



Kemetyl

Safety data sheet

According to Regulation (EU) No 2020/878

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

1.1. Product identifier

Product name : SHELL AIRFRESHENER LITTLE JOE OCEAN SPLASH
Product code : CRX768, AL610

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

Application : SU21 Consumer product. PC3 Air care products for vehicles. Airfreshener.

1.3. Details of the supplier of the safety data sheet

Supplier : Kemetyl Nederland BV
Industrieweg 30
3762 EK Soest, The Netherlands
Telephone : +31-35 7604900
E-mail : msds@kemetyl.com
Website : www.kemetyl.com

1.4. Emergency telephone number

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

NL - Telephone : +31-35-6099310

(During office hours only)

SECTION 2 HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

CLP classification : Skin sensitization, category 1. Hazardous to the aquatic environment — Chronic category 3. (1272/2008/EC)

Human health hazards : May cause an allergic skin reaction.

Physical/chemical hazards : Not classified as dangerous according to statutory EC-Directives.

Environmental hazards : Harmful to aquatic life with long lasting effects.

2.2. Label elements

Label elements (1272/2008/EC):

Hazard pictograms :



Signal word : Warning

H- and P-phrases :

H317	May cause an allergic skin reaction.
H412	Harmful to aquatic life with long lasting effects.
P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P273	Avoid release to the environment.
P280 gloves	Wear protective gloves.
P302+P352	IF ON SKIN: Wash with plenty of water/soap.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P501	Dispose of contents/container to an official chemical waste depot.



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

Hazard pictograms :



Signal word : Warning

H- and P-phrases :

H317	May cause an allergic skin reaction.
H412	Harmful to aquatic life with long lasting effects.
P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P280 gloves	Wear protective gloves.
P302+P352	IF ON SKIN: Wash with plenty of water/soap.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P501	Dispose of contents/container to an official chemical waste depot.

Additional labelling (for all packaging sizes)

: Contains: Linalyl acetate ; Linalool ; alpha-Hexylcinnamaldehyde ; d-Limonene ; 7-Hydroxycitronellal ; 4-tert-Butylcyclohexyl acetate ; Citronellol ; Citral ; Geraniol ; Pin-2(10)-ene .

2.3. Other hazards

Other information : Does not contain PBT or vPvB substances in concentrations higher than 0,1%.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

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3.2. Mixtures

Product description : Mixture.

Information on hazardous substances:

Substance name	Concentration (w/w) (%)	CAS nr.	EC number	Remark	REACH nr.
2,6-Dimethyloct-7-en-2-ol	< 4	18479-58-8	242-362-4		01-2119457274-37
Linalyl acetate	< 2,5	115-95-7	204-116-4		01-2119454789-19
Linalool	< 1,25	78-70-6	201-134-4		01-2119474016-42
1,3,4,6,7,8-Hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran	< 0,7	1222-05-5	214-946-9		01-2119488227-29
alpha-Hexylcinnamaldehyde	< 0,7	101-86-0	202-983-3		01-2119533092-50
d-Limonene	< 0,7	5989-27-5	227-813-5		01-2119529223-47
7-Hydroxycitronellal	< 0,3	107-75-5	203-518-7		01-2119973482-31
4-tert-Butylcyclohexyl acetate	< 0,25	32210-23-4	250-954-9		01-2119976286-24
Citronellol	< 0,25	106-22-9	203-375-0		01-2119453995-23
2,6-Di-tert-butyl-p-cresol	< 0,25	128-37-0	204-881-4		01-2119565113-46
Citral	< 0,25	5392-40-5	226-394-6		01-2119462829-23
Geraniol	< 0,25	106-24-1	203-377-1		01-2119552430-49
Pin-2(10)-ene	< 0,25	127-91-3	204-872-5		01-2119519230-54

Substance name	Hazard Class	H-phrases	Pictograms
2,6-Dimethyloct-7-en-2-ol	Skin Irrit. 2; Eye Irrit. 2	H315; H319	GHS07
Linalyl acetate	Skin Irrit. 2; Skin Sens. 1B; Eye Irrit. 2	H315; H317; H319	GHS07
Linalool	Skin Irrit. 2; Skin Sens. 1B; Eye Irrit. 2	H315; H317; H319	GHS07



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1,3,4,6,7,8-Hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran alpha-Hexylcinnamaldehyde	Aquatic Acute 1; Aquatic Chronic 1 Skin Sens. 1B; Aquatic Acute 1; Aquatic Chronic 2	H400; H410 H317; H400; H411	GHS09 GHS07; GHS09	M (chronic) = 1 M (acute) = 1
d-Limonene	Flam. Liq. 3; Asp. Tox. 1; Skin Irrit. 2; Skin Sens. 1B; Aquatic Acute 1; Aquatic Chronic 3	H226; H304; H315; H317; H400; H412	GHS02; GHS07; GHS08; GHS09	M (acute) = 1
7-Hydroxycitronellal	Skin Sens. 1B; Eye Irrit. 2	H317; H319	GHS07	
4-tert-Butylcyclohexyl acetate Citronellol	Skin Sens. 1B Skin Irrit. 2; Skin Sens. 1B; Eye Irrit. 2	H317 H315; H317; H319	GHS07 GHS07	
2,6-Di-tert-butyl-p-cresol	Aquatic Acute 1; Aquatic Chronic 1	H400; H410	GHS09	M (acute) = 1
Citral	Skin Irrit. 2; Skin Sens. 1B; Eye Irrit. 2	H315; H317; H319	GHS07	
Geraniol	Skin Irrit. 2; Skin Sens. 1B; Eye Dam. 1	H315; H317; H318	GHS05; GHS07	
Pin-2(10)-ene	Flam. Liq. 3; Asp. Tox. 1; Skin Irrit. 2; Skin Sens. 1B; Aquatic Acute 1; Aquatic Chronic 1	H226; H304; H315; H317; H400; H410	GHS02; GHS07; GHS08; GHS09	M (acute) = 1 M (chronic) = 1

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 : Not applicable under normal conditions of use. 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 : No specific effects and/or symptoms are known.
- Skin contact : May cause redness and irritation, sensitisation. 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

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5.1. Extinguishing media

Extinguishing media

- Suitable : Carbondioxide (CO₂). Foam. Dry chemical. Water fog.
Not suitable : Water jet. Use of heavy stream of water may spread fire.

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.

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. 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. Avoid contact with skin and eyes. Avoid splashing. Wear protective clothing.

7.2. Conditions for safe storage, including any incompatibilities

- Storage : Keep frost-free, 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.



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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/m³):

Chemical name	Country	TWA 8 hour (mg/m ³)	STEL 15 min (mg/m ³)	Comments	Source
d-Limonene		28	80		MAC: DE, CH
2,6-Di-tert-butyl-p-cresol	GB	10	-	-	

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
2,6-Dimethyloct-7-en-2-ol	Dermal				7 mg/kg bw/day
Linalyl acetate	Inhalation				24.7 mg/m ³
	Dermal	0,2362 mg/kg bw		0,2362 mg/kg bw/day	2,5 mg/kg bw/day
Linalool	Inhalation				2,75 mg/m ³
	Inhalation				24.58 mg/m ³
	Dermal	3 mg/kg bw		3 mg/kg bw/day	3.5 mg/kg bw/day
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
alpha-Hexylcinnamaldehyde	Inhalation				5,29 mg/m ³
	Inhalation	6,28 mg/m ³			0,078 mg/m ³
	Dermal	0,525 mg/kg bw		0,525 mg/kg bw/day	18,2 mg/kg bw/day
d-Limonene	Inhalation				66,7 mg/m ³
	Dermal				9,5 mg/kg bw/day
7-Hydroxycitronellal	Inhalation				18 mg/m ³
	Dermal			0.5 mg/kg bw/day	1,9 mg/kg bw/day
Citronellol	Inhalation	10 mg/m ³		10 mg/m ³	161,6 mg/m ³
	Dermal	2,950 mg/kg bw			327,4 mg/kg bw/day
2,6-Di-tert-butyl-p-cresol	Inhalation				3,5 mg/m ³
	Dermal				0,5 mg/kg bw/day
Citral	Inhalation				9 mg/m ³
	Dermal				1,7 mg/kg bw/day
Geraniol	Inhalation				161,6 mg/m ³
	Dermal				12,5 mg/kg bw/day
Pin-2(10)-ene	Inhalation				5,69 mg/m ³
	Dermal			0,054 mg/kg bw/day	0,8 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
2,6-Dimethyloct-7-en-2-ol	Dermal				2.5 mg/kg bw/day
	Inhalation				4.35 mg/m ³



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Linalyl acetate	Oral				2.5 mg/kg bw/day
	Dermal	0,2362 mg/kg bw		0,2362 mg/kg bw/day	1,25 mg/kg bw/day
Linalool	Inhalation				0,68 mg/m3
	Oral				0,2 mg/kg bw/day
1,3,4,6,7,8-Hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran	Dermal	1.5 mg/kg bw		1.5 mg/kg bw/day	1.25 mg/kg bw/day
	Inhalation				4.33 mg/m3
alpha-Hexylcinnamaldehyde	Oral				2.49 mg/kg bw/day
	Dermal				14,43 mg/kg bw/day
d-Limonene	Inhalation				1,3 mg/m3
	Oral				0,75 mg/kg bw/day
7-Hydroxycitronellal	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
Citronellol	Oral				0,056 mg/kg bw/day
	Inhalation				16,6 mg/m3
2,6-Di-tert-butyl-p-cresol	Dermal				4,8 mg/kg bw/day
	Oral				4,8 mg/kg bw/day
Citral	Inhalation				5,4 mg/m3
	Dermal			0.5 mg/kg bw/day	1,1 mg/kg bw/day
Geraniol	Oral				0,6 mg/kg bw/day
	Inhalation	10 mg/m3		10 mg/m3	47,8 mg/m3
Pin-2(10)-ene	Dermal	2,950 mg/kg bw			196,4 mg/kg bw/day
	Oral				13,8 mg/kg bw/day
Linalool	Inhalation				0,86 mg/m3
	Dermal				0,25 mg/kg bw/day
Linalyl acetate	Oral				0,25 mg/kg bw/day
	Dermal				1 mg/kg bw/day
Linalool	Inhalation				2,7 mg/m3
	Oral				0,6 mg/kg bw/day
Linalyl acetate	Inhalation				47,8 mg/m3
	Dermal				7,5 mg/kg bw/day
Linalool	Oral				13,75 mg/kg bw/day
	Inhalation				1 mg/m3
Linalyl acetate	Dermal			0,027 mg/kg bw/day	0,3 mg/kg bw/day
	Oral				0,3 mg/kg bw/day

Predicted no-effect concentration (PNEC):

Chemical name	Route of exposure	Fresh water	Marine water	
2,6-Dimethyloct-7-en-2-ol	Water	0,0278 mg/l	0,0027 mg/l	
	Sediment	0,594 mg/kg	0,0594 mg/kg	
	Intermittent water			0,278 mg/l
	STP			10 mg/l
	Soil			0,103 mg/kg
Linalyl acetate	Oral			111 mg/kg food
	Water	0,011 mg/l	0,001 mg/l	
	Sediment	0,609 mg/kg	0,061 mg/kg	
	Intermittent water			0,11 mg/l
	STP			1 mg/l
Linalool	Soil			0,115 mg/kg
	Water	0,2 mg/l	0,02 mg/l	



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1,3,4,6,7,8-Hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran	Sediment	2,22 mg/kg	0,222 mg/kg	
	Intermittent water			2 mg/l
	STP			10 mg/l
	Soil			0,327 mg/kg
alpha-Hexylcinnamaldehyde	Oral			7,8 mg/kg food
	Water	0,0044 mg/l	0,0004 mg/l	
	Sediment	2 mg/kg	0,394 mg/kg	
	Intermittent water			0,047 mg/l
d-Limonene	STP			1 mg/l
	Soil			0,31 mg/kg
	Oral			3,3 mg/kg food
	Water	0.001 mg/l		
7-Hydroxycitronellal	Sediment	3.2 mg/kg	0.064 mg/kg	
	Intermittent water			0,03 mg/l
	STP			10 mg/l
	Soil			0.398 mg/kg
4-tert-Butylcyclohexyl acetate	Oral			6.6 mg/kg food
	Water	0.014 mg/l	0.0014 mg/l	
	Sediment	3.85 mg/kg	0.385 mg/kg	
	STP			1.8 mg/l
Citronellol	Soil			0.763 mg/kg
	Oral			133 mg/kg food
	Water	0.0316 mg/l	0.00316 mg/l	
	Sediment	0.145 mg/kg	0.015 mg/kg	
2,6-Di-tert-butyl-p-cresol	STP			10 mg/l
	Soil			0.011 mg/kg
	Water	0,0053 mg/l	0,00053 mg/l	
	Sediment	2,01 mg/kg	0,21 mg/kg	
Citral	Intermittent water			0,053 mg/l
	STP			12,2 mg/l
	Soil			0,42 mg/kg
	Oral			66,76 mg/kg food
Geraniol	Water	0.002 mg/l	0 mg/l	
	Sediment	0.026 mg/kg	0.003 mg/kg	
	Intermittent water			0,024 mg/l
	STP			580 mg/l
Pin-2(10)-ene	Soil			0.004 mg/kg
	Water	0,000199 mg/l	0,00002 mg/l	
	Sediment	0,0996 mg/kg	0,00996 mg/kg	
	STP			0,17 mg/l
1,3,4,6,7,8-Hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran	Soil			0,04769 mg/kg
	Oral			8,33 mg/kg food
	Water	0,00678 mg/l	0,000678 mg/l	
	Sediment	0,125 mg/kg	0,0125 mg/kg	
alpha-Hexylcinnamaldehyde	Intermittent water			0,0678 mg/l
	STP			1,6 mg/l
	Soil			0,0209 mg/kg
	Water	0,0108 mg/l	0,0010 mg/l	
d-Limonene	Sediment	0,115 mg/kg	0,0115 mg/kg	
	Intermittent water			0,108 mg/l
	STP			0,7 mg/l
	Soil			0,0167 mg/kg
1,3,4,6,7,8-Hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran	Water	0,001004 mg/l	0,0001 mg/l	
	Sediment	0,337 mg/kg	0,034 mg/kg	



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	STP			3,26 mg/l
	Soil			0,067 mg/kg
	Oral			13,1 mg/kg food

8.2. Exposure controls

Engineering measures : 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 : Wear appropriate protective clothing, overalls or suit, and similar boots in accordance with EN 365/367 resp. 345. Suitable material: laminated film. Indication of permeation breakthrough time: not known.
- 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 : Wear appropriate safety gloves in accordance with EN 374. Suitable material: laminated film. ± 0,5 mm. Indication of permeation breakthrough time: not known.
- Eye protection : Wear appropriate safety glasses when there is danger of possible eye contact.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

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9.1. Information on basic physical and chemical properties

Physical state	: Liquid.	Impregnated material.
Colour	: Light yellow.	
Odour	: Perfumed.	
Odour threshold	: Not known.	Not measured. Not relevant. Does not contain substances with a specific inhalation risk.
pH	: Not applicable.	Waterfree product.
Solubility in water	: Not soluble.	
Partition coefficient (n-octanol/water)	: Not known.	Not measured. Not relevant for mixtures.
Flash point	: > 100 °C	Closed cup.
Flammability (solid, gas)	: Not applicable.	Liquid. See flashpoint.
Auto ignition temperature	: > 200 °C	
Boiling point/boiling range	: > 100 °C	
Melting point/melting range	: Not known.	
Explosive properties	: Not an explosive.	
Explosion limits (% in air)	: Not known.	Lower explosion limit in air (%): 0,7 (Linalyl acetate) Upper explosion limit in air (%): 5,2 (Linalool)
Oxidising properties	: Not applicable.	Does not contain oxidizing substances.
Decomposition temperature	: Not applicable.	
Viscosity (20°C)	: Not known.	
Viscosity (40°C)	: Not relevant.	The product contains < 10% substances having an aspiration hazard.
Vapour pressure (20°C)	: Not known.	
Relative vapour density	: > 1	(air = 1)
Relative density (20°C)	: 1 g/ml	
Particle characteristics	: Not applicable.	Liquid.



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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 hazard classes as defined in Regulation (EC) No 1272/2008

No toxicological research has been carried out on this product.

Inhalation

- Acute toxicity : Calculated LC50: > 10 mg/l. Ingredients of unknown toxicity: 4 %. ATE: > 5 mg/l. Low toxicity. Not classified - based on available data, the classification criteria are not met. No specific effects and/or symptoms are known.
- 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 : Does not contain carcinogenic substances. Not classified - based on available data, the classification criteria are not met.
- Mutagenicity : Does not contain mutagenic substances. 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 : Not classified - based on available data, the classification criteria are not met.
- Sensitisation : May cause sensitisation by skin contact. May produce an allergic reaction.
- Mutagenicity : Does not contain mutagenic substances. Not classified - based on available data, the classification criteria are not met.

Eye contact



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

Ingestion

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.

Aspiration : Not expected to be an aspiration hazard. Contains a substance/substances with an aspiration hazard. Not classified - based on available data, the classification criteria are not met.

Corrosion/irritation : May cause a feeling of sickness, vomiting and diarrhoea.

Carcinogenicity : Does not contain carcinogenic substances. Not classified - based on available data, the classification criteria are not met.

Mutagenicity : Does not contain mutagenic substances. 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
Linalyl acetate	Outdoor cleaners (excludes stone, concrete and similar surfaces)	1000 mg/kg bw/d	OECD 414	Rat
	LD50 (oral)	13934 mg/kg bw	----	Rat
	LC50 (inhalation)	> 2740 mg/m3	----	Mouse
	Skin irritation	Non-irritant	----	Human
	Skin irritation	Irritant	OECD 404	Rabbit
	Eye irritation	Irritant	OECD 405	Rabbit
	NOAEL (oral)	160 mg/kg bw/d	OECD 407	Rat
	NOAEL (dermal)	250 mg/kg bw/d	OECD 411	Rat
	Mutagenicity	Not mutagenic	OECD 471	Salmonella typhimurium
	Genotoxicity - in vitro	Not genotoxic	OECD 476	Mouse
	Genotoxicity - in vivo	Not genotoxic	OECD 474	Mouse
	NOAEL (development, oral)	> 1000 mg/kg bw/d	OECD 414	Rat
	LC50 (inhalation) - estimate	> 5000 mg/m3	----	Rat
	Linalool	Skin sensitisation	Sensitizing.	OECD 429
NOAEL (development, oral)		365 mg/kg bw/d	----	Rat
Eye irritation		Non-irritant	OECD 405	Rabbit
Skin sensitisation		12650 ug/cm2	OECD 429	Mouse
Mutagenicity		Negative	OECD 471	Salmonella typhimurium
NOAEL (fertility, oral)		500 mg/kg bw/d	----	Rat
Skin irritation		Irritant	OECD 404	Rabbit
NOAEL (dermal)		250 mg/kg bw/d	OECD 411	Rat
Genotoxicity - in vivo		Not genotoxic	OECD 475	Mouse
LD50 (dermal)		5610 mg/kg bw	----	Rabbit
Skin irritation		Mildly irritant	----	Human
LD50 (oral)		2790 mg/kg bw	----	Rat
NOAEL (oral)		117 mg/kg bw/d	----	Rat
alpha-Hexylcinnamaldehyde		NOAEL (development, oral)	100 mg/kg bw/d	OECD 421
	Genotoxicity - in vivo	Not genotoxic	OECD 474	
	Genotoxicity - in vitro	Not genotoxic	OECD 476	
	Mutagenicity	Negative	OECD 471	Salmonella typhimurium



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d-Limonene	Eye irritation	Non-irritant	Read across	Rabbit
	NOAEL (oral) - estimate	30 mg/kg bw/d		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
	NOAEL (dermal)	25 mg/kg bw/d		Rat
	Genotoxicity - in vivo	> 2000 mg/kg bw/d		Rat
	NOEL (carcinogenicity, oral)	> 300 mg/kg bw/d	OECD 451	Rat
7-Hydroxycitronellal	Eye irritation	Non-irritant	OECD 405	Rabbit
	Mutagenicity	Negative	OECD 471	
	Skin sensitisation	5500 ug/cm2	OECD 429	Mouse
	NOAEL (development, oral)	600 mg/kg bw/d		Rat
	Skin irritation	Irritant	-----	-----
	LD50 (dermal)	> 2000 mg/kg bw	-----	Rabbit
	LD50 (oral)	> 2000 mg/kg bw	OECD 423	Rat
	Genotoxicity - in vitro	Not genotoxic		
	NOAEL (oral)	150 mg/kg bw/d		Rat
	Respiratory irritation	Irritant		
4-tert-Butylcyclohexyl acetate	LD50 (dermal)	> 2000 mg/kg bw	-----	Rabbit
	Skin sensitisation	5612 ug/cm2	OECD 429	Mouse
	Skin irritation	850 ug/cm2	OECD 404	
	Eye irritation	Irritant		
	Skin irritation	Non-irritant		
	LD50 (oral)	> 5000 mg/kg bw	-----	Rat
	NOEL (oral)	250 mg/kg bw/d		
	Genotoxicity - in vivo	Not genotoxic		Mouse
	NOEL (carcinogenicity) - estimate	Not carcinogenic		
	Mutagenicity	Negative	OECD 471	Salmonella typhimurium
Citronellol	LD50 (oral)	5000 mg/kg bw	-----	Rat
	LD50 (dermal)	> 5000 mg/kg bw		Rabbit
	Eye irritation	Non-irritant		Rabbit
	Skin irritation	Non-irritant		Rabbit
	NOAEL (oral) - estimate	710 mg/kg bw/d	Read across	
	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
Citral	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
	NOAEL (fertility, oral)	> 1000 mg/kg bw/d	OECD 421	Rat
	Genotoxicity - in vivo	Negative	OECD 474	Mouse



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Geraniol	Eye irritation	Slightly irritant	OECD 405	Rabbit
	Skin irritation	Moderately irritant		Rabbit
	Skin irritation	Irritant		Human
	Skin sensitisation	Sensitizing.	OECD 406	Guinea pig
	NOAEL (developmental toxicity, inh.)	423 mg/m ³	----	Rat
	NOEL (carcinogenicity, oral)	> 100 mg/kg bw/d	OECD 453	Rat
	Mutagenicity	Negative	OECD 471	
	LD50 (oral)	4960 mg/kg bw	----	Rat
	Genotoxicity - in vitro	Not genotoxic		
	NOAEL (oral)	833 mg/kg bw/d	----	Rat
	LD50 (dermal)	2250 mg/kg bw	----	Rabbit
	NOAEL (development, oral)	200 mg/kg bw/d	OECD 421	Rat
	NOEL (oral)	> 550 mg/kg bw/d		Rat
	LD50 (dermal)	> 5000 mg/kg bw	----	Rabbit
	LD50 (oral)	> 2840 mg/kg bw	----	Rat
	NOEL (carcinogenicity) - estimate	Not carcinogenic	Read across	
	NOAEL (dermal)	300 mg/kg bw/d	OECD 421	Rat
Genotoxicity - in vitro	Not genotoxic	OECD 476	Chinese Hamster	
Genotoxicity - in vivo	Not genotoxic	OECD 474	Mouse	
Mutagenicity	Negative	OECD 471	Salmonella typhimurium	
NOAEL (developmental toxicity, dermal)	> 300 mg/kg bw/d	OECD 421	Rat	
NOAEL (fertility, dermal)	> 300 mg/kg bw/d	OECD 421	Rat	
Pin-2(10)-ene	Skin sensitisation	3525 ug/cm ²	OECD 429	Mouse
	Skin sensitisation	Sensitizing.	OECD 429	Mouse
	Eye irritation	Moderately irritant	OECD 405	Rabbit
	NOAEL (development) - estimate	250 mg/kg.d	Read across	
	Skin irritation	Irritant	----	----
	Mutagenicity	Negative	OECD 471	Salmonella typhimurium
	LD50 (oral)	> 5000 mg/kg bw		Rat
	LD50 (dermal)	> 5000 mg/kg bw		Rabbit

11.2. Information on other hazards

Endocrine disrupting properties : Not applicable.
Other information : Not applicable.

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): 67 mg/l. Calculated EC50 (waterflea): 40 mg/l. 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.



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12.3. Bioaccumulative potential

Bioaccumulative potential : No specific information known.

12.4. Mobility in soil

Mobility : Adsorbs to soil and has low mobility.

12.5. Results of PBT and vPvB assessment

PBT/vPvB assessment : Does not contain PBT or vPvB substances in concentrations higher than 0,1%.

12.6. Endocrine disrupting properties

Endocrine disrupting properties : Not applicable.

12.7. Other adverse effects

Other adverse effects : 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
	EC50 (waterflea)	0,47 mg/l	-----	-----
1,3,4,6,7,8-Hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran	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		
2,6-Di-tert-butyl-p-cresol	NOEC (waterflea) - acute	0,23 mg/l	OECD 202	Daphnia magna
	NOEC (waterflea) - chronic	0,316 mg/l.d	OECD 202	Daphnia magna
	IC50 (algae)	> 0,4 mg/l	OECD 201	Desmodesmus subspicatus
	EC50 (waterflea)	0,61 mg/l	OECD 202	Daphnia magna
2,6-Di-tert-butyl-p-cresol	Ultimate aerobic biodegradation (%)	4,5 %	OECD 301 C	
	EC0 (waterflea)	0,31 mg/l	OECD 202	Daphnia magna
	LC50 (bacteria)	> 10000 mg/l	-----	-----
	LC50 (fish)	> 5000 mg/l	OECD 203	Brachydanio rerio
	Log P(ow)	5,1		
	BCF	598,4		
Pin-2(10)-ene	LC50 (fish)	0,502 mg/l	OECD 203	Pimephales promelas
	EC50 (waterflea)	1,25 mg/l	OECD 202	Daphnia magna
	Ultimate aerobic biodegradation (%)	76 %	OECD 301 D	
	IC50 (algae)	0,826 mg/l	OECD 201	Pseudokirchnerella subcapitata
Pin-2(10)-ene	Log P(ow)	4,4		



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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, impregnated wipes 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 or ID 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. Maritime transport in bulk according to IMO instruments

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 2020/878 (REACH), Regulation (EC) No 1272/2008 (CLP) and other regulations. Directive 2008/98/EC (waste).

15.2. Chemical safety assessment

Chemical safety assessment : Not applicable.



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SECTION 16 OTHER INFORMATION *

16.1. Other information

The information in this safety data sheet is compiled in compliance with Regulation (EU) No 2020/878 dated 18 June 2020 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
UFI	: Unique formula identifier
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:

Skin Sens. 1/1A/1B	: Calculation method.
Aquatic Chronic 3	: Calculation method.

Full text of hazard classes mentioned in section 3:

Flam. Liq. 3	: Flammable liquid, category 3.
Skin Irrit. 2	: Skin irritation, category 2.
Eye Dam. 1	: Serious eye damage, category 1.
Eye Irrit. 2	: Eye irritation, category 2.
Skin Sens. 1/1A/1B	: Skin sensitization, category 1/1A/1B.
Asp. Tox. 1	: Aspiration hazard, category 1.
Aquatic Chronic 1	: Hazardous to the aquatic environment — Chronic category 1.



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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:

H226 Flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
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.

End of safety data sheet.

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