

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : LILAC FRAGRANCE
CAS-No. : N/A
Product code : 99180

1.2. Recommended use and restrictions on use

1.3. Supplier

Shay and Company
10639 SE Fuller Rd
Milwaukie, OR 97222
503-653-1155

1.4. Emergency telephone number

Emergency number : CHEMTREC - USA: 800-424-9300 International: +1 703-527-3887 / 1-800-424-9300
CCN 13010

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

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

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) :

: Danger

Hazard statements (GHS US) :

: Causes skin irritation
May cause an allergic skin reaction
Causes serious eye damage

Precautionary statements (GHS US) :

: Avoid breathing dust/fume/gas/mist/vapors/spray.
Wash hands, forearms and face thoroughly after handling.
Contaminated work clothing must not be allowed out of the workplace.
Wear protective gloves/protective clothing/eye protection/face protection.
If on skin: Wash with plenty of water.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a poison center or doctor.
Specific treatment (see supplemental first aid instruction on this label).
If skin irritation occurs: Get medical advice/attention.
If skin irritation or rash occurs: Get medical advice/attention.
Take off contaminated clothing and wash it before reuse.
Wash contaminated clothing before reuse.
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

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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
α -Terpineol	(CAS-No.) 98-55-5	25 – 50	Flam. Liq. 4, H227 Skin Irrit. 2, H315 Eye Irrit. 2A, H319
PHENYLETHYL ALCOHOL	(CAS-No.) 60-12-8	10 – 25	Acute Tox. 4 (Oral), H302 Eye Irrit. 2A, H319
PIPERONAL	(CAS-No.) 120-57-0	5 – 10	Skin Sens. 1B, H317
ALPHA HEXYLCINNAMALDEHYDE	(CAS-No.) 101-86-0	5 – 10	Skin Sens. 1B, H317
LINALOOL	(CAS-No.) 78-70-6	1 – 5	Flam. Liq. 4, H227 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1B, H317
2,4-Dimethyl-4,4a,5,9b-tetrahydroindeno[1,2-d]-1,3-dioxin	(CAS-No.) 27606-09-3	1 – 5	Acute Tox. 4 (Oral), H302
PHENYLETHYL ACETATE	(CAS-No.) 103-45-7	1 – 5	Eye Dam. 1, H318
PHENYLPROPYL ALCOHOL	(CAS-No.) 122-97-4	1 – 5	Skin Corr. 1B, H314 Eye Dam. 1, H318
2-Isobutyl-4-methyltetrahydro-2H-pyran-4-ol	(CAS-No.) 63500-71-0	1 – 5	Eye Irrit. 2A, H319
ALLYL CYCLOHEXYLPROPIONATE	(CAS-No.) 2705-87-5	0.1 – 1	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 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. Call a physician immediately.
- First-aid measures after ingestion : Call a poison center/doctor/physician if you feel unwell.

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

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

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

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

5.2. Specific hazards arising from the chemical

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

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. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapors/spray.

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6.1.2. For emergency responders

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

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material.
Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

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

OIL, LILAC* (N/A)

No additional information available

ALLYL CYCLOHEXYLPROPIONATE (2705-87-5)

No additional information available

2-Isobutyl-4-methyltetrahydro-2H-pyran-4-ol (63500-71-0)

No additional information available

2,4-Dimethyl-4,4a,5,9b-tetrahydroindeno[1,2-d]-1,3-dioxin (27606-09-3)

No additional information available

PHENYLETHYL ALCOHOL (60-12-8)

No additional information available

PIPERONAL (120-57-0)

No additional information available

ALPHA HEXYLCINNAMALDEHYDE (101-86-0)

No additional information available

α -Terpineol (98-55-5)

No additional information available

LINALOOL (78-70-6)

No additional information available

PHENYLETHYL ACETATE (103-45-7)

No additional information available

PHENYLPROPYL ALCOHOL (122-97-4)

No additional information available

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:

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Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Color	: COLORLESS TO YELLOW/AMBER
Odor	: CHARACTERISTIC, MATCHING RETAINER SAMPLE
Odor threshold	: No data available
pH	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: 100 °C
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Not applicable.
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: 0.9625 (0.9525 – 0.9725)
Solubility	: Insoluble.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

9.2. Other information

Refractive index : 1.48852 (1.47852 – 1.49852)

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.

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10.4. Conditions to avoid

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

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

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

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified

Acute toxicity (dermal) : Not classified

Acute toxicity (inhalation) : Not classified

ALLYL CYCLOHEXYLPROPIONATE (2705-87-5)	
LD50 oral rat	585 mg/kg body weight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity), 95% CL: 480 - 714
LD50 dermal rabbit	1600 mg/kg body weight Animal: rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), 95% CL: 430 - 2770
ATE US (oral)	480 mg/kg body weight
ATE US (dermal)	1600 mg/kg body weight
ATE US (gases)	4500 ppmV/4h
ATE US (vapors)	11 mg/l/4h
ATE US (dust, mist)	1.5 mg/l/4h
2,4-Dimethyl-4,4a,5,9b-tetrahydroindeno[1,2-d]-1,3-dioxin (27606-09-3)	
ATE US (oral)	500 mg/kg body weight
PHENYLETHYL ALCOHOL (60-12-8)	
LD50 oral rat	1603 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 dermal rabbit	2535 mg/kg body weight (Equivalent or similar to OECD 402, 24 h, Rabbit, Male / female, Experimental value, Dermal, 14 day(s))
LC50 Inhalation - Rat	> 4.63 mg/l (4 h, Rat, Male / female, Experimental value, Inhalation (aerosol), 14 day(s))
ATE US (oral)	500 mg/kg body weight
PIPERONAL (120-57-0)	
LD50 oral rat	2700 mg/kg body weight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity), Remarks on results: other:, 95% CL: 2350 - 3100
LD50 dermal rat	> 5000 mg/kg body weight Animal: rat, Guideline: other:, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Remarks on results: other:
ATE US (oral)	2700 mg/kg body weight
ALPHA HEXYLCINNAMALDEHYDE (101-86-0)	
ATE US (oral)	3100 mg/kg body weight
α-Terpineol (98-55-5)	
LD50 oral rat	4300 mg/kg body weight Animal: rat, Animal sex: male, Guideline: OECD Guideline 401 (Acute Oral Toxicity), 95% CL: 2900 - 5700
LD50 dermal rat	> 2000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
ATE US (oral)	4300 mg/kg body weight
LINALOOL (78-70-6)	
LD50 oral rat	2790 mg/kg (Rat)
LD50 dermal rat	5610 mg/kg (Rat)
LD50 dermal rabbit	> 5000 mg/kg (Rabbit)
ATE US (oral)	2790 mg/kg body weight
ATE US (dermal)	5610 mg/kg body weight
PHENYLETHYL ACETATE (103-45-7)	
ATE US (oral)	2500 mg/kg body weight

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PHENYLPROPYL ALCOHOL (122-97-4)	
ATE US (oral)	2275 mg/kg body weight
ATE US (dermal)	5000 mg/kg body weight

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

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

PIPERONAL (120-57-0)	
NOAEL (oral,rat,90 days)	300 mg/kg body weight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test), Guideline: other:

α-Terpineol (98-55-5)	
NOAEL (oral,rat,90 days)	\geq 314 mg/kg body weight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)

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

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.

ALLYL CYCLOHEXYLPROPIONATE (2705-87-5)	
LC50 - Fish [1]	0.13 mg/l Test organisms (species): Pimephales promelas
EC50 - Crustacea [1]	3.8 mg/l Test organisms (species): Daphnia magna

PHENYLETHYL ALCOHOL (60-12-8)	
LC50 - Fish [1]	215 – 464 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, Lethal)
EC50 - Crustacea [1]	287.17 mg/l (EU Method C.2, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
ErC50 algae	1300 mg/l (DIN 38412: German standard methods for the examination of water, waste water and sludge, 72 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, Nominal concentration)

PIPERONAL (120-57-0)	
LC50 - Fish [1]	2.5 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Cyprinus carpio, Static system, Fresh water, Experimental value)
EC50 - Crustacea [1]	52 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value)
ErC50 algae	31 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value)

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α-Terpineol (98-55-5)	
LC50 - Fish [1]	70 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
EC50 - Crustacea [1]	73 mg/l Test organisms (species): Daphnia magna
LINALOOL (78-70-6)	
EC50 - Crustacea [1]	59 mg/l (EC50; OECD 202: Daphnia sp. Acute Immobilisation Test; 48 h; Daphnia magna)
EC50 - Other aquatic organisms [1]	\geq 100 mg/l (3 h; Activated sludge)
LC50 - Fish [2]	27.8 mg/l (LC50; OECD 203: Fish, Acute Toxicity Test; 96 h; Salmo gairdneri)
Threshold limit - Algae [1]	88.3 mg/l (EC50; 96 h)

12.2. Persistence and degradability

PHENYLETHYL 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

PIPERONAL (120-57-0)	
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
ThOD	1.71 g O ₂ /g substance

LINALOOL (78-70-6)	
Persistence and degradability	Readily biodegradable in water.
Biochemical oxygen demand (BOD)	1.531 g O ₂ /g substance
Chemical oxygen demand (COD)	2.808 g O ₂ /g substance

12.3. Bioaccumulative potential

PHENYLETHYL ALCOHOL (60-12-8)	
BCF - Fish [1]	2.036 l/kg (BCFBFAF v3.01, Estimated value, Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	1.3 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

PIPERONAL (120-57-0)	
Partition coefficient n-octanol/water (Log Pow)	1.2 (Practical experience/observation, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 35 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

LINALOOL (78-70-6)	
Partition coefficient n-octanol/water (Log Pow)	2.84 – 3.145
Bioaccumulative potential	Bioaccumable.

12.4. Mobility in soil

PHENYLETHYL ALCOHOL (60-12-8)	
Surface tension	59.7 mN/m (20 °C, 1 g/l, OECD 115: Surface Tension of Aqueous Solutions)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.5 (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	Highly mobile in soil.

PIPERONAL (120-57-0)	
Ecology - soil	No (test)data on mobility of the substance available.

12.5. Other adverse effects

No additional information available

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SECTION 13: Disposal considerations

13.1. Disposal methods

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

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Not regulated

Transportation of Dangerous Goods

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

ALLYL CYCLOHEXYLPROPIONATE (2705-87-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

2-Isobutyl-4-methyltetrahydro-2H-pyran-4-ol (63500-71-0)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

EPA TSCA Regulatory Flag

P - P - indicates a commenced Premanufacture Notice (PMN) substance.

2,4-Dimethyl-4,4a,5,9b-tetrahydroindeno[1,2-d]-1,3-dioxin (27606-09-3)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

PHENYLETHYL ALCOHOL (60-12-8)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

PIPERONAL (120-57-0)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

ALPHA HEXYLCINNAMALDEHYDE (101-86-0)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

α -Terpineol (98-55-5)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

LINALOOL (78-70-6)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

PHENYLETHYL ACETATE (103-45-7)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

PHENYLPROPYL ALCOHOL (122-97-4)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

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15.2. International regulations

CANADA

ALLYL CYCLOHEXYLPROPIONATE (2705-87-5)

Listed on the Canadian DSL (Domestic Substances List)

2-Isobutyl-4-methyltetrahydro-2H-pyran-4-ol (63500-71-0)

Listed on the Canadian DSL (Domestic Substances List)

2,4-Dimethyl-4,4a,5,9b-tetrahydroindeno[1,2-d]-1,3-dioxin (27606-09-3)

Listed on the Canadian DSL (Domestic Substances List)

PHENYLETHYL ALCOHOL (60-12-8)

Listed on the Canadian DSL (Domestic Substances List)

PIPERONAL (120-57-0)

Listed on the Canadian DSL (Domestic Substances List)

ALPHA HEXYLCINNAMALDEHYDE (101-86-0)

Listed on the Canadian DSL (Domestic Substances List)

 α -Terpineol (98-55-5)

Listed on the Canadian DSL (Domestic Substances List)

LINALOOL (78-70-6)

Listed on the Canadian DSL (Domestic Substances List)

PHENYLETHYL ACETATE (103-45-7)

Listed on the Canadian DSL (Domestic Substances List)

PHENYLPROPYL ALCOHOL (122-97-4)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

Full text of H-phrases:

H227	Combustible liquid
H302	Harmful if swallowed
H312	Harmful in contact with skin
H314	Causes severe skin burns and eye damage
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

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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.