



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	ORANGE SWEET, ESSENTIAL OIL				
BIOLOGICAL DEFINITION	CITRUS AURANTIUM DULCIS PEEL OIL EXPRESSED IS AN ESSENTIAL OIL EXPRESSED FROM THE FRESH EPICARPS OF THE SWEET ORANGE, CITRUS AURANTIUM L. VAR. DULCIS L. (SYN: CITRUS SINENSIS),				
INCI NAME	CITRUS AURANTIUM DULCIS OIL				
SYNONYMS & TRADE NAMES	-				
INTERNAL PRODUCT CODE	K0321				
CAS-No	8028-48-6	EC No.	232-433-8	EINECS No.	232-433-8

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

2.1 CLASSIFICATION OF THE SUBSTANCE OR MIXTURE	THE FULL TEXT FOR ALL HAZARD STATEMENTS IS DISPLAYED IN SECTION 16.
	THE FULL TEXT FOR HAZARD STATEMENTS IS DISPLAYED IN SECTION 16. <u>HUMAN HEALTH</u> ASPIRATION HAZARD, SKIN CORROSION / IRRITATION AND SKIN SENSITISATION <u>ENVIRONMENT</u> THE PRODUCT CONTAINS A SUBSTANCE WHICH IS HARMFUL TO AQUATIC ORGANISMS AND WHICH MAY CAUSE LONG TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT. <u>PHYSICAL AND CHEMICAL HAZARDS</u> THIS PRODUCT IS FLAMMABLE
CLASSIFICATION (EU 1272/2008)	PHYSICAL HAZARDS: FLAM. LIQ. 3 (H226) HEALTH HAZARDS: ASP. TOX. 1 – (H304), SKIN IRRIT. 2 (H315), SKIN SENS. 1 (H317) ENVIRONMENTAL HAZARDS : AQUATIC CHRONIC 2 (H411)* *SEE SECTION 16 – OTHER INFORMATION
2.2 LABEL ELEMENTS	LABEL IN ACCORDANCE WITH REGULATION (EC) No 1272/2008.
GHS LABEL	    GHS07 GHS02 GHS08 GHS09
SIGNAL WORD	DANGER.
CONTAINS	D-LIMONENE, ALPHA-PINENE.
HAZARDS STATEMENT	H226 FLAMMABLE LIQUID AND VAPOUR. H304 MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS. H315 CAUSES SKIN IRRITATION. H317 MAY CAUSE AN ALLERGIC SKIN REACTION. H411 TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS.
PRECAUTIONARY STATEMENTS	P210 KEEP AWAY FROM HEAT, HOT SURFACES, SPARKS, OPEN FLAMES AND OTHER IGNITION SOURCES. NO SMOKING. P241 USE EXPLOSION-PROOF ELECTRICAL EQUIPMENT. P261 AVOID BREATHING VAPOUR / SPRAY. P273 AVOID RELEASE TO THE ENVIRONMENT. P280 WEAR PROTECTIVE GLOVES / PROTECTIVE CLOTHING / EYE PROTECTION / FACE PROTECTION. P301+P310 IF SWALLOWED: IMMEDIATELY CALL A POISON CENTER / DOCTOR. P303+P361+P353 IF ON SKIN (OR HAIR): TAKE OFF IMMEDIATELY ALL CONTAMINATED CLOTHING. RINSE SKIN WITH WATER / SHOWER. P331 Do NOT INDUCE VOMITING. P405 STORE LOCKED UP. P501 DISPOSE OF CONTENTS / CONTAINER IN ACCORDANCE WITH NATIONAL REGULATIONS.
SUPPLEMENTARY PRECAUTIONARY STATEMENTS	P233 KEEP CONTAINER TIGHTLY CLOSED. P240 GROUND / BOND CONTAINER AND RECEIVING EQUIPMENT. P242 USE ONLY NON-SPARKING TOOLS. P243 TAKE PRECAUTIONARY MEASURES AGAINST STATIC DISCHARGE. P264 WASH CONTAMINATED SKIN THOROUGHLY AFTER HANDLING. P272 CONTAMINATED WORK CLOTHING SHOULD NOT BE ALLOWED OUT OF THE WORKPLACE. P302+P352 IF ON SKIN: WASH WITH PLENTY OF WATER. P321 SPECIFIC TREATMENT (SEE MEDICAL ADVICE ON THIS LABEL). P332+P313 IF SKIN IRRITATION OCCURS: GET MEDICAL ADVICE / ATTENTION. P333+P313 IF SKIN IRRITATION OR RASH OCCURS: GET MEDICAL ADVICE / ATTENTION. P362+P364 TAKE OFF CONTAMINATED CLOTHING AND WASH IT BEFORE REUSE. P370+P378 IN CASE OF FIRE: USE FOAM, CARBON DIOXIDE, DRY POWDER OR WATER FOG TO EXTINGUISH. P391 COLLECT SPILLAGE. P403+P235 STORE IN A WELL-VENTILATED PLACE. KEEP COOL.
SECTION 16 (OTHER INFORMATION): RISK & SAFETY PHRASES IN FULL.	
2.3 OTHER HAZARDS	
ADVERSE PHYSIO-CHEMICAL PROPERTIES	NO DATA

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ADVERSE EFFECTS ON HUMAN HEALTH	NO DATA.
PBT OR VPVB ACCORDING TO ANNEX XIII	NO DATA

SECTION 3: COMPOSITION OF INGREDIENTS

3.2 SUBSTANCES	60 - 99.0% D-LIMONENE CAS-No: 5989-27-5 EC No: 227-813-5 CLASSIFICATION (EC 1272/2008): M FACTOR (ACUTE) = 1 M FACTOR (CHRONIC) = 1 FLAM. LIQ. 3 - H226, ASP. TOX. 1 - H304, SKIN IRRIT. 2 - H315, SKIN SENS. 1 - H317 AQUATIC ACUTE 1 - H400, AQUATIC CHRONIC 1 - H410
	≤ 5.0% MYRCENE (7-METHYL-3-METHYLENEOCTA-1,6-DIENE) CAS-No: 123-35-3 EC No: 204-622-5 CLASSIFICATION (EC 1272/2008): M FACTOR (ACUTE) = 1 M FACTOR (CHRONIC) = 1 FLAM. LIQ. 3 - H226, SKIN IRRIT. 2 - H315, EYE IRRIT. 2 - H319 SKIN SENS. 1 - H317, ASP. TOX. 1 - H304, AQUATIC ACUTE 1 - H400 AQUATIC CHRONIC 1 - H410
	≤ 4.0% A-PINENE CAS-No: 80-56-8 EC No: 201-291-9 CLASSIFICATION (EC 1272/2008): M FACTOR (ACUTE) = 1 M FACTOR (CHRONIC) = 1 FLAM. LIQ. 3 - H226, ACUTE TOX. 4 - H302, SKIN IRRIT. 2 - H315 SKIN SENS. 1 - H317, ASP. TOX. 1 - H304, AQUATIC ACUTE 1 - H400 AQUATIC CHRONIC 1 - H410
	≤ 9.0 LINALOOL CAS-No: 78-70-6 EC No: 201-134-4 CLASSIFICATION (EC 1272/2008): SKIN IRRIT. 2 - H315, EYE IRRIT. 2 - H319, SKIN SENS. 1 - H317
	≤ 6.0% DECANAL CAS-No: 112-31-2 EC No: 203-957-4 CLASSIFICATION (EC 1272/2008): EYE IRRIT. 2 - H319, AQUATIC CHRONIC 3 - H412
	≤ 5.0 % OCTANAL CAS-No: 124-13-0 EC No: 204-683-8 CLASSIFICATION (EC 1272/2008): FLAM. LIQ. 3 - H226, SKIN IRRIT. 2 - H315, EYE IRRIT. 2 - H319 AQUATIC CHRONIC 2 - H411
	≤ 2.0% A-TERPINEOL (P-MENTH-1-EN-8-OL) CAS-No: 98-55-5 EC No: 202-680-6 CLASSIFICATION (EC 1272/2008): SKIN IRRIT. 2 - H315, EYE IRRIT. 2 - H319
	≤ 1.0% CITRONELLAL CAS-No: 106-23-0 EC No: 203-376-6 CLASSIFICATION (EC 1272/2008): SKIN IRRIT. 2 - H315, SKIN SENS. 1 - H317, EYE IRRIT. 2 - H319
	≤ 3.0% CITRAL CAS-No: 5392-40-5 EC No: 226-394-6 CLASSIFICATION (EC 1272/2008): SKIN IRRIT. 2 - H315, SKIN SENS. 1 - H317

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. 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)	NO DATA.
4.3	
INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION OR SPECIAL TREATMENT REQUIRED	NO DATA.

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SECTION 5: FIRE FIGHTING MEASURES

5.1 EXTINGUISHING MATERIAL	FOAM, CO ₂ , 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.
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.
6.4 REFERENCES TO OTHER SECTIONS	REFER & CONSIDER SECTION 8. REFER & CONSIDER SECTION 13.

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	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.
7.3 SPECIFIC END USE(S)	NO DATA.

SECTION 8: EXPOSURE CONTROLS & PERSONAL PROTECTION

8.1 CONTROL PARAMETERS	<u>(R)-P-MENTHA-1,8-DIENE (CAS: 5989-27-5)</u> DNEL WORKERS - INHALATION; LONG TERM SYSTEMIC EFFECTS: 33.3 MG/M³ GENERAL POPULATION - ORAL; LONG TERM SYSTEMIC EFFECTS: 4.76 MG/KG PNEC - STP; 1.8 MG/L - SOIL; 0.262 MG/KG - FRESH WATER; 0.0054 MG/L - MARINE WATER; 0.00054 MG/L - SEDIMENT (FRESHWATER); 1.32 MG/KG - SEDIMENT (MARINE WATER); 0.13 MG/KG <u>Z-METHYL-3-METHYLENEOCTA-1,6-DIENE (CAS: 123-35-3)</u> DNEL WORKERS - DERMAL; LONG TERM SYSTEMIC EFFECTS: 0.83 MG/KG WORKERS - INHALATION; LONG TERM SYSTEMIC EFFECTS: 5.83 MG/M³ GENERAL POPULATION - DERMAL; LONG TERM SYSTEMIC EFFECTS: 0.42 MG/KG GENERAL POPULATION - INHALATION; LONG TERM SYSTEMIC EFFECTS: 1.25 MG/M³ PNEC - STP; 0.2 MG/L - SOIL; 1.015 MG/KG
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THE OIL FAMILY

- FRESH WATER; 0.00028 MG/L
- MARINE WATER; 0.0008 MG/L
- SEDIMENT (FRESHWATER); 5.022 MG/KG
- SEDIMENT (MARINE WATER); 0.502 MG/KG

ALPHA PINENE (CAS: 80-56-8)

DNEL

- WORKERS - INHALATION; LONG TERM SYSTEMIC EFFECTS: 3.8 MG/M³
- WORKERS - DERMAL; LONG TERM SYSTEMIC EFFECTS: 0.54 MG/KG, BW/DAY
- GENERAL POPULATION - INHALATION; LONG TERM SYSTEMIC EFFECTS: 0.67 MG/M³
- GENERAL POPULATION - DERMAL; LONG TERM SYSTEMIC EFFECTS: 0.19 MG/KG, BW/DAY
- GENERAL POPULATION - ORAL; LONG TERM SYSTEMIC EFFECTS: 0.19 MG/KG, BW/DAY

PNEC

- FRESH WATER; SHORT TERM 0.606 MG/L
- FRESH WATER, INTERMITTENT RELEASE; 3.03 MG/L
- MARINE WATER; SHORT TERM 0.061 MG/L
- INTERMITTENT RELEASE, MARINE WATER; 0.303 MG/L
- STP; SHORT TERM 0.2 MG/L
- SEDIMENT (FRESHWATER); SHORT TERM 157 MG/KG
- SEDIMENT (MARINE WATER); SHORT TERM 15.7 MG/KG
- SOIL; SHORT TERM 31.7 MG/KG

LINALOOL (CAS: 78-70-6)

DNEL

- WORKERS - DERMAL; SHORT TERM SYSTEMIC EFFECTS: 5 MG/KG
- WORKERS - INHALATION; SHORT TERM SYSTEMIC EFFECTS: 16.5 MG/M³
- WORKERS - DERMAL; LONG TERM SYSTEMIC EFFECTS: 2.5 MG/KG
- WORKERS - INHALATION; LONG TERM SYSTEMIC EFFECTS: 2.8 MG/M³
- GENERAL POPULATION - ORAL; SHORT TERM SYSTEMIC EFFECTS: 1.5 MG/KG
- GENERAL POPULATION - DERMAL; SHORT TERM SYSTEMIC EFFECTS: 2.5 MG/KG
- GENERAL POPULATION - INHALATION; SHORT TERM SYSTEMIC EFFECTS: 4.1 MG/M³
- GENERAL POPULATION - ORAL; LONG TERM SYSTEMIC EFFECTS: 0.2 MG/KG
- GENERAL POPULATION - DERMAL; LONG TERM SYSTEMIC EFFECTS: 1.25 MG/KG
- GENERAL POPULATION - INHALATION; LONG TERM SYSTEMIC EFFECTS: 0.7 MG/M³

PNEC

- STP; SHORT TERM 10 MG/L
- SOIL; SHORT TERM 0.327 MG/KG
- INTERMITTENT RELEASE; SHORT TERM 2 MG/L
- FRESH WATER; SHORT TERM 0.2 MG/L
- MARINE WATER; SHORT TERM 0.02 MG/L
- SEDIMENT (FRESHWATER); SHORT TERM 2.22 MG/KG
- SEDIMENT (MARINE WATER); SHORT TERM 0.222 MG/KG

DECANAL (CAS: 112-31-2)

DNEL

- WORKERS - INHALATION; LONG TERM SYSTEMIC EFFECTS: 24.9 MG/M³
- WORKERS - DERMAL; LONG TERM SYSTEMIC EFFECTS: 7 BW/DAY, MG/KG
- GENERAL POPULATION - INHALATION; LONG TERM SYSTEMIC EFFECTS: 6.1 MG/M³
- GENERAL POPULATION - DERMAL; LONG TERM SYSTEMIC EFFECTS: 3.5 BW/DAY, MG/KG
- GENERAL POPULATION - ORAL; LONG TERM SYSTEMIC EFFECTS: 3.5 MG/KG, BW/DAY

PNEC

- FRESH WATER; SHORT TERM 1.17 MG/L
- FRESH WATER, INTERMITTENT RELEASE; 11.7 MG/L
- MARINE WATER; SHORT TERM 0.117 MG/L
- STP; SHORT TERM 3.16 MG/L
- SEDIMENT (FRESHWATER); SHORT TERM 0.097 MG/KG
- SEDIMENT (MARINE WATER); SHORT TERM 0.01 MG/KG
- SOIL; SHORT TERM 0.019 MG/KG

OCTANAL (CAS: 124-13-0)

DNEL

- WORKERS - INHALATION; LONG TERM SYSTEMIC EFFECTS: 1.3 MG/M³
- WORKERS - DERMAL; LONG TERM SYSTEMIC EFFECTS: 0.37 BW/DAY, MG/KG
- GENERAL POPULATION - INHALATION; LONG TERM SYSTEMIC EFFECTS: 0.32 MG/M³
- GENERAL POPULATION - DERMAL; LONG TERM SYSTEMIC EFFECTS: 0.19 MG/KG, BW/DAY
- GENERAL POPULATION - ORAL; LONG TERM SYSTEMIC EFFECTS: 0.19 MG/KG, BW/DAY

PNEC

- FRESH WATER; SHORT TERM 0.002 MG/L
- MARINE WATER; SHORT TERM 0 MG/L

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- STP; SHORT TERM 3.16 MG/L
- SEDIMENT (FRESHWATER); SHORT TERM 0.071 MG/KG
- SEDIMENT (MARINE WATER); SHORT TERM 0.007 MG/KG
- SOIL; SHORT TERM 0.013 MG/KG

P-MENTH-1-EN-8-OL (CAS: 98-55-5)

PNEC

- FRESH WATER; SHORT TERM 68 MG/L
- MARINE WATER; SHORT TERM 6.8 MG/L
- STP; SHORT TERM 2.6 MG/L
- SEDIMENT (FRESHWATER); SHORT TERM 1.85 MG/KG
- SEDIMENT (MARINE WATER); SHORT TERM 0.185 MG/KG
- SOIL; SHORT TERM 0.329 MG/KG

CITRONELLAL (CAS: 106-23-0)

DNEL

- WORKERS - INHALATION; LONG TERM SYSTEMIC EFFECTS: 9 MG/M³
- WORKERS - DERMAL; LONG TERM SYSTEMIC EFFECTS: 1.7 MG/KG, BW/DAY
- WORKERS - DERMAL; LONG TERM LOCAL EFFECTS: 140 MG/CM²
- GENERAL POPULATION - INHALATION; LONG TERM SYSTEMIC EFFECTS: 2.7 MG/M³
- GENERAL POPULATION - DERMAL; LONG TERM SYSTEMIC EFFECTS: 1 MG/KG, BW/DAY
- GENERAL POPULATION - DERMAL; LONG TERM LOCAL EFFECTS: 140 MG/CM²
- GENERAL POPULATION - ORAL; LONG TERM SYSTEMIC EFFECTS: 0.6 BW/DAY, MG/KG
- PNEC
- FRESH WATER; SHORT TERM 0.009 MG/L
 - INTERMITTENT RELEASE, FRESH WATER; 0.087 MG/L
 - MARINE WATER; SHORT TERM 0.001 MG/L
 - STP; SHORT TERM 4 MG/L
 - SEDIMENT (FRESHWATER); SHORT TERM 0.159 MG/KG
 - SEDIMENT (MARINE WATER); SHORT TERM 0.016 MG/KG
 - SOIL; SHORT TERM 0.027 MG/KG

CITRAL (CAS: 5392-40-5)

DNEL

- WORKERS - DERMAL; LONG TERM SYSTEMIC EFFECTS: 1.7 MG/KG
- WORKERS - INHALATION; LONG TERM SYSTEMIC EFFECTS: 9 MG/M³
- GENERAL POPULATION - ORAL; LONG TERM SYSTEMIC EFFECTS: 0.6 MG/KG
- GENERAL POPULATION - DERMAL; LONG TERM SYSTEMIC EFFECTS: 1 MG/KG
- GENERAL POPULATION - INHALATION; LONG TERM SYSTEMIC EFFECTS: 2.7 MG/M³
- PNEC
- STP; 1.6 MG/L
 - SOIL; 0.0209 MG/KG
 - INTERMITTENT RELEASE; 0.0678 MG/L
 - FRESH WATER; 0.00678 MG/L
 - MARINE WATER; 0.000678 MG/L
 - SEDIMENT (FRESHWATER); 0.125 MG/KG
 - SEDIMENT (MARINE WATER); 0.0125 MG/KG

8.2

EXPOSURE CONTROLS



Eye Protection

WEAR PROTECTIVE GLOVES/EYE PROTECTION/FACE PROTECTION.

Hand Protection

WEAR PROTECTIVE GLOVES/EYE PROTECTION/FACE PROTECTION.

Respiratory Equipment

UNDER NORMAL CONDITIONS OF USE AND WHERE ADEQUATE VENTILATION IS AVAILABLE TO PREVENT BUILD UP OF EXCESSIVE VAPOUR, THIS MATERIAL SHOULD NOT REQUIRE SPECIAL ENGINEERING CONTROLS. HOWEVER, IN CONDITIONS OF HIGH OR PROLONGED USE, OR HIGH TEMPERATURE OR OTHER CONDITIONS WHICH INCREASE EXPOSURE, THE FOLLOWING ENGINEERING CONTROLS CAN BE USED TO MINIMISE EXPOSURE TO PERSONNEL: A) INCREASE VENTILATION OF THE AREA WITH LOCAL EXHAUST VENTILATION. B) PERSONNEL CAN USE AN APPROVED, APPROPRIATELY FITTED RESPIRATOR WITH ORGANIC VAPOUR CARTRIDGE OR CANISTERS AND PARTICULATE FILTERS. C) USE CLOSED SYSTEMS FOR TRANSFERRING AND PROCESSING THIS MATERIAL. ALSO REFER TO SECTIONS 2 AND 7.

Hygiene Measures

GOOD PERSONAL HYGIENE PRACTICES ARE ALWAYS ADVISABLE, ESPECIALLY WHEN WORKING WITH CHEMICALS / OILS.

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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.
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	ORANGE TO ORANGE RED.
ODOUR	CHARACTERISTIC
RELATIVE DENSITY	APPROX 0.840 @ 20°C
FLASH POINT (°C)	48°C
REFRACTIVE INDEX @ 20 °C	APPROX 1.479 @ 20°C
SOLUBILITY IN WATER @ 20 °C	NO DATA

9.2 OTHER INFORMATION

NA.

SECTION 10: STABILITY & REACTIVITY

10.1 REACTIVITY	NO HAZARDOUS REACTIONS IF STORED AND HANDLED AS PRESCRIBED / INDICATED.
10.2 CHEMICAL STABILITY	STABLE UNDER SUGGESTED STORAGE CONDITIONS (<15°C).
10.3 POSSIBILITY OF HAZARDOUS REACTIONS	NO.
10.4 CONDITIONS TO AVOID	STORAGE AT HIGH TEMPERATURES. DO NOT STORE ABOVE 15°C.
10.5 INCOMPATIBLE MATERIALS	STRONG OXIDISING SUBSTANCES.
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	<u>ACUTE TOXICITY - ORAL</u>		
	ACUTE TOXICITY ORAL (LD ₅₀ MG/KG)	5,000.0	
	SPECIES		RAT
	ATE ORAL (MG/KG)	5,000.0	
	<u>ACUTE TOXICITY - DERMAL</u>		
	ACUTE TOXICITY DERMAL (LD ₅₀ MG/KG)	5,000.0	
	SPECIES		RABBIT
	ATE DERMAL (MG/KG)	5,000.0	
SKIN IRRITATION	MAY CAUSE SENSITISATION BY SKIN CONTACT.		
EYE DAMAGE OR IRRITATION	SPRAY AND VAPOUR IN THE EYES MAY CAUSE IRRITATION AND SMARTING.		
RESPIRATORY OR SKIN SENSITIVITY	IN HIGH CONCENTRATIONS, VAPOURS MAY IRRITATE THROAT AND RESPIRATORY SYSTEM AND CAUSE COUGHING.		
GERM CELL MUTAGENICITY	NO DATA		
CARCINOGENICITY	NOT APPLICABLE.		
REPRODUCTIVE TOXICITY	NOT APPLICABLE.		
STOT – SINGLE EXPOSURE	NOT APPLICABLE.		
STOT – REPEATED EXPOSURE	NOT APPLICABLE.		
ASPIRATION HAZARD	MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS		
OTHER INFORMATION	NO DATA.		

SECTION 12: ECOLOGICAL INFORMATION

12.1 TOXICITY	THE PRODUCT CONTAINS A SUBSTANCE WHICH IS TOXIC TO AQUATIC ORGANISMS AND WHICH MAY CAUSE LONG TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT.
12.2 PERSISTENCE & DEGRADABILITY	NO DATA
12.3 BIO- ACCUMULATIVE POTENTIAL	LOG KOW OF THE CONSTITUENTS OF ORANGE RANGES FROM 2.78 TO 4.88. THE FRACTION WITH LOG KOW >4 WAS 84%
12.4 MOBILITY IN SOIL	NO DATA.
12.5 RESULTS OF PBT & VPVB ASSESSMENT	NO DATA
12.6 OTHER ADVERSE EFFECTS	DO NOT ALLOW PRODUCT TO ENTER STREAMS, SEWERS OR OTHER WATERWAYS.

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.
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SECTION 14: TRANSPORT INFORMATION	
14.1 TRANSPORT INFORMATION	
UN NUMBER	ROAD: 1169 RAIL: 1169 AIR: 1169
14.2 UN SHIPPING NAME	FLAMMABLE LIQUID, N.O.S (TERPENE HYDROCARBONS).
14.3 TRANSPORT HAZARD CLASS(ES)	ADR/RID/ADN CLASS: 3 (FLAMMABLE LIQUID) IMDG CLASS: 3 (FLAMMABLE LIQUID) ICAO CLASS/DIVISION: 3 (FLAMMABLE LIQUID) TRANSPORT LABELS 
14.4 PACKING GROUP	ADR/RID/ADN PACKING GROUP III IMDG PACKING GROUP III ICAO PACKING GROUP III
14.5 ENVIROMENTAL HAZARDS	ENVIRONMENTALLY HAZARDOUS SUBSTANCE/MARINE POLLUTANT 
14.6 SPECIAL PRECAUTIONS FOR USER	EMS: F-E-S-D HAZARD NO. (ADR): 30 FLAMMABLE LIQUID (FLASH-POINT BETWEEN 23°C AND 60°C, INCLUSIVE) OR FLAMMABLE LIQUID OR SOLID IN THE MOLTEN STATE WITH A FLASH-POINT ABOVE 60°C, HEATED TO A TEMPERATURE EQUAL TO OR ABOVE ITS FLASH-POINT, OR SELF HEATING LIQUID. TUNNEL RESTRICTION CODE: (D/E)
14.7 TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL73/78 & THE IBC CODE.	PACKED AND TRANSFERRED ACCORDING TO TRANSPORT REGULATIONS.
SECTION 15: REGULATORY INFORMATION	
15.1 PRODUCT SPECIFIC SAFETY, HEALTH & ENVIRONMENTAL REGULATIONS & 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) 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).
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.

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	GUIDANCE NOTES	WORKPLACE EXPOSURE LIMITS EH40. CHIP FOR EVERYONE HSG 108.
15.2 CHEMICAL SAFETY ASSESSMENT		AN ASSESSMENT HAS NOT BEEN EXECUTED AS THIS IS NOT A HAZARDOUS MATERIAL ACCORDING TO ARTICLE 31 OF REACH 1907/2006.

SECTION 16: OTHER INFORMATION

HAZARD AND/ OR PRECAUTIONARY STATEMENTS IN FULL		H226 FLAMMABLE LIQUID AND VAPOUR. H302 HARMFUL IF SWALLOWED. H304 MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS. H315 CAUSES SKIN IRRITATION. H317 MAY CAUSE AN ALLERGIC SKIN REACTION. H319 CAUSES SERIOUS EYE IRRITATION. 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. 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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