SENSAMIST MOUNTAIN AIR

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015) Issue date: 05/23/2019
Revision date: 10/16/2023 Supersedes: 01/24/2023 Version: 2.1

SECTION 1: Identification

1.1. Product identifier

Product form : Mixture

Product name : SENSAMIST MOUNTAIN AIR

CAS-No. : MIXTURE

Product code : SM-32-MOUNTN-AIR : Formula

Product group

1.2. Recommended use and restrictions on use

1.3. Supplier

Vectair Systems Inc.
2095 Spicer Cove, Covington Way Distribution Centre, Memphis, TN 38134, USA

Vectair Systems Inc +1 901 373 7818 (during normal office hours)
Product Development: info@vectairsystems.com

1.4. Emergency telephone number

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

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Classification (GHS CA)

Flammable liquids 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

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS CA labeling

Hazard pictograms (GHS CA) :

Signal word (GHS CA) : Warning

Hazard statements (GHS CA) : H227 - Combustible liquid
H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation

Precautionary statements (GHS CA) : 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 should 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.
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.
P370+P378 - In case of fire: Use media other than water to extinguish.
P403 - Store in a well-ventilated place.

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

No additional information available

2.4. Unknown acute toxicity (GHS CA)

No data available

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Chemical name / Synonyms	Product identifier	%	Classification (GHS CA)
1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthalenyl)ethanone	1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthalenyl)ethanone	(CAS-No.) 54464-57-2	5 – 10	Skin Irrit. 2, H315 Skin Sens. 1B, H317
LINALYL ACETATE	1,5-dimethyl-1-vinyl-4-hexenyl acetate / 1,6-octadien-3-ol, 3,7-dimethyl-, acetate / 3,7-dimethyl-1,6-octadien-3-ol acetate / 3,7-dimethyl-1,6-octadien-3-yl acetate / acetic acid linalool ester / bergamiol / bergamol / bergamot mint oil / ex bois de rose (synthetic) / FEMA No. 2636 / licareol acetate / linalol acetate / linalool acetate / linalyl acetate / linalyl acetate synthetic	(CAS-No.) 115-95-7	1 – 5	Flam. Liq. 4, H227 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317
PHENYL ETHYL ALCOHOL	2-hydroxyethylbenzene / 2-phenethanol / 2-phenethyl alcohol / 2-phenyl-1-ethanol / 2-phenylethanol / 2-phenylethyl alcohol / benzeneethanol / benzyl carbinol / benzylmethanol / beta-fenethylalkohol / beta-hydroxyethylbenzene / beta-PEA / beta-phenethanol / beta-phenylethanol / beta-phenylethyl alcohol / ethanol, 2-phenyl- / FEMA No 2858 / methanol, benzyl- / orange oil / PEA (=2-phenylethanol) / phenethanol / phenethyl alcohol / phenylethanol / phenylethyl alcohol / rose oil	(CAS-No.) 60-12-8	1 – 5	Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Dermal), H311 Acute Tox. 4 (Inhalation:dust,mist), H332 Eye Irrit. 2, H319
DIETHYL MALONATE	carbethoxy acetic ester / dicarbethoxymethane / diethyl malonate / diethylpropanedioate / ethylmalonate / malonic acid diethyl ester / malonic ester / methane dicarboxylic acid diethyl ester / propanedioic acid diethyl ester / propanedioic acid, diethyl ester	(CAS-No.) 105-53-3	1 – 5	Flam. Liq. 4, H227 Eye Irrit. 2, H319
LIMONENE	LIMONENE (+)-1-methyl-4-isopropenyl-1-cyclohexene / (+)-4-isopropenyl-1-methylcyclohexene / (+)-cajeputene / (+)-carvene / (+)-citrene / (+)-para-mentha-1,8-diene / (+)-p-mentha-1,8-diene / (+)-R-limonene / (R)-(+)-4-isopropenyl-1-methyl-1-cyclohexene / (R)-(+)-limonene / (R)-1-methyl-4-(1-methylethenyl)cyclohexene / (R)-4-isopropenyl-1-methyl-1-cyclohexene / (R)-p-mentha-1,8-diene / 1,8-menthadiene, D- / 1-methyl-4-(1-methylethenyl)cyclohexene, (R)- / cyclohexene, 1-methyl-4-(1-methylethenyl)-, (R)- / cyclohexene, 1-methyl-4-(1-methylethenyl)-, (theta)- / cyclohexene, 4-isopropenyl-1-methyl- / D-(+)-limonene / dextro-limonene / dextro-para-mentha-1,8-diene / d-limonene / D-para-mentha-1,8-diene / D-p-mentha-1,8-diene / limonene, (R)-(+)- / limonene, D-(+)- / limonene, dextro- / para-mentha-1,8-diene, (R)-(+)- / p-mentha-1,8-diene, (R)-(+)- / p-mentha-1,8-diene, D- / refchole	(CAS-No.) 5989-27-5	1 – 5	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1, H317 Asp. Tox. 1, H304

Name	Chemical name / Synonyms	Product identifier	%	Classification (GHS CA)
2-Ethyl-4-(2,2,3-trimethyl-3-cyclopenten-1-yl)-2-buten-1-ol	2-Ethyl-4-(2,2,3-trimethyl-3-cyclopenten-1-yl)-2-buten-1-ol 2-buten-1-ol, 2-ethyl-4-(2,2,3-trimethyl-3-cyclopenten-1-yl)- / 2-ethyl-4-(2,2,3-trimethyl-3-cyclopenten-1-yl)-2-buten-1-ol / 2-ethyl-4-(2,2,3-trimethylcyclopent-3-en-yl)-but-2-en-1-ol / 2-ethyl-4-(2',2',3-trimethylcyclopent-3'-enyl)but-2-enol / Bacdanol / Balinol / Bangalol / Chandanol / Dartanol / Finanol / Levosandol / Radjanol / Sandacanol / Sandolen / Sandranol / SanfalFleur / Sanjinol	(CAS-No.) 28219-61-6	1 – 5	Eye Irrit. 2, H319
LINALOOL	LINALOOL .beta.-Linalool / 1,6-octadien-3-ol, 3,7-dimethyl- / 1,6-octadien-3-ol, 3,7-dimethyl- (6CI, 8CI, 9CI) / 2,6-dimethyl-2,7-octadien-6-ol / 3,7-dimethyl-1,6-octadien-3-ol / dl-linalool / linalool / linalool pure / linalool synthetic / linalyl alcohol / peelessenz / petinerol	(CAS-No.) 78-70-6	1 – 5	Flam. Liq. 4, H227 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1B, H317
GERANIOL	GERANIOL 2,6-Octadien-1-ol, 3,7-dimethyl-, (E)- / geraniol	(CAS-No.) 106-24-1	< 0.5	Skin Irrit. 2, H315 Eye Dam. 1, H318 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 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 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

Other medical advice or treatment : Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

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

5.2. Unsuitable extinguishing media

5.3. Specific hazards arising from the hazardous product

Fire hazard : Combustible liquid.

5.4. 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

No additional information available

6.2. Methods and materials 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.

6.3. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection"

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. 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.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

BENZYL ACETATE (140-11-4)		
USA - ACGIH	ACGIH OEL TWA [ppm]	10 ppm
USA - ACGIH	Remark (ACGIH)	TLV® Basis: URT irr. Notations: A4 (Not classifiable as a Human Carcinogen)
USA - ACGIH	Regulatory reference	ACGIH 2019
Alberta	OEL TWA [ppm]	10 ppm
Alberta	Notations and remarks	URT irr
British Columbia	OEL TWA [ppm]	10 ppm
British Columbia	Notations and remarks	URT irr
Manitoba	OEL TWA [ppm]	10 ppm
Manitoba	Notations and remarks	URT irr
New Brunswick	OEL TWA [ppm]	10 ppm
New Brunswick	Notations and remarks	URT irr
Newfoundland & Labrador	OEL TWA [ppm]	10 ppm
Newfoundland & Labrador	Notations and remarks	URT irr
Nova Scotia	OEL TWA [ppm]	10 ppm
Nova Scotia	Notations and remarks	URT irr
Nunavut	OEL TWA [ppm]	10 ppm
Nunavut	Notations and remarks	URT irr
Northwest Territories	OEL TWA [ppm]	10 ppm
Northwest Territories	Notations and remarks	URT irr
Ontario	OEL TWA [ppm]	10 ppm
Ontario	Regulatory reference	Ontario Occuational Exposure Limits under Regulation 833
Prince Edward Island	OEL TWA [ppm]	10 ppm
Prince Edward Island	Notations and remarks	URT irr
Saskatchewan	OEL STEL [ppm]	20 ppm
Saskatchewan	OEL TWA [ppm]	10 ppm

CITRAL (5392-40-5)		
USA - ACGIH	ACGIH OEL TWA [ppm]	5 ppm (IFV - Inhalable fraction and vapor)
USA - ACGIH	Remark (ACGIH)	TLV® Basis: Body weight eff; URT irr; eye dam. Notations: Skin; DSEN; A4 (Not classifiable as a Human Carcinogen)
USA - ACGIH	Regulatory reference	ACGIH 2018
Alberta	OEL TWA [ppm]	5 ppm
Alberta	Notations and remarks	Body weight eff; URT irr; eye dam; Skin; DSEN; A4
British Columbia	OEL TWA [ppm]	5 ppm
British Columbia	Notations and remarks	Body weight eff; URT irr; eye dam; Skin; DSEN; A4
Manitoba	OEL TWA [ppm]	5 ppm
Manitoba	Notations and remarks	Body weight eff; URT irr; eye dam; Skin; DSEN; A4

CITRAL (5392-40-5)		
New Brunswick	OEL TWA [ppm]	5 ppm
New Brunswick	Notations and remarks	Body weight eff; URT irr; eye dam; Skin; DSEN; A4
Newfoundland & Labrador	OEL TWA [ppm]	5 ppm
Newfoundland & Labrador	Notations and remarks	Body weight eff; URT irr; eye dam; Skin; DSEN; A4
Nova Scotia	OEL TWA [ppm]	5 ppm
Nova Scotia	Notations and remarks	Body weight eff; URT irr; eye dam; Skin; DSEN; A4
Nunavut	OEL TWA [ppm]	5 ppm
Nunavut	Notations and remarks	Body weight eff; URT irr; eye dam; Skin; DSEN; A4
Northwest Territories	OEL TWA [ppm]	5 ppm
Northwest Territories	Notations and remarks	Body weight eff; URT irr; eye dam; Skin; DSEN; A4
Ontario	OEL TWA [ppm]	5 ppm
Ontario	Notations and remarks	Skin (IFV)
Ontario	Regulatory reference	Ontario Occuational Exposure Limits under Regulation 833
Prince Edward Island	OEL TWA [ppm]	5 ppm
Prince Edward Island	Notations and remarks	Body weight eff; URT irr; eye dam; Skin; DSEN; A4

Myrcene (123-35-3)		
British Columbia	Notations and remarks	IARC group 2B carcinogen
British Columbia	Regulatory reference	OHS Guidelines Part 5: Chemical Agents and Biological Agents (WorkSafe BC)

BHT (128-37-0)		
USA - ACGIH	ACGIH OEL TWA	2 mg/m³ (Inhalable fraction and vapor)
USA - ACGIH	Remark (ACGIH)	TLV® Basis: URT irr. Notations: A4 (Not classifiable as a Human Carcinogen)
USA - ACGIH	Regulatory reference	ACGIH 2018
Ontario	OEL TWA	2 mg/m³
Ontario	Notations and remarks	(IFV)
Ontario	Regulatory reference	Ontario Occuational Exposure Limits under Regulation 833
Saskatchewan	OEL STEL	4 mg/m³
Saskatchewan	OEL TWA	2 mg/m³

DIPROPYLENE GLYCOL METHYLETHER ACETATE (88917-22-0)		
Ontario	OEL STEL	1.164 mg/m³
Ontario	OEL STEL [ppm]	150 ppm
Ontario	OEL TWA	776 mg/m³
Ontario	OEL TWA [ppm]	100 ppm
Ontario	Regulatory reference	Ontario Occuational Exposure Limits under Regulation 833

ALPHA PINENE (80-56-8)		
USA - ACGIH	ACGIH OEL TWA [ppm]	20 ppm
USA - ACGIH	Remark (ACGIH)	TLV® Basis: Lung irr. Notations: DSEN; A4 (Not classifiable as a Human Carcinogen)
USA - ACGIH	Regulatory reference	ACGIH 2018
Saskatchewan	OEL STEL [ppm]	30 ppm
Saskatchewan	OEL TWA [ppm]	20 ppm
Saskatchewan	Notations and remarks	SEN

beta-Pinene (127-91-3)		
USA - ACGIH	ACGIH OEL TWA [ppm]	20 ppm
USA - ACGIH	Remark (ACGIH)	TLV® Basis: Lung irr. Notations: DSEN; A4 (Not classifiable as a Human Carcinogen)
USA - ACGIH	Regulatory reference	ACGIH 2018

beta-Pinene (127-91-3)		
Saskatchewan	OEL STEL [ppm]	30 ppm
Saskatchewan	OEL TWA [ppm]	20 ppm
Saskatchewan	Notations and remarks	SEN

CITRAL (5392-40-5)		
USA - ACGIH	ACGIH OEL TWA [ppm]	5 ppm (IFV - Inhalable fraction and vapor)
USA - ACGIH	Remark (ACGIH)	TLV® Basis: Body weight eff; URT irr; eye dam. Notations: Skin; DSEN; A4 (Not classifiable as a Human Carcinogen)
USA - ACGIH	Regulatory reference	ACGIH 2018
Alberta	OEL TWA [ppm]	5 ppm
Alberta	Notations and remarks	Body weight eff; URT irr; eye dam; Skin; DSEN; A4
British Columbia	OEL TWA [ppm]	5 ppm
British Columbia	Notations and remarks	Body weight eff; URT irr; eye dam; Skin; DSEN; A4
Manitoba	OEL TWA [ppm]	5 ppm
Manitoba	Notations and remarks	Body weight eff; URT irr; eye dam; Skin; DSEN; A4
New Brunswick	OEL TWA [ppm]	5 ppm
New Brunswick	Notations and remarks	Body weight eff; URT irr; eye dam; Skin; DSEN; A4
Newfoundland & Labrador	OEL TWA [ppm]	5 ppm
Newfoundland & Labrador	Notations and remarks	Body weight eff; URT irr; eye dam; Skin; DSEN; A4
Nova Scotia	OEL TWA [ppm]	5 ppm
Nova Scotia	Notations and remarks	Body weight eff; URT irr; eye dam; Skin; DSEN; A4
Nunavut	OEL TWA [ppm]	5 ppm
Nunavut	Notations and remarks	Body weight eff; URT irr; eye dam; Skin; DSEN; A4
Northwest Territories	OEL TWA [ppm]	5 ppm
Northwest Territories	Notations and remarks	Body weight eff; URT irr; eye dam; Skin; DSEN; A4
Ontario	OEL TWA [ppm]	5 ppm
Ontario	Notations and remarks	Skin (IFV)
Ontario	Regulatory reference	Ontario Occuational Exposure Limits under Regulation 833
Prince Edward Island	OEL TWA [ppm]	5 ppm
Prince Edward Island	Notations and remarks	Body weight eff; URT irr; eye dam; Skin; DSEN; A4

PROPYLENE GLYCOL USP (57-55-6)		
Ontario	OEL TWA	155 mg/m³ 10 mg/m³
Ontario	OEL TWA [ppm]	50 ppm
Ontario	Notations and remarks	(V)
Ontario	Regulatory reference	Ontario Occuational Exposure Limits under Regulation 833

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

Personal protective equipment symbol(s):

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Appearance	:	No data available
Color	:	Mixture contains one or more component(s) which have the following colour(s): Colourless to light yellow Colourless White Light yellow to colourless On exposure to light: yellow Yellow Colourless to yellow Colourless to brown On exposure to air: yellow
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: Pleasant odour Sweet odour Mild odour Fruity odour Floral odour Aromatic odour Irritating/pungent odour Strong odour Characteristic odour Almost odourless Alcohol odour Lemon odour Peppermint odour Phenol odour Pine odour
Odor threshold	:	No data available
pH	:	No data available
Relative evaporation rate (butyl acetate=1)	:	No data available
Relative evaporation rate (ether=1)	:	No data available
Melting point	:	No data available
Freezing point	:	No data available
Boiling point	:	No data available
Flash point	:	≈ 86.9 °C
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Flammability	:	Not applicable
Vapor pressure	:	No data available
Vapor pressure at 50°C	:	No data available
Relative density	:	No data available
Solubility	:	No data available
Partition coefficient n-octanol/water (Log Pow)	:	No data available
Explosion limits	:	No data available

9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	:	The product is non-reactive under normal conditions of use, storage and transport.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	No dangerous reactions known under normal conditions of use.
Conditions to avoid	:	Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.
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

GERANIOL (106-24-1)	
LD50 oral rat	3600 mg/kg body weight (Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 oral	3600 mg/kg body weight
LD50 dermal rabbit	> 5000 mg/kg (Rabbit, Experimental value, Dermal)

GERANIOL (106-24-1)	
ATE CA (oral)	3600 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, Experimental value, Oral, 14 day(s))
LD50 oral	2790 mg/kg body weight
LD50 dermal rabbit	5610 mg/kg body weight (Equivalent or similar to OECD 402, 24 h, Rabbit, Experimental value, Dermal, 7 day(s))
ATE CA (oral)	2790 mg/kg body weight
ATE CA (Dermal)	5610 mg/kg body weight

PHENYL ETHYL ALCOHOL (60-12-8)	
LD50 oral rat	> 1790 mg/kg (Rat, Oral)
LD50 oral	1610 mg/kg body weight
LD50 dermal rabbit	> 808 mg/kg (Rabbit, Dermal)
LD50 dermal	2500 mg/kg body weight
LC50 Inhalation - Rat	> 1.4 mg/l (4 h, Rat, Inhalation)
ATE CA (oral)	1610 mg/kg body weight
ATE CA (Dermal)	300 mg/kg body weight
ATE CA (dust,mist)	1.5 mg/l/4h

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)

ETHYL TRIMETHYLCYCLOPENTENE BUTENOL (28219-61-6)	
LD50 oral rat	> 2000 mg/kg body weight (OECD 401: Acute Oral Toxicity, 2 week(s), Rat, Male/female, Experimental value, Oral)
LD50 dermal rat	> 5 ml/kg (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male/female, Experimental value, Dermal)

DIETHYL MALONATE (105-53-3)	
LD50 oral rat	15794 mg/kg (Rat, Oral)
LD50 dermal rabbit	> 16960 mg/kg (Rabbit, Dermal)
ATE CA (oral)	15794 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 : Not classified

Carcinogenicity : Not classified

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

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

Symptoms/effects after eye contact : Eye irritation.

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.

Hazardous to the aquatic environment, short–term (acute) : Not classified

Hazardous to the aquatic environment, long–term (chronic) : Not classified

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)
Partition coefficient n-octanol/water (Log Pow)	2.6 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 25 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.85 (log Koc, PCKOCWIN v1.66, Calculated value)

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)
EC50 96h - Algae [1]	88.3 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
EC50 96h - Algae [2]	156.7 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
Partition coefficient n-octanol/water (Log Pow)	2.84 (Experimental value, Equivalent or similar to OECD 107, 25 °C)

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)
EC50 72h - Algae [1]	16 mg/l (OECD 201: Alga, Growth Inhibition Test, Scenedesmus subspicatus)
Partition coefficient n-octanol/water (Log Pow)	3.93 (Experimental value)

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)
EC50 72h - Algae [1]	490 mg/l (Scenedesmus subspicatus)
Partition coefficient n-octanol/water (Log Pow)	1.38 (Experimental value)

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)
EC50 72h - Algae [1]	150 mg/l (OECD 201: Alga, Growth Inhibition Test, Desmodesmus subspicatus, Static system, Fresh water, Read-across, GLP)
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)

ETHYL TRIMETHYLCYCLOPENTENE BUTENOL (28219-61-6)	
LC50 - Fish [1]	1.1 mg/l (US EPA, 96 h, Lepomis macrochirus, Flow-through system, Fresh water, Experimental value, GLP)
ErC50 algae	2.5 mg/l (US EPA, 96 h, Selenastrum capricornutum, Static system, Fresh water, Experimental value, GLP)
BCF - Other aquatic organisms [1]	667 (Other, QSAR)
Partition coefficient n-octanol/water (Log Pow)	4.4 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 35 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2.57 (log Koc, Other, QSAR)

DIETHYL MALONATE (105-53-3)	
LC50 - Fish [1]	11.8 mg/l (96 h, Pimephales promelas)
EC50 - Crustacea [1]	202.3 mg/l (48 h, Daphnia magna, Static system)

DIETHYL MALONATE (105-53-3)	
EC50 72h - Algae [1]	508.2 mg/l (Scenedesmus subspicatus)
Partition coefficient n-octanol/water (Log Pow)	0.96

12.2. Persistence and degradability

GERANIOL (106-24-1)	
Persistence and degradability	Readily biodegradable in water.

Linalool (78-70-6)	
Persistence and degradability	Readily biodegradable in water.

LINALYL ACETATE (115-95-7)	
Persistence and degradability	Readily biodegradable in water.

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
ThOD	2.6 g O_2/g substance
BOD (% of ThOD)	0.558

D-LIMONENE (5989-27-5)	
Persistence and degradability	Readily biodegradable in water.
ThOD	3.29 g O_2/g substance

ETHYL TRIMETHYLCYCLOPENTENE BUTENOL (28219-61-6)	
Persistence and degradability	Not readily biodegradable in water.
ThOD	3 g O_2/g substance

DIETHYL MALONATE (105-53-3)	
Persistence and degradability	Readily biodegradable in water.

12.3. Bioaccumulative potential

GERANIOL (106-24-1)	
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
Partition coefficient n-octanol/water (Log Pow)	2.6 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 25 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.85 (log Koc, PCKOCWIN v1.66, Calculated value)

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

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

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

D-LIMONENE (5989-27-5)	
Bioaccumulative potential	Potential for bioaccumulation (4 ≥ Log Kow ≤ 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)

ETHYL TRIMETHYLCYCLOPENTENE BUTENOL (28219-61-6)	
Bioaccumulative potential	Potential for bioaccumulation (500 ≤ BCF ≤ 5000).
BCF - Other aquatic organisms [1]	667 (Other, QSAR)
Partition coefficient n-octanol/water (Log Pow)	4.4 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 35 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2.57 (log Koc, Other, QSAR)

DIETHYL MALONATE (105-53-3)	
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
Partition coefficient n-octanol/water (Log Pow)	0.96

12.4. Mobility in soil

GERANIOL (106-24-1)	
Ecology - soil	Highly mobile in soil.
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.85 (log Koc, PCKOCWIN v1.66, Calculated value)
Partition coefficient n-octanol/water (Log Pow)	2.6 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 25 °C)

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.
Partition coefficient n-octanol/water (Log Pow)	2.84 (Experimental value, Equivalent or similar to OECD 107, 25 °C)

LINALYL ACETATE (115-95-7)	
Ecology - soil	Adsorbs into the soil.
Partition coefficient n-octanol/water (Log Pow)	3.93 (Experimental value)

PHENYL ETHYL ALCOHOL (60-12-8)	
Partition coefficient n-octanol/water (Log Pow)	1.38 (Experimental value)

D-LIMONENE (5989-27-5)	
Ecology - soil	Adsorbs into the soil.
Partition coefficient n-octanol/water (Log Pow)	4.38 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 37 °C)

ETHYL TRIMETHYLCYCLOPENTENE BUTENOL (28219-61-6)	
Ecology - soil	Low potential for adsorption in soil.
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2.57 (log Koc, Other, QSAR)
Partition coefficient n-octanol/water (Log Pow)	4.4 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 35 °C)

DIETHYL MALONATE (105-53-3)	
Ecology - soil	May be harmful to plant growth, blooming and fruit formation.
Partition coefficient n-octanol/water (Log Pow)	0.96

12.5. Other adverse effects

Ozone : Not classified

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

14.1. Basic shipping description

In accordance with TDG

Transportation of Dangerous Goods

UN-No. (TDG) : UN3082

Packing group (TDG) : III - Minor Danger

TDG Primary Hazard Classes : 9 - Class 9 - Miscellaneous Products, Substances or Organisms

Transport document description (TDG) : UN3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (1,3,4,6,7,8-Hexahydro-4,6,6,7,8,8-hexamethylcyclopenta-gamma-2-benzopyran ; 1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthalenyl)ethanone), 9, III

Proper Shipping Name (TDG) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
1,3,4,6,7,8-Hexahydro-4,6,6,7,8,8-hexamethylcyclopenta-gamma-2-benzopyran ; 1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthalenyl)ethanone

Hazard labels (TDG) : 9 - Miscellaneous Products, Substances or Organisms

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.
Explosive Limit and Limited Quantity Index	:	5 L
Excepted quantities (TDG)	:	E1

14.2. Transport information/DOT

Department of Transport

Not regulated for transport

14.3. Air and sea transport

IMDG

UN-No. (IMDG)	:	3082
Proper Shipping Name (IMDG)	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Transport document description (IMDG)	:	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (1,3,4,6,7,8-Hexahydro-4,6,6,7,8,8-hexamethylcyclopenta-gamma-2-benzopyran ; 1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthalenyl)ethanone), 9, III, MARINE POLLUTANT
Class (IMDG)	:	9 - Miscellaneous dangerous substances and articles
Packing group (IMDG)	:	III - substances presenting low danger

IATA

UN-No. (IATA)	:	3082
Proper Shipping Name (IATA)	:	Environmentally hazardous substance, liquid, n.o.s.
Transport document description (IATA)	:	UN 3082 Environmentally hazardous substance, liquid, n.o.s. (1,3,4,6,7,8-Hexahydro-4,6,6,7,8,8-hexamethylcyclopenta-gamma-2-benzopyran ; 1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthalenyl)ethanone), 9, III
Class (IATA)	:	9 - Miscellaneous Dangerous Substances and Articles
Packing group (IATA)	:	III - Low danger

SECTION 15: Regulatory information

15.1. National regulations

GERANIOL (106-24-1)

Listed on the Canadian DSL (Domestic Substances List)

Linalool (78-70-6)

Listed on the Canadian DSL (Domestic Substances List)

LINALYL ACETATE (115-95-7)
Listed on the Canadian DSL (Domestic Substances List)

PHENYL ETHYL ALCOHOL (60-12-8)
Listed on the Canadian DSL (Domestic Substances List)

D-LIMONENE (5989-27-5)
Listed on the Canadian DSL (Domestic Substances List)

ETHYL TRIMETHYLCYCLOPENTENE BUTENOL (28219-61-6)
Listed on the Canadian DSL (Domestic Substances List)

DIETHYL MALONATE (105-53-3)
Listed on the Canadian DSL (Domestic Substances List)

1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthalenyl)ethanone (54464-57-2)
Listed on the Canadian DSL (Domestic Substances List)

15.2. International regulations

GERANIOL (106-24-1)
Listed on INSQ (Mexican National Inventory of Chemical Substances)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
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 introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)

Linalool (78-70-6)
Listed on INSQ (Mexican National Inventory of Chemical Substances)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
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 introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)

LINALYL ACETATE (115-95-7)
Listed on INSQ (Mexican National Inventory of Chemical Substances)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
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 introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)

PHENYL ETHYL ALCOHOL (60-12-8)
Listed on INSQ (Mexican National Inventory of Chemical Substances)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
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 introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)

D-LIMONENE (5989-27-5)
Listed on INSQ (Mexican National Inventory of Chemical Substances)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
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 introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)

ETHYL TRIMETHYLCYCLOPENTENE BUTENOL (28219-61-6)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on INSQ (Mexican National Inventory of Chemical Substances)
Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)
Listed on the Japanese ENCS (Existing New Chemical Substances) inventory
Listed on KECL/KECI (Korean Existing Chemicals Inventory)

DIETHYL MALONATE (105-53-3)
Listed on the United States TSCA (Toxic Substances Control Act) inventory Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) 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 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)

1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthalenyl)ethanone (54464-57-2)
Listed on the United States TSCA (Toxic Substances Control Act) inventory Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) 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 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)

SECTION 16: Other information

SDS Major/Minor	:	None
Issue date	:	05/23/2019
Revision date	:	10/16/2023
Supersedes	:	01/24/2023

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
H311	Toxic in contact with skin
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H319	Causes serious eye irritation
H332	Harmful if inhaled

SDS Canada (Vectair Systems Inc)

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.