

Trade name: Zingiberis aetheroleum

Substance number: 016675

Version: 6 / CH

Date revised: 13.03.2019

Replaces Version: 5 / CH

Print date: 13.03.19

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

1.1. Product identifier

Zingiberis aetheroleum

Item No. 01667500

Substance / product identification

CAS-No. 8007-08-7

EINECS-No. 283-634-2

INCI Zingiber Officinale Root Oil

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

Use of the substance/preparation

flavour/ fragrance

1.3. Details of the supplier of the safety data sheet

Address/Manufacturer

Hänseler AG

Industriestrasse 35

9101 Herisau

Telephone no. 0041 (0)71 353 58 58

E-mail address of sdb@haenseler.ch

person responsible
for this SDS

1.4. Emergency telephone number

Switzerland :145 / Abroad +41 (0)44 251 51 51

SECTION 2: Hazards identification ***

2.1. Classification of the substance or mixture

Classification (Regulation (EC) No. 1272/2008)

Classification (Regulation (EC) No. 1272/2008)

Skin Irrit. 2 H315

Eye Irrit. 2 H319

Skin Sens. 1 H317

Asp. Tox. 1 H304

Aquatic Chronic 2 H411

The product is classified and labelled in accordance with Regulation (EC) No 1272/2008

For explanation of abbreviations see section 16.

2.2. Label elements

Labelling according to regulation (EC) No 1272/2008

Hazard pictograms ***



Signal word ***

Danger

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Hazard statements ***

H315	Causes skin irritation.
H319	Causes serious eye irritation.
H317	May cause an allergic skin reaction.
H304	May be fatal if swallowed and enters airways.
H411	Toxic to aquatic life with long lasting effects.

Precautionary statements ***

P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P331	Do NOT induce vomiting.

Hazardous component(s) to be indicated on label (Regulation (EC) No. 1272/2008)

contains ***	(R)-p-mentha-1,8-diene; alpha-Pinene, not specified; Citral; Geraniol; citronellol; 1,8-Cineole; 3,7-Dimethyl-1,6-octadien-3-ol; Eugenol; beta-Pinene, not specified; beta-Bisabolene
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SECTION 3: Composition/information on ingredients *****Hazardous ingredients *******camphene**

CAS No.	79-92-5
EINECS no.	201-234-8
Concentration	>= 1 < 10 %
Classification (Regulation (EC) No. 1272/2008)	Flam. Sol. 2 H228 Eye Irrit. 2 H319 Aquatic Chronic 1 H410

beta-Bisabolene

CAS No.	495-61-4
Concentration	>= 1 < 10 %
Classification (Regulation (EC) No. 1272/2008)	Asp. Tox. 1 H304 Skin Irrit. 2 H315 Skin Sens. 1 H317

alpha-Pinene, not specified

CAS No.	80-56-8
EINECS no.	201-291-9
Concentration	>= 1 < 10 %
Classification (Regulation (EC) No. 1272/2008)	Flam. Liq. 3 H226 Asp. Tox. 1 H304 Skin Irrit. 2 H315 Skin Sens. 1 H317 Aquatic Acute 1 H400 Aquatic Chronic 1 H410

Concentration limits (Regulation (EC) No. 1272/2008)

Aquatic Acute 1	M = 1
Aquatic Chronic	M = 1

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

CAS No. 5989-27-5
 EINECS no. 227-813-5
 Concentration \geq 1 < 10 %
 Classification (Regulation (EC) No. 1272/2008)
 Flam. Liq. 3 H226
 Asp. Tox. 1 H304
 Skin Irrit. 2 H315
 Skin Sens. 1 H317
 Aquatic Acute 1 H400
 Aquatic Chronic 1 H410

Concentration limits (Regulation (EC) No. 1272/2008)

Aquatic Acute 1 M = 1

Aquatic Chronic M = 1

1

CLP Regulation (EC) No 1272/2008, Annex VI, Note C

DSD Directive 67/548/EEC, Annex I, Note C

Citral

CAS No. 5392-40-5
 EINECS no. 226-394-6
 Concentration \geq 1 < 10 %
 Classification (Regulation (EC) No. 1272/2008)
 Skin Irrit. 2 H315
 Eye Irrit. 2 H319
 Skin Sens. 1 H317

1,8-Cineole

CAS No. 470-82-6
 EINECS no. 207-431-5
 Concentration \geq 1 < 10 %
 Classification (Regulation (EC) No. 1272/2008)
 Flam. Liq. 3 H226
 Skin Sens. 1B H317

Geraniol

CAS No. 106-24-1
 EINECS no. 203-377-1
 Concentration \geq 1 < 3 %
 Classification (Regulation (EC) No. 1272/2008)
 Skin Irrit. 2 H315
 Skin Sens. 1 H317
 Eye Dam. 1 H318

citronello

CAS No. 106-22-9
 EINECS no. 203-375-0
 Concentration < 1 %
 Classification (Regulation (EC) No. 1272/2008)
 Skin Irrit. 2 H315
 Skin Sens. 1B H317
 Eye Irrit. 2 H319

3,7-Dimethyl-1,6-octadien-3-ol

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CAS No.	78-70-6		
EINECS no.	201-134-4		
Concentration		< 1	%
Classification (Regulation (EC) No. 1272/2008)			
	Skin Irrit. 2	H315	
	Eye Irrit. 2	H319	
	Skin Sens. 1B	H317	

beta-Pinene, not specified

CAS No.	127-91-3		
EINECS no.	204-872-5		
Concentration		< 1	%
Classification (Regulation (EC) No. 1272/2008)			
	Flam. Liq. 3	H226	
	Asp. Tox. 1	H304	
	Skin Sens. 1	H317	
	Aquatic Acute 1	H400	
	Aquatic Chronic 1	H410	

Concentration limits (Regulation (EC) No. 1272/2008)

Aquatic Acute 1	M = 1
Aquatic Chronic 1	M = 1

Eugenol

CAS No.	97-53-0		
EINECS no.	202-589-1		
Concentration		< 1	%
Classification (Regulation (EC) No. 1272/2008)			
	Skin Sens. 1B	H317	
	Eye Irrit. 2	H319	

SECTION 4: First aid measures**4.1. Description of first aid measures****After inhalation**

Remove the casualty into fresh air and keep him calm. In the event of symptoms take medical treatment.

After skin contact

Wash off immediately with soap and water and rinse well. Remove contaminated, soaked clothing immediately and dispose of safely.

After eye contact

Separate eyelids, wash the eyes thoroughly with water (15 min.). Eye treatment by an Occulist.

After ingestion

Rinse mouth thoroughly with water. Do not induce vomiting. Summon a doctor immediately.

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Carbon dioxide, Dry chemical extinguisher, Foam

Non suitable extinguishing media

Water

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5.3. Advice for firefighters**Special protective equipment for fire-fighting**

Use self-contained breathing apparatus.

Other information

Cool endangered containers with water spray jet.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Do not inhale vapours. Keep away sources of ignition.

6.2. Environmental precautions

Prevent spread over a wide area (e.g. by containment or oil barriers). Do not discharge into the drains/surface waters/groundwater.

6.3. Methods and material for containment and cleaning up

Pick up with absorbent material (eg sand, kieselgur, acid binder, universal binder, sawdust). Send in suitable containers for recovery or disposal. Ensure adequate ventilation.

SECTION 7: Handling and storage**7.1. Precautions for safe handling****Advice on safe handling**

Avoid contact with skin and eyes. Ensure adequate ventilation.

Advice on protection against fire and explosion

Keep away from sources of ignition. No smoking. Procure extinguisher

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Keep tightly closed in a dry and cool place. Use glass containers. Use aluminium containers. Storage rooms must be properly ventilated.

Storage classes

Storage class according to TRGS 510	10	Flammable liquids
Storage category (Switzerland)	10/12	Other liquid hazardous substances

Further information on storage conditions

Protect from light.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Exposure limit values****(R)-p-mentha-1,8-diene**

List	SUVA			
Type	MAK			
Value	40	mg/m ³	7	ppm(V)
Short term exposure limit	80	mg/m ³	14	ppm(V)
Pregnancy group: S; Status: 2017; Remarks: S SSc; LeberKT AN				

8.2. Exposure controls**Respiratory protection**

Provide adequate ventilation. Do not breathe vapours, dust or aerosol.

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Hand protection

Gloves

Eye protection

Safety glasses

Body protection

apron

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Form	Liquid
Colour	yellow-brown, clear
Odour	aromatic
Colour	yellow to brownish yellow
Flash point	
Value	> 63 °C
Upper/lower flammability or explosive limits	
Remarks	not determined
Vapour pressure	
Remarks	not determined
Density	
Value	0.872 to 0.884
Remarks	Relative Density according specification
Solubility(ies)	
Remarks	not determined
Partition coefficient: n-octanol/water	
Remarks	not determined
Viscosity	
Remarks	not determined

SECTION 10: Stability and reactivity**10.1. Reactivity**

None

10.2. Chemical stability

No decomposition if stored and applied as directed.

10.3. Possibility of hazardous reactions

No decomposition if stored and applied as directed.

10.4. Conditions to avoid

Keep away from sources of heat and ignition.

10.5. Incompatible materials

Reactions with acids, alkalis and oxidizing agents.

10.6. Hazardous decomposition products

No hazardous decomposition products known when handled according to prescribed instructions.

SECTION 11: Toxicological information

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11.1. Information on toxicological effects

Acute oral toxicity

ATE	>	10'000	mg/kg
Method	calculated value (Regulation (EC) No. 1272/2008)		

Acute oral toxicity (Components)

1,8-Cineole

Species	rat		
LD50		2840	mg/kg
Source	RTECS		

Geraniol

Species	rat		
LD50		3600	mg/kg

citronellol

Species	rat		
LD50		3450	mg/kg

camphene

Species	rabbit		
LD50	>	2500	mg/kg
Source	IUCLID		

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

Species	rat		
LD50		4400	mg/kg

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

Species	mouse		
NOAEL		1650	mg/kg

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

Species	mouse		
LOAEL		3300	mg/kg

Citral

Species	Rats (male/female)		
LD50		6800	mg/kg

Citral

Species	rat (female)		
LOAEL		335	mg/kg

Citral

Species	rat (male)		
LOAEL		345	mg/kg

Eugenol

Species	rat		
LD50	>	2000	mg/kg
Method	OECD 423		

Eugenol

Species	rat		
LDLo		800	mg/kg
Remarks	intraperitoneal		

Acute dermal toxicity (Components)

Geraniol

Species	rabbit		
	>	5000	mg/kg

citronellol

Species	rabbit		
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LD50 2650 mg/kg

(R)-p-mentha-1,8-dieneSpecies rabbit
LD50 > 5000 mg/kg**Citral**Species Rats (male/female)
> 2000 mg/kg**Acute inhalative toxicity (Components)****Eugenol**Species rat
LD > 2580 mg/m³
Duration of exposure 4 h**Skin corrosion/irritation**

Remarks No data available.

Serious eye damage/irritation

Remarks Irritates the eyes.

Sensitization

Remarks May cause allergic skin reactions.

Sensitization (Components)**citronellol**Species mouse
evaluation sensitizing
Remarks May cause sensitization by skin contact.**camphene**evaluation non-sensitizing
Source IUCLID**(R)-p-mentha-1,8-diene**Species mouse
evaluation sensitizing
Method OECD 429
Remarks May cause sensitization by skin contact.**Citral**Species mouse
evaluation sensitizing
Method OECD 429**Mutagenicity (Components)****Citral**Species hamster
evaluation No experimental information on genotoxicity in vitro available.
Remarks negative**Citral**Species mouse
Remarks negative**Eugenol**Species rat
evaluation DNA damage**Eugenol**Species mouse
evaluation May cause genetic defects.**Eugenol**

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Species hamster
 evaluation May cause genetic defects.

Carcinogenicity (Components)**Eugenol**

Species mouse
 evaluation Essential points have been found for a possible cancer causing effects in the experiment on test animals.
 Remarks Based on available data, the classification criteria are not met.
 Source RTECS

Experience in practice

Damage to the lungs possible.

SECTION 12: Ecological information *****12.1. Toxicity****General information**

May cause long lasting harmful effects to aquatic life.

Fish toxicity (Components)**1,8-Cineole**

Species Fathead minnow (*Pimephales promelas*)
 LC50 102 mg/l
 Duration of exposure 96 h

Geraniol

LC50 Medi 3.45 mg/l
 an
 Duration of exposure 96 h

citronellol

Species golden orfe (*Leuciscus idus*)
 LC50 10 to 22 mg/l
 Duration of exposure 96 h

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

Species Fathead minnow (*Pimephales promelas*)
 LC50 0.72 mg/l
 Duration of exposure 96 h
 Method OECD 203

Citral

Species golden orfe (*Leuciscus idus*)
 LC50 6.78 mg/l
 Duration of exposure 96 h
 Method DIN 38412 T.15

Eugenol

Species zebra fish (*Brachydanio rerio*)
 LC50 13 mg/l
 Duration of exposure 96 h
 Method OECD 203

Daphnia toxicity (Components)**citronellol**

Species Daphnia
 EC50 17 mg/l
 Duration of exposure 48 h

camphene

Species Daphnia magna

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EC50	13	to	36	mg/l
Duration of exposure	48	h		
Source	Literature value			

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

Species	Daphnia magna			
EC50	0.36			mg/l
Duration of exposure	48	h		

Citral

Species	Daphnia magna			
EC50	6.8			mg/l
Duration of exposure	48	h		

Eugenol

Species	Daphnia			
EC50	1.13			mg/l

Algae toxicity (Components)**citronellol**

EC50	2.4			mg/l
Duration of exposure	72	h		

Bacteria toxicity (Components)**(R)-p-mentha-1,8-diene**

Species	activated sludge			
EC50	3.94			mg/l
Method	OECD 209			

12.2. Persistence and degradability**Biodegradability (Components)****(R)-p-mentha-1,8-diene**

Value	71			%
evaluation	Readily biodegradable			

Citral

Value	85	to	95	%
evaluation	Readily biodegradable			
Method	OECD 301C			

Chemical oxygen demand (COD) (Components)**citronellol**

Value	2050			mg/g
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12.3. Bioaccumulative potential**Partition coefficient: n-octanol/water**

Remarks	not determined
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Octanol/water partition coefficient (log Pow) (Components)**(R)-p-mentha-1,8-diene**

log Pow	4.2
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Citral

log Pow	2.9
Temperature	25 °C

Eugenol

log Pow	2.7
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12.5. Results of PBT and vPvB assessment

Evaluation of persistence and bioaccumulation potential ***

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The Substance doesn't meets PBT/vPvB-criterions

12.6. Other adverse effects

General information / ecology

Do not allow it to reach ground water, water bodies or sewage system.

SECTION 13: Disposal considerations

13.1. Waste treatment methods







Disposal recommendations for the product

Disposal in compliance with local and national regulations.

Disposal recommendations for packaging

Dispose of as unused product.

SECTION 14: Transport information

	Land transport ADR/RID	Marine transport IMDG/GGVSee	Air transport ICAO/IATA
Tunnel restriction code	-		
14.1. UN number	3082	3082	3082
14.2. UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (camphene)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (camphene)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (camphene)
14.3. Transport hazard class(es)	9	9	9
Label			
14.4. Packing group	III	III	III
Limited Quantity	5 I		
Transport category	3		
14.5. Environmental hazards	 ENVIRONMENTALLY HAZARDOUS	Marine Pollutant 	 ENVIRONMENTALLY HAZARDOUS

SECTION 15: Regulatory information ***

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

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Water Hazard Class (Germany) ***

Water Hazard Class (Germany)	WGK 3
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Remarks	Derivation of WGK according to Annex 1 No. 5.2 AwSV
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15.2. Chemical safety assessment

For this substance a chemical safety assessment is not required.

SECTION 16: Other information**Hazard statements listed in Chapter 3**

H226	Flammable liquid and vapour.
H228	Flammable solid.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

CLP categories listed in Chapter 3

Aquatic Acute 1	Hazardous to the aquatic environment, acute, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic, Category 1
Asp. Tox. 1	Aspiration hazard, Category 1
Eye Dam. 1	Serious eye damage, Category 1
Eye Irrit. 2	Eye irritation, Category 2
Flam. Liq. 3	Flammable liquid, Category 3
Flam. Sol. 2	Flammable solid, Category 2
Skin Irrit. 2	Skin irritation, Category 2
Skin Sens. 1	Skin sensitization, Category 1
Skin Sens. 1B	Skin sensitization, Category 1B

Supplemental information

Relevant changes compared with the previous version of the safety data sheet are marked with: ***
This information is based on our present state of knowledge. However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.