

# MATERIAL SAFETY DATA SHEET

According to Regulation (EU) No 453/2010

## SECTION 1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

### 1.1. Product identifier

Product name : VECTAIR AIROMA MYSTIQUE  
Product code : 1252247

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

Application : SU22 Professional use. For industrial or institutional use. PC3 Airfreshener.

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

Supplier : Vectair System Ltd  
Unit 3, Trident Centre, Armstrong Road  
Basingstoke, Hampshire RG24 8NU, Great Britain  
Telephone : +44-1256-319500  
Fax : +44-1256-319510  
E-mail : msds@vectair.co.uk  
Website : www.vectairsystems.co.uk

### 1.4. Emergency telephone number

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

GB - Telephone : +44-1256-319500 (During office hours only)

EMERGENCY TELEPHONE NUMBER (for DOCTORS only):

National Poisons Information Service +44-844 892 0111 (24/7)

## SECTION 2 HAZARDS IDENTIFICATION

### 2.1. Classification of the substance or mixture

Classification (99/45/EC) : Extremely flammable.  
CLP classification (1272/2008/EC) : Flammable aerosols, hazard category 1. Eye irritation, hazard category 2. Skin sensitization, hazard category 1. Specific target organ toxicity after single exposure, hazard category 3. Hazardous to the aquatic environment — Chronic hazard category 3.

Human health hazards : May cause an allergic skin reaction. Causes serious eye irritation. May cause drowsiness or dizziness. Exposure to high vapour concentrations may result in a narcotic effect. Use only as directed. Intentional misuse by deliberately concentrating and inhaling contents can be harmful or fatal.

Physical/chemical hazards : Extremely flammable. Keep away from sources of ignition — No smoking. Do not spray on a naked flame or any incandescent material. Do not spray near fire, sources of heat or live electrical equipment. Aerosol may explode from internal pressure build-up when exposed to temperatures exceeding 50 °C.

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

Other information : Keep out of the reach of children. Caution: Do not breathe spray. Use only in well-ventilated areas. Spray in short intervals for a short period only. Ventilate well after use. Harmful to house pets.

### 2.2. Label elements

Label elements (99/45/EC):

Hazard symbols :



F+: Extremely flammable

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R- and S-phrases : R12 Extremely flammable.  
S2 Keep out of the reach of children.  
S16 Keep away from sources of ignition — No smoking.  
S23 Aerosol Do not breathe spray.  
S51 Use only in well-ventilated areas.

Additional labelling : Important: Pressurized container; protect from sunlight and do not expose to temperatures exceeding 50°C.  
Do not pierce or burn, even after use. Do not spray on a naked flame or any incandescent material.

Label elements (1272/2008/EC):

Hazard pictograms :



Signal word : Danger

H- and P-phrases : H222 Extremely flammable aerosol.  
H229 Pressurised container: May burst if heated.  
H317 May cause an allergic skin reaction.  
H412 Harmful to aquatic life with long lasting effects.  
P251 Do not pierce or burn, even after use.  
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.  
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P211 Do not spray on an open flame or other ignition source.  
P261 spray Avoid breathing spray.  
P280 gloves Wear protective gloves.  
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.  
P362 + P364 Take off contaminated clothing and wash it before reuse.  
P501 Dispose of contents/container to an official chemical waste depot.

Additional labelling (99/45/EC and/or 1272/2008/EC)

- : Where the mixture is labelled in accordance with Regulation (EC) No 1272/2008 (CLP) the packaging shall (also) carry the text: Contains: alpha-Hexylcinnamaldehyde ; Coumarin .
- : 3 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity.

## 2.3. Other hazards

Other information : The classification of this product is based on the non-aerosolised form of the mixture (on basis of section 1.1.3.7. of Regulation (EC) No 1272/2008). Does not contain PBT or vPvB substances in concentrations higher than 0,1%.

## 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	Symbols	R-phrases
Isobutane	50 - 75	75-28-5	200-857-2	F+	12
Ethanol	10 - < 20	64-17-5	200-578-6	F	11
Propan-2-ol	5 - < 10	67-63-0	200-661-7	F; Xi	11-36-67
Propyleneglycol	1 - < 5	57-55-6	200-338-0	----	----
Butane	1 - < 5	106-97-8	203-448-7	F+	12
alpha-Hexylcinnamaldehyde	0,1 - < 1	101-86-0	202-983-3	Xi	38-43
1,4-Dioxacycloheptadecane-5,17-dione	0,1 - < 1	105-95-3	203-347-8	N	51/53

Product name : Vectair Airoma Mystique

Date of issue : 11-02-2014

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Propane	0,1 - < 1	74-98-6	200-827-9	F+	12
Linalool	0,1 - < 1	78-70-6	201-134-4	Xi	38
Coumarin	0,1 - < 1	91-64-5	202-086-7	Xn	22-43
2-(4-tert-butylbenzyl)propionaldehyde	0,1 - < 1	80-54-6	201-289-8	Xn; N	22-38-43-51/53-62
Benzyl benzoate	0,1 - < 1	120-51-4	204-402-9	Xn; N	22-51/53
d-Limonene	0,1 - < 1	5989-27-5	227-813-5	Xi; N	10-38-43-50/53
Geraniol	< 0,1	106-24-1	203-377-1	Xi	38-41-43
Oils, vetiver	< 0,1	8016-96-4	282-490-8	Xi	36/38-43

Reference is made to chapter 16 for full text of each relevant R phrase. Occupational exposure limit(s), if relevant, are listed in section 8.

Substance name	REACH nr.	Hazard Class	Pictograms	H-phrases
Isobutane	01-2119485395-27	Flam. Gas 1; Press. Gas	GHS02; GHS04	H220; H280
Ethanol	01-2119457610-43	Flam. Liq. 2; Eye Irrit. 2	GHS02; GHS07	H225; H319
Propan-2-ol	01-2119457558-25	Flam. Liq. 2; Eye Irrit. 2; STOT SE 3	GHS02; GHS07	H225; H319; H336
Propyleneglycol	01-2119456809-23	----	----	----
Butane	01-2119474691-32	Flam. Gas 1; Press. Gas	GHS02; GHS04	H220; H280
alpha-Hexylcinnamaldehyde	01-2119533092-50	Skin Sens. 1B	GHS07	H317
1,4-Dioxacycloheptadecane-5,17-dione	01-2119976314-33	Aquatic Chronic 2	GHS09	H411
Propane	01-2119486944-21	Flam. Gas 1; Press. Gas	GHS02; GHS04	H220; H280
Linalool	01-2119474016-42	Skin Irrit. 2	GHS07	H315; H319
Coumarin	01-2119949300-45	Acute Tox. 4; Skin Sens. 1	GHS07	H302; H317
2-(4-tert-butylbenzyl)propionaldehyde	01-2119485965-18	Aquatic Chronic 2; Skin Irrit. 2; Skin Sens. 1; Acute Tox. 4; Repr. 2	GHS07; GHS08; GHS09	H302; H315; H317; H411; H361f
Benzyl benzoate		Acute Tox. 4; Aquatic chronic 2	GHS07; GHS09	H302; H411
d-Limonene	01-2119529223-47	Flam. Liq. 3; Skin Irrit. 2; Skin Sens. 1; Aquatic Acute 1; Aquatic Chronic 1	GHS02; GHS07; GHS09	H226; H315; H317; H410
Geraniol	01-2119552430-49	Skin Sens. 1; Eye Dam. 1; Skin Irrit. 2	GHS05; GHS07	H317; H318; H315
Oils, vetiver		Skin Irrit. 2; Skin Sens. 1; Eye Irrit. 2	GHS07	H315; H317; H319

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 for at least 15 minutes. Remove contact lenses. Consult a doctor if irritation persists.
- Ingestion : Aerosol/mist: Ingestion is unlikely to occur.

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

Effects and symptoms

- Inhalation : May cause headache, dizziness and a feeling of sickness. May cause irritation to respiratory airways and coughing.
- 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.

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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 (CO<sub>2</sub>). Alcohol resistant foam. Dry chemical. Water fog.

Not suitable : Water jet.

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

Special exposure hazards : Aerosol may explode from internal pressure build-up when exposed to temperatures exceeding 50 °C. Do not expose emergency personnel to overheated aerosol containers. Water may be used to cool container and prevent explosion of the aerosol.

Hazardous thermal decomposition products : Carbon monoxide may be evolved if incomplete combustion occurs.

### 5.3. Advice for firefighters

Special protective equipment for fire-fighters : Fight a fire where aerosols are involved from a protected position. 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. Do not breathe vapours and/or spray. Keep away from sources of ignition — No smoking. Build up of highly flammable gasses involves an explosion risk. 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.

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. Collect cans in an approved container. Do not pierce aerosols. 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. Important: Pressurized container; protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Keep away from sources of ignition — No smoking. Do not spray on a naked flame or any incandescent material. Do not spray near fire, sources of heat or live electrical equipment. Electrostatic discharge may cause fire. Ensure electrical continuity by bonding and grounding (earthing) all equipment. Do not breathe spray. Do not breathe vapour. Avoid contact with skin and eyes.

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

Storage : Keep frost-free, in a cool (< 35°), dry and well-ventilated place. Protect from sunlight and keep away from heat.  
 Recommended packaging : Not applicable.

## 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
Isobutane		1900	2400	
Ethanol	GB	1920	-	
Propan-2-ol	GB	999	1250	
Propyleneglycol	GB	474	-	Total Vapour and Particulates
Propyleneglycol		474	-	MAC UK: Total Vapour and Particulates
Butane	GB	1450	1810	
Butane		1450	1810	
Propane		1800	-	
d-Limonene		110	-	MAC: DE, CH, NL

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
Ethanol	Dermal				343 mg/kg bw/day
	Inhalation	1900 mg/m <sup>3</sup>			950 mg/m <sup>3</sup>
Propan-2-ol	Dermal				888 mg/kg bw/day
	Inhalation			10 mg/m <sup>3</sup>	500 mg/m <sup>3</sup>
Propyleneglycol	Inhalation				168 mg/m <sup>3</sup>
alpha-Hexylcinnamaldehyde	Dermal				18,2 mg/kg bw/day
	Inhalation	6,28 mg/m <sup>3</sup>			0,078 mg/m <sup>3</sup>
Linalool	Dermal		5 mg/kg bw		2,5 mg/kg bw/day
	Inhalation		16,5 mg/m <sup>3</sup>		2,8 mg/m <sup>3</sup>
Coumarin	Dermal				0,79 mg/kg bw/day
	Inhalation				5,52 mg/m <sup>3</sup>
2-(4-tert-butylbenzyl)propionaldehyde	Dermal	0,41 mg/kg bw	20 mg/kg bw		3,33 mg/kg bw/day
	Inhalation	0,29 mg/m <sup>3</sup>	0,29 mg/m <sup>3</sup>	0,048 mg/m <sup>3</sup>	0,048 mg/m <sup>3</sup>
d-Limonene	Inhalation				33,3 mg/m <sup>3</sup>
Geraniol	Dermal				12,5 mg/kg bw/day
	Inhalation				161,6 mg/m <sup>3</sup>

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
Ethanol	Dermal				206 mg/kg bw/day
	Inhalation	950 mg/m <sup>3</sup>			114 mg/m <sup>3</sup>

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Propan-2-ol	Oral				87 mg/kg bw/day
	Dermal				319 mg/kg bw/day
	Inhalation				89 mg/m <sup>3</sup>
Propyleneglycol	Oral				26 mg/kg bw/day
	Inhalation			10 mg/m <sup>3</sup>	50 mg/m <sup>3</sup>
	Dermal				9,11 mg/kg bw/day
alpha-Hexylcinnamaldehyde	Inhalation	4,71 mg/m <sup>3</sup>			0,019 mg/m <sup>3</sup>
	Dermal				0,056 mg/kg bw/day
	Inhalation				1,25 mg/kg bw/day
Linalool	Oral		2,5 mg/kg bw	15 mg/kg bw/day	0,7 mg/m <sup>3</sup>
	Dermal		4,1 mg/m <sup>3</sup>		0,2 mg/kg bw/day
	Inhalation		1,2 mg/kg bw		0,39 mg/kg bw/day
Coumarin	Oral				1,38 mg/m <sup>3</sup>
	Dermal				0,39 mg/kg bw/day
	Inhalation				0,39 mg/kg bw/day
2-(4-tert-butylbenzyl)propionaldehyde	Oral				1,67 mg/kg bw/day
	Dermal	0,41 mg/kg bw	20 mg/kg bw		0,012 mg/m <sup>3</sup>
	Inhalation	0,07 mg/m <sup>3</sup>	0,07 mg/m <sup>3</sup>	0,012 mg/m <sup>3</sup>	0,007 mg/kg bw/day
d-Limonene	Oral		0,041 mg/kg bw		8,33 mg/m <sup>3</sup>
	Inhalation				4,76 mg/kg bw/day
	Oral				7,5 mg/kg bw/day
Geraniol	Dermal				47,8 mg/m <sup>3</sup>
	Inhalation				13,75 mg/kg bw/day
	Oral				

Predicted no-effect concentration (PNEC):

Chemical name	Route of exposure	Fresh water	Marine water	
Ethanol	Water	0,96 mg/l	0,79 mg/l	
	Sediment	3,6 mg/kg	2,9 mg/kg	
	Intermittent water			2,75 mg/l
	STP			580 mg/l
	Soil			0,63 mg/kg
	Oral			0,72 mg/kg food
Propan-2-ol	Water	140,9 mg/l	140,9 mg/l	
	Sediment	552 mg/kg	552 mg/kg	
	Intermittent water			140,9 mg/l
	STP			2251 mg/l
	Soil			28 mg/kg
	Oral			160 mg/kg food
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
	Oral			1133 mg/kg food
alpha-Hexylcinnamaldehyde	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
	Oral			6,6 mg/kg food
1,4-Dioxacycloheptadecane-5,17-dione	Water	0,00187 mg/l	0,000187 mg/l	
	Sediment	1,26 mg/kg	0,13 mg/kg	
	Intermittent water			0,0187 mg/l
	STP			124 mg/l
	Soil			0,25 mg/kg
	Oral			33,3 mg/kg food
Linalool	Water	0,2 mg/l	0,02 mg/l	
	Sediment	2,22 mg/kg	0,222 mg/kg	
	Intermittent water			2 mg/l

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Coumarin	STP			10 mg/l
	Soil			0,327 mg/kg
	Oral			7,8 mg/kg food
	Water	0,019 mg/l	0,0019 mg/l	
	Sediment	0,15 mg/kg	0,015 mg/kg	
2-(4-tert-butylbenzyl)propionaldehyde	Intermittent water			0,014 mg/l
	STP			6,4 mg/l
	Soil			0,018 mg/kg
	Oral			30,7 mg/kg food
	Water	0,0020 mg/l	0,0002 mg/l	
d-Limonene	Sediment	0,0584 mg/kg	0,0058 mg/kg	
	Intermittent water			0,0204 mg/l
	STP			1,049 mg/l
	Soil			0,0463 mg/kg
	Water	0,0054 mg/l	0,0005 mg/l	
Geraniol	Sediment	1,32 mg/kg	0,13 mg/kg	
	STP			1,8 mg/l
	Soil			0,262 mg/kg
	Oral			3,33 mg/kg food
	Water	0,0108 mg/l	0,0010 mg/l	
	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

## 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.  
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.  $\pm$  0,5 mm Indication of permeation breakthrough time: < 1 hour.  
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 : Aerosol.  
Colour : Colourless.  
Odour : Perfumed.  
Odour threshold : Not known.  
pH : Not applicable. Almost waterfree product.  
Solubility in water : Soluble.  
Partition coefficient (n-octanol/water) : Not known.

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Flash point	: Not applicable.	Not measurable.
Flammability (solid, gas)	: Extremely flammable.	
Auto ignition temperature	: Not applicable.	Aerosol container explodes before reaching the auto-ignition point.
Boiling point/boiling range	: Not known.	Not measurable.
Melting point/melting range	: < 0 °C	
Explosive properties	:	Pressurised container: May burst if heated.
Explosion limits (in air)	: Not known.	Lower explosion limit in air (%): 1,3 ( Butane )
	:	Upper explosion limit in air (%): 19 Ethanol
Oxidising properties	: Not applicable.	Does not contain oxidizing substances.
Decomposition temperature	: Not applicable.	
Viscosity (20°C)	: Not known.	
Viscosity (40°C)	: Not known.	
Vapour pressure (20°C)	: 350000 Pa	
Vapour density (20°C)	: > 1	(air = 1)
Relative density (20°C)	: 0,637 g/ml	
Evaporation rate	: Not known.	

## 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 : Keep away from sources of ignition and sources of heat. See section 7.

### 10.5. Incompatible materials

Materials to avoid : Not applicable.

### 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: 3 %. 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	: May cause irritation to respiratory airways and coughing.
Sensitisation	: Not classified - based on available data, the classification criteria are not met.
Carcinogenicity	: Not classified - based on available data, the classification criteria are not met.
Mutagenicity	: Not classified - based on available data, the classification criteria are not met.

#### Skin contact



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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	: May cause redness. 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	: Not classified - based on available data, the classification criteria are not met.
Eye contact	
Corrosion/irritation	: Irritant.
Ingestion	
Acute toxicity	: Aerosol/mist: Ingestion is unlikely to occur. Ingredients of unknown toxicity: < 1 %. ATE: > 2000 mg/kg.bw. Low toxicity. Not classified - based on available data, the classification criteria are not met. May cause hampered eyesight.
Corrosion/irritation	: Aerosol/mist: Ingestion is unlikely to occur. May cause a feeling of sickness, vomiting and diarrhoea. Not classified - based on available data, the classification criteria are not met.
Carcinogenicity	: Aerosol/mist: Ingestion is unlikely to occur. Not classified - based on available data, the classification criteria are not met.
Mutagenicity	: Aerosol/mist: Ingestion is unlikely to occur. Not classified - based on available data, the classification criteria are not met.

## Toxicological information:

Chemical name	Property		Method	Test animal	
Ethanol	Skin irritation	Non-irritant	-----	Rabbit	
	LD50 (dermal)	15800 mg/kg bw	-----	Rabbit	
	NOAEL (inhalation)	23000 mg/m3		Rat	
	NOAEL (oral)	2400 mg/kg bw/d		Rat	
	NOAEL (fertility, oral)	20000 mg/kg bw/d	OECD 415	Rat	
	Skin sensitisation	Not sensitizing	OECD 406	Guinea pig	
	NOAEL (development, oral)	6400 mg/kg bw/d			
	LD50 (oral)	10470 mg/kg bw	OECD 401	Rat	
	LC50 (inhalation)	> 99999 mg/m3	OECD 403	Rat	
	Eye irritation	Irritant	OECD 405	Rabbit	
	NOEL (carcinogenicity, oral)	> 4400 mg/kg bw/d		Mouse	
	Genotoxicity - in vivo	Not genotoxic	OECD 478	Mouse	
	Genotoxicity - in vitro	Not genotoxic	OECD 476		
	Mutagenicity	Negative	OECD 471	Salmonella typhimurium	
	Propan-2-ol	NOAEL (oral)	870 mg/kg bw/d	-----	Rat
		LD50 (oral)	4396 mg/kg bw	-----	Rat
LD50 (dermal)		12800 mg/kg bw	-----	Rat	
LC50 (inhalation)		46600 mg/m3	-----	Rat	
Skin irritation		Slightly irritant	OECD 404	Rabbit	
Eye irritation		Irritant	OECD 405	Rabbit	
NOAEL (fertility, oral)		407 mg/kg bw/d		Rat	
NOAEL (development, oral)		400 mg/kg bw/d		Rat	
NOEL (carcinogenicity, oral)		Not carcinogenic	OECD 416	Rat	
Skin sensitisation		Not sensitizing	OECD 406	Guinea pig	
Mutagenicity		Negative	OECD 471		
NOAEL (inhalation)		12500 mg/m3	OECD 451	Rat	
Genotoxicity - in vivo		Not genotoxic	OECD 474	Mouse	
NOEL (carcinogenicity, inh.)		12500 mg/m3		Mouse	
alpha-Hexylcinnamaldehyde		Genotoxicity - in vitro	Not genotoxic	OECD 476	
		Genotoxicity - in vivo	Not genotoxic	OECD 474	
	Genotoxicity - in vitro	Not genotoxic	OECD 476		
	NOAEL (oral) - estimate	30 mg/kg bw/d	Read across	Rat	

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Coumarin	LD50 (dermal)	> 3000 mg/kg bw	OECD 402	Rabbit
	LC50 (inhalation)	> 5000 mg/m <sup>3</sup>	OECD 403	Rat
	LD50 (oral)	> 2450 mg/kg bw	OECD 401	Rat
	Mutagenicity	Negative	OECD 471	Salmonella typhimurium
	Skin sensitisation	23622 ug/cm <sup>2</sup>	HRIPT	Human
	Skin sensitisation	2372 ug/cm <sup>2</sup>	OECD 429	Mouse
	Skin irritation	Moderately irritant	OECD 404	Rabbit
	NOAEL (development, oral)	100 mg/kg bw/d	OECD 421	Rat
	Eye irritation	Non-irritant		Rabbit
	NOAEL (dermal)	25 mg/kg bw/d		Rat
	Skin sensitisation	3543 ug/cm <sup>2</sup>	HRIPT	Human
	Skin sensitisation	> 12500 ug/cm <sup>2</sup>	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			

## 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): 73 mg/l. Calculated EC50 (waterflea): 167 mg/l.  
Contains < 1 % of components with unknown hazards to the aquatic environment.

### 12.2. Persistence and degradability

Persistence – degradability : No specific information known.

### 12.3. Bioaccumulative potential

Bioaccumulative potential : Contains bioaccumulating substances.

### 12.4. Mobility in soil

Mobility : Not applicable.

### 12.5. Results of PBT and vPvB ass

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

### 12.6. Other adverse effects

Other information : Not applicable.

Ecological information:

Chemical name	Property		Method	Test animal
1,4-Dioxacycloheptadecane-5,17-dione	Ultimate aerobic biodegradation (%)	> 60 %	OECD 301 B	
	NOEC (algae)	3,48 mg/l	-----	Desmodesmus subspicatus
	IC50 (algae)	14,58 mg/l	-----	Desmodesmus subspicatus
	EC50 (waterflea)	8,09 mg/l	-----	Daphnia magna

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2-(4-tert-butylbenzyl)propionaldehyde	LC50 (fish)	2,13 mg/l	-----	Brachydanio rerio
	Log P(ow)	2,9		
	BCF	319,3		
	EC100 (waterflea)	25 mg/l		Daphnia magna
	Ultimate aerobic biodegradation (%)	68 %	OECD 301 F	
	EC50 (waterflea)	10,7 mg/l		Daphnia magna
	LC50 (fish)	2,2 mg/l	OECD 203	Brachydanio rerio
	EC0 (waterflea)	6,25 mg/l		Daphnia magna
	Log P(ow)	4,3000		
	BCF	274		
Benzyl benzoate	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) - estimate	> 1 mg/l		
	Log P(ow)	3,97		
	BCF	24		
d-Limonene	NOEC (waterflea) - chronic	0,15 mg/l.d		Daphnia magna
	Ultimate aerobic biodegradation (%)	> 92 %		
	EC50 (waterflea)	0,36 mg/l	OECD 202	Daphnia magna
	LC50 (fish)	0,720 mg/l	OECD 203	Pimephales promelas
	Log P(ow)	4,38		

## SECTION 13 DISPOSAL CONSIDERATIONS

### 13.1. Waste treatment methods

- Product residues : Recyclable metal container. Do not puncture or burn even after use. 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 : Residues may cause an explosion hazard. Do not puncture, cut or weld uncleaned drums.
- 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. : UN 1950

### 14.2. UN proper shipping name

Transport name : AEROSOLS

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

ADR/RID (road / railway)

Class : 2  
Classification code : 5F  
Packaging group : -  
Danger label : 2,1

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IMDG (sea)  
Class : 2  
Packaging group : -  
EmS (fire / spill) : F - D / S - U  
Marine pollutant : No

IATA (air)  
Class : 2

## 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. 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 (EC) No 453/2010 (REACH), Regulation (EC) No 1272/2008 (CLP), 75/324/EEC (aerosols) and other regulations.

In the UK it is recommended that all aerosols should be labelled on the back with the warning about the dangers of volatile solvent abuse. The label should contain the badge 'Solvent Abuse Can Kill Instantly' accompanied by the phrase 'Use only as directed'.

### 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 (EC) No 453/2010 dated 20 May 2010 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 (\*).

Full text of R-phrases mentioned in section 3:

R10	Flammable.
R11	Highly flammable.
R12	Extremely flammable.
R22	Harmful if swallowed.
R36	Irritating to eyes.
R38	Irritating to skin.
R41	Risk of serious damage to eyes.

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R43	May cause sensitisation by skin contact.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R62	Possible risk of impaired fertility.
R67	Vapours may cause drowsiness and dizziness.

Full text of H-phrases mentioned in section 3:

H220	Extremely flammable gas.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H280	Contains gas under pressure; may explode if heated.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H361	Suspected of damaging fertility or the unborn child.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

Number format : "," used as decimal separator.

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## History

Date of first issue : 11-02-2014