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

1.1 Product identifier

Trade name

Sanifresh cleaning spray display

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

Relevant identified uses of the substance or mixture
Cleaner

Uses advised against
No data available.

1.3 Details of the supplier of the safety data sheet

Address
ROTHENBERGER Werkzeuge GmbH
Industriestraße 7
65779 Kelkheim

Telephone no. +49 (0) 61 95 / 800 - 1
Fax no. +49 (0) 6195 / 800 - 3500
e-mail info@rothenberger.com

Advice on Safety Data Sheet
sdb_info@umco.de

1.4 Emergency telephone number

For medical advice (in German and English):
+49 (0)551 192 40 (Giftinformationszentrum Nord)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification in accordance with Regulation (EC) No 1272/2008 (CLP)
Aerosol 1; H222
Eye Irrit. 2; H319

Classification information
This product is assessed and classified using the methods and criteria below referred to in Article 9 of Regulation (EC) n° 1272/2008:
Physical hazards: determined through assessment data based on the methods or standards referred to in part 2 of Annex I to CLP
Health hazards and environmental hazards: determined through toxicological and ecotoxicological assessment data based on the methods or standards referred to in Part 3, 4 and 5 of Annex I to CLP.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP Regulation)

Hazard pictograms


GHS02


GHS07

Signal word
Danger

Hazard statement(s)

H222	Extremely flammable aerosol.
H229	Pressurised container: May burst if heated.
H319	Causes serious eye irritation.

Hazard statements (EU)

EUH208	Contains (R)-p-mentha-1,8-diene, 3,7-dimethyloctan-3-ol, Lemon, ext., linalyl acetate. May produce an allergic reaction.

Precautionary statement(s)

P102	Keep out of reach of children.
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.
P280	Wear eye protection/face protection.
P337+P313	If eye irritation persists: Get medical advice/attention.
P410+P412	Protect from sunlight. Do no expose to temperatures exceeding 50°C/122°F.

2.3 Other hazards

Vapours can form an explosive mixture with air. This product does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

PBT assessment
According to the information provided in the supply chain, the mixture does not contain > 0.1% of a substance that is considered to be PBT.

vPvB assessment
According to the information provided in the supply chain, the mixture does not contain > 0.1% of a substance that is considered to be vPvB.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable. The product is not a substance.

3.2 Mixtures

Hazardous ingredients

No	Substance name		Additional information	
	CAS / EC / Index / REACH no	Classification (EC) 1272/2008 (CLP)	Concentration	%
1	**propane**			
	74-98-6 200-827-9 601-003-00-5 01-2119486944-21	Flam. Gas 1A; H220 Press. Gas liq.; H280	>= 25.00 - < 50.00	wt%
2	**butane**			
	106-97-8 203-448-7 601-004-00-0 01-2119474691-32	Flam. Gas 1A; H220 Press. Gas liq.; H280	>= 25.00 - < 50.00	wt%
3	**ethanol**			
	64-17-5 200-578-6 603-002-00-5 01-2119457610-43	Flam. Liq. 2; H225 Eye Irrit. 2; H319	>= 10.00 - < 25.00	wt%
4	**isobutane**			
	75-28-5 200-857-2 601-004-00-0 01-2119485395-27	Flam. Gas 1A; H220 Press. Gas liq.; H280	>= 10.00 - < 25.00	wt%
5	**propan-2-ol**			
	67-63-0 200-661-7 603-117-00-0 01-2119457558-25	Eye Irrit. 2; H319 Flam. Liq. 2; H225 STOT SE 3; H336	< 5.00	wt%
6	**didecyldimethylammonium-chloride**			

	7173-51-5 230-525-2 612-131-00-6 01-2119945987-15	Acute Tox. 3; H301 Skin Corr. 1B; H314 Eye Dam. 1; H318 Aquatic Acute 1; H400 Aquatic Chronic 2; H411	< 0.50	wt%

Full Text for all H-phrases and EUH-phrases: pls. see section 16

No	Note	Specific concentration limits	M-factor (acute)	M-factor (chronic)
1	U	-	-	-
2	C, U	-	-	-
3	-	Eye Irrit. 2; H319: C >= 50%	-	-
4	C, U	-	-	-
6	-	-	M = 10	-

Full text for the notes: pls. see section 16 “Notes relating to the identification, classification and labelling of substances ((EC) No 1272/2008, Annex VI)”.

Acute toxicity estimate (ATE) values			
No	**oral**	**dermal**	**inhalative**
6	265 mg/kg bodyweight	1001 mg/kg bodyweight	

SECTION 4: First aid measures

4.1 Description of first aid measures

General information
Remove contaminated clothing and shoes immediately, and launder thoroughly before reusing. In case of persisting adverse effects, consult a physician.

After inhalation
Remove affected persons from dangerous area by observing suitable respiratory protection measures. Ensure supply of fresh air. In case of persisting adverse effects consult a physician.

After skin contact
In case of contact with skin wash off with water. In case of frostbite, rinse with plenty of water. Do not remove clothing. Consult a doctor if skin irritation persists.

After eye contact
Remove contact lenses. Rinse eye thoroughly under running water keeping eyelids wide open and protecting the unaffected eye (at least 10 to 15 minutes). Get immediate ophthalmic treatment.

After ingestion
Rinse the mouth thoroughly with water. Do not induce vomiting. Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms
Frostbite

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media
Carbon dioxide; Extinguishing powder; Water spray jet; Foam

Unsuitable extinguishing media
High power water jet

5.2 Special hazards arising from the substance or mixture

In the event of fire, the following can be released: Carbon dioxide (CO2); Carbon monoxide (CO); In case of fire: danger of pressure build up, which could result in container rupture. Formation of explosive mixtures with air is possible.

5.3 Advice for firefighters

Use self-contained breathing apparatus. Wear protective clothing. Run-off water from fire fighting must not be discharged into drains or enter surface water. Drums can explode from steam pressure. Cool endangered containers with water spray jet.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel
Refer to protective measures listed in sections 7 and 8. Ensure adequate ventilation. Evacuate all unprotected personnel from the danger zone. Keep away from ignition sources.

For emergency responders
Personal protective equipment (PPE) - see section 8.

6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater. Do not discharge into the subsoil/soil.

6.3 Methods and material for containment and cleaning up

Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulations (see section 13). Ensure adequate ventilation.

6.4 Reference to other sections

Information regarding safe handling, see section 7. Information regarding personal protective measures, see section 8. Information regarding waste disposal, see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling
Risks inherent to handling the product must be minimised by applying the appropriate protective and preventive measures. Working processes should - so far as possible, according to the state of the art - be designed to rule out bodily contact or the release of hazardous substances. Ensure adequate ventilation. Open and handle container with care. Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50 °C. Do not pierce or burn, even after use.

General protective and hygiene measures
Do not eat, drink or smoke during work time. Keep away from foodstuffs and beverages. Do not inhale vapours. Avoid contact with eyes and skin. Wash hands before breaks and after work. Remove contaminated clothing and shoes and launder thoroughly before reusing.

Advice on protection against fire and explosion
Keep away from sources of heat and ignition. No sparking tools should be used. Take precautionary measures against static charges.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions
Keep container tightly closed and dry in a cool, well-ventilated place. Protect from heat and direct sunlight. Protect from temperatures over 50°C.

Recommended storage temperature

Value	<	50	°C

Requirements for storage rooms and vessels
Containers which are opened must be carefully closed and kept upright to prevent leakage. Keep only in the original container.

Incompatible products
Substances to be avoided, see section 10.

7.3 Specific end use(s)

No data available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

No	Substance name	CAS no.		EC no.	
1	**butane**	**106-97-8**		**203-448-7**	
	List of approved workplace exposure limits (WELs) / EH40				
	Butane				
	WEL short-term (15 min reference period)	1810	mg/m³	750	ppm
	WEL long-term (8-hr TWA reference period)	1450	mg/m³	600	ppm
	Comments	Carc, (only applies if Butane contains more than 0.1% of buta-1,3-diene)			
2	**ethanol**	**64-17-5**		**200-578-6**	
	List of approved workplace exposure limits (WELs) / EH40				
	Ethanol				
	WEL long-term (8-hr TWA reference period)	1920	mg/m³	1000	ppm
3	**propan-2-ol**	**67-63-0**		**200-661-7**	
	List of approved workplace exposure limits (WELs) / EH40				
	Propan-2-ol				
	WEL short-term (15 min reference period)	1250	mg/m³	500	ppm
	WEL long-term (8-hr TWA reference period)	999	mg/m³	400	ppm

DNEL, DMEL and PNEC values

DNEL values (worker)

No	Substance name			CAS / EC no	
	Route of exposure	**Exposure time**	**Effect**	**Value**	
1	**ethanol**			**64-17-5 200-578-6**	
	dermal	Long term (chronic)	systemic	8238	mg/kg/day
	inhalative	Long term (chronic)	systemic	380	mg/m³
2	**propan-2-ol**			**67-63-0 200-661-7**	
	dermal	Long term (chronic)	systemic	888	mg/kg/day
	inhalative	Long term (chronic)	systemic	500	mg/m³

DNEL value (consumer)

No	Substance name			CAS / EC no	
	Route of exposure	**Exposure time**	**Effect**	**Value**	
1	**ethanol**			**64-17-5 200-578-6**	
	inhalative	Long term (chronic)	systemic	114	mg/m³
2	**propan-2-ol**			**67-63-0 200-661-7**	
	oral	Long term (chronic)	systemic	26	mg/kg/day
	dermal	Long term (chronic)	systemic	319	mg/kg/day
	inhalative	Long term (chronic)	systemic	89	mg/m³

PNEC values

No	Substance name		CAS / EC no	
	ecological compartment	**Type**	**Value**	
1	**ethanol**		**64-17-5 200-578-6**	
	water	fresh water	0.96	mg/L
	water	marine water	0.79	mg/L
	water	fresh water sediment	3.6	mg/kg dry weight
	water	marine water sediment	2.9	mg/L
	soil	-	0.63	mg/kg dry weight
	sewage treatment plant	-	580	mg/L

	secondary poisoning	-	0.38	g/kg
	with reference to: food			
2	**propan-2-ol**		**67-63-0** **200-661-7**	
	soil	-	28	mg/kg
	sewage treatment plant	-	2251	mg/L
	secondary poisoning	-	160	mg/kg
	with reference to: food			
3	**didecyldimethylammonium-chloride**		**7173-51-5** **230-525-2**	
	water	fresh water	1.1	µg/L
	water	marine water	0.11	µg/L
	water	fresh water sediment	61.86	mg/kg dry weight
	water	marine water sediment	6.186	mg/kg dry weight
	soil	-	1.4	mg/kg dry weight
	sewage treatment plant	-	0.15	mg/L

8.2 Exposure controls

Appropriate engineering controls
Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapour below the OEL (=Occupational Exposure Limit), suitable respiratory protection must be worn.

Personal protective equipment

Respiratory protection
If workplace exposure limits are exceeded, a respiration protection approved for this particular job must be worn. In case of aerosol and mist formation, take appropriate measures for breathing protection in the event workplace threshold values are not specified.
Respiratory filter (gas) : AX
Respiratory filter (part): P

Eye / face protection
Safety glasses with side protection shield (EN 166)

Hand protection
Sufficient protection is given wearing suitable protective gloves checked according to i.e. EN 374, in the event of risk of skin contact with the product. Before use, the protective gloves should be tested in any case for its specific work-station suitability (i.e. mechanical resistance, product compatibility and antistatic properties). Adhere to the manufacturer's instructions and information relating to the use, storage, care and replacement of protective gloves. Protective gloves shall be replaced immediately when physically damaged or worn. Design operations thus to avoid permanent use of protective gloves.

Other
Chemical-resistant work clothes.

Environmental exposure controls
No data available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

State of aggregation
liquid

Form
Aerosol

Colour
colourless

Odour

characteristic

pH value
No data available

Boiling point / boiling range
No data available

Melting point/freezing point
No data available

Decomposition temperature
No data available

Flash point
No data available

Ignition temperature
No data available

Flammability
No data available

Lower explosion limit
No data available

Upper explosion limit
No data available

Vapour pressure
No data available

Relative vapour density
No data available

Relative density		
Value	0.6	
Source	supplier	

Density		
Value	0.6	g/cm³
Reference temperature	20	°C
Source	supplier	

Solubility in water	
Source	supplier
Comments	soluble

Solubility
No data available

Partition coefficient n-octanol/water (log value)			
No	**Substance name**	**CAS no.**	**EC no.**
1	**propane**	**74-98-6**	**200-827-9**
log Pow	appr.	1.8	
Method	QSAR		
Source	ECHA		
2	**ethanol**	**64-17-5**	**200-578-6**
log Pow		-0.35	
Reference temperature		24	°C
with reference to	pH 7,4		
Method	OECD 107		
Source	ECHA		
3	**isobutane**	**75-28-5**	**200-857-2**
log Pow		2.80	
Reference temperature		20	°C
with reference to	pH 7		
Source	ECHA		

4	propan-2-ol	67-63-0	200-661-7
log Pow		0.05	
Reference temperature		25	°C
Source	ECHA		
5	**didecyldimethylammonium-chloride**	**7173-51-5**	**230-525-2**
log Pow	appr.	2.59	
Reference temperature		20	°C
Method	OECD 105		
Source	ECHA		

Kinematic viscosity
No data available

Particle characteristics
No data available

9.2 Other information

Other information
No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity
Dangerous reactions are not expected if the product is handled according to its intended use.

10.2 Chemical stability
Stable under recommended storage and handling conditions (See section 7).

10.3 Possibility of hazardous reactions
May react violently with oxygen-rich (oxidizing) material. Risk of explosion.

10.4 Conditions to avoid
Heat, naked flames or other ignition sources, electrostatic charge and discharge, formation of vapours/aerosols.

10.5 Incompatible materials
Oxidizing agents; Reducing agents; Acids; Bases; Alkali metal; Ammonia

10.6 Hazardous decomposition products
None if stored, handled and transported properly. In case of fire: see section 5.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute oral toxicity (result of the ATE calculation for the mixture)	
No	**Product Name**
1	**Sanifresh cleaning spray display**
Comments	The result of the applied calculation method according to the European Regulation (EC) 1272/2008 (CLP), Paragraph 3.1.3.6, Part 3 of Annex I is outside the values that imply a classification / labelling of this mixture according to table 3.1.1 defining the respective categories (ATE oral > 2000 mg/kg).

Acute oral toxicity			
No	**Substance name**	**CAS no.**	**EC no.**
1	**ethanol**	**64-17-5**	**200-578-6**
LD50		10470	mg/kg bodyweight
Species	rat		
with reference to	95% ethanol in water		
Method	OECD 401		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		
2	**propan-2-ol**	**67-63-0**	**200-661-7**
LD50		5840	mg/kg bodyweight

Species	rat
Method	OECD 401
Source	ECHA
Evaluation/classification	Based on available data, the classification criteria are not met.

3	didecyldimethylammonium-chloride	7173-51-5	230-525-2	
LD50		264		mg/kg bodyweight
Species	rat			
Method	OECD 401			
Source	ECHA			

Acute dermal toxicity				
No	**Substance name**	**CAS no.**	**EC no.**	
1	**didecyldimethylammonium-chloride**	**7173-51-5**	**230-525-2**	
LD50		> 1000		mg/kg bodyweight
Species	rat			
Method	OECD 402			
Source	ECHA			

Acute inhalational toxicity				
No	**Substance name**	**CAS no.**	**EC no.**	
1	**propane**	**74-98-6**	**200-827-9**	
LC50		> 800000		ppmV
Duration of exposure		0.25		h
State of aggregation	Gas			
Species	rat			
Source	ECHA			
Evaluation/classification	Based on available data, the classification criteria are not met.			
2	**ethanol**	**64-17-5**	**200-578-6**	
LC50		124.7		mg/l
Duration of exposure		4		h
State of aggregation	Vapour			
Species	rat			
Method	OECD 403			
Source	ECHA			
Evaluation/classification	Based on available data, the classification criteria are not met.			
3	**isobutane**	**75-28-5**	**200-857-2**	
LC50		520400		ppmV
Duration of exposure		2		h
State of aggregation	Gas			
Species	mouse			
Source	ECHA			
Evaluation/classification	Based on available data, the classification criteria are not met.			
4	**propan-2-ol**	**67-63-0**	**200-661-7**	
LC50		> 10000		ppmV
Duration of exposure		6		h
State of aggregation	Vapour			
Species	rat			
Method	OECD 403			
Source	ECHA			
Evaluation/classification	Based on available data, the classification criteria are not met.			

Skin corrosion/irritation			
No	**Substance name**	**CAS no.**	**EC no.**
1	**ethanol**	**64-17-5**	**200-578-6**
Species	rabbit		
Method	OECD 404		
Source	ECHA		
Evaluation	non-irritant		
Evaluation/classification	Based on available data, the classification criteria are not met.		
2	**propan-2-ol**	**67-63-0**	**200-661-7**
Species	rabbit		
Source	ECHA		
Evaluation	non-irritant		

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

3	didecyldimethylammonium-chloride	7173-51-5	230-525-2
Species	rabbit		
Method	OECD 404		
Source	ECHA		
Evaluation	corrosive		
Evaluation/classification	Based on available data, the classification criteria are not met.		

Serious eye damage/irritation			
No	**Substance name**	**CAS no.**	**EC no.**
1	**ethanol**	**64-17-5**	**200-578-6**
Species	rabbit		
Method	OECD 405		
Source	ECHA		
Evaluation	irritant		
Evaluation/classification	Based on available data, the classification criteria are met.		
2	**propan-2-ol**	**67-63-0**	**200-661-7**
Species	rabbit		
Method	OECD 405		
Source	ECHA		
Evaluation	irritant		
Evaluation/classification	Based on available data, the classification criteria are met.		

Respiratory or skin sensitisation			
No	**Substance name**	**CAS no.**	**EC no.**
1	**ethanol**	**64-17-5**	**200-578-6**
Route of exposure	respiratory tract		
Source	ECHA		
Evaluation	non-sensitizing		
Evaluation/classification	Based on available data, the classification criteria are not met.		
Route of exposure	Skin		
Species	mouse		
Source	ECHA		
Evaluation	non-sensitizing		
Evaluation/classification	Based on available data, the classification criteria are not met.		
2	**propan-2-ol**	**67-63-0**	**200-661-7**
Route of exposure	Skin		
Species	guinea pig		
Method	OECD 406		
Source	ECHA		
Evaluation	non-sensitizing		
Evaluation/classification	Based on available data, the classification criteria are not met.		
3	**didecyldimethylammonium-chloride**	**7173-51-5**	**230-525-2**
Route of exposure	Skin		
Species	guinea pig		
Method	OECD 406		
Source	ECHA		
Evaluation	non-sensitizing		

Germ cell mutagenicity			
No	**Substance name**	**CAS no.**	**EC no.**
1	**butane**	**106-97-8**	**203-448-7**
Type of examination	In vitro Mammalian Chromosomal Aberration Test		
Species	Human Lymphocyte		
Method	OECD 473		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		
Type of examination	in vitro gene mutation study in bacteria		
Species	Salmonella typhimurium		
Method	OECD 471		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		

2	ethanol	64-17-5	200-578-6
Type of examination	in vitro gene mutation study in bacteria		
Species	Salmonella typhimurium		
Method	OECD 471		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		
Type of examination	in vitro gene mutation study in mammalian cells		
Species	mouse lymphoma cells		
Method	OECD 476		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		
Type of examination	Genotoxicity in vivo		
Species	mouse		
Method	OECD 478		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		
3	**isobutane**	**75-28-5**	**200-857-2**
Type of examination	in vitro gene mutation study in bacteria		
Species	Salmonella typh. TA98, TA100, TA1535, TA1537, TA1538		
Method	Value taken from the literature		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		
4	**propan-2-ol**	**67-63-0**	**200-661-7**
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		
5	**didecyldimethylammonium-chloride**	**7173-51-5**	**230-525-2**
Type of examination	in vitro gene mutation study in bacteria		
Species	S. typhimurium TA 1535, TA 1537, TA 98 and TA 100		
Method	OECD 471		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		

Reproduction toxicity			
No	**Substance name**	**CAS no.**	**EC no.**
1	**propane**	**74-98-6**	**200-827-9**
Route of exposure	inhalational		
NOAEC	12000 ppm		
Type of examination	Combined Repeated Dose Toxicity Study with the Reproduction/Developmental Toxicity Screening Test		
Species	rat		
Method	OECD 422		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		
2	**butane**	**106-97-8**	**203-448-7**
Route of exposure	inhalational		
Species	rat		
Method	OECD 422		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		
3	**ethanol**	**64-17-5**	**200-578-6**
Route of exposure	oral		
NOAEL			
Type of examination	2 generation study		
Species	mouse		
Method	OECD 416		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		
Route of exposure	inhalational		
NOAEL	>= 20000 ppm		
Type of examination	Prenatal Developmental Toxicity Study		
Species	rat		
Method	OECD 414		

Source	ECHA
Evaluation/classification	Based on available data, the classification criteria are not met.

4	**isobutane**	**75-28-5**	**200-857-2**
Route of exposure	inhalational		
NOAEC	9000	ppm	
Type of examination	Combined Repeated Dose Toxicity Study with the Reproduction/Developmental Toxicity Screening Test		
Species	rat		
Method	OECD 422		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		

5	**propan-2-ol**	**67-63-0**	**200-661-7**
Route of exposure	oral		
NOAEL	1000	mg/kg bw/d	
Type of examination	Two-Generation Reproduction Toxicity Study		
Species	rats (male/female)		
Method	OECD 416		
Source	ECHA		
Evaluation/classification	Based on the available data, the classification criteria are not met.		

6	**didecyldimethylammonium-chloride**	**7173-51-5**	**230-525-2**
Route of exposure	oral		
NOAEL	appr. 1500	ppm	
Species	rat		
Method	OECD 416		
Source	ECHA		

Carcinogenicity

No	**Substance name**	**CAS no.**	**EC no.**
1	**ethanol**	**64-17-5**	**200-578-6**
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		

2	**propan-2-ol**	**67-63-0**	**200-661-7**
Route of exposure	inhalational		
NOEL	5000	ppm	
Species	rats (male/female)		
Method	OECD 451		
Source	ECHA		

3	**didecyldimethylammonium-chloride**	**7173-51-5**	**230-525-2**
Route of exposure	oral		
Species	rat		
Method	OECD 453		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		

STOT - single exposure

No data available

STOT - repeated exposure

No	**Substance name**	**CAS no.**	**EC no.**
1	**propane**	**74-98-6**	**200-827-9**
Route of exposure	inhalational		
LOAEC	12000	ppm	
Species	rat		
Method	OECD 422		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		

2	**butane**	**106-97-8**	**203-448-7**
Route of exposure	inhalational		
Species	rat		
Method	OECD 422		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		

3	ethanol	64-17-5	200-578-6
Route of exposure	oral		
Duration of exposure		14	week/s
Species	rat		
Target organ	kidneys		
Method	OECD 408		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		
4	**isobutane**	**75-28-5**	**200-857-2**
Route of exposure	inhalational		
		9000	ppm
Species	rat		
Method	OECD 422		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		
5	**propan-2-ol**	**67-63-0**	**200-661-7**
Route of exposure	inhalational		
NOAEC		12500	mg/m³
Species	rat		
Method	OECD 451		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		

Aspiration hazard
No data available

11.2 Information on other hazards

Endocrine disrupting properties
No data available.

Other information
No data available.

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish (acute)			
No	**Substance name**	**CAS no.**	**EC no.**
1	**ethanol**	**64-17-5**	**200-578-6**
LC50		14200	mg/l
Duration of exposure		96	h
Species	Pimephales promelas		
Method	EPA		
Source	ECHA		
2	**propan-2-ol**	**67-63-0**	**200-661-7**
LC50		9640	mg/l
Duration of exposure		96	h
Species	Pimephales promelas		
Method	OECD 203		
Source	ECHA		
3	**didecyldimethylammonium-chloride**	**7173-51-5**	**230-525-2**
LC50		0.49	mg/l
Duration of exposure		96	h
Species	Danio rerio		
Method	OECD 203 / ISO 7348 / EEC 84/449/V, C1		
Source	ECHA		

Toxicity to fish (chronic)
No data available

Toxicity to Daphnia (acute)			
No	**Substance name**	**CAS no.**	**EC no.**

1	ethanol	64-17-5		200-578-6
EC50			5012	mg/l
Duration of exposure			48	h
Species		Ceriodaphnia dubia		
Method		ASTM Standard E 729-80		
Source		ECHA		
2	**didecyldimethylammonium-chloride**	**7173-51-5**		**230-525-2**
EC50		appr.	0.029	mg/l
Duration of exposure			48	h
Species		Daphnia magna		
Method		OECD 202		
Source		ECHA		

Toxicity to Daphnia (chronic)				
No	**Substance name**	**CAS no.**		**EC no.**
1	**ethanol**	**64-17-5**		**200-578-6**
NOEC			9.6	mg/l
Duration of exposure			9	day(s)
Species		Daphnia magna		
Source		ECHA		
2	**didecyldimethylammonium-chloride**	**7173-51-5**		**230-525-2**
NOEC		appr.	0.021	mg/l
Duration of exposure			21	day(s)
Species		Daphnia magna		
Method		OECD 211		
Source		ECHA		

Toxicity to algae (acute)				
No	**Substance name**	**CAS no.**		**EC no.**
1	**ethanol**	**64-17-5**		**200-578-6**
EC50			275	mg/l
Duration of exposure			72	h
Species		Chlorella vulgaris		
Method		OECD 201		
Source		ECHA		
2	**didecyldimethylammonium-chloride**	**7173-51-5**		**230-525-2**
EC50		appr.	0.062	mg/l
Duration of exposure			72	h
Species		Pseudokirchneriella subcapitata		
Method		OECD 201		
Source		ECHA		

Toxicity to algae (chronic)
No data available

Bacteria toxicity
No data available

12.2 Persistence and degradability

Biodegradability				
No	**Substance name**	**CAS no.**		**EC no.**
1	**propane**	**74-98-6**		**200-827-9**
Type		aerobic biodegradation		
Value			50	%
Duration			3	d
Method		QSAR		
Source		ECHA		
Evaluation		readily biodegradable		
2	**butane**	**106-97-8**		**203-448-7**
Type		aerobic biodegradation		
Value			50	%
Duration			3.46	d
Method		QSAR		

Source	ECHA			
3	**ethanol**	**64-17-5**		**200-578-6**
Type	aerobic biodegradation			
Value	appr.	84	%	
Duration		20	day(s)	
Source	ECHA			
Evaluation	readily biodegradable			
4	**isobutane**	**75-28-5**		**200-857-2**
Type	aerobic biodegradation			
Value		50	%	
Duration		3.1	d	
Method	QSAR			
Source	ECHA			
Evaluation	readily biodegradable			
5	**propan-2-ol**	**67-63-0**		**200-661-7**
Type	BOD/COD			
Value		53	%	
Duration		5	day(s)	
Source	ECHA			
Evaluation	readily biodegradable			

12.3 Bioaccumulative potential

Partition coefficient n-octanol/water (log value)				
No	**Substance name**	**CAS no.**		**EC no.**
1	**propane**	**74-98-6**		**200-827-9**
log Pow	appr.	1.8		
Method	QSAR			
Source	ECHA			
2	**ethanol**	**64-17-5**		**200-578-6**
log Pow		-0.35		
Reference temperature		24	°C	
with reference to	pH 7,4			
Method	OECD 107			
Source	ECHA			
3	**isobutane**	**75-28-5**		**200-857-2**
log Pow		2.80		
Reference temperature		20	°C	
with reference to	pH 7			
Source	ECHA			
4	**propan-2-ol**	**67-63-0**		**200-661-7**
log Pow		0.05		
Reference temperature		25	°C	
Source	ECHA			
5	**didecyldimethylammonium-chloride**	**7173-51-5**		**230-525-2**
log Pow	appr.	2.59		
Reference temperature		20	°C	
Method	OECD 105			
Source	ECHA			

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

Results of PBT and vPvB assessment	
PBT assessment	According to the information provided in the supply chain, the mixture does not contain > 0.1% of a substance that is considered to be PBT.
vPvB assessment	According to the information provided in the supply chain, the mixture does not contain > 0.1% of a substance that is considered to be vPvB.

12.6 Endocrine disrupting properties

No data available.

12.7 Other adverse effects
No data available.

12.8 Other information

Other information
Do not discharge product unmonitored into the environment.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product
Disposal of the product should be carried out in accordance with all applicable regulations following consultation with the responsible local authority and the disposal company in an authorised and suitable disposal facility.
Allocation of a waste code number, according to the European Waste Catalogue, should be carried out in agreement with the regional waste disposal company.

Packaging
Residues must be removed from packaging and when emptied completely disposed of in accordance with the regulations for waste removal. Incompletely emptied packaging must be disposed of in the form of disposal specified by the regional disposer. Compressed gas packaging under pressure. Do not open by force. Do not heat above 50°C. Dispose of compressed gas packagings only if completely discharged. Do not burn empty compressed gas packagings. Do not pierce, cut or weld uncleaned containers.

SECTION 14: Transport information

14.1 UN number or ID number

ADR/RID/ADN	UN1950
IMDG	UN1950
ICAO-TI / IATA	UN1950

14.2 UN proper shipping name

ADR/RID/ADN	AEROSOLS
IMDG	AEROSOLS
ICAO-TI / IATA	Aerosols, flammable

14.3 Transport hazard class(es)

ADR/RID/ADN - Class	2
Label	2.1
Classification code	5F
Tunnel restriction code	D
IMDG - Class	2
Label	2.1
ICAO-TI / IATA - Class	2.1
Label	2.1

14.4 Packing group

ADR/RID/ADN	-
IMDG	-
ICAO-TI / IATA	-

14.5 Environmental hazards

EmS	F-D, S-U

14.6 Special precautions for user
No data available.

14.7 Maritime transport in bulk according to IMO instruments
Not relevant

SECTION 15: Regulatory information

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

EU regulations

Regulation (EC) No 1907/2006 (REACH) Annex XIV (List of substances subject to authorisation)
According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substances considered as substances requiring authorisation as listed on Annex XIV of the REACH regulation (EC) 1907/2006.

REACH candidate list of substances of very high concern (SVHC) for authorisation
According to available data and the information provided by preliminary suppliers, the product does not contain substances that are considered substances meeting the criteria for inclusion in annex XIV (List of Substances Subject to Authorisation) as laid down in Article 57 and article 59 of REACH (EC) 1907/2006.

Regulation (EC) No 1907/2006 (REACH) Annex XVII: RESTRICTIONS ON THE MANUFACTURE, PLACING ON THE MARKET AND USE OF CERTAIN DANGEROUS SUBSTANCES, MIXTURES AND ARTICLES

The product is considered being subject to REACH regulation (EC) 1907/2006 annex XVII.	No 3

The product contains following substance(s) that are considered being subject to REACH regulation (EC) 1907/2006 annex XVII.

No	Substance name	CAS no.	EC no.	No
1	(R)-p-mentha-1,8-diene	5989-27-5	227-813-5	75
2	didecyldimethylammonium-chloride	7173-51-5	230-525-2	75
3	propan-2-ol	67-63-0	200-661-7	75

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances	
This product is subject to Part I of Annex I, risk category:	P3a

Directive 2010/75/EU on industrial emissions (integrated pollution prevention and control)	
VOC content	99.13 %
VOC-value	594.76 g/l

Other regulations
Adhere to the national sanitary and occupational safety regulations when using this product.

15.2 Chemical safety assessment

A chemical safety assessment has not been carried out for this mixture.

SECTION 16: Other information

Further information
Alterations/supplements:
Alterations to the previous edition are marked in the left-hand margin.

Sources of key data used to compile the data sheet:
Transport regulations according to ADR, RID, IMDG, IATA as amended in each case.
National Threshold Limit Values of the corresponding countries as amended in each case.
Directives 2000/39/EC, 2006/15/EC, 2009/161/EU, (EU) 2017/164.
The data sources used to determine physical, toxic and ecotoxic data, are indicated directly in the corresponding section.

Full text of the H- and EUH- phrases drawn up in sections 2 and 3 (provided not already drawn up in these sections)

H220	Extremely flammable gas.
H225	Highly flammable liquid and vapour.
H280	Contains gas under pressure; may explode if heated.
H301	Toxic if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.

Notes relating to the identification, classification and labelling of substances and mixtures ((EC) No 1272/2008, Annex VI)

C	Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers. In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers.
U	When put on the market gases have to be classified as ‘Gases under pressure’, in one of the groups compressed gas, liquefied gas, refrigerated liquefied gas or dissolved gas. The group depends on the physical state in which the gas is packaged and therefore has to be assigned case by case.

Creation of the safety data sheet
UMCO GmbH - D-21107 Hamburg, Georg-Wilhelm-Strasse 187, Tel.: +49(40)555 546 300, Fax: +49(40)555 546 357, e-mail: umco@umco.de

This information is based on our present knowledge and experience.
The safety data sheet describes products with a view to safety requirements.
It does not however, constitute a guarantee for any specific product properties and shall not establish a legally valid contractual relationship.

Alterations/supplements:
Alterations to the previous edition are marked in the left-hand margin.

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