



PEPPERCORN LIME DUPLICATION

Safety Data Sheet

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS 2024)

Issue date: 08/11/2026

Version: 1.0

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : PEPPERCORN LIME DUPLICATION
CAS-No. : MIXTURE
Product code : SC-PL

1.2. Recommended use and restrictions on use

No additional information available

1.3. Supplier

Candles and Supplies
2580 Milford Square Pike
Quakertown PA 18951
215-538-8552
www.candlesandsupplies.com

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

Flammable liquid, Category 4	H227 Combustible liquid.
Skin corrosion/irritation, Category 2	H315 Causes skin irritation.
Serious eye damage/eye irritation, Category 2	H319 Causes serious eye irritation.
Skin sensitization, Category 1	H317 May cause an allergic skin reaction.
Carcinogenicity, Category 2	H351 Suspected of causing cancer.
Reproductive toxicity, Category 2	H361 Suspected of damaging fertility or the unborn child.

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) : Warning

Hazard statements (GHS US) :
H227 - Combustible liquid
H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation
H351 - Suspected of causing cancer.
H361 - Suspected of damaging fertility or the unborn child

Precautionary statements (GHS US) :
P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261 - Avoid breathing dust, fume, gas, mist, vapors, 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.
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.
P308+P313 - If exposed or concerned: Get medical advice/attention.
P321 - Specific treatment (see supplemental first aid instruction on this label).
P333+P313 - If skin irritation or rash occurs: Get medical advice or attention.
P337+P313 - If eye irritation persists: Get medical advice or attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P370+P378 - In case of fire: Use appropriate media to extinguish.

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P403 - Store in a well-ventilated place.
P405 - Store locked up.
P501 - Dispose of contents and/or container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulations.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

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	5 – 10	Acute Tox. 4 (Oral), H302
LINALYL ACETATE	(CAS-No.) 115-95-7	5 – 10	Flam. Liq. 4, H227 Skin Irrit. 2, H315 Eye Irrit. 2B, H320 Skin Sens. 1B, H317
LIMONENE	(CAS-No.) 5989-27-5	5 – 10	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1B, H317 Asp. Tox. 1, H304
CINNAMAL	(CAS-No.) 104-55-2	5 – 10	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1A, H317
EUGENOL	(CAS-No.) 97-53-0	5 – 10	Eye Irrit. 2A, H319 Skin Sens. 1B, H317
ALDEHYDE C 10	(CAS-No.) 112-31-2	1 – 5	Flam. Liq. 4, H227 Eye Irrit. 2A, H319
LINALOOL	(CAS-No.) 78-70-6	1 – 5	Flam. Liq. 4, H227 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1B, H317
ALPHA-TERPINEOL	(CAS-No.) 98-55-5	1 – 5	Flam. Liq. 4, H227 Skin Irrit. 2, H315 Eye Irrit. 2A, H319
COUMARIN	(CAS-No.) 91-64-5	1 – 5	Acute Tox. 4 (Oral), H302 Skin Sens. 1B, H317
HEXYL CINNAMAL	(CAS-No.) 101-86-0	1 – 5	Skin Sens. 1B, H317
VANILLIN	(CAS-No.) 121-33-5	1 – 5	Eye Irrit. 2A, H319
PHENYL ETHYL ALCOHOL	(CAS-No.) 60-12-8	1 – 5	Acute Tox. 4 (Oral), H302 Eye Irrit. 2A, H319
ETHYL VANILLIN	(CAS-No.) 121-32-4	1 – 5	Eye Irrit. 2B, H320
beta-Pinene	(CAS-No.) 127-91-3	1 – 5	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1B, H317 Asp. Tox. 1, H304
Dihydromyrcenol	(CAS-No.) 18479-58-8	1 – 5	Flam. Liq. 4, H227 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H336
CEDROL METHYL ETHER	(CAS-No.) 19870-74-7	1 – 5	Skin Sens. 1B, H317
CITRAL	(CAS-No.) 5392-40-5	0.1 – 1	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1, H317
p-Mentha-1,4-diene	(CAS-No.) 99-85-4	0.1 – 1	Flam. Liq. 3, H226 Repr. 2, H361 Asp. Tox. 1, H304
Myrcene	(CAS-No.) 123-35-3	0.1 – 1	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Carc. 2, H351 Asp. Tox. 1, H304

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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 general	: IF exposed or concerned: Get medical advice/attention.
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. If eye irritation persists: Get medical advice/attention.
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 inhalation	: None under normal conditions.
Symptoms/effects after skin contact	: Irritation. May cause an allergic skin reaction.
Symptoms/effects after eye contact	: Eye irritation.
Symptoms/effects after ingestion	: None under normal conditions.

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.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Fire hazard	: Combustible liquid.
Explosion hazard	: No direct explosion hazard.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions	: Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material-damage.
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6.1.1. For non-emergency personnel

Protective equipment	: Wear recommended personal protective equipment.
Emergency procedures	: Ventilate spillage area. No open flames, no sparks, and no smoking. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapors/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".
Emergency procedures	: Evacuate unnecessary personnel. Stop leak if safe to do so.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment	: Absorb spilled material with sand or earth. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak, if possible without risk.
Methods for cleaning up	: Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.
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.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed	: Not expected to present a significant hazard under anticipated conditions of normal use.
Precautions for safe handling	: Ensure good ventilation of the work station. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wear personal protective equipment. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapors/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

Technical measures	: Keep in a cool, well-ventilated place away from heat.
Storage conditions	: Store in a well-ventilated place. Keep cool. Store locked up.
Packaging materials	: Always store product in container of same material as original container.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

ALDEHYDE C 10 (112-31-2)		
Not applicable		
LIMONENE (5989-27-5)		
Not applicable		
LINALOOL (78-70-6)		
Not applicable		
BENZYL BENZOATE (120-51-4)		
Not applicable		
CEDROL METHYL ETHER (19870-74-7)		
Not applicable		
CINNAMAL (104-55-2)		
Not applicable		
EUGENOL (97-53-0)		
Not applicable		
beta-Pinene (127-91-3)		
Not applicable		
CITRAL (5392-40-5)		
ACGIH	Local name	Citral
ACGIH	ACGIH® TLV® TWA	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 2024
COUMARIN (91-64-5)		
Not applicable		
Dihydromyrcenol (18479-58-8)		
Not applicable		
ETHYL VANILLIN (121-32-4)		
Not applicable		
Myrcene (123-35-3)		
Not applicable		
p-Mentha-1,4-diene (99-85-4)		
Not applicable		

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HEXYL CINNAMAL (101-86-0)
Not applicable
LINALYL ACETATE (115-95-7)
Not applicable
PHENYL ETHYL ALCOHOL (60-12-8)
Not applicable
ALPHA-TERPINEOL (98-55-5)
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

Personal protective equipment:

Wear recommended personal protective equipment.

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection.

Personal protective equipment symbol(s):



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Color	: No data available
Odor	: No data available
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	: ≈ 74.9 °C
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability	: Not applicable.
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: No data available

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Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
No data availableViscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
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

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

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)	: No data available
Acute toxicity (dermal)	: No data available
Acute toxicity (inhalation)	: No data available

ALDEHYDE C 10 (112-31-2)	
LD50 oral rat	3096 mg/kg (Rat, Oral)
LD50 dermal rabbit	4183 mg/kg (Rabbit, Dermal)
ATE US (oral)	3096 mg/kg body weight
ATE US (dermal)	4183 mg/kg body weight
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
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)	1160 mg/kg body weight

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EUGENOL (97-53-0)	
ATE US (oral)	2500 mg/kg body weight
COUMARIN (91-64-5)	
LD50 oral rat	293 mg/kg body weight (Rat, Male / female, Experimental value, Oral)
ATE US (oral)	293 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
Myrcene (123-35-3)	
LD50 oral rat	> 11390 mg/kg body weight Animal: rat
LD50 dermal rabbit	> 5000 mg/kg body weight Animal: rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
ATE US (dermal)	5000 mg/kg body weight
p-Mentha-1,4-diene (99-85-4)	
ATE US (oral)	3650 mg/kg body weight
HEXYL CINNAMAL (101-86-0)	
ATE US (oral)	3100 mg/kg body weight
PHENYL ETHYL ALCOHOL (60-12-8)	
LD50 oral rat	> 1790 mg/kg (Rat, Oral)
LD50 dermal rabbit	> 808 mg/kg (Rabbit, Dermal)
LC50 Inhalation - Rat	> 1.4 mg/l (4 h, Rat, Inhalation)
ATE US (oral)	1610 mg/kg body weight
ATE US (dermal)	2500 mg/kg body weight
ALPHA-TERPINEOL (98-55-5)	
ATE US (oral)	4300 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
ATE US (dermal)	2600 mg/kg body weight
Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitization	: May cause an allergic skin reaction.
Germ cell mutagenicity	: No data available
Carcinogenicity	: Suspected of causing cancer.
LIMONENE (5989-27-5)	
IARC group	3 - Not classifiable
EUGENOL (97-53-0)	
IARC group	3 - Not classifiable
COUMARIN (91-64-5)	
IARC group	3 - Not classifiable
Myrcene (123-35-3)	
IARC group	2B - Possibly carcinogenic to humans

Reproductive toxicity : Suspected of damaging fertility or the unborn child.

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STOT-single exposure : No data available

Dihydromyrcenol (18479-58-8)

STOT-single exposure May cause drowsiness or dizziness.

STOT-repeated exposure : No data available

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)

Myrcene (123-35-3)

LOAEL (oral,rat,90 days) 250 mg/kg body weight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)

NOAEL (subchronic,oral,animal/male,90 days) 500 mg/kg body weight Animal: mouse, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)

NOAEL (subchronic,oral,animal/female,90 days) 250 mg/kg body weight Animal: mouse, Animal sex: female, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)

Aspiration hazard : No data available

Viscosity, kinematic : No data available

Symptoms/effects after inhalation : None under normal conditions.

Symptoms/effects after skin contact : Irritation. May cause an allergic skin reaction.

Symptoms/effects after eye contact : Eye irritation.

Symptoms/effects after ingestion : None under normal conditions.

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.

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 - Crustacea [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 - Crustacea [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)

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 - Crustacea [1] 3.09 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)

COUMARIN (91-64-5)

LC50 - Fish [1] 2.94 mg/l (96 h, Pisces, QSAR)

EC50 - Crustacea [1] 24.3 – 36.9 mg/l (48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)

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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 - Crustacea [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)

Myrcene (123-35-3)

LC50 - Fish [1]	0.92 mg/l
EC50 - Crustacea [1]	0.45 mg/l
NOEC chronic crustacea	0.12 mg/l

LINALYL ACETATE (115-95-7)

LC50 - Fish [1]	11 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Cyprinus carpio)
EC50 - Crustacea [1]	15 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna)

PHENYL ETHYL ALCOHOL (60-12-8)

LC50 - Fish [1]	220 – 260 mg/l (96 h, Leuciscus idus)
EC50 - Crustacea [1]	287.17 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 - Crustacea [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

ALDEHYDE C 10 (112-31-2)

Persistence and degradability	Not readily biodegradable in water.
BOD (% of ThOD)	0.022 (5 day(s), Literature study)

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.
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BENZYL BENZOATE (120-51-4)

Persistence and degradability	Readily biodegradable in water.
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COUMARIN (91-64-5)

Persistence and degradability	Readily biodegradable in water.
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Dihydromyrcenol (18479-58-8)

Persistence and degradability	Biodegradability in water: no data available.
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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.
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PHENYL ETHYL ALCOHOL (60-12-8)

Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
Biochemical oxygen demand (BOD)	1.45 g O ₂ /g substance
Chemical oxygen demand (COD)	2.5 g O ₂ /g substance

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PHENYL ETHYL ALCOHOL (60-12-8)	
ThOD	2.6 g O ₂ /g substance
BOD (% of ThOD)	0.558

ALPHA-TERPINEOL (98-55-5)	
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
ThOD	2.9 g O ₂ /g substance

VANILLIN (121-33-5)	
Persistence and degradability	Readily biodegradable in water.

12.3. Bioaccumulative potential

ALDEHYDE C 10 (112-31-2)	
BCF - Other aquatic organisms [1]	420 (QSAR)
Partition coefficient n-octanol/water (Log Pow)	3.76 (Estimated value)
Bioaccumulative potential	Bioaccumable.

LIMONENE (5989-27-5)	
BCF - Fish [1]	864.8 – 1022 (Pisces, QSAR, Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	4.38 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 37 °C)
Bioaccumulative potential	Potential for bioaccumulation ($4 \geq \text{Log Kow} \leq 5$).

LINALOOL (78-70-6)	
Partition coefficient n-octanol/water (Log Pow)	2.84 (Experimental value, Equivalent or similar to OECD 107, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation ($\text{Log Kow} < 4$).

BENZYL BENZOATE (120-51-4)	
BCF - Fish [1]	2.286 (BCFBAF v3.00, Pisces, QSAR)
Partition coefficient n-octanol/water (Log Pow)	3.97 (Experimental value, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation ($\text{Log Kow} < 4$).

COUMARIN (91-64-5)	
Partition coefficient n-octanol/water (Log Pow)	1.39 (QSAR, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation ($\text{Log Kow} < 4$).

Dihydromyrcenol (18479-58-8)	
Partition coefficient n-octanol/water (Log Pow)	3.47 (Estimated value)
Bioaccumulative potential	Low potential for bioaccumulation ($\text{Log Kow} < 4$).

ETHYL VANILLIN (121-32-4)	
Partition coefficient n-octanol/water (Log Pow)	1.58 (Experimental value, Equivalent or similar to OECD 107, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation ($\text{Log Kow} < 4$).

LINALYL ACETATE (115-95-7)	
Partition coefficient n-octanol/water (Log Pow)	3.93 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation ($\text{Log Kow} < 4$).

PHENYL ETHYL ALCOHOL (60-12-8)	
Partition coefficient n-octanol/water (Log Pow)	1.38 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation ($\text{Log Kow} < 4$).

ALPHA-TERPINEOL (98-55-5)	
Partition coefficient n-octanol/water (Log Pow)	2.57 (Estimated value)
Bioaccumulative potential	Low potential for bioaccumulation ($\text{Log Kow} < 4$).

VANILLIN (121-33-5)	
Partition coefficient n-octanol/water (Log Pow)	1.17 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation ($\text{Log Kow} < 4$).

12.4. Mobility in soil

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according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS 2024)

ALDEHYDE C 10 (112-31-2)	
Surface tension	0.028 N/m
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.
BENZYL BENZOATE (120-51-4)	
Surface tension	0.027 N/m (210 °C)
Organic Carbon Normalized Adsorption Coefficient (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.
COUMARIN (91-64-5)	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.63 (log Koc, QSAR)
Ecology - soil	Highly mobile in soil.
Dihydromyrcenol (18479-58-8)	
Ecology - soil	No (test)data on mobility of the substance available.
ETHYL VANILLIN (121-32-4)	
Organic Carbon Normalized Adsorption Coefficient (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)	
Organic Carbon Normalized Adsorption Coefficient (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

SECTION 13: Disposal considerations

13.1. Disposal methods

Regional waste regulation	: Disposal must be done according to official regulations.
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations	: Disposal must be done according to official regulations.
Product/Packaging disposal recommendations	: Disposal must be done according to official regulations.
Additional information	: Do not re-use empty containers.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Not regulated

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according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS 2024)

SECTION 15: Regulatory information

15.1. US Federal regulations

No additional information available

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.

SECTION 16: Other information

according to 29 CFR § 1910.1200, Hazard Communication Standard (HCS 2024)

Full text of hazard classes and H-statements:

H226	Flammable liquid and vapor
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
H319	Causes serious eye irritation
H320	Causes eye irritation
H336	May cause drowsiness or dizziness
H351	Suspected of causing cancer.
H361	Suspected of damaging fertility or the unborn child

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.