



Lily of the Valley

Safety Data Sheet

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

Date of issue: 12/18/2019 Version: 1.1

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : Lily of the Valley

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Perfume ingredient. Not for use in food or feed.

1.3. Supplier

AAA Candle Supplies, Inc.
10460 Brockwood Rd
Dallas, Texas 75238
T (214) 342-9898
www.AAACandleSupply.com

1.4. Emergency telephone number

No additional information available

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US 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
Reproductive toxicity Category 2	H361	Suspected of damaging fertility or the unborn child

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) :

Warning

Hazard statements (GHS US) :

Combustible liquid
Causes skin irritation
May cause an allergic skin reaction
Causes serious eye irritation
Suspected of damaging fertility or the unborn child

Precautionary statements (GHS US) :

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Avoid breathing mist, vapors and 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 and 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
If exposed or concerned: Get medical attention.
If skin irritation or rash occurs: Get medical attention.
If eye irritation persists: Get medical attention.
Take off contaminated clothing and wash it before reuse.
In case of fire: Use media other than water to extinguish.
Store in a well-ventilated place. Keep cool.
Store locked up.
Dispose of contents and container in accordance with applicable regulations.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

Lily of the Valley

Safety Data Sheet

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

3.2. Mixtures

Name	Product identifier	%*	GHS US classification
Hydroxycitronellal	(CAS-No.) 107-75-5	5 - 20	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1B, H317
Phenyl Ethyl Alcohol	(CAS-No.) 60-12-8	5 - 20	Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Dermal), H311 Eye Irrit. 2A, H319
(+/-)-beta-citronellol	(CAS-No.) 106-22-9	< 5	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Asp. Tox. 1, H304
Geraniol	(CAS-No.) 106-24-1	< 5	Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317
alpha-terpineol	(CAS-No.) 98-55-5	< 5	Flam. Liq. 4, H227 Skin Irrit. 2, H315 Eye Irrit. 2A, H319
linalyl acetate	(CAS-No.) 115-95-7	< 5	Flam. Liq. 4, H227 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1B, H317 STOT SE 3, H335 Aquatic Acute 3, H402
linalol	(CAS-No.) 78-70-6	< 5	Flam. Liq. 4, H227 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1B, H317 STOT SE 3, H336 Aquatic Acute 3, H402
alpha-pentylcinnamaldehyde	(CAS-No.) 122-40-7	< 5	Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Acute 2, H401 Aquatic Chronic 2, H411
cinnamic alcohol	(CAS-No.) 104-54-1	< 5	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1, H317
Pelargonium graveolens flower oil	(CAS-No.) 8000-46-2	< 5	Flam. Liq. 4, H227 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 3, H402
2-(4-tert-butylbenzyl)propionaldehyde	(CAS-No.) 80-54-6	< 5	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Skin Sens. 1B, H317 Repr. 2, H361 Aquatic Acute 2, H401 Aquatic Chronic 3, H412
Ylang ylang oils	(CAS-No.) 8006-81-3	< 5	Flam. Liq. 4, H227 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1, H317 Repr. 2, H361 STOT SE 2, H371 Asp. Tox. 1, H304 Aquatic Acute 2, H401 Aquatic Chronic 3, H412
phenylacetaldehyde	(CAS-No.) 122-78-1	< 5	Flam. Liq. 4, H227 Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Eye Irrit. 2A, H319 Skin Sens. 1, H317
Orange terpenes	(CAS-No.) 8028-48-6	< 5	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1, H317 STOT SE 3, H335 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Lily of the Valley

Safety Data Sheet

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

*Exact concentrations have been withheld as a trade secret

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 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 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 attention.
- First-aid measures after ingestion : Call a poison center or a doctor 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

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

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

5.2. Specific hazards arising from the chemical

- Fire hazard : Combustible liquid.
- 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. No open flames, no sparks, and no smoking. Avoid contact with skin and eyes. Avoid breathing mist, vapors and spray.

6.1.2. For emergency responders

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

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.
- Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Ensure good ventilation of the work station. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wear personal protective equipment. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid contact with skin and eyes. Avoid breathing mist, vapors and spray.
- Hygiene measures : Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

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

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

None established for components

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

Lily of the Valley

Safety Data Sheet

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

Skin and body protection : Wear suitable protective clothing
Respiratory protection : Wear respiratory protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Color : Colorless to light yellow
Odor : Floral
Odor threshold : No data available
pH : No data available
Melting point : No data available
Freezing point : No data available
Boiling point : No data available
Flash point : > 160 °F
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
Specific gravity : No data available
Relative density : No data available
Solubility : Insoluble in water. Soluble in oil. Soluble in organic solvents.
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

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

linalyl acetate (115-95-7)	
LD50 oral rat	13934 mg/kg (Rat)
LD50 dermal rabbit	> 5000 mg/kg (Rabbit)
ATE US (oral)	13934 mg/kg body weight
linalol (78-70-6)	
LD50 oral rat	2790 mg/kg (Rat)

Lily of the Valley

Safety Data Sheet

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

linalol (78-70-6)	
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
2-(4-tert-butylbenzyl)propionaldehyde (80-54-6)	
LD50 oral rat	1390 mg/kg (Rat)
LD50 dermal rat	> 2000 mg/kg (Rat)
LD50 dermal rabbit	> 5000 mg/kg (Rabbit)
ATE US (oral)	1390 mg/kg body weight
phenylacetaldehyde (122-78-1)	
LD50 oral rat	1550 mg/kg (Rat)
LD50 dermal rabbit	> 5000 mg/kg (Rabbit)
ATE US (oral)	1550 mg/kg body weight
ATE US (dermal)	2500 mg/kg body weight
cinnamic alcohol (104-54-1)	
LD50 oral rat	> 2000 mg/kg (Rat)
LD50 dermal rabbit	> 5000 mg/kg (Rabbit)
ATE US (oral)	500 mg/kg body weight
alpha-pentylcinnamaldehyde (122-40-7)	
LD50 oral rat	3730 mg/kg (Rat)
LD50 dermal rabbit	> 2000 mg/kg (Rabbit)
ATE US (oral)	3730 mg/kg body weight
Phenyl Ethyl Alcohol (60-12-8)	
LD50 oral rat	> 1790 mg/kg (Rat)
LD50 dermal rabbit	> 808 mg/kg (Rabbit)
LC50 inhalation rat (mg/l)	> 1.4 mg/l/4h (Rat)
ATE US (oral)	1610 mg/kg body weight
ATE US (dermal)	300 mg/kg body weight
alpha-terpineol (98-55-5)	
LD50 oral rat	4300 mg/kg (Rat)
ATE US (oral)	4300 mg/kg body weight
(+/-)-beta-citronellol (106-22-9)	
LD50 oral rat	3450 mg/kg (Rat; Inconclusive, insufficient data)
LD50 dermal rabbit	2650 mg/kg (Rabbit; Inconclusive, insufficient data)
ATE US (oral)	3450 mg/kg body weight
ATE US (dermal)	2650 mg/kg body weight
Hydroxycitronellal (107-75-5)	
LD50 oral rat	> 5000 mg/kg (Rat)
LD50 dermal rabbit	> 2000 mg/kg (Rabbit)
Geraniol (106-24-1)	
ATE US (oral)	3600 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	: Suspected of damaging fertility or the unborn child.
STOT-single exposure	: Not classified
linalyl acetate (115-95-7)	
STOT-single exposure	May cause respiratory irritation.

Lily of the Valley

Safety Data Sheet

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

Orange terpenes (8028-48-6)	
STOT-single exposure	May cause respiratory irritation.
linalol (78-70-6)	
STOT-single exposure	May cause drowsiness or dizziness.
Pelargonium graveolens flower oil (8000-46-2)	
STOT-single exposure	May cause drowsiness or dizziness.
Ylang ylang oils (8006-81-3)	
STOT-single exposure	May cause damage to organs.

STOT-repeated exposure	: Not classified
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	: 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.
-------------------	--

linalyl acetate (115-95-7)	
LC50 fish 1	11 mg/l (LC50; OECD 203: Fish, Acute Toxicity Test; 96 h; Cyprinus carpio)
EC50 Daphnia 1	15 mg/l (EC50; OECD 202: Daphnia sp. Acute Immobilization Test; 48 h; Daphnia magna)
Threshold limit algae 1	16 mg/l (EC50; OECD 201: Alga, Growth Inhibition Test; 72 h; Scenedesmus subspicatus)

linalol (78-70-6)	
EC50 Daphnia 1	59 mg/l (EC50; OECD 202: Daphnia sp. Acute Immobilization Test; 48 h; Daphnia magna)
EC50 other aquatic organisms 1	>= 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)

2-(4-tert-butylbenzyl)propionaldehyde (80-54-6)	
LC50 fish 1	> mg/l >2.2/4.6, LC50; OECD 203: Fish, Acute Toxicity Test; 96 h; Brachydanio rerio
EC50 Daphnia 1	10.7 mg/l (EC50; 48 h)

phenylacetaldehyde (122-78-1)	
EC50 Daphnia 1	20 mg/l (EC50; OECD 202: Daphnia sp. Acute Immobilization Test; 48 h; Daphnia magna)

alpha-pentylcinnamaldehyde (122-40-7)	
LC50 fish 1	3 mg/l (LC50; OECD 203: Fish, Acute Toxicity Test; 96 h; Brachydanio rerio)
EC50 Daphnia 1	1.1 mg/l (EC50; OECD 202: Daphnia sp. Acute Immobilization Test; 96 h; Daphnia magna)

Phenyl Ethyl Alcohol (60-12-8)	
LC50 fish 1	220 - 260 mg/l (LC50; 96 h)
EC50 Daphnia 1	287.17 mg/l (EC50; OECD 202: Daphnia sp. Acute Immobilization Test; 48 h; Daphnia magna)

alpha-terpineol (98-55-5)	
LC50 fish 1	10 - 100 mg/l (LC50; 96 h)

(+/-)-beta-citronellol (106-22-9)	
LC50 fish 1	> mg/l >10 <22, LC50; 96 h
EC50 Daphnia 1	17 mg/l (EC50; 48 h)
Threshold limit algae 1	2.4 mg/l (EC50; 72 h)

12.2. Persistence and degradability

linalyl acetate (115-95-7)	
Persistence and degradability	Readily biodegradable in water. Forming sediments in water. Adsorbs into the soil. Ozonation in the air. Photodegradation in the air.

Orange terpenes (8028-48-6)	
Persistence and degradability	Biodegradability in water: no data available.

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

Lily of the Valley

Safety Data Sheet

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

linalol (78-70-6)	
Biochemical oxygen demand (BOD)	1.531 g O ₂ /g substance
Chemical oxygen demand (COD)	2.808 g O ₂ /g substance
2-(4-tert-butylbenzyl)propionaldehyde (80-54-6)	
Persistence and degradability	Readily biodegradable in water.
phenylacetaldehyde (122-78-1)	
Persistence and degradability	Not readily biodegradable in water.
cinnamic alcohol (104-54-1)	
Persistence and degradability	Readily biodegradable in water.
alpha-pentylcinnamaldehyde (122-40-7)	
Persistence and degradability	Readily biodegradable in water. Biodegradability in soil: no data available. Adsorbs into the soil.
Phenyl Ethyl Alcohol (60-12-8)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil.
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
alpha-terpineol (98-55-5)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Photodegradation in the air.
ThOD	2.9 g O ₂ /g substance
(+/-)-beta-citronellol (106-22-9)	
Persistence and degradability	Readily biodegradable in water.
Chemical oxygen demand (COD)	2.05 g O ₂ /g substance
ThOD	2.961 g O ₂ /g substance
Hydroxycitronellal (107-75-5)	
Persistence and degradability	Readily biodegradable in water.
Chemical oxygen demand (COD)	2.65 g O ₂ /g substance
12.3. Bioaccumulative potential	
linalyl acetate (115-95-7)	
Log Pow	3.93 (Experimental value)
Orange terpenes (8028-48-6)	
Bioaccumulative potential	No bioaccumulation data available.
linalol (78-70-6)	
Log Pow	2.84 - 3.145
Bioaccumulative potential	Bioaccumable.
2-(4-tert-butylbenzyl)propionaldehyde (80-54-6)	
Log Pow	4.3
phenylacetaldehyde (122-78-1)	
Log Pow	1.8
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
cinnamic alcohol (104-54-1)	
Log Pow	1.95
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
alpha-pentylcinnamaldehyde (122-40-7)	
Log Pow	4.3 - 4.7
Phenyl Ethyl Alcohol (60-12-8)	
Log Pow	1.38 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
alpha-terpineol (98-55-5)	
Log Pow	2.57 (Estimated value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

Lily of the Valley

Safety Data Sheet

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

(+/-)-beta-citronellol (106-22-9)	
Log Pow	3.41 - 3.91
Hydroxycitronellal (107-75-5)	
Log Pow	2.11 (Estimated value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

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

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT : Non-hazardous; not regulated.

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

15.2. International 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:

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
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
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
H361	Suspected of damaging fertility or the unborn child
H371	May cause damage to organs
H400	Very toxic to aquatic life
H401	Toxic to aquatic life
H402	Harmful to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H411	Toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects

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.