MATERIAL SAFETY DATA SHEET

According to Regulation (EU) No 453/2010

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

1.1. Product identifier

Product name : VECTAIR AIROMA INDIAN FLOWERS BAERO-38
Product code : 1254084

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

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

1.3. Details of the supplier of the safety data sheet

Supplier : Vectair System LTD
Unit 3, Trident Centre, Armstrong Road
RG248NU BASINGSTOKE, HAMPSHIRE, Great Britain
Telephone : +44 1256 319500
Fax : +44 1256 319520
E-mail : msds@vectair.co.uk
Website : http://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):
(24/7)

SECTION 2 HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

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

Human health hazards : Causes skin irritation. Causes serious eye irritation. May cause sensitisation by skin contact. 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. Avoid contact with skin. Wear suitable gloves. 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 :

Xi: Irritant

F+: Extremely flammable

R- and S-phrases	:	R12	Extremely flammable.
		R43	May cause sensitisation by skin contact.
		R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
		S2	Keep out of the reach of children.
		S16	Keep away from sources of ignition — No smoking.
		S23 Aerosol	Do not breathe spray.
		S24	Avoid contact with skin.
		S37	Wear suitable gloves.
		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.

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

: Contains: Hexyl salicylate

: Where the mixture is labelled in accordance with Regulation (EC) No 1272/2008 (CLP) the packaging shall (also) carry the text: Contains: Propan-2-ol ; alpha-Hexylcinnamaldehyde ; Eugenol ; Citronellol ; Geraniol .

: 9 % 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). The product does not need to carry all label elements required by Article 17 of Regulation (EC) No 1272/2008 on the basis of Annex I, point 1.5.2.1. Exemption for packages where the contents do not exceed 125 ml. 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
alpha-Hexylcinnamaldehyde	0,1 - < 1	101-86-0	202-983-3	Xi	38-43
2,6-Dimethylheptan-2-ol	0,1 - < 1	13254-34-7	236-244-1	Xi	36/38
Butane	0,1 - < 1	106-97-8	203-448-7	F+	12

Methyl anthranilate	0,1 - < 1	134-20-3	205-132-4	Xi	36
Hexyl salicylate	1 - < 2,5	6259-76-3	228-408-6	Xi; N	38-43-50/53
Linalool	1 - < 5	78-70-6	201-134-4	Xi	38
Propyleneglycol	1 - < 5	57-55-6	200-338-0	-----	-----
Propan-2-ol	5 - < 10	67-63-0	200-661-7	F; Xi	11-36-67
Propane	10 - < 20	74-98-6	200-827-9	F+	12
Ethanol	10 - < 20	64-17-5	200-578-6	F	11
Isobutane	25 - 50	75-28-5	200-857-2	F+	12
Citronellol	< 0,1	106-22-9	203-375-0	Xi; N	38-43-51/53
Eugenol	0,1 - < 1	97-53-0	202-589-1	Xi	36-43
2´-Acetonaphtone	0,1 - < 1	93-08-3	202-216-2	N	51/53
Geraniol	< 0,1	106-24-1	203-377-1	Xi	38-41-43

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
alpha-Hexylcinnamaldehyde	01-2119533092-50	Skin Sens. 1B	GHS07	H317
2,6-Dimethylheptan-2-ol		Skin Irrit. 2; Eye Irrit. 2	GHS07	H315; H319
Butane	01-2119474691-32	Flam. Gas 1; Press. Gas	GHS02; GHS04	H220: H280
Methyl anthranilate		Eye Irrit. 2	GHS07	H319
Hexyl salicylate	01-2119638275-36	Eye Irrit. 2; Skin Irrit. 2; Skin Sens. 1; Aquatic Acute 1; Aquatic Chronic 1	GHS07; GHS09	H319; H315; H317; H400; H410
Linalool	01-2119474016-42	Skin Irrit. 2	GHS07	H315; H319
Propyleneglycol	01-2119456809-23	-----	-----	-----
Propan-2-ol	01-2119457558-25	Flam. Liq. 2; Eye Irrit. 2; STOT SE 3	GHS02; GHS07	H225; H319; H336
Propane	01-2119486944-21	Flam. Gas 1; Press. Gas	GHS02; GHS04	H220; H280
Ethanol	01-2119457610-43	Flam. Liq. 2; Eye Irrit. 2	GHS02; GHS07	H225; H319
Isobutane	01-2119485395-27	Flam. Gas 1; Press. Gas	GHS02; GHS04	H220; H280
Citronellol	01-2119453995-23	Eye Irrit. 2; Skin Irrit. 2; Skin Sens. 1B	GHS07	H319; H317; H315
Eugenol		Eye Irrit. 2; Skin Sens. 1	GHS07	H319; H317
2´-Acetonaphtone		Aquatic Chronic 2	GHS09	H411
Geraniol	01-2119552430-49	Skin Sens. 1; Eye Dam. 1; Skin Irrit. 2	GHS05; GHS07	H317; H318; H315

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.

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 : Irritant. May cause redness and irritation, sensitisation. May produce an allergic reaction. May cause dry skin and redness.

Eye contact : Irritant. May cause redness and pain.

Ingestion : Aerosol/mist: Ingestion is unlikely to occur.

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_2). 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. 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. 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 : For guidance on selection of personal protective equipment see section 8. For guidance on disposal of spilled material see section 13.

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.

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/m³):

Chemical name	Country	TWA 8 hour (mg/m3)	STEL 15 min (mg/m3)	Comments
Butane	GB	1450	1810	-
Butane		1450	1810	
Propyleneglycol	GB	474	-	Total Vapour and Particulates
Propyleneglycol		474		MAC UK: Total Vapour and Particulates
Propan-2-ol	GB	999	1250	-
Propane		1800	-	
Ethanol	GB	1920	-	-
Ethanol		260	1900	Mac: NL
Isobutane		1900	2400	

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
alpha-Hexylcinnamaldehyde	Dermal	0,525 mg/kg bw		0,525 mg/kg bw/day	18,2 mg/kg bw/day
	Inhalation	6,28 mg/m3			0,078 mg/m3
Hexyl salicylate	Dermal	1,475 mg/kg bw	20830 mg/kg bw		20830 mg/kg bw/day
	Inhalation		7,29 mg/m3		7,29 mg/m3
Linalool	Dermal		5 mg/kg bw		2,5 mg/kg bw/day
	Inhalation		16,5 mg/m3		2,8 mg/m3
Propyleneglycol	Inhalation			10 mg/m3	168 mg/m3
Propan-2-ol	Dermal				888 mg/kg bw/day
	Inhalation				500 mg/m3
Ethanol	Dermal				343 mg/kg bw/day
	Inhalation	1900 mg/m3			950 mg/m3
Citronellol	Dermal				45,8 mg/kg bw/day
	Inhalation				161,6 mg/m3
Geraniol	Dermal				12,5 mg/kg bw/day
	Inhalation				161,6 mg/m3

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
alpha-Hexylcinnamaldehyde	Dermal	0,0787 mg/kg bw		0,0787 mg/kg bw/day	9,11 mg/kg bw/day
	Inhalation	4,71 mg/m3			0,019 mg/m3
	Oral				0,056 mg/kg bw/day
Hexyl salicylate	Dermal	0,885 mg/kg bw	12500 mg/kg bw		12500 mg/kg bw/day
	Inhalation		2,19 mg/m3		2,19 mg/m3
	Oral		1,25 mg/kg bw		0,625 mg/kg bw/day
Linalool	Dermal		2,5 mg/kg bw	15 mg/kg bw/day	1,25 mg/kg bw/day
	Inhalation		4,1 mg/m3		0,7 mg/m3
	Oral		1,2 mg/kg bw		0,2 mg/kg bw/day
Propyleneglycol	Inhalation			10 mg/m3	50 mg/m3
Propan-2-ol	Dermal				319 mg/kg bw/day
	Inhalation				89 mg/m3
	Oral				26 mg/kg bw/day
Ethanol	Dermal				206 mg/kg bw/day
	Inhalation	950 mg/m3			114 mg/m3
	Oral				87 mg/kg bw/day
Citronellol	Dermal				27,5 mg/kg bw/day
	Inhalation				47,8 mg/m3
	Oral				13,75 mg/kg bw/day
Geraniol	Dermal				7,5 mg/kg bw/day
	Inhalation				47,8 mg/m3
	Oral				13,75 mg/kg bw/day

Predicted no-effect concentration (PNEC):

Chemical name	Route of exposure	Fresh water	Marine water	
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
Hexyl salicylate	Water	0,000357 mg/l	0,000036 mg/l	
	Sediment	0,272 mg/kg	0,0272 mg/kg	
	Intermittent water			0,00357 mg/l
	STP			10 mg/l
	Soil			0,0542 mg/kg
Linalool	Water	0,2 mg/l	0,02 mg/l	
	Sediment	2,22 mg/kg	0,222 mg/kg	
	Intermittent water			2 mg/l
	STP			10 mg/l
	Soil			0,327 mg/kg
	Oral			7,8 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
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
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
Citronellol	Water	0,0024 mg/l	0,00024 mg/l	
	Sediment	0,0256 mg/kg	0,00256 mg/kg	
	Intermittent water			0,024 mg/l
	STP			580 mg/l
	Soil			0,00371 mg/kg
Geraniol	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 : Wear appropriate protective clothing, overalls or suit, and similar boots in accordance with EN 365/367 resp. 345. Suitable material: butyl. 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: butyl. ± 0,5 mm. Indication of permeation breakthrough time: not known.

Eye protection : Wear appropriate safety glasses with side shields, in accordance with EN 166, 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.	
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)	: 360000 Pa	
Vapour density (20°C)	: > 1	(air = 1)
Relative density (20°C)	: 0,653 g/ml	
Evaporation rate	: Not known.	(n-butyl acetate = 1)

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: 9 %. ATE: > 5 mg/l. Low toxicity. Not classified - based on available data, the classification criteria are not met. May cause damage to organs. Target organ(s): Central nervous system. Effect(s): Breathing of high vapour concentrations may cause central nervous system (CNS) depression resulting in dizziness, lightheadedness, headache, nausea and loss of coordination. Continued inhalation may result in unconsciousness and death.
Corrosion/irritation	: May cause irritation to respiratory airways and coughing. Not classified - based on available data, the classification criteria are not met.
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	: 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 : Irritant. May cause redness. Prolonged contact may dry out and defat the skin.
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 : Aerosol/mist: Ingestion is unlikely to occur. Calculated LD50: > 1233 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. 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. Does not contain mutagenic substances. Not classified - based on available data, the classification criteria are not met.

Toxicological information:

Chemical name	Property		Method	Test animal
alpha-Hexylcinnamaldehyde	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
	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
	Mutagenicity	Negative	OECD 471	Salmonella typhimurium
	Skin sensitisation	2372 ug/cm2	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
2,6-Dimethylheptan-2-ol	LD50 (oral)	6800 mg/kg bw	-----	Rat
	LD50 (dermal)	> 5000 mg/kg bw		Rabbit
	Skin irritation	Severely irritant	-----	Rabbit
	Eye irritation	Severely irritant	-----	Rabbit
Methyl anthranilate	Skin irritation	Moderately irritant	-----	Rabbit
	LC50 (inhalation)	> 2240 mg/m3		Rat
	LD50 (dermal)	> 5000 mg/kg bw		Rabbit
	LD50 (oral)	2910 mg/kg bw	-----	Rat
Hexyl salicylate	Skin irritation	Irritant		Rabbit
	LD50 (dermal)	> 5000 mg/kg bw		Rabbit
	Eye irritation	Non-irritant		Rabbit
	LD50 (oral)	> 5000 mg/kg bw	-----	Rat
	NOAEL (oral) - estimate	50 mg/kg bw/d	Read across	
	Mutagenicity	Negative	OECD 471	Salmonella typhimurium
	Genotoxicity - in vitro	Not genotoxic	OECD 476	Chinese Hamster
	Genotoxicity - in vivo	Not genotoxic	-----	Mouse
	NOAEL (development) - estimate	Not teratogenic	Read across	
	NOAEL (fertility) - estimate	Not reprotoxic	Read across	
Linalool	Skin irritation	Mildly irritant	-----	Human
	LD50 (dermal)	5610 mg/kg bw	-----	Rabbit
	LD50 (oral)	2790 mg/kg bw	-----	Rat
	Genotoxicity - in vivo	Not genotoxic	OECD 475	Mouse
	Skin irritation	Irritant	OECD 404	Rabbit

	NOAEL (fertility, oral)	500 mg/kg bw/d		Rat
	Mutagenicity	Negative	OECD 471	Salmonella typhimurium
	Skin sensitisation	12650 ug/cm2	OECD 429	Mouse
	Eye irritation	Non-irritant	OECD 405	Rabbit
	NOAEL (oral)	117 mg/kg bw/d	-----	Rat
	NOAEL (development, oral)	365 mg/kg bw/d	-----	Rat
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
	Genotoxicity - in vitro	Not genotoxic	OECD 476	
Ethanol	Skin irritation	Non-irritant	-----	Rabbit
	LD50 (dermal)	15800 mg/kg bw	-----	Rabbit
	NOAEL (inhalation)	23000 mg/m3		Rat
	NOAEL (oral)	1730 mg/kg bw/d	OECD 408	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)	117000 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
	NOEL (carcinogenicity, inh.)	13 mg/m3		
	Genotoxicity - in vitro	Not genotoxic	OECD 476	
	Mutagenicity	Negative	OECD 471	Salmonella typhimurium
Citronellol	Eye irritation	Moderately irritant		Rabbit
	Skin irritation	Moderately irritant	Patch test	Human
	NOAEL (developmental toxicity, dermal)	> 300 mg/kg bw/d	OECD 421	Rat
	NOAEL (fertility, dermal)	300 mg/kg bw/d	OECD 421	Rat
	LD50 (dermal)	2650 mg/kg bw		Rabbit
	LD50 (oral)	3450 mg/kg bw	-----	Rat
	Skin irritation	Moderately irritant		Rabbit
	NOAEL (oral)	> 50 mg/kg bw/d		Rat
	Mutagenicity	Not mutagenic	OECD 471	Salmonella typhimurium
	Skin sensitisation	10875 ug/cm2	OECD 429	Mouse
	Genotoxicity - in vitro	Not genotoxic		
Eugenol	NOEL (carcinogenicity, oral)	300 mg/kg bw/d	-----	Rat
	NOAEL (oral)	600 mg/kg bw/d	-----	Rat

	Genotoxicity - in vitro	Genotoxic		
	Genotoxicity - estimate	Not genotoxic		
	LD50 (oral)	1930 mg/kg bw	-----	Rat
	Mutagenicity	Negative	-----	
	Skin sensitisation	2703 ug/cm2	OECD 429	Mouse
	LD50 (dermal)	> 2000 mg/kg bw		Rat
	LC50 (inhalation)	> 2580 mg/m3		Rat
	Skin irritation	Irritant		
	NOAEL (development, oral)	250 mg/kg bw/d	-----	Rabbit
Geraniol	NOAEL (developmental toxicity, dermal)	> 300 mg/kg bw/d	OECD 421	Rat
	NOAEL (fertility, dermal)	> 300 mg/kg bw/d	OECD 421	Rat
	LD50 (oral)	2100 mg/kg bw	-----	Rat
	LD50 (dermal)	> 5000 mg/kg bw	-----	Rabbit
	NOAEL (oral)	1000 mg/kg bw/d	-----	Rat
	Skin irritation	Irritant	-----	Rabbit
	Eye irritation	Irritant	OECD 405	Rabbit
	Genotoxicity - in vivo	Not genotoxic		Mouse
	NOEL (oral)	> 550 mg/kg bw/d	-----	Rat
	Skin sensitisation	3525 ug/cm2	OECD 429	Mouse
	Mutagenicity	Negative	OECD 471	Salmonella typhimurium
	Genotoxicity - in vitro	Not genotoxic	OECD 476	

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): 34 mg/l. Calculated EC50 (waterflea): 15 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 : 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
Hexyl salicylate	EC50 (waterflea)	0,357 mg/l	OECD 202	Daphnia magna
	IC50 (algea)	0,28 mg/l	OECD 201	Desmodesmus subspicatus
	Ultimate aerobic biodegradation (%)	91 %	OECD 301 F	
	LC50 (fish) - estimate	1,34 mg/l	-----	Brachydanio rerio
	Log P(ow)	5,5000		

2´-Acetonaphtone	LC50 (fish) Log P(ow)	9,8 mg/l 2,9		Brachydanio rerio

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/ADN (road/railway/inland waterways)

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

:

Other information : Not intended for carriage by inland waterways in tank-vessels.

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:

R11	Highly flammable.
R12	Extremely flammable.
R36	Irritating to eyes.
R36/38	Irritating to eyes and skin.
R38	Irritating to skin.
R41	Risk of serious damage to eyes.
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.
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.
H280	Contains gas under pressure; may explode if heated.
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.
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.

Full text of hazard classes mentioned in section 3:

Flam. Gas 1	: Flammable gas, category 1.
Press. Gas	: Compressed gas.
Flam. Liq. 2	: Flammable liquid, category 2.
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	:	Skin sensitization, category 1.
STOT SE 3	:	Specific target organ toxicity after single exposure, category 3.
Aquatic Chronic 1	:	Hazardous to the aquatic environment — Chronic category 1.
Aquatic Chronic 2	:	Hazardous to the aquatic environment — Chronic category 2.
Aquatic Acute 1	:	Hazardous to the aquatic environment — Acute category 1.

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
IATA	:	International Air Transport Association
IBC code	:	International Bulk Chemical Code
IMDG	:	International Maritime Dangerous Goods Code
LD50/LC50	:	Lethal Dose/Concentration for 50% of a population
MAC	:	Maximum Allowable Concentration
MARPOL	:	International Convention for the Prevention of Pollution From Ships
NO(A)EL	:	No Observed (Adverse) Effect Level
OECD	:	Organisation for Economic Co-operation and Development
PBT	:	Persistent, Bioaccumulative and Toxic
PC	:	Chemical product category
PT	:	Product type
REACH	:	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	:	Regulations concerning the International Carriage of Dangerous Goods by Rail
STP	:	Sewage Treatment Plant
SU	:	Sector of Use
TWA/STEL	:	Time-Weighted Average/Short Term Exposure Limit
UN	:	United Nations
VOC	:	Volatile Organic Compounds
vPvB	:	Very Persistent and Very Bioaccumulative

Number format : "," used as decimal separator.

History

Date of first issue : 14-05-2015