

SAFETY DATA SHEET

Fragrance 49383380



SECTION 1: Identification of the substance/mixture and of the company/ undertaking

1.1 Product identifier

Product code : Fragrance 49383380
Product name : ALOE & GREEN CLOVER

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

Fragrance. Restricted to professional users. Industrial use only.

1.3 Details of the supplier of the safety data sheet

Supplier's details : drom fragrances GmbH & Co. KG
 Oberdiller Straße 18
 tel. +49 89 74425-0
 fax. +49 89 7934966
 D-82065 Baierbrunn

e-mail address of person responsible for this SDS : safety@drom.com

1.4 Emergency telephone number

National advisory body/Poison Center

Telephone number : www.rshm.gov.tr

Supplier

Emergency telephone number (with hours of operation) : +49 89 74425 288
 9h - 17h (Mo - Fr)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Acute Tox. 4, H302
 Skin Irrit. 2, H315
 Eye Irrit. 2, H319
 Skin Sens. 1, H317
 Repr. 2, H361f (Fertility)
 STOT SE 2, H371
 Aquatic Acute 1, H400
 Aquatic Chronic 2, H411

Classification according to Directive 1999/45/EC [DPD]

The product is classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification : Repr. Cat. 3; R62
 Xn; R22
 Xi; R38
 R43
 N; R51/53

Human health hazards : Possible risk of impaired fertility. Harmful if swallowed. Irritating to skin. May cause sensitization by skin contact.

Environmental hazards : Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

See Section 16 for the full text of the R phrases or H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

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SECTION 2: Hazards identification

2.2 Label elements

Hazard pictograms



Signal word

: Warning

Hazard statements

: H302 - Harmful if swallowed.
 H319 - Causes serious eye irritation.
 H315 - Causes skin irritation.
 H317 - May cause an allergic skin reaction.
 H361f - Suspected of damaging fertility.
 H371 - May cause damage to organs.
 H400 - Very toxic to aquatic life.
 H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention

: P201 - Obtain special instructions before use.
 P280 - Wear protective gloves. Wear eye or face protection.
 P273 - Avoid release to the environment.
 P260 - Do not breathe vapor.

Response

: P301 + P312 - IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell.
 P305 + P351 - IF IN EYES: Rinse cautiously with water for several minutes.

Storage

: P405 - Store locked up.

Disposal

: P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazardous ingredients

: benzyl benzoate
 benzyl salicylate
 1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one
 α -hexylcinnamaldehyde
 2-(4-tert-butylbenzyl)propionaldehyde
 pentadecan-15-olide
 geraniol
 dipentene
 2,4-dimethylcyclohex-3-ene-1-carbaldehyde

Supplemental label elements

: Not applicable.

2.3 Other hazards

Other hazards which do not result in classification

: None known.

SECTION 3: Composition/information on ingredients

3.1 Substances

: Not applicable.

3.2 Mixtures

: Mixture

Product/ingredient name	Identifiers	%	Classification		Type
			67/548/EEC	Regulation (EC) No. 1272/2008 [CLP]	

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SECTION 3: Composition/information on ingredients

benzyl benzoate	REACH #: 01-2119976371-33 EC: 204-402-9 CAS: 120-51-4 Index: 607-085-00-9	30.00	Xn; R22 N; R51/53	Acute Tox. 4, H302 Aquatic Acute 1, H400 Aquatic Chronic 2, H411	[1]
benzyl salicylate	REACH #: 01-2119969442-31 EC: 204-262-9 CAS: 118-58-1	17.00	R43 N; R51/53	Eye Irrit. 2, H319 Skin Sens. 1B, H317 STOT SE 2, H371 (spleen) (oral)	[1]
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	REACH #: 01-2119489989-04 EC: 915-730-3 CAS: 54464-57-2 CAS: 68155-66-8 CAS: 68155-67-9	11.00	Xi; R38 R43 N; R51/53	Skin Irrit. 2, H315 Skin Sens. 1B, H317 Aquatic Chronic 1, H410	[1]
α -hexylcinnamaldehyde	REACH #: 01-2119533092-50 EC: 202-983-3 EC: 639-566-4 CAS: 101-86-0 CAS: 165184-98-5	10.00	Xi; R38 R43 N; R50/53	Skin Sens. 1B, H317 Aquatic Acute 1, H400 Aquatic Chronic 2, H411	[1]
2-(4-tert-butylbenzyl)propionaldehyde	REACH #: 01-2119485965-18 EC: 201-289-8 CAS: 80-54-6	9.00	Repr. Cat. 3; R62 Xn; R22 Xi; R38 R43 N; R51/53	Acute Tox. 4, H302 Skin Irrit. 2, H315 Skin Sens. 1B, H317 Repr. 2, H361f (Fertility) Aquatic Chronic 2, H411	[1]
linalool	REACH #: 01-2119474016-42 EC: 201-134-4 CAS: 78-70-6	3.59	Xi; R38	Skin Irrit. 2, H315 Eye Irrit. 2, H319	[1]
2,6-dimethyloct-7-en-2-ol	REACH #: 01-2119457274-37 EC: 242-362-4 CAS: 18479-58-8	2.50	Xi; R38	Skin Irrit. 2, H315 Eye Irrit. 2, H319	[1]
dipentene	EC: 205-341-0 EC: 231-732-0 CAS: 138-86-3 CAS: 7705-14-8 Index: 601-029-00-7	0.12	R10 Xn; R65 Xi; R38 R43 N; R50/53 See Section 16 for the full text of the R-phrases declared above.	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1B, H317 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 See Section 16 for the full text of the H statements declared above.	[1]

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs or vPvBs or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

[3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII

[4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

[5] Substance of equivalent concern

Occupational exposure limits, if available, are listed in Section 8.

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SECTION 3: Composition/information on ingredients

Hydrocarbon. (Content) : 0.21%

SECTION 4: First aid measures

4.1 Description of first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention. If necessary, call a poison center or physician.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. If necessary, call a poison center or physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Causes skin irritation. May cause an allergic skin reaction.
- Ingestion** : Harmful if swallowed. Irritating to mouth, throat and stomach.
- Over-exposure signs/symptoms** : Not available.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.

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SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

5.2 Special hazards arising from the substance or mixture

- Hazards from the substance or mixture** : In a fire or if heated, a pressure increase will occur and the container may burst. This material is very toxic to aquatic life. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

5.3 Advice for firefighters

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions

- : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

6.3 Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.

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SECTION 6: Accidental release measures

- 6.4 Reference to other sections** : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Avoid release to the environment. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Seveso II Directive - Reporting thresholds (in tonnes)

Danger criteria

Category	Notification and MAPP threshold	Safety report threshold
E1: Hazardous to the aquatic environment - Acute 1 or Chronic 1	100	200
C9ii: Toxic for the environment	200	500

7.3 Specific end use(s)

- Recommendations** : Industrial use only.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

8.1 Control parameters

Occupational exposure limits

No exposure limit value known.

DNELs/DMELs

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SECTION 8: Exposure controls/personal protection

Product/ingredient name	Type	Exposure	Value	Population	Effects
benzyl benzoate	DNEL	Long term Oral	0.4 mg/kg bw/day	Consumers	Systemic
	DNEL	Short term Oral	78 mg/kg bw/day	Consumers	Systemic
	DNEL	Long term Inhalation	5.1 mg/m ³	Workers	Systemic
	DNEL	Short term Inhalation	102 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	1.25 mg/m ³	Consumers	Systemic
	DNEL	Short term Inhalation	25 mg/m ³	Consumers	Systemic
	DNEL	Long term Dermal	2.6 mg/kg bw/day	Workers	Systemic
benzyl salicylate	DNEL	Long term Inhalation	3.17 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	0.9 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	0.78 mg/m ³	Consumers	Systemic
	DNEL	Long term Dermal	0.45 mg/kg bw/day	Consumers	Systemic
	DNEL	Long term Oral	0.45 mg/kg bw/day	Consumers	Systemic
	DNEL	Long term Dermal	0.1011 mg/cm ²	Workers	Local
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	DNEL	Long term Inhalation	1.76 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	1.73 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	0.525 mg/cm ²	Workers	Local
α-hexylcinnamaldehyde	DNEL	Short term Inhalation	6.28 mg/m ³	Workers	Local
	DNEL	Long term Dermal	18.2 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	0.078 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	0.525 mg/cm ²	Workers	Local
	DNEL	Long term Inhalation	0.019 mg/m ³	Consumers	Systemic
	DNEL	Long term Dermal	0.525 mg/cm ²	Workers	Local

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	DNEL	Short term Inhalation	4.7 mg/m ³	Consumers	Local
	DNEL	Long term Dermal	9 mg/kg bw/day	Consumers	Systemic
	DNEL	Long term Dermal	0.079 mg/cm ²	Consumers	Local
	DNEL	Short term Dermal	0.079 mg/kg bw/day	Consumers	Local
	DNEL	Long term Oral	0.056 mg/kg bw/day	Consumers	Systemic
2-(4-tert-butylbenzyl) propionaldehyde	DNEL	Long term Inhalation	0.44 mg/m ³	Workers	Systemic
	DNEL	Short term Dermal	0.41 mg/cm ²	Workers	Local
	DNEL	Long term Dermal	2.075 mg/kg	Workers	Systemic
	DNEL	Long term Inhalation	0.11 mg/m ³	Consumers	Systemic
	DNEL	Long term Oral	0.0625 mg/kg	Consumers	Systemic
	DNEL	Long term Dermal	1.0375 mg/kg	Consumers	Systemic
	DNEL	Short term Dermal	0.41 mg/cm ²	Consumers	Local
linalool	DNEL	Long term Dermal	2.5 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	2.8 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	15 mg/cm ²	Workers	Local
	DNEL	Short term Dermal	15 mg/cm ²	Workers	Local
	DNEL	Long term Dermal	1.25 mg/kg bw/day	Consumers	Systemic
	DNEL	Long term Inhalation	0.7 mg/m ³	Consumers	Systemic
	DNEL	Long term Oral	0.2 mg/kg bw/day	Consumers	Systemic
	DNEL	Short term Dermal	15 mg/cm ²	Consumers	Local
	DNEL	Short term Dermal	2.5 mg/cm ²	Consumers	Systemic
	DNEL	Short term Inhalation	4.1 mg/m ³	Consumers	Systemic
	DNEL	Short term Oral	1.2 mg/kg bw/day	Consumers	Systemic
	DNEL	Long term Dermal	15 mg/cm ²	Consumers	Local

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SECTION 8: Exposure controls/personal protection

2,6-dimethyloct-7-en-2-ol	DNEL	Short term Dermal	5 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	16.5 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	73.5 mg/m ³	Workers	Systemic
	DNEL	Long term Dermal	20.8 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	21.7 mg/m ³	Consumers	Systemic
	DNEL	Long term Dermal	12.5 mg/kg bw/day	Consumers	Systemic
	DNEL	Long term Oral	12.5 mg/kg bw/day	Consumers	Systemic

PNECs

Product/ingredient name	Compartment Detail	Value	Method Detail
benzyl benzoate	Soil	2.12 mg/kg dwt	-
	Sewage Treatment Plant	100 mg/l	-
	Fresh water sediment	10.66 mg/kg wwt	-
	Marine water sediment	1.07 mg/kg wwt	-
	Marine water	0.00168 mg/l	-
	Fresh water	0.0168 mg/l	-
benzyl salicylate	Fresh water	0.00103 mg/l	-
	Marine water	0.000103 mg/l	-
	Fresh water sediment	0.584 mg/kg	-
	Marine water sediment	0.0584 mg/kg	-
	Sewage Treatment Plant	10 mg/l	-
	Soil	0.021 mg/kg	-
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	Secondary Poisoning	80 mg/kg	-
	Intermittent release	0.0103 mg/l	-
	Fresh water	0.0028 mg/l	-
	Marine water	0.00028 mg/l	-
	Fresh water sediment	3.73 mg/kg	-
	Marine water sediment	0.75 mg/kg	-
α-hexylcinnamaldehyde	Soil	0.705 mg/kg	-
	Fresh water	3 mg/l	-

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SECTION 8: Exposure controls/personal protection

2-(4-tert-butylbenzyl)propionaldehyde	Marine water	0.003 mg/l	-
	Sewage Treatment Plant	10 mg/l	-
	Fresh water sediment	4.7 mg/l	-
	Marine water sediment	4.77 mg/l	-
	Soil	9.51 mg/l	-
	Secondary Poisoning	6.6 mg/l	-
	Fresh water	0.00204 mg/l	-
	Marine water	0.0002 mg/l	-
	Fresh water sediment	0.269 mg/kg	-
	Marine water sediment	0.0269 mg/kg	-
	Soil	0.0525 mg/kg	-
linalool	Sewage Treatment Plant	10 mg/l	-
	Fresh water	0.2 mg/l	-
	Marine water	0.02 mg/l	-
	Intermittent release	2 mg/l	-
	Fresh water sediment	2.22 mg/kg dwt	-
	Marine water sediment	0.222 mg/kg dwt	-
	Soil	0.327 mg/kg dwt	-
2,6-dimethyloct-7-en-2-ol	Sewage Treatment Plant	>10 mg/l	-
	Fresh water	0.278 mg/l	-
	Marine water	0.278 mg/l	-
	Soil	0.103 mg/kg	-
	Fresh water sediment	0.594 mg/kg	-
	Marine water sediment	0.0594 mg/kg	-

8.2 Exposure controls

Appropriate engineering controls

: If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Individual protection measures**Hygiene measures**

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

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SECTION 8: Exposure controls/personal protection

- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

- Physical state** : Liquid.
- Color** : Characteristic.
- Odor** : Characteristic.
- Odor threshold** : Not available.
- pH** : Not available.
- Melting point/freezing point** : Not available.
- Initial boiling point and boiling range** : Not available.
- Flash point** : Closed cup: 110°C
- Evaporation rate** : Not available.
- Upper/lower flammability or explosive limits** : Not available.
- Vapor pressure** : 0.03 hPa
- Vapor density** : Not available.
- Density** : 1.03 to 1.04 g/cm³ [20°C]
- Solubility in water** : Non water-soluble liquid
- Partition coefficient: n-octanol/ water** : Not available.
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- Viscosity** : Kinematic (40°C): <0.07 cm²/s (Estimated.)
- Explosive properties** : Not available.

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SECTION 9: Physical and chemical properties

Oxidizing properties : Not available.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity : No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability : The product is stable.

10.3 Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid : No specific data.

10.5 Incompatible materials : No specific data.

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

Product/ingredient name	Result	Species	Dose	Exposure
benzyl benzoate	LD50 Dermal	Rabbit	4 g/kg	-
benzyl salicylate	LD50 Dermal	Rabbit	14150 mg/kg	-
	LD50 Oral	Rat	2227 mg/kg	-
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	LD50 Dermal	Rat	>5000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
α-hexylcinnamaldehyde	LC50 Inhalation Dusts and mists	Rat	>2100 mg/m ³	8 hours
	LD50 Oral	Rat	3100 mg/kg	-
2-(4-tert-butylbenzyl)propionaldehyde	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	1390 mg/kg	-
linalool	LD50 Dermal	Rabbit	5610 mg/kg	-
	LD50 Dermal	Rat	5610 mg/kg	-
	LD50 Oral	Rat	2790 mg/kg	-
2,6-dimethyloct-7-en-2-ol	LD50 Dermal	Rabbit	>5 g/kg	-
	LD50 Oral	Rat	3600 mg/kg	-
dipentene	LD50 Oral	Rat	5300 mg/kg	-

Acute toxicity estimates

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SECTION 11: Toxicological information

Route	ATE value
Oral	1504.3 mg/kg

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	Skin - Irritant	Human	-	-	-
2-(4-tert-butylbenzyl) propionaldehyde	Skin - Moderate irritant	Rabbit	-	24 hours 500 milligrams	-
linalool	Eyes - Moderate irritant	Rabbit	-	1 hours 0.1 Milliliters	-
	Eyes - Moderate irritant	Rabbit	-	100 microliters	-
	Skin - Moderate irritant	Guinea pig	-	24 hours 100 milligrams	-
	Skin - Mild irritant	Human	-	72 hours 32 Percent	-
	Skin - Mild irritant	Man	-	48 hours 16 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Severe irritant	Rabbit	-	24 hours 100 milligrams	-
2,6-dimethyloct-7-en-2-ol	Eyes - Mild irritant	Rabbit	-	7.5 Percent	-
	Skin - Mild irritant	Rabbit	-	4 hours 0.5 Milliliters	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-

Sensitization

Product/ingredient name	Route of exposure	Species	Result
benzyl benzoate	skin	Mouse	Not sensitizing
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	skin	Mouse	Sensitizing
α -hexylcinnamaldehyde	skin	Mouse	Sensitizing
2-(4-tert-butylbenzyl) propionaldehyde	skin	Mouse	Sensitizing
	skin	Human	Sensitizing

Mutagenicity

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SECTION 11: Toxicological information

Product/ingredient name	Test	Experiment	Result
benzyl benzoate	OECD 471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria	Negative
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	-	Experiment: In vitro Subject: Mammalian-Human	Negative
	-	Experiment: In vivo Subject: Mammalian-Animal	Negative
α -hexylcinnamaldehyde	OECD 471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria	Negative
	OECD 474 Mammalian Erythrocyte Micronucleus Test	Experiment: In vivo Subject: Mammalian-Animal	Negative

Reproductive toxicity

Product/ingredient name	Maternal toxicity	Fertility	Development toxin	Species	Dose	Exposure
benzyl benzoate	-	-	-	Rat - Female	Oral: 646 mg/kg	-
2-(4-tert-butylbenzyl) propionaldehyde	-	Positive	-	Dog - Male	Oral	-

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
benzyl salicylate	Category 2	Oral	spleen

Aspiration hazard

Product/ingredient name	Result
dipentene	ASPIRATION HAZARD - Category 1

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Causes skin irritation. May cause an allergic skin reaction.
- Ingestion** : Harmful if swallowed. Irritating to mouth, throat and stomach.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

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Skin contact : Adverse symptoms may include the following:
irritation
redness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Ingestion : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Product/ingredient name	Result	Species	Dose	Exposure
benzyl benzoate	Sub-chronic NOAEL Oral	Rat - Male	800 mg/kg	90 days
	Sub-acute NOAEL Dermal	Rat - Male	781 mg/kg	30 days
α-hexylcinnamaldehyde	Sub-acute NOAEL Oral	Rat	150 mg/kg	-
	Sub-acute LOAEL Dermal	Rat	125 mg/kg	-

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : Suspected of damaging fertility.

Interactive effects : Not available.

Toxicokinetics

Absorption : Not available.

Distribution : Not available.

Metabolism : Not available.

Elimination : Not available.

Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
benzyl benzoate	Acute IC50 0.475 mg/l	Algae	72 hours
	Acute LC50 3.09 mg/l	Daphnia	48 hours
	Acute LC50 2.32 mg/l	Fish	96 hours
	Acute LC50 1.4 ppm Fresh water	Fish - Oncorhynchus mykiss	96 hours

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benzyl salicylate	Chronic NOEC 0.247 mg/l	Algae	72 hours
	EC50 1.29 mg/l	Algae - Pseudokirchnerella subcapitata	72 hours
	Acute EC50 1.16 mg/l	Daphnia - Daphnia magna	48 hours
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	Acute LC50 1.03 mg/l	Fish - Danio rerio	96 hours
	Acute EC50 2.6 mg/l	Algae	72 hours
	Acute EC50 1.38 mg/l	Daphnia	48 hours
	Acute LC50 1.3 mg/l	Fish	96 hours
	Chronic NOEC 0.028 mg/l	Daphnia	21 days
	Chronic NOEC 0.16 mg/l	Fish	30 days
	α-hexylcinnamaldehyde	Acute EC50 0.247 mg/l	Daphnia
Acute LC50 1.7 mg/l		Fish	96 hours
Chronic NOEC 0.065 mg/l		Algae	72 hours
Chronic NOEC 0.069 mg/l Fresh water		Daphnia	21 days
2-(4-tert-butylbenzyl) propionaldehyde	Acute EC50 29.16 mg/l	Algae - Scenedesmus subspicatus	72 hours
	Acute EC50 10.7 mg/l	Daphnia - Daphnia magna	48 hours
	Acute LC50 2.04 mg/l	Fish - Brachydanio rerio	96 hours
linalool	Acute EC50 141.4 mg/l	Aquatic plants	96 hours
	Acute EC50 59 mg/l	Daphnia	48 hours
	Acute EC50 >100 mg/l	Micro-organism	3 hours
	Acute LC50 27.8 mg/l	Fish	96 hours
2,6-dimethyloct-7-en-2-ol	Acute EC50 3.88 mg/l	Algae	96 hours
	Acute LC50 5.7 mg/l	Daphnia	48 hours
	Acute LC50 4.81 mg/l	Fish	96 hours
dipentene	Acute EC50 28.2 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute EC50 20.2 mg/l Fresh water	Fish - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
	Acute IC50 13.798 mg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
	Acute LC50 31 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 38.5 mg/l Fresh water	Fish - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling)	96 hours

12.2 Persistence and degradability

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Product/ingredient name	Test	Result	Dose	Inoculum
benzyl benzoate	OECD 301F Ready Biodegradability - Manometric Respirometry Test	94 % - Readily - 28 days	-	-
benzyl salicylate	OECD 301F Ready Biodegradability - Manometric Respirometry Test	93 % - Readily - 28 days	-	-
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	OECD 301C Ready Biodegradability - Modified MITI Test (I)	11 % - Not readily - 28 days	-	-
α -hexylcinnamaldehyde	OECD 301F Ready Biodegradability - Manometric Respirometry Test	97 % - Readily - 28 days	-	-
2-(4-tert-butylbenzyl) propionaldehyde	OECD 301F Ready Biodegradability - Manometric Respirometry Test	84 % - Readily - 28 days	-	Activated sludge
linalool	OECD 301C Ready Biodegradability - Modified MITI Test (I)	64.2 % - Readily - 28 days	-	-
2,6-dimethyloct-7-en-2-ol	OECD 301B Ready Biodegradability - CO ₂ Evolution Test	72 % - Readily - 28 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
benzyl benzoate	-	-	Readily
benzyl salicylate	-	-	Readily
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	-	-	Not readily
α -hexylcinnamaldehyde	-	-	Readily
2-(4-tert-butylbenzyl) propionaldehyde	-	-	Readily
linalool	-	-	Readily
2,6-dimethyloct-7-en-2-ol	-	-	Readily

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12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
benzyl benzoate	3.97	193.4	low
benzyl salicylate	4	311	low
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	5.65	-	high
α-hexylcinnamaldehyde	5.3	6000	high
2-(4-tert-butylbenzyl)propionaldehyde	4.2	349.8	low
linalool	2.84	-	low
2,6-dimethyloct-7-en-2-ol	3.25	64.8	low
dipentene	4.57	-	high

12.4 Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

PBT : Not applicable.

vPvB : Not applicable.

12.6 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste : The classification of the product may meet the criteria for a hazardous waste.

European waste catalogue (EWC)

Waste code	Waste designation
16 03 05*	organic wastes containing dangerous substances

Packaging

Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

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SECTION 13: Disposal considerations

Special precautions : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	IMDG	IATA
14.1 UN number	UN3082	UN3082	UN3082
14.2 UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (benzyl benzoate, 1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (benzyl benzoate, 1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (benzyl benzoate, 1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one)
14.3 Transport hazard class(es)	9  	9  	9  
14.4 Packing group	III	III	III
14.5 Environmental hazards	Yes.	Marine pollutant	Yes.
Additional information	The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg. <u>Tunnel code</u> (E)	The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.	The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.

14.6 Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Not applicable.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorization

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

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SECTION 15: Regulatory information

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Product/ingredient name	Carcinogenic effects	Mutagenic effects	Developmental effects	Fertility effects
2-(4-tert-butylbenzyl) propionaldehyde	-	-	-	Repr. 2, H361f (Fertility)

Registration status

All components are listed : Australia inventory (AICS)
 China inventory (IECSC)
 Philippines inventory (PICCS)
 United States inventory (TSCA 8b)
 Europe inventory (EINECS/ELINCS/NLP)
 Canada inventory (DSL)

15.2 Chemical Safety Assessment : This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

✔ Indicates information that has changed from previously issued version.

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
 CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
 DMEL = Derived Minimal Effect Level
 DNEL = Derived No Effect Level
 EUH statement = CLP-specific Hazard statement
 PBT = Persistent, Bioaccumulative and Toxic
 PNEC = Predicted No Effect Concentration
 RRN = REACH Registration Number
 vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Acute Tox. 4, H302	Calculation method
Skin Irrit. 2, H315	Calculation method
Eye Irrit. 2, H319	Calculation method
Skin Sens. 1, H317	Calculation method
Repr. 2, H361f (Fertility)	Calculation method
STOT SE 2, H371	Calculation method
Aquatic Acute 1, H400	Calculation method
Aquatic Chronic 2, H411	Calculation method

Full text of abbreviated H statements : H226 Flammable liquid and vapor.
 H302 Harmful if swallowed.
 H304 May be fatal if swallowed and enters airways.
 H315 Causes skin irritation.
 H317 May cause an allergic skin reaction.
 H319 Causes serious eye irritation.
 H361f Suspected of damaging fertility.
 (Fertility)
 H371 May cause damage to organs.

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SECTION 16: Other information

H371 May cause damage to organs if swallowed. (spleen)
(spleen)
(oral)
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.

Full text of classifications [CLP/GHS] :

Acute Tox. 4, H302	ACUTE TOXICITY (oral) - Category 4
Aquatic Acute 1, H400	AQUATIC HAZARD (ACUTE) - Category 1
Aquatic Chronic 1, H410	AQUATIC HAZARD (LONG-TERM) - Category 1
Aquatic Chronic 2, H411	AQUATIC HAZARD (LONG-TERM) - Category 2
Asp. Tox. 1, H304	ASPIRATION HAZARD - Category 1
Eye Irrit. 2, H319	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
Flam. Liq. 3, H226	FLAMMABLE LIQUIDS - Category 3
Repr. 2, H361f (Fertility)	TOXIC TO REPRODUCTION (Fertility) - Category 2
Skin Irrit. 2, H315	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1, H317	SKIN SENSITIZATION - Category 1
Skin Sens. 1B, H317	SKIN SENSITIZATION - Category 1B
STOT SE 2, H371	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 2
STOT SE 2, H371 (spleen) (oral)	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (spleen) (oral) - Category 2

Full text of abbreviated R phrases :

R10- Flammable.
R62- Possible risk of impaired fertility.
R22- Harmful if swallowed.
R65- Harmful: may cause lung damage if swallowed.
R38- Irritating to skin.
R43- May cause sensitization by skin contact.
R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Full text of classifications [DSD/DPD] :

Repr. Cat. 3 - Toxic to reproduction category 3
Xn - Harmful
Xi - Irritant
N - Dangerous for the environment

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