# SAFETY DATA SHEET



## Fragrance 49428829

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

	1.1	Pro	oduc	t ide	ntifier
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Product code	: Fragrance 49428829
Product name	: SEA STONE AFL

### 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	- 1	www.rshm.gov.tr
<u>Supplier</u>		
Emergency telephone number (with hours of operation)	:	+49 89 74425 288 9h - 17h (Mo - Fr)

## **SECTION 2: Hazards identification**

2.1 Classification of the sub	stance or mixture
Product definition	: Mixture
Classification according to Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 STOT SE 2, H371	Regulation (EC) No. 1272/2008 [CLP/GHS]
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	: R43 N; R51/53
Human health hazards	: 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 tex	t of the R phrases or H statements declared above.

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

#### 2.2 Label elements

# FRAGRANCES

# **SECTION 2: Hazards identification**

Hazard pictograms	
Signal word	: Warning
Hazard statements	<ul> <li>H319 - Causes serious eye irritation.</li> <li>H315 - Causes skin irritation.</li> <li>H317 - May cause an allergic skin reaction.</li> <li>H371 - May cause damage to organs.</li> <li>H411 - Toxic to aquatic life with long lasting effects.</li> </ul>
Precautionary statements	
Prevention	<ul> <li>P280 - Wear protective gloves. Wear eye or face protection.</li> <li>P273 - Avoid release to the environment.</li> <li>P260 - Do not breathe vapor.</li> </ul>
Response	: P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Storage	: P405 - Store locked up.
Disposal	<ul> <li>P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.</li> </ul>
Hazardous ingredients	<ul> <li>Fenzyl salicylate         <ol> <li>1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one</li></ol></li></ul>
Supplemental label elements	: Not applicable.

2.3 Other hazards Other hazards which do : None known. not result in classification

# **SECTION 3: Composition/information on ingredients**

3.1	Substances	÷	Not applicable.
2 2	Mixturoc		Mixturo

3.2 WIXLUIES	. Mixture				
			Cla	ssification	
Product/ingredient name	Identifiers	%	67/548/EEC	Regulation (EC) No. 1272/2008 [CLP]	Туре
benzyl salicylate	REACH #: 01-2119969442-31 EC: 204-262-9 CAS: 118-58-1	15.00	R43 N; R51/53	Eye Irrit. 2, H319 Skin Sens. 1B, H317 STOT SE 2, H371 (spleen) (oral)	[1]
diethyl phthalate	REACH #: 01-2119486682-27 EC: 201-550-6	10.00	Not classified.	Not classified.	[2]
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# SECTION 3: Composition/information on ingredients

	CAS: 84-66-2				
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	6.00	Xi; R38 R43 N; R51/53	Skin Irrit. 2, H315 Skin Sens. 1B, H317 Aquatic Chronic 1, H410	[1]
	CAS: 68155-67-9				
linalool	REACH #: 01-2119474016-42 EC: 201-134-4 CAS: 78 70 6	3.23	Xi; R38	Skin Irrit. 2, H315 Eye Irrit. 2, H319	[1]
Oxacyclohexadecen- 2-one	REACH #: 01-0000016883-62 EC: 422-320-3 CAS: 34902-57-3 CAS: 111879-80-2 Index: 606-092-00-4	2.50	N; R50/53	Aquatic Acute 1, H400 Aquatic Chronic 1, H410	[1]
linalyl acetate	REACH #: 01-2119454789-19 EC: 204-116-4 CAS: 115-95-7	1.35	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	1.21	R10 Xn; R65 Xi; R38 R43 N; R50/53	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1B, H317 Asp. Tox. 1, H304 Aquatic Acute 1, H400 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	1.00	Xi; R38 R43 N; R50/53	Skin Sens. 1B, H317 Aquatic Acute 1, H400 Aquatic Chronic 2, H411	[1]
[3R-(3α,3aβ,7β,8aα)]-1 -(2,3,4,7,8,8a- hexahydro-3,6,8,8- tetramethyl-1H-3a,7- methanoazulen-5-yl) ethan-1-one	REACH #: 01-2119969651-28 EC: 251-020-3 CAS: 32388-55-9	1.00	R43 N; R50/53	Skin Sens. 1B, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	[1]
4-tert-butylcyclohexyl acetate	REACH #: 01-2119976286-24 EC: 250-954-9 CAS: 32210-23-4	1.00	R43 N; R51/53	Skin Sens. 1B, H317	[1]
(Z)-3-hexenyl salicylate	EC: 265-745-8 CAS: 65405-77-8	1.00	N; R50	Aquatic Acute 1, H400 Aquatic Chronic 1, H410	[1]
2-(4-tert-butylbenzyl)	REACH #:	0.50	Repr. Cat. 3; R62	Acute Tox. 4, H302	[1]
propionaldehyde	U1-2119485965-18 EC: 201-289-8 CAS: 80-54-6		Xn; R22 Xi; R38 R43 N; R51/53	Skin Irrit. 2, H315 Skin Sens. 1B, H317 Repr. 2, H361f (Fertility) Aquatic Chronic 2, H411	
2,6-di-tert-butyl-p- cresol	REACH #: 01-2119555270-46 EC: 204-881-4 CAS: 128-37-0	0.21	N; R50/53	Aquatic Acute 1, H400 Aquatic Chronic 1, H410	[1] [2]
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# **SECTION 3: Composition/information on ingredients**

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

<u>Туре</u>

[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.

Hydrocarbon. (Content) : 2.02%

## **SECTION 4: First aid measures**

4.1 Description of first aid mo	easures
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 following exposure or if feeling unwell. 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 following exposure or if feeling unwell. 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 sy	mptoms and effects, both acute and delayed
Potential acute healt	<u>h effects</u>
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	: Irritating to mouth, throat and stomach.



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	Fragrance 49428829	FRAGRANCES
<b>SECTION 4: First aid</b>	measures	
<u>Over-exposure signs/</u> symptoms	: Not available.	
4.3 Indication of any immedia	te medical attention and special treatment needed	
Notes to physician	: Treat symptomatically. Contact poison treatment special quantities have been ingested or inhaled.	ist immediately if large
Specific treatments	: No specific treatment.	
SECTION 5: Firefight	ing measures	
5.1 Extinguishing media		
Suitable extinguishing media	: Use an extinguishing agent suitable for the surrounding f	ire.
Unsuitable extinguishing media	: None known.	
5.2 Special hazards arising fr	om the substance or mixture	
Hazards from the substance or mixture	: In a fire or if heated, a pressure increase will occur and the This material is toxic to aquatic life with long lasting effect contaminated with this material must be contained and publicharged to any waterway, sewer or drain.	ne container may burst. ts. Fire water revented from being
Hazardous thermal decomposition products	: Decomposition products may include the following mater carbon dioxide carbon monoxide	ials:
5.3 Advice for firefighters		
Special protective actions for fire-fighters	: Promptly isolate the scene by removing all persons from there is a fire. No action shall be taken involving any per suitable training.	the vicinity of the incident if sonal risk or without
Special protective equipment for fire-fighters	: Fire-fighters should wear appropriate protective equipme breathing apparatus (SCBA) with a full face-piece operat mode. Clothing for fire-fighters (including helmets, protec conforming to European standard EN 469 will provide a b chemical incidents.	nt and self-contained ed in positive pressure ctive boots and gloves) pasic level of protection for
SECTION 6: Acciden	tal release measures	
6.1 Personal precautions, pro	otective equipment and emergency procedures	
For non-emergency personnel	: No action shall be taken involving any personal risk or wi Evacuate surrounding areas. Keep unnecessary and un entering. Do not touch or walk through spilled material. mist. Provide adequate ventilation. Wear appropriate re inadequate. Put on appropriate personal protective equip	thout suitable training. protected personnel from Avoid breathing vapor or spirator when ventilation is oment.

- 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** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused precautions 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.



## SECTION 6: Accidental release measures

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.
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. 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
E2: Hazardous to the aquatic environment - Chronic 2	200	500
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



# SECTION 8: Exposure controls/personal protection

Product/ingredient name	Exposure limit values
diethyl phthalate	NIOSH REL (United States, 10/2013). TWA: 5 mg/m³ 10 hours.
2,6-di-tert-butyl-p-cresol	NIOSH REL (United States, 10/2013). TWA: 10 mg/m³ 10 hours.

#### **DNELs/DMELs**

Product/ingredient name	Туре	Exposure	Value	Population	Effects
benzyl salicylate	DNEL	Long term Inhalation	3.17 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Dermal	0.9 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	0.78 mg/m³	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
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8, 8-tetramethyl-2-naphthyl)ethan- 1-one	DNEL	Long term Dermal	0.1011 mg/ cm²	Workers	Local
	DNEL	Long term Inhalation	1.76 mg/m³	Workers	Systemic
	DNEL	Long term Dermal	1.73 mg/ kg bw/day	Workers	Systemic
linalool	DNEL	Long term Dermal	2.5 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	2.8 mg/m³	Workers	Systemic
	DNEL	Long term Dermal	15 mg/cm <sup>2</sup>	Workers	Local
	DNEL	Short term Dermal	15 mg/cm <sup>2</sup>	Workers	Local
	DNEL	Long term Dermal	1.25 mg/ kg bw/day	Consumers	Systemic
	DNEL	Long term Inhalation	0.7 mg/m³	Consumers	Systemic
	DNEL	Long term Oral	0.2 mg/kg bw/day	Consumers	Systemic
	DNEL	Short term Dermal	15 mg/cm <sup>2</sup>	Consumers	Local
	DNEL	Short term Dermal	2.5 mg/cm <sup>2</sup>	Consumers	Systemic
	DNEL	Short term Inhalation	4.1 mg/m³	Consumers	Systemic
	DNEL	Short term Oral	1.2 mg/kg bw/day	Consumers	Systemic
	DNEL	Long term Dermal	15 mg/cm <sup>2</sup>	Consumers	Local
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		DNEL	Short term Dermal	5 mg/kg bw/day	Workers	Systemic
		DNEL	Short term Inhalation	16.5 mg/m³	Workers	Systemic
	linalyl acetate	DNEL	Long term Inhalation	2.75 mg/m³	Workers	Systemic
		DNEL	Long term Dermal	2.5 mg/kg bw/day	Workers	Systemic
		DNEL	Short term Dermal	8 mg/cm <sup>2</sup>	Workers	Local
		DNEL	Long term Inhalation	0.68 mg/m³	Consumers	Systemic
		DNEL	Long term Oral	0.2 mg/kg bw/day	Consumers	Systemic
		DNEL	Long term Dermal	1.25 mg/ kg bw/day	Consumers	Systemic
		DNEL	Short term Dermal	8 mg/m³	Consumers	Local
		DNEL	Long term Dermal	8 mg/cm <sup>2</sup>	Workers	Local
		DNEL	Long term Dermal	8 mg/cm <sup>2</sup>	Consumers	Local
	α-hexylcinnamaldehyde	DNEL	Short term Dermal	0.525 mg/ cm²	Workers	Local
		DNEL	Short term Inhalation	6.28 mg/m³	Workers	Local
		DNEL	Long term Dermal	18.2 mg/ kg bw/day	Workers	Systemic
		DNEL	Long term Inhalation	0.078 mg/ m³	Workers	Systemic
		DNEL	Long term Dermal	0.525 mg/ cm²	Workers	Local
		DNEL	Long term Inhalation	0.019 mg/ m³	Consumers	Systemic
		DNEL	Short term Inhalation	4.7 mg/m³	Consumers	Local
		DNEL	Long term Dermal	9 mg/kg bw/day	Consumers	Systemic
		DNEL	Long term Dermal	0.079 mg/ cm²	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
	[3R-(3α,3aβ,7β,8aα)]-1-(2,3,4,7,8,8a -hexahydro-3,6,8,8-tetramethyl-1H-3 a,7-methanoazulen-5-yl)ethan-1-one	DNEL	Long term Inhalation	1.175 mg/ m³	Workers	Systemic
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	DNEL	Long term Dermal	0.333 mg/	Workers	Systemic
			kg bw/day		
	DNEL	Long term Inhalation	0.289 mg/ m³	Consumers	Systemic
	DNEL	Long term Dermal	0.166 mg/ kg bw/day	Consumers	Systemic
	DNEL	Long term Oral	0.166 mg/ kg bw/day	Consumers	Systemic
2-(4-tert-butylbenzyl) propionaldehyde	DNEL	Long term Inhalation	0.44 mg/m³	Workers	Systemic
	DNEL	Short term Dermal	0.41 mg/ cm²	Workers	Local
	DNEL	Long term Dermal	2.075 mg/ kg	Workers	Systemic
	DNEL	Long term Inhalation	0.11 mg/m³	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/ cm²	Consumers	Local
2,6-di-tert-butyl-p-cresol	DNEL	Long term Inhalation	58 mg/m³	Workers	Systemic
	DNEL	Long term Inhalation	1.74 mg/m³	Consumers	Systemic
	DNEL	Long term Dermal	8.3 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	5 mg/kg bw/day	Consumers	Systemic

#### **PNECs**

Product/ingredient name	Compartment Detail	Value	Method Detail
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	-
	Secondary Poisoning	80 mg/kg	-
	Intermittent release	0.0103 mg/l	-
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8, 8-tetramethyl-2-naphthyl)ethan-1-one	Fresh water	0.0028 mg/l	-
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	Marine water	0.00028 mg/l	-
	Fresh water sediment	3.73 mg/kg	-
	Marine water sediment	0.75 mg/kg	-
	Soil	0.705 mg/kg	-
linalool	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	-
	Sewage Treatment Plant	>10 mg/l	-
linalyl acetate	Fresh water	0.011 mg/l	-
	Marine water	0.0011 mg/l	-
	Marine water sediment	0.0609 mg/kg	-
	Soil	0.115 mg/kg	-
	Sewage Treatment Plant	10 mg/l	-
	Intermittent release	0.11 mg/l	-
	Fresh water sediment	0.609 mg/kg	-
α-hexylcinnamaldehyde	Fresh water	3 mg/l	-
	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	-
[3R-(3α,3aβ,7β,8aα)]-1-(2,3,4,7,8,8a- hexahydro-3,6,8,8-tetramethyl-1H-3a,7- methanoazulen-5-yl)ethan-1-one	Fresh water sediment	24.4 mg/kg	-
	Fresh water	1.74 µg/l	-
	Sewage Treatment Plant	10 mg/l	-
	Soil	4.87 mg/kg dwt	-
	Marine water	0.174 µg/l	-
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	Marine water sediment	2.44 mg/kg	-
	Secondary Poisoning	8.6 µg/l	-
4-tert-butylcyclohexyl acetate	Fresh water	0.0053 mg/l	-
	Marine water	0.00053 mg/l	-
	Intermittent release	0.053 mg/l	-
	Fresh water sediment	2.01 mg/kg	-
	Marine water sediment	0.21 mg/kg	-
	Soil	0.42 mg/kg	-
2-(4-tert-butylbenzyl)propionaldehyde	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	-
	Sewage Treatment Plant	10 mg/l	-
2,6-di-tert-butyl-p-cresol	Soil	1.04 mg/kg wwt	Equilibrium Partitioning
	Sewage Treatment Plant	100 mg/l	Assessment Factors
	Sediment	1.29 mg/kg wwt	Equilibrium Partitioning
	Secondary Poisoning	16.7 mg/kg	Assessment Factors
	Marine water	0.4 µg/l	Assessment Factors
	Fresh water	4 µg/l	Assessment Factors

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 measu	ires	
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.
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		



# **SECTION 8: Exposure controls/personal 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	a	nd chemical properties	
<u>Appearance</u>			
Physical state	1	Liquid.	
Color	1	Characteristic.	
Odor	:	Characteristic.	
Odor threshold	:	Not available.	
рН	1	Not available.	
Melting point/freezing point	1	Not available.	
Initial boiling point and boiling range	:	Not available.	
Flash point	:	Closed cup: 97°C	
Evaporation rate	1	Not available.	
Upper/lower flammability or explosive limits	:	Not available.	
Vapor pressure	:	0.09 hPa	
Vapor density	:	Not available.	
Density	:	1.019 to 1.029 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 cm <sup>2</sup> /s	(Estimated.)
Explosive properties	:	Not available.	
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 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	-
linalool	LD50 Dermal	Rabbit	5610 mg/kg	-
	LD50 Dermal	Rat	5610 mg/kg	-
	LD50 Oral	Rat	2790 mg/kg	-
Oxacyclohexadecen-2-one	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	>2000 mg/kg	-
linalyl acetate	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	13934 mg/kg	-
dipentene	LD50 Oral	Rat	5300 mg/kg	-
α-hexylcinnamaldehyde	LC50 Inhalation Dusts and mists	Rat	>2100 mg/m³	8 hours
	LD50 Oral	Rat	3100 mg/kg	-
[3R-(3α,3aβ,7β,8aα)]-1-(2,3, 4,7,8,8a-hexahydro-3,6,8,8- tetramethyl-1H-3a,7- methanoazulen-5-yl)ethan-1 -one	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	4500 mg/kg	-
4-tert-butylcyclohexyl acetate	LD50 Dermal	Rabbit	>5000 mg/kg	-
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# **SECTION 11: Toxicological information**

	LD50 Oral	Rat	3550 mg/kg	-	
(Z)-3-hexenyl salicylate	LD50 Dermal	Rabbit	>5 g/kg	-	
2-(4-tert-butylbenzyl) propionaldehyde	LD50 Dermal	Rabbit	>5000 mg/kg	-	
	LD50 Oral	Rat	1390 mg/kg	-	
2,6-di-tert-butyl-p-cresol	LD50 Dermal	Rat	>5000 mg/kg	-	
	LD50 Oral	Rat	>5000 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	-	-	-
linalool	Eyes - Moderate irritant	Rabbit	-	1 hours 0.1 Mililiters	-
	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	-
linalyl acetate	Skin - Moderate irritant	Guinea pig	-	24 hours 100 milligrams	-
	Skin - Severe irritant	Rabbit	-	24 hours 100 milligrams	-
2-(4-tert-butylbenzyl) propionaldehyde	Skin - Moderate irritant	Rabbit	-	24 hours 500 milligrams	-

### **Sensitization**

Product/ingredient name	Route of exposure	Species	Result
1-(1,2,3,4,5,6,7,8-octahydro- 2,3,8,8-tetramethyl- 2-naphthyl)ethan-1-one	skin	Mouse	Sensitizing
$\alpha$ -hexylcinnamaldehyde	skin	Mouse	Sensitizing
2-(4-tert-butylbenzyl) propionaldehyde	skin	Mouse	Sensitizing
	skin	Human	Sensitizing

**Mutagenicity** 



# FRAGRANCES

# **SECTION 11: Toxicological information**

Product/ingredient name	Test	Experiment	Result
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	Negative
		Subject: Bacteria	
	OECD 474 Mammalian Erythrocyte Micronucleus Test	Experiment: In vivo	Negative
		Subject: Mammalian-Animal	
2,6-di-tert-butyl-p-cresol	-	Experiment: In vitro Subject: Bacteria	Negative
	-	Experiment: In vitro Subject: Mammalian-Animal	Negative
	-	Experiment: In vivo Subject: Mammalian-Animal	Negative

#### **Reproductive toxicity**

Product/ingredient name	Maternal toxicity	Fertility	Development toxin	Species	Dose	Exposure
2-(4-tert-butylbenzyl) propionaldehyde	-	Positive	-	Dog - Male	Oral	-
2,6-di-tert-butyl-p-cresol	Negative	-	-	Rat - Male, Female	Oral: 100 mg/kg	-

#### 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	: 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 : No specific data. Skin contact Adverse symptoms may include the following: ÷. irritation redness : 2015-04-28. Date of printing



# SECTION 11: Toxicological information

Ingestion	: No specific data.			
Delayed and immediate effect	cts and also chronic effects f	rom short and	long term exposure	<u>e</u>
<u>Short term exposure</u>				
Potential immediate effects	: Not available.			
Potential delayed effects	: Not available.			
<u>Long term exposure</u>				
Potential immediate effects	: Not available.			
Potential delayed effects	: Not available.			
Potential chronic health eff	ects			
Product/ingredient name	Result	Species	Dose	Exposure
α-hexylcinnamaldehyde	Sub-acute NOAEL Oral	Rat	150 mg/kg	-
	Sub-acute LOAEL Dermal	Rat	125 mg/kg	-
2,6-di-tert-butyl-p-cresol	Chronic NOAEL Oral	Rat	25 mg/kg	28 days; 7 days per week
General	: Once sensitized, a severe to very low levels.	allergic reaction	may occur when su	ibsequently exposed
Carcinogenicity	: No known significant effec	ts or critical haza	ards.	
Mutagenicity	: No known significant effec	ts or critical haza	ards.	
Teratogenicity	: No known significant effec	ts or critical haza	ards.	
Developmental effects	: No known significant effec	ts or critical haza	ards.	
Fertility effects	: No known significant effec	ts or critical haza	ards.	
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
penzyl salicylate	EC50 1.29 mg/l	Algae - Pseudokirchnerella subcapitata	72 hours
	Acute EC50 1.16 mg/l	Daphnia - Daphnia magna	48 hours
	Acute LC50 1.03 mg/l	Fish - Danio rerio	96 hours
1-(1,2,3,4,5,6,7,8-octahydro- 2,3,8,8-tetramethyl- 2-naphthyl)ethan-1-one	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
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# **SECTION 12: Ecological information**



Lenon 12. Leologi			
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
Oxacyclohexadecen-2-one	Acute EC50 >0.96 mg/l	Daphnia	48 hours
	Acute LC50 >0.8 mg/l	Fish	96 hours
linalyl acetate	Acute EC50 15 mg/l	Daphnia	48 hours
	Acute LC50 11 mg/l	Fish	96 hours
	Chronic NOEC 9.6 mg/l	Algae	72 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
α-hexylcinnamaldehyde	Acute EC50 0.247 mg/l	Daphnia	48 hours
	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
3R-(3α,3aβ,7β,8aα)]-1-(2,3, 4,7,8,8a-hexahydro-3,6,8,8- etramethyl-1H-3a,7- nethanoazulen-5-yl)ethan-1- one	Acute EC50 >4.3 mg/l	Algae	96 hours
	Acute EC50 0.86 mg/l	Daphnia	48 hours
	Acute LC50 2.3 mg/l	Fish	96 hours
4-tert-butylcyclohexyl acetate	Acute EC50 5.3 mg/l	Daphnia	48 hours
	Acute LC50 8.6 mg/l	Fish	96 hours
(Z)-3-hexenyl salicylate	Acute EC50 0.61 mg/l	Algae	72 hours
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
2,6-di-tert-butyl-p-cresol	Acute EC50 0.61 mg/l	Daphnia	48 hours
	Acute EC50 >10000 mg/l	Micro-organism	3 hours
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# **SECTION 12: Ecological information**

## 12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
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	-	-
linalool	OECD 301C Ready Biodegradability - Modified MITI Test (I)	64.2 % - Readily - 28 days	-	-
Oxacyclohexadecen-2-one	OECD 301F Ready Biodegradability - Manometric Respirometry Test	97 % - Readily - 28 days	-	-
linalyl acetate	OECD 301F Ready Biodegradability - Manometric Respirometry Test	75 % - Readily - 28 days	-	-
α-hexylcinnamaldehyde	OECD 301F Ready Biodegradability - Manometric Respirometry Test	97 % - Readily - 28 days	-	-
[3R-(3α,3aβ,7β,8aα)]-1-(2,3, 4,7,8,8a-hexahydro-3,6,8,8- tetramethyl-1H-3a,7- methanoazulen-5-yl)ethan-1- one	OECD 301B Ready Biodegradability - CO <sub>2</sub> Evolution Test	5.1 % - Not readily - 28 days	-	-
4-tert-butylcyclohexyl acetate	OECD 301B Ready Biodegradability - CO <sub>2</sub> Evolution Test	75 % - Readily - 28 days	-	-
(Z)-3-hexenyl salicylate	OECD 301F Ready Biodegradability - Manometric Respirometry Test	89 % - Readily - 28 days	-	-
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# **SECTION 12: Ecological information**

Ŭ						
2-(4-tert-butylbenzyl) propionaldehyde	OECD 301F Ready Biodegradability - Manometric Respirometry Test	84 % - Rea	idily - 28 days	-		Activated sludge
Product/ingredient name	Aquatic half-life		Photolysis		Biodeg	radability
benzyl salicylate	-		-		Readily	
1-(1,2,3,4,5,6,7,8-octahydro- 2,3,8,8-tetramethyl- 2-naphthyl)ethan-1-one	-		-		Not rea	dily
linalool	-		-		Readily	
Oxacyclohexadecen-2-one	-		-		Readily	
linalyl acetate	-		-		Readily	
α-hexylcinnamaldehyde	-		-		Readily	
[3R-(3α,3aβ,7β,8aα)]-1-(2,3, 4,7,8,8a-hexahydro-3,6,8,8- tetramethyl-1H-3a,7- methanoazulen-5-yl)ethan-1- one	-		-		Not rea	dily
4-tert-butylcyclohexyl acetate	-		-		Readily	
(Z)-3-hexenyl salicylate	-		-		Readily	
2-(4-tert-butylbenzyl) propionaldehyde	-		-		Readily	
2,6-di-tert-butyl-p-cresol	-		-		Not rea	dily

## 12.3 Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
penzyl 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
linalool	2.84	-	low
Oxacyclohexadecen-2-one	5.45	-	high
linalyl acetate	3.9	173.9	low
dipentene	4.57	-	high
$\alpha$ -hexylcinnamaldehyde	5.3	6000	high
[3R-(3α,3aβ,7β,8aα)]-1-(2,3, 4,7,8,8a-hexahydro-3,6,8,8- tetramethyl-1H-3a,7- methanoazulen-5-yl)ethan-1- one	-	3920	high
4-tert-butylcyclohexyl acetate	4.8	334.6	low
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# **SECTION 12: Ecological information**

(Z)-3-hexenyl salicylate	4.8	-	high
2-(4-tert-butylbenzyl) propionaldehyde	4.2	349.8	low
2,6-di-tert-butyl-p-cresol	4.17	330 to 1800	high

12.4 Mobility in soil	
Soil/water partition coefficient (Koc)	: 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 bazardous 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.
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	ΙΑΤΑ
14.1 UN number	UN3082	UN3082	UN3082
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## SECTION 14: Transport information

14.2 UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (1-(1,2,3,4,5,6, 7,8-octahydro-2,3,8, 8-tetramethyl-2-naphthyl)ethan- 1-one, Oxacyclohexadecen- 2-one)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (1-(1,2,3,4,5,6, 7,8-octahydro-2,3,8, 8-tetramethyl-2-naphthyl)ethan- 1-one, Oxacyclohexadecen- 2-one)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (1-(1,2,3,4,5, 6,7,8-octahydro-2,3,8, 8-tetramethyl-2-naphthyl) ethan-1-one, Oxacyclohexadecen-2-one)
14.3 Transport hazard class(es)	9	9	9
14.4 Packing group	111	Ш	111
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. Tunnel code (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.

user

**14.6 Special precautions for** : **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 : Not applicable. according to Annex II of MARPOL 73/78 and the IBC Code

## 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.

Annex XVII - Restrictions : Not applicable.

on the manufacture,

placing on the market

## and use of certain

dangerous substances,

mixtures and articles

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

#### **Registration status**



# **SECTION 15: Regulatory information**

15.2 Chemical Safety Assessment	: This product contains substances for which Chemical Safety Assessments are still required.
	At least one component is not listed in DSL but all such components are listed in NDSL.
	Canada inventory (DSL/NDSL)
	Europe inventory (EINECS/ELINCS/ NLP)
All components are listed	: United States inventory (TSCA 8b)

## **SECTION 16: Other information**

Indicates information that has changed from previously issued version.

Abbreviations and acronyms	<ul> <li>ATE = Acute Toxicity Estimate</li> <li>CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]</li> <li>DMEL = Derived Minimal Effect Level</li> </ul>
	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]

Class	ification	Justificat	ion
Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 STOT SE 2, H371 Aquatic Chronic 2, H411		Calculation method Calculation method Calculation method Calculation method Calculation method	
Full text of abbreviated H statements	: H226 Flammable liqui H302 Harmful if swalld H304 May be fatal if sv H315 Causes skin irrit H317 May cause an a H319 Causes serious H361f Suspected of da (Fertility) H371 May cause dam H371 May cause dam (spleen) (oral) H400 Very toxic to aqu H410 Very toxic to aqu H411 Toxic to aquatic	d and vapor. bwed. wallowed and enters airways. cation. llergic skin reaction. eye irritation. amaging fertility. age to organs. age to organs if swallowed. (splea uatic life. uatic life. uatic life with long lasting effects. life with long lasting effects.	en)
Full text of classifications [CLP/GHS]	: Acute Tox. 4, H302 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 Aquatic Chronic 2, H411 Asp. Tox. 1, H304 Eye Irrit. 2, H319 Flam. Liq. 3, H226 Repr. 2, H361f (Fertility) Skin Irrit. 2, H315 Skin Sens. 1, H317 Skin Sens. 1B, H317 STOT SE 2, H371	ACUTE TOXICITY (oral) - Categ AQUATIC HAZARD (ACUTE) - ( AQUATIC HAZARD (LONG-TER AQUATIC HAZARD (LONG-TER AQUATIC HAZARD (LONG-TER ASPIRATION HAZARD - Catego SERIOUS EYE DAMAGE/ EYE FLAMMABLE LIQUIDS - Catego TOXIC TO REPRODUCTION (F SKIN CORROSION/IRRITATION SKIN SENSITIZATION - Catego SKIN SENSITIZATION - Catego SPECIFIC TARGET ORGAN TO EXPOSURE) - Category 2	gory 4 Category 1 RM) - Category 1 RM) - Category 2 ory 1 IRRITATION - Category 2 ory 3 Fertility) - Category 2 N - Category 2 ory 1 ory 1 DXICITY (SINGLE
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## **SECTION 16: Other information**

		STOT SE 2, H371 (spleen) (oral)	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (spleen) (oral) - Category 2	
Full text of abbreviated R phrases	:	<ul> <li>R10- Flammable.</li> <li>R62- Possible risk of impaired fertility.</li> <li>R22- Harmful if swallowed.</li> <li>R65- Harmful: may cause lung damage if swallowed.</li> <li>R38- Irritating to skin.</li> <li>R43- May cause sensitization by skin contact.</li> <li>R50- Very toxic to aquatic organisms.</li> <li>R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.</li> <li>R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.</li> </ul>		
Full text of classifications [DSD/DPD]	:	Repr. Cat. 3 - Toxic to rep Xn - Harmful Xi - Irritant N - Dangerous for the env	production category 3 vironment	
Date of printing	:	2015-06-03.		
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Version	:	1.02		
Notice to reader				

To the best of our knowledge, the information contained herein is accurate. However, neither the abovenamed supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

