



MANGO PAPAYA

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Issue date: 04/09/2020

Version: 1.0

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : MANGO PAPAYA
Product code : #10291

1.2. Recommended use and restrictions on use

No additional information available

1.3. Supplier

Voyageur Soap & Candle Company Ltd.
14 - 19257 Enterprise Way
Surrey, B.C. - Canada
T 800-758-7773

1.4. Emergency telephone number

Emergency number : INFOTRAC (US & Canada) 1-800-535-5053 | (International) 1-352-323-3500

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Skin corrosion/irritation Category 2 H315 Causes skin irritation
Serious eye damage/eye irritation Category 1 H318 Causes serious eye damage
Skin sensitization, Category 1 H317 May cause an allergic skin reaction

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) :

Danger

Hazard statements (GHS US) :

H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H318 - Causes serious eye damage

Precautionary statements (GHS US) :

P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 - Wash hands, forearms and face thoroughly after handling.
P272 - Contaminated work clothing must not be allowed out of the workplace.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352 - If on skin: Wash with plenty of water.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 - Immediately call a poison center or doctor.
P321 - Specific treatment (see supplemental first aid instruction on this label).
P332+P313 - If skin irritation occurs: Get medical advice/attention.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P363 - Wash contaminated clothing before reuse.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

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SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
BENZYL BENZOATE	(CAS-No.) 120-51-4	30 - 70	Acute Tox. 4 (Oral), H302
Linalool	(CAS-No.) 78-70-6	1 - 5	Flam. Liq. 4, H227 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1B, H317
GERANIOL	(CAS-No.) 106-24-1	1 - 5	Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317
LINALYL ACETATE	(CAS-No.) 115-95-7	1 - 5	Flam. Liq. 4, H227 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317
d-Limonene	(CAS-No.) 5989-27-5	1 - 5	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1, H317 Asp. Tox. 1, H304
CITRONELLOL	(CAS-No.) 106-22-9	1 - 5	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1B, H317
TERPINEOL ALPHA	(CAS-No.) 98-55-5	1 - 5	Flam. Liq. 4, H227 Skin Irrit. 2, H315 Eye Irrit. 2, H319
ALDEHYDE C 16	(CAS-No.) 77-83-8	1 - 5	Skin Sens. 1B, H317
ETHYL VANILLIN	(CAS-No.) 121-32-4	1 - 5	Eye Irrit. 2, H319
VANILLIN	(CAS-No.) 121-33-5	1 - 5	Eye Irrit. 2, H319
CITRAL	(CAS-No.) 5392-40-5	< 0.5	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317
D-LIMONENE	(CAS-No.) 5989-27-5	< 0.5	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1, H317 Asp. Tox. 1, H304

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
- First-aid measures after skin contact : Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.
- First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
- First-aid measures after ingestion : Call a poison center/doctor/physician if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

- Symptoms/effects after skin contact : Irritation. May cause an allergic skin reaction.
- Symptoms/effects after eye contact : Serious damage to eyes.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Specific hazards arising from the chemical

No additional information available

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapours/spray.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin and eyes. Wear personal protective equipment. Avoid breathing dust/fume/gas/mist/vapours/spray.

Hygiene measures : Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

CITRONELLOL (106-22-9)

Not applicable

GERANIOL (106-24-1)

Not applicable

d-Limonene (5989-27-5)

Not applicable

Linalool (78-70-6)

Not applicable

D-LIMONENE (5989-27-5)

Not applicable

TERPINEOL ALPHA (98-55-5)

Not applicable

ALDEHYDE C 16 (77-83-8)

Not applicable

BENZYL BENZOATE (120-51-4)

Not applicable

CITRAL (5392-40-5)

ACGIH	Local name	Citral
ACGIH	ACGIH TWA (ppm)	5 ppm (IFV - Inhalable fraction and vapor)
ACGIH	Remark (ACGIH)	TLV® Basis: Body weight eff; URT irr; eye dam. Notations: Skin; DSEN; A4 (Not classifiable as a Human Carcinogen)
ACGIH	Regulatory reference	ACGIH 2018

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ETHYL VANILLIN (121-32-4)
Not applicable
LINALYL ACETATE (115-95-7)
Not applicable
VANILLIN (121-33-5)
Not applicable

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Color	: Mixture contains one or more component(s) which have the following colour(s): Yellow Colourless Colourless to light yellow Light yellow to colourless White On exposure to light: yellow Colourless to yellow White to off-white White to light yellow On exposure to light: discolours
Odor	: There may be no odour warning properties, odour is subjective and inadequate to warn of overexposure. Mixture contains one or more component(s) which have the following odour: Floral odour Strong odour Characteristic odour Fruity odour Aromatic odour Mild odour Almost odourless Phenol odour Lemon odour Sweet odour Irritating/pungent odour Pleasant odour
Odor threshold	: No data available
pH	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: > 100 °C
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Not applicable.
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Solubility	: No data available
Log Pow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available

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Explosive properties : No data available

Oxidizing properties : No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

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

CITRONELLOL (106-22-9)	
ATE US (oral)	3450 mg/kg body weight
ATE US (dermal)	2650 mg/kg body weight
GERANIOL (106-24-1)	
LD50 oral rat	3600 mg/kg body weight (Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 dermal rabbit	> 5000 mg/kg (Rabbit, Experimental value, Dermal)
ATE US (oral)	3600 mg/kg body weight
d-Limonene (5989-27-5)	
LD50 oral rat	> 2000 mg/kg body weight (OECD 423: Acute Oral Toxicity – Acute Toxic Class Method, Rat, Female, Read-across, Oral)
LD50 dermal rabbit	> 5000 mg/kg body weight (Equivalent or similar to OECD 402, Rabbit, Weight of evidence, Dermal)
Linalool (78-70-6)	
LD50 oral rat	2790 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 dermal rabbit	5610 mg/kg body weight (Equivalent or similar to OECD 402, 24 h, Rabbit, Experimental value, Dermal, 7 day(s))
ATE US (oral)	2790 mg/kg body weight
ATE US (dermal)	5610 mg/kg body weight
D-LIMONENE (5989-27-5)	
LD50 oral rat	> 2000 mg/kg body weight (OECD 423: Acute Oral Toxicity – Acute Toxic Class Method, Rat, Female, Read-across, Oral)
LD50 dermal rabbit	> 5000 mg/kg body weight (Equivalent or similar to OECD 402, Rabbit, Weight of evidence, Dermal)
TERPINEOL ALPHA (98-55-5)	
ATE US (oral)	4300 mg/kg body weight
ALDEHYDE C 16 (77-83-8)	
LD50 oral rat	5470 mg/kg (Rat, Male/female, Weight of evidence, Oral, 14 day(s))

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ALDEHYDE C 16 (77-83-8)	
LD50 dermal rat	> 2000 mg/kg body weight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male/female, Experimental value, Dermal)
ATE US (oral)	5470 mg/kg body weight

BENZYL BENZOATE (120-51-4)	
LD50 oral rat	> 2000 mg/kg body weight (OECD 401: Acute Oral Toxicity, Rat, Male/female, Experimental value, Oral, 14 day(s))
LD50 dermal rabbit	> 2 ml/kg (Modification of Draize 1959 method, 4 h, Rabbit, Experimental value, Dermal)
ATE US (oral)	1500 mg/kg body weight
ATE US (dermal)	4000 mg/kg body weight

CITRAL (5392-40-5)	
ATE US (dermal)	2250 mg/kg body weight

ETHYL VANILLIN (121-32-4)	
LD50 oral rat	> 3160 mg/kg body weight (OECD 401: Acute Oral Toxicity, Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 dermal rat	> 2000 mg/kg body weight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))
ATE US (oral)	3000 mg/kg body weight

VANILLIN (121-33-5)	
LD50 oral rat	3300 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 dermal rat	> 2000 mg/kg body weight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))
ATE US (oral)	3300 mg/kg body weight

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

d-Limonene (5989-27-5)	
IARC group	3 - Not classifiable

D-LIMONENE (5989-27-5)	
IARC group	3 - Not classifiable

Reproductive toxicity : Not classified
STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

Linalool (78-70-6)	
NOAEL (dermal,rat/rabbit,90 days)	250 mg/kg body weight Animal: rat, Guideline: OECD Guideline 411 (Subchronic Dermal Toxicity: 90-Day Study)

Aspiration hazard : Not classified
Viscosity, kinematic : No data available
Symptoms/effects after skin contact : Irritation. May cause an allergic skin reaction.
Symptoms/effects after eye contact : Serious damage to eyes.

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SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

GERANIOL (106-24-1)	
LC50 fish 1	22 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Danio rerio, Static system, Fresh water, Experimental value, GLP)
EC50 Daphnia 1	10.8 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
ErC50 (algae)	13.1 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, GLP)

d-Limonene (5989-27-5)	
LC50 fish 1	720 µg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Pimephales promelas, Flow-through system, Fresh water, Experimental value, Lethal)
EC50 Daphnia 1	0.36 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)

Linalool (78-70-6)	
LC50 fish 1	27.8 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Oncorhynchus mykiss, Static system, Fresh water, Experimental value, GLP)
EC50 Daphnia 1	59 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)
ErC50 (algae)	156.7 mg/l (DIN 38412-9, 96 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, Nominal concentration)

D-LIMONENE (5989-27-5)	
LC50 fish 1	720 µg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Pimephales promelas, Flow-through system, Fresh water, Experimental value, Lethal)
EC50 Daphnia 1	0.36 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)

ALDEHYDE C 16 (77-83-8)	
LC50 fish 1	4.2 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Oncorhynchus mykiss, Semi-static system, Fresh water, Experimental value, GLP)
ErC50 (algae)	36 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)

BENZYL BENZOATE (120-51-4)	
LC50 fish 1	2.32 mg/l (EU Method C.1, 96 h, Danio rerio, Semi-static system, Fresh water, Experimental value, GLP)
EC50 Daphnia 1	3.09 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)

ETHYL VANILLIN (121-32-4)	
LC50 fish 1	87.6 mg/l (Equivalent or similar to OECD 203, 96 h, Pimephales promelas, Flow-through system, Fresh water, Experimental value)
EC50 Daphnia 1	36.79 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Read-across, GLP)
ErC50 (algae)	120 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Read-across, GLP)

LINALYL ACETATE (115-95-7)	
LC50 fish 1	11 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Cyprinus carpio)
EC50 Daphnia 1	15 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna)

VANILLIN (121-33-5)	
LC50 fish 1	57 mg/l (Equivalent or similar to OECD 203, 96 h, Pimephales promelas, Flow-through system, Fresh water, Experimental value)
EC50 Daphnia 1	36.79 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)
ErC50 (algae)	120 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)

12.2. Persistence and degradability

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CITRONELLOL (106-22-9)	
Persistence and degradability	Readily biodegradable in water.
Chemical oxygen demand (COD)	2.05 g O ₂ /g substance
ThOD	2.961 g O ₂ /g substance
GERANIOL (106-24-1)	
Persistence and degradability	Readily biodegradable in water.
d-Limonene (5989-27-5)	
Persistence and degradability	Readily biodegradable in water.
ThOD	3.29 g O ₂ /g substance
Linalool (78-70-6)	
Persistence and degradability	Readily biodegradable in water.
D-LIMONENE (5989-27-5)	
Persistence and degradability	Readily biodegradable in water.
ThOD	3.29 g O ₂ /g substance
TERPINEOL ALPHA (98-55-5)	
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
ThOD	2.9 g O ₂ /g substance
ALDEHYDE C 16 (77-83-8)	
Persistence and degradability	Not readily biodegradable in water.
BENZYL BENZOATE (120-51-4)	
Persistence and degradability	Readily biodegradable in water.
ETHYL VANILLIN (121-32-4)	
Persistence and degradability	Readily biodegradable in water.
ThOD	1.81 g O ₂ /g substance
BOD (% of ThOD)	0.529 (5 day(s), Literature study)
LINALYL ACETATE (115-95-7)	
Persistence and degradability	Readily biodegradable in water.
VANILLIN (121-33-5)	
Persistence and degradability	Readily biodegradable in water.

12.3. Bioaccumulative potential

CITRONELLOL (106-22-9)	
Log Pow	3.41 - 3.91
GERANIOL (106-24-1)	
Log Pow	2.6 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
d-Limonene (5989-27-5)	
BCF fish 1	864.8 - 1022 (Pisces, QSAR, Fresh weight)
Log Pow	4.38 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 37 °C)
Bioaccumulative potential	Potential for bioaccumulation (4 ≥ Log Kow ≤ 5).
Linalool (78-70-6)	
Log Pow	2.84 (Experimental value, Equivalent or similar to OECD 107, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
D-LIMONENE (5989-27-5)	
BCF fish 1	864.8 - 1022 (Pisces, QSAR, Fresh weight)
Log Pow	4.38 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 37 °C)
Bioaccumulative potential	Potential for bioaccumulation (4 ≥ Log Kow ≤ 5).
TERPINEOL ALPHA (98-55-5)	
Log Pow	2.57 (Estimated value)

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TERPINEOL ALPHA (98-55-5)	
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
ALDEHYDE C 16 (77-83-8)	
Log Pow	2.4 - 2.8 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
BENZYL BENZOATE (120-51-4)	
BCF fish 1	2.286 (BCFBAF v3.00, Pisces, QSAR)
Log Pow	3.97 (Experimental value, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
ETHYL VANILLIN (121-32-4)	
Log Pow	1.58 (Experimental value, Equivalent or similar to OECD 107, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
LINALYL ACETATE (115-95-7)	
Log Pow	3.93 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
VANILLIN (121-33-5)	
Log Pow	1.17 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

12.4. Mobility in soil

GERANIOL (106-24-1)	
Log Koc	1.85 (log Koc, PCKOCWIN v1.66, Calculated value)
Ecology - soil	Highly mobile in soil.
d-Limonene (5989-27-5)	
Ecology - soil	Adsorbs into the soil.
Linalool (78-70-6)	
Surface tension	8.3 mN/m (20 °C, ISO 9101: Surface active agents - Determination of interfacial tension)
Ecology - soil	No (test)data on mobility of the substance available.
D-LIMONENE (5989-27-5)	
Ecology - soil	Adsorbs into the soil.
ALDEHYDE C 16 (77-83-8)	
Surface tension	59 N/m (19.6 °C, 0.79 g/l, OECD 115: Surface Tension of Aqueous Solutions)
Log Koc	2.34 - 2.74 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value, GLP)
Ecology - soil	Low potential for adsorption in soil.
BENZYL BENZOATE (120-51-4)	
Surface tension	0.027 N/m (210 °C)
Log Koc	3.8 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value)
Ecology - soil	Low potential for mobility in soil.
ETHYL VANILLIN (121-32-4)	
Log Koc	3.092 (log Koc, Equivalent or similar to OECD 106, Experimental value)
Ecology - soil	Low potential for mobility in soil.
LINALYL ACETATE (115-95-7)	
Ecology - soil	Adsorbs into the soil.
VANILLIN (121-33-5)	
Log Koc	3.438 (log Koc, Experimental value)
Ecology - soil	Low potential for mobility in soil.

12.5. Other adverse effects

No additional information available

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SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Transport document description : UN3082 Environmentally hazardous substances, liquid, n.o.s. (), 9, III
UN-No.(DOT) : UN3082
Proper Shipping Name (DOT) : Environmentally hazardous substances, liquid, n.o.s.
Class (DOT) : 9 - Class 9 - Miscellaneous hazardous material 49 CFR 173.140
Packing group (DOT) : III - Minor Danger
Hazard labels (DOT) : 9 - Class 9 (Miscellaneous dangerous materials)



DOT Packaging Non Bulk (49 CFR 173.xxx) : 203
DOT Packaging Bulk (49 CFR 173.xxx) : 241
DOT Symbols : G - Identifies PSN requiring a technical name
DOT Special Provisions (49 CFR 172.102) : 8 - A hazardous substance that is not a hazardous waste may be shipped under the shipping description "Other regulated substances, liquid or solid, n.o.s.", as appropriate. In addition, for solid materials, special provision B54 applies.
146 - This description may be used for a material that poses a hazard to the environment but does not meet the definition for a hazardous waste or a hazardous substance, as defined in 171.8 of this subchapter, or any hazard class as defined in Part 173 of this subchapter, if it is designated as environmentally hazardous by the Competent Authority of the country of origin, transit or destination.
173 - An appropriate generic entry may be used for this material.
335 - Mixtures of solids that are not subject to this subchapter and environmentally hazardous liquids or solids may be classified as "Environmentally hazardous substances, solid, n.o.s.," UN3077 and may be transported under this entry, provided there is no free liquid visible at the time the material is loaded or at the time the packaging or transport unit is closed. Each transport unit must be leak-proof when used as bulk packaging.
IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672).
T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3)
TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = $97 / 1 + a (tr - tf)$ Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.
TP29 - A portable tank having a minimum test pressure of 1.5 bar (150.0 kPa) may be used provided the calculated test pressure is 1.5 bar or less based on the MAWP of the hazardous materials, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP.
DOT Packaging Exceptions (49 CFR 173.xxx) : 155
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : No limit
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : No limit
DOT Vessel Stowage Location : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.
Emergency Response Guide (ERG) Number : 171

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Other information : No supplementary information available.

Transportation of Dangerous Goods

Not applicable

Transport by sea

Transport document description (IMDG) : UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (BENZYL BENZOATE), 9, III
UN-No. (IMDG) : 3082
Proper Shipping Name (IMDG) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Class (IMDG) : 9 - Miscellaneous dangerous substances and articles
Packing group (IMDG) : III - substances presenting low danger
Limited quantities (IMDG) : 5 L

Air transport

Transport document description (IATA) : UN 3082 Environmentally hazardous substance, liquid, n.o.s. (BENZYL BENZOATE), 9, III
UN-No. (IATA) : 3082
Proper Shipping Name (IATA) : Environmentally hazardous substance, liquid, n.o.s.
Class (IATA) : 9 - Miscellaneous Dangerous Goods
Packing group (IATA) : III - Minor Danger

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

This product or mixture is not known to contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

15.2. International regulations

CANADA

CITRONELLOL (106-22-9)

Listed on the Canadian DSL (Domestic Substances List)

GERANIOL (106-24-1)

Listed on the Canadian DSL (Domestic Substances List)

d-Limonene (5989-27-5)

Listed on the Canadian DSL (Domestic Substances List)

Linalool (78-70-6)

Listed on the Canadian DSL (Domestic Substances List)

D-LIMONENE (5989-27-5)

Listed on the Canadian DSL (Domestic Substances List)

TERPINEOL ALPHA (98-55-5)

Listed on the Canadian DSL (Domestic Substances List)

ALDEHYDE C 16 (77-83-8)

Listed on the Canadian DSL (Domestic Substances List)

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BENZYL BENZOATE (120-51-4)
Listed on the Canadian DSL (Domestic Substances List)
CITRAL (5392-40-5)
Listed on the Canadian DSL (Domestic Substances List)
ETHYL VANILLIN (121-32-4)
Listed on the Canadian DSL (Domestic Substances List)
LINALYL ACETATE (115-95-7)
Listed on the Canadian DSL (Domestic Substances List)
VANILLIN (121-33-5)
Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

No additional information available

SECTION 16: Other information

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Full text of H-phrases:

H226	Flammable liquid and vapour
H227	Combustible liquid
H302	Harmful if swallowed
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

SDS

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.