

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Issue date: 03/28/2022 Version: 1.0

SECTI	ON 1: Identification	
1.1.	Identification	
Product	form	: Mixture
Product	name	:
1.2.	Recommended use and restrictions of	on use
No addit	onal information available	
1.3.	Supplier	
33306 Livonia 734-26	gton Fragrance Glendale St. a, MI 48150 51-5531 t@wellingtonfragrance.com	
1.4.	Emergency telephone number	
Emerger	icy 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

Ono oo classification		
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
Carcinogenicity Category 2	H351	Suspected of causing cancer
Full text of H statements : se	e 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
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/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. P321 - Specific treatment (see supplemental first aid instruction on this label). P332+P313 - If skin irritation occurs: Get medical advice/attention.

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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
LIMONENE	(CAS-No.) 5989-27-5	5 – 10	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1, H317 Asp. Tox. 1, H304
CITRAL	(CAS-No.) 5392-40-5	5 – 10	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317
ALDEHYDE C8	(CAS-No.) 124-13-0	1 – 5	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Irrit. 2, H319
LINALOOL	(CAS-No.) 78-70-6	1 – 5	Flam. Liq. 4, H227 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1B, H317
VANILLIN	(CAS-No.) 121-33-5	1 – 5	Eye Irrit. 2, H319
ALDEHYDE C 10	(CAS-No.) 112-31-2	1 – 5	Flam. Liq. 4, H227 Eye Irrit. 2, H319
2-ethyl-3-hydroxypyran-4-one	(CAS-No.) 4940-11-8	1 – 5	Acute Tox. 4 (Oral), H302
p-Mentha-1,4-diene	(CAS-No.) 99-85-4	1 – 5	Flam. Liq. 3, H226 Asp. Tox. 1, H304
GERANIOL	(CAS-No.) 106-24-1	1 – 5	Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317
TERPINOLENE	(CAS-No.) 586-62-9	1 – 5	Flam. Liq. 3, H226 Skin Sens. 1B, H317 Asp. Tox. 1, H304
Myrcene	(CAS-No.) 123-35-3	< 0.5	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Carc. 2, H351 Asp. Tox. 1, H304

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

SECTION 4: First-aid measures			
4.1. Description of first aid measures			
First-aid measures 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 effec	ts (acute and delayed)		
Symptoms/effects after skin contact	: Irritation. May cause an allergic skin reaction.		
Symptoms/effects after eye contact	: Eye irritation.		
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4.3. Immediate medical attention and special treatment, if necessary				
Treat sy	mptomatically.			
SECT	ON 5: Fire-fighting measures			
5.1.	Suitable (and unsuitable) extinguish	ing media		
Suitable	extinguishing media	: Water spray. Dry powder. Foam. Carbon dioxide.		
5.2.	Specific hazards arising from the ch	emical		
Fire haz	ard	: Combustible liquid.		
5.3.	Special protective equipment and p	recautions for fire-fighters		
Protecti	on during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.		
SECT	ON 6: Accidental release meas	sures		
6.1.	Personal precautions, protective eq	uipment and emergency procedures		
6.1.1.	For non-emergency personnel			
Emerge	ncy 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			
Protectiv	ve 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 re	elease to the environment.			
6.3.	Methods and material for containme	ent and cleaning up		
Methods	s for cleaning up	: Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.		
Other in	formation	: Dispose of materials or solid residues at an authorized site.		
6.4.	Reference to other sections			
For furth	ner information refer to section 13.			
SECT	ION 7: Handling and storage			
7.1.	Precautions for safe handling			
Precaut	ions 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	emeasures	: 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	ng 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

ALDEHYDE C8 (124-13-0)		
Not applicable		
ALDEHYDE C 10 (112-31-2)		
Not applicable		
CITRAL (5392-40-5)		
ACGIH	Local name	Citral
ACGIH	ACGIH OEL TWA [ppm]	5 ppm (IFV - Inhalable fraction and vapor)

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CITRAL (5392-40-5)				
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		
ETHYL MALTOL (4940-11-8)				
Not applicable				
GERANIOL (106-24-1)				
Not applicable				
GAMMA TERPINENE (99-85-	4)			
Not applicable				
D-LIMONENE (5989-27-5)				
Not applicable	Not applicable			
Myrcene (123-35-3)	Myrcene (123-35-3)			
Not applicable				
Linalool (78-70-6)				
Not applicable				
Terpinolene (586-62-9)				
Not applicable	Not applicable			
VANILLIN (121-33-5)				
Not applicable				

8.2. Appropriate engineering controls

Appropriate engineering controls Environmental exposure controls Ensure good ventilation of the work station.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

official and offic	
Physical state	: Liquid
Color	: Mixture contains one or more component(s) which have the following colour(s): Colourless to light yellow On exposure to air: yellow Light yellow to colourless Colourless Colourless to light amber White Colourless to brown White to light yellow On exposure to light: discolours

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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: Fruity odour Strong odour Lemon odour Floral odour Aromatic odour Mild odour Sweet odou Pine odour Characteristic odour Peppermint odour Pleasant odour
Odor threshold	: No data available
рН	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: ≈67.1 °C
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Not applicable.
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Solubility	: No data available
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)	: Not classified			
Acute toxicity (dermal)	: Not classified			
Acute toxicity (inhalation)	: Not classified			
ALDEHYDE C8 (124-13-0)				
LD50 oral rat	4617 mg/kg body weight (Rat, Male, Experimental value, Oral, 14 day(s))			
LD50 dermal rabbit	5207 mg/kg (24 h, Rabbit, Male, Experimental value, Dermal, 14 day(s))			
LC50 Inhalation - Rat	> 830 mg/m ³ air (1 - 8 h, Rat, Male, Experimental value, Inhalation (vapours), 14 day(s))			
ATE US (oral)	4617 mg/kg body weight			
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ALDEHYDE C8 (124-13-0)		
ATE US (dermal)	5207 mg/kg body weight	
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	
CITRAL (5392-40-5)		
ATE US (dermal)	2250 mg/kg body weight	
ETHYL MALTOL (4940-11-8)		
LD50 oral rat	1150 mg/kg (Rat, Oral)	
LD50 dermal rabbit	> 5000 mg/kg (Rabbit, Dermal)	
ATE US (oral)	1150 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	
GAMMA TERPINENE (99-85-4)		
ATE US (oral)	3850 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)	
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)	
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	
Terpinolene (586-62-9)		
ATE US (oral)	3775 mg/kg body weight	
VANILLIN (121-33-5)		
LD50 oral rat	3300 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 14 day(s))	
LD50 dermal rat	> 2000 mg/kg body weight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))	
ATE US (oral)	3300 mg/kg body weight	
Skin corrosion/irritation	: Causes skin irritation.	
Serious eye damage/irritation	: Causes serious eye irritation.	
Respiratory or skin sensitization	: May cause an allergic skin reaction.	
Germ cell mutagenicity	: Not classified	
Carcinogenicity	: Suspected of causing cancer.	

D-LIMONENE (5989-27-5)	
IARC group	3 - Not classifiable
Myrcene (123-35-3)	
IARC group	2B - Possibly carcinogenic to humans

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

STOT-repeated exposure	:	Not classified
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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)
Linalool (78-70-6)	
NOAEL (dermal,rat/rabbit,90 days)	250 mg/kg body weight Animal: rat, Guideline: OECD Guideline 411 (Subchronic Dermal Toxicity: 90-Day Study)
Aspiration hazard	Not classified
Viscosity, kinematic	No data available
, ,	: Irritation. May cause an allergic skin reaction. : Eye irritation.

ns or to cause long-term adverse
est, 48 h, Daphnia magna, Flow- ect)
seudokirchneriella subcapitata,
o rerio, Static system, Fresh water,
Fest, 48 h, Daphnia magna, Static st)
Desmodesmus subspicatus, Static
phales promelas, Flow-through
⁻ est, 48 h, Daphnia magna, Static
corhynchus mykiss, Static system,
st, 48 h, Daphnia magna, Static
is, Static system, Fresh water,
ales promelas, Flow-through
ales promela

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VANILLIN (121-33-5)	
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)
2.2. Persistence and degradability	
ALDEHYDE C8 (124-13-0)	
Persistence and degradability	Biodegradable in the soil. Not readily biodegradable in water. Inherently biodegradable.
ALDEHYDE C 10 (112-31-2)	
Persistence and degradability	Not readily biodegradable in water.
BOD (% of ThOD)	0.022 (5 day(s), Literature study)
ETHYL MALTOL (4940-11-8)	
Persistence and degradability	Biodegradability in water: no data available.
GERANIOL (106-24-1)	
Persistence and degradability	Readily biodegradable in water.
D-LIMONENE (5989-27-5)	
Persistence and degradability	Readily biodegradable in water.
ThOD	3.29 g O ₂ /g substance
Linalool (78-70-6)	
Persistence and degradability	Readily biodegradable in water.
VANILLIN (121-33-5)	
Persistence and degradability	Readily biodegradable in water.
5 5	
2.3. Bioaccumulative potential	
ALDEHYDE C8 (124-13-0)	
BCF - Other aquatic organisms [1]	94.69 (BCFBAF v3.01, Estimated value, Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	305 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 25
	°C)
Bioaccumulative potential	°C) Low potential for bioaccumulation (Log Kow < 4).
•	,
•	,
ALDEHYDE C 10 (112-31-2) BCF - Other aquatic organisms [1]	Low potential for bioaccumulation (Log Kow < 4).
ALDEHYDE C 10 (112-31-2) BCF - Other aquatic organisms [1]	Low potential for bioaccumulation (Log Kow < 4). 420 (QSAR)
ALDEHYDE C 10 (112-31-2) BCF - Other aquatic organisms [1] Partition coefficient n-octanol/water (Log Pow) Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
ALDEHYDE C 10 (112-31-2) BCF - Other aquatic organisms [1] Partition coefficient n-octanol/water (Log Pow) Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
ALDEHYDE C 10 (112-31-2) BCF - Other aquatic organisms [1] Partition coefficient n-octanol/water (Log Pow) Bioaccumulative potential ETHYL MALTOL (4940-11-8) Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
ALDEHYDE C 10 (112-31-2) BCF - Other aquatic organisms [1] Partition coefficient n-octanol/water (Log Pow) Bioaccumulative potential ETHYL MALTOL (4940-11-8) Bioaccumulative potential GERANIOL (106-24-1)	Low potential for bioaccumulation (Log Kow < 4). 420 (QSAR) 3.76 (Estimated value) Bioaccumable. No bioaccumulation data available. 2.6 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 25
ALDEHYDE C 10 (112-31-2) BCF - Other aquatic organisms [1] Partition coefficient n-octanol/water (Log Pow) Bioaccumulative potential ETHYL MALTOL (4940-11-8) Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4). 420 (QSAR) 3.76 (Estimated value) Bioaccumable. No bioaccumulation data available.
ALDEHYDE C 10 (112-31-2) BCF - Other aquatic organisms [1] Partition coefficient n-octanol/water (Log Pow) Bioaccumulative potential ETHYL MALTOL (4940-11-8) Bioaccumulative potential GERANIOL (106-24-1) Partition coefficient n-octanol/water (Log Pow)	Low potential for bioaccumulation (Log Kow < 4). 420 (QSAR) 3.76 (Estimated value) Bioaccumable. No bioaccumulation data available. 2.6 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 25 °C)
ALDEHYDE C 10 (112-31-2) BCF - Other aquatic organisms [1] Partition coefficient n-octanol/water (Log Pow) Bioaccumulative potential ETHYL MALTOL (4940-11-8) Bioaccumulative potential GERANIOL (106-24-1) Partition coefficient n-octanol/water (Log Pow) Bioaccumulative potential D-LIMONENE (5989-27-5)	Low potential for bioaccumulation (Log Kow < 4). 420 (QSAR) 3.76 (Estimated value) Bioaccumable. No bioaccumulation data available. 2.6 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 25 °C)
ALDEHYDE C 10 (112-31-2) BCF - Other aquatic organisms [1] Partition coefficient n-octanol/water (Log Pow) Bioaccumulative potential ETHYL MALTOL (4940-11-8) Bioaccumulative potential GERANIOL (106-24-1) Partition coefficient n-octanol/water (Log Pow) Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4). 420 (QSAR) 3.76 (Estimated value) Bioaccumable. No bioaccumulation data available. 2.6 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 25 °C) Low potential for bioaccumulation (Log Kow < 4).
ALDEHYDE C 10 (112-31-2) BCF - Other aquatic organisms [1] Partition coefficient n-octanol/water (Log Pow) Bioaccumulative potential ETHYL MALTOL (4940-11-8) Bioaccumulative potential GERANIOL (106-24-1) Partition coefficient n-octanol/water (Log Pow) Bioaccumulative potential D-LIMONENE (5989-27-5) BCF - Fish [1]	Low potential for bioaccumulation (Log Kow < 4). 420 (QSAR) 3.76 (Estimated value) Bioaccumable. No bioaccumulation data available. 2.6 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 25 °C) Low potential for bioaccumulation (Log Kow < 4). 864.8 – 1022 (Pisces, QSAR, Fresh weight) 4.38 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method,
ALDEHYDE C 10 (112-31-2) BCF - Other aquatic organisms [1] Partition coefficient n-octanol/water (Log Pow) Bioaccumulative potential ETHYL MALTOL (4940-11-8) Bioaccumulative potential GERANIOL (106-24-1) Partition coefficient n-octanol/water (Log Pow) Bioaccumulative potential D-LIMONENE (5989-27-5) BCF - Fish [1] Partition coefficient n-octanol/water (Log Pow) Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4). 420 (QSAR) 3.76 (Estimated value) Bioaccumable. No bioaccumulation data available. 2.6 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 25 °C) Low potential for bioaccumulation (Log Kow < 4). 864.8 – 1022 (Pisces, QSAR, Fresh weight) 4.38 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 37 °C)
ALDEHYDE C 10 (112-31-2) BCF - Other aquatic organisms [1] Partition coefficient n-octanol/water (Log Pow) Bioaccumulative potential ETHYL MALTOL (4940-11-8) Bioaccumulative potential GERANIOL (106-24-1) Partition coefficient n-octanol/water (Log Pow) Bioaccumulative potential D-LIMONENE (5989-27-5) BCF - Fish [1] Partition coefficient n-octanol/water (Log Pow) Bioaccumulative potential Linalool (78-70-6)	Low potential for bioaccumulation (Log Kow < 4). 420 (QSAR) 3.76 (Estimated value) Bioaccumable. No bioaccumulation data available. 2.6 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 25 °C) Low potential for bioaccumulation (Log Kow < 4). 864.8 – 1022 (Pisces, QSAR, Fresh weight) 4.38 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 37 °C)
ALDEHYDE C 10 (112-31-2) BCF - Other aquatic organisms [1] Partition coefficient n-octanol/water (Log Pow) Bioaccumulative potential ETHYL MALTOL (4940-11-8) Bioaccumulative potential GERANIOL (106-24-1) Partition coefficient n-octanol/water (Log Pow) Bioaccumulative potential D-LIMONENE (5989-27-5) BCF - Fish [1] Partition coefficient n-octanol/water (Log Pow) Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
ALDEHYDE C 10 (112-31-2) BCF - Other aquatic organisms [1] Partition coefficient n-octanol/water (Log Pow) Bioaccumulative potential ETHYL MALTOL (4940-11-8) Bioaccumulative potential GERANIOL (106-24-1) Partition coefficient n-octanol/water (Log Pow) Bioaccumulative potential D-LIMONENE (5989-27-5) BCF - Fish [1] Partition coefficient n-octanol/water (Log Pow) Bioaccumulative potential Linalool (78-70-6) Partition coefficient n-octanol/water (Log Pow) Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
ALDEHYDE C 10 (112-31-2) BCF - Other aquatic organisms [1] Partition coefficient n-octanol/water (Log Pow) Bioaccumulative potential ETHYL MALTOL (4940-11-8) Bioaccumulative potential GERANIOL (106-24-1) Partition coefficient n-octanol/water (Log Pow) Bioaccumulative potential D-LIMONENE (5989-27-5) BCF - Fish [1] Partition coefficient n-octanol/water (Log Pow) Bioaccumulative potential Linalool (78-70-6) Partition coefficient n-octanol/water (Log Pow)	Low potential for bioaccumulation (Log Kow < 4).

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12.4. Mobility in soil	
ALDEHYDE C8 (124-13-0)	
Surface tension	0.028 N/m (20 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.9 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Weight of evidence)
Ecology - soil	Highly mobile in soil.
ALDEHYDE C 10 (112-31-2)	
Surface tension	0.028 N/m
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.
D-LIMONENE (5989-27-5)	
Ecology - soil	Adsorbs into the soil.
Linalool (78-70-6)	
Surface tension	8.3 mN/m (20 °C, ISO 9101: Surface active agents - Determination of interfacial tension)
Ecology - soil	No (test)data on mobility of the substance available.
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

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

Transportation of Dangerous Goods

Not regulated

Transport by sea

Not regulated

Air transport

Not regulated

SECTION 15: Regulatory information

15.1. US Federal regulations

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

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic

CAS-No. 124-13-0	1 – 5%
CAS-No. 112-31-2	1 – 5%
CAS-No. 5392-40-5	5 – 10%
CAS-No. 4940-11-8	1 – 5%
CAS-No. 106-24-1	1 – 5%
CAS-No. 99-85-4	1 – 5%
CAS-No. 5989-27-5	5 – 10%
CAS-No. 123-35-3	< 0.5%
CAS-No. 78-70-6	1 – 5%
CAS-No. 586-62-9	1 – 5%
CAS-No. 121-33-5	1 – 5%
	CAS-No. 112-31-2 CAS-No. 5392-40-5 CAS-No. 4940-11-8 CAS-No. 106-24-1 CAS-No. 99-85-4 CAS-No. 5989-27-5 CAS-No. 78-70-6 CAS-No. 586-62-9

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

15.2. International regulations

CANADA ALDEHYDE C8 (124-13-0) Listed on the Canadian DSL (Domestic Substances List) ALDEHYDE C 10 (112-31-2) Listed on the Canadian DSL (Domestic Substances List) CITRAL (5392-40-5) Listed on the Canadian DSL (Domestic Substances List) ETHYL MALTOL (4940-11-8) Listed on the Canadian DSL (Domestic Substances List) **GERANIOL (106-24-1)** Listed on the Canadian DSL (Domestic Substances List) **GAMMA TERPINENE (99-85-4)** Listed on the Canadian DSL (Domestic Substances List) D-LIMONENE (5989-27-5) Listed on the Canadian DSL (Domestic Substances List) Myrcene (123-35-3) Listed on the Canadian DSL (Domestic Substances List) Linalool (78-70-6) Listed on the Canadian DSL (Domestic Substances List) Terpinolene (586-62-9) Listed on the Canadian DSL (Domestic Substances List) VANILLIN (121-33-5) Listed on the Canadian DSL (Domestic Substances List) **EU-Regulations**

No additional information available

National regulations

Safety Data Sheet

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ALDEHYDE C8	8 (124-13-0)
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ALDEHYDE C8 (124-13-0)
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) 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 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)
ALDEHYDE C 10 (112-31-2)
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) 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
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) Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed on KECI (Korean Existing Chemicals Inventory) 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 the Australian HSIS Consolidated List Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)
ETHYL MALTOL (4940-11-8)
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) 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
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) Listed on KECI (Korean Existing Chemicals Inventory) 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
GAMMA TERPINENE (99-85-4)
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) 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 the Chemical Substances) inventory Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances) Listed on the EC Inventory

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

ccording to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
D-LIMONENE (5989-27-5)
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) 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 the Japanese ENCS (Existing New Chemicals Substances) Listed on the EC Inventory Listed on the EC Inventory Listed on the Australian HSIS Consolidated List
Myrcene (123-35-3)
Listed on IARC (International Agency for Research on Cancer) 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) 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
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) Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed on KECI (Korean Existing Chemicals Inventory) 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
Terpinolene (586-62-9)
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active Listed on INSQ (Mexican National Inventory of Chemical Substances)
VANILLIN (121-33-5)
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) 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

SECTION 16: Other information

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

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
H351	Suspected of causing cancer

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

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.