



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	FENNEL SWEET, ESSENTIAL OIL				
BIOLOGICAL DEFINITION	FOENICULUM VULGARE OIL IS THE VOLATILE OIL OBTAINED BY STEAM DISTILLATION OF THE CRUSHED SEEDS OF FENNEL, FOENICULUM VULGARE, UMBELLIFERAE.				
INCI NAME	FOENICULUM VULGARE DULCE OIL				
SYNONYMS & TRADE NAMES	SWEET FENNEL OIL				
INTERNAL PRODUCT CODE	K0184				
CAS-No	8006-84-6	EC No.	282-892-3	EINECS No.	282-892-3

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.
EMAIL	TECHNICALCREW@OAND3.COM

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	
2.1 CLASSIFICATION OF THE SUBSTANCE OR MIXTURE	THE FULL TEXT FOR ALL HAZARD STATEMENTS IS DISPLAYED IN SECTION 16.
CLASSIFICATION (67/548/EEC)	NO ADDITIONAL DATA AVAILABLE.
CLASSIFICATION (EU1272/2008)	PHYSICAL AND CHEMICAL HAZARDS : NOT CLASSIFIED. SKIN SENS. 1 (H317) ASP. TOX. 1 (H304) AQU. CHRON. 2 (H411) MUTA 2 (H341) CARC. 2 (H351)
2.2 LABEL ELEMENTS	LABEL IN ACCORDANCE WITH REGULATION (EC) No 1272/2008.
GHS LABEL	   GHS07 GHS08 GHS09
SIGNAL WORD	DANGER.
CONTAINS	-
HAZARDS STATEMENT	H317 MAY CAUSE AN ALLERGIC SKIN REACTION. H304 MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS. H411 TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS. H341 SUSPECTED OF CAUSING GENETIC DEFECTS (STATE ROUTE OF EXPOSURE IF IT IS CONCLUSIVELY PROVEN THAT NO OTHER ROUTES OF EXPOSURE CAUSE THE HAZARD). H351 SUSPECTED OF CAUSING CANCER.
SIGNAL WORD	DANGER.
PRECAUTIONARY STATEMENTS	P202 DO NOT HANDLE UNTIL ALL SAFETY PRECAUTIONS HAVE BEEN READ AND UNDERSTOOD. P280 WEAR PROTECTIVE GLOVES/PROTECTIVE CLOTHING AND EYE/FACE PROTECTION. P301+ 330+331 IF SWALLOWED: RINSE MOUTH. DO NOT INDUCE VOMITING. P310 IMMEDIATELY CALL A POISON CENTER OR DOCTOR/PHYSICIAN. P273 AVOID RELEASE TO THE ENVIRONMENT. P501 DISPOSE OF CONTENTS/CONTAINER TO REGIONAL, NATIONAL REGULATION.
SUPPLEMENTARY PRECAUTIONARY STATEMENTS	NONE.
SECTION 16 (OTHER INFORMATION): RISK & SAFETY PHRASES IN FULL.	
2.3 OTHER HAZARDS	
ADVERSE PHYSIO-CHEMICAL PROPERTIES	NO DATA.
ADVERSE EFFECTS ON HUMAN HEALTH	NO DATA.
PBT OR VPVB ACCORDING TO ANNEX XIII	NO DATA.
SECTION 3: COMPOSITION OF INGREDIENTS	

3.1 SUBSTANCES

Chemical Name	EC No.	CAS No.	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH registration number
Anethole	Present	4180-23-8	70 - <80	Skin Sens. 1B (H317) (EFAA) Acute Aquatic 2 (H401) (EFAA) Acute Tox. 5 (H303) (EFAA) Skin Irr. 3 (H316) (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)	No data available
				(EFAA) Skin Irrit. 2 (H315) (EFAA) Asp. Tox. 1 (H304) (EFAA) Flam. Liq. 3 (H226)(EFAA)	
d-Limonene	Present	5989-27-5	1 - <10	Aspiration Hazard 1 (H304)(EFAA) Flam. Liq. 3 (H226)(EFAA) Skin Irrit. 2 (H315)(EFAA) Skin Sens. 1B (H317)(EFAA) Aquatic Acute 1 (H400)(EFAA) Aquatic Chronic 1 (H410)(EFAA)	No data available
Estragole	Present	140-67-0	1 - <10	Skin Sens. 1 (H317), Carc. 2 (H351), Muta. 2 (H341), Skin Irrit. 2 (H315), Acute Tox. 4 (H302), Flam. Liq. 4 (H227) Aquatic Acute 2 (H401), Aquatic Chronic 3 (H412)	No data available
alpha-Phellandrene	Present	99-83-2	1 - <10	Skin Irrit. 3 (H316) (EFAA) Asp. Tox. 1 (H304) (EFAA) Flam. Liq. 3 (H226)(EFAA)	No data available
Myrcene	Present	123-35-3	0.1 - <1	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
beta-Pinene	Present	127-91-3	0.1 - <1	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
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
Linalool	Present	78-70-6	0.1 - <1	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
para-Cymene	Present	99-87-6	0.1 - <1	Rep Tox. 2 (H361), Aquatic Acute 2 (H401), Skin Irrit. 3 (H316), Aquatic Chronic 2 (H411), Asp. Tox. 1 (H304), Acute Tox. 5 (H303), Flam. Liq. 3 (H226)	No data available

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	Camphene	Present	79-92-5	0.01 - <0.1	Aquatic Acute 1 (H400) (ECHA) Eye Irrit. 2B (H320) (ECHA) Aquatic Chronic 1 (H410) (ECHA) Flam. Sol. 2 (H228) (ECHA)	No data available
	Sabinene	Present	3387-41-5	0.01 - <0.1	Aspiration cat 1 (H304), Flam cat 3 (H226), Skin Irrit. 2 (H315), Skin Sens. 1B (H317), Acute aquatic cat 1 (H400), Chronic aquatic cat 1 (H410)	No data available
	delta-3-Carene	Present	13466-78-9	0.01 - <0.1	Skin Sens. 1 (H317) (ECHA) Skin Irrit. 2 (H315) (ECHA) Asp. Tox. 1 (H304) (ECHA) Acute Tox. 5 (H303)(ECHA) Flam. Liq. 3 (H226)(ECHA) Acute Aquatic 1 (H400)(ECHA) Chronic Aquatic 1 (H410)(ECHA)	No data available

SECTION 4: FIRST AID MEASURES

4.1	
DESCRIPTION OF FIRST AID MEASURES	
GENERAL INFORMATION	ALWAYS REMOVE CONTAMINATED CLOTHING IMMEDIATELY.
INHALATION	GET MEDICAL ATTENTION IMMEDIATELY. REMOVE FROM EXPOSURE SITE TO FRESH AIR, KEEP AT REST, AND OBTAIN MEDICAL ATTENTION.
INGESTION	GET MEDICAL ATTENTION IMMEDIATELY. IMMEDIATELY CALL THE DOCTOR. RINSE MOUTH WITH WATER AND OBTAIN MEDICAL ATTENTION.
SKIN CONTACT	REMOVE CONTAMINATED CLOTHES. WASH THOROUGHLY WITH SOAP AND WATER. CONTACT PHYSICIAN IF IRRITATION PERSISTS.
EYE CONTACT	FLUSH IMMEDIATELY WITH WATER FOR AT LEAST 15 MINUTES. CONTACT PHYSICIAN IF SYMPTOMS PERSIST.
4.2	
MOST IMPORTANT SYMPTOMS & EFFECTS (ACUTE & DELAYED)	SYMPTOMS CONTACT: MAY CAUSE AN ALLERGIC REACTION
4.3	
INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION OR SPECIAL TREATMENT REQUIRED	TREAT SYMPTOMATICALLY.

SECTION 5: FIRE FIGHTING MEASURES

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

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1	
PERSONAL PRECAUTIONS	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. AVOID INHALATION.
6.2	
ENVIRONMENTAL PRECAUTIONS	DO NOT DISCHARGE INTO DRAINS, WATER COURSES OR ONTO THE GROUND. DISPOSE OF IN LINE WITH LOCAL AUTHORITY GUIDELINES.
6.3	
METHODS & MATERIAL FOR CONTAINMENT AND CLEANING UP	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. COVER WITH AN INERT, INORGANIC, NON-COMBUSTIBLE ABSORBENT MATERIAL (E.G DRY-LIME, SAND, SODA ASH).
6.4	
REFERENCES TO OTHER SECTIONS	REFER & CONSIDER SECTION 12.

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SECTION 7: HANDLING & STORAGE

7.1 PRECAUTIONS FOR SAFE-HANDLING

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.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

STORAGE CLASS: FLAMMABLE LIQUID STORAGE. STORE ONLY IN THE ORIGINAL RECEPTACLE. KEEP CONTAINER TIGHTLY SEALED. KEEP IN COOL, DRY, VENTILATED STORAGE AND CLOSED CONTAINERS. KEEP AWAY FROM HEAT.

7.3 SPECIFIC END USE(S)

RISK MANAGEMENT METHODS (RMM)
THE INFORMATION REQUIRED IS CONTAINED IN THIS MATERIAL SAFETY DATA

SECTION 8: EXPOSURE CONTROLS & PERSONAL PROTECTION

8.1 CONTROL PARAMETERS

Chemical Name	European Union	United Kingdom	France	Spain	Germany
alpha-Pinene 80-56-8	-	-	TWA: 1000 mg/m ³ STEL: 1500 mg/m ³	TWA: 20 ppm TWA: 113 mg/m ³	-
d-Limonene 5989-27-5	-	-	TWA: 1000 mg/m ³ STEL: 1500 mg/m ³	S* TWA: 30 ppm TWA: 168 mg/m ³	TWA: 5 ppm TWA: 28 mg/m ³ Ceiling / Peak: 20 ppm Ceiling / Peak: 112 mg/m ³ Skin
alpha-Phellandrene 99-83-2	-	-	TWA: 1000 mg/m ³ STEL: 1500 mg/m ³	-	-
Myrcene 123-35-3	-	-	TWA: 1000 mg/m ³ STEL: 1500 mg/m ³	-	-
beta-Pinene 127-91-3	-	-	TWA: 1000 mg/m ³ STEL: 1500 mg/m ³	TWA: 20 ppm TWA: 113 mg/m ³	-
para-Cymene 99-87-6	-	-	TWA: 150 mg/m ³ STEL: 1500 mg/m ³	-	-
Camphene 79-92-5	-	-	TWA: 1000 mg/m ³ STEL: 1500 mg/m ³	-	-
Sabinene 3387-41-5	-	-	TWA: 1000 mg/m ³ STEL: 1500 mg/m ³	-	-
delta-3-Carene 13466-78-9	-	-	TWA: 1000 mg/m ³ STEL: 1500 mg/m ³	TWA: 20 ppm TWA: 113 mg/m ³	-
Chemical Name	Italy	Portugal	Netherlands	Finland	Denmark
alpha-Pinene 80-56-8	-	TWA: 20 ppm	-	-	-
d-Limonene 5989-27-5	-	-	-	TWA: 25 ppm TWA: 140 mg/m ³ STEL: 50 ppm STEL: 280 mg/m ³	-
beta-Pinene 127-91-3	-	TWA: 20 ppm	-	-	-
para-Cymene 99-87-6	-	-	-	-	TWA: 25 ppm TWA: 135 mg/m ³
delta-3-Carene 13466-78-9	-	TWA: 20 ppm	-	-	-
Chemical Name	Austria	Switzerland	Poland	Norway	Ireland
alpha-Pinene 80-56-8	-	Skin STEL: 40 ppm STEL: 224 mg/m ³ TWA: 20 ppm TWA: 112 mg/m ³	-	TWA: 25 ppm TWA: 140 mg/m ³ Skin STEL: 37.5 ppm STEL: 175 mg/m ³	-
d-Limonene 5989-27-5	-	STEL: 14 ppm STEL: 80 mg/m ³ TWA: 7 ppm TWA: 40 mg/m ³	-	TWA: 25 ppm TWA: 140 mg/m ³ STEL: 37.5 ppm STEL: 175 mg/m ³	-
Myrcene 123-35-3	-	-	-	TWA: 40 ppm TWA: 275 mg/m ³ STEL: 60 ppm STEL: 343.75 mg/m ³	-
beta-Pinene	-	Skin	-	TWA: 25 ppm	-
127-91-3	-	STEL: 40 ppm STEL: 224 mg/m ³ TWA: 20 ppm TWA: 112 mg/m ³	-	TWA: 140 mg/m ³ STEL: 37.5 ppm STEL: 175 mg/m ³	-
Camphene 79-92-5	-	Skin STEL: 40 ppm STEL: 224 mg/m ³ TWA: 20 ppm TWA: 112 mg/m ³	-	-	-
delta-3-Carene 13466-78-9	-	Skin STEL: 40 ppm STEL: 224 mg/m ³ TWA: 20 ppm TWA: 112 mg/m ³	-	TWA: 25 ppm TWA: 140 mg/m ³ STEL: 37.5 ppm STEL: 175 mg/m ³	-

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8.2 EXPOSURE CONTROLS



EYE PROTECTION	WEAR PROTECTIVE GLOVES/EYE PROTECTION/FACE PROTECTION. AVOID CONTACT WITH EYES. WEAR APPROVED SAFETY GOGGLES. (EN166)
HAND PROTECTION	AVOID CONTACT WITH SKIN. WASH HANDS BEFORE BREAKS AND AT END OF WORK. WEAR PROTECTIVE GLOVES. DIN/EN 374. THE GLOVE MATERIAL HAS TO BE IMPERMEABLE AND RESISTANT TO THE PRODUCT / THE SUBSTANCE / THE PREPARATION. PENETRATION TIME OF GLOVE MATERIAL: THE EXACT BREAK THROUGH TIME HAS TO BE FOUND OUT BY THE MANUFACTURER OF THE PROTECTIVE GLOVES AND HAS TO BE OBSERVED.
RESPIRATORY EQUIPMENT	DO NOT INHALE GASES / FUMES / AEROSOLS. CERTIFIED RESPIRATORY PROTECTIVE DEVICE RECOMMENDED.
HYGIENE MEASURES	GOOD PERSONAL HYGIENE PRACTICES ARE ALWAYS ADVISABLE, ESPECIALLY WHEN WORKING WITH CHEMICALS / OILS.
ENGINEERING MEASURES	NONE.
SKIN PROTECTION	WEAR PROTECTIVE CLOTHING TO REDUCE THE RISK OF SKIN AND EYE CONTACT.
PERSONAL PROTECTION	AVOID INHALATION OF THE PRODUCT. AVOID CONTACT WITH SKIN AND EYES. AVOID CONTACT WITH SKIN AND EYES. USE PERSONAL PROTECTION ACCORDING TO DIRECTIVE 89/686/EEC.
OTHER PROTECTION	WEAR SUITABLE PROTECTION TO AVOID CONTACT WITH SKIN AND EYES. DO NOT INHALE VAPOURS.
PROCESS CONDITIONS	ENSURE AREA IS WELL VENTILATED. AVOID VAPOUR INHALATION. SAFETY SHOWER & EYE BATH.
ENVIROMENTAL EXPOSURE CONTROLS	AVOID DISCHARGING INTO DRAINAGE WATER.

SECTION 9: PHYSICAL & CHEMICAL PROPERTIES

9.1 PHYSICAL & CHEMICAL PROPERTIES	
APPEARANCE	LIQUID
COLOUR	PALE YELLOW
ODOUR	CHARACTERISTIC
RELATIVE DENSITY @ 20°C	0.950 – 0.985
FLASH POINT (°C)	62 °C.
SOLUBILITY IN WATER @ 20 °C	INSOLUBLE IN WATER.
9.2 OTHER INFORMATION	NO DATA.

SECTION 10: STABILITY & REACTIVITY

10.1 REACTIVITY	NOT APPLICABLE.
10.2 CHEMICAL STABILITY	STABLE UNDER SUGGESTED STORAGE CONDITIONS (<15°C).
10.3 POSSIBILITY OF HAZARDOUS REACTIONS	NONE UNDER NORMAL PROCESSING.
10.4 CONDITIONS TO AVOID	STORAGE AT HIGH TEMPERATURES. DO NOT STORE ABOVE 15°C. AVOID HEAT, FLAMES AND OTHER SOURCES OF IGNITION.
10.5 INCOMPATIBLE MATERIALS	AVOID CONCENTRATED ACIDS, ALKALIS & OXIDISING AGENTS.
10.6 HAZARDOUS DECOMPOSITION PRODUCTS	THIS PRODUCT DOES NOT DECOMPOSE UNDER NORMAL CONDITIONS. UNDER FIRE CONDITIONS THE PRODUCT WILL PRODUCE A MIXTURE OF IRRITATING FUMES & SMOKE & CARBON MONOXIDE.

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SECTION 11: TOXICOLOGICAL INFORMATION

11.1

TOXICOLOGICAL EFFECTS

ACUTE TOXICITY	15.647 % of the mixture consists of ingredient(s) of unknown acute oral toxicity. 97.32 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity. 97.32 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas) 97.32 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor) 97.32 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)
SKIN IRRITATION	AVOID CONTACT WITH SKIN. MAY CAUSE AN ALLERGIC SKIN REACTION. CAUSES MILD SKIN IRRITATION
EYE DAMAGE OR IRRITATION	AVOID CONTACT WITH EYES.
RESPIRATORY OR SKIN SENSITIVITY	AVOID BREATHING VAPORS OR MISTS.
GERM CELL MUTAGENICITY	NO DATA.
CARCINOGENICITY	NO DATA.
REPRODUCTIVE TOXICITY	NO DATA.
STOT – SINGLE EXPOSURE	NO DATA.
STOT – REPEATED EXPOSURE	NO DATA.
ASPIRATION HAZARD	NO DATA.
OTHER INFORMATION	NO DATA.

SECTION 12: ECOLOGICAL INFORMATION

12.1 TOXICITY		<table><tr><th>Chemical Name</th><th>Crustacea</th><th>Algae/aquatic plants</th><th>Fish</th></tr><tr><td>Anethole</td><td>48hr EC50/LC50 - 6.82 mg/L (Daphnia magna)</td><td>72hr EC50 - 9.57 mg/L (Pseudokirchneriella subcapitata)</td><td>96hr LC50 - 7 mg/L (Danio rerio)</td></tr><tr><td>alpha-Pinene</td><td>41: 48 h Daphnia magna mg/L LC50</td><td></td><td>0.28: 96 h Pimephales promelas mg/L LC50 static</td></tr><tr><td>d-Limonene</td><td>48hr EC50 - 0.4 mg/L (Daphnia magna)</td><td>96 hr NOEC - 4mg/L (Green algae)</td><td>96hr LC50 - 0.7mg/L (Pimephales promelas)</td></tr><tr><td>Eucalyptol</td><td>48hr EC50/LC50 - 100 mg/L (Daphnia magna)</td><td>72hr EC50 - 74 mg/L, EC10 or NOEC - 37 mg/L (Pseudokirchneriella subcapitata)</td><td>96 HR LC50 for freshwater fish - 57 mg/L (Oncorhynchus mykiss)</td></tr><tr><td>Linalool</td><td>48hr EC50 - 59mg/L (Daphnia magna)</td><td>96hr EC50 - 156.7 mg/L; EC10 or NOEC - 54.3 mg/L (Desmodesmus subspicatus)</td><td>96hr LC50 - 27.8mg/L (Salmo gairdneri)</td></tr><tr><td>para-Cymene</td><td>72hr EC50 - 4.03 mg/L, NOEC - 1.4 mg/L (Scenedesmus capricornutum)</td><td>48hr EC50 - 100 mg/L</td><td>96hr LC50 - 48 mg/L (Cyprinodon variegatus)</td></tr><tr><td>Camphene</td><td>22: 48 h Daphnia magna mg/L EC50</td><td></td><td>0.72: 96 h Brachydanio rerio mg/L LC50 flow-through 150: 96 h Brachydanio rerio mg/L LC50 static</td></tr></table>	Chemical Name	Crustacea	Algae/aquatic plants	Fish	Anethole	48hr EC50/LC50 - 6.82 mg/L (Daphnia magna)	72hr EC50 - 9.57 mg/L (Pseudokirchneriella subcapitata)	96hr LC50 - 7 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)	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)	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)	Camphene	22: 48 h Daphnia magna mg/L EC50		0.72: 96 h Brachydanio rerio mg/L LC50 flow-through 150: 96 h Brachydanio rerio mg/L LC50 static
	Chemical Name	Crustacea	Algae/aquatic plants	Fish																														
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Camphene	22: 48 h Daphnia magna mg/L EC50		0.72: 96 h Brachydanio rerio mg/L LC50 flow-through 150: 96 h Brachydanio rerio mg/L LC50 static																															
12.2 PERSISTENCE & DEGRADABILITY	NO DATA.																																	
12.3 BIO- ACCUMULATIVE POTENTIAL	NO DATA																																	
12.4 MOBILITY IN SOIL	NO DATA																																	
12.5 RESULTS OF PBT & VPVB ASSESSMENT	NO DATA.																																	
12.6 OTHER ADVERSE EFFECTS	NO DATA.																																	

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SECTION 13: DISPOSAL INFORMATION	
13.1 WASTE TREATMENT METHODS	ALWAYS RECOVER SPILLED PRODUCT. DISCARD WASTE MATERIAL WITH AUTHORIZED WASTE MANAGEMENT SERVICES. ACT IN ACCORDANCE WITH LOCAL & NATIONAL WASTE REGULATIONS.

SECTION 14: TRANSPORT INFORMATION	
14.1 TRANSPORT INFORMATION	
UN NUMBER	ROAD: UN 3082 SEA: UN 3082 AIR: UN 3082
14.2 UN SHIPPING NAME	ENVIRONMENTALLY HAZARDOUS SUBSTANCE LIQUID N.O.S.
14.3 TRANSPORT HAZARD CLASS(ES)	ADR/RID/ADN CLASS: 9 FLAMMABLE LIQUID. IMDG CLASS: 9 FLAMMABLE LIQUID. ICAO CLASS/DIVISION: 9 FLAMMABLE LIQUID. TRANSPORT LABELS: 
14.4 PACKING GROUP	ADR/RID/ADN PACKING GROUP III IMDG PACKING GROUP III ICAO PACKING GROUP III
14.5 ENVIRONMENTAL HAZARDS	ENVIRONMENTALLY HAZARDOUS / MARINE POLLUTANT. 
14.6 SPECIAL PRECAUTIONS FOR USER	EMS F-A-S-F. EMERGENCY ACTION CODE 3Z. HAZARD NO. (ADR) 90 ENVIRONMENTALLY HAZARDOUS SUBSTANCE; MISCELLANEOUS DANGEROUS SUBSTANCES. TUNNEL RESTRICTION CODE (E).
14.7 TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL73/78 & THE IBC CODE.	NONE.

SECTION 15: REGULATORY INFORMATION	
15.1 PRODUCT SPECIFIC SAFETY, HEALTH & ENVIRONMENTAL REGULATIONS &	

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LEGISLATION	
EU DIRECTIVES	REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL OF 18 TH 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) No 1488/94 AS WELL AS COUNCIL DIRECTIVE 76/769/EEC & COMMISSION DIRECTIVE 91/155/ECC, 93/67/ECC, 93/105/EEC & 2000/21/EC (INCLUDING AMENDMENTS).
STATUTORY INSTRUMENTS	THE CHEMICALS (HAZARD INFORMATION & PACKAGING FOR SUPPLY REGULATIONS 2009 (S.I.2009 No 716).
APPROVED CODE OF PRACTICE	CLASSIFICATION & LABELLING OF SUBSTANCES & PREPARATIONS DANGEROUS FOR SUPPLY. SAFETY DATA SHEETS FOR SUBSTANCES & PREPARATIONS.
GUIDANCE NOTES	WORKPLACE EXPOSURE LIMITS EH40. CHIP FOR EVERYONE HSG 108.
15.2 CHEMICAL SAFETY ASSESSMENT	ASSESSMENT HAS NOT BEEN CARRIED OUT AS THIS IS A NON-HAZARDOUS MATERIAL ACCORDING TO ARTICLE 31 OF REACH 1907/2006.

SECTION 16: OTHER INFORMATION

HAZARD AND/ OR PRECAUTIONARY STATEMENTS IN FULL	H227 - COMBUSTIBLE LIQUID ^{[1][2]} _{SEP}
	H228 - FLAMMABLE SOLID ^{[1][2]} _{SEP}
	H302 - HARMFUL IF SWALLOWED
	H303 - MAY BE HARMFUL IF SWALLOWED ^{[1][2]} _{SEP}
	H304 - MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS
	H315 - CAUSES SKIN IRRITATION ^{[1][2]} _{SEP}
	H316 - CAUSES MILD SKIN IRRITATION ^{[1][2]} _{SEP}
	H317 - MAY CAUSE AN ALLERGIC SKIN REACTION ^{[1][2]} _{SEP}
	H319 - CAUSES SERIOUS EYE IRRITATION ^{[1][2]} _{SEP}
	H320 - CAUSES EYE IRRITATION ^{[1][2]} _{SEP}
	H341 - SUSPECTED OF CAUSING GENETIC DEFECTS ^{[1][2]} _{SEP}
	H351 - SUSPECTED OF CAUSING CANCER ^{[1][2]} _{SEP}
	H361 - SUSPECTED OF DAMAGING FERTILITY OR THE UNBORN CHILD
	H400 - VERY TOXIC TO AQUATIC LIFE ^{[1][2]} _{SEP}
	H401 - TOXIC TO AQUATIC LIFE ^{[1][2]} _{SEP}
	H402 - HARMFUL TO AQUATIC LIFE ^{[1][2]} _{SEP}
	H410 - VERY TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS

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THE OIL FAMILY

	H411 - TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS ^{CLP}	
	H412 - HARMFUL TO AQUATIC LIFE WITH LONG LASTING EFFECTS	
TRAINING INSTRUCTIONS: REFER TO POSSIBLE HAZARD BEFORE USE OF THIS PRODUCT.		
ABBREVIATIONS & ACRONYMS:		
	MSDS	MATERIAL SAFETY DATA SHEET.
	INCI	INTERNATIONAL NOMENCLATURE OF COSMETIC INGREDIENTS.
	CAS	CHEMICAL ABSTRACT SERVICE.
	IMDG	INTERNATIONAL MARITIME CODE FOR DANGEROUS GOODS.
	ADR	ACCORD EUROPEAN SUR LE TRANSPORT DES MARCHANDISES DANGEREUSES PAR ROUTE (EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY ROAD).
	RID	INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY RAIL.
	ICAO	INTERNATIONAL CIVIL AVIATION ORGANIZATION.
	ADN	INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY INLAND WATERWAYS.
	GHS	GLOBALLY HARMONIZED SYSTEM OF CLASSIFICATION & LABELLING OF CHEMICALS.
	TREM CARD	TRANSPORT EMERGENCY CARD.
	STOT	SPECIFIC TARGET ORGAN TOXICITY.

DOCUMENTATION REVISION

DATE	CHANGE DESCRIPTION
10 TH APRIL 2018	DATA LAUNCH
OCTOBER 2020	REVIEW

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