



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

1.1 Product identifier

RUCK "Desert" Clove & Patchouli Room Fragrance incl. 8 Diffuser Sticks

UFI: 1EYA-00JM-4009-NR6R

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

Use of the substance/mixture

Odour-Sequesterant, Fragrance

1.3 Details of the supplier of the safety data sheet

HELLMUT RUCK GmbH

Daimlerstr. 23

D-75305 Neuenbürg

fon +49 (0)7082. 944 20

fax +49 (0)7082. 944 22 22

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1.4 Emergency telephone number

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2 SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GB CLP Regulation

Flam. Liq. 2; H225

Skin Sens. 1; H317

Aquatic Chronic 3; H412

Full text of hazard statements: see SECTION 16.

2.2 Label elements

GB CLP Regulation

Hazard components for labelling

BETA-CARYOPHYLLENE

linalool; 3,7-dimethyl-1,6-octadien-3-ol; dl-linalool

LINALYL ACETATE

CITRONELLOL

geraniol; (2E)-3,7-dimethylocta-2,6-dien-1-ol

EUGENOL

PINENE

Isoeugenol

Signal word: Danger

Pictograms:

Hazard statements

H225	Highly flammable liquid and vapour.
H317	May cause an allergic skin reaction.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P103	Read carefully and follow all instructions.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P240	Ground and bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting equipment.
P242	Use non-sparking tools.
P243	Take action to prevent static discharges.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.

P370+P378	In case of fire: Use sand, extinguishing powder or alcohol-resistant foam to extinguish.
P403+P235	Store in a well-ventilated place. Keep cool.
P501	Dispose of contents/container to an appropriate recycling or disposal facility.

2.3 Other hazards

Irritating to eyes, respiratory system and skin.

May cause sensitization by skin contact.

Repeated exposure may cause skin dryness or cracking.

Vapours may cause drowsiness and dizziness.

When using, do not eat, drink or smoke. Wash hands before breaks and at the end of workday.

Keep out of the reach of children.

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Repeated absorption may cause disorder of central nervous system, liver, kidneys and blood.

3 SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical characterization

Odour-Sequesterant: Alcoholic solution & perfumes

May cause an allergic skin reaction.

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Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (GB CLP Regulation)			
87-44-5	BETA-CARYOPHYLLENE			1 - < 5 %
	201-746-1		01-2120745237-53	
	Skin Sens. 1B, Asp. Tox. 1, Aquatic Chronic 4; H317 H304 H413			
78-70-6	linalool; 3,7-dimethyl-1,6-octadien-3-ol; dl-linalool			1 - < 5 %
	201-134-4	603-235-00-2		
	Skin Sens. 1B; H317			
80-26-2	p-menth-1-en-8-yl acetate			1 - < 5 %
	201-265-7		01-2119980733-29	
	Aquatic Chronic 2; H411			
115-95-7	LINALYL ACETATE			1 - < 5 %
	204-116-4		01-2119454789-19	
	Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1B; H315 H319 H317			
106-22-9	CITRONELLOL			< 1 %
	203-375-0		01-2119453995-23	
	Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1B; H315 H319 H317			
106-24-1	geraniol; (2E)-3,7-dimethylocta-2,6-dien-1-ol			< 1 %
	203-377-1	603-241-00-5		
	Skin Sens. 1; H317			
97-53-0	EUGENOL			< 1 %
	202-589-1		01-2119971802-33	
	Eye Irrit. 2, Skin Sens. 1B, Asp. Tox. 1; H319 H317 H304			
469-61-4	ALPHA-CEDRENE			< 1 %
	207-418-4			
	Asp. Tox. 1, Aquatic Acute 1, Aquatic Chronic 1; H304 H400 H410			
80-56-8	PINENE			< 1 %
	201-291-9		01-2119519223-49	
	Flam. Liq. 3, Acute Tox. 4, Skin Irrit. 2, Skin Sens. 1, Asp. Tox. 1, Aquatic Acute 1, Aquatic Chronic 1; H226 H302 H315 H317 H304 H400 H410			
97-54-1	isoeugenol			< 0.1 %
	202-590-7	604-094-00-X		
	Skin Sens. 1A; H317			

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	
87-44-5	201-746-1	BETA-CARYOPHYLLENE	1 - < 5 %
		oral: LD50 = >5000 mg/kg	
78-70-6	201-134-4	linalool; 3,7-dimethyl-1,6-octadien-3-ol; dl-linalool	1 - < 5 %
		dermal: LD50 = 5610 mg/kg; oral: LD50 = 2790 mg/kg	
80-26-2	201-265-7	p-menth-1-en-8-yl acetate	1 - < 5 %
		oral: LD50 = 5075 mg/kg	
115-95-7	204-116-4	LINALYL ACETATE	1 - < 5 %
		dermal: LD50 = >5000 mg/kg; oral: LD50 = >9000 mg/kg	
106-22-9	203-375-0	CITRONELLOL	< 1 %
		dermal: LD50 = 2650 mg/kg; oral: LD50 = 3450 mg/kg	
106-24-1	203-377-1	geraniol; (2E)-3,7-dimethylocta-2,6-dien-1-ol	< 1 %
		dermal: LD50 = 5000 mg/kg; oral: LD50 = 3600 mg/kg	
97-53-0	202-589-1	EUGENOL	< 1 %
		inhalation: LC50 = >2,6 mg/l (vapours); oral: LD50 = >2000 mg/kg	
80-56-8	201-291-9	PINENE	< 1 %
		dermal: LD50 = >2000 mg/kg; oral: LD50 = 500 mg/kg	
97-54-1	202-590-7	isoeugenol	< 0.1 %
		Skin Sens. 1A; H317: >= 0,01 - 100	

Further Information

May cause sensitization of susceptible persons.

Avoid contact with skin, eyes and clothing.

4 SECTION 4: First aid measures

4.1 Description of first aid measures

General information

Move out of dangerous area. Take off all contaminated clothing immediately. Show this safety data sheet to the doctor in attendance.

After inhalation

Move to fresh air. Keep patient warm and at rest. If breathing is irregular or stopped, administer artificial respiration. If unconscious place in recovery position and seek medical advice.

After contact with skin

In case of contact, immediately flush skin with soap and plenty of water. If skin irritation occurs, seek medical advice/attention.

After contact with eyes

In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Consult a physician.

After ingestion

Clean mouth with water and drink afterwards plenty of water. Do NOT induce vomiting. If unconscious place in recovery position and seek medical advice.

4.2 Most important symptoms and effects, both acute and delayed

Vapours may cause irritation to the eyes, respiratory system and the skin. May cause sensitization by skin contact. Vapours may cause drowsiness and dizziness. Symptoms: Exposure may result in reddening, tears and itching of the eyes and soreness in the nose and throat, together with coughing. Difficulty in breathing. May cause headache and dizziness. Unconsciousness. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

5 SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

Do not use a solid water stream as it may scatter and spread fire.

5.2 Special hazards arising from the substance or mixture

Vapours are heavier than air and may spread along floors. Vapors may spread long distances and ignite.

Vapours may form explosive mixtures with air. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Keep away from sources of ignition – No smoking. Use water spray to cool unopened containers. Container may rupture on heating.

5.3 Advice for firefighters

Wear self-contained breathing apparatus and protective suit. Use only explosion-proof equipment.

Additional information

Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Prevent fire extinguishing water from contaminating surface water or the ground water system. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

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6 SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

General advice

Remove all sources of ignition. Ensure adequate ventilation, especially in confined areas. Avoid contact with skin and eyes. Protective suit. Evacuate personnel to safe areas.

6.2 Environmental precautions

Do not flush into surface water or sanitary sewer system.

Inform the responsible authorities in case of gas leakage, or of entry into waterways, soil or drains.

6.3 Methods and material for containment and cleaning up

Other information

Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13). Ensure adequate ventilation. Use explosion-proof equipment.

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7 SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Take notice of labels and material safety data sheets for the working chemicals.

Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation.

Advice on protection against fire and explosion

Keep away from heat and sources of ignition. Do not smoke. Take measures to prevent the build up of electrostatic charge.

Use only explosion-proof equipment. Vapours may form explosive mixtures with air.

Advice on general occupational hygiene

Ensure adequate ventilation, especially in confined areas. Avoid breathing vapors, mist or gas. When using, do not eat, drink or smoke. Wash hands before breaks and at the end of workday.

Further information on handling

Refer also to instructions for use.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from direct sunlight.

Storage must be in accordance with the BetrSichV (Germany).

Hints on joint storage

Keep away from food, drink and animal feedingstuffs.

Materials to avoid: Oxidizing and spontaneously flammable products, Flammable materials, Organic peroxides, Oxidizing agents

8 SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
64-17-5	Ethanol	1000	1920		TWA (8 h)	WEL

DNEL/DMEL values

CAS No	Substance	DNEL type	Exposure route	Effect	Value
64-17-5	ethanol; ethyl alcohol				
		Worker DNEL, long-term	inhalation	systemic	950 mg/m ³
		Worker DNEL, acute	inhalation	local	1900 mg/m ³
		Worker DNEL, long-term	dermal	systemic	343 mg/kg bw/day
		Consumer DNEL, long-term	inhalation	systemic	114 mg/m ³
		Consumer DNEL, acute	inhalation	local	950 mg/m ³
		Consumer DNEL, long-term	dermal	systemic	206 mg/kg bw/day
		Consumer DNEL, long-term	oral	systemic	87 mg/kg bw/day
115-95-7	LINALYL ACETATE				
		Worker DNEL, long-term	inhalation	systemic	2,75 mg/m ³
		Worker DNEL, long-term	dermal	systemic	2,5 mg/kg bw/day
		Consumer DNEL, long-term	inhalation	systemic	0,68 mg/m ³
		Consumer DNEL, long-term	dermal	systemic	1,25 mg/kg bw/day
		Consumer DNEL, long-term	oral	systemic	0,2 mg/kg bw/day
106-22-9	CITRONELLOL				
		Worker DNEL, long-term	inhalation	systemic	161,6 mg/m ³
		Worker DNEL, long-term	dermal	systemic	327,4 mg/kg bw/day
		Consumer DNEL, long-term	inhalation	systemic	47,8 mg/m ³
		Worker DNEL, long-term	inhalation	local	10 mg/m ³
		Consumer DNEL, long-term	inhalation	local	10 mg/m ³
		Consumer DNEL, long-term	dermal	systemic	196,4 mg/kg bw/day
		Consumer DNEL, long-term	oral	systemic	13,8 mg/kg bw/day
97-53-0	EUGENOL				
		Worker DNEL, long-term	inhalation	systemic	21,2 mg/m ³
		Worker DNEL, long-term	dermal	systemic	6 mg/kg bw/day
		Consumer DNEL, long-term	inhalation	systemic	5,22 mg/m ³
		Consumer DNEL, long-term	dermal	systemic	3 mg/kg bw/day
		Consumer DNEL, long-term	oral	systemic	3 mg/kg bw/day

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according to UK REACH Regulation

CAS No	Substance		
80-56-8	PINENE		
Worker DNEL, long-term	inhalation	systemic	3,8 mg/m ³
Worker DNEL, long-term	dermal	systemic	0,54 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	0,67 mg/m ³
Consumer DNEL, long-term	dermal	systemic	0,19 mg/kg bw/day

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PNEC values

CAS No	Substance	
Environmental compartment		Value
64-17-5	ethanol; ethyl alcohol	
Freshwater		0,96 mg/l
Freshwater (intermittent releases)		2,75 mg/l
Marine water		0,79 mg/l
Freshwater sediment		3,6 mg/kg
Marine sediment		2,9 mg/kg
Secondary poisoning		380-720 mg/kg
Soil		0,63 mg/kg
80-26-2	p-menth-1-en-8-yl acetate	
Freshwater sediment		0,453 mg/kg
Marine sediment		0,045 mg/kg
Micro-organisms in sewage treatment plants (STP)		10 mg/l
Soil		0,086 mg/kg
115-95-7	LINALYL ACETATE	
Freshwater		0,011 mg/l
Freshwater (intermittent releases)		0,11 mg/l
Marine water		0,001 mg/l
Freshwater sediment		0,609 mg/kg
Marine sediment		0,061 mg/kg
Micro-organisms in sewage treatment plants (STP)		1 mg/l
Soil		0,115 mg/kg
106-22-9	CITRONELLOL	
Freshwater		0,002 mg/l
Freshwater sediment		0,026 mg/kg
Marine sediment		0,03 mg/kg
Micro-organisms in sewage treatment plants (STP)		580 mg/l
Soil		0,004 mg/kg
97-53-0	EUGENOL	
Freshwater		0,00113 mg/l
Freshwater (intermittent releases)		0,0113 mg/l
Marine water		0,000113 mg/l
Freshwater sediment		0,081 mg/kg
Marine sediment		0,008 mg/kg
Soil		0,015 mg/kg
80-56-8	PINENE	
Secondary poisoning		8,76 mg/kg
Micro-organisms in sewage treatment plants (STP)		0,2 mg/l

Additional advice on limit values

No data is available on the product itself.

8.2 Exposure controls



Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. To avoid risks to man and the environment, comply with the instructions for use.

Individual protection measures, such as personal protective equipment

Eye/face protection

Safety glasses with side-shields

Hand protection

Preventive skin protection: Solvent-resistant gloves (butyl-rubber). Use protective skin cream before handling the product.

Skin protection

Protective suit.

Respiratory protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Environmental exposure controls

The product should not be allowed to enter drains, water courses or the soil. Inform the responsible authorities in case of gas leakage, or of entry into waterways, soil or drains.

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9 SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state:	liquid
Colour:	colourless-light yellow
Odour:	characteristic
Boiling point or initial boiling point and boiling range:	78,29 °C
Lower explosion limits:	3,5 vol. %
Upper explosion limits:	15 vol. %
Flash point:	13 °C
Auto-ignition temperature:	260 °C
Vapour pressure (at 20 °C):	57,26 hPa
Vapour pressure (at 50 °C):	293 hPa
Density:	0,82 g/cm ³

10 SECTION 10: Stability and reactivity

10.1 Reactivity

No data is available on the product itself.

10.2 Chemical stability

Keep containers tightly closed in a cool, well-ventilated place.

10.3 Possibility of hazardous reactions

Vapours may form explosive mixtures with air.

10.4 Conditions to avoid

Keep away from heat and sources of ignition. Do not smoke.

Keep away from direct sunlight. Do not expose to temperatures above 40 °C.

Take measures to prevent the build up of electrostatic charge.

10.5 Incompatible materials

Oxidizing agents, Acids, Bases, Amines, Nitric acid.

10.6 Hazardous decomposition products

Carbon oxides, nitrogen oxides (NO_x), Acids, Hydrocarbons, Hydrogen cyanide (hydrocyanic acid). Oxidizing and spontaneously flammable products.

11 SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in GB CLP Regulation

Toxicokinetics, metabolism and distribution

No data is available on the product itself.

Acute toxicity

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

ATEmix calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l.

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
87-44-5	BETA-CARYOPHYLLENE				
	oral	LD50	>5000 mg/kg	Mouse	
78-70-6	linalool; 3,7-dimethyl-1,6-octadien-3-ol; dl-linalool				
	oral	LD50	2790 mg/kg	Rat	OECD Test Guideline 401
	dermal	LD50	5610 mg/kg	Albino rabbit	OECD Test Guideline 402
80-26-2	p-menth-1-en-8-yl acetate				
	oral	LD50	5075 mg/kg		
115-95-7	LINALYL ACETATE				
	oral	LD50	>9000 mg/kg	Rat	
	dermal	LD50	>5000 mg/kg	Rabbit	
106-22-9	CITRONELLOL				
	oral	LD50	3450 mg/kg	Rat	
	dermal	LD50	2650 mg/kg	Rabbit	
106-24-1	geraniol; (2E)-3,7-dimethylocta-2,6-dien-1-ol				
	oral	LD50	3600 mg/kg	Rat	
	dermal	LD50	5000 mg/kg	Rabbit	
97-53-0	EUGENOL				
	oral	LD50	>2000 mg/kg	Rat	OECD 423
	inhalation (4 h) vapour	LC50	>2,6 mg/l	Rat	OECD 403
80-56-8	PINENE				
	oral	LD50	500 mg/kg	Rat	OECD 423
	dermal	LD50	>2000 mg/kg	Rat	OECD Test Guideline 402

Irritation and corrosivity

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

Sensitising effects

May cause an allergic skin reaction. (BETA-CARYOPHYLLENE; linalool; 3,7-dimethyl-1,6-octadien-3-ol; dl-linalool; LINALYL ACETATE; CITRONELLOL; geraniol; (2E)-3,7-dimethylocta-2,6-dien-1-ol; EUGENOL; PINENE; isoeugenol)

Carcinogenic/mutagenic/toxic effects for reproduction

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

STOT-single exposure

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

STOT-repeated exposure

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

Repeated absorption may cause disorder of central nervous system, liver, kidneys and blood.

Aspiration hazard

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

Specific effects in experiment on an animal

No data is available on the product itself.

11.2 Information on other hazards**Other information**

Health injuries are not known or expected under normal use.

Further information

Harmful if swallowed. Effects due to ingestion may include: Nausea, narcosis, Weakness, Dizziness, Unconsciousness. If inhaled: Irritation of mucous membranes, Dizziness. Repeated exposure may cause skin dryness or cracking.

12 SECTION 12: Ecological information

12.1 Toxicity

No data is available on the product itself.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
87-44-5	BETA-CARYOPHYLLENE					
	Acute algae toxicity	ErC50 >0,033 mg/l	72 h	Pseudokirchneriella subcapitata		
	Acute crustacea toxicity	EC50 >0,17 mg/l	48 h	Daphnia magna (Big water flea)		
78-70-6	linalool; 3,7-dimethyl-1,6-octadien-3-ol; dl-linalool					
	Acute fish toxicity	LC50 27,8 mg/l	96 h	Oncorhynchus mykiss (Rainbow trout)		OECD Test Guideline 203
	Acute algae toxicity	ErC50 156.7 mg/l	96 h	Desmodesmus subspicatus		DIN 38412 / part 9
	Acute crustacea toxicity	EC50 59 mg/l	48 h	Daphnia magna (Big water flea)		OECD Test Guideline 202
	Algae toxicity	NOEC 54,3 mg/l				
	Acute bacteria toxicity	(EC50 >100 mg/l)	0,5 h	Activated sludge		OECD 209
80-26-2	p-menth-1-en-8-yl acetate					
	Acute fish toxicity	LC50 >11 mg/l	96 h	Pimephales promelas (fathead minnow)		OECD Test Guideline 203
	Acute algae toxicity	ErC50 6,9 mg/l	72 h	Desmodesmus subspicatus		OECD Test Guideline 201
	Acute crustacea toxicity	EC50 >10 mg/l	48 h	Daphnia magna (Big water flea)		OECD Test Guideline 202
115-95-7	LINALYL ACETATE					
	Acute fish toxicity	LC50 11 mg/l	96 h	Cyprinus carpio (Common Carp)		OECD 203
	Acute algae toxicity	ErC50 68 mg/l				
	Acute crustacea toxicity	EC50 59 mg/l	48 h	Daphnia magna (Big water flea)		OECD 202
	Algae toxicity	NOEC 3,9 mg/l				
	Crustacea toxicity	NOEC 25 mg/l	2 d	Daphnia magna (Big water flea)		OECD 202
	Acute bacteria toxicity	(EC50 >100 mg/l)	3 h	Activated sludge		OECD 209

CAS No	Chemical name					
106-22-9	CITRONELLOL					
	Acute fish toxicity	LC50	14,66 mg/l	96 h	Leuciscus idus (golden orfe)	
	Acute algae toxicity	ErC50	2,4 mg/l	72 h		
	Acute crustacea toxicity	EC50	17,48 mg/l	48 h	Daphnia magna (Big water flea)	
	Fish toxicity	NOEC	4,6 mg/l	4 d	Leuciscus idus (golden orfe)	
	Crustacea toxicity	NOEC	3,1 mg/l	2 d	Daphnia magna (Big water flea)	
	Acute bacteria toxicity	(EC50 mg/l)	>10000	0,5 h	Pseudomonas putida	
106-24-1	geraniol; (2E)-3,7-dimethylocta-2,6-dien-1-ol					
	Acute fish toxicity	LC50	22 mg/l	96 h	Danio rerio (zebrafish)	OECD 203
	Acute algae toxicity	ErC50	13,1 mg/l	72 h	Desmodesmus subspicatus	OECD 201
	Acute crustacea toxicity	EC50	10,8 mg/l	48 h	Daphnia magna (Big water flea)	OECD 202
	Fish toxicity	NOEC	10 mg/l	4 d	Danio rerio (zebrafish)	OECD 203
	Algae toxicity	NOEC	1 mg/l	3 d	Desmodesmus subspicatus	OECD 201
	Acute bacteria toxicity	(EC50 mg/l)	70	0,5 h	Activated sludge	OECD 209
97-53-0	EUGENOL					
	Acute fish toxicity	LC50	13 mg/l	96 h	Danio rerio (zebrafish)	OECD 203
	Acute algae toxicity	ErC50	24 mg/l	72 h	Desmodesmus subspicatus	OECD 201
	Acute crustacea toxicity	EC50	1,05 mg/l	48 h	Daphnia magna (Big water flea)	OECD 202
	Fish toxicity	NOEC	10 mg/l	4 d	Danio rerio (zebrafish)	OECD 203
	Algae toxicity	NOEC	23 mg/l	3 d	Desmodesmus subspicatus	OECD 201
469-61-4	ALPHA-CEDRENE					
	Acute crustacea toxicity	EC50	0,044 mg/l	48 h	Daphnia pulex (water flea)	
80-56-8	PINENE					
	Acute fish toxicity	LC50	0,27 mg/l	96 h	Cyprinus carpio (Common Carp)	
	Acute crustacea toxicity	EC50	0,475 mg/l	48 h	Daphnia magna (Big water flea)	
	Algae toxicity	NOEC	0,247 mg/l			

12.2 Persistence and degradability

No data is available on the product itself.

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
87-44-5	BETA-CARYOPHYLLENE			
	Degradation OECD 301D/ EEC 92/69/V, C.4-E	10%	28	
	Not readily biodegradable.			
78-70-6	linalool; 3,7-dimethyl-1,6-octadien-3-ol; dl-linalool			
	OECD 301D/ EEC 92/69/V, C.4-E	64,2%	28	
80-26-2	p-menth-1-en-8-yl acetate			
	OECD 301F/ ISO 9408/ EEC 92/69/V, C.4-D	63%	28	
	Readily biodegradable.			
115-95-7	LINALYL ACETATE			
	Degradation OECD 301F/ ISO 9408/ EEC 92/69/V, C.4-D	70-80%	28	
	Readily biodegradable.			
106-22-9	CITRONELLOL			
	Degradation OECD 301F/ ISO 9408/ EEC 92/69/V, C.4-D	80%	28	
	Readily biodegradable.			
106-24-1	geraniol; (2E)-3,7-dimethylocta-2,6-dien-1-ol			
	OECD 301A	>90%	3	
	Not readily biodegradable.			
97-53-0	EUGENOL			
	OECD 301D/ EEC 92/69/V, C.4-E	82%	28	
	Readily biodegradable.			
80-56-8	PINENE			
	Degradation OECD 301D/ EEC 92/69/V, C.4-E	68%	28	
	Readily biodegradable.			

12.3 Bioaccumulative potential

No data is available on the product itself.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
87-44-5	BETA-CARYOPHYLLENE	6,23
78-70-6	linalool; 3,7-dimethyl-1,6-octadien-3-ol; dl-linalool	2,9
80-26-2	p-menth-1-en-8-yl acetate	4,4
115-95-7	LINALYL ACETATE	3,9
106-22-9	CITRONELLOL	3,41
106-24-1	geraniol; (2E)-3,7-dimethylocta-2,6-dien-1-ol	2,6
97-53-0	EUGENOL	1,83
469-61-4	ALPHA-CEDRENE	6,308
80-56-8	PINENE	4,46

BCF

CAS No	Chemical name	BCF	Species	Source
106-22-9	CITRONELLOL	82,59		

12.4 Mobility in soil

No data is available on the product itself.

12.5 Results of PBT and vPvB assessment

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

This preparation contains no substance considered to be persistent, bioaccumulating nor toxic (PBT). This preparation contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

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.

12.7 Other adverse effects

No data is available on the product itself.

13 SECTION 13: Disposal considerations

13.1 Waste treatment methods

Disposal recommendations

Can be disposed of as a solid waste or burned in a suitable installation subject to local regulations. Empty containers can be landfilled, when in accordance with the local regulations.

List of Wastes Code - residues/unused products

070199 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the manufacture, formulation, supply and use (MFSU) of basic organic chemicals; wastes not otherwise specified

List of Wastes Code - contaminated packaging

070199 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the manufacture, formulation, supply and use (MFSU) of basic organic chemicals; wastes not otherwise specified

Contaminated packaging

Can be disposed of as a solid waste or burned in a suitable installation subject to local regulations. Empty containers can be landfilled, when in accordance with the local regulations.

14 SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number or ID number: UN 1266
14.2. UN proper shipping name: PERFUMERY PRODUCTS
14.3. Transport hazard class(es): 3
14.4. Packing group: II
 Hazard label: 3



Classification code: F1
 Special Provisions: 163 640D
 Limited quantity: 5 L
 Excepted quantity: E2
 Transport category: 2
 Hazard No: 33
 Tunnel restriction code: D/E

Inland waterways transport (ADN)

14.1. UN number or ID number: UN 1266
14.2. UN proper shipping name: Perfumery products
14.3. Transport hazard class(es): 3
14.4. Packing group: II
 Hazard label: 3



Classification code: F1
 Special Provisions: 163 640D
 Limited quantity: 5 L
 Excepted quantity: E2

Marine transport (IMDG)

14.1. UN number or ID number:	UN 1266
14.2. UN proper shipping name:	PERFUMERY PRODUCTS
14.3. Transport hazard class(es):	3
14.4. Packing group:	II
Hazard label:	3



Special Provisions:	163
Limited quantity:	5 L
Excepted quantity:	E2
EmS:	F-E, S-D

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number:	UN 1266
14.2. UN proper shipping name:	PERFUMERY PRODUCTS
14.3. Transport hazard class(es):	3
14.4. Packing group:	II
Hazard label:	3



Special Provisions:	A3 A72
Limited quantity Passenger:	1 L
Passenger LQ:	Y341
Excepted quantity:	E2
IATA-packing instructions - Passenger:	353
IATA-max. quantity - Passenger:	5 L
IATA-packing instructions - Cargo:	364
IATA-max. quantity - Cargo:	60 L

14.6. Special precautions for user

Handle in accordance with good industrial hygiene and safety practice. Health injuries are not known or expected under normal use.

15 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 40, Entry 75

2010/75/EU (VOC): 80,082 % (832,853 g/l)

2004/42/EC (VOC): 81,24 % (844,896 g/l)

Information according to 2012/18/EU (SEVESO III):

P5c FLAMMABLE LIQUIDS

Additional information

Take note of Dir 92/85/EEC on the safety and health at work of pregnant workers. Take note of Dir 94/33/EC on the protection of young people at work.

National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Water hazard class (D): 2 - obviously hazardous to water

16 SECTION 16: Other information

Abbreviations and acronyms

Flam. Liq: Flammable liquids

Acute Tox: Acute toxicity

Asp. Tox: Aspiration hazard

Skin Irrit: Skin irritation

Eye Irrit: Eye irritation

Skin Sens: Skin sensitisation

Aquatic Acute: Acute aquatic hazard

Aquatic Chronic: Chronic aquatic hazard

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

Classification	Classification procedure
Flam. Liq. 2; H225	On basis of test data
Skin Sens. 1; H317	Calculation method
Aquatic Chronic 3; H412	Calculation method

Relevant H and EUH statements (number and full text)

H225 Highly flammable liquid and vapour.

H226 Flammable liquid and vapour.

H302 Harmful if swallowed.

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

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.

H412 Harmful to aquatic life with long lasting effects.

H413 May cause long lasting harmful effects to aquatic life.

Further Information

All data refer to the product upon delivery. The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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