

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : GREENHOUSE
CAS-No. : MIXTURE
Product code : #294238

1.2. Recommended use and restrictions on use

No additional information available

1.3. Supplier

1.4. Emergency telephone number

Emergency 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

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) : H317 - May cause an allergic skin reaction
H361 - Suspected of damaging fertility or the unborn child

Precautionary statements (GHS US) : P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.
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.
P308+P313 - If exposed or concerned: Get medical advice/attention.
P321 - Specific treatment (see supplemental first aid instruction on this label).
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P363 - Wash contaminated clothing before reuse.
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

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SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
AMYL SALICYLATE	(CAS-No.) 2050-08-0	1 – 5	Acute Tox. 4 (Oral), H302
PHENYL ETHYL ALCOHOL	(CAS-No.) 60-12-8	1 – 5	Acute Tox. 4 (Oral), H302 Eye Irrit. 2A, H319
Isocyclocitral	(CAS-No.) 1335-66-6	1 – 5	Flam. Liq. 4, H227 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 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
ALPHA-TERPINEOL	(CAS-No.) 98-55-5	1 – 5	Flam. Liq. 4, H227 Skin Irrit. 2, H315 Eye Irrit. 2A, H319
2,4-DIMETHYL-3-CYCLOHEXENE CARBOXALDEHYDE	(CAS-No.) 68039-49-6	1 – 5	Flam. Liq. 4, H227 Skin Irrit. 2, H315 Skin Sens. 1B, H317
3 and 4-(4-Hydroxy-4-methylpentyl)cyclohex-3-ene-1-carbaldehyde	(CAS-No.) 31906-04-4	1 – 5	Skin Sens. 1A, H317
BENZYL BENZOATE	(CAS-No.) 120-51-4	1 – 5	Acute Tox. 4 (Oral), H302
GERANIOL	(CAS-No.) 106-24-1	< 0.5	Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317
BUTYLPHENYL METHYLPROPIONAL	(CAS-No.) 80-54-6	< 0.5	Flam. Liq. 4, H227 Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Skin Sens. 1B, H317 Repr. 2, H361

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 eyes with water as a precaution.
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 inhalation	: Although no appropriate human or animal health effects data are known to exist, this material is expected to be an inhalation hazard.
Symptoms/effects after skin contact	: May cause an allergic skin reaction.
Symptoms/effects after eye contact	: None under normal conditions.
Symptoms/effects after ingestion	: None under normal conditions.

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.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Fire hazard	: No fire hazard.
Explosion hazard	: No direct explosion hazard.

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5.3. Special protective equipment and precautions for fire-fighters

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| Firefighting instructions | : Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection. |
| 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

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| General measures | : Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material-damage. |
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6.1.1. For non-emergency personnel

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|----------------------|---|
| Protective equipment | : Wear recommended personal protective equipment. |
| Emergency procedures | : Ventilate spillage area. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapors/spray. |

6.1.2. For emergency responders

- | | |
|----------------------|---|
| Protective equipment | : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection". |
| Emergency procedures | : Evacuate unnecessary personnel. Stop leak if safe to do so. |

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

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| For containment | : Absorb spilled material with sand or earth. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak, if possible without risk. |
| 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

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| Additional hazards when processed | : Not expected to present a significant hazard under anticipated conditions of normal use. |
| Precautions for safe handling | : Ensure good ventilation of the work station. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapors/spray. |
| Hygiene measures | : Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. 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

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| Technical measures | : Keep in a cool, well-ventilated place away from heat. |
| Storage conditions | : Store locked up. |
| Packaging materials | : Store always product in container of same material as original container. |

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

TERPINEOL ALPHA (98-55-5)

Not applicable

TRIPLAL (68039-49-6)

Not applicable

HYDROXYISOHEXYL 3-CYCLOHEXENE CARBOXALDEHYDE (31906-04-4)

Not applicable

PHENYL ETHYL ALCOHOL (60-12-8)

Not applicable

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Linalool (78-70-6)
Not applicable
GERANIOL (106-24-1)
Not applicable
ISO CYCLO CITRAL (1335-66-6)
Not applicable
LILIAL (80-54-6)
Not applicable
BENZYL BENZOATE (120-51-4)
Not applicable
AMYL SALICYLATE (2050-08-0)
Not applicable

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

Personal protective equipment:

Wear recommended personal protective equipment.

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection.

Personal protective equipment symbol(s):



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Color : No data available
Odor : No data available
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 : Not applicable.
Vapor pressure : No data available

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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

10.3. Possibility of hazardous reactions

No additional information available

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

No additional information available

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

TERPINEOL ALPHA (98-55-5)

ATE US (oral)	4300 mg/kg body weight
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TRIPLAL (68039-49-6)

ATE US (oral)	3900 mg/kg body weight
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HYDROXYISOHEXYL 3-CYCLOHEXENE CARBOXALDEHYDE (31906-04-4)

LD50 oral rat	3230 mg/kg body weight (Rat, Literature study, Oral)
LD50 dermal rabbit	11200 mg/kg body weight (Rabbit, Literature study, Dermal)
ATE US (oral)	3230 mg/kg body weight
ATE US (dermal)	11200 mg/kg body weight

PHENYL ETHYL ALCOHOL (60-12-8)

LD50 oral rat	> 1790 mg/kg (Rat, Oral)
LD50 dermal rabbit	> 808 mg/kg (Rabbit, Dermal)
LC50 Inhalation - Rat	> 1.4 mg/l (4 h, Rat, Inhalation)
ATE US (oral)	1610 mg/kg body weight
ATE US (dermal)	2500 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))
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Linalool (78-70-6)	
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

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

ISO CYCLO CITRAL (1335-66-6)	
ATE US (oral)	3220 mg/kg body weight

LILIAL (80-54-6)	
ATE US (oral)	1390 mg/kg body weight

BENZYL BENZOATE (120-51-4)	
LD50 oral rat	> 2000 mg/kg body weight (OECD 401: Acute Oral Toxicity, Rat, Male/female, Experimental value, Oral, 14 day(s))
LD50 dermal rabbit	> 2 ml/kg (Modification of Draize 1959 method, 4 h, Rabbit, Experimental value, Dermal)
ATE US (oral)	1160 mg/kg body weight

AMYL SALICYLATE (2050-08-0)	
LD50 oral rat	4100 mg/kg body weight (Rat, Experimental value, Oral)
LD50 dermal rabbit	> 5000 mg/kg body weight (Rabbit, Experimental value, Skin)
ATE US (oral)	2000 mg/kg body weight

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
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

STOT-repeated exposure	: Not classified
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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
Symptoms/effects after inhalation	: Although no appropriate human or animal health effects data are known to exist, this material is expected to be an inhalation hazard.
Symptoms/effects after skin contact	: May cause an allergic skin reaction.
Symptoms/effects after eye contact	: None under normal conditions.
Symptoms/effects after ingestion	: None under normal conditions.

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.
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PHENYL ETHYL ALCOHOL (60-12-8)	
LC50 - Fish [1]	220 – 260 mg/l (96 h, <i>Leuciscus idus</i>)
EC50 - Crustacea [1]	287.17 mg/l (OECD 202: <i>Daphnia</i> sp. Acute Immobilisation Test, 48 h, <i>Daphnia magna</i>)
Linalool (78-70-6)	
LC50 - Fish [1]	27.8 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, <i>Oncorhynchus mykiss</i> , Static system, Fresh water, Experimental value, GLP)
EC50 - Crustacea [1]	59 mg/l (OECD 202: <i>Daphnia</i> sp. Acute Immobilisation Test, 48 h, <i>Daphnia magna</i> , Static system, Fresh water, Experimental value, GLP)
ErC50 algae	156.7 mg/l (DIN 38412-9, 96 h, <i>Desmodesmus subspicatus</i> , Static system, Fresh water, Experimental value, Nominal concentration)
GERANIOL (106-24-1)	
LC50 - Fish [1]	22 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, <i>Danio rerio</i> , Static system, Fresh water, Experimental value, GLP)
EC50 - Crustacea [1]	10.8 mg/l (OECD 202: <i>Daphnia</i> sp. Acute Immobilisation Test, 48 h, <i>Daphnia magna</i> , Static system, Fresh water, Experimental value, Locomotor effect)
ErC50 algae	13.1 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, <i>Desmodesmus subspicatus</i> , Static system, Fresh water, Experimental value, GLP)
BENZYL BENZOATE (120-51-4)	
LC50 - Fish [1]	2.32 mg/l (EU Method C.1, 96 h, <i>Danio rerio</i> , Semi-static system, Fresh water, Experimental value, GLP)
EC50 - Crustacea [1]	3.09 mg/l (OECD 202: <i>Daphnia</i> sp. Acute Immobilisation Test, 48 h, <i>Daphnia magna</i> , Static system, Fresh water, Experimental value, GLP)

12.2. Persistence and degradability

TERPINEOL ALPHA (98-55-5)	
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
ThOD	2.9 g O ₂ /g substance
TRIPLAL (68039-49-6)	
Persistence and degradability	Biodegradability in water: no data available.
HYDROXYISOHEXYL 3-CYCLOHEXENE CARBOXALDEHYDE (31906-04-4)	
Persistence and degradability	Biodegradability in water: no data available.
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
Linalool (78-70-6)	
Persistence and degradability	Readily biodegradable in water.
GERANIOL (106-24-1)	
Persistence and degradability	Readily biodegradable in water.
BENZYL BENZOATE (120-51-4)	
Persistence and degradability	Readily biodegradable in water.
AMYL SALICYLATE (2050-08-0)	
Persistence and degradability	Biodegradability in water: no data available.

12.3. Bioaccumulative potential

TERPINEOL ALPHA (98-55-5)	
Partition coefficient n-octanol/water (Log Pow)	2.57 (Estimated value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
TRIPLAL (68039-49-6)	
Bioaccumulative potential	No bioaccumulation data available.

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HYDROXYISOHEXYL 3-CYCLOHEXENE CARBOXALDEHYDE (31906-04-4)	
Bioaccumulative potential	No bioaccumulation data available.
PHENYL ETHYL ALCOHOL (60-12-8)	
Partition coefficient n-octanol/water (Log Pow)	1.38 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
Linalool (78-70-6)	
Partition coefficient n-octanol/water (Log Pow)	2.84 (Experimental value, Equivalent or similar to OECD 107, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
GERANIOL (106-24-1)	
Partition coefficient n-octanol/water (Log Pow)	2.6 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
BENZYL BENZOATE (120-51-4)	
BCF - Fish [1]	2.286 (BCFBAF v3.00, Pisces, QSAR)
Partition coefficient n-octanol/water (Log Pow)	3.97 (Experimental value, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
AMYL SALICYLATE (2050-08-0)	
Partition coefficient n-octanol/water (Log Pow)	4.57 (Estimated value)
Bioaccumulative potential	Potential for bioaccumulation ($4 \geq \text{Log Kow} \leq 5$).

12.4. Mobility in soil

TRIPLAL (68039-49-6)	
Ecology - soil	No (test)data on mobility of the substance available.
HYDROXYISOHEXYL 3-CYCLOHEXENE CARBOXALDEHYDE (31906-04-4)	
Ecology - soil	No (test)data on mobility of the substance available.
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.
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.
BENZYL BENZOATE (120-51-4)	
Surface tension	0.027 N/m (210 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	3.8 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value)
Ecology - soil	Low potential for mobility in soil.
AMYL SALICYLATE (2050-08-0)	
Ecology - soil	No (test)data on mobility of the substance available.

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Regional waste regulation	: Disposal must be done according to official regulations.
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations	: Disposal must be done according to official regulations.
Product/Packaging disposal recommendations	: Disposal must be done according to official regulations.
Additional information	: Do not re-use empty containers.

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SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Not regulated

SECTION 15: Regulatory information

15.1. US Federal regulations

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.

SECTION 16: Other information

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

Revision date : 05/22/2025

Full text of H-phrases:

H227	Combustible liquid
H302	Harmful if swallowed
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H319	Causes serious eye irritation
H361	Suspected of damaging fertility or the unborn child

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.