 000 mg/kg bw (rabbit, EPA 16 CFR 1500.40)

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

LC<sub>50</sub> > 2 300 mg/m<sup>3</sup> (rat, male, aerosol, 2 hrs)

### **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, iritis = 0.25 (fully reversible after 72 hours), conjunctival redness = 1.67 (fully reversible after 72 hours), conjunctival oedema = 1.38 (fully reversible after 72 hours) (rabbit, 72 h, OECD 405).

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## CLEAMEN 322

<b>Respiratory or skin sensitisation</b>	
Data for the substance are not available.	
<b>Germ cell mutagenicity</b>	
Based on available data, the classification criteria are not met. Negative (OECD 471).	
<b>Carcinogenicity</b>	
Data for the substance are not available.	
<b>Reproductive toxicity</b>	
Data for the substance are not available.	
<b>STOT – single exposure</b>	
Data for the substance are not available.	
<b>STOT – repeated exposure</b>	
Based on available data, the classification criteria are not met. NOAEL > 10 mg/m <sup>3</sup> (human, inhalation, dust).	
<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>p-Mentha-1,4(8)-diene</b>	CAS: 586-62-9
<b>Acute toxicity</b>	
<b>Oral</b>	Based on available data, the classification criteria are not met. LD <sub>50</sub> = 3 740 mg/kg bw (rat, OECD 401).
<b>Dermal</b>	Based on available data, the classification criteria are not met. LD <sub>50</sub> > 4 300 mg/kg bw (rabbit, OECD 402).
<b>Inhalation</b>	Data for the substance are not available.
<b>Skin corrosion/irritation</b>	
Based on available data, the classification criteria are not met. Tissue viability = 84.2 % (OECD 439).	
<b>Serious eye damage/irritation</b>	
Based on available data, the classification criteria are not met. Mean score of corneal opacity = 0, iritis = 0.1 (fully reversible after 48 hours), conjunctival redness = 0.7 (fully reversible after 7 days), conjunctival oedema = 0.8 (fully reversible after 7 days) (rabbit, 72 hrs., OECD 405).	
<b>Respiratory or skin sensitisation</b>	
The substance is classified as skin sensitising in category 1B (mouse, OECD 429).	
<b>Germ cell mutagenicity</b>	
Based on available data, the classification criteria are not met. Negative (OECD 471, OECD 487).	
<b>Carcinogenicity</b>	
Data for the substance are not available.	
<b>Reproductive toxicity</b>	

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## CLEAMEN 322

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

NOAEL = 294.6 mg/kg/day (rat, generation P0, OECD 422).

NOAEL = 356 mg/kg/day (rat, generation F1, OECD 422).

### **STOT – single exposure**

Data for the substance are not available.

### **STOT – repeated exposure**

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

NOAEL = 161.5 mg/kg/day (systemic toxicity, rat, female, OECD 422).

NOAEL = 294.6 mg/kg/day (systemic toxicity, rat, male, OECD 422).

### **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.

**Diphenyl ether**

CAS: 101-84-8

### **Acute toxicity**

#### **Oral**

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

LD<sub>50</sub> = 2 830 mg/kg bw (rat, female, literature).

#### **Dermal**

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

LD<sub>50</sub> > 7 940 mg/kg bw (rabbit, literature).

#### **Inhalation**

Data for the substance are not available.

### **Skin corrosion/irritation**

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

Mean erythema score = 1.8 (not fully reversible after 14 days) and oedema = 0.17 (fully reversible after 7 days) (rabbit, 72 hrs., OECD 404).

### **Serious eye damage/irritation**

The substance is classified as eye irritant (rabbit, literature).

### **Respiratory or skin sensitisation**

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

Not skin sensitising (human, male, maximization test).

### **Germ cell mutagenicity**

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

Negative (bacterial reverse mutation assay, mammalian cell gene mutation assay, in vitro mammalian chromosome aberration 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**

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## CLEAMEN 322

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

NOEL = 301 mg/kg/day (rat, male, oral, 90 days, OECD 408).

NOEL = 335 mg/kg/day (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<sup>2</sup>/s or less at 40 °C.

Citral

CAS: 5392-40-5

### **Acute toxicity**

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

LD<sub>50</sub> = ca. 6 800 mg/kg bw (rat).

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

LD<sub>50</sub> > 2 000 mg/kg bw (rabbit).

**Inhalation** Data for the substance are not available.

### **Skin corrosion/irritation**

The substance is classified as skin irritant.

Mean erythema score = 2.75 and oedema = 2.25 (not fully reversible after 8 days) (rabbit, 72 hrs., OECD 404).

### **Serious eye damage/irritation**

The substance is classified as eye irritant.

Mean score of corneal opacity = 1.0 (fully reversible after ), iritis = 0, conjunctival redness = 1.5 (not fully reversible after 8 days), conjunctival oedema = 1.25 (fully reversible after 7 days) (rabbit, 72 hrs., OECD 405).

### **Respiratory or skin sensitisation**

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

### **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.

NOAEL = 100 mg/kg/day (toxicity, rat, oral, OECD 453).

NOAEL = 210 mg/kg/day (toxicity, rat, oral, OECD 453).

### **Reproductive toxicity**

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

NOAEL = 200 mg/kg/day (parental toxicity, oral, rat, generation P0, OECD 421).

NOAEL = 1 000 mg/kg/day (reproductive toxicity, oral, rat, generation P0, OECD 421).

NOAEL = 200 mg/kg/day (development toxicity, oral, rat, generation F1, OECD 421).

### **STOT – single exposure**

Data for the substance are not available.

### **STOT – repeated exposure**

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

LOAEL = 345 mg/kg/day (body weight change, oral, rat, male, 90 days, OECD 408).

LOAEL = 335 mg/kg/day (body weight change, oral, rat, female, 90 days, OECD 408).

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## CLEAMEN 322

### 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.

### 11.2. Information on 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 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

$\Sigma < 3.5$

#### Chronic aquatic toxicity

The mixture is classified as Aquatic Chronic 3; H412 based on calculation according to the summation method.

category

1

2

3

4

$\Sigma$

< 2.5

< 25

< 281

not relevant

#### Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts

CAS: 68411-30-3

The substance is classified as Aquatic Chronic 3; H412.

#### Fish

LC<sub>50</sub>, 96 hrs., *Lepomis macrochirus*: 1.67 mg/l (mortality).

NOEC, 28 d., *Oncorhynchus mykiss*: 0.23 mg/l (mortality, OECD 210).

#### Crustaceans

EC<sub>50</sub>, 48 hrs., *Daphnia Magna*: 2.9 mg/l (mobility, OECD 202).

NOEC, 21 d., *Daphnia Magna*: 0.27 mg/l (survival and reproduction, OECD 211).

#### Algae

EC<sub>50</sub>, 72 hrs., *Pseudokirchneriella subcapitata*: 235 mg/l (growth rate, OECD 201).

EC<sub>10</sub>, 96 hrs., *Pseudokirchneriella subcapitata*: 13.1 mg/l (growth rate, OECD 201).

#### Sodium carbonate

CAS: 497-19-8

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

#### Fish

LC<sub>50</sub>, 96 hrs., *Lepomis macrochirus*: 300 mg/l (mortality).

#### Crustaceans

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EC <sub>50</sub> , 48 hrs., Ceriodaphnia sp.: 200 - 227 mg/l (mobility).	
<b>Algae</b>	
EC <sub>50</sub> : 10 - 100 mg/l (estimated, data is assessment based on pH).	
NOEC: 1 - 10 mg/l (estimated, data is assessment based on pH).	
<b>p-Mentha-1,4(8)-diene</b>	CAS: 586-62-9
The substance is classified as Aquatic Acute 1; H400 (M=1) and Aquatic Chronic 1; H410 (M=1).	
<b>Fish</b>	
LC <sub>50</sub> , 96 hrs., Danio rerio: 0.805 mg/l (mortality, OECD 203).	
<b>Crustaceans</b>	
EC <sub>50</sub> , 48 hrs., Daphnia Magna: 0.634 mg/l (mobility, OECD 202).	
<b>Algae</b>	
EC <sub>50</sub> , 72 hrs., Raphidocelis subcapitata: 0.692 mg/l (growth rate, OECD 201).	
EC <sub>10</sub> , 72 hrs., Raphidocelis subcapitata: 0.273 mg/l (growth rate, OECD 201).	
<b>Diphenyl ether</b>	CAS: 101-84-8
The substance is classified as Aquatic Acute 1; H400 (M=1) a Aquatic Chronic 3; H412.	
<b>Fish</b>	
LC <sub>50</sub> , 96 hrs., Oncorhynchus mykiss: 4.2 mg/l (mortality, literature).	
<b>Crustaceans</b>	
EC <sub>50</sub> , 48 hrs., Daphnia Magna: 1.96 mg/l (mobility, literature).	
<b>Algae</b>	
EC <sub>50</sub> , 72 hrs., Pseudokirchneriella subcapitata: 0.455 mg/l (growth rate, literature).	
EC <sub>50</sub> , 72 hrs., Pseudokirchneriella subcapitata: 0.304 mg/l (biomass, literature).	
NOEC, 72 hrs., Pseudokirchneriella subcapitata: 0.24 mg/l (growth rate, literature).	
NOEC, 72 hrs., Pseudokirchneriella subcapitata: 0.188mg/l (biomass, literature).	
<b>Citral</b>	CAS: 5392-40-5
The substance is not classified as hazardous for the aquatic environment.	
<b>Fish</b>	
LC <sub>50</sub> , 96 hrs., Leuciscus idus: 6.78 mg/l (mortality, DIN 38412).	
NOEC, 96 hrs., Leuciscus idus: 4.6 mg/l (mortality, DIN 38412).	
<b>Crustaceans</b>	
EC <sub>50</sub> , 48 hrs., Daphnia Magna: 6.8 mg/l (mobility).	
EC <sub>0</sub> , 48 hrs., Daphnia Magna: 3.13 mg/l (mobility).	
<b>Algae</b>	
EC <sub>50</sub> , 72 hrs., Desmodesmus subspicatus: 103.8 mg/l (growth rate, DIN 38412).	
EC <sub>10</sub> , 72 hrs., Desmodesmus subspicatus: 3 mg/l (growth rate, DIN 38412).	
<b>12.2. Persistence and degradability</b>	
<b>Mixture</b>	
Data for the mixture are not available.	



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<b>Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts</b>	CAS: 68411-30-3
Readily biodegradable: 85 % after 29 days (CO <sub>2</sub> evolution, OECD 301 B).	
<b>Sodium carbonate</b>	CAS: 497-19-8
Not determined, it is an inorganic substance.	
<b>p-Mentha-1,4(8)-diene</b>	CAS: 586-62-9
Readily biodegradable: 81 % after 28 days (O <sub>2</sub> consumption, OECD 301 D).	
<b>Diphenyl ether</b>	CAS: 101-84-8
Readily biodegradable: 76 % after 28 days (O <sub>2</sub> consumption, literature).	
<b>Citral</b>	CAS: 5392-40-5
Readily biodegradable: 85 - 95 % 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>Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts</b>	CAS: 68411-30-3
BCF, Oncorhynchus mykiss = 87 l/kg (OECD 305 E). log Pow = 1.4 (23 °C, pH = 6.1, OECD 123).	
<b>Sodium carbonate</b>	CAS: 497-19-8
Not determined, it is an inorganic substance.	
<b>p-Mentha-1,4(8)-diene</b>	CAS: 586-62-9
log Pow = ca. 4.33 (20 °C, literature).	
<b>Diphenyl ether</b>	CAS: 101-84-8
BCF, Oncorhynchus mykiss: 155 - 200 (literature). log Pow = 4.21 (25 °C, literature).	
<b>Citral</b>	CAS: 5392-40-5
BCF = 89.72 (calculation). log Pow = 2.76 (25 °C, OECD 107).	
<b>12.4. Mobility in soil</b>	
<b>Mixture</b>	
Data for the mixture are not available.	
<b>Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts</b>	CAS: 68411-30-3
Data for the substance are not available.	
<b>Sodium carbonate</b>	CAS: 497-19-8
Not determined, it is an inorganic substance.	
<b>p-Mentha-1,4(8)-diene</b>	CAS: 586-62-9
Data for the substance are not available.	
<b>Diphenyl ether</b>	CAS: 101-84-8
log Koc = 3.3 (25 °C, literature).	

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<b>Citral</b>	CAS: 5392-40-5
log K <sub>oc</sub> = 2.169 (calculation).	
<b>12.5. Results of PBT and vPvB assessment</b>	
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.	
<b>12.6. Endocrine disrupting properties</b>	
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.	
<b>12.7. 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>	
Dispose according to the applicable European and local regulations (eg. in a hazardous waste incinerator). Do not empty unused product into drainage systems. Do not contaminate ponds or ditches with the product or used container. Hand over the residual amounts and solutions to a licensed disposal company. Hand over the remaining quantities and unregenerate solutions to an authorized person (specialized company with authorization) or to the collection yard in the hazardous waste section according to the worker's instructions. Empty, cleaned packaging can be stored at a landfill of the appropriate category or <b>in the sorted waste</b> .	
<b>Possible waste code</b>	
16 03 05* - organic wastes containing hazardous substances (mixture), 15 01 10* - packaging containing residues of or contaminated by hazardous substances (contaminated packaging), 15 01 02 - plastic packaging (clear packaging).	
<b>Physical/chemical properties that may affect waste treatment options</b>	
Not known.	
<b>Special precautions recommended for waste management</b>	
Not known.	
<b>Waste legislation</b>	
Directive 2008/98/EC on waste and repealing certain Directives, as amended.	
<b>SECTION 14: Transport information</b>	
This product is not classified as a dangerous for transportation (ADR/RID, IMDG, ICAO/IATA).	
<b>14.1. UN number or ID number</b>	
Not given.	
<b>14.2. UN proper shipping name</b>	
Not given.	

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### 14.3. Transport hazard class(es)

Not given.

### 14.4. Packing group

Not given.

### 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.

## 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 has not been carried out for mixture.

## SECTION 16: Other information

### Reason for the revision of the safety data sheet

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

### Key or legend to abbreviations and acronyms

Acute Tox. 4	Acute toxicity, cat. 4
Aquatic Acute 1	Acute aquatic hazard, cat. 1
Aquatic Chronic 1	Chronic aquatic hazard, cat. 1
Aquatic Chronic 3	Chronic aquatic hazard, cat. 3
Asp. Tox. 1	Aspiration hazard, cat. 1
Eye Dam. 1	Serious eye damage, cat. 1
Eye Irrit. 2	Eye irritation, cat. 2
Flam. Liq. 3	Flammable liquid, cat. 3
Skin Irrit. 2	Skin irritation, cat. 2
Skin Sens. 1	Skin sensitization, cat. 1
Skin Sens. 1B	Skin sensitization, cat. 1B
ATE	Acute Toxicity Estimate

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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**

H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
P261	Avoid breathing fume/mist/vapours.
P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352	IF ON SKIN: Wash with plenty of water and soap.
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.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.

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P362+P364	Take off contaminated clothing and wash it before reuse.
P501	Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation. <b>Dispose of the cleaned packaging without any residual product content in the sorted waste.</b>

### **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 safety data sheet has been prepared according to the best available knowledge. The safety data sheet has been compiled in good faith but without guarantee. Various factors may influence properties under specific conditions. It is the responsibility of the product user to assess the accuracy of the information for their specific application. 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 prepared 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 prepared by LACHEPRA s.r.o.