

**SECTION 1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

**1.1. Product identifier**

Product name : POOL REFRESH  
Product code : 755558004009

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

Application : SU21 Consumer product. PC0 Other. Pool and spa maintenance.

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

Supplier : inSPAration Europe  
Burgemeester Magneestraat 55  
5571 HC Bergeijk, The Netherlands

Manufacturer : inSPAration Inc.  
11950 Hertz Ave.  
Moorpark, United States of America

Telephone : +1-805.553.0820

**1.4. Emergency telephone number**

EMERGENCY TELEPHONE NUMBER, for DOCTORS/FIRE BRIGADE/POLICE only:

NL - Telephone : (24/7)

**SECTION 2 HAZARDS IDENTIFICATION**

**2.1. Classification of the substance or mixture**

CLP classification : Hazardous to the aquatic environment — Chronic category 3.  
(1272/2008/EC)

Human health hazards : May produce an allergic reaction.  
Physical/chemical hazards : Not classified as dangerous according to statutory EC-Directives. Combustible.  
Environmental hazards : Harmful to aquatic life with long lasting effects.

**2.2. Label elements**

Label elements (1272/2008/EC):

Hazard pictograms : None.

Signal word : Not applicable.

H- and P-phrases : H412 Harmful to aquatic life with long lasting effects.  
EUH208 Contains ... May produce an allergic reaction. Reference is made to additional labelling for full text of EUH208\*.  
P501 Dispose of contents/container to an official chemical waste depot.  
P273 Avoid release to the environment.

Labelling of packagings where the contents do not exceed 125 ml and it is technically impossible to list all phrases:

Hazard pictograms : None.

Signal word : Not applicable.

H- and P-phrases : H412 Harmful to aquatic life with long lasting effects.  
EUH208 Contains ... May produce an allergic reaction. Reference is made to additional labelling for full text of EUH208\*.

Additional labelling (for all packaging sizes)

: \* Contains Benzyl salicylate ; 3,7-Dimethyloctan-3-ol ; alpha-Hexylcinnamaldehyde ; Hexyl salicylate ; Alpha-Amylcinnamaldehyde ; Citronellol ; 1-(2,6,6-Trimethyl-3-cyclohexen-1-yl)-2-buten-1-one . May produce an allergic reaction.

### 2.3. Other hazards

Other information : Does not contain PBT or vPvB substances.

## SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

### 3.2. Mixtures

Product description : Mixture.

Information on hazardous substances:

Substance name	Concentration (w/w) (%)	CAS nr.	EC number	Remark	REACH nr.
Propyleneglycol	> 75	57-55-6	200-338-0	MAC	01-2119456809-23
Benzyl salicylate	0,1 - < 1	118-58-1	204-262-9		
Benzyl acetate	0,1 - < 1	140-11-4	205-399-7		
Diethyl phthalate	0,1 - < 1	84-66-2	201-550-6	MAC	
1,3,4,6,7,8-Hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran	0,25 - < 1	1222-05-5	214-946-9		
2-Phenoxyethanol	0,1 - < 1	122-99-6	204-589-7		
3,7-Dimethyloctan-3-ol	0,1 - < 1	78-69-3	201-133-9		
alpha-Hexylcinnamaldehyde	0,1 - < 1	101-86-0	202-983-3		
Hexyl salicylate	0,1 - < 0,25	6259-76-3	228-408-6		
2-Benzylideneheptanal	0,1 - < 1	122-40-7	204-541-5		
Citronellol	0,1 - < 1	106-22-9	203-375-0		
1-(2,6,6-Trimethyl-3-cyclohexen-1-yl)-2-buten-1-one	0,01 - < 0,1	57378-68-4	260-709-8		

Substance name	Hazard Class	H-phrases	Pictograms	
Propyleneglycol	-----	-----	-----	
Benzyl salicylate	Aquatic Chronic 3; Eye Irrit. 2; Skin Sens. 1	H317; H319; H412	GHS07; GHS09	
Benzyl acetate	Aquatic Chronic 3	H412	-----	
Diethyl phthalate	-----	-----	-----	
1,3,4,6,7,8-Hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran	Aquatic Acute 1; Aquatic Chronic 1	H400; H410	GHS09	M (chronic) = 1
2-Phenoxyethanol	Acute Tox. 4; Eye Irrit. 2	H302; H319	GHS07	
3,7-Dimethyloctan-3-ol	Eye Irrit. 2; Skin Irrit. 2; Skin Sens. 1B	H315; H317; H319	GHS07	
alpha-Hexylcinnamaldehyde	Aquatic Acute 1; Aquatic Chronic 2; Skin Sens. 1B	H317; H400; H411	GHS07; GHS09	M (acute) = 1
Hexyl salicylate	Aquatic Acute 1; Aquatic Chronic 1; Skin Irrit. 2; Skin Sens. 1B	H315; H317; H400; H410	GHS07; GHS09	M (acute) = 1 M (chronic) = 1
2-Benzylideneheptanal	Aquatic Chronic 2; Skin Sens. 1	H317; H411	GHS07; GHS09	
Citronellol	Eye Irrit. 2; Skin Irrit. 2; Skin Sens. 1B	H315; H317; H319	GHS07	

1-(2,6,6-Trimethyl-3-cyclohexen-1-yl)-2-buten-1-one	Acute Tox. 4; Aquatic Acute 1; Aquatic Chronic 1; Skin Irrit. 2; Skin Sens. 1A	H302; H315; H317; H400; H410	GHS07	M (acute) = 1 M (chronic) = 1
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Occupational exposure limit(s), if relevant, are listed in section 8.

Reference is made to chapter 16 for full text of each relevant H phrase.

## SECTION 4 FIRST-AID MEASURES

### 4.1. Description of first aid measures

First aid measures

- Inhalation : Move victim into fresh air. Consult a doctor if victim feels unwell.
- Skin contact : Take off contaminated clothing. Wash off skin with plenty of water and soap before product dries up. Consult a doctor if irritation occurs.
- Eye contact : Wash out with (lukewarm) water. Remove contact lenses. Consult a doctor if irritation persists.
- Ingestion : Do not induce vomiting. Do rinse the mouth. Give one glass of water. Never give anything by mouth to an unconscious person. Consult a doctor if victim feels unwell.

### 4.2. Most important symptoms and effects, both acute and delayed

Effects and symptoms

- Inhalation : May cause headache, dizziness and a feeling of sickness.
- Skin contact : May produce an allergic reaction. May cause dry skin.
- Eye contact : May cause stinging of eyes and redness.
- Ingestion : May cause a feeling of sickness, vomiting and diarrhoea.

### 4.3. Indication of any immediate medical attention and special treatment needed

Note to physicians : None known.

## SECTION 5 FIRE-FIGHTING MEASURES

### 5.1. Extinguishing media

Extinguishing media

- Suitable : Carbondioxide (CO2). Alcohol resistant foam. Dry chemical. Water fog.
- Not suitable : None known.

### 5.2. Special hazards arising from the substance or mixture

- Special exposure hazards : None known.
- Hazardous thermal decomposition products : Carbon monoxide may be evolved if incomplete combustion occurs.

### 5.3. Advice for firefighters

Special protective equipment for fire-fighters : Use adequate respiratory equipment in case of insufficient ventilation.

## SECTION 6 ACCIDENTAL RELEASE MEASURES

### 6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions : Danger of slipping. Clean up spills immediately. Wear shoes with non-slip soles. Avoid contact with spilled or released material. Vapours are heavier than air. Build up (of gasses) in low areas involves risk of suffocation.

### 6.2. Environmental precautions

Environmental precautions : Avoid release of product into sewers, surface water and/or ground water. In case of large spills: contain with dike. Waste product should not be allowed to contaminate soil or water.  
Other information : Notify authorities if any exposure to the general public or the environment occurs or is likely to occur.

### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Collect spilled material in containers. Absorb residues in sand or other inert material. Dispose at an authorised waste collection point. Wash away remainder with plenty of water and soap.

### 6.4. Reference to other sections

Reference to other sections : See also section 8.

## SECTION 7 HANDLING AND STORAGE

### 7.1. Precautions for safe handling

Handling : Handle in accordance with good occupational hygiene and safety practices in well-ventilated areas. Keep away from sources of ignition — No smoking. Do not breathe vapour. Avoid contact with skin and eyes. Avoid splashing. Wear protective clothing.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage : Keep in a cool, dry and well-ventilated place (< 35 °C). Keep away from oxidizing agents.  
Recommended packaging : Keep only in the original container.  
Non recommended packaging : None known.

### 7.3. Specific end use(s)

Use : Use only as directed.

## SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

Occupational exposure limits : Occupational exposure limits have not been established for this product. Derived no-effect levels (DNEL) have not been established for this product. Predicted no-effect concentrations (PNEC) have not been established for this product.

Workplace exposure limits (mg/m<sup>3</sup>):

Chemical name	Country	TWA 8 hour (mg/m <sup>3</sup> )	STEL 15 min (mg/m <sup>3</sup> )	Comments	Source
Propyleneglycol	GB	474	-	Total Vapour and Particulates	MAC: UK
Propyleneglycol		474		Total Vapour and Particulates	
Benzyl acetate		5	-		MAC: LT
Diethyl phthalate	GB	5	10		MAC: EU Member States MAC: DE, CH
Diethyl phthalate		5	-		
2-Phenoxyethanol		110	220		

Derived no-effect level (DNEL) for workers:

Chemical name	Route of exposure	DNEL, short-term		DNEL, long-term	
		Local effect	Systemic effect	Local effect	Systemic effect
Propyleneglycol	Inhalation			10 mg/m3	168 mg/m3
Benzyl salicylate	Inhalation				3,17 mg/m3
	Dermal				0,9 mg/kg bw/day
Benzyl acetate	Inhalation		43,8 mg/m3		21,9 mg/m3
	Dermal		12,5 mg/kg bw		6,25 mg/kg bw/day
Diethyl phthalate	Dermal	0,017 mg/kg bw	7,5 mg/kg bw	0,0084 mg/kg bw/day	1,5 mg/kg bw/day
	Inhalation	52,8 mg/m3	52,8 mg/m3	10,56 mg/m3	10,56 mg/m3
1,3,4,6,7,8-Hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran	Dermal				28,85 mg/kg bw/day
	Inhalation				5,29 mg/m3
2-Phenoxyethanol	Dermal				34,72 mg/kg bw/day
	Inhalation			8,07 mg/m3	8,07 mg/m3
3,7-Dimethyloctan-3-ol	Inhalation				2,75 mg/m3
	Dermal				2,5 mg/kg bw/day
alpha-Hexylcinnamaldehyde	Inhalation	6,28 mg/m3			0,078 mg/m3
	Dermal	0,525 mg/kg bw		0,525 mg/kg bw/day	18,2 mg/kg bw/day
Hexyl salicylate	Dermal		2083 mg/kg bw		2083 mg/kg bw/day
	Inhalation		0,729 mg/m3		0,729 mg/m3
Citronellol	Inhalation				161,6 mg/m3
	Dermal				45,8 mg/kg bw/day

Derived no-effect level (DNEL) for consumers:

Chemical name	Route of exposure	DNEL, short-term		DNEL, long-term	
		Local effect	Systemic effect	Local effect	Systemic effect
Propyleneglycol	Inhalation			10 mg/m3	50 mg/m3
Benzyl salicylate	Inhalation				0,78 mg/m3
	Dermal				0,45 mg/kg bw/day
	Oral				0,45 mg/kg bw/day
Benzyl acetate	Inhalation		11 mg/m3		5,5 mg/m3
	Dermal		6,25 mg/kg bw		3,125 mg/kg bw/day
	Oral		6,25 mg/kg bw		3,125 mg/kg bw/day
Diethyl phthalate	Dermal	0,0084 mg/kg bw	3,75 mg/kg bw	0,0042 mg/kg bw/day	0,75 mg/kg bw/day
	Inhalation	13 mg/m3	13 mg/m3	2,6 mg/m3	2,6 mg/m3
	Oral		3,75 mg/kg bw		0,75 mg/kg bw/day
1,3,4,6,7,8-Hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran	Dermal				14,43 mg/kg bw/day
	Inhalation				1,3 mg/m3
	Oral				0,75 mg/kg bw/day
2-Phenoxyethanol	Oral		17,43 mg/kg bw		17,43 mg/kg bw/day
	Dermal				20,83 mg/kg bw/day
	Inhalation				2,41 mg/m3
3,7-Dimethyloctan-3-ol	Inhalation				0,68 mg/m3
	Dermal				1,25 mg/kg bw/day
	Oral				0,2 mg/kg bw/day
alpha-Hexylcinnamaldehyde	Inhalation	4,71 mg/m3			0,019 mg/m3
	Dermal	0,0787 mg/kg bw		0,0787 mg/kg bw/day	9,11 mg/kg bw/day

Hexyl salicylate	Oral			0,056 mg/kg bw/day
	Dermal		1250 mg/kg bw	1250 mg/kg bw/day
	Inhalation		0,219 mg/m3	0,219 mg/m3
	Oral		0,0625 mg/kg bw	0,0625 mg/kg bw/day
Citronellol	Inhalation			47,8 mg/m3
	Dermal			27,5 mg/kg bw/day
	Oral			13,75 mg/kg bw/day

Predicted no-effect concentration (PNEC):

Chemical name	Route of exposure	Fresh water	Marine water	
Propyleneglycol	Water	260 mg/l	26 mg/l	
	Sediment	572 mg/kg	57,2 mg/kg	
	Intermittent water			183 mg/l
	STP			20000 mg/l
	Soil			50 mg/kg
Benzyl salicylate	Oral			1133 mg/kg food
	Water	0,00103 mg/l	0,00010 mg/l	
	Sediment	0,583 mg/kg	0,0583 mg/kg	
	Intermittent water			0,01030 mg/l
	STP			10 mg/l
Benzyl acetate	Soil			0,116 mg/kg
	Oral			80 mg/kg food
	Water	0,004 mg/l	0,0004 mg/l	
	Sediment	0,114 mg/kg	0,0114 mg/kg	
	Intermittent water			0,04 mg/l
Diethyl phthalate	STP			8,55 mg/l
	Soil			0,0205 mg/kg
	Water	0,012 mg/l	0,0012 mg/l	
	Sediment	0,137 mg/kg	0,0137 mg/kg	
	Intermittent water			0,12 mg/l
1,3,4,6,7,8-Hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran	STP			2 mg/l
	Soil			0,137 mg/kg
	Oral			33 mg/kg food
	Water	0,0044 mg/l	0,0004 mg/l	
	Sediment	2 mg/kg	0,394 mg/kg	
2-Phenoxyethanol	Intermittent water			0,047 mg/l
	STP			1 mg/l
	Soil			0,31 mg/kg
	Oral			3,3 mg/kg food
	Water	0,943 mg/l	0,0943 mg/l	
3,7-Dimethyloctan-3-ol	Sediment	7,2366 mg/kg	0,7237 mg/kg	
	Intermittent water			3,44 mg/l
	STP			24,8 mg/l
	Soil			1,26 mg/kg
	Water	0,0089 mg/l	0,00089 mg/l	
alpha-Hexylcinnamaldehyde	Sediment	0,0821 mg/kg	0,00821 mg/kg	
	Intermittent water			0,089 mg/l
	STP			450 mg/l
	Soil			0,0112 mg/kg
	Water	0,03 mg/l	0,003 mg/l	
	Sediment	47,7 mg/kg	4,77 mg/kg	
	Intermittent water			0,03 mg/l
	STP			10 mg/l
	Soil			9,51 mg/kg

Hexyl salicylate	Oral			6,6 mg/kg food
	Water	0,000357 mg/l	0,0001 mg/l	
	Sediment	0,272 mg/kg	0,0272 mg/kg	
	Intermittent water			0,0036 mg/l
Citronellol	STP			10 mg/l
	Soil			0,0542 mg/kg
	Water	0,0024 mg/l	0,00024 mg/l	
	Sediment	0,0256 mg/kg	0,00256 mg/kg	
	Intermittent water			0,024 mg/l
	STP			580 mg/l
	Soil			0,00371 mg/kg

## 8.2. Exposure controls

Engineering measures : Use only in well-ventilated areas. Comply with standard precautionary measures for working with chemicals.

Hygienic measures : When using do not eat, drink or smoke.

Personal protective equipment:

The efficiency of personal protective equipment depends among other things on temperature and degree of ventilation. Always get professional advice for the particular local situation.

Body protection : Use of specific protective industrial clothing is not required under normal conditions of use. In case of large scale exposure wear suitable protective clothing, overalls or suit, and similar boots. Suitable material: nitril. Indication of permeation breakthrough time: 6 hours.

Respiratory protection : Take care of sufficient ventilation. Wear suitable respiratory protection in case of large scale exposure. Suitable: gas filter type A (brown), class I or higher on e.g. a facemask in accordance with EN 140.

Hand protection : Under normal conditions of use specific gloves are not required. Wear appropriate gloves in case of frequent or prolonged use and in case of large scale exposure. Suitable material: nitril. ± 0,5 mm. Indication of permeation breakthrough time: 6 hours.

Eye protection : Wear appropriate safety glasses when there is danger of possible eye contact.

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

Appearance	: Liquid.	
Colour	: Blue-green.	
Odour	: Perfumed.	
Odour threshold	: Not known.	
pH	: 7	
Solubility in water	: Soluble.	
Partition coefficient (n-octanol/water)	: Not known.	Not measured. Not relevant for mixtures.
Flash point	: 99 °C	Closed cup.
Flammability (solid, gas)	: Not applicable.	Liquid. See flashpoint.
Auto ignition temperature	: 371 °C	
Boiling point/boiling range	: 188 °C	
Melting point/melting range	: -59 °C	
Explosive properties	: None known.	Does not contain explosives.
Explosion limits (% in air)	: 2,6 - 12,6	
Oxidising properties	: Not applicable.	Does not contain oxidizing substances.
Decomposition temperature	: Not applicable.	
Viscosity (20°C)	: 43 mm <sup>2</sup> /sec	(1 mm <sup>2</sup> /sec = 1cSt)
Viscosity (40°C)	: > 20,5 mm <sup>2</sup> /sec	
Vapour pressure (20°C)	: 20 Pa	

Vapour density (20°C) : > 1 (air = 1)  
Relative density (20°C) : 1,035 g/ml  
Evaporation rate : Not known. (n-butyl acetate = 1)

## 9.2. Other information

Other information : Not relevant.

## SECTION 10 STABILITY AND REACTIVITY

### 10.1. Reactivity

Reactivity : See sub-sections below.

### 10.2. Chemical stability

Stability : Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

Reactivity : No other hazardous reactions known.

### 10.4. Conditions to avoid

Conditions to avoid : See section 7.

### 10.5. Incompatible materials

Materials to avoid : Keep away from oxidizing agents.

### 10.6. Hazardous decomposition products

Hazardous decomposition products : Not known.

## SECTION 11 TOXICOLOGICAL INFORMATION

### 11.1. Information on toxicological effects

No toxicological research has been carried out on this product.

#### Inhalation

Acute toxicity : Calculated LC50: > 10 mg/l. Ingredients of unknown toxicity: < 1 %. ATE: > 5 mg/l. Low toxicity. Not classified - based on available data, the classification criteria are not met. May cause headache, dizziness and a feeling of sickness.

Corrosion/irritation : Not classified - based on available data, the classification criteria are not met.

Sensitisation : Does not contain substances classified as respiratory sensitiser. Not classified - based on available data, the classification criteria are not met.

Carcinogenicity : Not expected to be carcinogenic. Not classified - based on available data, the classification criteria are not met.

Mutagenicity : Not expected to be mutagenic. Not classified - based on available data, the classification criteria are not met.

#### Skin contact

Acute toxicity : Calculated LD50: > 5000 mg/kg.bw. Ingredients of unknown toxicity: < 1 %. ATE: > 2000 mg/kg.bw. Low toxicity. Not classified - based on available data, the classification criteria are not met.

Corrosion/irritation : Slight irritation possible. Not classified - based on available data, the classification criteria are not met.

Sensitisation : May produce an allergic reaction.

Mutagenicity	: Not expected to be mutagenic. Not classified - based on available data, the classification criteria are not met.
Eye contact	
Corrosion/irritation	: Slight irritation possible. Not classified - based on available data, the classification criteria are not met.
Ingestion	
Acute toxicity	: Calculated LD50: > 2079 mg/kg.bw. Ingredients of unknown toxicity: < 1 %. ATE: > 2000 mg/kg.bw. Low toxicity. Not classified - based on available data, the classification criteria are not met.
Aspiration	: Not classified - based on available data, the classification criteria are not met. Does not contain substances with an aspiration hazard.
Corrosion/irritation	: May cause a feeling of sickness, vomiting and diarrhoea.
Carcinogenicity	: Not expected to be carcinogenic. Not classified - based on available data, the classification criteria are not met.
Mutagenicity	: Not expected to be mutagenic. Not classified - based on available data, the classification criteria are not met.
Reprotoxicity	: Development: Not expected to be reprotoxic. Development: Not classified - Based on available data, the classification criteria are not met. Fertility: not expected to be reprotoxic. Fertility: Not classified - based on available data, the classification criteria are not met.

Toxicological information:

Chemical name	Property		Method	Test animal
Benzyl salicylate	LD50 (oral)	2227 mg/kg bw	-----	Rat
	Skin sensitisation	725 ug/cm2	OECD 429	Mouse
	Skin irritation	Non-irritant	-----	Rabbit
	NOAEL (oral) - estimate	> 360 mg/kg bw/d	Read across	Rat
	Mutagenicity	Negative	OECD 471	Salmonella typhimurium
	NOAEL (fertility) - estimate	180 mg/kg.d	Read across	Rat
	NOAEL (development) - estimate	> 360 mg/kg.d	Read across	Rat
3,7-Dimethyloctan-3-ol	Eye irritation	Moderately irritant	-----	Rabbit
	LD50 (oral)	8270 mg/kg bw		Rat
	LD50 (dermal)	> 5000 mg/kg bw		Rabbit
	Mutagenicity	Negative	OECD 471	Salmonella typhimurium
	Genotoxicity - in vitro	Not genotoxic	OECD 473	
	NOAEL (oral) - estimate	200 mg/kg bw/d	Read across	Rat
	NOAEL (dermal) - estimate	250 mg/kg bw/d	Read across	Rat
	NOAEL (fertility) - estimate	365 mg/kg.d	Read across	Rat
	NOAEL (development, oral)	1000 mg/kg bw/d	OECD 414	Rat
	Skin irritation	Irritant		Rabbit
	Eye irritation	Non-irritant		Rabbit
	LC50 (inhalation) - estimate	> 5000 mg/m3		Rat
alpha-Hexylcinnamaldehyde	Skin sensitisation	Sensitizing	OECD 429	Mouse
	NOAEL (development, oral)	100 mg/kg bw/d	OECD 421	Rat
	Genotoxicity - in vivo	Not genotoxic	OECD 474	
	Genotoxicity - in vitro	Not genotoxic	OECD 476	
	Mutagenicity	Negative	OECD 471	Salmonella typhimurium
	Eye irritation	Non-irritant		Rabbit

	NOAEL (oral) - estimate	30 mg/kg bw/d	Read across	Rat
	LD50 (dermal)	> 3000 mg/kg bw	OECD 402	Rabbit
	LC50 (inhalation)	> 5000 mg/m3	OECD 403	Rat
	LD50 (oral)	> 2450 mg/kg bw	OECD 401	Rat
	Skin sensitisation	2372 ug/cm2	OECD 429	Mouse
	Skin irritation	Moderately irritant	OECD 404	Rabbit
Hexyl salicylate	NOAEL (dermal)	25 mg/kg bw/d		Rat
	LD50 (oral)	> 5000 mg/kg bw	----	Rat
	LD50 (dermal)	> 5000 mg/kg bw		Rabbit
	NOAEL (oral) - estimate	50 mg/kg bw/d	Read across	
	Mutagenicity	Negative	OECD 471	Salmonella typhimurium
	Genotoxicity - in vitro	Not genotoxic	OECD 476	Chinese Hamster
	Genotoxicity - in vivo	Not genotoxic	----	Mouse
	NOAEL (development) - estimate	Not teratogenic	Read across	
	NOAEL (fertility) - estimate	Not reprotoxic	Read across	
	Eye irritation	Non-irritant	OECD 405	Rabbit
	Skin irritation	Moderately irritant	OECD 404	Rabbit
2-Benzylideneheptanal	Mutagenicity	Not mutagenic	OECD 471	Salmonella typhimurium
	LD50 (dermal)	> 2000 mg/kg bw	----	Rabbit
	Skin irritation	Irritant	----	Rabbit
	Skin sensitisation	2942 ug/cm2	OECD 429	Mouse
	LD50 (oral)	3730 mg/kg bw	----	Rat
	Eye irritation	Mildly irritant	----	Rabbit
Citronellol	Genotoxicity - in vitro	Not genotoxic		
	Skin sensitisation	10875 ug/cm2	OECD 429	Mouse
	Mutagenicity	Not mutagenic	OECD 471	Salmonella typhimurium
	NOAEL (oral)	> 50 mg/kg bw/d		Rat
	Skin irritation	Moderately irritant		Rabbit
	LD50 (oral)	3450 mg/kg bw	----	Rat
	LD50 (dermal)	2650 mg/kg bw		Rabbit
	NOAEL (fertility, dermal)	300 mg/kg bw/d	OECD 421	Rat
	NOAEL (developmental toxicity, dermal)	> 300 mg/kg bw/d	OECD 421	Rat
	Skin irritation	Moderately irritant	Patch test	Human
	Eye irritation	Moderately irritant		Rabbit
1-(2,6,6-Trimethyl-3-cyclohexen-1-yl)-2-buten-1-one	Genotoxicity - estimate	Not genotoxic	Read across	----
	NOAEL (development) - estimate	Not teratogenic	Read across	----
	NOAEL (fertility) - estimate	Not reprotoxic	Read across	----
	NOEL (carcinogenicity) - estimate	Not carcinogenic	Read across	
	NOAEL (dermal) - estimate	50 mg/kg bw/d	Read across	Rat
	NOAEL (oral) - estimate	10 mg/kg bw/d	Read across	Rat
	Mutagenicity	Negative	OECD 471	Salmonella typhimurium
	LD50 (oral)	1821 mg/kg bw		Mouse

**SECTION 12 ECOLOGICAL INFORMATION**

**12.1. Toxicity**

No ecotoxicological research has been carried out on this product.

Ecotoxicity : Harmful to aquatic organisms. Calculated LC50 (fish): 53 mg/l. Calculated EC50 (waterflea): 37 mg/l.  
I. Contains 0 % of components with unknown hazards to the aquatic environment.

**12.2. Persistence and degradability**

Persistence – degradability : May cause long-term adverse effects in the aquatic environment.

**12.3. Bioaccumulative potential**

Bioaccumulative potential : Contains bioaccumulating substances.

**12.4. Mobility in soil**

Mobility : If product enters soil, it will be highly mobile and may contaminate groundwater.

**12.5. Results of PBT and vPvB assessment**

PBT/vPvB assessment : Does not contain PBT or vPvB substances.

**12.6. Other adverse effects**

Other information : Not applicable.

Ecological information:

Chemical name	Property		Method	Test animal
1,3,4,6,7,8-Hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran	Ultimate aerobic biodegradation (%)	2 %	OECD 301 B	
	IC50 (algae)	> 0,85 mg/l	OECD 201	Pseudokirchnerella subcapitata
	NOEC (waterflea) - chronic	0,111 mg/l.d	OECD 202	Daphnia magna
	LC50 (fish)	1,36 mg/l	OECD 204	Lepomis macrochirus
	NOEC (fish)	0,068 mg/l.d	OECD 210	Pimephales promelas
1,3,4,6,7,8-Hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran	EC50 (waterflea)	0,47 mg/l	-----	-----
	Log P(ow)	5,9		
1,3,4,6,7,8-Hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran	BCF	1584		
	Hexyl salicylate	EC50 (waterflea)	0,357 mg/l	OECD 202
Hexyl salicylate	IC50 (algae)	0,28 mg/l	OECD 201	Desmodesmus subspicatus
	LC50 (fish) - estimate	1,34 mg/l	-----	Brachydanio rerio
	Ultimate aerobic biodegradation (%)	91 %	OECD 301 F	
Hexyl salicylate	Log P(ow)	5,5000		

**SECTION 13 DISPOSAL CONSIDERATIONS**

**13.1. Waste treatment methods**

Product residues : Do not dispose empty pack with waste produced by households. Containers may be recycled. Treat product residues and non-empty pack as hazardous waste.

Additional warning : None.

Waste water discharge : Do not dispose into the environment, in drains or in water courses.  
European waste catalogue : Dispose hazardous waste in accordance with Directive 91/689/EEC under acknowledgement of a waste code according to Commission Decision 2000/532/EC to an official chemical waste depot.  
Local legislation : Disposal should be in accordance with applicable regional, national, and local laws and regulations. Local regulations may be more stringent than regional or national requirements and must be complied with.

## SECTION 14 TRANSPORT INFORMATION

### 14.1. UN number

UN nr. : None.

### 14.2. UN proper shipping name

Transport name : Not regulated.

### 14.3/14.4/14.5. Transport hazard class(es)/Packing group/Environmental hazards

ADR/RID/ADN (road/railway/inland waterways)

Class : This product is not classified according to ADR/RID/ADN.

IMDG (sea)

Class : This product is not classified according to IMDG.

Marine pollutant : No

IATA (air)

Class : This product is not classified according to IATA.

### 14.6. Special precautions for user

Other information : Country specific variations may apply.

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Marpol : Not intended to be carried in bulk according to International Maritime Organisation (IMO) instruments. Packaged liquids are not considered bulk.

## SECTION 15 REGULATORY INFORMATION

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Community regulations : Regulation (EU) No 2015/830 (REACH), Regulation (EC) No 1272/2008 (CLP) and other regulations.

### 15.2. Chemical safety assessment

Chemical safety assessment : Not applicable.

## SECTION 16 OTHER INFORMATION

### 16.1. Other information

The information in this safety data sheet is compiled in compliance with Regulation (EU) No 2015/830 dated 28 May 2015 and accurate to the best of our knowledge and experience at the date of issue specified. It is the user's obligation to use this product safely and to comply with all applicable laws and regulations concerning the use of the product. This safety data sheet complements the technical information sheets but does not replace them and offers no warranty with regard to product properties.

Users are also forewarned for any hazards involved when the product is used for other purposes than those for which it is designed.

Changed or new information with regard to the previous release is indicated with an asterisk (\*).

List of abbreviations and acronyms that could be (but not necessarily are) used in this safety data sheet:

ADR	: European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	: Acute Toxicity Estimate
CLP	: Classification, Labeling & Packaging
CMR	: Carcinogenic, Mutagenic or toxic for Reproduction
EEC	: European Economic Community
GHS	: Globally Harmonized System of Classification and Labelling of Chemicals
IATA	: International Air Transport Association
IBC code	: International Bulk Chemical Code
IMDG	: International Maritime Dangerous Goods Code
LD50/LC50	: Lethal Dose/Concentration for 50% of a population
MAC	: Maximum Allowable Concentration
MARPOL	: International Convention for the Prevention of Pollution From Ships
NO(A)EL	: No Observed (Adverse) Effect Level
OECD	: Organisation for Economic Co-operation and Development
PBT	: Persistent, Bioaccumulative and Toxic
PC	: Chemical product category
PT	: Product type
REACH	: Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	: Regulations concerning the International Carriage of Dangerous Goods by Rail
STP	: Sewage Treatment Plant
SU	: Sector of Use
TWA/STEL	: Time-Weighted Average/Short Term Exposure Limit
UN	: United Nations
VOC	: Volatile Organic Compounds
vPvB	: Very Persistent and Very Bioaccumulative

Key data used to compile the Safety Data Sheet are from, but not limited to, one or more sources of information e.g. toxicological data from material suppliers, CONCAWE, IFRA, CESIO, Regulation EG 1272/2008, etc.

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008:

Aquatic Chronic 3 : Calculation method.

Full text of hazard classes mentioned in section 3:

Acute Tox. 4	: Acute toxicity, category 4.
Skin Irrit. 2	: Skin irritation, category 2.
Eye Irrit. 2	: Eye irritation, category 2.
Skin Sens. 1/1A/1B	: Skin sensitization, category 1/1A/1B.
Aquatic Chronic 1	: Hazardous to the aquatic environment — Chronic category 1.
Aquatic Chronic 2	: Hazardous to the aquatic environment — Chronic category 2.
Aquatic Chronic 3	: Hazardous to the aquatic environment — Chronic category 3.
Aquatic Acute 1	: Hazardous to the aquatic environment — Acute category 1.

Full text of H-phrases mentioned in section 3:

H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye 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.

Advice on any training appropriate for workers: none.

Number format : "," used as decimal separator.

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End of safety data sheet.