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 AIRFRESHENERS VANILLA LOVERS
Product code : CRX783, AL53A; 9728152

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 *

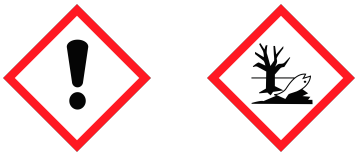
2.1. Classification of the substance or mixture

CLP classification (1272/2008/EC) : Skin irritation, category 2. Eye irritation, category 2. Skin sensitization, category 1. Hazardous to the aquatic environment — Chronic category 2.

Human health hazards : Causes skin irritation. Causes serious eye irritation. May cause an allergic skin reaction.
Physical/chemical hazards : Not classified as dangerous according to statutory EC-Directives. Combustible.
Environmental hazards : Toxic to aquatic life with long lasting effects.

2.2. Label elements

Label elements ((EU) 1272/2008):
Hazard pictograms :



Signal word : Warning

H- and P-phrases :

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H411	Toxic 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	Wear protective gloves and eye protection.
P391	Collect spillage.
P501	Dispose of contents/container to an official chemical waste depot.

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.
P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P280	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: p-Methoxybenzyl acetate ; 4-Methoxybenzyl alcohol ; dl-Limonene ; Coumarin ; 3,7,11-Trimethyldodeca-1,6,10-trien-3-ol, mixed isomers ; 4-tert-Butylcyclohexyl acetate ; Cinnamaldehyde .

2.3. Other hazards

Other information : Does not contain PBT or vPvB substances in concentrations higher than 0,1%. Human health: This product does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Regulation (EU) 2017/2100 or Regulation (EU) 2018/605 at levels of 0.1% or higher. Environment: This product does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Regulation (EU) 2017/2100 or Regulation (EU) 2018/605 at levels of 0.1% or higher.

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.
p-Methoxybenzyl acetate	5 - < 10	104-21-2	203-185-8		
4-Methoxybenzyl alcohol	5 - < 10	105-13-5	203-273-6		
Ethyl butyrate	1 - < 5	105-54-4	203-306-4		
dl-Limonene	2,5 - < 5	138-86-3	205-341-0		
3-Methylbutyl butyrate	2,5 - < 5	106-27-4	203-380-8		
Benzyl benzoate	2,5 - < 5	120-51-4	204-402-9		
Coumarin	1 - < 5	91-64-5	202-086-7		
3-Ethoxy-4-hydroxybenzaldehyde	1 - < 5	121-32-4	204-464-7		
Isopentyl acetate	1 - < 5	123-92-2	204-662-3		
3,7,11-Trimethyldodeca-1,6,10-trien-3-ol, mixed isomers	1 - < 2,5	7212-44-4	230-597-5		
Allyl hexanoate	1 - < 5	123-68-2	204-642-4		
Vanillin	1 - < 5	121-33-5	204-465-2		
2,6-Di-tert-butyl-p-cresol	1 - < 2,5	128-37-0	204-881-4		
2-Ethyl-3-hydroxy-4-pyrone	1 - < 5	4940-11-8	225-582-5		
Allyl heptanoate	1 - < 5	142-19-8	205-527-1		
4-tert-Butylcyclohexyl acetate	0,1 - < 1	32210-23-4	250-954-9		

Cinnamaldehyde	0,01 - < 0,1	104-55-2	203-213-9		

Substance name	Hazard Class	H-phrases	Pictograms	
p-Methoxybenzyl acetate	Skin Sens. 1B	H317	GHS07	
4-Methoxybenzyl alcohol	Skin Irrit. 2; Skin Sens. 1B; Eye Irrit. 2	H315; H317; H319	GHS07	
Ethyl butyrate	Flam. Liq. 3; Eye Irrit. 2	H226; H319	GHS02; GHS07	
dl-Limonene	Flam. Liq. 3; Asp. Tox. 1; Skin Irrit. 2; Skin Sens. 1; Aquatic Acute 1; Aquatic Chronic 1	H226; H304; H315; H317; H400; H410	GHS02; GHS07; GHS08; GHS09	M (acute) = 1
3-Methylbutyl butyrate	Flam. Liq. 3; Aquatic Chronic 2	H226; H411	GHS02; GHS09	
Benzyl benzoate	Acute Tox. 4; Aquatic Acute 1; Aquatic Chronic 2	H302; H400; H411	GHS07; GHS09	M (acute) = 1
Coumarin	Acute Tox. 4; Skin Sens. 1B; Aquatic Chronic 3	H302; H317; H412	GHS07	
3-Ethoxy-4-hydroxybenzaldehyde	Eye Irrit. 2	H319	GHS07	
Isopentyl acetate	Flam. Liq. 3	H226; EUH066	GHS02	
3,7,11-Trimethyldodeca-1,6,10-trien-3-ol, mixed isomers	Skin Sens. 1B; Eye Irrit. 2; Aquatic Acute 1; Aquatic Chronic 1	H317; H319; H400; H410	GHS07; GHS09	M (acute) = 1 M (chronic) = 1
Allyl hexanoate	Acute Tox. 3; Acute Tox. 3; Acute Tox. 3; Aquatic Acute 1; Aquatic Chronic 3	H301; H311; H331; H400; H412	GHS06; GHS09	M (acute) = 1
Vanillin	Eye Irrit. 2	H319	GHS07	
2,6-Di-tert-butyl-p-cresol	Aquatic Acute 1; Aquatic Chronic 1	H400; H410	GHS09	M (acute) = 1
2-Ethyl-3-hydroxy-4-pyrone	Acute Tox. 4	H302	GHS07	
Allyl heptanoate	Acute Tox. 3; Acute Tox. 3; Aquatic Acute 1; Aquatic Chronic 3	H301; H311; H400; H412	GHS06; GHS09	M (acute) = 1
4-tert-Butylcyclohexyl acetate	Skin Sens. 1B	H317	GHS07	
Cinnamaldehyde	Acute Tox. 4; Skin Irrit. 2; Skin Sens. 1A; Eye Irrit. 2; Aquatic Chronic 3	H312; H315; H317; H319; H412	GHS07	H317 : C >= 0,01 %

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.

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	:	Irritant. May cause redness and irritation, sensitisation. May produce an allergic reaction. May cause dry skin.
Eye contact	:	Irritant. May cause redness and pain.
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). 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 and combustion 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. 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. 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. 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/m³):

Chemical name	Country	TWA 8 hour (mg/m3)	STEL 15 min (mg/m3)	Comments	Source
dl-Limonene		140			MAC: NO
Isopentyl acetate	EC	270	540	-	Directive 2000/39/EC
	GB	270	541	-	
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
p-Methoxybenzyl acetate	Inhalation				2,468 mg/m3
	Dermal				0,7 mg/kg bw/day
4-Methoxybenzyl alcohol	Inhalation				2,468 mg/m3
	Dermal				0,7 mg/kg bw/day
Ethyl butyrate	Inhalation				49,3 mg/m3
	Dermal				2,33 mg/kg bw/day
Benzyl benzoate	Inhalation		102 mg/m3		5,1 mg/m3
	Dermal				2,6 mg/kg bw/day
Coumarin	Dermal				0,79 mg/kg bw/day
	Inhalation				6,78 mg/m3
Isopentyl acetate	Inhalation				20,8 mg/m3
	Dermal				2,95 mg/kg bw/day
3,7,11-Trimethyldodeca-1,6,10-trien-3-ol, mixed isomers	Inhalation				10 mg/m3
	Dermal			0,1225 mg/kg bw/day	2,8 mg/kg bw/day
Allyl hexanoate	Inhalation				15 mg/m3
	Dermal				4,3 mg/kg bw/day
2,6-Di-tert-butyl-p-cresol	Inhalation				3,5 mg/m3

	Dermal				0,5 mg/kg bw/day
2-Ethyl-3-hydroxy-4-pyrone	Inhalation				58,7 mg/m3
	Dermal				16,7 mg/kg bw/day
Allyl heptanoate	Inhalation				16 mg/m3
	Dermal				4,7 mg/kg bw/day
Cinnamaldehyde	Inhalation				6,11 mg/m3
	Dermal				1,75 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
p-Methoxybenzyl acetate	Inhalation				0,37 mg/m3
	Dermal				0,25 mg/kg bw/day
	Oral				0,25 mg/kg bw/day
4-Methoxybenzyl alcohol	Inhalation				0,37 mg/m3
	Dermal				0,25 mg/kg bw/day
	Oral				0,25 mg/kg bw/day
Ethyl butyrate	Inhalation				7,4 mg/m3
	Dermal				0,83 mg/kg bw/day
	Oral				0,83 mg/kg bw/day
Benzyl benzoate	Inhalation		25 mg/m3		1,25 mg/m3
	Dermal				1,3 mg/kg bw/day
	Oral		78 mg/kg bw		0,4 mg/kg bw/day
Coumarin	Dermal				0,39 mg/kg bw/day
	Oral				0,39 mg/kg bw/day
	Inhalation				1,69 mg/m3
Isopentyl acetate	Inhalation				5,1 mg/m3
	Dermal				1,47 mg/kg bw/day
	Oral				1,47 mg/kg bw/day
3,7,11-Trimethyldodeca-1,6,10-trien-3-ol, mixed isomers	Inhalation				2,9 mg/m3
	Dermal			0,1225 mg/kg bw/day	1,7 mg/kg bw/day
	Oral				0,8 mg/kg bw/day
Allyl hexanoate	Oral				2,1 mg/kg bw/day
	Inhalation				3,7 mg/m3
	Dermal				2,1 mg/kg bw/day
2,6-Di-tert-butyl-p-cresol	Inhalation				0,86 mg/m3
	Dermal				0,25 mg/kg bw/day
	Oral				0,25 mg/kg bw/day
2-Ethyl-3-hydroxy-4-pyrone	Inhalation				17,4 mg/m3
	Dermal				10 mg/kg bw/day
	Oral				10 mg/kg bw/day
Allyl heptanoate	Inhalation				4,1 mg/m3
	Dermal				2,3 mg/kg bw/day
	Oral				2,3 mg/kg bw/day
Cinnamaldehyde	Inhalation				1,09 mg/m3
	Dermal				0,625 mg/kg bw/day
	Oral				0,625 mg/kg bw/day

Predicted no-effect concentration (PNEC):

Chemical name	Route of exposure	Fresh water	Marine water	
p-Methoxybenzyl acetate	Water	0,013 mg/l	0,001 mg/l	
	Sediment	0,18 mg/kg	0,018 mg/kg	
	STP			0,2 mg/l

	Soil			0,028 mg/kg
4-Methoxybenzyl alcohol	Water	0,064 mg/l	0,006 mg/l	
	Sediment	0,321 mg/kg	0,032 mg/kg	
	Intermittent water			1,118 mg/l
	STP			2 mg/l
	Soil			0,026 mg/kg
3-Methylbutyl butyrate	Water	0,00319 mg/l	0,000319 mg/l	
	Sediment	0,1 mg/kg	0,01 mg/kg	
	STP			1,51 mg/l
	Soil			0,0181 mg/kg
Benzyl benzoate	Water	0,017 mg/l	0,002 mg/l	
	Sediment	10,66 mg/kg	1,07 mg/kg	
	STP			100 mg/l
	Soil			2,12 mg/kg
Coumarin	Water	0,019 mg/l	0,0019 mg/l	
	Sediment	0,15 mg/kg	0,015 mg/kg	
	Intermittent water			0,0142 mg/l
	STP			6,4 mg/l
	Soil			0,018 mg/kg
	Oral			30,7 mg/kg food
3-Ethoxy-4-hydroxybenzaldehyde	Water	0,118 mg/l	0,0118 mg/l	
	Sediment	15 mg/kg	1,5 mg/kg	
	STP			10 mg/l
	Soil			2,923 mg/kg
Isopentyl acetate	Water	0,022 mg/l	0,0022 mg/l	
	Sediment	17,87 mg/kg	1,787 mg/kg	
	Intermittent water			0,22 mg/l
	STP			30 mg/l
	Soil			4,15 mg/kg
3,7,11-Trimethyldodeca-1,6,10-trien-3-ol, mixed isomers	Water	0.001 mg/l	0 mg/l	
	Sediment	0.07 mg/kg	0.007 mg/kg	
	Intermittent water			0,0051 mg/l
	STP			10 mg/l
	Soil			0.014 mg/kg
Allyl hexanoate	Water	0,000117 mg/l	0,000011 mg/l	
	Sediment	0,00446 mg/kg	0,000446 mg/kg	
	Intermittent water			0,00117 mg/l
	STP			10 mg/l
	Soil			0,000825 mg/kg
	Oral			47,56 mg/kg food
Vanillin	Water	0,118 mg/l	0,0118 mg/l	
	Sediment	58,22 mg/kg	5,822 mg/kg	
	STP			10 mg/l
	Soil			11,54 mg/kg
2,6-Di-tert-butyl-p-cresol	Water	0,000199 mg/l	0,00002 mg/l	
	Sediment	0,0996 mg/kg	0,00996 mg/kg	
	STP			0,17 mg/l
	Soil			0,04769 mg/kg
	Oral			8,33 mg/kg food
2-Ethyl-3-hydroxy-4-pyrone	Water	0,0072 mg/l	0,00072 mg/l	
	Sediment	0,27 mg/kg	0,027 mg/kg	
	STP			1,55 mg/l
	Soil			0,049 mg/kg
Allyl heptanoate	Water	0,00012 mg/l	0,000012 mg/l	

	Sediment	0,012 mg/kg	0,0012 mg/kg	
	Intermittent water			0,0012 mg/l
	STP			10 mg/l
	Soil			0,00233 mg/kg
	Oral			51,78 mg/kg food
4-tert-Butylcyclohexyl acetate	Water	0,0053 mg/l	0,00053 mg/l	
	Sediment	2,01 mg/kg	0,21 mg/kg	
	Intermittent water			0,053 mg/l
	STP			12,2 mg/l
	Soil			0,42 mg/kg
	Oral			66,76 mg/kg food
Cinnamaldehyde	Water	0.008 mg/l	0.0008 mg/l	
	Sediment	0.101 mg/kg	0.0101 mg/kg	
	Intermittent water			1,004 mg/l
	STP			7.1 mg/l
	Soil			0.0156 mg/kg

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.

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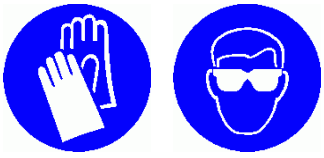

Body protection : Wear appropriate protective clothing, overalls or suit, and similar boots in accordance with EN 365/367 resp. 345. Suitable material: laminated film. Indication of permeation breakthrough time: not known.

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 with side shields, in accordance with EN 166.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state	: Liquid.	Impregnated material.
Colour	: Light yellow.	
Odour	: Perfumed.	
Odour threshold	: Not known.	
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	: 63 °C	Closed cup.
Flammability (solid, gas)	: Not applicable.	Liquid. See flashpoint.
Auto ignition temperature	: > 237 °C	
Boiling point/boiling range	: > 100 °C	

Melting point/melting range	:	< 0 °C	
Explosive properties	:	Not an explosive.	
Explosion limits (% in air)	:	Not known.	Lower explosion limit in air (%): 0,7 (dl-Limonene)
	:		Upper explosion limit in air (%): 7,5 (Isopentyl acetate)
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	:	Not known	(air = 1)
Relative density (20°C)	:	1,01 g/ml	
Particle characteristics	:	Not applicable.	Liquid.

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: no data mg/l. Ingredients of unknown toxicity: 48 %. ATE: > 5 mg/l. 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	:	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: > 5000 mg/kg.bw. Low toxicity. Not classified - based on available data, the classification criteria are not met.

Corrosion/irritation : Irritant. May cause redness.

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

Corrosion/irritation : Irritant.

Ingestion

Acute toxicity : Calculated LD50: > 2717 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 : 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
p-Methoxybenzyl acetate	LD50 (dermal)	> 2000 mg/kg bw	OECD 402	Rat
	NOAEL (oral)	400 mg/kg bw/d	OECD 422	Rat
	Mutagenicity	Negative	OECD 471	Salmonella typhimurium
	Genotoxicity - in vitro	Not genotoxic	OECD 476	Chinese Hamster
	Skin irritation	Non-irritant		Human
	Eye irritation	Non-irritant	OECD 405	Rabbit
	NOAEL (development, oral)	400 mg/kg bw/d	OECD 422	Rat
	NOAEL (fertility, oral)	100 mg/kg bw/d	OECD 422	Rat
	Skin sensitisation	Sensitizing.	OECD 429	Mouse
	LD50 (oral)	> 2000 mg/kg bw	OECD 423	Rat
4-Methoxybenzyl alcohol	LD50 (oral)	> 5000 mg/kg bw	OECD 423	Rat
	LD50 (dermal)	3000 mg/kg bw	OECD 402	Rabbit
	NOAEL (oral) - estimate	20 mg/kg bw/d	Read across	Rat
	Mutagenicity	Negative	OECD 471	Salmonella typhimurium
	Genotoxicity - in vitro	Not genotoxic	OECD 476	Chinese Hamster
	Eye irritation	Irritant		
	Skin irritation	Irritant		
	NOAEL (development) - estimate	20 mg/kg.d	Read across	Rat
	NOAEL (fertility) - estimate	20 mg/kg.d	Read across	Rat
Ethyl butyrate	Skin irritation	Moderately irritant	-----	Rabbit
	LD50 (oral)	13000 mg/kg bw	-----	Rat
	LD50 (dermal)	> 2000 mg/kg bw	-----	Rabbit

dl-Limonene	Skin sensitisation - estimate	Sensitizing.	Read across	
	NOAEL (oral) - estimate	1200 mg/kg bw/d	Read across	Rat
	NOAEL (fertility) - estimate	Not reprotoxic	Read across	
	Genotoxicity - estimate	Not genotoxic	Read across	
	Mutagenicity - estimate	Not mutagenic	Read across	
	NOAEL (development) - estimate	591 mg/kg.d	Read across	Rat
	LD50 (dermal) - estimate	> 5000 mg/kg bw	Read across	
	Skin irritation	Moderately irritant	OECD 404	Rabbit
	LD50 (oral)	5300 mg/kg bw	-----	Rat
Coumarin	Skin sensitisation	> 12500 ug/cm2	OECD 429	Mouse
	NOAEL (development, oral)	> 115 mg/kg bw/d		Mouse
	Eye irritation	Non-irritant		Rabbit
	LD50 (oral)	680 mg/kg bw	-----	Rat
	NOAEL (oral)	> 138,3 mg/kg bw/d		Mouse
	Skin irritation	Non-irritant		Rabbit
	Genotoxicity - in vitro	Not genotoxic	OECD 476	
	Mutagenicity	Negative	OECD 471	Salmonella typhimurium
	Genotoxicity - in vivo	> 105 mg/kg bw/d	OECD 474	Mouse
	NOEL (carcinogenicity) - estimate	Not carcinogenic		
3-Ethoxy-4-hydroxybenzaldehyde	Skin irritation	Mildly irritant	-----	Human
	LD50 (oral)	> 3160 mg/kg bw	OECD 401	Rat
	LD50 (dermal)	> 2000 mg/kg bw	OECD 402	Rat
	Skin irritation	Slightly irritant	OECD 404	Rabbit
	Skin sensitisation	Not sensitizing	OECD 429	Mouse
	NOAEL (oral)	500 mg/kg bw/d		Rat
	Genotoxicity - in vitro	Not genotoxic		
	Mutagenicity	Negative	OECD 471	Salmonella typhimurium
	NOAEL (development) - estimate	Not teratogenic	Read across	
	Eye irritation	Irritant	OECD 405	Rabbit
	Genotoxicity - in vivo	Negative	OECD 474	Mouse
	NOEL (carcinogenicity, oral)	Not carcinogenic	-----	Rat
3,7,11-Trimethyldodeca-1,6,10-trien-3-ol, mixed isomers	LD50 (oral)	> 2610 mg/kg bw	OECD 401	Rat
	LD50 (dermal)	> 5000 mg/kg bw	-----	Rabbit
	Skin irritation	Slightly irritant	OECD 404	Rabbit
	Eye irritation	Slightly irritant	OECD 405	Rabbit
	NOAEL (oral)	100 mg/kg bw/d	OECD 422	Rat
	Mutagenicity	Negative	OECD 471	Salmonella typhimurium
	Genotoxicity - in vivo	Not genotoxic	OECD 474	Mouse
	Skin sensitisation	Not sensitizing	-----	Guinea pig
	NOAEL (fertility, oral)	705 mg/kg bw/d	OECD 422	Rat
	NOAEL (development, oral)	270 mg/kg bw/d	OECD 422	Rat
Vanillin	LD50 (oral)	> 3500 mg/kg bw	-----	Rat
	LD50 (dermal)	> 5010 mg/kg bw		Rabbit
	Skin sensitisation	Sensitizing.		Guinea pig

	Skin irritation	Non-irritant	-----	Rabbit
	Eye irritation	Slightly irritant	-----	Rabbit
	NOEL (carcinogenicity, oral)	Not carcinogenic	-----	Rat
	Mutagenicity	Negative	OECD 471	Salmonella typhimurium
	NOEL (oral)	2500 mg/kg bw/d		Rat
	NOAEL (development, oral)	> 500 mg/kg bw/d	-----	Rat
	Genotoxicity - in vitro	Not genotoxic	OECD 473	
	NOAEL (oral)	> 650 mg/kg bw/d	OECD 408	Rat
4-tert-Butylcyclohexyl acetate	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	
Cinnamaldehyde	Skin irritation	Severely irritant		
	NOAEL (development, oral)	5 mg/kg bw/d	-----	Rat
	LD50 (oral)	2220 mg/kg bw	-----	Rat
	LD50 (dermal)	1260 mg/kg bw	-----	Rabbit
	Mutagenicity	Not mutagenic	-----	Salmonella typhimurium
	NOAEL (oral) - estimate	250 mg/kg bw/d		
	Genotoxicity - in vitro	Genotoxic	-----	
	Genotoxicity - in vivo	Not genotoxic	-----	
	Eye irritation	Moderately irritant	-----	Rabbit
	NOEL (carcinogenicity) - estimate	Not carcinogenic		
	Skin sensitisation	262 ug/cm2	OECD 429	Mouse

11.2. Information on other hazards

Endocrine disrupting properties : This product does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Regulation (EU) 2017/2100 or Regulation (EU) 2018/605 at levels of 0.1% or higher.

Other information : Not applicable.

SECTION 12 ECOLOGICAL INFORMATION *

12.1. Toxicity

No ecotoxicological research has been carried out on this product.

Ecotoxicity : Toxic to aquatic organisms. Calculated LC50 (fish): 1 mg/l. Calculated EC50 (waterflea): 8 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.

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 : This product does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Regulation (EU) 2017/2100 or Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7. Other adverse effects

Other adverse effects : Not applicable.

Ecological information:

Chemical name	Property		Method	Test animal
dl-Limonene	IC50 (algea) - estimate	> 1,81 mg/l		
	EC50 (waterflea) - estimate	0,42 mg/l		
	LC50 (fish) - estimate	0,7 mg/l		
	LC50 (fish)	0,2 mg/l	-----	-----
	EC50 (waterflea)	17 mg/l	-----	Daphnia magna
	Log P(ow)	5,3		
	BCF	761		
3-Methylbutyl butyrate	EC50 (waterflea)	8,12 mg/l	OECD 202	Daphnia magna
	IC50 (algea)	4,68 mg/l	OECD 201	Pseudokirchnerella subcapitata
	LC50 (fish) - estimate	3,19 mg/l		
	Ultimate aerobic biodegradation (%)	63 %		
	Log P(ow)	3,25		
Benzyl benzoate	IC50 (algea)	0,475 mg/l	OECD 201	Pseudokirchnerella subcapitata
	LC0 (fish)	1,9 mg/l	OECD 203	Brachydanio rerio
	LC100 (fish)	2,84 mg/l	OECD 203	Brachydanio rerio
	Ultimate aerobic biodegradation (%)	94 %	OECD 301 F	
	LC50 (fish)	2,32 mg/l	OECD 203	Brachydanio rerio
	EC50 (waterflea)	3,09 mg/l	OECD 202	Daphnia magna
	NOEC (waterflea) - chronic	0,258 mg/l.d	OECD 211	Daphnia magna
	Log P(ow)	3,97		
	BCF	24		
3,7,11-Trimethyldodeca-1,6,10-trien-3-ol, mixed isomers	LC50 (fish)	1,43 mg/l		Pimephales promelas
	EC50 (waterflea)	0,51 mg/l		Daphnia magna
	EC0 (waterflea)	0,31 mg/l		Daphnia magna
	EC100 (waterflea)	1,25 mg/l		Daphnia magna
	IC50 (algea)	2 mg/l	OECD 201	Desmodesmus subspicatus
	Ultimate aerobic biodegradation (%)	> 70 %	OECD 301 F	
	Log P(ow)	4,5		
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 (algea)	> 0,4 mg/l	OECD 201	Desmodesmus subspicatus
	EC50 (waterflea)	0,61 mg/l	OECD 202	Daphnia magna
	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		

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 of into the environment, drains, sewers or 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. : UN 3082

14.2. UN proper shipping name

Transport name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (dl-Limonene ; 3,7,11-Trimethyldodeca-1,6,10-trien-3-ol, mixed isomers)

Transport name (IMDG, IATA) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (dl-Limonene ; 3,7,11-Trimethyldodeca-1,6,10-trien-3-ol,mixed isomers)

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

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

Class : 9

Classification code : M6

Packaging group : III

Danger label : 9 + the “environmentally hazardous substance” mark.

Tunnel restriction code : (–)

:

Other information	:	Not intended for carriage by tank-vessels on inland waterways. This product is not regulated as a dangerous good when transported in sizes of <= 5 L or <= 5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8 (Special provisions 375).

IMDG (sea)

Class	:	9
Packaging group	:	III
EmS (fire / spill)	:	F - A / S - F
Marine pollutant	:	Yes
Other information	:	This product is not regulated as a dangerous good when transported in sizes of <= 5 L or <= 5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8 (IMDG code 37-14, 2.10.2.7).

IATA (air)

Class	:	9
ERG code	:	9L

14.6. Special precautions for user

Other information	:	Country specific variations may apply. It is possible that a "Limited Quantity" exemption applies to the transport of this product.

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.

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 used (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	:	The IMO International Code for construction and equipment of ships carrying dangerous chemicals in bulk.
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 Irrit. 2	:	Calculation method.
Eye Irrit. 2	:	Calculation method.
Skin Sens. 1/1A/1B	:	Calculation method.
Aquatic Chronic 2	:	Calculation method.

Full text of hazard classes mentioned in section 3:

Flam. Liq. 3	:	Flammable liquid, category 3.
Acute Tox. 3	:	Acute toxicity, category 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.
Asp. Tox. 1	:	Aspiration hazard, category 1.
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:

H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H331	Toxic if inhaled.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
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.
EUH066	Repeated exposure may cause skin dryness or cracking.

Advice on any training appropriate for workers: none.

Country / Language code : EC / EN
Number format : "," used as decimal separator.

End of safety data sheet.

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