

# Material Safety Data Sheet

EU Regulation: 2020/878

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

<b>1.1 PRODUCT IDENTIFICATION</b>					
<b>PRODUCT NAME</b>	ORANGE SWEET, ESSENTIAL OIL				
<b>BIOLOGICAL DEFINITION</b>	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),				
<b>INCI NAME</b>	CITRUS AURANTIUM DULCIS OIL				
<b>SYNONYMS &amp; TRADE NAMES</b>	-				
<b>CAS-No</b>	8028-48-6	<b>EC No.</b>	232-433-8	<b>EINECS No.</b>	232-433-8
<b>1.2 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET</b>					
<b>COMPANY ADDRESS</b>	MOV HERBS				
<b>EMAIL</b>	TECHNICALCREW@MOVHERBS.COM				
<b>1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET</b>					
<b>EMERGENCY CONTACTS</b>					

HERBS

## SECTION 2: HAZARDS IDENTIFICATION

**2.1 CLASSIFICATION OF THE SUBSTANCE OR MIXTURE** THE FULL TEXT FOR ALL HAZARD STATEMENTS IS DISPLAYED IN SECTION 16.

	<p>THE FULL TEXT FOR HAZARD STATEMENTS IS DISPLAYED IN SECTION 16.</p> <p><u>HUMAN HEALTH</u> ASPIRATION HAZARD, SKIN CORROSION / IRRITATION AND SKIN SENSITISATION</p> <p><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.</p> <p><u>PHYSICAL AND CHEMICAL HAZARDS</u> THIS PRODUCT IS FLAMMABLE</p>
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<b>CLASSIFICATION (EU 1272/2008)</b>	<p>PHYSICAL HAZARDS: FLAM. LIQ. 3 (H226)</p> <p>HEALTH HAZARDS: ASP. TOX. 1 – (H304), SKIN IRRIT. 2 (H315), SKIN SENS. 1 (H317)</p> <p>ENVIRONMENTAL HAZARDS : AQUATIC CHRONIC 2 (H411)*</p> <p>*SEE SECTION 16 – OTHER INFORMATION</p>
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**2.2 LABEL ELEMENTS** LABEL IN ACCORDANCE WITH REGULATION (EC) No 1272/2008.

<b>GHS LABEL</b>	
	<p>GHS07                      GHS02                      GHS08                      GHS09</p>

<b>SIGNAL WORD</b>	DANGER.
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<b>CONTAINS</b>	D-LIMONENE, ALPHA-PINENE.
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<b>HAZARDS STATEMENT</b>	<p>H226 FLAMMABLE LIQUID AND VAPOUR.</p> <p>H304 MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS.</p> <p>H315 CAUSES SKIN IRRITATION.</p> <p>H317 MAY CAUSE AN ALLERGIC SKIN REACTION.</p> <p>H411 TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS.</p>
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<b>PRECAUTIONARY STATEMENTS</b>	<p>P210 KEEP AWAY FROM HEAT, HOT SURFACES, SPARKS, OPEN FLAMES AND OTHER IGNITION SOURCES. NO SMOKING.</p> <p>P241 USE EXPLOSION-PROOF ELECTRICAL EQUIPMENT.</p> <p>P261 AVOID BREATHING VAPOUR/ SPRAY.</p> <p>P273 AVOID RELEASE TO THE ENVIRONMENT.</p> <p>P280 WEAR PROTECTIVE GLOVES/ PROTECTIVE CLOTHING/ EYE PROTECTION/ FACE PROTECTION.</p> <p>P301+P310 IF SWALLOWED: IMMEDIATELY CALL A POISON CENTER/ DOCTOR.</p> <p>P303+P361+P353 IF ON SKIN (OR HAIR): TAKE OFF IMMEDIATELY ALL CONTAMINATED CLOTHING. RINSE SKIN WITH WATER/ SHOWER.</p> <p>P331 DO NOT INDUCE VOMITING.</p> <p>P405 STORE LOCKED UP.</p> <p>P501 DISPOSE OF CONTENTS/ CONTAINER IN ACCORDANCE WITH NATIONAL REGULATIONS.</p>
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<b>SUPPLEMENTARY PRECAUTIONARY STATEMENTS</b>	<p>P233 KEEP CONTAINER TIGHTLY CLOSED.</p> <p>P240 GROUND/ BOND CONTAINER AND RECEIVING EQUIPMENT.</p> <p>P242 USE ONLY NON-SPARKING TOOLS.</p> <p>P243 TAKE PRECAUTIONARY MEASURES AGAINST STATIC DISCHARGE.</p> <p>P264 WASH CONTAMINATED SKIN THOROUGHLY AFTER HANDLING.</p> <p>P272 CONTAMINATED WORK CLOTHING SHOULD NOT BE ALLOWED OUT OF THE WORKPLACE.</p> <p>P302+P352 IF ON SKIN: WASH WITH PLENTY OF WATER.</p> <p>P321 SPECIFIC TREATMENT (SEE MEDICAL ADVICE ON THIS LABEL).</p> <p>P332+P313 IF SKIN IRRITATION OCCURS: GET MEDICAL ADVICE/ ATTENTION.</p> <p>P333+P313 IF SKIN IRRITATION OR RASH OCCURS: GET MEDICAL ADVICE/ ATTENTION.</p> <p>P362+P364 TAKE OFF CONTAMINATED CLOTHING AND WASH IT BEFORE REUSE.</p> <p>P370+P378 IN CASE OF FIRE: USE FOAM, CARBON DIOXIDE, DRY POWDER OR WATER FOG TO EXTINGUISH.</p> <p>P391 COLLECT SPILLAGE.</p> <p>P403+P235 STORE IN A WELL-VENTILATED PLACE. KEEP COOL.</p>
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SECTION 16 (OTHER INFORMATION): RISK & SAFETY PHRASES IN FULL.

**2.3 OTHER HAZARDS**

<b>ADVERSE PHYSIO-CHEMICAL PROPERTIES</b>	NO DATA
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<b>ADVERSE EFFECTS ON HUMAN HEALTH</b>	NO DATA.
<b>PBT OR VPVB ACCORDING TO ANNEX XIII</b>	NO DATA

### SECTION 3: COMPOSITION OF INGREDIENTS

<b>3.2 SUBSTANCES</b>	<b>&gt;=25% D-LIMONENE</b> CAS-NO: 5989-27-5 EC No: 227-813-5 CLASSIFICATION (EC 1272/2008): ASP. TOX. 1;H304,SKIN. IRRIT. 2;H315,SKIN SENS. 1B;H317,AQUATIC ACUTE 1;H400,AQUATIC CHRONIC 1;H410
	<b>&gt;=1%,&lt;3% MYRCENE (7-METHYL-3-METHYLENOCTA-1,6-DIENE)</b> CAS-NO: 123-35-3 EC No: 204-622-5 CLASSIFICATION (EC 1272/2008): FLAM. LIQ. 3;H226,ASP. TOX. 1;H304,SKIN. IRRIT. 2;H315,EYE IRRIT. 2;H319
	<b>&gt;=0.1%,&lt;1% LINALOOL</b> CAS-NO: 78-70-6 EC No: 201-134-4 CLASSIFICATION (EC 1272/2008): SKIN. IRRIT. 2;H315,SKIN SENS. 1B;H317,EYE IRRIT. 2;H319
	<b>0.25% DECANAL</b> CAS-NO: 112-31-2 EC No: 203-957-4 CLASSIFICATION (EC 1272/2008): EYE IRRIT. 2;H319,AQUATIC CHRONIC 3;H412
	<b>0.25% OCTANAL</b> CAS-NO: 124-13-0 EC No: 204-683-8 CLASSIFICATION (EC 1272/2008): SKIN. IRRIT. 2;H315,EYE IRRIT. 2;H319,AQUATIC CHRONIC 2;H411
	<b>0.02% PERILLA ALDEHYDE</b> CAS-NO: 2111-75-3 EC No: 218-302-8 CLASSIFICATION (EC 1272/2008): SKIN SENS. 1B;H317
<b>&gt;=0.1%,&lt;1% CITRAL</b> CAS-NO: 5392-40-5 EC No: 226-394-6 CLASSIFICATION (EC 1272/2008): SKIN. IRRIT. 2;H315,SKIN SENS. 1B;H317,EYE IRRIT. 2;H319	

### SECTION 4: FIRST AID MEASURES

<b>4.1 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 MOST IMPORTANT SYMPTOMS &amp; EFFECTS (ACUTE &amp; DELAYED)</b>	NO DATA.
<b>4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION OR SPECIAL TREATMENT REQUIRED</b>	NO DATA.

<b>SECTION 5: FIRE FIGHTING MEASURES</b>	
<b>5.1 EXTINGUISHING MATERIAL</b>	FOAM, CO2, DRY CHEMICAL POWDER.
<b>5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE</b>	BURNING PRODUCES IRRITATING, TOXIC AND OBNOXIOUS FUMES
<b>5.3 ADVICE FOR FIRE-FIGHTERS</b>	SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS: WEAR POSITIVE-PRESSURE SELF-CONTAINED BREATHING APPARATUS (SCBA) AND APPROPRIATE PROTECTIVE CLOTHING.
<b>SECTION 6: ACCIDENTAL RELEASE MEASURES</b>	
<b>6.1 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 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 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 REFERENCES TO OTHER SECTIONS</b>	REFER & CONSIDER SECTION 8. REFER & CONSIDER SECTION 13.
<b>SECTION 7: HANDLING &amp; STORAGE</b>	
<b>7.1 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 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 SPECIFIC END USE(S)</b>	NO DATA.
<b>SECTION 8: EXPOSURE CONTROLS &amp; PERSONAL PROTECTION</b>	
<b>8.1 CONTROL PARAMETERS</b>	<p><u>(R)-P-MENTHA-1,8-DIENE (CAS: 5989-27-5)</u>  DNEL  WORKERS - INHALATION; LONG TERM SYSTEMIC EFFECTS: 33.3 MG/M<sup>3</sup>  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</p> <p><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/M<sup>3</sup>  GENERAL POPULATION - DERMAL; LONG TERM SYSTEMIC EFFECTS: 0.42 MG/KG  GENERAL POPULATION - INHALATION; LONG TERM SYSTEMIC EFFECTS: 1.25 MG/M<sup>3</sup>  PNEC  - STP; 0.2 MG/L  - SOIL; 1.015 MG/KG</p>

- 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/M<sup>3</sup>
- WORKERS - DERMAL; LONG TERM SYSTEMIC EFFECTS: 0.54 MG/KG, BW/DAY
- GENERAL POPULATION - INHALATION; LONG TERM SYSTEMIC EFFECTS: 0.67 MG/M<sup>3</sup>
- 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/M<sup>3</sup>
- WORKERS - DERMAL; LONG TERM SYSTEMIC EFFECTS: 2.5 MG/KG
- WORKERS - INHALATION; LONG TERM SYSTEMIC EFFECTS: 2.8 MG/M<sup>3</sup>
- 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/M<sup>3</sup>
- 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/M<sup>3</sup>

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/M<sup>3</sup>
- WORKERS - DERMAL; LONG TERM SYSTEMIC EFFECTS: 7 BW/DAY, MG/KG
- GENERAL POPULATION - INHALATION; LONG TERM SYSTEMIC EFFECTS: 6.1 MG/M<sup>3</sup>
- 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/M<sup>3</sup>
- WORKERS - DERMAL; LONG TERM SYSTEMIC EFFECTS: 0.37 BW/DAY, MG/KG
- GENERAL POPULATION - INHALATION; LONG TERM SYSTEMIC EFFECTS: 0.32 MG/M<sup>3</sup>
- 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

- 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/M<sup>3</sup>
- WORKERS - DERMAL; LONG TERM SYSTEMIC EFFECTS: 1.7 MG/KG, BW/DAY
- WORKERS - DERMAL; LONG TERM LOCAL EFFECTS: 140 MG/CM<sup>2</sup>
- GENERAL POPULATION - INHALATION; LONG TERM SYSTEMIC EFFECTS: 2.7 MG/M<sup>3</sup>
- GENERAL POPULATION - DERMAL; LONG TERM SYSTEMIC EFFECTS: 1 MG/KG, BW/DAY
- GENERAL POPULATION - DERMAL; LONG TERM LOCAL EFFECTS: 140 MG/CM<sup>2</sup>
- 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)**

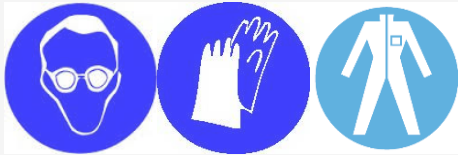
**DNEL**

- WORKERS - DERMAL; LONG TERM SYSTEMIC EFFECTS: 1.7 MG/KG
- WORKERS - INHALATION; LONG TERM SYSTEMIC EFFECTS: 9 MG/M<sup>3</sup>
- 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/M<sup>3</sup>

**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.

<b>ENGINEERING MEASURES</b>	NONE.
<b>SKIN PROTECTION</b>	WEAR PROTECTIVE CLOTHING TO REDUCE THE RISK OF SKIN AND EYE CONTACT.
<b>PERSONAL PROTECTION</b>	AVOID INHALATION OF THE PRODUCT. AVOID CONTACT WITH SKIN AND EYES.
<b>OTHER PROTECTION</b>	WEAR SUITABLE PROTECTION TO AVOID CONTACT WITH SKIN AND EYES. DO NOT INHALE VAPOURS.
<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.

## SECTION 9: PHYSICAL & CHEMICAL PROPERTIES

<b>9.1 PHYSICAL &amp; CHEMICAL PROPERTIES</b>	
<b>APPEARANCE</b>	LIQUID
<b>COLOUR</b>	ORANGE TO ORANGE RED.
<b>ODOUR</b>	CHARACTERISTIC
<b>RELATIVE DENSITY</b>	APPROX 0.840 @ 20°C
<b>FLASH POINT (°C)</b>	48°C
<b>REFRACTIVE INDEX @ 20 °C</b>	APPROX 1.479 @ 20°C
<b>SOLUBILITY IN WATER @ 20 °C</b>	NO DATA
<b>9.2 OTHER INFORMATION</b>	NA.
<b>9.2.1 INFORMATION WITH REGARD TO PHYSICAL HAZARD CLASSES</b>	NO DATA.
<b>9.2.2 OTHER SAFETY CHARACTERISTICS</b>	NO DATA.
<b>SECTION 10: STABILITY &amp; REACTIVITY</b>	
<b>10.1 REACTIVITY</b>	NO HAZARDOUS REACTIONS IF STORED AND HANDLED AS PRESCRIBED / INDICATED.
<b>10.2 CHEMICAL STABILITY</b>	STABLE UNDER SUGGESTED STORAGE CONDITIONS (<15°C).
<b>10.3 POSSIBILITY OF HAZARDOUS REACTIONS</b>	NO.
<b>10.4 CONDITIONS TO AVOID</b>	STORAGE AT HIGH TEMPERATURES. DO NOT STORE ABOVE 15°C.
<b>10.5 INCOMPATIBLE MATERIALS</b>	STRONG OXIDISING SUBSTANCES.

<b>10.6</b> <b>HAZARDOUS DECOMPOSITION PRODUCTS</b>	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

<b>11.1</b> <b>TOXICOLOGICAL EFFECTS</b>	
<b>ACUTE TOXICITY</b>	<p><u>ACUTE TOXICITY - ORAL</u>          ACUTE TOXICITY ORAL (LD<sub>50</sub> MG/KG) 5,000.0          SPECIES RAT          ATE ORAL (MG/KG) 5,000.0</p> <p><u>ACUTE TOXICITY - DERMAL</u>          ACUTE TOXICITY DERMAL (LD<sub>50</sub> MG/KG) 5,000.0          SPECIES RABBIT          ATE DERMAL (MG/KG) 5,000.0</p>
<b>SKIN IRRITATION</b>	MAY CAUSE SENSITISATION BY SKIN CONTACT.
<b>EYE DAMAGE OR IRRITATION</b>	SPRAY AND VAPOUR IN THE EYES MAY CAUSE IRRITATION AND SMARTING.
<b>RESPIRATORY OR SKIN SENSITIVITY</b>	IN HIGH CONCENTRATIONS, VAPOURS MAY IRRITATE THROAT AND RESPIRATORY SYSTEM AND CAUSE COUGHING.
<b>GERM CELL MUTAGENICITY</b>	NO DATA
<b>CARCINOGENICITY</b>	NOT APPLICABLE.
<b>REPRODUCTIVE TOXICITY</b>	NOT APPLICABLE.
<b>STOT – SINGLE EXPOSURE</b>	NOT APPLICABLE.
<b>STOT – REPEATED EXPOSURE</b>	NOT APPLICABLE.
<b>ASPIRATION HAZARD</b>	MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS
<b>11.2</b> <b>INFORMATION ON OTHER HAZARDS</b>	NO DATA.

## SECTION 12: ECOLOGICAL INFORMATION

<b>12.1</b> <b>TOXICITY</b>	THE PRODUCT CONTAINS A SUBSTANCE WHICH IS TOXIC TO AQUATIC ORGANISMS AND WHICH MAY CAUSE LONG TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT.
<b>12.2</b> <b>PERSISTENCE &amp; DEGRADABILITY</b>	NO DATA
<b>12.3</b> <b>BIO- ACCUMULATIVE POTENTIAL</b>	LOG KOW OF THE CONSTITUENTS OF ORANGE RANGES FROM 2.78 TO 4.88. THE FRACTION WITH LOG KOW >4 WAS 84%
<b>12.4</b> <b>MOBILITY IN SOIL</b>	NO DATA.
<b>12.5</b> <b>RESULTS OF PBT &amp; VPVB ASSESSMENT</b>	NO DATA
<b>12.6</b> <b>ENDOCRINE DISRUPTING PROPERTIES</b>	DO NOT ALLOW PRODUCT TO ENTER STREAMS, SEWERS OR OTHER WATERWAYS.
<b>12.7</b> <b>OTHER ADVERSE EFFECTS</b>	NO DATA



## SECTION 13: DISPOSAL INFORMATION

<b>13.1</b>	
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<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> TRANSPORT INFORMATION	
<b>UN NUMBER</b>	ROAD: 1197 RAIL: 1197 AIR: 1197
<b>14.2</b> UN SHIPPING NAME	<b>IMDG:</b> EXTRACTS, LIQUID (D-LIMONENE) MARINE POLLUTANT <b>ADR, RID, ADN:</b> EXTRACTS, LIQUID <b>ICAO TI:</b> EXTRACTS, LIQUID
<b>14.3</b> TRANSPORT HAZARD CLASS(ES)	ADR/RID/ADN CLASS: 3 (FLAMMABLE LIQUID) IMDG CLASS: 3 (FLAMMABLE LIQUID) ICAO CLASS/DIVISION: 3 (FLAMMABLE LIQUID) TRANSPORT LABELS 
<b>14.4</b> PACKING GROUP	ADR/RID/ADN PACKING GROUP III IMDG PACKING GROUP III ICAO PACKING GROUP III
<b>14.5</b> ENVIROMENTAL HAZARDS	ENVIRONMENTALLY HAZARDOUS SUBSTANCE/MARINE POLLUTANT 
<b>14.6</b> 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)
<b>14.7</b> TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL73/78 & THE IBC CODE.	PACKED AND TRANSFERRED ACCORDING TO TRANSPORT REGULATIONS.

## SECTION 15: REGULATORY INFORMATION

<b>15.1</b> PRODUCT SPECIFIC SAFETY, HEALTH & ENVIRONMENTAL REGULATIONS & LEGISLATION	
<b>EU DIRECTIVES</b>	REGULATION (EC) No 2020/878 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 CHEMICAL SAFETY ASSESSMENT</b>	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.
<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
DECEMBER 2022	EU REGULATION CHANGED
MARCH 2023	SECTION 3 CHANGED.