

**GREEN GARDENIA**

Version 1.0

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**SECTION 1. Identification of the substance/mixture and of the company/undertaking**

**1.1 Product identifier**

Sales No. : UAI15141/00  
GREEN GARDENIA

**1.2 Relevant identified uses of the substance or mixture and uses advised against**

Intended Use Fragrances : Perfume compound

**1.3 Details of the supplier of the safety data sheet**

Company :  
Givaudan Fragrances Corp.  
300 Waterloo Valley Road  
International Trade Center  
MOUNT OLIVE NJ 07828  
UNITED STATES OF AMERICA

Telephone : +12152070061  
Telefax : +19734486523  
E-mail address : global.msds\_fragrances\_raps@givaudan.com  
Responsible/issuing person

**1.4 Emergency telephone number**

+18669280789  
Please refer to section 16 for a full list of emergency phone numbers.

**SECTION 2. Hazards identification**

**2.1 Classification of the substance or mixture**

**Classification (REGULATION (EC) No 1272/2008)**

Eye irritation, Category 2	H319: Causes serious eye irritation.
Skin sensitisation, Category 1	H317: May cause an allergic skin reaction.
Short-term (acute) aquatic hazard, Category 1	H400: Very toxic to aquatic life.
Long-term (chronic) aquatic hazard, Category 2	H411: Toxic to aquatic life with long lasting effects.

**2.2 Label elements**

**Labelling (REGULATION (EC) No 1272/2008)**

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Hazard pictograms



Signal word : Warning

Hazard statements : H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements : **Prevention:**  
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/ eye protection/ face protection.  
**Response:**  
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.  
P337 + P313 If eye irritation persists: Get medical advice/ attention.  
P391 Collect spillage.

Hazardous components which must be listed on the label:

- benzyl 2-hydroxybenzoate 118-58-1
- linalool 78-70-6
- 3,7-dimethyl-1,6-octadien-3-yl acetate (= linalyl acetate) 115-95-7
- (2E)-3,7-dimethyl-2,6-octadien-1-ol (= geraniol) 106-24-1
- 1,3-Benzodioxole-5-carboxaldehyde (= piperonal) 120-57-0
- 2-hexyl-3-phenyl-2-propenal (trans & cis) 101-86-0
- 4-tert-butylcyclohexyl acetate 32210-23-4
- (R)-p-mentha-1,8-diene 5989-27-5
- 3,7-dimethyl-6-octen-1-ol (= citronellol) 106-22-9
- citral 5392-40-5
- cis-4-(isopropyl)cyclohexanemethanol 13828-37-0
- 3,7-dimethyl-2,6-octadienyl acetate (= geranyl acetate) 105-87-3
- 2H-1-benzopyran-2-one (=coumarin) 91-64-5

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- 4(3)-(4-Methyl-3-pentenyl)-3-cyclohexen- carbaldehyde 37677-14-8
- 2-methyl-3-(4-isopropylphenyl)propanal 103-95-7
- Acetic acid, anhydride, reaction product 1,5,10-trimethyl-1,5,9-cyclododecatriene 144020-22-4
- Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-methylene- (= Beta-pinene) 127-91-3
- 1-(2,6,6-trimethyl-2(1)-cyclohexen-1-yl)-1,6-hepta-dien-3-one 79-78-7
- 2,6,6,8-tetramethyl-9-acetyl-tricyclo{5.3.1.0(1,5)}undec-8-ene 32388-55-9
- 2,2-dimethyl-3-(4(2)-ethylphenyl)propanal 67634-15-5
- 2-methyl-3-(4-methoxyphenyl)propanal 5462-06-6
- methyl 2-nonynoate 111-80-8
- isoeugenol 97-54-1

**2.3 Other hazards**

Hazards not Otherwise Classified : None

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

**SECTION 3. Composition/information on ingredients**

**3.2 Mixtures**

**Hazardous components**

Chemical name	CAS-No. EC-No. Registration number	Classification (REGULATION (EC) No 1272/2008)	Concentration [Percent by weight]
benzyl benzoate	120-51-4 204-402-9 01-2119976371-33	Acute Tox. 4; H302 Aquatic Acute 1; H400 Aquatic Chronic 2; H411	>= 5 - < 10

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1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran	1222-05-5 214-946-9 01-2119488227-29	Aquatic Acute 1; H400 Aquatic Chronic 1; H410	>= 5 - < 10
benzyl 2-hydroxybenzoate	118-58-1 204-262-9 01-2119969442-31	Eye Irrit. 2; H319 Skin Sens. 1B; H317 Aquatic Chronic 3; H412	>= 5 - < 10
cis-3-hexenyl 2-hydroxybenzoate	65405-77-8 265-745-8 01-2119987320-37	Aquatic Acute 1; H400 Aquatic Chronic 1; H410	>= 2,5 - < 5
linalool	78-70-6 201-134-4 01-2119474016-42	Skin Irrit. 2; H315 Eye Irrit. 2; H319 Skin Sens. 1B; H317	>= 1 - < 5
5-(2,2,3-Trimethyl-3-cyclopentenyl)-3-methylpentan-2-ol	65113-99-7 939-525-3 01-2119975588-15	Eye Irrit. 2; H319 Aquatic Chronic 2; H411	>= 2,5 - < 5
2-Ethyl-4-(2,2,3-trimethyl-3-cyclopenten-1-yl)-2-buten-1-ol (main component)	28219-61-6 248-908-8 01-2119529224-45	Eye Irrit. 2; H319 Aquatic Chronic 2; H411	>= 2,5 - < 5
tetrahydro-2-isobutyl-4-methylpyran-4-ol, mixed isomers (cis and trans)	63500-71-0 405-040-6 01-0000015458-64 01-2119455547-30	Eye Irrit. 2; H319	>= 1 - < 5
3,7-dimethyl-1,6-octadien-3-yl acetate (= linalyl acetate)	115-95-7 204-116-4 01-2119454789-19	Skin Irrit. 2; H315 Eye Irrit. 2; H319 Skin Sens. 1B; H317	>= 1 - < 5
(2E)-3,7-dimethyl-2,6-octadien-1-ol (= geraniol)	106-24-1 203-377-1 01-2119552430-49	Skin Irrit. 2; H315 Eye Dam. 1; H318 Skin Sens. 1; H317	>= 1 - < 3
3-methoxy-4-hydroxy-benzaldehyde (= Vanillin)	121-33-5 204-465-2 01-2119516040-60	Eye Irrit. 2; H319	>= 1 - < 5

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1,3-Benzodioxole-5-carboxaldehyde (= piperonal)	120-57-0 204-409-7 01-2119983608-21	Skin Sens. 1B; H317	>= 1 - < 5
2-hexyl-3-phenyl-2-propenal (trans & cis)	101-86-0 165184-98-5 639-566-4 01-2119533092-50	Skin Sens. 1B; H317 Aquatic Acute 1; H400 Aquatic Chronic 2; H411	>= 0,25 - < 1
4-tert-butylcyclohexyl acetate	32210-23-4 250-954-9 01-2119976286-24	Skin Sens. 1B; H317	>= 0,1 - < 1
(R)-p-mentha-1,8-diene	5989-27-5 227-813-5 01-2119529223-47	Flam. Liq. 3; H226 Skin Irrit. 2; H315 Skin Sens. 1B; H317 Asp. Tox. 1; H304 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	>= 0,25 - < 1
3,7-dimethyl-6-octen-1-ol (= citronellol)	106-22-9 203-375-0 01-2119453995-23	Skin Irrit. 2; H315 Eye Irrit. 2; H319 Skin Sens. 1B; H317	>= 0,1 - < 1
citral	5392-40-5 226-394-6 01-2119462829-23	Skin Irrit. 2; H315 Eye Irrit. 2; H319 Skin Sens. 1B; H317	>= 0,1 - < 1
1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran	1222-05-5 481-920-3 01-2119488227-29	Aquatic Acute 1; H400 Aquatic Chronic 1; H410	>= 0,25 - < 1
cis-4-(isopropyl)cyclohexanemethanol	13828-37-0 5502-75-0 939-719-8 01-2119983532-32	Skin Sens. 1B; H317	>= 0,1 - < 1

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3,7-dimethyl-2,6-octadienyl acetate (= geranyl acetate)	105-87-3 203-341-5 01-2119973480-35	Skin Irrit. 2; H315 Skin Sens. 1; H317 Aquatic Chronic 3; H412	>= 0,25 - < 1
2H-1-benzopyran-2-one (=coumarin)	91-64-5 202-086-7 01-2119949300-45	Acute Tox. 4; H302 Skin Sens. 1B; H317	>= 0,1 - < 1
4(3)-(4-Methyl-3-pentenyl)-3-cyclohexen- carbaldehyde	37677-14-8 52475-89-5 915-650-9 01-2120769662-44	Skin Irrit. 2; H315 Eye Dam. 1; H318 Skin Sens. 1B; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	>= 0,25 - < 1
2-methyl-3-(4-isopropylphenyl)propanal	103-95-7 203-161-7 01-2119970582-32	Skin Irrit. 2; H315 Skin Sens. 1B; H317 Aquatic Chronic 3; H412	>= 0,25 - < 1
Acetic acid, anhydride, reaction product 1,5,10-trimethyl-1,5,9-cyclododecatriene	144020-22-4 482-330-9 01-0000020172-83 01-2119430466-41	Skin Sens. 1B; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	>= 0,1 - < 0,25
Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-methylene- (= Beta-pinene)	127-91-3 204-872-5 01-2119519230-54	Flam. Liq. 3; H226 Skin Irrit. 2; H315 Skin Sens. 1B; H317 Asp. Tox. 1; H304 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	>= 0,1 - < 0,25
1-(2,6,6-trimethyl-2(1)-cyclohexen-1-yl)-1,6-hepta-dien-3-one	79-78-7 904-551-6 01-2120746535-50	Skin Sens. 1B; H317 Aquatic Chronic 2; H411	>= 0,1 - < 0,25

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2,2-dimethyl-3-(4(2)-ethylphenyl)propanal	67634-15-5 67634-14-4 916-329-6 01-2120758796-34	Skin Irrit. 2; H315 Skin Sens. 1B; H317 Aquatic Acute 1; H400 Aquatic Chronic 2; H411	>= 0,1 - < 0,25
2,6,6,8-tetramethyl-9-acetyl-tricyclo{5.3.1.0(1,5)}undec-8-ene	32388-55-9 251-020-3 01-2119969651-28	Skin Sens. 1B; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	>= 0,1 - < 0,25
(1-methyl-2-(1,2,2-trimethylbicyclo(3.1.0)-hex-3-ylmethyl)cyclopropyl)methanol	198404-98-7 427-900-1 01-0000017424-73	Aquatic Acute 1; H400 Aquatic Chronic 1; H410	>= 0,1 - < 0,25
2-methyl-3-(4-methoxyphenyl)propanal	5462-06-6 226-749-5 01-2120629103-67	Skin Sens. 1B; H317	>= 0,1 - < 1
methyl 2-nonynoate	111-80-8 203-909-2 01-2120139912-55	Acute Tox. 4; H302 Skin Irrit. 2; H315 Skin Sens. 1A; H317 Aquatic Acute 1; H400 Aquatic Chronic 3; H412	>= 0,0025 - < 0,02
isoeugenol	97-54-1 5932-68-3 202-590-7 01-2120223682-61	Acute Tox. 4; H302 Acute Tox. 4; H332 Acute Tox. 4; H312 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Skin Sens. 1A; H317 STOT SE 3; H335	>= 0 - < 0,01

For the full text of the H-Statements mentioned in this Section, see Section 16.

**SECTION 4. First aid measures**

**4.1 Description of first aid measures**

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- General advice : Move out of dangerous area.  
Show this safety data sheet to the doctor in attendance.  
Do not leave the victim unattended.
- If inhaled : If unconscious, place in recovery position and seek medical advice.  
If symptoms persist, call a physician.
- In case of skin contact : If on skin, rinse well with water.
- In case of eye contact : Remove contact lenses.  
Immediately flush eyes for at least 15 minutes. Get medical attention.
- If swallowed : Keep respiratory tract clear.  
Do not give milk or alcoholic beverages.  
Never give anything by mouth to an unconscious person.  
If symptoms persist, call a physician.

**4.2 Most important symptoms and effects, both acute and delayed**

- Symptoms : no data available  
Risks : no data available

**4.3 Indication of any immediate medical attention and special treatment needed**

- Treatment : no data available

**SECTION 5. Firefighting measures**

**5.1 Extinguishing media**

- Suitable extinguishing media : Dry chemical  
Alcohol-resistant foam  
Carbon dioxide (CO<sub>2</sub>)  
Water spray

- Unsuitable extinguishing media : High volume water jet

**5.2 Special hazards arising from the substance or mixture**

- Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.

**5.3 Advice for firefighters**

- Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

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Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.  
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

**SECTION 6. Accidental release measures**

**6.1 Personal precautions, protective equipment and emergency procedures**

Personal precautions : no data available

**6.2 Environmental precautions**

Environmental precautions : Prevent product from entering drains.  
If the product contaminates rivers and lakes or drains inform respective authorities.

**6.3 Methods and materials for containment and cleaning up**

Methods for cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).  
Keep in suitable, closed containers for disposal.

**6.4 Reference to other sections**

Not applicable

**SECTION 7. Handling and storage**

**7.1 Precautions for safe handling**

Advice on safe handling : Do not breathe vapours/dust.  
Avoid exposure - obtain special instructions before use.  
Avoid contact with skin and eyes.  
For personal protection see section 8.  
Smoking, eating and drinking should be prohibited in the application area.  
Dispose of rinse water in accordance with local and national regulations.

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Temperature class : no data available

Fire-fighting class : no data available

Dust explosion class : no data available

**7.2 Conditions for safe storage, including any incompatibilities**

Requirements for storage areas and containers : Keep container tightly closed in a dry and well-ventilated place.  
Containers which are opened must be carefully resealed and

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kept upright to prevent leakage.  
Electrical installations / working materials must comply with the technological safety standards.

Further information on storage conditions : Ambient / 10-30°C (50-85°F)  
Advice on common storage : Dry, well ventilated, preferably full, hermetically sealed  
German storage class : Protect against light.  
Other data : no data available  
Other data : No decomposition if stored and applied as directed.

**7.3 Specific end use(s)**

Specific use(s) : no data available

**SECTION 8. Exposure controls/personal protection**

**8.1 Control parameters**

Contains no substances with occupational exposure limit values.

**8.2 Exposure controls**

**Personal protective equipment**

Respiratory protection : Use only in well-ventilated areas.  
In case a risk analysis proved the cartridge respirator as acceptable, use type:  
ABEK-P3 (EN 14387) respirator cartridges as a backup to engineering controls.  
In absence of engineering controls, use self-contained breathing apparatus or full face supplied air respirators.  
Use respirators and components tested and approved under appropriate government standards such as CEN (EU).

Hand protection : Use gloves when handling substance in open systems.  
Inspect gloves prior to use. Train operators for proper use.  
If only incidental exposure is expected: (work without direct contact to substance) use gloves tested according EN 16523-1 breakthrough times at least 10 minutes, tested for chemicals indicated in chapter 3 of this SDS. Change gloves frequently.  
If direct skin contact is expected: use gloves tested according to EN 16523-1, tested for chemicals indicated in chapter 3 of this SDS. Permeation time must exceed contact time.

Eye protection : Use safety glasses and faceshield tested according to EN 166.

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- Skin and body protection** : Wear working clothes covering arms and legs.  
The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Use apron or complete chemical suit if exposure is expected.
- Hygiene measures** : Do not eat, drink or smoke during work.  
Wash and dry hands after finished working.
- Protective measures** : Exposure assessment: Exposure is dependent on the product being handled, the potential for chemical release, and any resulting airborne concentrations or dermal contact. Since product handling and release scenarios vary, and no two workplaces are exactly alike, it is recommended that the potential for exposure be assessed prior to the product's use or introduction. Exposure assessments should be performed by an occupational hygienist, industrial hygienist, or other qualified occupational or environmental health professional. An exposure assessment should be conducted to determine the efficacy of any ventilation and the need for additional respiratory protection.  
PPE is always the last resort to avoid exposure. In any case technical and organisational measures have to be explored and used prior to the selection of PPE. The PPE selection is for operators trained to work with chemicals according to good industrial hygiene and safety practice. Operators have to be trained and used to PPE handling.

**Environmental exposure controls**

- General advice** : Prevent product from entering drains.  
If the product contaminates rivers and lakes or drains inform respective authorities.

**SECTION 9. Physical and chemical properties**

**9.1 Information on basic physical and chemical properties**

- Physical state** : liquid  
**Form** : liquid  
**Colour** : Pale yellow to yellow  
**Taste** : not determined  
**Odour** : Floral, Oriental, Green  
**Odour Threshold** : Not applicable  
**Flash point** : 106 °C Method: Grabner miniflash closed cup  
**Lower explosion limit** : not determined  
**Upper explosion limit** : not determined

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Flammability (solid, gas)	: Not applicable
Oxidizing properties	: no data available
Auto-ignition temperature	: not determined
Decomposition temperature	: no data available
pH	: not determined
Boiling point	: Not applicable
Vapour pressure	: 0,0708 hPa at 20 °C Calculated (95,4 %)
Density	: 965,25 kg/m3 at 20 °C
Bulk density	: Not applicable
Water solubility	: not determined
Solubility/qualitative	: practically insoluble
Partition coefficient: n-octanol/water	: Not applicable
Viscosity, kinematic	: no data available
Relative vapour density	: no data available
Evaporation rate	: no data available
Explosive properties	: no data available

**9.2 Other information**

Not applicable

**SECTION 10. Stability and reactivity**

**10.1 Reactivity**

none

**10.2 Chemical stability**

The product is chemically stable.

**10.3 Possibility of hazardous reactions**

Hazardous reactions : No decomposition if stored and applied as directed.

**10.4 Conditions to avoid**

Conditions to avoid : no data available

**10.5 Incompatible materials**

Materials to avoid : no data available

**10.6 Hazardous decomposition products**

Hazardous decomposition products : no data available  
Thermal decomposition : no data available

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**SECTION 11. Toxicological information**

**11.1 Information on toxicological effects**

**Acute toxicity**

**Acute oral toxicity** : Acute toxicity estimate  
Dose: > 2 000 mg/kg  
Method: Calculation method

**Acute oral toxicity**

benzyl benzoate	: LD50: 2 000 mg/kg	Species: Rat
benzyl 2-hydroxybenzoate	: LD50: 2 227 mg/kg	Species: Rat
cis-3-hexenyl 2-hydroxybenzoate	: LD50: > 5 000 mg/kg	Species: Rat
linalool	: LD50: 2 790 mg/kg	Species: Rat
5-(2,2,3-Trimethyl-3-cyclopentenyl)-3-methylpentan-2-ol	: LD50: > 6 750 mg/kg	Species: Rat
tetrahydro-2-isobutyl-4-methylpyran-4-ol, mixed isomers (cis and trans)	: LD50: > 5 000 mg/kg	Species: Rat
3,7-dimethyl-1,6-octadien-3-yl acetate (= linalyl acetate)	: LD50: 13 934 mg/kg	Species: Rat
(2E)-3,7-dimethyl-2,6-octadien-1-ol (= geraniol)	: LD50: 3 600 mg/kg	Species: Rat
3-methoxy-4-hydroxy-benzaldehyde (= Vanillin)	: LD50: 3 925 mg/kg	Species: Mouse
1,3-Benzodioxole-5-carboxaldehyde (= piperonal)	: LD50: 2 700 mg/kg	Species: Rat
2-hexyl-3-phenyl-2-propenal (trans & cis)	: LD50: 3 100 mg/kg	Species: Rat
4-tert-butylcyclohexyl acetate	: LD50: 5 000 mg/kg	Species: Rat

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(R)-p-mentha-1,8-diene	: LD50: 5 600 mg/kg	Species: Mouse
3,7-dimethyl-6-octen-1-ol (= citronellol)	: LD50: 3 450 mg/kg	Species: Rat
cis-4-(isopropyl)cyclohexanemethanol	: LD50: > 10 000 mg/kg	Species: Rat
3,7-dimethyl-2,6-octadienyl acetate (= geranyl acetate)	: LD50: 6 330 mg/kg	Species: Rat
2H-1-benzopyran-2-one (=coumarin)	: LD50: 520 mg/kg	Species: Rat
4(3)-(4-Methyl-3-pentenyl)-3-cyclohexen- carbaldehyde	: LD50: > 5 000 mg/kg	Species: Rat
Acetic acid, anhydride, reaction product1,5,10-trimethyl-1,5,9-cyclododecatriene	: LD50: > 5 000 mg/kg	Species: Rat
1-(2,6,6-trimethyl-2(1)-cyclohexen-1-yl)-1,6-heptadien-3-one	: LD50: > 30 000 mg/kg	Species: Rat
2,2-dimethyl-3-(4(2)-ethylphenyl)propanal	: LD50: > 5 000 mg/kg	Species: Rat
2,6,6,8-tetramethyl-9-acetyl-tricyclo{5.3.1.0(1,5)}undec-8-ene	: LD50: > 5 000 mg/kg	Species: Rat
isoeugenol	: LD50: 1 560 mg/kg	Species: Rat
<b>Acute inhalation toxicity</b>	: No data is available on the product itself.	
<b>Acute dermal toxicity</b>	: No data is available on the product itself.	
<b>Acute dermal toxicity</b>		
benzyl benzoate	: LD50: 4 000 mg/kg	Species: Rabbit
benzyl 2-hydroxybenzoate	: LD50: 14 150 mg/kg	Species: Rabbit

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cis-3-hexenyl 2-hydroxybenzoate	: LD50: > 5 000 mg/kg	Species: Rabbit
2-Ethyl-4-(2,2,3-trimethyl-3-cyclopenten-1-yl)-2-buten-1-ol (main component)	: LD50: > 5 000 mg/kg	Species: Rat
3,7-dimethyl-1,6-octadien-3-yl acetate (= linalyl acetate)	: LD50: > 5 000 mg/kg	Species: Rabbit
(2E)-3,7-dimethyl-2,6-octadien-1-ol (= geraniol)	: LD50: > 5 000 mg/kg	Species: Rabbit
3-methoxy-4-hydroxy-benzaldehyde (= Vanillin)	: LD50: > 5 010 mg/kg	Species: Rabbit
1,3-Benzodioxole-5-carboxaldehyde (= piperonal)	: LD50: > 5 000 mg/kg	Species: Rat
4-tert-butylcyclohexyl acetate	: LD50: > 5 000 mg/kg	Species: Rabbit
(R)-p-mentha-1,8-diene	: LD50: > 5 000 mg/kg	Species: Rabbit
3,7-dimethyl-6-octen-1-ol (= citronellol)	: LD50: 2 650 mg/kg	Species: Rabbit
citral	: LD50: 2 250 mg/kg	Species: Rabbit
4(3)-(4-Methyl-3-pentenyl)-3-cyclohexen- carbaldehyde	: LD50: > 5 000 mg/kg	Species: Rabbit
1-(2,6,6-trimethyl-2(1)-cyclohexen-1-yl)-1,6-heptadien-3-one	: LD50: > 5 000 mg/kg	Species: Rabbit
2,2-dimethyl-3-(4(2)-ethylphenyl)propanal	: LD50: > 5 000 mg/kg	Species: Rabbit
2-methyl-3-(4-methoxyphenyl)propanal	: LD50: > 5 000 mg/kg	Species: Rabbit
isoeugenol	: LD50: 1 770 mg/kg	Species: Rabbit

**Acute toxicity (other routes of administration)** : No data is available on the product itself.

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**Skin corrosion/irritation**

Skin irritation : May cause skin irritation and/or dermatitis.

**Serious eye damage/eye irritation**

Eye irritation : Vapours may cause irritation to the eyes, respiratory system and the skin.

**Respiratory or skin sensitisation**

Sensitisation : No data is available on the product itself.

**Germ cell mutagenicity**

Germ cell mutagenicity : No data is available on the product itself.

**Carcinogenicity**

Carcinogenicity : No data is available on the product itself.

**Reproductive toxicity**

Reproductive toxicity : No data is available on the product itself.

**Target Organ Systemic Toxicant - Single exposure**

Target Organ Systemic Toxicant - Single exposure : No data is available on the product itself.

**Target Organ Systemic Toxicant - Repeated exposure**

Target Organ Systemic Toxicant - Repeated exposure : No data is available on the product itself.

**Aspiration hazard**

Aspiration toxicity : No data is available on the product itself.

**Phototoxicity**

Phototoxicity : No data is available on the product itself.

**Further information**

: no data available

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**SECTION 12. Ecological information**

**12.1 Toxicity**

Toxicity to fish	: no data available
Toxicity to daphnia and other aquatic invertebrates	: no data available
Toxicity to algae	: no data available
M-Factor	
benzyl benzoate	: 1
M-Factor	
1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran	: 1
M-Factor	
cis-3-hexenyl 2-hydroxybenzoate	: 1
M-Factor	
2-Ethyl-4-(2,2,3-trimethyl-3-cyclopenten-1-yl)-2-buten-1-ol (main component)	: 1
M-Factor	
2-hexyl-3-phenyl-2-propenal (trans & cis)	: 1
M-Factor	
(R)-p-mentha-1,8-diene	: 1
M-Factor	
1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran	: 1
M-Factor	
4(3)-(4-Methyl-3-pentenyl)-3-cyclohexen- carbaldehyde	: 1
M-Factor	
Acetic acid, anhydride, reaction product1,5,10-trimethyl-1,5,9-cyclododecatriene	: 1
M-Factor	
Bicyclo[3.1.1]heptane, 6,6-dimethyl-2-methylene- (= Beta-pinene)	: 1
M-Factor	
2,2-dimethyl-3-(4(2)-ethylphenyl)propanal	: 1
M-Factor	
2,6,6,8-tetramethyl-9-acetyl-tricyclo{5.3.1.0(1,5)}undec-8-	: 1

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ene  
M-Factor  
(1-methyl-2-(1,2,2-trimethylbicyclo(3.1.0)-hex-3-ylmethyl)cyclopropyl)methanol  
M-Factor  
methyl 2-nonynoate : 1  
Toxicity to bacteria : no data available  
Toxicity to fish (Chronic toxicity) : no data available  
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : no data available  
  
Short-term (acute) aquatic hazard : no data available  
Long-term (chronic) aquatic hazard : no data available  
Toxicity Data on Soil : no data available  
Other organisms relevant to the environment : no data available

**12.2 Persistence and degradability**

Biodegradability : no data available

**12.3 Bioaccumulative potential**

Bioaccumulation : no data available

**12.4 Mobility in soil**

Mobility : no data available  
Distribution among environmental compartments : no data available  
Additional advice : no data available  
Environmental fate and pathways  
Physico-chemical removability : no data available

**12.5 Results of PBT and vPvB assessment**

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

**12.6 Other adverse effects**

Biochemical Oxygen Demand (BOD) : no data available

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Dissolved organic carbon (DOC) : no data available  
Chemical Oxygen Demand (COD) : no data available  
Adsorbed organic bound halogens (AOX) : no data available  
Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life with long lasting effects.

**SECTION 13. Disposal considerations**

**13.1 Waste treatment methods**

Product : The product should not be allowed to enter drains, water courses or the soil.  
Do not contaminate ponds, waterways or ditches with chemical or used container.  
Send to a licensed waste management company.

Contaminated packaging : Empty remaining contents.  
Dispose of as unused product.  
Do not re-use empty containers.

Dispose of in accordance with local regulations.

**SECTION 14. Transport information**

**14.1 UN number**

**ADR** : UN 3082  
**RID** : UN 3082  
**IMDG** : UN 3082  
**IATA** : UN 3082

**14.2 UN proper shipping name**

**ADR** : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(Hexamethylindanopyran, Hexenyl-3-cis salicylate)  
**RID** : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(Hexamethylindanopyran, Hexenyl-3-cis salicylate)  
**IMDG** : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

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**IATA** : (Hexamethylindanopyran, Hexenyl-3-cis salicylate)  
: Environmentally hazardous substance, liquid, n.o.s.  
(Hexamethylindanopyran, Hexenyl-3-cis salicylate)

**14.3 Transport hazard class(es)**

**ADR** : 9  
**RID** : 9  
**IMDG** : 9  
**IATA** : 9

**14.4 Packing group**

**ADR** : III  
**RID** : III  
**IMDG** : III  
**IATA** : III

**14.5 Environmental hazards**

**ADR**  
Environmentally hazardous : yes  
**RID**  
Environmentally hazardous : yes  
**IMDG**  
Marine pollutant : yes  
**IATA (Passenger)**  
Environmentally hazardous : yes  
**IATA (Cargo)**  
Environmentally hazardous : yes

**14.6 Special precautions for user**

**ADR**  
Tunnel restriction code : (-)  
**IMDG**  
IMDG Code Segregation : None  
Group

**14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**

Not applicable for product as supplied.

**SECTION 15. Regulatory information**

**15.1 Safety, health and environmental regulations/legislation specific for the substance or**

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**mixture**

Major Accident Hazard : ENVIRONMENTAL HAZARDS  
Legislation : E1  
Quantity 1: 100 t  
Quantity 2: 200 t

Water contaminating class : WGK 2 obviously hazardous to water  
(Germany) : Classification according to AwSV, Annex 1 (5.2)

**15.2 Chemical safety assessment**

A Chemical Safety Assessment is not required for this substance.

**SECTION 16. Other information**

**Full text of H-Statements referred to under sections 2 and 3.**

H226 Flammable liquid and vapour.  
H302 Harmful if swallowed.  
H304 May be fatal if swallowed and enters airways.  
H312 Harmful in contact with skin.  
H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H318 Causes serious eye damage.  
H319 Causes serious eye irritation.  
H332 Harmful if inhaled.  
H335 May cause respiratory irritation.  
H400 Very toxic 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.

**Full list of Emergency response numbers worldwide.**

	Country	Phone nr		Country	Phone nr
Europe	All Europe	+44 1235 239670	APAC	All East/South East Asia	+65 3158 1074
	France	+33 1 72 11 00 03		Sri Lanka	+65 3158 1195
	Germany	+49 89 220 61012		Taiwan	+886 2 8793 3212
	Spain	+34 91 114 2520		Japan	+81 3 4578 9341
	Italy	+39 02 3604 2884		Indonesia	007 803 011 0293
	Netherlands	+31 10 713 8195		Malaysia	+60 3 6207 4347
	Turkey	+90 212 375 5231		Thailand	001 800 120 666 751
	Norway	+47 2103 4452		India	+65 3158 1198 000 800 100 7479

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	Portugal	+351 30880 4750		Bangladesh	+65 3158 1200
	Denmark	+45 8988 2286		Philippines	+63 2 231 2149
	Sweden	+46 8 566 42573		Vietnam	+84 28 4458 2388
	Poland	+48 22 307 3690		Korea	+65 3158 1285
	Czech republic	+420 228 882 830		South Korea	+82 2 3479 8401
	Finland	+358 9 7479 0199		Australia	+61 2 8014 4558
Middle East/Africa	All Middle East/Africa	+44 1235 239671		New Zealand	+64 9 929 1483
	Bahrain and Middle East	+973 1619 8321		China	+86 532 8388 9090
	Africa/South Africa	+27 21 300 2732		Mexico	+52 55 5004 8763
NOAM	USA and Canada	+1 866 928 0789	LATAM	Brazil	+55 11 3197 5891
	USA and Canada	+1 215 207 0061		Chile	+56 2 2582 9336
	USA and Canada	+1 202 464 2554		Colombia	+57 1 508 7337
Global	Global	+44 1865 407333		Argentina	+54 11 5984 3690

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# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

# Givaudan

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### Key or legend to abbreviations and acronyms used in the safety data sheet

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECl - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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