

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

1.1. Product identifier

Product form : Mixture
Product name : Ginger Pomelo # :
Product code : Perfumes, Fragrances :
Type of product Finished Good
Product group

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

1.2.1. Relevant identified uses

Main use category : Industrial use
Industrial/Professional use spec : Industrial
For professional use only
Use of the substance/mixture : Perfumes, Fragrances
Function or use category : Odour agents

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

ZEN AROMA
22c Portside Drive
Mt Maunganui, 3116
New Zealand
PH: 07 578 4755
support@zenaroma.co.nz

1.4. Emergency telephone number

Emergency number : 1-800-255-3924; +01-813-248-0585; China:+400-120-0751; Mexico:+01-800-099-0731;
Brazil: +0-800-591-6042; India: +000-800-100-4086

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flammable liquids Category 3 H226
Skin corrosion/irritation Category 2 H315
Skin sensitization, Category 1 H317
Aspiration hazard Category 1 H304
Hazardous to the aquatic environment - Chronic Hazard Category 1 H410
Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

Flammable liquid and vapour. Causes skin irritation. May be fatal if swallowed and enters airways. Very toxic to aquatic life with long lasting effects. May cause an allergic skin reaction.

2.2. Label elements

Labeling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS02

GHS07

GHS08

GHS09

Signal word (CLP)

: Danger

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Hazardous ingredients	: Grapefruit oil; Hexyl cinnamic aldehyde; Lemon oil ; CITRUS LIMON PEEL OIL; Linalool; acetyl cedrene
Hazard statements (CLP)	: 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. H410 - Very toxic to aquatic life with long lasting effects.
Precautionary statements (CLP)	: 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. P264 - Wash ... thoroughly after handling.

2.3. Other hazards

No additional information available

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Lemon oil	(CAS-No.) 8008-56-8 (EC-No.) 284-515-8;616-925-3	9 – 18	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 1, H410
CITRUS LIMON PEEL OIL	(CAS-No.) 84929-31-7 (EC-No.) 284-515-8	5 – 10	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1, H317 Asp. Tox. 1, H304 Aquatic Chronic 1, H410
Hexyl cinnamic aldehyde	(CAS-No.) 101-86-0 (EC-No.) 202-983-3 (REACH-no) 01-2119533092-50	4.4 – 8.8	Skin Sens. 1, H317 Aquatic Chronic 2, H411
Linalool	(CAS-No.) 78-70-6 (EC-No.) 201-134-4 (EC Index-No.) 603-235-00-2 (REACH-no) 01-2119474016-42	1.15 – 2.3	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1B, H317
Ethylene brassylate	(CAS-No.) 105-95-3 (EC-No.) 203-347-8 (REACH-no) 01-2119967772-24	1 – 2	Aquatic Chronic 2, H411
Methyl pamplemousse	(CAS-No.) 67674-46-8 (EC-No.) 266-885-2	1 – 2	Aquatic Chronic 3, H412 Skin Irrit. 2, H315
acetyl cedrene	(CAS-No.) 32388-55-9 (EC-No.) 251-020-3 (REACH-no) 01-2119969651-28	1 – 2	Skin Sens. 1B, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Grapefruit oil	(CAS-No.) 8016-20-4 (EC-No.) 289-904-6;600-007-4	0.5 – 1	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1, H317 Asp. Tox. 1, H304 Aquatic Chronic 2, H411

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Citral pure	(CAS-No.) 5392-40-5 (EC-No.) 226-394-6 (EC Index-No.) 605-019-00-3 (REACH-no) 01-2119462829-23	0.35 – 0.7	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317
Allyl caproate	(CAS-No.) 123-68-2 (EC-No.) 204-642-4 (REACH-no) 01-2119983573-26	0.3 – 0.6	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 Aquatic Acute 1, H400 Aquatic Chronic 3, H412
Cedarwood oil, Texas	(CAS-No.) 68990-83-0 (EC-No.) 294-461-7;614-888-8	0.225 – 0.45	Asp. Tox. 1, H304 Aquatic Chronic 1, H410
Geraniol	(CAS-No.) 106-24-1 (EC-No.) 203-377-1 (REACH-no) 01-2119552430-49	0.225 – 0.45	Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317
Ethyl acetate substance with a Community workplace exposure limit	(CAS-No.) 141-78-6 (EC-No.) 205-500-4 (EC Index-No.) 607-022-00-5 (REACH-no) 01-2119475103-46	0.175 – 0.35	Flam. Liq. 1, H224 Eye Irrit. 2, H319 STOT SE 3, H336
Amyl salicylate	(CAS-No.) 2050-08-0 (EC-No.) 218-080-2 (REACH-no) 01-2119969444-27	0.15 – 0.3	Acute Tox. 4 (Oral), H302 Aquatic Chronic 1, H410
Tangerine oil	(CAS-No.) 8016-85-1 (EC-No.) 297-672-2	0.15 – 0.3	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1, H317 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
Allyl cyclohexylpropionate	(CAS-No.) 2705-87-5 (EC-No.) 220-292-5	0.125 – 0.25	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Eugenol	(CAS-No.) 97-53-0 (EC-No.) 202-589-1	0.125 – 0.25	Acute Tox. 4 (Oral), H302 Eye Irrit. 2, H319 Skin Sens. 1B, H317
Cyclamal	(CAS-No.) 103-95-7 (EC-No.) 203-161-7 (REACH-no) 01-2119970582-32	0.05 – 0.1	Skin Irrit. 2, H315 Skin Sens. 1B, H317 Aquatic Chronic 2, H411
zingiber officinale (ginger) root oil	(CAS-No.) 8007-08-7 (EC-No.) 283-634-2	0.05 – 0.1	Skin Sens. 1, H317 Aquatic Chronic 2, H411

Full text of H-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general

: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation

: Allow affected person to breathe fresh air. Allow the victim to rest.

First-aid measures after skin contact

: Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention. Specific treatment (see supplemental first aid instruction on this label). If skin irritation or rash occurs: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.

First-aid measures after eye contact

: Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists.

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First-aid measures after ingestion : Immediately call a poison center or doctor/physician. Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

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

Symptoms/effects : Not expected to present a significant hazard under anticipated conditions of normal use.
Symptoms/effects after inhalation : May cause an allergic skin reaction.
Symptoms/effects after skin contact : Causes skin irritation.
Symptoms/effects after ingestion : May be fatal if swallowed and enters airways.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Flammable liquid and vapour.
Explosion hazard : May form flammable/explosive vapor-air mixture.
Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking.

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.
Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.
Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.
Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed	: Handle empty containers with care because residual vapors are flammable.
Precautions for safe handling	: No open flames. No smoking. Take precautionary measures against static discharge. Use only non-sparking tools. Avoid breathing dust/fume/gas/mist/vapours/spray. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor.
Hygiene measures	: Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	: Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment.
Storage conditions	: Keep container tightly closed. Keep only in the original container in a cool, well ventilated place away from : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container closed when not in use.
Incompatible products	: Strong bases. Strong acids.
Incompatible materials	: Heat sources. Sources of ignition. Direct sunlight.
Storage temperature	: 25 °C
Storage area	: Store in a well-ventilated place. Store away from heat.
Special rules on packaging	: Store in a closed container.
Packaging materials	: Do not store in corrodable metal.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Citral pure (5392-40-5)	
Belgium - Occupational Exposure Limits	
Limit value (mg/m ³)	32 mg/m ³ (vapor and aerosol)
Limit value (ppm)	5 ppm (vapor and aerosol)
OEL chemical category (BE)	Skin
Ireland - Occupational Exposure Limits	
OEL (8 hours ref) (ppm)	5 ppm
OEL (15 min ref) (ppm)	15 ppm (calculated)
Poland - Occupational Exposure Limits	
NDS (mg/m ³)	27 mg/m ³
NDSch (mg/m ³)	54 mg/m ³
Portugal - Occupational Exposure Limits	
OEL chemical category (PT)	Sensitizer
Spain - Occupational Exposure Limits	
VLA-ED (ppm)	5 ppm (inhalable fraction and vapor)
OEL chemical category (ES)	Sensitizer, skin - potential for cutaneous absorption
USA - ACGIH - Occupational Exposure Limits	
ACGIH TWA (ppm)	5 ppm (inhalable fraction and vapor)

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ACGIH chemical category	dermal sensitizer, Skin - potential significant contribution to overall exposure by the cutaneous route, Not Classifiable as a Human Carcinogen
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Ethyl acetate (141-78-6)	
EU - Occupational Exposure Limits	
IOELV TWA (mg/m ³)	734 mg/m ³
IOELV TWA (ppm)	200 ppm
IOELV STEL (mg/m ³)	1468 mg/m ³
IOELV STEL (ppm)	400 ppm
Austria - Occupational Exposure Limits	
MAK (mg/m ³)	734 mg/m ³
MAK (ppm)	200 ppm
MAK Short time value (mg/m ³)	1468 mg/m ³
MAK Short time value (ppm)	400 ppm
Belgium - Occupational Exposure Limits	
Limit value (mg/m ³)	734 mg/m ³
Limit value (ppm)	200 ppm
Short time value (mg/m ³)	1468 mg/m ³
Short time value (ppm)	400 ppm
Bulgaria - Occupational Exposure Limits	
OEL TWA (mg/m ³)	734 mg/m ³
OEL TWA (ppm)	200 ppm
OEL STEL (mg/m ³)	1468 mg/m ³
OEL STEL (ppm)	400 ppm
Croatia - Occupational Exposure Limits	
GVI (granična vrijednost izloženosti) (mg/m ³)	734 mg/m ³
GVI (granična vrijednost izloženosti) (ppm)	200 ppm
KGVI (kratkotrajna granična vrijednost izloženosti) (mg/m ³)	1468 mg/m ³
KGVI (kratkotrajna granična vrijednost izloženosti) (ppm)	400 ppm
Cyprus - Occupational Exposure Limits	
OEL TWA (mg/m ³)	734 mg/m ³
OEL TWA (ppm)	200 ppm
OEL STEL (mg/m ³)	1468 mg/m ³
OEL STEL (ppm)	400 ppm
Czech Republic - Occupational Exposure Limits	
Exposure limits (PEL) (mg/m ³)	700 mg/m ³
Denmark - Occupational Exposure Limits	
Limit (long-term) (mg/m ³)	540 mg/m ³
Limit (long-term) (ppm)	150 ppm
Estonia - Occupational Exposure Limits	
OEL TWA (mg/m ³)	500 mg/m ³

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OEL TWA (ppm)	150 ppm
OEL STEL (mg/m ³)	1100 mg/m ³
OEL STEL (ppm)	300 ppm
Finland - Occupational Exposure Limits	
HTP-arvo (8h) (mg/m ³)	730 mg/m ³
HTP-arvo (8h) (ppm)	200 ppm
HTP-arvo (15 min)	1470 mg/m ³
HTP-arvo (15 min) (ppm)	400 ppm
France - Occupational Exposure Limits	
VME (mg/m ³)	1400 mg/m ³
VME (ppm)	400 ppm
Germany - Occupational Exposure Limits (TRGS 900)	
Occupational exposure limit value (mg/m ³)	730 mg/m ³ (the risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)
Occupational exposure limit value (ppm)	200 ppm (the risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)
Gibraltar - Occupational Exposure Limits	
Eight hours mg/m ³	200 mg/m ³
Eight hours ppm	734 ppm
Short-term mg/m ³	400 mg/m ³
Short-term ppm	1468 ppm
Greece - Occupational Exposure Limits	
OEL TWA (mg/m ³)	734 mg/m ³
OEL TWA (ppm)	200 ppm
OEL STEL (mg/m ³)	1468 mg/m ³
OEL STEL (ppm)	400 ppm
Hungary - Occupational Exposure Limits	
Exposure Limit Value	734 mg/m ³
CK-érték	1468 mg/m ³
OEL chemical category (HU)	Sensitizer
Ireland - Occupational Exposure Limits	
OEL (8 hours ref) (mg/m ³)	734 mg/m ³
OEL (8 hours ref) (ppm)	200 ppm
OEL (15 min ref) (mg/m ³)	1468 mg/m ³
OEL (15 min ref) (ppm)	400 ppm
Latvia - Occupational Exposure Limits	
OEL TWA (mg/m ³)	200 mg/m ³
OEL TWA (ppm)	54 ppm
Lithuania - Occupational Exposure Limits	
IPRV (mg/m ³)	500 mg/m ³
IPRV (ppm)	150 ppm
NRV (mg/m ³)	1100 mg/m ³

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NRV (ppm)	300 ppm
Luxembourg - Occupational Exposure Limits	
OEL STEL (mg/m ³)	1468 mg/m ³
OEL STEL (ppm)	400 ppm
Malta - Occupational Exposure Limits	
OEL TWA (mg/m ³)	734 mg/m ³
OEL TWA (ppm)	200 ppm
OEL STEL (mg/m ³)	1468 mg/m ³
OEL STEL (ppm)	400 ppm
Netherlands - Occupational Exposure Limits	
Grenswaarde TGG 8H (mg/m ³)	734 mg/m ³
Grenswaarde TGG 15MIN (mg/m ³)	1468 mg/m ³
Poland - Occupational Exposure Limits	
NDS (mg/m ³)	734 mg/m ³
NDSch (mg/m ³)	1468 mg/m ³
Portugal - Occupational Exposure Limits	
OEL TWA (ppm)	400 ppm
Romania - Occupational Exposure Limits	
OEL TWA (mg/m ³)	400 mg/m ³
OEL TWA (ppm)	111 ppm
OEL STEL (mg/m ³)	500 mg/m ³
OEL STEL (ppm)	139 ppm
Slovakia - Occupational Exposure Limits	
NPHV (priemerná) (mg/m ³)	734 mg/m ³
NPHV (priemerná) (ppm)	200 ppm
NPHV (Hraničná) (mg/m ³)	1100 mg/m ³
Slovenia - Occupational Exposure Limits	
OEL TWA (mg/m ³)	734 mg/m ³
OEL TWA (ppm)	200 ppm
OEL STEL (mg/m ³)	1468 mg/m ³
OEL STEL (ppm)	400 ppm
Spain - Occupational Exposure Limits	
VLA-ED (mg/m ³)	734 mg/m ³
VLA-ED (ppm)	200 ppm
VLA-EC (mg/m ³)	1468 mg/m ³
VLA-EC (ppm)	400 ppm
Sweden - Occupational Exposure Limits	
nivågränsvärde (NVG) (mg/m ³)	500 mg/m ³
nivågränsvärde (NVG) (ppm)	150 ppm
kortidsvärde (KTV) (mg/m ³)	1100 mg/m ³
kortidsvärde (KTV) (ppm)	300 ppm

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United Kingdom - Occupational Exposure Limits	
WEL TWA (mg/m ³)	734 mg/m ³
WEL TWA (ppm)	200 ppm
WEL STEL (mg/m ³)	1468 mg/m ³
WEL STEL (ppm)	400 ppm
Norway - Occupational Exposure Limits	
TWA (AN) (mg/m ³)	734 mg/m ³
TWA (AN) (ppm)	200 ppm
TWA (Korttidsverdi) (mg/m ³)	917.5 mg/m ³ (value calculated)
TWA (Korttidsverdi) (ppm)	250 ppm (value calculated)
Switzerland - Occupational Exposure Limits	
MAK (mg/m ³)	730 mg/m ³
MAK (ppm)	200 ppm
KZGW (mg/m ³)	1460 mg/m ³
KZGW (ppm)	400 ppm
USA - ACGIH - Occupational Exposure Limits	
ACGIH TWA (ppm)	400 ppm

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Personal protective equipment:

Avoid all unnecessary exposure.

Hand protection:

Wear protective gloves.

Eye protection:

Chemical goggles or safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

Wear respiratory protection. Wear appropriate mask

Environmental exposure controls:

Avoid release to the environment.

Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Color : light yellow. amber.

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Odor	: characteristic.
Odor threshold	: No data available
pH	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: 57 °C (closed cup) ASTM D7094
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Flammable liquid and vapour, Non flammable.
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: ≈ 0.94
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Explosion limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Flammable liquid and vapour.

10.2. Chemical stability

Flammable liquid and vapour. May form flammable/explosive vapor-air mixture. Not established.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Open flame. Overheating. Direct sunlight. Heat. Sparks. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

May release flammable gases. fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

Allyl caproate (123-68-2)

LD50 oral	300 mg/kg body weight
LD50 dermal	300 mg/kg body weight

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LC50 inhalation rat (Vapors - mg/l/4h)	3 mg/l/4h
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Allyl cyclohexylpropionate (2705-87-5)	
LD50 oral rat	585 mg/kg
LD50 oral	480 mg/kg body weight
LD50 dermal	1600 mg/kg body weight
LC50 inhalation rat (Vapors - mg/l/4h)	11 mg/l/4h

Amyl salicylate (2050-08-0)	
LD50 oral rat	4100 mg/kg
LD50 oral	2000 mg/kg body weight
LD50 dermal rabbit	> 5000 mg/kg

Citral pure (5392-40-5)	
LD50 oral rat	4960 mg/kg
LD50 dermal rabbit	2250 mg/kg
LD50 dermal	2250 mg/kg body weight

Cyclamal (103-95-7)	
LD50 oral rat	3810 mg/kg
LD50 oral	3810 mg/kg body weight

Ethyl acetate (141-78-6)	
LD50 oral rat	5620 mg/kg
LD50 dermal rabbit	> 18000 mg/kg
LC50 inhalation rat (ppm)	4000 ppm/4h

Ethylene brassylate (105-95-3)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 5000 mg/kg

Eugenol (97-53-0)	
LD50 oral rat	1930 mg/kg
LD50 oral	2500 mg/kg body weight

Geraniol (106-24-1)	
LD50 oral rat	3600 mg/kg
LD50 oral	3600 mg/kg body weight
LD50 dermal rabbit	> 5 g/kg

zingiber officinale (ginger) root oil (8007-08-7)	
LD50 oral rat	> 5 g/kg

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Grapefruit oil (8016-20-4)	
LD50 oral rat	> 5 g/kg

Hexyl cinnamic aldehyde (101-86-0)	
LD50 oral rat	3100 mg/kg
LD50 oral	3100 mg/kg body weight
LD50 dermal rabbit	> 3000 mg/kg
LC50 inhalation rat (mg/l)	> 5 mg/l/4h

Lemon oil (8008-56-8)	
LD50 oral rat	2840 mg/kg

Linalool (78-70-6)	
LD50 oral rat	2790 mg/kg
LD50 oral	2790 mg/kg body weight
LD50 dermal rabbit	2000 mg/kg

acetyl cedrene (32388-55-9)	
LD50 oral	4500 mg/kg body weight

Skin corrosion/irritation	: Causes skin irritation.
Additional information	: Causes skin irritation
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitization	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified

Eugenol (97-53-0)	
IARC group	3 - Not classifiable

Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: May be fatal if swallowed and enters airways.
Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: Very toxic to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Very toxic to aquatic life with long lasting effects.

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Allyl caproate (123-68-2)	
LC50 fish 1	0.117 mg/l (Exposure time: 96 h - Species: Danio rerio [semi-static])

Allyl cyclohexylpropionate (2705-87-5)	
LC50 fish 1	0.13 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])

Citral pure (5392-40-5)	
EC50 Daphnia 1	7 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 72h algae [mg/l] 1	16 mg/l (Species: Desmodesmus subspicatus)
EC50 96h algae (1)	19 mg/l (Species: Desmodesmus subspicatus)

Ethyl acetate (141-78-6)	
LC50 fish 1	220 – 250 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
LC50 fish 2	484 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through])
EC50 Daphnia 1	560 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])

Eugenol (97-53-0)	
LC50 fish 1	13 mg/l (Exposure time: 96 h - Species: Danio rerio [semi-static])

Geraniol (106-24-1)	
LC50 fish 1	22 mg/l (Exposure time: 96 h - Species: Danio rerio [static])

Linalool (78-70-6)	
LC50 fish 1	27.8 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
EC50 Daphnia 1	20 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 96h algae (1)	88.3 mg/l (Species: Desmodesmus subspicatus)

12.2. Persistence and degradability	
Ginger Pomelo #	
Persistence and degradability	Not established.

Cedarwood oil, Texas (68990-83-0)	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential	
Ginger Pomelo #	
Bioaccumulative potential	Not established.

Cedarwood oil, Texas (68990-83-0)	
Bioaccumulative potential	Not established.

Citral pure (5392-40-5)	
Partition coefficient n-octanol/water (Log Pow)	2.76 (at 25 °C)

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Ethyl acetate (141-78-6)

BCF fish 1	30
Partition coefficient n-octanol/water (Log Pow)	0.6

Linalool (78-70-6)

Partition coefficient n-octanol/water (Log Pow)	2.84 – 3.1 (at 25 °C)
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12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

Additional information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations : Dispose of contents/container in accordance with local/national laws and regulations.
Dispose in a safe manner in accordance with local/national regulations.
Additional information : Handle empty containers with care because residual vapors are flammable.
Ecology - waste materials : Hazardous waste due to toxicity. Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No. (ADR) : UN 1993
UN-No. (IMDG) : UN 1993
UN-No. (IATA) : UN 1993
UN-No. (ADN) : UN 1993
UN-No. (RID) : Not regulated

14.2. UN proper shipping name

Proper Shipping Name (ADR) : FLAMMABLE LIQUID, N.O.S.
Proper Shipping Name (IMDG) : FLAMMABLE LIQUID, N.O.S.
Proper Shipping Name (IATA) : Flammable liquid, n.o.s.
Proper Shipping Name (ADN) : FLAMMABLE LIQUID, N.O.S.
Proper Shipping Name (RID) : Not regulated
Transport document description (ADR) : UN 1993 FLAMMABLE LIQUID, N.O.S. (lemon oil), 3, III, (E), ENVIRONMENTALLY HAZARDOUS
Transport document description (IMDG) : UN 1993 FLAMMABLE LIQUID, N.O.S. (lemon oil), 3, III, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS
Transport document description (IATA) : UN 1993 Flammable liquid, n.o.s. (lemon oil), 3, III, ENVIRONMENTALLY HAZARDOUS
Transport document description (ADN) : UN 1993 FLAMMABLE LIQUID, N.O.S. (lemon oil), 3, III, ENVIRONMENTALLY HAZARDOUS

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : 3

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Hazard labels (ADR) : 3



IMDG

Transport hazard class(es) (IMDG) : 3

Hazard labels (IMDG) : 3



IATA

Transport hazard class(es) (IATA) : 3

Hazard labels (IATA) : 3



ADN

Transport hazard class(es) (ADN) : 3

Hazard labels (ADN) : 3



RID

Transport hazard class(es) (RID) : Not regulated

14.4. Packing group

Packing group (ADR) : III

Packing group (IMDG) : III

Packing group (IATA) : III

Packing group (ADN) : III

Packing group (RID) : Not regulated

14.5. Environmental hazards

Dangerous for the environment : Yes

Marine pollutant : Yes

Other information : No supplementary information available

14.6. Special precautions for user

Overland transport

Classification code (ADR) : F1

Special provision (ADR) : 274, 601

Limited quantities (ADR) : 5I

Excepted quantities (ADR) : E1

Packing instructions (ADR) : P001, IBC02, R001

Special packing provisions (ADR) : BB4

Mixed packing provisions (ADR) : MP19

Transport category (ADR) : 3

Special provisions for carriage - Operation (ADR) : S2

Tunnel restriction code (ADR) : E

EAC : •3YE

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Transport by sea

Special provision (IMDG)	: 223, 274, 955
Limited quantities (IMDG)	: 5 L
Excepted quantities (IMDG)	: E1
Packing instructions (IMDG)	: LP01, P001
IBC packing instructions (IMDG)	: IBC03
Tank instructions (IMDG)	: T4
Tank special provisions (IMDG)	: TP1, TP29
EmS-No. (Fire)	: F-E
EmS-No. (Spillage)	: S-E
Stowage category (IMDG)	: A

Air transport

PCA Excepted quantities (IATA)	: E1
PCA Limited quantities (IATA)	: Y344
PCA limited quantity max net quantity (IATA)	: 10L
PCA packing instructions (IATA)	: 355
PCA max net quantity (IATA)	: 60L
CAO packing instructions (IATA)	: 366
CAO max net quantity (IATA)	: 220L
Special provision (IATA)	: A3
ERG code (IATA)	: 3L

Inland waterway transport

Classification code (ADN)	: F1
Special provision (ADN)	: 274, 601
Limited quantities (ADN)	: 5 L
Excepted quantities (ADN)	: E1
Equipment required (ADN)	: PP, EX, A
Ventilation (ADN)	: VE01
Number of blue cones/lights (ADN)	: 0

Rail transport

Not regulated

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:	
Reference code	Applicable
3(a)	Ginger Pomelo # ; Ethyl acetate ; Grapefruit oil ; Lemon oil ; CITRUS LIMON PEEL OIL ; Tangerine oil
3(b)	Ginger Pomelo # ; Allyl caproate ; Allyl cyclohexylpropionate ; Amyl salicylate ; Cedarwood oil, Texas ; Citral pure ; Cyclamal ; Ethyl acetate ; Eugenol ; Geraniol ; zingiber officinale (ginger) root oil ; Grapefruit oil ; Hexyl cinnamic aldehyde ; Lemon oil ; CITRUS LIMON PEEL OIL ; Linalool ; Methyl pamplemousse ; Tangerine oil ; acetyl cedrene
3(c)	Ginger Pomelo # ; Allyl caproate ; Allyl cyclohexylpropionate ; Amyl salicylate ; Cedarwood oil, Texas ; Cyclamal ; Ethylene brassylate ; zingiber officinale (ginger) root oil ; Grapefruit oil ; Hexyl cinnamic aldehyde ; Lemon oil ; CITRUS LIMON PEEL OIL ; Methyl pamplemousse ; Tangerine oil ; acetyl cedrene
40.	Ginger Pomelo # ; Ethyl acetate ; Grapefruit oil ; Lemon oil ; CITRUS LIMON PEEL OIL ; Tangerine oil

Contains no REACH candidate substance

Contains no REACH Annex XIV substances.

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance(s) subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

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15.1.2. National regulations

Germany

Water hazard class (WGK) : WGK 3, Highly hazardous to water (Classification according to AwSV, Annex 1)
Hazardous Incident Ordinance (12. BImSchV) : Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

Netherlands

SZW-lijst van kankerverwekkende stoffen : Cedarwood oil, Texas ,Ginger oil,Grapefruit oil,Lemon oil ,CITRUS LIMON PEEL OIL,Methyl pamplemousse,Tangerine oil are listed
SZW-lijst van mutagene stoffen : Ginger oil,Grapefruit oil,Lemon oil ,CITRUS LIMON PEEL OIL,Methyl pamplemousse are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : None of the components are listed

Denmark

Class for fire hazard : Class III-1
Store unit : 50 liter
Classification remarks : Flammable according to the Danish Ministry of Justice; Emergency management guidelines for the storage of flammable liquids must be followed
Danish National Regulations : Young people below the age of 18 years are not allowed to use the product
Pregnant/breastfeeding women working with the product must not be in direct contact with the product

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Other information : None.

Classification according to Regulation (EC) No. 1272/2008 [CLP]:	
Flam. Liq. 3	H226
Skin Irrit. 2	H315
Skin Sens. 1	H317
Asp. Tox. 1	H304
Aquatic Chronic 1	H410

Full text of H- and EUH-phrases:	
Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3
Acute Tox. 3 (Inhalation)	Acute toxicity (inhalation) Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral) Category 3
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (inhalation) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic Hazard Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment - Chronic Hazard Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment - Chronic Hazard Category 3
Asp. Tox. 1	Aspiration hazard Category 1

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Eye Dam. 1	Serious eye damage/eye irritation Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 1	Flammable liquids Category 1
Flam. Liq. 3	Flammable liquids Category 3
Skin Irrit. 2	Skin corrosion/irritation Category 2
Skin Sens. 1	Skin sensitization, Category 1
Skin Sens. 1B	Skin sensitization, Category 1B
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Narcosis
H224	Extremely flammable liquid and vapour.
H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H336	May cause drowsiness or dizziness.
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.

Safety Data Sheet (SDS), New Zealand

The data contained in this Safety Data Sheet is accurate to the best knowledge of Zen Aroma applies to the product as supplied by Zen Aroma and does not relate to use in combination with any other material or in any process. Data and information is furnished without warranty expressed or implied, nor does Zen Aroma assume responsibility for use or reliance upon this data.

This SDS is current to the date listed above. However, the GHS classifications may change due to hazard communication updates by the overseeing governing body. For the most current SDS information please contact support@zenaroma.co.nz