



## Material Safety Data Sheet

EU Regulation: 1907/2006

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

#### 1.1 PRODUCT IDENTIFICATION

PRODUCT NAME	THYME WHITE, ESSENTIAL OIL				
INCI NAME	THYMUS VULGARIS LEAF OIL				
SYNONYMS & TRADE NAMES	-				
INTERNAL PRODUCT CODE	K0463				
CAS-No	84929-51-1	EC No.	284-535-7	EINECS No.	284-535-7

#### 1.2 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

COMPANY ADDRESS	O&3 Unit 2, Athelstan Business Park, Hanwell Lane, Hutton Conyers, Ripon, HG4 5BF, England.
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#### 1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

EMERGENCY CONTACTS	MRS. ELEANOR WADE (07968 200167)
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## SECTION 2: HAZARDS IDENTIFICATION

<b>2.1</b>	THE FULL TEXT FOR ALL HAZARD STATEMENTS IS DISPLAYED IN SECTION 16.	
<b>CLASSIFICATION OF THE SUBSTANCE OR MIXTURE</b>	NO ADDITIONAL DATA AVAILABLE.	
<b>CLASSIFICATION (67/548/EEC)</b>		
<b>CLASSIFICATION (EU1272/2008)</b>	PHYSICAL AND CHEMICAL HAZARDS: FLAM. LIQ. 3: FLAMMABLE LIQUIDS, CATEGORY 3, H226 HUMAN HEALTH: ASP. TOX. 1: ASPIRATION HAZARD, CATEGORY 1, H304 EYE DAM. 1: SERIOUS EYE DAMAGE, CATEGORY 1, H318 SKIN CORR. 1B: SKIN CORROSION, CATEGORY 1B, H314 SKIN SENS. 1B: SENSITISATION, SKIN, CATEGORY 1B, H317 STOT SE 3: RESPIRATORY TRACT TOXICITY, SINGLE EXPOSURE, CATEGORY 3, H335 ENVIRONMENT: AQUATIC CHRONIC 2: HAZARDOUS TO THE AQUATIC ENVIRONMENT LONG-TERM HAZARD, CATEGORY 2, H411.	
<b>2.2</b>	LABEL IN ACCORDANCE WITH REGULATION (EC) No 1272/2008.	
<b>LABEL ELEMENTS</b>		
<b>GHS LABEL</b>	    GHS02      GHS07      GHS08      GHS09  GHS05	
<b>SIGNAL WORD</b>	DANGER.	
<b>CONTAINS</b>	PARA-CYME, ALPHA-PINENE, D-LIMONENE, BETA-PINENE	
<b>HAZARDS STATEMENT</b>	H304 - MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS H314 - CAUSES SEVERE SKIN BURNS AND EYE DAMAGE H317 - MAY CAUSE AN ALLERGIC SKIN REACTION H361 - SUSPECTED OF DAMAGING FERTILITY OR THE UNBORN CHILD H411 - TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS H226 - FLAMMABLE LIQUID AND VAPOR CONTAINS EUCALYPTOL EUH208 - CONTAINS ( ? ). MAY PRODUCE AN ALLERGIC REACTION	
<b>PRECAUTIONARY STATEMENTS</b>	P210 - KEEP AWAY FROM HEAT/SPARKS/OPEN FLAMES/HOT SURFACES. - NO SMOKING P280 - WEAR PROTECTIVE GLOVES/PROTECTIVE CLOTHING/EYE PROTECTION/FACE PROTECTION P301 + P310 - IF SWALLOWED: IMMEDIATELY CALL A POISON CENTER OR DOCTOR P331 - DO NOT INDUCE VOMITING	

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	<p>P302 + P352 - IF ON SKIN: WASH WITH PLENTY OF SOAP AND WATER</p> <p>P333 + P313 - IF SKIN IRRITATION OR RASH OCCURS: GET MEDICAL ADVICE/ATTENTION</p> <p>P305 + P351 + P338 - IF IN EYES: RINSE CAUTIOUSLY WITH WATER FOR SEVERAL MINUTES. REMOVE CONTACT LENSES, IF PRESENT AND EASY TO DO. CONTINUE RINSING</p> <p>P310 - IMMEDIATELY CALL A POISON CENTER OR DOCTOR</p> <p>P263 - AVOID CONTACT DURING PREGNANCY/WHILE NURSING</p> <p>P308 + P313 - IF EXPOSED OR CONCERNED: GET MEDICAL ADVICE/ATTENTION P273 - AVOID RELEASE TO THE ENVIRONMENT</p> <p>P501 - DISPOSE OF CONTENTS/CONTAINER IN ACCORDANCE WITH LOCAL, REGIONAL, NATIONAL, AND INTERNATIONAL REGULATIONS AS APPLICABLE</p>												
SUPPLEMENTARY PRECAUTIONARY STATEMENTS	NONE.												
SECTION 16 (OTHER INFORMATION): RISK & SAFETY PHRASES IN FULL.													
2.3 OTHER HAZARDS													
ADVERSE PHYSIO-CHEMICAL PROPERTIES	H401 – TOXIC TO AQUATIC LIFE												
ADVERSE EFFECTS ON HUMAN HEALTH	NO DATA												
PBT OR VPVB ACCORDING TO ANNEX XIII	NO DATA												
SECTION 3: COMPOSITION OF INGREDIENTS													
3.2 MIXTURES	<table><tr><th>Chemical Name</th><th>EC No.</th><th>CAS No.</th><th>Weight-%</th><th>Classification according to Regulation (EC) No. 1272/2008 [CLP]</th><th>REACH registration number</th></tr><tr><td>para-Cymene</td><td>Present</td><td>99-87-6</td><td>30 &lt; 40%</td><td>Rep Tox. 2 (H361), Aquatic Acute 2</td><td>No data available</td></tr></table>	Chemical Name	EC No.	CAS No.	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH registration number	para-Cymene	Present	99-87-6	30 < 40%	Rep Tox. 2 (H361), Aquatic Acute 2	No data available
Chemical Name	EC No.	CAS No.	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH registration number								
para-Cymene	Present	99-87-6	30 < 40%	Rep Tox. 2 (H361), Aquatic Acute 2	No data available								

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				(H401), Skin Irrit. 3 (H316), Aquatic Chronic 2 (H411), Asp. Tox. 1 (H304), Acute Tox. 5 (H303), Flam. Liq. 3 (H226)	
Thymol	Present	89-83-8	30 < 40%	Acute Tox. 4 (H302) (EFAA) Aquatic Acute 2 (H401) (EFAA) Skin Corr. 1B (H314) (EFAA) Eye Dam. 1 (H318) (EFAA) Aquatic Chronic 2 (H411) (EFAA)	No data available
Linalool	Present	78-70-6	1 < 10%	Aquatic Acute 3 (H402) (EFAA) Eye Irrit. 2 (H319) (EFAA) Skin Irrit. 2 (H315) (EFAA) Acute Tox. 5 (H303)(EFAA) Flam. Liq. 4 (H227)(EFAA) Skin Sens. 1B (H317) (EFAA)	No data available
alpha-Terpineol	Present	98-55-5	1 < 10%	Aquatic Acute 2 (H401) (EFAA) Eye Irrit. 2 (H319) (EFAA) Skin Irrit. 2 (H315) (EFAA) Acute Tox. 5 (H303)(EFAA) Flam. Liq. 4 (H227)(EFAA)	No data available
alpha-Pinene	Present	80-56-8	1 < 10%	Acute Aquatic 1 (H400) (EFAA) Chronic Aquatic 1 (H410) (EFAA) Acute Tox. 4 (H302) (EFAA) Skin Sens. 1B (H317) (EFAA) Skin Irrit. 2 (H315) (EFAA) Asp. Tox. 1 (H304) (EFAA) Flam. Liq. 3 (H226)(EFAA)	No data available
d-Limonene	Present	5989-27-5	1 < 10%	Flam. Liq. 3 (H226)(EFAA) Skin Irrit. 2 (H315)(EFAA) Skin Sens. 1 (H317)(EFAA) Aquatic Acute 1 (H400)(EFAA) Aquatic Chronic 1 (H410)(EFAA)	No data available
Carvacrol	Present	499-75-2	1 < 10%	Skin Sens. 1B (H317) (EFAA) Eye Irrit. 2 (H319) (EFAA) Skin Irrit. 2 (H315) (EFAA) Acute Tox. 4 (H302) (EFAA) Aquatic Acute 3 (H402) (EFAA)	No data available
beta-Pinene	Present	127-91-3	1 < 10%	Acute Aquatic 1 (H400) (EFAA) Chronic Aquatic 1 (H410) (EFAA) Skin Sens. 1 (H317) (EFAA) Skin Irrit. 2 (H315) (EFAA) Asp. Tox. 1 (H304) (EFAA) Flam. Liq. 3 (H226)(EFAA)	No data available
Caryophyllene	Present	87-44-5	1 < 10%	Skin Sens. 1B (H317) (EFAA) Asp. Tox. 1 (H304) (EFAA)	No data available

				Chronic Aquatic 4 (H413) (EFAA)	
Myrcene	Present	123-35-3	1 < 10%	Eye Irrit. 2 (H319) (EFAA) Skin Irrit. 2 (H315) (EFAA) Asp. Tox. 1 (H304) (EFAA) Flam. Liquid 3 (H226) (EFAA) Acute Aquatic 1 (H400) (EFAA) Chronic Aquatic 2 (H411) (EFAA)	No data available
Eucalyptol	Present	470-82-6	0.1 < 1%	Skin Irrit. 3 (H316) (EFAA) Acute Tox. 5 (H303)(EFAA) Flam. Liq. 3 (H226)(EFAA) Skin Sens. 1B (H317) (EFAA)	No data available

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## SECTION 4: FIRST AID MEASURES

<b>4.1</b> <b>DESCRIPTION OF FIRST AID MEASURES</b>	
<b>GENERAL INFORMATION</b>	ALWAYS REMOVE CONTAMINATED CLOTHING IMMEDIATELY.
<b>INHALATION</b>	GET MEDICAL ATTENTION IMMEDIATELY. REMOVE FROM EXPOSURE SITE TO FRESH AIR, KEEP AT REST, AND OBTAIN MEDICAL ATTENTION.
<b>INGESTION</b>	GET MEDICAL ATTENTION IMMEDIATELY. RINSE MOUTH WITH WATER AND OBTAIN MEDICAL ATTENTION.
<b>SKIN CONTACT</b>	REMOVE CONTAMINATED CLOTHES. WASH THOROUGHLY WITH SOAP AND WATER. CONTACT PHYSICIAN IF IRRITATION PERSISTS.
<b>EYE CONTACT</b>	FLUSH IMMEDIATELY WITH WATER FOR AT LEAST 15 MINUTES. CONTACT PHYSICIAN IF SYMPTOMS PERSIST.
<b>4.2</b> MOST IMPORTANT SYMPTOMS & EFFECTS (ACUTE & DELAYED)	INHALATION MAY CAUSE COUGHING AND DIFFICULTIES IN BREATHING. INGESTION IRRITATING TO THE RESPIRATORY TRACT AND MAY CAUSE DAMAGE TO THE CENTRAL NERVOUS SYSTEM. SKIN CONTACT TOXIC IN CONTACT WITH SKIN. EYE CONTACT MAY CAUSE EYE IRRITATION.
<b>4.3</b> <b>INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION OR SPECIAL TREATMENT REQUIRED</b>	NONE EXPECTED, SEE SECTION 4.1 FOR FURTHER INFORMATION.

## SECTION 5: FIRE FIGHTING MEASURES

<b>5.1</b> <b>EXTINGUISHING MATERIAL</b>	FOAM, CO2, DRY CHEMICAL POWDER.
<b>5.2</b> <b>SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE</b>	BURNING PRODUCES IRRITATING, TOXIC AND OBNOXIOUS FUMES
<b>5.3</b> <b>ADVICE FOR FIRE-FIGHTERS</b>	SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS: WEAR POSITIVE-PRESSURE SELF-CONTAINED BREATHING APPARATUS (SCBA) AND APPROPRIATE PROTECTIVE CLOTHING.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

<b>6.1</b> <b>PERSONAL PRECAUTIONS</b>	ENSURE ADEQUATE VENTILATION OF THE WORKING AREA, EVACUATE PERSONNEL TO SAFE AREA, WEAR SUITABLE PROTECTIVE EQUIPMENT. NO SMOKING, SPARKS, FLAMES OR OTHER SOURCES OF IGNITION NEAR SPILLAGE. AVOID CONTACT WITH SKIN, EYES AND CLOTHING.
<b>6.2</b> <b>ENVIRONMENTAL PRECAUTIONS</b>	DO NOT DISCHARGE INTO DRAINS, WATER COURSES OR ONTO THE GROUND. DISPOSE OF IN LINE WITH LOCAL AUTHORITY GUIDELINES.
<b>6.3</b> <b>METHODS &amp; MATERIAL FOR CONTAINMENT AND CLEANING UP</b>	REMOVE IGNITION SOURCES. PROVIDE ADEQUATE VENTILATION. AVOID EXCESSIVE INHALATION OF VAPOURS. CONTAIN SPILLAGE IMMEDIATELY BY USE OF SAND OR INERT POWDER. DISPOSE OF ACCORDING TO LOCAL REGULATIONS.
<b>6.4</b> <b>REFERENCES TO OTHER SECTIONS</b>	REFER & CONSIDER SECTION 8. REFER & CONSIDER SECTION 13.

## SECTION 7: HANDLING & STORAGE

<b>7.1</b> <b>PRECAUTIONS FOR SAFE-HANDLING</b>	HANDLE IN ACCORDANCE WITH GOOD HYGIENE AND SAFETY PRACTICE. KEEP AWAY FROM HEAT, SPARKS, OPEN FLAMES AND HOT SURFACES. - NO SMOKING. USE PERSONAL PROTECTIVE EQUIPMENT AS REQUIRED. USE IN ACCORDANCE WITH GOOD MANUFACTURING AND INDUSTRIAL HYGIENE PRACTICES. USE IN AREAS WITH ADEQUATE VENTILATION DO NOT EAT, DRINK OR SMOKE WHEN USING THIS PRODUCT.
<b>7.2</b> <b>CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES</b>	KEEP THE PRODUCT CONTAINER TIGHTLY CLOSED, IN A DRY, VENTILATED AREA. KEEP AWAY FROM POTENTIAL SOURCES OF IGNITION AND PROTECTED FROM LIGHT. MAINTAIN LIMITED CONTACT WITH OXYGEN.
<b>7.3</b> <b>SPECIFIC END USE(S)</b>	NO DATA.

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## SECTION 8: EXPOSURE CONTROLS & PERSONAL PROTECTION

### 8.1 CONTROL PARAMETERS

Chemical Name	European Union	United Kingdom	France	Spain	Germany
para-Cymene 99-87-6	-	-	TWA: 150 mg/m <sup>3</sup> TWA: 1000 mg/m <sup>3</sup> STEL: 1500 mg/m <sup>3</sup>	-	-
alpha-Pinene 80-56-8	-	-	TWA: 1000 mg/m <sup>3</sup> STEL: 1500 mg/m <sup>3</sup>	TWA: 20 ppm TWA: 113 mg/m <sup>3</sup>	-
d-Limonene 5989-27-5	-	-	TWA: 1000 mg/m <sup>3</sup> STEL: 1500 mg/m <sup>3</sup>	S* TWA: 30 ppm TWA: 168 mg/m <sup>3</sup>	TWA: 5 ppm TWA: 28 mg/m <sup>3</sup> Ceiling / Peak: 20 ppm Ceiling / Peak: 112 mg/m <sup>3</sup> Skin
beta-Pinene 127-91-3	-	-	TWA: 1000 mg/m <sup>3</sup> STEL: 1500 mg/m <sup>3</sup>	TWA: 20 ppm TWA: 113 mg/m <sup>3</sup>	-
Myrcene 123-35-3	-	-	TWA: 1000 mg/m <sup>3</sup> STEL: 1500 mg/m <sup>3</sup>	-	-
Chemical Name	Italy	Portugal	Netherlands	Finland	Denmark
para-Cymene 99-87-6	-	-	-	-	TWA: 25 ppm TWA: 135 mg/m <sup>3</sup>
alpha-Pinene 80-56-8	-	TWA: 20 ppm	-	-	-
d-Limonene 5989-27-5	-	-	-	TWA: 25 ppm TWA: 140 mg/m <sup>3</sup> STEL: 50 ppm STEL: 280 mg/m <sup>3</sup>	-
beta-Pinene 127-91-3	-	TWA: 20 ppm	-	-	-
Chemical Name	Austria	Switzerland	Poland	Norway	Ireland
alpha-Pinene 80-56-8	-	Skin STEL: 40 ppm STEL: 224 mg/m <sup>3</sup> TWA: 20 ppm TWA: 112 mg/m <sup>3</sup>	-	TWA: 25 ppm TWA: 140 mg/m <sup>3</sup> Skin STEL: 37.5 ppm STEL: 175 mg/m <sup>3</sup>	-
d-Limonene 5989-27-5	-	STEL: 14 ppm STEL: 80 mg/m <sup>3</sup> TWA: 7 ppm TWA: 40 mg/m <sup>3</sup>	-	TWA: 25 ppm TWA: 140 mg/m <sup>3</sup> STEL: 37.5 ppm STEL: 175 mg/m <sup>3</sup>	-
beta-Pinene 127-91-3	-	Skin STEL: 40 ppm STEL: 224 mg/m <sup>3</sup> TWA: 20 ppm TWA: 112 mg/m <sup>3</sup>	-	TWA: 25 ppm TWA: 140 mg/m <sup>3</sup> STEL: 37.5 ppm STEL: 175 mg/m <sup>3</sup>	-
Myrcene 123-35-3	-	-	-	TWA: 40 ppm TWA: 275 mg/m <sup>3</sup> STEL: 60 ppm STEL: 343.75 mg/m <sup>3</sup>	-

### 8.2 EXPOSURE CONTROLS



<b>EYE PROTECTION</b>	CHEMICAL SAFETY GOGGLES ARE COMPULSORY.
<b>HAND PROTECTION</b>	COMPATIBLE CHEMICAL-RESISTANT GLOVES ARE COMPULSORY.
<b>RESPIRATORY EQUIPMENT</b>	VENTILATION, LOCAL EXHAUST, OR BREATHING PROTECTION.
<b>HYGIENE MEASURES</b>	GOOD PERSONAL HYGIENE PRACTICES ARE ALWAYS ADVISABLE, ESPECIALLY WHEN WORKING WITH CHEMICALS / OILS.
<b>ENGINEERING MEASURES</b>	PROVIDE ADEQUATE VENTILATION.
<b>SKIN PROTECTION</b>	AVOID CONTACT WITH SKIN. WEAR SUITABLE GLOVES.
<b>PERSONAL PROTECTION</b>	USE PERSONAL PROTECTION ACCORDING TO DIRECTIVE 89/686/EEC.
<b>OTHER PROTECTION</b>	MEASURES SHOULD BE TAKEN TO PREVENT MATERIALS FROM BEING SPLASHED INTO THE EYES OR ON THE SKIN. WEAR EYESHIELDS AND PROTECTIVE CLOTHING.
<b>PROCESS CONDITIONS</b>	ENSURE AREA IS WELL VENTILATED. AVOID VAPOUR INHALATION. SAFETY SHOWER & EYE BATH.
<b>ENVIROMENTAL EXPOSURE CONTROLS</b>	AVOID DISCHARGING INTO DRAINAGE WATER. ONLY ELIMINATE BY AUTHORISED COMPANIES.

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## SECTION 9: PHYSICAL & CHEMICAL PROPERTIES

### 9.1 PHYSICAL & CHEMICAL PROPERTIES

APPEARANCE	LIQUID
COLOUR	PALE YELLOW - YELLOW
ODOUR	CHARACTERISTIC
RELATIVE DENSITY	APPROX 0.900 @ 20°C
FLASH POINT (°C)	59°C
REFRACTIVE INDEX @ 20 °C	APPROX 1.495 @ 20°C
SOLUBILITY IN WATER @ 20 °C	INSOLUBLE IN WATER.

### 9.2 OTHER INFORMATION

NO DATA.

## SECTION 10: STABILITY & REACTIVITY

### 10.1 REACTIVITY

COMBUSTIBLE.

### 10.2 CHEMICAL STABILITY

STABLE UNDER SUGGESTED STORAGE CONDITIONS (<15°C).

### 10.3 POSSIBILITY OF HAZARDOUS REACTIONS

NO.

### 10.4 CONDITIONS TO AVOID

APPLICABLE FOR HANDLING AND STORAGE AT ROOM TEMPERATURE:  
 SHOCK & FRICTION: N/A  
 CONTACT WITH AIR: N/A  
 INCREASE IN TEMPERATURE: RISK OF COMBUSTION.  
 SUNLIGHT: AVOID DIRECT IMPACT.  
 HUMIDITY: N/A

### 10.5 INCOMPATIBLE MATERIALS

ACIDS: AVOID STRONG ACIDS.  
 WATER: N/A  
 COMBUSTIVE MATERIALS: AVOID DIRECT IMPACT.  
 COMBUSTIBLE MATERIALS: N/A  
 OTHERS: AVOID ALKALIS OR STRONG BASES.

### 10.6 HAZARDOUS DECOMPOSITION PRODUCTS

CARBON MONOXIDE AND CARBON DIOXIDE

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1 TOXICOLOGICAL EFFECTS

#### ACUTE TOXICITY

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
para-Cymene	4,750 mg/kg (Rat)	>5,000 mg/kg (Rabbit)	>9.7 mg/L (Rat) 5hr
Thymol	980 mg/kg (Rat)	>2000 mg/kg (Rat)	7,570 mg/m³
Linalool	= 2790 mg/kg ( Rat )	= 2000 mg/kg ( Rabbit ) = 5610 mg/kg ( Rat )	
alpha-Terpineol	4,300 mg/kg, >4,760.00 mg/kg (REACH)	>2,000 mg/kg	>2,000 mg/kg
alpha-Pinene	500mg/kg (Rat)	> 5000 mg/kg ( Rat )	
d-Limonene	6 Rat > 2000 mg/kg Female 1 (reliable without restriction) 7 Rat > 5000 mg/kg Male 4 (not assignable) 8 Rat > 5000 mg/kg 4 (not assignable) 1 Mouse 5600 mg/kg Male 4 (not assignable) 5 Rat 5300 mg/kg Male 4 (not assignable)	> 5 g/kg ( Rabbit )	

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	<table><tr><td></td><td>assignable) 2 Mouse 6600 mg/kg Female 4 (not assignable) 3 Rat 4400 mg/kg Male 4 (not assignable) 4 Rat 5200 mg/kg Female 4 (not assignable)</td><td></td><td></td></tr><tr><td>Carvacrol</td><td>= 810 mg/kg ( Rat )</td><td></td><td></td></tr><tr><td>beta-Pinene</td><td>= 4700 mg/kg ( Rat ) &gt; 5000 mg/kg ( Rat )</td><td>&gt; 5000 mg/kg ( Rabbit )</td><td></td></tr><tr><td>Myrcene</td><td>&gt; 5 g/kg ( Rat )</td><td>&gt; 5 g/kg ( Rabbit )</td><td></td></tr><tr><td>Eucalyptol</td><td>= 2480 mg/kg ( Rat )</td><td></td><td></td></tr></table>		assignable) 2 Mouse 6600 mg/kg Female 4 (not assignable) 3 Rat 4400 mg/kg Male 4 (not assignable) 4 Rat 5200 mg/kg Female 4 (not assignable)			Carvacrol	= 810 mg/kg ( Rat )			beta-Pinene	= 4700 mg/kg ( Rat ) > 5000 mg/kg ( Rat )	> 5000 mg/kg ( Rabbit )		Myrcene	> 5 g/kg ( Rat )	> 5 g/kg ( Rabbit )		Eucalyptol	= 2480 mg/kg ( Rat )		
	assignable) 2 Mouse 6600 mg/kg Female 4 (not assignable) 3 Rat 4400 mg/kg Male 4 (not assignable) 4 Rat 5200 mg/kg Female 4 (not assignable)																				
Carvacrol	= 810 mg/kg ( Rat )																				
beta-Pinene	= 4700 mg/kg ( Rat ) > 5000 mg/kg ( Rat )	> 5000 mg/kg ( Rabbit )																			
Myrcene	> 5 g/kg ( Rat )	> 5 g/kg ( Rabbit )																			
Eucalyptol	= 2480 mg/kg ( Rat )																				
<b>SKIN IRRITATION</b>	BURNS. MAY CAUSE SENSITIZATION BY SKIN CONTACT.																				
<b>EYE DAMAGE OR IRRITATION</b>	BURNS.																				
<b>RESPIRATORY OR SKIN SENSITIVITY</b>	IRRITATIONS OF MUCOUS MEMBRANES, COUGHING AND DYSPNOEA. INHALATION MAY LEAD TO THE FORMATION OF OEDEMAS IN THE RESPIRATORY TRACT.																				
<b>GERM CELL MUTAGENICITY</b>	MUTAGENICITY: BASED ON AVAILABLE DATA, THE CLASSIFICATION CRITERIA ARE NOT MET, AS IT DOES NOT CONTAIN SUBSTANCES CLASSIFIED AS DANGEROUS FOR THIS EFFECT. FOR MORE INFORMATION SEE SECTION 3.																				
<b>CARCINOGENICITY</b>	CARCINOGENICITY: BASED ON AVAILABLE DATA, THE CLASSIFICATION CRITERIA ARE NOT MET, AS IT DOES NOT CONTAIN SUBSTANCES CLASSIFIED AS DANGEROUS FOR THE EFFECTS MENTIONED. FOR MORE INFORMATION SEE SECTION 3.																				
<b>REPRODUCTIVE TOXICITY</b>	REPRODUCTIVE TOXICITY: BASED ON AVAILABLE DATA, THE CLASSIFICATION CRITERIA ARE NOT MET, AS IT DOES NOT CONTAIN SUBSTANCES CLASSIFIED AS DANGEROUS FOR THIS EFFECT. FOR MORE INFORMATION SEE SECTION 3.																				
<b>STOT – SINGLE EXPOSURE</b>	CAUSES IRRITATION IN RESPIRATORY PASSAGES, WHICH IS NORMALLY REVERSIBLE AND LIMITED TO THE UPPER RESPIRATORY PASSAGES.																				
<b>STOT – REPEATED EXPOSURE</b>	SPECIFIC TARGET ORGAN TOXICITY (STOT)-REPEATED EXPOSURE: BASED ON AVAILABLE DATA, THE CLASSIFICATION CRITERIA ARE NOT MET, AS IT DOES NOT CONTAIN SUBSTANCES CLASSIFIED AS DANGEROUS FOR THIS EFFECT. FOR MORE INFORMATION SEE SECTION 3.  - SKIN: BASED ON AVAILABLE DATA, THE CLASSIFICATION CRITERIA ARE NOT MET, AS IT DOES NOT CONTAIN SUBSTANCES CLASSIFIED AS DANGEROUS FOR THIS EFFECT. FOR MORE INFORMATION SEE SECTION 3.																				
<b>ASPIRATION HAZARD</b>	DAMAGE OF THE RESPIRATORY TRACT. BURNS THE MUCOUS MEMBRANES ON THE MOUTH, PHARYNX, OESOPHAGUS AND GASTROINTESTINAL TRACT.																				
<b>OTHER INFORMATION</b>	FURTHER HAZARDOUS PROPERTIES CANNOT BE EXCLUDED. NORMAL SAFETY PRECAUTIONS FOR HANDLING CHEMICAL PRODUCTS SHOULD ALWAYS BE OBSERVED.																				

## SECTION 12: ECOLOGICAL INFORMATION

12.1 TOXICITY	Toxic to aquatic life with long lasting effects 1.0718 % of the mixture consists of component(s) of unknown hazards to the aquatic environment			
	Chemical Name	Crustacea	Algae/aquatic plants	Fish
	para-Cymene	72hr EC50 - 4.03 mg/L, NOEC - 1.4 mg/L (Scenedesmus capricornutum)	48hr EC50 - 100 mg/L	96hr LC50 - 48 mg/L (Cyprinodon variegatus)
	Thymol	48hr LC50 - 4.5 mg/L (Daphnia magna)	72hr EC50 - 14 mg/l, 72hr NOEC - 1.9 mg/l (Pseudokirchneriella subcapitata)	96hr LC50 - 3.2 mg/L (Pimephales promelas)
	Linalool	48hr EC50 - 59mg/L (Daphnia magna)	96hr EC50 - 156.7 mg/L; EC10 or NOEC - 54.3 mg/L (Desmodesmus subspicatus)	96hr LC50 - 27.8mg/L (Salmo gairdneri)
	alpha-Terpineol	48hr EC50 - 73 mg/l (Daphnia magna)	72hr EC50 - 68mg/l	96hr LC50 - 62 to 80 mg/L (Danio rerio)
	alpha-Pinene	41: 48 h Daphnia magna mg/L LC50		0.28: 96 h Pimephales promelas mg/L LC50 static
	d-Limonene	48hr EC50 - 0.4 mg/L (Daphnia magna)	96 hr NOEC - 4mg/L (Green algae)	96hr LC50 - 0.7mg/L (Pimephales promelas)
Eucalyptol	48hr EC50/LC50 - 100 mg/L (Daphnia magna)	72hr EC50 - 74 mg/L, EC10 or NOEC - 37 mg/L (Pseudokirchneriella subcapitata)	96 HR LC50 for freshwater fish - 57 mg/L (Oncorhynchus mykiss)	
12.2 PERSISTENCE & DEGRADABILITY	NO DATA.			
12.3 BIO- ACCUMULATIVE POTENTIAL	NO DATA.			
12.4 MOBILITY IN SOIL	CONSIDERED AS A READILY BIODEGRADABLE NCS. BASED ON THE READY BIODEGRADABILITY OF THE NCS, SIMULATION TESTS IN SURFACE WATER, SEDIMENT AND SOIL ARE NOT REQUIRED IN ACCORDANCE			

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	WITH EFFECTS.
<b>12.5</b> <b>RESULTS OF PBT &amp; VPVB ASSESSMENT</b>	THIS SUBSTANCE DOES NOT MEET THE PBT/VPVB CRITERIA OF REACH, ANNEX XIII.
<b>12.6</b> <b>OTHER ADVERSE EFFECTS</b>	DO NOT ALLOW PRODUCT TO ENTER STREAMS, SEWERS OR OTHER WATERWAYS.

### SECTION 13: DISPOSAL INFORMATION

<b>13.1</b> <b>WASTE TREATMENT METHODS</b>	ALWAYS RECOVER SPILLED PRODUCT. DISCARD WASTE MATERIAL WITH AUTHORIZED WASTE MANAGEMENT SERVICES. ACT IN ACCORDANCE WITH LOCAL & NATIONAL WASTE REGULATIONS.
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### SECTION 14: TRANSPORT INFORMATION

<b>14.1</b> <b>TRANSPORT INFORMATION</b>	
	<b>UN NUMBER</b> ROAD: 2924 RAIL: 2924 AIR: 2924
<b>14.2</b> <b>UN SHIPPING NAME</b>	FLAMMABLE LIQUID, CORROSIVE, N.O.S. (CONTAINS CYMENES)
<b>14.3</b> <b>TRANSPORT HAZARD CLASS(ES)</b>	ADR/RID/ADN – CLASS 3 (8) ADR/RID/ADN – CLASS 3 (8) IMDG – CLASS 3 (8) ICAO – CLASS 3 (8)  TRANSPORT LABELS  
<b>14.4</b> <b>PACKING GROUP</b>	ADR/RID/ADN PACKING GROUP III IMDG PACKING GROUP III ICAO PACKING GROUP III
<b>14.5</b> <b>ENVIROMENTAL HAZARDS</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE/MARINE POLLUTANT 
<b>14.6</b> <b>SPECIAL PRECAUTIONS FOR USER</b>	None.
<b>14.7</b> <b>TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL73/78 &amp; THE IBC CODE.</b>	NO ADDITIONAL DATA.

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## SECTION 15: REGULATORY INFORMATION

### 15.1

#### PRODUCT SPECIFIC SAFETY, HEALTH & ENVIRONMENTAL REGULATIONS & LEGISLATION

<b>EU DIRECTIVES</b>	REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL OF 18 <sup>TH</sup> DECEMBER 2006. CONCERNING THE REGISTRATION, EVALUATION, AUTHORIZATION & RESTRICTION OF CHEMICALS (REACH), ESTABLISHING A EUROPEAN CHEMICALS AGENCY, AMENDING DIRECTIVE 1999/45/EC AND REPEALING COUNCIL REGULATION (EEC) No793/93 & COMMISSION REGULATION (EC) No1488/94 AS WELL AS COUNCIL DIRECTIVE 76/769/EEC & COMMISSION DIRECTIVE 91/155/ECC, 93/67/ECC, 93/105/EEC & 2000/21/EC (INCLUDING AMENDMENTS).
<b>STATUTORY INSTRUMENTS</b>	THE CHEMICALS (HAZARD INFORMATION & PACKAGING FOR SUPPLY REGULATIONS 2009 (S.I.2009 No 716).
<b>APPROVED CODE OF PRACTICE</b>	CLASSIFICATION & LABELLING OF SUBSTANCES & PREPARATIONS DANGEROUS FOR SUPPLY. SAFETY DATA SHEETS FOR SUBSTANCES & PREPARATIONS.
<b>GUIDANCE NOTES</b>	WORKPLACE EXPOSURE LIMITS EH40. CHIP FOR EVERYONE HSG 108.
<b>15.2</b>	
<b>CHEMICAL SAFETY ASSESSMENT</b>	-

## SECTION 16: OTHER INFORMATION

HAZARD AND/ OR PRECAUTIONARY STATEMENTS IN FULL	<p>H226 - FLAMMABLE LIQUID AND VAPOR</p> <p>H227 - COMBUSTIBLE LIQUID H302 - HARMFUL IF SWALLOWED</p> <p>H303 - MAY BE HARMFUL IF SWALLOWED</p> <p>H304 - MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS</p> <p>H314 - CAUSES SEVERE SKIN BURNS AND EYE DAMAGE</p> <p>H315 - CAUSES SKIN IRRITATION</p> <p>H316 - CAUSES MILD SKIN IRRITATION</p> <p>H317 - MAY CAUSE AN ALLERGIC SKIN REACTION</p> <p>H318 - CAUSES SERIOUS EYE DAMAGE</p> <p>H319 - CAUSES SERIOUS EYE IRRITATION</p> <p>H361 - SUSPECTED OF DAMAGING FERTILITY OR THE UNBORN CHILD</p> <p>H400 - VERY TOXIC TO AQUATIC LIFE</p> <p>H401 - TOXIC TO AQUATIC LIFE</p> <p>H402 - HARMFUL TO AQUATIC LIFE</p> <p>H410 - VERY TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS</p> <p>H411 - TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS</p>
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		H413 - MAY CAUSE LONG LASTING HARMFUL EFFECTS TO AQUATIC LIFE
<b>TRAINING INSTRUCTIONS: REFER TO POSSIBLE HAZARD BEFORE USE OF THIS PRODUCT.</b>		
<b>ABBREVIATIONS &amp; ACRONYMS:</b>		
	<b>MSDS</b>	MATERIAL SAFETY DATA SHEET.
	<b>INCI</b>	INTERNATIONAL NOMENCLATURE OF COSMETIC INGREDIENTS.
	<b>CAS</b>	CHEMICAL ABSTRACT SERVICE.
	<b>IMDG</b>	INTERNATIONAL MARITIME CODE FOR DANGEROUS GOODS.
	<b>ADR</b>	ACCORD EUROPEAN SUR LE TRANSPORT DES MARCHANDISES DANGEREUSES PAR ROUTE (EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY ROAD).
	<b>RID</b>	INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY RAIL.
	<b>ICAO</b>	INTERNATIONAL CIVIL AVIATION ORGANIZATION.
	<b>ADN</b>	INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY INLAND WATERWAYS.
	<b>GHS</b>	GLOBALLY HARMONIZED SYSTEM OF CLASSIFICATION & LABELLING OF CHEMICALS.
	<b>TREM CARD</b>	TRANSPORT EMERGENCY CARD.
	<b>STOT</b>	SPECIFIC TARGET ORGAN TOXICITY.

#### DOCUMENTATION REVISION

DATE	CHANGE DESCRIPTION
10 <sup>TH</sup> APRIL 2018	DATA LAUNCH
OCTOBER 2020	REVIEW

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