

GB

Page 1 of 15
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revision date / version: 21.08.2015 / 0011
 Replacing version dated / version: 06.05.2014 / 0010
 Valid from: 21.08.2015
 PDF print date: 25.08.2015
 Klimafresh 150 mL
 Art.: 4065

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

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

1.1 Product identifier

Klimafresh 150 mL
Art.: 4065

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

Relevant identified uses of the substance or mixture:

Biocide

Uses advised against:

No information available at present.

1.3 Details of the supplier of the safety data sheet

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LIQUI MOLY GmbH, Jerg-Wieland-Str. 4, 89081 Ulm-Lehr, Germany
 Phone: (+49) 0731-1420-0, Fax: (+49) 0731-1420-88

Qualified person's e-mail address: info@chemical-check.de, k.schnurbusch@chemical-check.de Please DO NOT use for requesting Safety Data Sheets.

1.4 Emergency telephone number

Emergency information services / official advisory body:

Telephone number of the company in case of emergencies:

+49 (0) 700 / 24 112 112 (LMR)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) 1272/2008 (CLP)

Hazard class	Hazard category	Hazard statement
Eye Irrit.	2	H319-Causes serious eye irritation.
Aerosol	2	H223-Flammable aerosol.
Aerosol	2	H229-Pressurised container: May burst if heated.

2.2 Label elements

Labeling according to Regulation (EC) 1272/2008 (CLP)



Warning

GB

Page 2 of 15
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revision date / version: 21.08.2015 / 0011
 Replacing version dated / version: 06.05.2014 / 0010
 Valid from: 21.08.2015
 PDF print date: 25.08.2015
 Klimafresh 150 mL
 Art.: 4065

H319-Causes serious eye irritation. H223-Flammable aerosol. H229-Pressurised container: May burst if heated.

P101-If medical advice is needed, have product container or label at hand. 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.
 P305+P351+P338-IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337+P313-If eye irritation persists: Get medical advice/attention.
 P410+P412-Protect from sunlight. Do not expose to temperatures exceeding 50 °C.

EUH208-Contains (R)-p-mentha-1,8-diene. May produce an allergic reaction.

Without adequate ventilation, formation of explosive mixtures may be possible.

2.3 Other hazards

The mixture does not contain any vPvB substance (vPvB = very persistent, very bioaccumulative) or is not included under XIII of the regulation (EC) 1907/2006.

The mixture does not contain any PBT substance (PBT = persistent, bioaccumulative, toxic) or is not included under XIII of the regulation (EC) 1907/2006.

May produce an allergic reaction.

REGULATION (EC) No 648/2004

30 % and more
 halogenated hydrocarbons

perfumes
 LIMONENE
 LINALOOL
 BENZYL ALCOHOL
 disinfectants

SECTION 3: Composition/information on ingredients

Aerosol

3.1 Substance

n.a.

3.2 Mixture

Ethanol	Substance with specific conc. limit(s) acc. to REACH-registration
Registration number (REACH)	--
Index	603-002-00-5
EINECS, ELINCS, NLP	200-578-6
CAS	64-17-5
content %	50-<70
Classification according to Regulation (EC) 1272/2008 (CLP)	Flam. Liq. 2, H225 Eye Irrit. 2, H319

Terpineol, acetate	
Registration number (REACH)	--
Index	---
EINECS, ELINCS, NLP	232-357-5
CAS	8007-35-0
content %	0,1-<1
Classification according to Regulation (EC) 1272/2008 (CLP)	Aquatic Chronic 2, H411

(R)-p-mentha-1,8-diene	
Registration number (REACH)	--
Index	601-029-00-7
EINECS, ELINCS, NLP	227-813-5

GB

Page 3 of 15
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revision date / version: 21.08.2015 / 0011
 Replacing version dated / version: 06.05.2014 / 0010
 Valid from: 21.08.2015
 PDF print date: 25.08.2015
 Klimafresh 150 mL
 Art.: 4065

CAS	5989-27-5
content %	0,1-<0,25
Classification according to Regulation (EC) 1272/2008 (CLP)	Flam. Liq. 3, H226 Asp. Tox. 1, H304 Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)

For the text of the H-phrases and classification codes (GHS/CLP), see Section 16.
 The substances named in this section are given with their actual, appropriate classification!
 For substances that are listed in appendix VI, table 3.1/3.2 of the regulation (EC) no. 1272/2008 (CLP regulation) this means that all notes that may be given here for the named classification have been taken into account.

SECTION 4: First aid measures

4.1 Description of first aid measures

Inhalation

Remove person from danger area.
 Assure the safety of the rescuer.
 Supply person with fresh air and consult doctor according to symptoms.
 If the person is unconscious, place in a stable side position and consult a doctor.
 Respiratory arrest - Artificial respiration apparatus necessary.

Symptoms:

Fatigue
 Mental confusion

Skin contact

Remove polluted, soaked clothing immediately, wash thoroughly with plenty of water and soap, in case of irritation of the skin (flare), consult a doctor.

Symptoms:

Irritation of the skin.

Eye contact

Wash thoroughly for several minutes using copious water.
 Consult medical specialist.

Symptoms:

Irritation of the eyes
 Watering eyes

Ingestion

Typically no exposure pathway.
 Rinse the mouth thoroughly with water.
 Do not induce vomiting - give copious water to drink. Consult doctor immediately.
 In case of vomiting, keep head low so that the stomach content does not reach the lungs.
 Immediate admittance to a hospital.

Symptoms:

Headaches
 Nausea

4.2 Most important symptoms and effects, both acute and delayed

If applicable delayed symptoms and effects can be found in section 11 and the absorption route in section 4.1.

The following may occur:

Irritation of the eyes
 with long-term contact:
 Drying of the skin.
 Dermatitis (skin inflammation)
 Irritation of the skin.
 Allergic reaction possible.
 At high concentrations:
 Irritation of the respiratory tract
 Coughing
 Dizziness
 Headaches
 Effect on the central nervous system

GB

Page 4 of 15
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
Revision date / version: 21.08.2015 / 0011
Replacing version dated / version: 06.05.2014 / 0010
Valid from: 21.08.2015
PDF print date: 25.08.2015
Klimafresh 150 mL
Art.: 4065

Coordination disorders
At high levels of concentration the propellant dispels the oxygen in air needed to breathe.
Unconsciousness
Ingestion of large quantities:
Headaches
Nausea
Vomiting
Danger of aspiration
Other dangerous properties cannot be ruled out.
In certain cases, the symptoms of poisoning may only appear after an extended period / after several hours.

4.3 Indication of any immediate medical attention and special treatment needed

n.c.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

CO₂
Dry extinguisher
Water jet spray

Unsuitable extinguishing media

High volume water jet

5.2 Special hazards arising from the substance or mixture

In case of fire the following can develop:
Oxides of carbon
Hydrofluoric acid
Toxic pyrolysis products.
Danger of bursting (explosion) when heated
Explosive vapour/air mixture
Dangerous vapours heavier than air.
In case of spreading near the ground, flashback to distance sources of ignition is possible.

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes.
Protective respirator with independent air supply.
According to size of fire
Full protection, if necessary.
Cool container at risk with water.
Dispose of contaminated extinction water according to official regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Remove possible causes of ignition - do not smoke.
Ensure sufficient supply of air.
Avoid contact with eyes or skin.
If applicable, caution - risk of slipping.

6.2 Environmental precautions

Prevent surface and ground-water infiltration, as well as ground penetration.
Prevent penetration into drains, cellars, working pits or other places in which accumulation could be hazardous.
If accidental entry into drainage system occurs, inform responsible authorities.

6.3 Methods and material for containment and cleaning up

If spray or gas escapes, ensure ample fresh air is available.
Without adequate ventilation, formation of explosive mixtures may be possible.
Active substance:

Soak up with absorbent material (e.g. universal binding agent, sand, diatomaceous earth) and dispose of according to Section 13.

6.4 Reference to other sections

For personal protective equipment see Section 8 and for disposal instructions see Section 13.

SECTION 7: Handling and storage

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revision date / version: 21.08.2015 / 0011
 Replacing version dated / version: 06.05.2014 / 0010
 Valid from: 21.08.2015
 PDF print date: 25.08.2015
 Klimafresh 150 mL
 Art.: 4065

In addition to information given in this section, relevant information can also be found in section 8 and 6.1.

7.1 Precautions for safe handling

7.1.1 General recommendations

Ensure good ventilation.
 Avoid inhalation of the vapours.
 Do not use the product in enclosed spaces.
 Keep away from sources of ignition - Do not smoke.
 Do not use on hot surfaces.
 Avoid contact with eyes or skin.
 Eating, drinking, smoking, as well as food-storage, is prohibited in work-room.
 Observe directions on label and instructions for use.
 Use working methods according to operating instructions.

7.1.2 Notes on general hygiene measures at the workplace

General hygiene measures for the handling of chemicals are applicable.
 Wash hands before breaks and at end of work.
 Keep away from food, drink and animal feedingstuffs.
 Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

7.2 Conditions for safe storage, including any incompatibilities

Keep out of access to unauthorised individuals.
 Store product closed and only in original packing.
 Not to be stored in gangways or stair wells.
 Do not store with oxidizing agents.
 Observe special regulations for aerosols!
 Observe special storage conditions (in Germany, e.g., in accordance with the regulations in the "Betriebssicherheitsverordnung").
 Keep protected from direct sunlight and temperatures over 50°C.
 Store in a well ventilated place.

7.3 Specific end use(s)

No information available at present.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

(GB) Chemical Name	Ethanol	Content %:50-<70
WEL-TWA: 1000 ppm (1920 mg/m ³)	WEL-STEL: ---	---
Monitoring procedures:	<ul style="list-style-type: none"> - Compur - KITA-104 SA (549 210) - Draeger - Alcohol 25/a Ethanol (81 01 631) - DFG (D) (Loesungsmittelgemische), Methode Nr. 6 DFG (E) (Solvent mixtures) - 1998, 2002 - EU project BC/CEN/ENTR/000/2002-16 card 63-2 (2004) - Draeger - Alcohol 25/a (81 01 631) - Draeger - Alcohol 100/a (CH 29 701) 	
BMGV: ---	Other information: ---	
(GB) Chemical Name	1,1,1,2-Tetrafluoroethane	Content %:
WEL-TWA: 1000 ppm (4240 mg/m ³)	WEL-STEL: ---	---
Monitoring procedures:	---	
BMGV: ---	Other information: ---	

(GB) WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period) EH40. AGW = "Arbeitsplatzgrenzwert" (workplace limit value, Germany). | WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period). | BMGV = Biological monitoring guidance value EH40. BGW = "Biologischer Grenzwert" (biological limit value, Germany) | Other information: Sen = Capable of causing occupational asthma. Sk = Can be absorbed through skin. Carc = Capable of causing cancer and/or heritable genetic damage.
 ** = The exposure limit for this substance is repealed through the TRGS 900 (Germany) of January 2006 with the goal of revision.

Ethanol

GB

Page 6 of 15
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revision date / version: 21.08.2015 / 0011
 Replacing version dated / version: 06.05.2014 / 0010
 Valid from: 21.08.2015
 PDF print date: 25.08.2015
 Klimafresh 150 mL
 Art.: 4065

Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
Workers / employees	Human - inhalation	Short term, local effects	DNEL	1900	mg/m ³	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	950	mg/m ³	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	343	mg/kg bw/d	
Consumer	Human - inhalation	Short term, local effects	DNEL	950	mg/m ³	
Consumer	Human - dermal	Short term, local effects	DNEL	950	mg/m ³	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	114	mg/m ³	
Consumer	Human - oral	Long term, systemic effects	DNEL	87	mg/kg	
Consumer	Human - dermal	Long term, systemic effects	DNEL	206	mg/kg bw/d	
	Environment - freshwater		PNEC	0,96	mg/l	
	Environment - marine		PNEC	0,79	mg/l	
	Environment - water, sporadic (intermittent) release		PNEC	2,75	mg/l	
	Environment - sewage treatment plant		PNEC	580	mg/l	
	Environment - sediment, freshwater		PNEC	3,6	mg/kg dry weight	
	Environment - soil		PNEC	0,63	mg/kg dry weight	
	Environment - oral (animal feed)		PNEC	0,72	mg/kg feed	
	Environment - sediment, marine		PNEC	2,9	mg/kg dry weight	

1,1,1,2-Tetrafluoroethane						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	13936	mg/m ³	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	2476	mg/m ³	
	Environment - freshwater		PNEC	0,1	mg/l	
	Environment - marine		PNEC	0,01	mg/l	
	Environment - periodic release		PNEC	1	mg/l	
	Environment - sediment, freshwater		PNEC	0,75	mg/kg dw	
	Environment - sewage treatment plant		PNEC	73	mg/kg dw	

8.2 Exposure controls

8.2.1 Appropriate engineering controls

Ensure good ventilation. This can be achieved by local suction or general air extraction.
 If this is insufficient to maintain the concentration under the WEL or AGW values, suitable breathing protection should be worn.
 Applies only if maximum permissible exposure values are listed here.

8.2.2 Individual protection measures, such as personal protective equipment

General hygiene measures for the handling of chemicals are applicable.
 Wash hands before breaks and at end of work.
 Keep away from food, drink and animal feedingstuffs.
 Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

Page 7 of 15
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revision date / version: 21.08.2015 / 0011
 Replacing version dated / version: 06.05.2014 / 0010
 Valid from: 21.08.2015
 PDF print date: 25.08.2015
 Klimafresh 150 mL
 Art.: 4065

Eye/face protection:
 Tight fitting protective goggles with side protection (EN 166).

Skin protection - Hand protection:
 Chemical resistant protective gloves (EN 374).
 Recommended
 Safety gloves made of butyl (EN 374)
 Minimum layer thickness in mm:
 >= 0,5
 Permeation time (penetration time) in minutes:
 > 240
 Protective hand cream recommended.
 The breakthrough times determined in accordance with EN 374 Part 3 were not obtained under practical conditions.
 The recommended maximum wearing time is 50% of breakthrough time.

Skin protection - Other:
 Protective working garments (e.g. safety shoes EN ISO 20345, long-sleeved protective working garments).

Respiratory protection:
 Normally not necessary.
 If OES or MEL is exceeded.
 Filter A2 P2 (EN 14387), code colour brown, white
 In case of emergency:
 Respiratory protection appliance (insulation device) (e.g. EN 137 or EN 138)

Thermal hazards:
 If applicable, these are included in the individual protective measures (eye/face protection, skin protection, respiratory protection).

Additional information on hand protection - No tests have been performed.
 In the case of mixtures, the selection has been made according to the knowledge available and the information about the contents.
 Selection of materials derived from glove manufacturer's indications.
 Final selection of glove material must be made taking the breakthrough times, permeation rates and degradation into account.
 Selection of a suitable glove depends not only on the material but also on other quality characteristics and varies from manufacturer to manufacturer.
 In the case of mixtures, the resistance of glove materials cannot be predicted and must therefore be tested before use.
 The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.

8.2.3 Environmental exposure controls

No information available at present.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state:	Aerosol, Substance: Liquid
Colour:	Colourless
Odour:	Alcoholic
Odour threshold:	Not determined
pH-value:	Not determined
Melting point/freezing point:	Not determined
Initial boiling point and boiling range:	Not determined
Flash point:	12 °C (Ethanol)
Evaporation rate:	Not determined
Flammability (solid, gas):	Not determined
Lower explosive limit:	3,5 Vol-% (Ethanol)
Upper explosive limit:	15 Vol-% (Ethanol)
Vapour pressure:	4800 hPa
Vapour density (air = 1):	Not determined
Density:	0,943 g/ml
Bulk density:	Not determined
Solubility(ies):	Not determined
Water solubility:	Soluble
Partition coefficient (n-octanol/water):	Not determined
Auto-ignition temperature:	365 °C (Ignition temperature Ethanol)

(GB)

Page 8 of 15
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revision date / version: 21.08.2015 / 0011
 Replacing version dated / version: 06.05.2014 / 0010
 Valid from: 21.08.2015
 PDF print date: 25.08.2015
 Klimafresh 150 mL
 Art.: 4065

Decomposition temperature: Not determined
 Viscosity: Not determined
 Explosive properties: Not determined
 Oxidising properties: No

9.2 Other information

Miscibility: Not determined
 Fat solubility / solvent: Not determined
 Conductivity: Not determined
 Surface tension: Not determined
 Solvents content: Not determined

SECTION 10: Stability and reactivity

10.1 Reactivity

See also Subsection 10.2 to 10.6.
 The product has not been tested.

10.2 Chemical stability

See also Subsection 10.1 to 10.6.
 Stable with proper storage and handling.

10.3 Possibility of hazardous reactions

See also Subsection 10.1 to 10.6.
 No decomposition if used as intended.

10.4 Conditions to avoid

See also section 7.
 Heating, open flame, ignition sources
 Pressure increase will result in danger of bursting.

10.5 Incompatible materials

See also section 7.
 Avoid contact with strong oxidizing agents.

10.6 Hazardous decomposition products

See also Subsection 10.1 to 10.5.
 See also section 5.2
 No decomposition when used as directed.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Possibly more information on health effects, see Section 2.1 (classification).

Klimafresh 150 mL Art.: 4065						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:						n.d.a.
Acute toxicity, by dermal route:						n.d.a.
Acute toxicity, by inhalation:						n.d.a.
Skin corrosion/irritation:						n.d.a.
Serious eye damage/irritation:						n.d.a.
Respiratory or skin sensitisation:						n.d.a.
Germ cell mutagenicity:						n.d.a.
Carcinogenicity:						n.d.a.
Reproductive toxicity:						n.d.a.
Specific target organ toxicity - single exposure (STOT-SE):						n.d.a.
Specific target organ toxicity - repeated exposure (STOT-RE):						n.d.a.
Aspiration hazard:						n.d.a.
Symptoms:						n.d.a.
Other information:						Classification according to calculation procedure.

GB

Page 9 of 15
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revision date / version: 21.08.2015 / 0011
 Replacing version dated / version: 06.05.2014 / 0010
 Valid from: 21.08.2015
 PDF print date: 25.08.2015
 Klimafresh 150 mL
 Art.: 4065

Ethanol						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	10470	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rabbit	OECD 402 (Acute Dermal Toxicity)	
Acute toxicity, by inhalation:	LC50	117-125	mg/l/4h	Rat	OECD 403 (Acute Inhalation Toxicity)	
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Not irritant
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Mild irritant
Respiratory or skin sensitisation:				Mouse	OECD 429 (Skin Sensitisation - Local Lymph Node Assay)	Not sensitising
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative
Germ cell mutagenicity:					OECD 473 (In Vitro Mammalian Chromosome Aberration Test)	Negative
Germ cell mutagenicity:					OECD 475 (Mammalian Bone Marrow Chromosome Aberration Test)	Negative
Germ cell mutagenicity:				Mouse	OECD 476 (In Vitro Mammalian Cell Gene Mutation Test)	Negative
Germ cell mutagenicity:				Salmonella typhimurium	OECD 471 (Bacterial Reverse Mutation Test)	Negative
Carcinogenicity:	NOAEL	>3000	mg/kg	Rat	OECD 451 (Carcinogenicity Studies)	24 mon
Reproductive toxicity:	NOAEL	5200	mg/kg bw/d	Rat		
Specific target organ toxicity - repeated exposure (STOT-RE):	NOAEL	1730	mg/kg/d	Rat	OECD 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)	Female
Specific target organ toxicity - repeated exposure (STOT-RE):	NOAL	>20	mg/l	Rat	OECD 403 (Acute Inhalation Toxicity)	Male
Aspiration hazard:				Human being		No indications of such an effect.
Symptoms:						respiratory distress, drowsiness, unconsciousness, drop in blood pressure, vomiting, coughing, headaches, intoxication, drowsiness, mucous membrane irritation, dizziness, nausea

GB

Page 10 of 15
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revision date / version: 21.08.2015 / 0011
 Replacing version dated / version: 06.05.2014 / 0010
 Valid from: 21.08.2015
 PDF print date: 25.08.2015
 Klimafresh 150 mL
 Art.: 4065

Experiences in humans:						Excessive alcohol consumption during pregnancy induces the foetus alcohol syndrome (reduced weight at birth, physical and mental disorders)., There is no sign that this syndrome is also caused by dermal or inhalative absorption.
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(R)-p-mentha-1,8-diene						
Toxicity / effect	Endpoint t	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by oral route:	LD50	4400	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rabbit		
Acute toxicity, by dermal route:	LD50	>5000	mg/kg	Rabbit		
Symptoms:						diarrhoea, rash, itching, gastrointestinal disturbances, mucous membrane irritation, nausea and vomiting.

1,1,1,2-Tetrafluoroethane						
Toxicity / effect	Endpoint t	Value	Unit	Organism	Test method	Notes
Acute toxicity, by inhalation:	LC50	>2086	mg/l/4h			
Skin corrosion/irritation:						Mild irritant
Serious eye damage/irritation:						Mild irritant
Respiratory or skin sensitisation:				Guinea pig		Not sensitizing

SECTION 12: Ecological information

Possibly more information on environmental effects, see Section 2.1 (classification).

Klimafresh 150 mL							
Art.: 4065							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
Toxicity to fish:							n.d.a.
Toxicity to daphnia:							n.d.a.
Toxicity to algae:							n.d.a.
Persistence and degradability:							n.d.a.
Bioaccumulative potential:							n.d.a.
Mobility in soil:							Product is slightly volatile.
Results of PBT and vPvB assessment							n.d.a.
Other adverse effects:							n.d.a.
Other information:							According to the recipe, contains no AOX.

Ethanol							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
Toxicity to fish:	LC50	96h	13000	mg/l	Oncorhynchus mykiss	OECD 203 (Fish, Acute Toxicity Test)	
Toxicity to daphnia:	LC50	48h	12340	mg/l	Daphnia magna		
Toxicity to algae:	EC50	48h	12900	mg/l	Selenastrum capricornutum	OECD 201 (Alga, Growth Inhibition Test)	

GB

Page 11 of 15
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revision date / version: 21.08.2015 / 0011
 Replacing version dated / version: 06.05.2014 / 0010
 Valid from: 21.08.2015
 PDF print date: 25.08.2015
 Klimafresh 150 mL
 Art.: 4065

Toxicity to algae:	EC50	72h	275	mg/l	Chlorella vulgaris	OECD 201 (Alga, Growth Inhibition Test)	
Persistence and degradability:			97	%		OECD 301 B (Ready Biodegradability - Co2 Evolution Test)	
Bioaccumulative potential:	BCF		0,66 - 3,2				
Bioaccumulative potential:	Log Pow		-0,32				Bioaccumulation is unlikely (LogPow < 1).
Mobility in soil:	H (Henry)		0,000138				
Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Other information:	AOX		0	%			Does not contain any organically bound halogens which can contribute to the AOX value in waste water.
Water solubility:							Mixable

(R)-p-mentha-1,8-diene

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
Toxicity to fish:	LC50	96h	0,70	mg/l	Pimephales promelas		
Toxicity to daphnia:	EC50	48h	0,42	mg/l	Daphnia magna		
Toxicity to algae:	NOEC/NOEL	96h	4	mg/l			
Persistence and degradability:		28d	92	%		OECD 301 D (Ready Biodegradability - Closed Bottle Test)	

1,1,1,2-Tetrafluoroethane

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
Toxicity to fish:	LC50	96h	450	mg/l	Oncorhynchus mykiss		
Toxicity to daphnia:	EC50	48h	980	mg/l	Daphnia magna		
Toxicity to algae:	EC50	72h	>118	mg/l			
Persistence and degradability:		28d	3	%		OECD 301 D (Ready Biodegradability - Closed Bottle Test)	Not readily biodegradable
Bioaccumulative potential:	Log Pow		1,06				25°C
Mobility in soil:	Log Koc		~ 1,5				Product is slightly volatile., calculated value
Toxicity to bacteria:	EC10	6h	>730	mg/l	Pseudomonas putida		
Other information:	AOX		100	%			
Ozone depletion potential (ODP):			0				Does not degrade ozone.
Global warming potential (GWP):	HGWP		1300				(HGWP = Halocarbon Global Warming Potential, R-11 = 1)
Water solubility:			1	g/l			25°C

SECTION 13: Disposal considerations

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revision date / version: 21.08.2015 / 0011
 Replacing version dated / version: 06.05.2014 / 0010
 Valid from: 21.08.2015
 PDF print date: 25.08.2015
 Klimafresh 150 mL
 Art.: 4065

13.1 Waste treatment methods

For the substance / mixture / residual amounts

EC disposal code no.:

The waste codes are recommendations based on the scheduled use of this product.

Owing to the user's specific conditions for use and disposal, other waste codes may be allocated under certain circumstances. (2014/955/EU)

16 05 04 gases in pressure containers (including halons) containing hazardous substances

Recommendation:

Sewage disposal shall be discouraged.

Pay attention to local and national official regulations.

E.g. suitable incineration plant.

For contaminated packing material

Pay attention to local and national official regulations.

15 01 04 metallic packaging

15 01 10 packaging containing residues of or contaminated by hazardous substances

Do not perforate, cut up or weld uncleaned container.

SECTION 14: Transport information

General statements

UN number: 1950

Transport by road/by rail (ADR/RID)

UN proper shipping name:

UN 1950 AEROSOLS

Transport hazard class(es): 2.1

Packing group: -

Classification code: 5F

LQ (ADR 2015): 1 L

Environmental hazards: Not applicable

Tunnel restriction code: D

Transport by sea (IMDG-code)

UN proper shipping name:

AEROSOLS

Transport hazard class(es): 2.1

Packing group: -

EmS: F-D, S-U

Marine Pollutant: n.a

Environmental hazards: Not applicable

Transport by air (IATA)

UN proper shipping name:

Aerosols, flammable

Transport hazard class(es): 2.1

Packing group: -

Environmental hazards: Not applicable

Special precautions for user

Persons employed in transporting dangerous goods must be trained.

All persons involved in transporting must observe safety regulations.

Precautions must be taken to prevent damage.

Transport in bulk according to Annex II of MARPOL and the IBC Code

Freighted as packaged goods rather than in bulk, therefore not applicable.

Minimum amount regulations have not been taken into account.

Danger code and packing code on request.

Comply with special provisions.



SECTION 15: Regulatory information

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

(GB)

Page 13 of 15
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revision date / version: 21.08.2015 / 0011
 Replacing version dated / version: 06.05.2014 / 0010
 Valid from: 21.08.2015
 PDF print date: 25.08.2015
 Klimafresh 150 mL
 Art.: 4065

For classification and labelling see Section 2., Additional data acc. to Art. 69 (2), Regulation (EU) No 528/2012 (Biocide products):
 The identity of every active substance and its concentration in metric units:
 Ethanol
 482 g/l
 The uses:
 Disinfection
 Registration number BAuA (Federal Institute for Occupational Health and Safety, Germany): baa:Reg.-Nr. N-33499
 Biocidal product authorisation number (Regulation (EU) No. 528/2012): n.d.a.

Observe restrictions:
 Comply with trade association/occupational health regulations.
 Observe youth employment law (German regulation).
 Observe Regulation (EU) No 528/2012 concerning the placing of biocidal products on the market.
 Directive 2010/75/EU (VOC): 493 g/l

15.2 Chemical safety assessment

A chemical safety assessment is not provided for mixtures.

SECTION 16: Other information

Revised sections: 1 - 16
 These details refer to the product as it is delivered.
 Employee instruction/training in handling hazardous materials is required.
 Employee training in handling dangerous goods is required.

Classification and processes used to derive the classification of the mixture in accordance with the ordinance (EG) 1272/2008 (CLP):

Classification in accordance with regulation (EC) No. 1272/2008 (CLP)	Evaluation method used
Eye Irrit. 2, H319	Classification according to calculation procedure.
Aerosol 2, H223	Classification based on test data.
Aerosol 2, H229	Classification based on test data.

The following phrases represent the posted Hazard Class and Risk Category Code (GHS/CLP) of the product and the constituents (specified in Section 2 and 3).

H225 Highly flammable liquid and vapour.
 H226 Flammable liquid and vapour.
 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.
 H400 Very toxic to aquatic life.
 H410 Very toxic to aquatic life with long lasting effects.
 H411 Toxic to aquatic life with long lasting effects.

Eye Irrit. — Eye irritation
 Aerosol — Aerosols
 Flam. Liq. — Flammable liquid
 Aquatic Chronic — Hazardous to the aquatic environment - chronic
 Asp. Tox. — Aspiration hazard
 Skin Irrit. — Skin irritation
 Skin Sens. — Skin sensitization
 Aquatic Acute — Hazardous to the aquatic environment - acute

Any abbreviations and acronyms used in this document:

Page 14 of 15
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
 Revision date / version: 21.08.2015 / 0011
 Replacing version dated / version: 06.05.2014 / 0010
 Valid from: 21.08.2015
 PDF print date: 25.08.2015
 Klimafresh 150 mL
 Art.: 4065

AC Article Categories

acc., acc. to according, according to
 ACGIH American Conference of Governmental Industrial Hygienists
 ADR Accord européen relatif au transport international des marchandises Dangereuses par Route (= European Agreement concerning the International Carriage of Dangerous Goods by Road)
 AOEL Acceptable Operator Exposure Level
 AOX Adsorbable organic halogen compounds
 approx. approximately
 Art., Art. no. Article number
 ATE Acute Toxicity Estimate according to Regulation (EC) 1272/2008 (CLP)
 BAM Bundesanstalt für Materialforschung und -prüfung (Federal Institute for Materials Research and Testing, Germany)
 BAuA Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (= Federal Institute for Occupational Health and Safety, Germany)
 BCF Bioconcentration factor
 BGV Berufsgenossenschaftliche Vorschrift (= Accident Prevention Regulation)
 BHT Butylhydroxytoluol (= 2,6-Di-*t*-butyl-4-methyl-phenol)
 BMGV Biological monitoring guidance value (EH40, UK)
 BOD Biochemical oxygen demand
 BSEF Bromine Science and Environmental Forum
 bw body weight
 CAS Chemical Abstracts Service
 CEC Coordinating European Council for the Development of Performance Tests for Fuels, Lubricants and Other Fluids
 CESIO Comité Européen des Agents de Surface et de leurs Intermédiaires Organiques
 CIPAC Collaborative International Pesticides Analytical Council
 CLP Classification, Labelling and Packaging (REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures)
 CMR carcinogenic, mutagenic, reproductive toxic
 COD Chemical oxygen demand
 CTFA Cosmetic, Toiletry, and Fragrance Association
 DMEL Derived Minimum Effect Level
 DNEL Derived No Effect Level
 DOC Dissolved organic carbon
 DT50 Dwell Time - 50% reduction of start concentration
 DVS Deutscher Verband für Schweißen und verwandte Verfahren e.V. (= German Association for Welding and Allied Processes)
 dw dry weight
 e.g. for example (abbreviation of Latin 'exempli gratia'), for instance
 EC European Community
 ECHA European Chemicals Agency
 EEA European Economic Area
 EEC European Economic Community
 EINECS European Inventory of Existing Commercial Chemical Substances
 ELINCS European List of Notified Chemical Substances
 EN European Norms
 EPA United States Environmental Protection Agency (United States of America)
 ERC Environmental Release Categories
 ES Exposure scenario
 etc. et cetera
 EU European Union
 EWC European Waste Catalogue
 Fax. Fax number
 gen. general
 GHS Globally Harmonized System of Classification and Labelling of Chemicals
 GWP Global warming potential
 HET-CAM Hen's Egg Test - Chorionallantoic Membrane
 HGWP Halocarbon Global Warming Potential
 IARC International Agency for Research on Cancer
 IATA International Air Transport Association
 IBC Intermediate Bulk Container
 IBC (Code) International Bulk Chemical (Code)
 IC Inhibitory concentration
 IMDG-code International Maritime Code for Dangerous Goods
 incl. including, inclusive
 IUCLID International Uniform Chemical Information Database
 LC lethal concentration

Page 15 of 15
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
Revision date / version: 21.08.2015 / 0011
Replacing version dated / version: 06.05.2014 / 0010
Valid from: 21.08.2015
PDF print date: 25.08.2015
Klimafresh 150 mL
Art.: 4065

LC50 lethal concentration 50 percent kill
LCLo lowest published lethal concentration
LD Lethal Dose of a chemical
LD50 Lethal Dose, 50% kill
LDLo Lethal Dose Low
LOAEL Lowest Observed Adverse Effect Level
LOEC Lowest Observed Effect Concentration
LOEL Lowest Observed Effect Level
LQ Limited Quantities
MARPOL International Convention for the Prevention of Marine Pollution from Ships
n.a. not applicable
n.av. not available
n.c. not checked
n.d.a. no data available
NIOSH National Institute of Occupational Safety and Health (United States of America)
NOAEC No Observed Adverse Effective Concentration
NOAEL No Observed Adverse Effect Level
NOEC No Observed Effect Concentration
NOEL No Observed Effect Level
ODP Ozone Depletion Potential
OECD Organisation for Economic Co-operation and Development
org. organic
PAH polycyclic aromatic hydrocarbon
PBT persistent, bioaccumulative and toxic
PC Chemical product category
PE Polyethylene
PNEC Predicted No Effect Concentration
POCP Photochemical ozone creation potential
ppm parts per million
PROC Process category
PTFE Polytetrafluorethylene
REACH Registration, Evaluation, Authorisation and Restriction of Chemicals (REGULATION (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals)
REACH-IT List-No. 9xx-xxx-x No. is automatically assigned, e.g. to pre-registrations without a CAS No. or other numerical identifier. List Numbers do not have any legal significance, rather they are purely technical identifiers for processing a submission via REACH-IT.
RID Règlement concernant le transport International ferroviaire de marchandises Dangereuses (= Regulation concerning the International Carriage of Dangerous Goods by Rail)
SADT Self-Accelerating Decomposition Temperature
SAR Structure Activity Relationship
SU Sector of use
SVHC Substances of Very High Concern
Tel. Telephone
ThOD Theoretical oxygen demand
TOC Total organic carbon
TRGS Technische Regeln für Gefahrstoffe (=Technical Regulations for Hazardous Substances)
UN RTDG United Nations Recommendations on the Transport of Dangerous Goods
VbF Verordnung über brennbare Flüssigkeiten (= Regulation for flammable liquids (Austria))
VOC Volatile organic compounds
vPvB very persistent and very bioaccumulative
WEL-TWA, WEL-STEL WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period), WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period) (EH40, UK).
WHO World Health Organization
wwt wet weight

The statements made here should describe the product with regard to the necessary safety precautions - they are not meant to guarantee definite characteristics - but they are based on our present up-to-date knowledge.
No responsibility.

These statements were made by:

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