

## Safety Data Sheet

according to UK REACH Regulation

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Revision date: 28.02.2023

VCM 20

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

#### 1.1. Product identifier

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

##### Use of the substance/mixture

Aerosol  
Cleaner

##### Uses advised against

Any non-intended use.

#### 1.3. Details of the supplier of the safety data sheet

Company name:	Meusburger Georg GmbH & Co KG	
Street:	Kesselstrasse 42	
Place:	A-6960 Wolfurt	
Telephone:	+43 5574 6706-0	Telefax: +43 5574 6706-12
e-mail:	office@meusburger.com	
Internet:	www.meusburger.com	
Responsible Department:	Dr. Gans-Eichler Chemieberatung GmbH Otto-Hahn-Str. 36 D-48161 Muenster	e-mail: info@tge-consult.de Tel.: +49 2534 41594-0 www.tge-consult.de

#### 1.4. Emergency telephone number:

Poison Information Center Mainz, Germany, Tel: +49(0)6131/19240

#### Further Information

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### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### GB CLP Regulation

Aerosol 1; H222-H229  
Asp. Tox. 1; H304  
Skin Irrit. 2; H315  
Eye Irrit. 2; H319  
Skin Sens. 1; H317  
STOT SE 3; H336  
Aquatic Chronic 2; H411

Full text of hazard statements: see SECTION 16.

#### 2.2. Label elements

##### GB CLP Regulation

##### Hazard components for labelling

Hydrocarbons, C6-C7, n-alkanes, iso-alkanes, cyclics, <5% n-hexane  
propan-2-ol; isopropyl alcohol; isopropanol  
butanone; ethyl methyl ketone  
(R)-p-mentha-1,8-diene; d-limonene

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**Signal word:**

Danger

**Pictograms:**



### Hazard statements

H222	Extremely flammable aerosol.
H229	Pressurised container: May burst if heated.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.

### Precautionary statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P391	Collect spillage.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

### 2.3. Other hazards

Endocrine disrupting properties: butanone; ethyl methyl ketone.  
 The substance is included in one of the lists of endocrine disruptors (list II, Health hazard).  
 The substances in the mixture (> 0.1%) do not meet the PBT/vPvB criteria according to UK REACH.

In case of insufficient ventilation and/or through use, explosive/highly flammable mixtures may develop.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

#### Hazardous components

CAS No	Chemical name	Quantity
EC No	GHS Classification	
REACH No		
Index No		
921-024-6		
01-2119475514-35	Flam. Liq. 2, Skin Irrit. 2, STOT SE 3, Asp. Tox. 1, Aquatic Chronic 2; H225 H315 H336 H304 H411	
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol	10 - 25 %

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200-661-7	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336	
603-117-00-0		
78-93-3	butanone; ethyl methyl ketone	10 - 25 %
201-159-0	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336 EUH066	
01-2119457290-43		
606-002-00-3		
74-98-6	propane	0,5 - 2,5 %
200-827-9	Flam. Gas 1, Compressed gas; H220 H280	
01-2119486944-21		
601-003-00-5		
75-28-5	isobutane	0,5 - 2,5 %
200-857-2	Flam. Gas 1, Compressed gas; H220 H280	
01-2119485395-27		
601-004-00-0		
106-97-8	butane	0,5 - 2,5 %
203-448-7	Flam. Gas 1, Compressed gas; H220 H280	
01-2119474691-32		
601-004-00-0		
124-38-9	carbon dioxide	0,5 - 2,5 %
204-696-9	Compressed gas; H280	
5989-27-5	(R)-p-mentha-1,8-diene; d-limonene	1 - < 2,5 %
227-813-5	Flam. Liq. 3, Skin Irrit. 2, Skin Sens. 1B, Asp. Tox. 1, Aquatic Acute 1, Aquatic Chronic 3; H226 H315 H317 H304 H400 H412	
01-2119529223-47		
601-096-00-2		

Full text of H and EUH statements: see section 16.

### Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
	921-024-6	Hydrocarbons, C6-C7, n-alkanes, iso-alkanes, cyclics, <5% n-hexane	50 - 100 %
		inhalation: LC50 = > 25,2 mg/l (vapours); dermal: LD50 = >2000 mg/kg; oral: LD50 = >2000 mg/kg	
67-63-0	200-661-7	propan-2-ol; isopropyl alcohol; isopropanol	10 - 25 %
		dermal: LD50 = 13900 mg/kg; oral: LD50 = 5840 mg/kg	
78-93-3	201-159-0	butanone; ethyl methyl ketone	10 - 25 %
		dermal: LD50 = >2000 mg/kg; oral: LD50 = >2000 mg/kg	

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74-98-6	200-827-9	propane	0,5 - 2,5 %
		inhalation: LC50 = 800000 ppm (gases)	
75-28-5	200-857-2	isobutane	0,5 - 2,5 %
		inhalation: LC50 = 520400 (120 min) ppm (gases)	
106-97-8	203-448-7	butane	0,5 - 2,5 %
		inhalation: LC50 = >800000 (15min) ppm (gases)	
5989-27-5	227-813-5	(R)-p-mentha-1,8-diene; d-limonene	1 - < 2,5 %
		dermal: LD50 = > 5000 mg/kg; oral: LD50 = > 2000 mg/kg Aquatic Acute 1; H400: M=1	

### Labelling for contents according to Regulation (EC) No 648/2004

>= 30 % aliphatic hydrocarbons, perfumes (Limonene).

### Further Information

Product does not contain listed SVHC substances > 0.1 % according to UK REACH.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General information

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

#### After inhalation

In case of accident by inhalation: remove casualty to fresh air and keep at rest. In case of respiratory tract irritation, consult a physician.

#### After contact with skin

After contact with skin, wash immediately with plenty of water and soap. In case of skin irritation, seek medical treatment.

#### After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water. In case of troubles or persistent symptoms, consult an ophthalmologist.

#### After ingestion

If swallowed, immediately drink: Water. Never give anything by mouth to an unconscious person or a person with cramps. Do NOT induce vomiting. Caution if victim vomits: Risk of aspiration! Call a physician immediately.

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

No information available.

### 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 powder. Alcohol resistant foam. Atomized water.

#### Unsuitable extinguishing media

High power water jet.

### 5.2. Special hazards arising from the substance or mixture

Combustible. Vapours may form explosive mixtures with air. Can be released in case of fire: Carbon dioxide

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(CO<sub>2</sub>). Carbon monoxide (CO).

### **5.3. Advice for firefighters**

In case of fire: Wear self-contained breathing apparatus.

### **Additional information**

Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet. Contaminated fire-fighting water must be collected separately. Do not allow to enter into surface water or drains. In case of fire and/or explosion do not breathe fumes.

## SECTION 6: Accidental release measures

### **6.1. Personal precautions, protective equipment and emergency procedures**

#### **General advice**

Ventilate affected area. Remove all sources of ignition. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes.

#### **For non-emergency personnel**

Wear personal protection equipment (refer to section 8).

#### **For emergency responders**

Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.

### **6.2. Environmental precautions**

Do not allow to enter into surface water or drains. Explosion hazard. Eliminate leaks immediately. Prevent spread over a wide area (e.g. by containment or oil barriers). In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

### **6.3. Methods and material for containment and cleaning up**

#### **For containment**

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

Treat the recovered material as prescribed in the section on waste disposal.

#### **For cleaning up**

Clean contaminated objects and areas thoroughly observing environmental regulations.

### **6.4. Reference to other sections**

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

## SECTION 7: Handling and storage

### **7.1. Precautions for safe handling**

#### **Advice on safe handling**

Use only in well-ventilated areas. Take precautionary measures against static discharges. Do not spray on naked flames or any incandescent material. Due to danger of explosion, prevent leakage of vapours into cellars, flues and ditches.

Wear suitable protective clothing. (See section 8.)

#### **Advice on protection against fire and explosion**

Keep away from sources of ignition. - No smoking. Heating causes rise in pressure with risk of bursting.

#### **Advice on general occupational hygiene**

Always close containers tightly after the removal of product.

Do not eat, drink, smoke or sneeze at the workplace.

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Wash hands before breaks and after work.

### Further information on handling

General protection and hygiene measures: refer to chapter 8

### 7.2. Conditions for safe storage, including any incompatibilities

#### Requirements for storage rooms and vessels

Keep container tightly closed in a cool, well-ventilated place. Keep away from sources of ignition. - No smoking.  
Provide adequate ventilation.

#### Hints on joint storage

Do not store together with: Explosives. Flammable solids. Pyrophoric liquids and solids. Self-heating substances and mixtures. Substances and mixtures which, in contact with water, emit flammable gases. Oxidizing liquids. Oxidizing solids. Self-reactive substances and mixtures. Organic peroxides. Radioactive substances.  
Infectious substances.

#### Further information on storage conditions

Recommended storage temperature: 10-30 °C. Do not store at temperatures over: 50 °C  
Note: Storage requirements for flammable aerosols.

### 7.3. Specific end use(s)

See section 1.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Exposure limits (EH40)

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
78-93-3	Butan-2-one (methyl ethyl ketone)	200	600		TWA (8 h)	WEL
		300	899		STEL (15 min)	WEL
106-97-8	Butane	600	1450		TWA (8 h)	WEL
		750	1810		STEL (15 min)	WEL
124-38-9	Carbon dioxide	5000	9150		TWA (8 h)	WEL
		15000	27400		STEL (15 min)	WEL
67-63-0	Propan-2-ol	400	999		TWA (8 h)	WEL
		500	1250		STEL (15 min)	WEL

#### Biological Monitoring Guidance Values (EH40)

CAS No	Substance	Parameter	Value	Test material	Sampling time
78-93-3	Butan-2-one	butan-2-one	70 µmol/L	urine	Post shift

#### DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
	Hydrocarbons, C6-C7, n-alkanes, iso-alkanes, cyclics, <5% n-hexane			
Worker DNEL, long-term		inhalation	systemic	2 035 mg/m <sup>3</sup>

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Worker DNEL, long-term	dermal	systemic	773 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	608 mg/m <sup>3</sup>
Consumer DNEL, long-term	dermal	systemic	699 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic	699 mg/kg bw/day
78-93-3	butanone; ethyl methyl ketone		
Worker DNEL, long-term	dermal	systemic	1161 mg/kg bw/day
Worker DNEL, long-term	inhalation	systemic	600 mg/m <sup>3</sup>
Consumer DNEL, long-term	inhalation	systemic	106 mg/m <sup>3</sup>
Consumer DNEL, long-term	dermal	systemic	412 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic	31 mg/kg bw/day
5989-27-5	(R)-p-mentha-1,8-diene; d-limonene		
Worker DNEL, long-term	inhalation	systemic	66,7 mg/m <sup>3</sup>
Worker DNEL, long-term	dermal	systemic	9,5 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	16,6 mg/m <sup>3</sup>
Consumer DNEL, long-term	dermal	systemic	4,8 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic	4,8 mg/kg bw/day

### PNEC values

CAS No	Substance		Value
78-93-3	butanone; ethyl methyl ketone		
	Freshwater		55,8 mg/l
	Marine water		55,8 mg/l
	Freshwater sediment		285 mg/kg
	Marine sediment		284,7 mg/kg
	Secondary poisoning		1000 mg/kg
	Micro-organisms in sewage treatment plants (STP)		709 mg/l
	Soil		22,5 mg/kg
5989-27-5	(R)-p-mentha-1,8-diene; d-limonene		
	Freshwater		0,014 mg/l
	Marine water		0,0014 mg/l
	Freshwater sediment		3,85 mg/kg
	Marine sediment		0,385 mg/kg
	Secondary poisoning		133 mg/kg
	Micro-organisms in sewage treatment plants (STP)		1,8 mg/l
	Soil		0,763 mg/kg

### 8.2. Exposure controls

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### Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment.

If local exhaust ventilation is not possible or not sufficient, the entire working area should be ventilated by technical means.

### Individual protection measures, such as personal protective equipment

#### Eye/face protection

Wear safety glasses; chemical goggles (if splashing is possible).

#### Hand protection

In case of prolonged or frequently repeated skin contact: Wear suitable gloves.

Suitable material:

NBR (Nitrile rubber). - Thickness of glove material: 0,35 mm

Breakthrough time  $\geq$  8 h

The selected protective gloves have to satisfy the specifications of the Personal Protective Equipment at Work (Amendment) Regulations 2022 and the standard EN ISO 374.

Check leak tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well.

#### Skin protection

Protective clothing.

Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500 (D).

#### Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required.

Respiratory protection necessary at:

Exceeding exposure limit values

Insufficient ventilation

Suitable respiratory protective equipment: Class: FFA2P3D, EN405:2002

Use only respiratory protection equipment with CE-symbol including four digit test number.

#### Thermal hazards

No special precautionary measures are necessary.

#### Environmental exposure controls

Do not allow uncontrolled discharge of product into the environment.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state:	Aerosol	
Colour:	colourless	
Odour:	characteristic	
Odour threshold:	not determined	
Melting point/freezing point:		not determined
Boiling point or initial boiling point and boiling range:		not determined
Flammability:		not determined



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Lower explosion limits:	0,6 vol. %
Upper explosion limits:	12 vol. %
Flash point:	-60 °C
Auto-ignition temperature:	not determined
Decomposition temperature:	not determined
pH-Value:	not determined
Viscosity / kinematic:	not determined
Water solubility:	insoluble
Solubility in other solvents	
Soluble in: Hydrocarbons	
Dissolution rate:	not relevant
Partition coefficient n-octanol/water:	not determined
Dispersion stability:	not relevant
Vapour pressure:	4100 hPa
(at 20 °C)	
Density (at 20 °C):	0,69 g/cm <sup>3</sup>
Bulk density:	not determined
Relative vapour density:	not determined
Particle characteristics:	not determined

### 9.2. Other information

#### Information with regard to physical hazard classes

##### Explosive properties

In case of insufficient ventilation and/or through use, explosive/highly flammable mixtures may develop.

##### Sustaining combustion:

No data available

##### Self-ignition temperature

###### Solid:

not relevant

###### Gas:

not determined

##### Oxidizing properties

none

#### Other safety characteristics

##### Evaporation rate:

not determined

##### Solvent separation test:

not determined

##### Solvent content:

not determined

##### Solid content:

not determined

##### Sublimation point:

not determined

##### Softening point:

not determined

##### Pour point:

not determined

##### Viscosity / dynamic:

not determined

##### Flow time:

not determined

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No information available.

### 10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

### 10.3. Possibility of hazardous reactions

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Refer to chapter 10.5.

Pressurised container: May burst if heated.

### 10.4. Conditions to avoid

Keep away from heat.

Ignition hazard.

Heating causes rise in pressure with risk of bursting.

### 10.5. Incompatible materials

Oxidizing agents, strong.

### 10.6. Hazardous decomposition products

Carbon dioxide (CO<sub>2</sub>). Carbon monoxide Hydrocarbons

### Further information

In use, may form flammable/explosive vapour-air mixture.

## SECTION 11: Toxicological information

### 11.1. Information on hazard classes as defined in GB CLP Regulation

#### Toxicokinetics, metabolism and distribution

No information available.

#### Acute toxicity

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

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
	Hydrocarbons, C6-C7, n-alkanes, iso-alkanes, cyclics, <5% n-hexane				
	oral	LD50 mg/kg >2000	Rat.	ECHA dossier	read-across
	dermal	LD50 mg/kg >2000	Rabbit	ECHA dossier	read-across
	inhalation (4 h) vapour	LC50 mg/l > 25,2	Rat.	ECHA dossier	OECD 403
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol				
	oral	LD50 mg/kg 5840	Rat	ECHA dossier	
	dermal	LD50 mg/kg 13900	Rabbit	ECHA dossier	
78-93-3	butanone; ethyl methyl ketone				
	oral	LD50 mg/kg >2000	Rat	ECHA dossier	
	dermal	LD50 mg/kg >2000	Rabbit	ECHA dossier	
74-98-6	propane				
	inhalation gas	LC50 ppm 800000	Rat	ECHA dossier	15 min
75-28-5	isobutane				
	inhalation gas	LC50 (120 min) ppm 520400	Mouse.	ECHA dossier	

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106-97-8	butane				
	inhalation gas	LC50 >800000 (15min) ppm		ECHA dossier	
5989-27-5	(R)-p-mentha-1,8-diene; d-limonene				
	oral	LD50 > 2000 mg/kg	Rat	ECHA dossier	OECD 423
	dermal	LD50 > 5000 mg/kg	Rabbit	ECHA dossier	Read-across

### Irritation and corrosivity

Causes skin irritation.  
Causes serious eye irritation.

### Sensitising effects

May cause an allergic skin reaction. ((R)-p-mentha-1,8-diene; d-limonene)

### Carcinogenic/mutagenic/toxic effects for reproduction

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

propan-2-ol; isopropyl alcohol; isopropanol:

In-vitro mutagenicity:

Method:

-OECD Guideline 471 (Bacterial Reverse Mutation Assay)  
-OECD Guideline 474: Mammalian Erythrocyte Micronucleus Test  
Result: negative.

Literature information: ECHA dossier;

Carcinogenicity: No indications of human carcinogenicity exist.

Literature information: ECHA dossier

Reproductive toxicity:

Method: OECD Guideline 415 (One-Generation Reproduction Toxicity Study)

Species: Rat

Result: NOAEL = 853 mg/kg

Literature information: ECHA dossier

Developmental toxicity/teratogenicity:

Method: (oral. ) OECD Guideline 414 (Prenatal Developmental Toxicity Study)

Species: Rabbit

Result: NOAEL = 480 mg/kg

Literature information: ECHA dossier

butanone; ethyl methyl ketone:

In-vitro mutagenicity: Method: OECD Guideline 471 (Bacterial Reverse Mutation Assay); Result: negative.

Literature information: ECHA dossier

Reproductive toxicity: (read-across); Method: OECD Guideline 416 (Two-Generation Reproduction Toxicity Study); Species: Rat.; Results: NOAEL = 1644 mg/kg

Literature information: ECHA dossier

Developmental toxicity/teratogenicity: Method: OECD Guideline 414 (Prenatal Developmental Toxicity Study);

Species: Rat.; Results: NOAEC = 1002 ppm

Literature information: ECHA dossier

propane:

In-vitro mutagenicity: Method: OECD Guideline 471 (Bacterial Reverse Mutation Assay) Result: negative.

Literature information: ECHA dossier

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Reproductive toxicity: Method: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)  
Species: Rat Exposure duration: 6 w. Results: NOAEC = 12000 ppm  
Literature information: ECHA dossier  
Developmental toxicity/teratogenicity: Method: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test) Species: Rat Results: NOAEC = 12000 ppm  
Literature information: ECHA dossier

isobutane:

In vitro mutagenicity/genotoxicity: No experimental indications of mutagenicity in-vitro exist. Reproductive toxicity: NOAEC = 3000 ppm (OECD Guideline 422) Developmental toxicity/teratogenicity: NOAEC = 9000 ppm (OECD Guideline 422)

Literature information: ECHA dossier

### STOT-single exposure

May cause drowsiness or dizziness. (Hydrocarbons, C6-C7, n-alkanes, iso-alkanes, cyclics, <5% n-hexane; propan-2-ol; isopropyl alcohol; isopropanol; butanone; ethyl methyl ketone)

### STOT-repeated exposure

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

Hydrocarbons, C6-C7, n-alkanes, iso-alkanes, cyclics, <5% n-hexane:

Subacute inhalative toxicity:

Method: -

Species: Rat

Exposure duration: 3 d.

Result: NOAEC = 4200 mg/m<sup>3</sup>.

Literature information: ECHA dossier

propan-2-ol; isopropyl alcohol; isopropanol:

Chronic inhalative toxicity (Rat): NOAEC = 5000 ppm (OECD 451)

Literature information: ECHA dossier

butanone; ethyl methyl ketone:

Subchronic inhalation toxicity: Method: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day); Species:

Rat. ; Exposure duration: 90 d. Result: NOAEC = 5014 ppm

Literature information: ECHA dossier

propane:

Subacute inhalative toxicity: Method: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test) Species: Rat Exposure duration: 6 w. Result: NOAEC = 94000 ppm ( 7214 mg/m<sup>3</sup>)

Literature information: ECHA dossier

isobutane:

Method: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction/Developmental Toxicity Screening Test); Result: NOAEC = 4000 ppm

Literature information: ECHA dossier

### Aspiration hazard

May be fatal if swallowed and enters airways.

### Specific effects in experiment on an animal

No information available.

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### 11.2. Information on other hazards

#### Endocrine disrupting properties

Endocrine disrupting properties: butanone; ethyl methyl ketone.

The substance is included in one of the lists of endocrine disruptors (list II).

#### Other information

No data available.

## SECTION 12: Ecological information

### 12.1. Toxicity

The product has not been tested.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
	Hydrocarbons, C6-C7, n-alkanes, iso-alkanes, cyclics, <5% n-hexane					
	Acute fish toxicity	LC50 mg/l	11,4	96 h	Oncorhynchus mykiss	ECHA dossier OECD 203
	Acute algae toxicity	ErC50	30 mg/l	72 h	Pseudokirchneriella subcapitata	ECHA dossier OECD 201
	Acute crustacea toxicity	EC50	3 mg/l	48 h	Daphnia magna	ECHA dossier OECD 202
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol					
	Acute fish toxicity	LC50 mg/l	10000	96 h	Pimephales promelas	ECHA dossier OECD 203
	Acute algae toxicity	ErC50 mg/l	1800		Scenedesmus subspicatus	ECHA dossier
	Acute crustacea toxicity	EC50 mg/l	>10000	48 h	Daphnia magna	ECHA dossier OECD 202
78-93-3	butanone; ethyl methyl ketone					
	Acute fish toxicity	LC50 mg/l	1656	96 h	Pimephales promelas	ECHA dossier
	Acute algae toxicity	ErC50 mg/l	1982	72 h	Pseudokirchnerella subcapitata	ECHA dossier
	Acute crustacea toxicity	EC50	308 mg/l	48 h	Daphnia magna	ECHA dossier
	Acute bacteria toxicity	(EC50 mg/l)	1150		Pseudomonas putida (16h)	ECHA dossier
74-98-6	propane					
	Acute fish toxicity	LC50 mg/l	49,9	96 h	Fish	ECHA dossier
	Acute algae toxicity	ErC50 mg/l	19,37	96 h	algae	ECHA dossier
	Acute crustacea toxicity	EC50 mg/l	69,43	48 h	Daphnia magna	ECHA dossier
75-28-5	isobutane					
	Acute fish toxicity	LC50 mg/l	49,9	96 h	Fish	ECHA dossier
	Acute algae toxicity	ErC50 mg/l	19,37	96 h	algae	ECHA dossier
	Acute crustacea toxicity	EC50 mg/l	69,43	48 h	Daphnia magna	ECHA dossier

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106-97-8	butane					
	Acute fish toxicity	LC50 mg/l	49,9	96 h	Fish	ECHA dossier
	Acute algae toxicity	ErC50 mg/l	19,37	96 h	algae	ECHA dossier
	Acute crustacea toxicity	EC50 mg/l	69,43	48 h	Daphnia magna	ECHA dossier
5989-27-5	(R)-p-mentha-1,8-diene; d-limonene					
	Acute fish toxicity	LC50 mg/l	0,72	96 h	Pimephales promelas	ECHA dossier OECD 203
	Acute algae toxicity	ErC50 mg/l	0,32	72 h	Pseudokirchneriella subcapitata	ECHA dossier OECD 201
	Acute crustacea toxicity	EC50 mg/l	0,307	48 h	Daphnia magna	ECHA dossier OECD 202
	Acute bacteria toxicity	(EC50 mg/l)	209	3 h		ECHA dossier

### 12.2. Persistence and degradability

The product has not been tested.

CAS No	Chemical name				
	Method	Value	d	Source	
	Evaluation				
	Hydrocarbons, C6-C7, n-alkanes, iso-alkanes, cyclics, <5% n-hexane				
	OECD 301F / ISO 9408 / EEC 92/69 annex V, C.4-D	98%	28	ECHA dossier	
	Easily biodegradable (concerning to the criteria of the OECD)				
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol				
	EU Method C.5/ EU Method C.6	53 %	5	ECHA dossier	
	Easily biodegradable (concerning to the criteria of the OECD)				
78-93-3	butanone; ethyl methyl ketone				
	OECD 301D/ EEC 92/69/V, C.4-E	98%	28	ECHA dossier	
	Readily biodegradable (according to OECD criteria).				
5989-27-5	(R)-p-mentha-1,8-diene; d-limonene				
	OECD 301D / EEC 92/69 annex V, C.4-E	80 %	28	ECHA dossier	
	Easily biodegradable (concerning to the criteria of the OECD)				

### 12.3. Bioaccumulative potential

No indication of bioaccumulation potential.

#### Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
	Hydrocarbons, C6-C7, n-alkanes, iso-alkanes, cyclics, <5% n-hexane	2,89
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol	0,05
78-93-3	butanone; ethyl methyl ketone	0,29
74-98-6	propane	2,36
75-28-5	isobutane	1,09
106-97-8	butane	1,09
5989-27-5	(R)-p-mentha-1,8-diene; d-limonene	4,38

#### BCF

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CAS No	Chemical name	BCF	Species	Source
5989-27-5	(R)-p-mentha-1,8-diene; d-limonene	864,8		ECHA dossier

### 12.4. Mobility in soil

No information available.

### 12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

The aforementioned statement applies to substances contained in the product with a minimum content of 0.1 %.

### 12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

The aforementioned statement applies to substances contained in the product with a minimum content of 0.1 %.

Health hazard: SECTION 11: Toxicological information

### 12.7. Other adverse effects

No information available.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

#### **Disposal recommendations**

Dispose of waste according to applicable legislation.

Non-contaminated packages may be recycled.

According to (EWC) European Waste Catalogue, allocation of waste identity numbers/waste descriptions must be carried out in a specific way for every industry and process. Control report for waste code/ waste marking according to (EWC) European Waste Catalogue:

#### **List of Wastes Code - residues/unused products**

140603 WASTE ORGANIC SOLVENTS, REFRIGERANTS AND PROPELLANTS (EXCEPT 07 AND 08); waste organic solvents, refrigerants and foam/aerosol propellants; other solvents and solvent mixtures; hazardous waste

#### **List of Wastes Code - used product**

140603 WASTE ORGANIC SOLVENTS, REFRIGERANTS AND PROPELLANTS (EXCEPT 07 AND 08); waste organic solvents, refrigerants and foam/aerosol propellants; other solvents and solvent mixtures; hazardous waste

#### **List of Wastes Code - contaminated packaging**

150104 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); metallic packaging

#### **Contaminated packaging**

Handle contaminated packages in the same way as the substance itself.

## SECTION 14: Transport information

### **Land transport (ADR/RID)**

**14.1. UN number or ID number:** UN 1950

**14.2. UN proper shipping name:** AEROSOLS

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**14.3. Transport hazard class(es):** 2  
**14.4. Packing group:** -  
 Hazard label: 2.1

Classification code: 5F  
 Special Provisions: 190 327 344 625  
 Limited quantity: 1 L  
 Excepted quantity: E0  
 Transport category: 2  
 Tunnel restriction code: D



**Inland waterways transport (ADN)**  
**14.1. UN number or ID number:** UN 1950  
**14.2. UN proper shipping name:** AEROSOLS  
**14.3. Transport hazard class(es):** 2  
**14.4. Packing group:** -  
 Hazard label: 2.1

Classification code: 5F  
 Special Provisions: 190 327 344 625  
 Limited quantity: 1 L  
 Excepted quantity: E0



**Marine transport (IMDG)**  
**14.1. UN number or ID number:** UN 1950  
**14.2. UN proper shipping name:** AEROSOLS  
**14.3. Transport hazard class(es):** 2.1  
**14.4. Packing group:** -  
 Hazard label: 2.1

Marine pollutant: YES  
 Special Provisions: 63, 190, 277, 327, 344, 381, 959  
 Limited quantity: 1000 mL  
 Excepted quantity: E0  
 EmS: F-D, S-U



**Air transport (ICAO-TI/IATA-DGR)**  
**14.1. UN number or ID number:** UN 1950  
**14.2. UN proper shipping name:** AEROSOLS, FLAMMABLE  
**14.3. Transport hazard class(es):** 2.1  
**14.4. Packing group:** -  
 Hazard label: 2.1



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Special Provisions:	A145 A167 A802
Limited quantity Passenger:	30 kg G
Passenger LQ:	Y203
Excepted quantity:	E0
IATA-packing instructions - Passenger:	203
IATA-max. quantity - Passenger:	75 kg
IATA-packing instructions - Cargo:	203
IATA-max. quantity - Cargo:	150 kg

### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: Yes



Danger releasing substance: Hydrocarbons, C6-C7, n-alkanes, iso-alkanes, cyclics, <5% n-hexane

### 14.6. Special precautions for user

Refer to section 6 - 8

### 14.7. Maritime transport in bulk according to IMO instruments

not applicable

## SECTION 15: Regulatory information

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

#### EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 28, Entry 29, Entry 40, Entry 75

2010/75/EU (VOC):	not determined
2004/42/EC (VOC):	not determined
Information according to 2012/18/EU (SEVESO III):	P3a FLAMMABLE AEROSOLS
Additional information:	E2

#### Additional information

Safety Data Sheet according to UK-REACH Regulation  
 UK Aerosols Regulation  
 UK REACH Appendix XVII, No (mixture): 3, 40  
 The mixture is classified as hazardous according to GHS (GB CLP).

#### National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).  
 Water hazard class (D): 1 - slightly hazardous to water

### 15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out:  
 Hydrocarbons, C6-C7, n-alkanes, iso-alkanes, cyclics, <5% n-hexane  
 butanone; ethyl methyl ketone

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propane  
isobutane  
(R)-p-mentha-1,8-diene; d-limonene

### SECTION 16: Other information

#### Changes

Rev. 1,0; Initial release 23.04.2018  
Rev. 2,0; Revision 03.04.2020 Changes in chapter: 2-16  
Rev. 3,0; Revision 28.02.2023 Changes in chapter: 1-16

#### Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
CAS: Chemical Abstracts Service  
CLP: Classification, Labeling, Packaging  
DNEL: Derived No Effect Level  
d: day(s)  
EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
ECHA: European Chemicals Agency  
ECOSAR: Ecological Structure Activity Relationships  
EWC: European Waste Catalogue  
IARC: INTERNATIONAL AGENCY FOR RESEARCH ON CANCER  
IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)  
ICAO: International Civil Aviation Organization  
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)  
IUCLID: International Uniform Chemical Information Database  
GHS: Globally Harmonized System of Classification and Labelling of Chemicals  
GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)  
OECD: Organisation for Economic Co-operation and Development  
PNEC: Predicted No Effect Concentration  
PBT: Persistent, bio-cumulative, toxic  
QSAR: Quantitative Structure-Activity Relationship  
RID: Regulation Concerning the International Transport of Dangerous Goods by Rail  
RTECS: Registry of Toxic Effects of Chemical Substances  
SVHC: Substance of Very High Concern  
TRGS: Technische Regeln für Gefahrstoffe  
UN: United Nations  
vPvB: very persistent and very bio-cumulative  
VOC: Volatile Organic Compounds  
w: week(s)

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### Classification for mixtures and used evaluation method according to GB CLP Regulation

Classification	Classification procedure
Aerosol 1; H222-H229	On basis of test data
Asp. Tox. 1; H304	Calculation method
Skin Irrit. 2; H315	Bridging principle "Aerosols"
Eye Irrit. 2; H319	Bridging principle "Aerosols"
Skin Sens. 1; H317	Bridging principle "Aerosols"
STOT SE 3; H336	Bridging principle "Aerosols"
Aquatic Chronic 2; H411	Calculation method

### Relevant H and EUH statements (number and full text)

H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H229	Pressurised container: May burst if heated.
H280	Contains gas under pressure; may explode if heated.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

### Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*