

Escentuals

RUSTIC ESCENTUALS™ PEPPERCORN FRAGRANCE OIL

Safety Data Sheet

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

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SECTION 1: Identification

Identification 1.1.

 Mixture Product form

Product name RUSTIC ESCENTUALS™ PEPPERCORN FRAGRANCE OIL

CAS-No. MIXTURE

Recommended use and restrictions on use

No additional information available

Supplier

IndiMade Brands, LLC DBA Wholesale Supplies Plus 7820 E Pleasant Valley Road Independence, OH 44131 (800) 359-0944 www.WholesaleSuppliesPlus.com

1.4. **Emergency telephone number**

(800) 255-3924 Domestic USA, Canada, Puerto Rico, and US Virgin Islands **Emergency number**

+1 813 248-0585 International

SECTION 2: Hazard(s) identification

Classification of the substance or mixture

GHS US classification

Flammable liquids H227 Combustible liquid

Category 4 Skin corrosion/irritation

H315 Causes skin irritation

Category 2

Serious eye damage/eye H319 Causes serious eye irritation

irritation Category 2

Skin sensitization, H317 May cause an allergic skin reaction

Category 1

Reproductive toxicity Suspected of damaging fertility or the unborn child H361

Category 2

Full text of H statements: see section 16

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

H361 - Suspected of damaging fertility or the unborn child

: P201 - Obtain special instructions before use. Precautionary statements (GHS US)

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/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.

P308+P313 - If exposed or concerned: Get medical advice/attention.

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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.

P337+P313 - If eye irritation persists: Get medical advice/attention.

P362+P364 - Take off contaminated clothing and wash it before reuse.

P363 - Wash contaminated clothing before reuse.

P370+P378 - In case of fire: Use media other than water to extinguish.

P403+P235 - Store in a well-ventilated place. Keep cool.

P405 - Store locked up.

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

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
METHYL CINNAMIC ALDEHYDE	(CAS-No.) 101-39-3	10 – 30	Skin Sens. 1B, H317
EUGENOL	(CAS-No.) 97-53-0	10 – 30	Eye Irrit. 2, H319 Skin Sens. 1B, H317
LIMONENE	(CAS-No.) 5989-27-5	1 – 5	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1, H317 Asp. Tox. 1, H304
BENZYL BENZOATE	(CAS-No.) 120-51-4	1 – 5	Acute Tox. 4 (Oral), H302
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
LINALOOL	(CAS-No.) 78-70-6	1 – 5	Flam. Liq. 4, H227 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1B, H317
ETHYL VANILLIN	(CAS-No.) 121-32-4	1 – 5	Eye Irrit. 2, H319
1-(5,6,7,8-Tetrahydro-3,5,5,6,8,8,-hexamethyl-2-naphthyl)ethan-1-one	(CAS-No.) 21145-77-7	1 – 5	Acute Tox. 4 (Oral), H302
HYDROXY-CITRONELLAL	(CAS-No.) 107-75-5	1 – 5	Eye Irrit. 2, H319 Skin Sens. 1B, H317
GERANIOL	(CAS-No.) 106-24-1	< 0.5	Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317
HELIONAL	(CAS-No.) 1205-17-0	< 0.5	Skin Sens. 1B, H317 Repr. 2, H361
CITRAL	(CAS-No.) 5392-40-5	< 0.5	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317
D-CARVONE (DEXTRO CARVONE)	(CAS-No.) 2244-16-8	< 0.5	Flam. Liq. 4, H227 Skin Sens. 1, H317

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.

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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 : Eye irritation.

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

Fire hazard : Combustible liquid.

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.

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. 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".

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. 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.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

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

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

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

TONALID (21145-77-7)

Not applicable

BENZYL BENZOATE (120-51-4)

Not applicable

D-LIMONENE (5989-27-5)

Not applicable

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METHYL CINNAMIC ALDEHYDE (101-39-3)

Not applicable

LINALYL ACETATE (115-95-7)

Not applicable

Linalool (78-70-6)

Not applicable

HYDROXY-CITRONELLAL (107-75-5)

Not applicable

HELIONAL (1205-17-0)

Not applicable

GERANIOL (106-24-1)

Not applicable

EUGENOL (97-53-0)

Not applicable

ETHYL VANILLIN (121-32-4)

Not applicable

D-CARVONE (DEXTRO CARVONE) (2244-16-8)

Not applicable

CITRAL (5392-40-5)			
ACGIH	Local name	Citral	
ACGIH	ACGIH OEL 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	

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 inadequate ventilation] wear respiratory protection.

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):

White Colourless to light yellow Colourless Yellow White to off-white Colourless to light amber On exposure to air: yellow Light yellow to colourless On exposure to air: yellow-brown

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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:

Mild odour Pleasant odour Aromatic odour Lemon odour Fruity odour Floral odour Sweet odour

Characteristic odour Strong odour Pine odour Almond odour

Odor threshold : No data available pH : No data available Melting point : No data available Freezing point : No data available Boiling point : No data available no data available

Flash point : ≈ 85.6 °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 No data available Solubility Partition coefficient n-octanol/water (Log Pow) : No data available : No data available Auto-ignition temperature Decomposition temperature : No data available No data availableViscosity, kinematic : No data available : No data available Viscosity, dynamic : No data available **Explosion limits** 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

TONAL ID (21145 77 7)

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

	TONALID (21145-77-7)	
ATE US (oral) 1000 mg/kg body weight		1000 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))

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BENZYL BENZOATE (120-51-4)		
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	
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)	
METHYL CINNAMIC ALDEHYDE (101-	39-3)	
ATE US (oral)	2050 mg/kg body weight	
Linalool (78-70-6)		
LD50 oral rat	2790 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male / female, Experimenta 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	
HYDROXY-CITRONELLAL (107-75-5)		
LD50 oral rat	> 6400 mg/kg body weight (Equivalent or similar to OECD 401, 7 day(s), Rat, Male / female, Experimental value, Oral, 7 day(s))	
LD50 dermal rabbit	> 2000 mg/kg (Rabbit, Experimental value, Dermal, 14 day(s))	
HELIONAL (1205-17-0)		
ATE US (oral)	3562 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	
EUGENOL (97-53-0)		
ATE US (oral)	2500 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	
D-CARVONE (DEXTRO CARVONE) (22	244-16-8)	
ATE US (oral)	2500 mg/kg body weight	
ATE US (dermal)	3800 mg/kg body weight	
CITRAL (5392-40-5)		
ATE US (dermal)	2250 mg/kg body weight	
kin corrosion/irritation	: Causes skin irritation.	
erious eye damage/irritation	: Causes serious eye irritation.	
tespiratory 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	
	·	
EUGENOL (97-53-0)		
IARC group	3 - Not classifiable	
Reproductive toxicity	: Suspected of damaging fertility or the unborn child.	

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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)

: Not classified Aspiration hazard Viscosity, kinematic : No data available

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

Symptoms/effects after eye contact : Eye irritation.

SECTION 12: Ecological informa	tion	
12.1. Toxicity		
Ecology - general	: The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.	
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)	
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 - Crustacea [1]	0.36 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)	
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)	
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)	
HYDROXY-CITRONELLAL (107-75-5)		
LC50 - Fish [1]	31.6 mg/l (DIN 38412: German standard methods for the examination of water, waste water and sludge, 96 h, Leuciscus idus, Static system, Fresh water, Experimental value, Nominal concentration)	
EC50 - Crustacea [1]	410 mg/l (EU Method C.2, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)	
ErC50 algae	123.32 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, Nominal concentration)	
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 - Crustacea [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)	

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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)

12.2. Persistence and degradability

BENZYL BENZOATE (120-51-4)			
Persistence and degradability	Readily biodegradable in water.		
D-LIMONENE (5989-27-5)			
Persistence and degradability	Readily biodegradable in water.		
ThOD	3.29 g O₂/g substance		
LINALYL ACETATE (115-95-7)			
Persistence and degradability	Readily biodegradable in water.		
Linalool (78-70-6)			
Persistence and degradability	Readily biodegradable in water.		
HYDROXY-CITRONELLAL (107-75-5)			
Persistence and degradability	Readily biodegradable in water.		
HELIONAL (1205-17-0)			
Persistence and degradability	Biodegradability in water: no data available.		
GERANIOL (106-24-1)			
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)		

12.3. Bioaccumulative potential

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 (Log Kow < 4).		
D-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 ≥ Log Kow ≤ 5).		
LINALYL ACETATE (115-95-7)			
Partition coefficient n-octanol/water (Log Pow)	3.93 (Experimental value)		
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).		
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 (Log Kow < 4).		
HYDROXY-CITRONELLAL (107-75-5)			
BCF - Fish [1]	11.52 l/kg (BCFBAF v3.01, Estimated value, Fresh weight)		
Partition coefficient n-octanol/water (Log Pow)	1.68 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 °C)		
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).		
HELIONAL (1205-17-0)			
Partition coefficient n-octanol/water (Log Pow)	2.4 (OECD 117: Partition Coefficient (n-octanol/water), HPLC method)		

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HELIONAL (1205-17-0)			
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).		
GERANIOL (106-24-1)			
Partition coefficient n-octanol/water (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).		
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 (Log Kow < 4).		

12.4. Mobility in soil

DENZYL DENZOATE (420 E4 4)		
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.	
D-LIMONENE (5989-27-5)		
Ecology - soil	Adsorbs into the soil.	
LINALYL ACETATE (115-95-7)		
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.	
HYDROXY-CITRONELLAL (107-75-5)		
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1 (log Koc, SRC PCKOCWIN v2.0, Calculated value)	
Ecology - soil	Highly mobile in soil.	
GERANIOL (106-24-1)		
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.85 (log Koc, PCKOCWIN v1.66, Calculated value)	
Ecology - soil	Highly mobile in soil.	
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.	
	- '	

12.5. Other adverse effects

No additional information available

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

Not regulated

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Transportation of Dangerous Goods

Transport document description (TDG) : UN3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (LIMONENE;

BENZYL BENZOATE), 9, III

UN-No. (TDG) : UN3082

Proper Shipping Name (TDG) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. TDG Primary Hazard Classes : 9 - Class 9 - Miscellaneous Products, Substances or Organisms

Packing group (TDG) : III - Minor Danger

TDG Special Provisions : 16 - (1) The technical name of at least one of the most dangerous substances that

predominantly contributes to the hazard or hazards posed by the dangerous goods must be shown, in parentheses, on the shipping document following the shipping name in accordance with clause 3.5(1)(c)(ii)(A) of Part 3 (Documentation). The technical name must also be shown, in parentheses, on a small means of containment or on a tag following the shipping name in accordance with subsections 4.11(2) and (3) of Part 4 (Dangerous Goods Safety Marks). (2) Despite subsection (1), the technical name for the following dangerous goods is not required to be shown on a shipping document or on a small means of containment when Canadian law for domestic transport or an international convention for international transport prohibits the disclosure of the technical name:

(a) UN1544, ALKALOID SALTS, SOLID, N.O.S. or ALKALOIDS, SOLID, N.O.S;

(b) UN1851, MEDICINE, LIQUID, TOXIC, N.O.S;

(c) UN3140, ALKALOID SALTS, LIQUID, N.O.S. or ALKALOIDS, LIQUID, N.O.S;

(d) UN3248, MEDICINE, LIQUID, FLAMMABLE, TOXIC, N.O.S; or

(e) UN3249, MEDICINE, SOLID, TOXIC, N.O.S.

(3) Despite subsection (1), the technical name for the following dangerous goods is not required to be shown on a small means of containment:

(a) UN2814, INFECTIOUS SUBSTANCE, AFFECTING HUMANS; or

(b) UN2900, INFECTIOUS SUBSTANCE, AFFECTING ANIMALS,99 - (1) Mixtures of solids that are not dangerous goods and liquids or solids that are UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S, or UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S, may be handled, offered for transport or transported as UN3077 if there is no visible liquid when the dangerous goods are loaded into a means containment and during transport.

(2) These Regulations, except for Part 1 (Coming into Force, Repeal, Interpretation, General Provisions and Special Cases) and Part 2 (Classification), do not apply to the handling, offering for transport or transporting of less than 450 kg of UN3077, ENVIRONMENTALLY

HAZARDOUS SUBSTANCE, SOLID, N.O.S, or less than 450 L of UN3082,

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S, on a road vehicle or a railway vehicle. The dangerous goods must be contained in one or more small means of containment designed, constructed, filled, closed, secured and maintained so that under normal conditions of transport, including handling, there will be no accidental release of the dangerous goods that could endanger public safety.

goods that could endanger public salety

Explosive Limit and Limited Quantity Index : 5 L

Transport by sea

Transport document description (IMDG) : UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (LIMONENE;

BENZYL BENZOATE), 9, III, MARINE POLLUTANT

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. (LIMONENE; BENZYL

BENZOATE), 9, III

UN-No. (IATA) : 3082

Proper Shipping Name (IATA) : Environmentally hazardous substance, liquid, n.o.s.

Class (IATA) : 9 - Miscellaneous Dangerous Substances and Articles

Packing group (IATA) : III - Low danger

SECTION 15: Regulatory information

15.1. US Federal regulations

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All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

1-(5,6,7,8-Tetrahydro-3,5,5,6,8,8,-hexamethyl-2-naphthyl)ethan- 1-one	CAS-No. 21145-77-7	1 – 5%
BENZYL BENZOATE	CAS-No. 120-51-4	1 – 5%
LIMONENE	CAS-No. 5989-27-5	1 – 5%
METHYL CINNAMIC ALDEHYDE	CAS-No. 101-39-3	10 – 30%
LINALYL ACETATE	CAS-No. 115-95-7	1 – 5%
LINALOOL	CAS-No. 78-70-6	1 – 5%
HYDROXY-CITRONELLAL	CAS-No. 107-75-5	1 – 5%
HELIONAL	CAS-No. 1205-17-0	< 0.5%
GERANIOL	CAS-No. 106-24-1	< 0.5%
EUGENOL	CAS-No. 97-53-0	10 – 30%
ETHYL VANILLIN	CAS-No. 121-32-4	1 – 5%
D-CARVONE (DEXTRO CARVONE)	CAS-No. 2244-16-8	< 0.5%
CITRAL	CAS-No. 5392-40-5	< 0.5%

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

1,3,4,6,7,8-Hexahydro-4,6,6,7,8,8-hexamethylcyclopenta-	CAS-No. 1222-05-5	1 – 5%
gamma-2-benzopyran		

15.2. International regulations

CANADA

TONALID ((21145-77-7))
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Listed on the Canadian DSL (Domestic Substances List)

BENZYL BENZOATE (120-51-4)

Listed on the Canadian DSL (Domestic Substances List)

D-LIMONENE (5989-27-5)

Listed on the Canadian DSL (Domestic Substances List)

METHYL CINNAMIC ALDEHYDE (101-39-3)

Listed on the Canadian DSL (Domestic Substances List)

LINALYL ACETATE (115-95-7)

Listed on the Canadian DSL (Domestic Substances List)

Linalool (78-70-6)

Listed on the Canadian DSL (Domestic Substances List)

HYDROXY-CITRONELLAL (107-75-5)

Listed on the Canadian DSL (Domestic Substances List)

HELIONAL (1205-17-0)

Listed on the Canadian DSL (Domestic Substances List)

GERANIOL (106-24-1)

Listed on the Canadian DSL (Domestic Substances List)

EUGENOL (97-53-0)

Listed on the Canadian DSL (Domestic Substances List)

ETHYL VANILLIN (121-32-4)

Listed on the Canadian DSL (Domestic Substances List)

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D-CARVONE (DEXTRO CARVONE) (2244-16-8)

Listed on the Canadian DSL (Domestic Substances List)

CITRAL (5392-40-5)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

TONALID (21145-77-7)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

Listed on the TCSI (Taiwan Chemical Substance Inventory)

Listed on NZIoC (New Zealand Inventory of Chemicals)

Listed on the Japanese ENCS (Existing New Chemical Substances) inventory

Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

Listed on the EC Inventory

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)

Listed on KECL/KECI (Korean Existing Chemicals Inventory)

Listed on KECI (Korean Existing Chemicals Inventory)

BENZYL BENZOATE (120-51-4)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

Listed on KECI (Korean Existing Chemicals Inventory)

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Listed on the Japanese ENCS (Existing New Chemical Substances) inventory

Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

Listed on the EC Inventory

Listed on the Australian HSIS Consolidated List

Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)

D-LIMONENE (5989-27-5)

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Listed on the EC Inventory

Listed on the Australian HSIS Consolidated List

Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)

METHYL CINNAMIC ALDEHYDE (101-39-3)

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Listed on KECI (Korean Existing Chemicals Inventory)

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LINALYL ACETATE (115-95-7)

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Listed on the EC Inventory

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Linalool (78-70-6)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active

Listed on INSQ (Mexican National Inventory of Chemical Substances)

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Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

Listed on the EC Inventory

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HYDROXY-CITRONELLAL (107-75-5)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

Listed on the TCSI (Taiwan Chemical Substance Inventory)

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Listed on KECL/KECI (Korean Existing Chemicals Inventory)

Listed on KECI (Korean Existing Chemicals Inventory)

HELIONAL (1205-17-0)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

Listed on the TCSI (Taiwan Chemical Substance Inventory)

Listed on NZIoC (New Zealand Inventory of Chemicals)

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Listed on KECL/KECI (Korean Existing Chemicals Inventory)

Listed on KECI (Korean Existing Chemicals Inventory)

GERANIOL (106-24-1)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

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EUGENOL (97-53-0)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

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ETHYL VANILLIN (121-32-4)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

Listed on the TCSI (Taiwan Chemical Substance Inventory)

Listed on NZIoC (New Zealand Inventory of Chemicals)

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Listed on INSQ (Mexican National Inventory of Chemical Substances)

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Listed on KECL/KECI (Korean Existing Chemicals Inventory)

Listed on KECI (Korean Existing Chemicals Inventory)

D-CARVONE (DEXTRO CARVONE) (2244-16-8)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

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Listed on INSQ (Mexican National Inventory of Chemical Substances)

Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)

CITRAL (5392-40-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active

Listed on INSQ (Mexican National Inventory of Chemical Substances)

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Listed on the Australian HSIS Consolidated List

Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)

SECTION 16: Other information

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Revision date : 06/06/2023

Full text of H-phrases:

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
H318	Causes serious eye damage
H319	Causes serious eye irritation
H361	Suspected of damaging fertility or the unborn child

SDS US

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.

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