

# SAFETY DATA SHEET Acana (Original) Sachet Moth Killer & Freshener

According to Regulation (EC) No 1907/2006, Annex II, as amended by Regulation (EU) No 453/2010

SECTION 1: Identification of the substance/mixture and of the company/undertaking		
1.1. Product identifier		
Product name	Acana (Original) Sachet Moth Killer & Freshener	
Product number	5060214390453,5060214390705,5060214390675,5060214390835	
1.2. Relevant identified uses o	f the substance or mixture and uses advised against	
Identified uses	Moth repellent.	
Uses advised against	No specific uses advised against are identified.	
1.3. Details of the supplier of the	he safety data sheet	
Supplier	Acana Ltd. Stanford House, 19 Castle Gate, Nottingham, NG1 7AQ, UK T: +44 (0) 1158 249 707 F: +44 (0) 1158 249 717 info@acana.co.uk	
1.4. Emergency telephone nur		
Emergency telephone	+44 (0) 1158 249 707 (08:00 - 16:00h Monday - Friday)	
SECTION 2: Hazards identification	ation	
2.1. Classification of the substa	ance or mixture	
Classification		
Physical hazards	Not Classified	
Health hazards	Skin Irrit. 2 - H315 Skin Sens. 1 - H317	
Environmental hazards	Aquatic Acute 1 - H400 Aquatic Chronic 2 - H411	
Classification (67/548/EEC or 1999/45/EC) 2.2. Label elements	Xi; R38. N; R50, R51/53. R43	
Pictogram		
Signal word	Warning	

Hazard statements	H315 Causes skin irritation. H317 May cause an allergic skin reaction. H400 Very toxic to aquatic life. H411 Toxic to aquatic life with long lasting effects.
Precautionary statements	P102 Keep out of reach of children. P302+P352 IF ON SKIN: Wash with plenty of water. P333+P313 If skin irritation or rash occurs: Get medical advice/attention. P391 Collect spillage. P501 Dispose of contents/container in accordance with national regulations.
Contains	Coumarin, Lavandula Hybrida Oil
Supplementary precautionary statements	<ul> <li>P261 Avoid breathing vapour/spray.</li> <li>P264 Wash contaminated skin thoroughly after handling.</li> <li>P272 Contaminated work clothing should not be allowed out of the workplace.</li> <li>P273 Avoid release to the environment.</li> <li>P280 Wear protective gloves/protective clothing/eye protection/face protection.</li> <li>P321 Specific treatment (see medical advice on this label).</li> <li>P332+P313 If skin irritation occurs: Get medical advice/attention.</li> <li>P362+P364 Take off contaminated clothing and wash it before reuse.</li> </ul>
Biocide Labelling	Concentration of active substance:,Transfluthrin ~8.0%

## 2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients		
3.2. Mixtures		
3a,4,5,6,7,7a-Hexahydro-4,7-meth	ano-1H-indenyl acetate	10 - <25%
CAS number: 54830-99-8	EC number: 259-367-2	
Classification	Classification (67/548/EEC or 1999/45/EC)	
Aquatic Chronic 3 - H412	R52/53	
4-tert-Butylcyclohexyl acetate		10 - <25%
CAS number: 32210-23-4	EC number: 250-954-9	
Classification	Classification (67/548/EEC or 1999/45/EC)	
Aquatic Chronic 2 - H411	N; R51/53	
exo-1,7,7-Trimethylbicyclo[2.2.1]he	ept-2-yl acetate	10 - <25%
CAS number: 125-12-2	EC number: 204-727-6	
Classification	Classification (67/548/EEC or 1999/45/EC)	
Skin Irrit. 2 - H315	Xi; R38. N; R51/53	
Aquatic Chronic 2 - H411		

Dipropylene glycol monomethyl ether			10 - <259
CAS number: 34590-94-8	EC number: 252-104-2		H registration number: 01- 50011-60-XXXX
Substance with National workplace exp	oosure limits.		
Classification Not Classified	c 	lassification (67/548/EEC	or 1999/45/EC)
Transfluthrin (ISO)			5 - <109
CAS number: 118712-89-3	EC number: 405-060-	5	
M factor (Acute) = 1000	M factor (Chronic) = 1		
<b>Classification</b> Skin Irrit. 2 - H315 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410		<b>Classification (67/548/EEC</b> i; R38. N; R50/53	or 1999/45/EC)
Terpineol, acetate			5 - <109
CAS number: 8007-35-0	EC number: 232-357-	5	
<b>Classification</b> Aquatic Chronic 2 - H411		<b>Classification (67/548/EEC</b> l; R51/53	or 1999/45/EC)
3,5,5-Trimethylhexyl acetate			5 - <109
CAS number: 58430-94-7	EC number: 261-245-		H registration number: 01- 172325-34-XXXX
Classification	С	lassification (67/548/EEC	or 1999/45/EC)
Skin Irrit. 2 - H315	Х	íi; R38. N; R51/53	
Aquatic Chronic 2 - H411			
[3R-(3α,3aβ,7β,8aα)]-2,3,4,7,8,8a-Hex tetramethyl-1H-3a,7-methanoazulene	ahydro-3,6,8,8-		2.5 - <59
CAS number: 469-61-4	EC number: 207-418-4	4	
M factor (Acute) = 1	M factor (Chronic) = 1		
<b>Classification</b> Asp. Tox. 1 - H304 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410		<b>Classification (67/548/EEC</b> in; R65. N; R50/53	or 1999/45/EC)
[3R-(3α,3aβ,6α,7β,8aα)]-Octahydro-3,€ 3a,7-methanoazulen-6-ol	3,8,8-tetramethyl-1H-		2.5 - <59
CAS number: 77-53-2	EC number: 201-035-0	6	
<b>Classification</b> Aquatic Chronic 2 - H411		<b>Classification (67/548/EEC</b> I; R51/53	or 1999/45/EC)

Lavandula Hybrida Oil		2.5 - <5%
CAS number: 8022-15-9	EC number: 294-470-6	
<b>Classification</b> Skin Sens. 1 - H317	Classification (67/548/EEC or 1999/45/EC) R43	
5-Methylheptan-3-one		2.5 - <5%
CAS number: 541-85-5	EC number: 208-793-7	
<b>Classification</b> Flam. Liq. 3 - H226 Eye Irrit. 2 - H319 STOT SE 3 - H335	Classification (67/548/EEC or 1999/45/EC) Xi; R36/37. R10	
Coumarin		2.5 - <5%
CAS number: 91-64-5	EC number: 202-086-7	
Classification Acute Tox. 4 - H302 Skin Sens. 1 - H317 STOT RE 2 - H373	Classification (67/548/EEC or 1999/45/EC) Xn; R22, R48/20/21/22. R43	
Toluene		<0.025%
CAS number: 108-88-3	EC number: 203-625-9	
<b>Classification</b> Flam. Liq. 2 - H225 Repr. 2 - H361d Asp. Tox. 1 - H304 STOT RE 2 - H373 Skin Irrit. 2 - H315 STOT SE 3 - H336		

**SECTION 4: First aid measures** 4.1. Description of first aid measures **General information** Get medical attention if any discomfort continues. Show this Safety Data Sheet to the medical personnel. Inhalation Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Loosen tight clothing such as collar, tie or belt. Get medical attention if symptoms are severe or persist. Ingestion Rinse mouth thoroughly with water. Get medical advice/attention if you feel unwell. Do not induce vomiting unless under the direction of medical personnel. Skin contact It is important to remove the substance from the skin immediately. In the event of any sensitisation symptoms developing, ensure further exposure is avoided. Remove contamination with soap and water or recognised skin cleansing agent. Get medical attention if symptoms are severe or persist after washing.

Eye contact	Rinse with water. Get medical attention if any discomfort continues.	
Protection of first aiders	First aid personnel should wear appropriate protective equipment during any rescue.	
4.2. Most important symptoms	and effects, both acute and delayed	
General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.	
Inhalation	No specific symptoms known.	
Ingestion	May cause discomfort if swallowed.	
Skin contact	May cause skin sensitisation or allergic reactions in sensitive individuals. Redness. Irritating to skin.	
Eye contact	No specific symptoms known. May be slightly irritating to eyes.	
4.3. Indication of any immedia	te medical attention and special treatment needed	
Notes for the doctor	Treat symptomatically. May cause sensitisation or allergic reactions in sensitive individuals.	
SECTION 5: Firefighting meas	sures	
5.1. Extinguishing media		
Suitable extinguishing media	The product is not flammable. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.	
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.	
5.2. Special hazards arising fr	om the substance or mixture	
Specific hazards	Containers can burst violently or explode when heated, due to excessive pressure build-up.	
Hazardous combustion products	Thermal decomposition or combustion products may include the following substances: Harmful gases or vapours.	
5.3. Advice for firefighters		
Protective actions during firefighting	Avoid breathing fire gases or vapours. Evacuate area. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. If a leak or spill has not ignited, use water spray to disperse vapours and protect men stopping the leak. Avoid discharge to the aquatic environment. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.	
Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Firefighter's clothing conforming to European standard EN469 (including helmets, protective boots and gloves) will provide a basic level of protection for chemical incidents.	
SECTION 6: Accidental release measures		
6.1. Personal precautions, pro	tective equipment and emergency procedures	
Personal precautions	Wear protective clothing as described in Section 8 of this safety data sheet. No action shall be taken without appropriate training or involving any personal risk. Avoid contact with skin and eyes.	
6.2. Environmental precaution	<u>s</u>	
Environmental precautions	Avoid discharge into drains or watercourses or onto the ground. Avoid discharge to the aquatic environment.	

6.3. Methods and material for containment and cleaning up

Methods for cleaning up	Wear protective clothing as described in Section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. If the product is soluble in water, dilute the spillage with water and mop it up. Alternatively, or if it is not water-soluble, absorb the spillage with an inert, dry material and place it in a suitable waste disposal container. The contaminated absorbent may pose the same hazard as the spilled material. Label the containers containing waste and contaminated materials and remove from the area as soon as possible. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage.
	Dangerous for the environment. Do not empty into drains. For waste disposal, see Section 13.

#### 6.4. Reference to other sections

**Reference to other sections** For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

### SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Usage precautions	Keep out of the reach of children. Read and follow manufacturer's recommendations. Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink and animal feeding stuffs. Handle all packages and containers carefully to minimise spills. Keep container tightly sealed when not in use. Avoid the formation of mists. Avoid discharge to the aquatic environment. Do not handle until all safety precautions have been read and understood. Do not handle broken packages without protective equipment. Do not reuse empty containers.		
Advice on general occupational hygiene	Wash promptly if skin becomes contaminated. Take off contaminated clothing. Wash contaminated clothing before reuse.		
7.2. Conditions for safe storag	7.2. Conditions for safe storage, including any incompatibilities		
Storage precautions	Keep out of the reach of children. Keep away from food, drink and animal feeding stuffs. Store in tightly-closed, original container in a dry, cool and well-ventilated place. Keep containers upright. Protect containers from damage.		
Storage class	Miscellaneous hazardous material storage.		
7.3. Specific end use(s)			
Specific end use(s)	The identified uses for this product are detailed in Section 1.2.		
SECTION 8: Exposure Controls/personal protection			

### 8.1. Control parameters

Occupational exposure limits

### Dipropylene glycol monomethyl ether

Long-term exposure limit (8-hour TWA): WEL 50 ppm 308 mg/m<sup>3</sup> Sk

### Transfluthrin (ISO)

Long-term exposure limit (8-hour TWA): 4.7 mg/m<sup>3</sup>

#### 5-Methylheptan-3-one

Long-term exposure limit (8-hour TWA): WEL 10 ppm 53 mg/m<sup>3</sup> Short-term exposure limit (15-minute): WEL 20 ppm 107 mg/m<sup>3</sup>

## Toluene

Sk

Short-term exposure limit (15-minute): WEL 100 ppm 384 mg/m<sup>3</sup> Long-term exposure limit (8-hour TWA): WEL 50 ppm 191 mg/m<sup>3</sup>

Sk = Can be absorbed through the skin. WEL = Workplace Exposure Limit

### 8.2. Exposure controls

### Protective equipment

Appropriate engineering controls	Provide adequate ventilation.
Eye/face protection	Avoid contact with eyes. Large Spillages: Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible.
Hand protection	Large Spillages: Wear protective gloves. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. To protect hands from chemicals, gloves should comply with European Standard EN374. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. Frequent changes are recommended.
Other skin and body protection	May cause skin sensitisation or allergic reactions in sensitive individuals. Wear appropriate clothing to prevent repeated or prolonged skin contact.
Hygiene measures	Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Wash contaminated clothing before reuse.
Respiratory protection	No specific recommendations. Provide adequate ventilation. Large Spillages: If ventilation is inadequate, suitable respiratory protection must be worn.
Environmental exposure controls	Keep container tightly sealed when not in use. Avoid release to the environment.

### **SECTION 9: Physical and Chemical Properties**

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

	Liquid For the improgration of inert support (colluless)
Appearance	Liquid. For the impregnation of inert support (cellulose).
Colour	Not available.
Odour	Lavender.
Odour threshold	Not determined.
рН	Not determined.
Melting point	Not determined.
Initial boiling point and range	Not determined.
Flash point	Not determined.
Evaporation rate	Not determined.
Evaporation factor	Not determined.
Upper/lower flammability or explosive limits	Not determined.
Vapour pressure	Not determined.
Vapour density	Not determined.

Relative density	Not determined.	
Bulk density	Not determined.	
Solubility(ies)	Not determined.	
Partition coefficient	Not determined.	
Auto-ignition temperature	Not determined.	
Decomposition Temperature	Not determined.	
Viscosity	Not determined.	
Explosive properties	Not considered to be explosive.	
Oxidising properties	Does not meet the criteria for classification as oxidising.	
9.2. Other information		
Other information	No information required.	
SECTION 10: Stability and rea	activity	
10.1. Reactivity		
Reactivity	There are no known reactivity hazards associated with this product.	
10.2. Chemical stability		
Stability	Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.	
10.3. Possibility of hazardous	reactions	
Possibility of hazardous reactions	No potentially hazardous reactions known.	
10.4. Conditions to avoid		
Conditions to avoid	There are no known conditions that are likely to result in a hazardous situation.	
10.5. Incompatible materials		
Materials to avoid	No specific material or group of materials is likely to react with the product to produce a hazardous situation.	
10.6. Hazardous decompositio	on products	
Hazardous decomposition products	Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Harmful gases or vapours.	
SECTION 11: Toxicological information		
11.1. Information on toxicolog	ical effects	
Acute toxicity - oral		
Notes (oral LD <sub>50</sub> )	Based on available data the classification criteria are not met.	
ATE oral (mg/kg)	19,679.56	
Acute toxicity - dermal Notes (dermal LD₅₀)	Based on available data the classification criteria are not met.	
Acute toxicity - inhalation	Based on available data the classification criteria are not met.	
Notes (inhalation LC <sub>50</sub> )		
Skin corrosion/irritation		

Animal data	Irritating.	
Serious eye damage/irritation Serious eye damage/irritation	Based on available data the classification criteria are not met.	
Respiratory sensitisation		
Respiratory sensitisation	Based on available data the classification criteria are not met.	
Skin sensitisation		
Skin sensitisation	May cause skin sensitisation or allergic reactions in sensitive individuals.	
Germ cell mutagenicity Genotoxicity - in vitro	Based on available data the classification criteria are not met.	
Carcinogenicity		
Carcinogenicity	Based on available data the classification criteria are not met.	
IARC carcinogenicity	Contains a substance which may be potentially carcinogenic. IARC Group 3 Not classifiable as to its carcinogenicity to humans.	
Reproductive toxicity		
Reproductive toxicity - fertility	Based on available data the classification criteria are not met.	
Reproductive toxicity - development	Based on available data the classification criteria are not met.	
Specific target organ toxicity -	single exposure	
STOT - single exposure	Not classified as a specific target organ toxicant after a single exposure.	
Specific target organ toxicity -	repeated exposure	
STOT - repeated exposure	Not classified as a specific target organ toxicant after repeated exposure.	
Aspiration hazard		
Aspiration hazard	Based on available data the classification criteria are not met.	
General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.	
Inhalation	No specific symptoms known.	
Ingestion	May cause discomfort if swallowed.	
Skin contact	May cause skin sensitisation or allergic reactions in sensitive individuals. Redness. Irritating to skin.	
Eye contact	No specific symptoms known.	
Route of entry	Ingestion Inhalation Skin and/or eye contact	
Target organs	No specific target organs known.	
Medical considerations	Skin disorders and allergies.	
Toxicological information on ingredients.		

## exo-1,7,7-Trimethylbicyclo[2.2.1]hept-2-yl acetate

## Acute toxicity - oral

Notes (oral LD<sub>50</sub>)

LD₅₀ >10000 mg/kg, Oral, Rat REACH dossier information. Based on available data the classification criteria are not met.

Acute toxicity - dermal	
Notes (dermal LD₅₀)	$LD_{50}$ 20000 mg/kg, Dermal, Rabbit REACH dossier information. Based on available data the classification criteria are not met.
Skin corrosion/irritation	
Animal data	Dose: 0.5 mL, 4 hours, Rabbit Erythema/eschar score: Well defined erythema (2). Oedema score: No oedema (0). REACH dossier information. Irritating.
Skin sensitisation	
Skin sensitisation	Maximisation test Human: Not sensitising. REACH dossier information. Based on available data the classification criteria are not met.
Germ cell mutagenicity	
Genotoxicity - in vitro	Gene mutation: Negative. REACH dossier information. Based on available data the classification criteria are not met.
Genotoxicity - in vivo	Chromosome aberration: Negative. REACH dossier information. Based on available data the classification criteria are not met.
Reproductive toxicity	
Reproductive toxicity - development	Maternal toxicity:, Embryotoxicity:, Teratogenicity: - NOAEL: 1000 mg/kg/day, Oral, Rat No evidence of reproductive toxicity in animal studies.
	Transfluthrin (ISO)
Acute toxicity - oral	
Notes (oral LD₅₀)	> 5000 mg/kg, Rat, Raw material suppliers' information. Based on available data the classification criteria are not met.
Acute toxicity - dermal	
Notes (dermal LD₅₀)	> 5000 mg/kg, Rat, Raw material suppliers' information. Based on available data the classification criteria are not met.
Acute toxicity - inhalation	
Notes (inhalation LC₅₀)	LD₅₀ >0.513 mg/l, (aerosol), Inhalation, Rat
Skin corrosion/irritation	
Animal data	Irritating.
Skin sensitisation	
Skin sensitisation	Buehler test - Guinea pig: Not sensitising. Raw material suppliers' information.
<u>[</u> 3R-(3α,3aβ,7β,	8aα)]-2,3,4,7,8,8a-Hexahydro-3,6,8,8-tetramethyl-1H-3a,7-methanoazulene
Aspiration hazard	
Aspiration hazard	Aspiration hazard if swallowed.
	Coumarin
Acute toxicity - oral	
Notes (oral LD₅₀)	Harmful if swallowed.
ATE oral (mg/kg)	500.0
Skin corrosion/irritation	

	Animal data	Primary dermal irritation index: 1.15 REACH dossier information. Based on available data the classification criteria are not met.
	Skin sensitisation	
	Skin sensitisation	Sensitising.
	Germ cell mutagenicity	
	Genotoxicity - in vitro	Chromosome aberration: Negative. REACH dossier information. Based on available data the classification criteria are not met.
	Genotoxicity - in vivo	Chromosome aberration: Negative. REACH dossier information. Based on available data the classification criteria are not met.
	Carcinogenicity	
	Carcinogenicity	NOAEL >100 mg/kg/day, Oral, Rat REACH dossier information. Based on available data the classification criteria are not met.
	Specific target organ toxici	ty - repeated exposure
	STOT - repeated exposure	STOT RE 2 - H373 May cause damage to organs through prolonged or repeated exposure.
SECTION '	12: Ecological Information	
12.1. Toxic	ity	
Toxicity		Acute 1 - H400 Very toxic to aquatic life. Aquatic Chronic 2 - H411 Toxic to aquatic
loxicity		long lasting effects.
Ecological	information on ingredients.	
		exo-1,7,7-Trimethylbicyclo[2.2.1]hept-2-yl acetate
		<u></u>
	Toxicity	Aquatic Chronic 2 - H411 Toxic to aquatic life with long lasting effects.
	Acute toxicity - fish	LC₅₀, 96 hours: 10 mg/l, Brachydanio rerio (Zebra Fish)
	Acute toxicity - aquatic invertebrates	LC₅₀, 48 hours: 3.75 mg/l, Daphnia magna Estimated value.
	Acute toxicity - aquatic plants	EC₅₀, 96 hours: 1.3 mg/l, Algae Estimated value.
		Transfluthrin (ISO)
	Toxicity	Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410 Very toxic to aquatic life with long lasting effects.
	Acute aquatic toxicity	
	LE(C)50	0.0001 < L(E)C50 ≤ 0.001
		1000
	M factor (Acute)	
	M factor (Acute) Acute toxicity - fish	LC₅₀, 96 hours: 0.0007 mg/l, Onchorhynchus mykiss (Rainbow trout)

Chronic aquatic toxicity	
NOEC	0.01 < NOEC ≤ 0.1
Degradability	Non-rapidly degradable
M factor (Chronic)	1
[3R-(3α,3aβ,7β,8	$3a\alpha$ )]-2,3,4,7,8,8a-Hexahydro-3,6,8,8-tetramethyl-1H-3a,7-methanoazulene
Toxicity	Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410 Very toxic to aquatic life with long lasting effects.
Acute aquatic toxicity	
LE(C)50	$0.1 < L(E)C50 \le 1$
M factor (Acute)	1
Chronic aquatic toxicity	
M factor (Chronic)	1
	Coumarin
Acute toxicity - fish	LC₅₀, 96 hours: 1.324 mg/l, QSAR model
Acute toxicity - aquatic invertebrates	EC₅₀, 48 hours: 8.012 mg/l, Daphnia magna, QSAR model
Acute toxicity - aquatic plants	EC₅₀, 96 hours: 1.452 mg/l, QSAR model
Chronic toxicity - fish early life stage	NOEC, 60 days: 0.119 mg/l, Fish, QSAR model
Chronic toxicity - aquatic invertebrates	NOEC, 21 days: 0.448 mg/l, Daphnia magna, QSAR model
12.2. Persistence and degradability	
Persistence and degradability The deg	radability of the product is not known.
Ecological information on ingredients.	
	exo-1,7,7-Trimethylbicyclo[2.2.1]hept-2-yl acetate
Persistence and degradability	The product is readily biodegradable.
Phototransformation	Water - DT₅₀ : 16.6 hours Estimated value.
Stability (hydrolysis)	pH7 - Half-life: 2.3 years @ 25°C Estimated value.
Biodegradation	Water - Degradation 76%: 28 days
	Transfluthrin (ISO)
Persistence and degradability	The product is not readily biodegradable.

## $[3R-(3\alpha,3a\beta,7\beta,8a\alpha)]-2,3,4,7,8,8a-Hexahydro-3,6,8,8-tetramethyl-1H-3a,7-methanoazulene$

Persisten degradab		The degradability of the product is not known.
		Coumarin
Persisten degradab		The product is readily biodegradable.
Biodegra	dation	Water - Degradation 100%: 28 days
12.3. Bioaccumulative	potential	
Bioaccumulative poten	ntial No data	available on bioaccumulation.
Partition coefficient	Not dete	ermined.
Ecological information on ingredients.		
		exo-1,7,7-Trimethylbicyclo[2.2.1]hept-2-yl acetate
Bioaccum	nulative potential	BCF: 319, Fish, Estimated value. The product is not bioaccumulating.
Partition	coefficient	log Pow: 3.86 Estimated value.
		Transfluthrin (ISO)
Bioaccum	nulative potential	The product is not bioaccumulating. BCF: 1783, Fish
	[3R-(3α,3aβ,7β,	8aα)]-2,3,4,7,8,8a-Hexahydro-3,6,8,8-tetramethyl-1H-3a,7-methanoazulene
Bioaccum	Bioaccumulative potential No data available on bioaccumulation.	
	-	Coumarin
Bioaccum	nulative potential	No data available on bioaccumulation.
	coefficient	log Pow: 1.39
12.4. Mobility in soil		
Mobility	No data	available.
Ecological information	on ingredients.	
		exo-1,7,7-Trimethylbicyclo[2.2.1]hept-2-yl acetate
Mobility		The product has poor water-solubility.
-	on/desorption	Water - log Koc: 2.627 @ 25°C Estimated value.
coefficien	-	
Surface to	ension	30.95 mN/m @ 25°C
		Transfluthrin (ISO)
Mobility		The product has poor water-solubility.
Adsorptio coefficien	on/desorption ht	Water - log Koc: 4.7 @ 20°C

### $[3R-(3\alpha,3a\beta,7\beta,8a\alpha)]-2,3,4,7,8,8a-Hexahydro-3,6,8,8-tetramethyl-1H-3a,7-methanoazulene$

Mobility

No data available.

### Coumarin

Mobility

The product is soluble in water.

### 12.5. Results of PBT and vPvB assessment

**Results of PBT and vPvB** This product does not contain any substances classified as PBT or vPvB. assessment

#### Ecological information on ingredients.

### exo-1,7,7-Trimethylbicyclo[2.2.1]hept-2-yl acetate

**Results of PBT and vPvB** This substance is not classified as PBT or vPvB according to current EU criteria. assessment

#### Transfluthrin (ISO)

**Results of PBT and vPvB** This substance is not classified as PBT or vPvB according to current EU criteria. assessment

#### [3R-(3a,3a,7b,8aa)]-2,3,4,7,8,8a-Hexahydro-3,6,8,8-tetramethyl-1H-3a,7-methanoazulene

**Results of PBT and vPvB** No data available. assessment

### Coumarin

**Results of PBT and vPvB** This substance is not classified as PBT or vPvB according to current EU criteria. **assessment** 

#### 12.6. Other adverse effects

Other adverse effects None known.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

General information	The generation of waste should be minimised or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of in a safe way. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous.
Disposal methods	Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.
SECTION 14: Transport in	nformation
General	For limited quantity packaging/limited load information, consult the relevant modal documentation using the data shown in this section.
14.1. UN number	
UN No. (ADR/RID)	3082

UN No. (IMDG)	3082	
UN No. (ICAO)	3082	
UN No. (ADN)	3082	
14.2. UN proper shipping name		
Proper shipping name (ADR/RID)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS Transfluthrin (ISO), 4-tert-Butylcyclohexyl acetate)	
Proper shipping name (IMDG)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS Transfluthrin (ISO), 4-tert-Butylcyclohexyl acetate)	
Proper shipping name (ICAO)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS Transfluthrin (ISO), 4-tert-Butylcyclohexyl acetate)	
Proper shipping name (ADN)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS Transfluthrin (ISO), 4-tert-Butylcyclohexyl acetate)	
14.3. Transport hazard class(es)		
ADR/RID class	9	
ADR/RID classification code	M6	
ADR/RID label	9	

IMDG class	9
ICAO class/division	9
ADN class	9

### Transport labels

14.4. Packing group	
ADR/RID packing group	III
IMDG packing group	Ш
ADN packing group	Ш
ICAO packing group	III

### 14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant



### 14.6. Special precautions for user

Always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

EmS	F-A, S-F
ADR transport category	3
Emergency Action Code	•3Z

Hazard Identification Number 90 (ADR/RID)

Tunnel restriction code (E)

### 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Transport in bulk according to Not applicable. Annex II of MARPOL 73/78 and the IBC Code

### SECTION 15: Regulatory information

National regulations	Health and Safety at Work etc. Act 1974 (as amended).
	The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009
	No. 716).
	The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment
	Regulations 2009 (SI 2009 No. 1348) (as amended) ["CDG 2009"].
	EH40/2005 Workplace exposure limits.
EU legislation	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18
	December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of
	Chemicals (REACH) (as amended).
	Commission Regulation (EU) No 453/2010 of 20 May 2010.
	Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16
	December 2008 on classification, labelling and packaging of substances and mixtures (as amended).
	Dangerous Preparations Directive 1999/45/EC.
	Dangerous Substances Directive 67/548/EEC.

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

### **SECTION 16: Other information**

Classification procedures according to Regulation (EC) 1272/2008	Skin Irrit. 2 - H315: Skin Sens. 1 - H317: : Calculation method. Aquatic Acute 1 - H400: Aquatic Chronic 2 - H411: : Calculation method.
Training advice	Read and follow manufacturer's recommendations.
Revision comments	Revised formulation.
Revision date	08/10/2015
Revision	2
Supersedes date	09/01/2015
SDS number	2219

Risk phrases in full	<ul> <li>R10 Flammable.</li> <li>R11 Highly flammable.</li> <li>R22 Harmful if swallowed.</li> <li>R36/37 Irritating to eyes and respiratory system.</li> <li>R38 Irritating to skin.</li> <li>R43 May cause sensitisation by skin contact.</li> <li>R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.</li> <li>R48/20/21/22 Harmful: danger of serious damage to health by prolonged exposure through inhalation.</li> <li>R48/20/21/22 Harmful: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.</li> <li>R50 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.</li> <li>R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.</li> <li>R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.</li> <li>R53 Possible risk of harm to the unborn child.</li> <li>R65 Harmful: may cause lung damage if swallowed.</li> <li>R67 Vapours may cause drowsiness and dizziness.</li> </ul>
Hazard statements in full	<ul> <li>H225 Highly flammable liquid and vapour.</li> <li>H226 Flammable liquid and vapour.</li> <li>H302 Harmful if swallowed.</li> <li>H304 May be fatal if swallowed and enters airways.</li> <li>H315 Causes skin irritation.</li> <li>H317 May cause an allergic skin reaction.</li> <li>H319 Causes serious eye irritation.</li> <li>H335 May cause respiratory irritation.</li> <li>H336 May cause drowsiness or dizziness.</li> <li>H361d Suspected of damaging the unborn child.</li> <li>H373 May cause damage to organs through prolonged or repeated exposure.</li> <li>H400 Very toxic to aquatic life.</li> <li>H410 Very toxic to aquatic life with long lasting effects.</li> <li>H411 Toxic to aquatic life with long lasting effects.</li> <li>H412 Harmful to aquatic life with long lasting effects.</li> </ul>

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.