



CERTIFICATE OF ANALYSIS

ORGANIC THYME OIL WHITE SWEET LINALOOL

Batch No: 4385008

Best Before January 2023

Appearance @ 20°C: A clear, pale yellow liquid.

Odour: Characteristic

TEST	SPECIFICATION	ANALYSIS
Relative Density @ 20°C (g/ml)	0.872 – 0.895	0.889
Refractive Index @ 20°C	1.468 – 1.485	1.475
Optical Rotation @ 20°C	-20.0 to +0.0°	-13.16°

Date of Manufacture: January 2020

Date of Expiry: January 2023

This COA is produced electronically therefore no signature is required.



ALLERGENS DECLARATION

Product Name	Organic Thyme Oil White Sweet Linalool				
INCI Name	Thymus Vulgaris Leaf Oil				
Date	16/07/2019	Product Code	OCTHYM	Revision	1

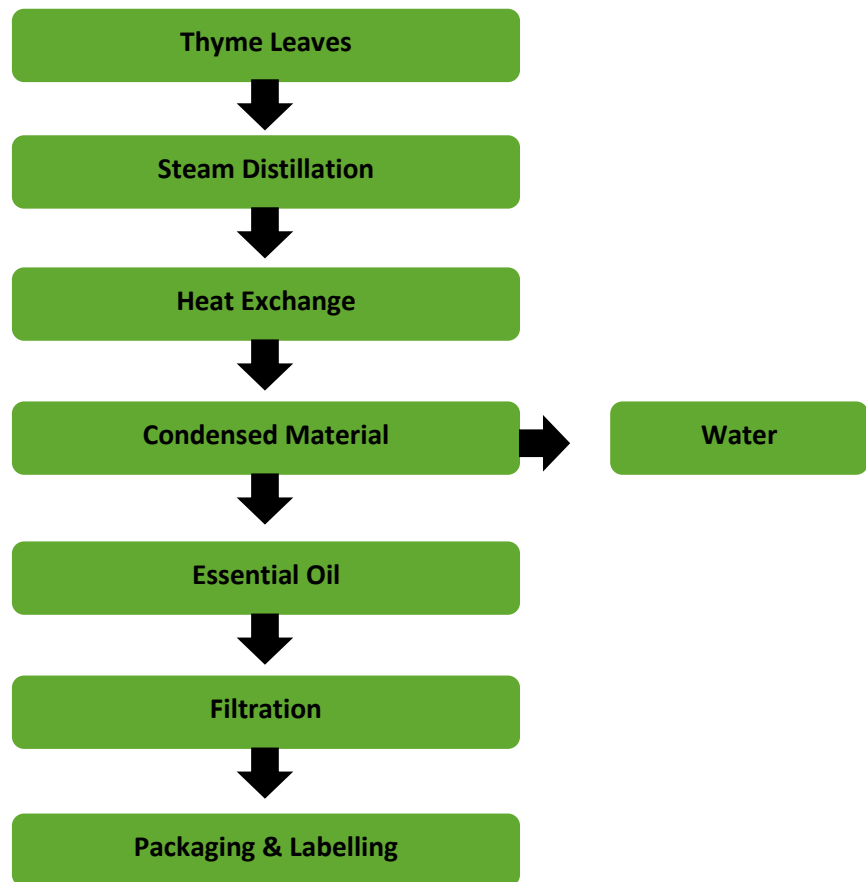
Material	Cas Number	Cosmetic Allergens Inclusion (%)
ALPHA-ISOMETHYLIONONE	127-51-5	-
AMYL CINNAMAL	122-40-7	-
AMYL CINNAMYL ALCOHOL	101-85-9	-
ANISE ALCOHOL	105-13-5	-
BENZYL ALCOHOL	100-51-6	-
BENZYL BENZOATE	120-51-4	-
BENZYL CINNAMATE	103-41-3	-
BENZYL SALICYLATE	118-58-1	-
BUTYLPHENYLMETHYLPROPIONAL	80-54-6	-
CINNAMAL	104-55-2	-
CINNAMYL ALCOHOL	104-54-1	-
CITRAL	5392-40-5	-
CITRONELLOL	106-22-9	-
COUMARIN	91-64-5	-
EUGENOL	97-53-0	-
EVERNIA FURFURACEA EXTRACT	90028-67-4	-
EVERNIA PRUNASTRI EXTRACT	90028-68-5	-
FARNESOL	4602-84-0	-
GERANIOL	106-24-1	-
HEXYL CINNAMAL	101-86-0	-
HYDROXYCITRONELLAL	107-75-5	-
HYDROXYISOHEXYL 3-CYCLOHEXENE CARBOXALDEHYDE	31906-04-4	-
ISO EUGENOL	97-54-1	-
LIMONENE	5989-27-5	≤ 4.0
LINALOOL	78-70-6	30.0 - 42.0
METHYL 2-OCTYNOATE	111-12-6	-

DISCLAIMER: 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.



Manufacturing Flow Chart

Product Name	Organic Thyme Sweet Linalool		
Date	28/01/2020	Product Code	OCTHYM





IFRA Conformity Certificate

Product Name	Organic Thyme Oil White Sweet Linalool		
INCI Name	Thymus Vulgaris Leaf Oil		
Product Code	OCTHYM		
Revision No	1	Date	16 Jul. 19

We certify that the above compound is in compliance with the Standards of the INTERNATIONAL FRAGRANCE ASSOCIATION (IFRA 48th Amendment / published June 2015), provided it is used in the following class(es) at a maximum concentration level of:

Restricted Component	Cas No:	% Level in Product	IFRA Standard
Linalool	78-70-6	30.0 - 42.0	Specification Std
Limonene	5989-27-5	≤ 4.0	Specification Std

IFRA class(es) [see annex for details]	Max level of use (%)
Class 1	Not restricted.
Class 2	Not restricted.
Class 3.A	Not restricted.
Class 3.B	Not restricted.
Class 3.C	Not restricted.
Class 3.D	Not restricted.
Class 4.A	Not restricted.
Class 4.B	Not restricted.
Class 4.C	Not restricted.
Class 4.D	Not restricted.
Class 5	Not restricted.
Class 6	Not restricted.
Class 7.A	Not restricted.
Class 7.B	Not restricted.
Class 8.A	Not restricted.
Class 8.B	Not restricted.
Class 9.A	Not restricted.
Class 9.B	Not restricted.
Class 9.C	Not restricted.
Class 10.A	Not restricted.
Class 10.B	Not restricted.
Class 11	Not restricted.

For other kinds of application or use at higher concentration levels, a new evaluation may be needed.



IFRA Conformity Certificate

The IFRA Standards regarding use restrictions are based on safety assessments by the Panel of Experts of the RESEARCH INSTITUTE FOR FRAGRANCE MATERIALS (RIFM) and are enforced by the IFRA Scientific Committee.

Evaluation of individual Fragrance ingredients is made according to the safety standards contained in the relevant section of the IFRA Code of Practice.

This certificate serves only as a guide to the maximum level of use. It is the ultimate responsibility of the customer to ensure safe formulating principles are utilised and the safety of the final product (containing this fragrance), by further testing if need be.

Note 1: It is recommended that any material used to impart perfume or flavour in products intended for human ingestion should consist of ingredients that are in compliance with appropriate regulations for foods and food flavourings in the countries of planned distribution.

Note 2: Trials must be performed to satisfy suitability for specified application.

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IFRA Conformity Certificate

ANNEX: Definition of IFRA Classes

Finished product types	IFRA class
Lip Products of all types (solid and liquid lipsticks, balms, clear or coloured, etc.) Children's Toys.	Class 1
Deodorant and Antiperspirant Products of all types, including any product with intended or reasonably foreseeable use on the underarm or labelled as such (spray, stick, roll-on, under-arm, deo-cologne and body spray, etc.) Fragranced bracelets. Nose Pore Strips.	Class 2
Hydroalcoholic Products Applied To Recently Shaved Skin. (includes aftershave) (Edt range)	Class 3.A
Hydroalcoholic Products Applied To Recently Shaved Skin. (includes aftershave) (Fine fragrance range)	Class 3.B
Eye Products of all types (eye shadow, mascara, eyeliner, eye make-up, etc.) Men's Facial Creams, Balms. Baby Creams, Lotions, Oils. Body Paint for Children.	Class 3.C
Tampons	Class 3.D
Hydroalcoholic Products Applied To Unshaved Skin (includes aqueous based, alcoholic based and hydroalcoholic) like cologne, eau de cologne, eau de parfum or parfum. (EdT Range) Ingredients of perfume kits, scent strips for hydroalcoholic products. Scent pads, foil packs.	Class 4.A
Hydroalcoholic Products Applied To Unshaved Skin (includes aqueous based, alcoholic based and hydroalcoholic) like cologne, eau de cologne, eau de parfum or parfum (Fine fragrance Range)	Class 4.B
Hair Styling Aids, Hair Sprays of all types (pumps, aerosol sprays, etc.) Hair deodourant. Body Creams, Oils, Lotions, Fragrancing Creams of all types (except baby creams, lotions and oils) Fragrance Compounds for Cosmetic Kits, Foot care products, hair deodourant. Body paint except those for children. Body sprays (including body mist) with no intended or reasonably foreseeable use on the underarm.	Class 4.C
Fragrancing creams, Solid perfumes.	Class 4.D
Women's Facial Creams/Facial Make-up. Hand cream. Hand sanitizers. Facial masks.* Baby Powder & Talc. Hair Permanent and Other Hair Chemical Treatments (e.g. relaxers) but not hair dyes. Wipes or Refreshing Tissues for Face, Neck, Hands, Body. Dry Shampoo or Waterless Shampoo.	Class 5
Mouthwash, including Breath sprays. Toothpaste.	Class 6



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Intimate Wipes, Baby Wipes.	Class 7.A
Insect Repellent (intended to be applied to the skin).	Class 7.B
Make-up Removers of all types (not including face cleansers) Hair Styling Aids Non-Spray of all types (mousse, gels, leave-in conditioners, etc.). Nail care. Powders and talcs (not including baby powders and talcs)	Class 8.A
Hair Dyes	Class 8.B
Liquid soap, Bar Soap (Toilet Soap) All Depilatories (including waxes for mechanical hair removal). Conditioner (Rinse-Off). Shampoos of all types (including baby shampoos) Face Cleansers of all types (washes, gels, scrubs, etc.) Shaving Creams of all types (stick, gels, foams, etc.) Body Washes of all types (including baby washes) and Shower Gels of all types. Bath Gels, Foams, Mousses, Salts, Oils and Other Products Added To Bathwater.	Class 9.A
Feminine Hygiene – Pads Feminine Hygiene – Liners Toilet Paper Wheat Bags.	Class 9.B
Facial tissues. Napkins. Paper towels. Other Aerosols (including air fresheners, sprays but not including deodorant/ antiperspirant, hair styling aids.) Fragranced Face masks (not intended to be used as medical device)	Class 9.C
Handwash Laundry Detergents of all types including concentrates Machine wash Laundry Detergents of all types including concentrates (liquid, powder, tablet etc.) including laundry bleaches and concentrates. Fabric softeners of all types including fabric softener sheets. Other Household Cleaning Products (fabric cleaners, soft surface cleaners, carpet cleaners) Dry cleaning kits. Hard Surface Cleaners of all types (bathroom and kitchen cleansers, furniture polish etc) Shampoos for pets. Hand dishwashing detergent including concentrates. Scented gloves, socks, tights with moisturisers.	Class 10.A
Nappies Toilet seat wipes.	Class 10.B
All non-skin contact or incidental skin contact including: Candles. Air fresheners and fragrancing of all types (concentrated aerosol with metered doses (range 0.05-0.5 mL spray), plug ins, solid substrate, membrane delivery, electrical.) Air delivery systems. Cell phone cases.	Class 11



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Pot pourri, powders, fragancing sachets, liquid refills for air fresheners (non cartridge systems), reed diffusers.
Liquid refills for air fresheners (cartridge systems).
Shoe polishes.
Deodorisers/ maskers not intended for skin contact (e.g. fabric drying machine deodorisers, carpet powders)
Insecticides (mosquito coil, paper, electrical, for clothing etc.) excluding aerosols.
Scent delivery system using a dry air technology that releases a fragrance without sprays, aerosols or heated oils (technology of nebulisation).
Air freshening crystals.
Toilet blocks.
Joss sticks or incense sticks.
Machine dishwash detergent and deodorisers.
Machine only laundry detergent (e.g. liquitabs)**
Plastic articles (excluding toys).
Fuels.
Fragranced lamp ring.
Scent pack.
Scratch and sniff (sampling technology).
Paints.
Cat litter.
Animal sprays (all types)
Treatment products for textiles (e.g. starch sprays, fabric treated with fragrances after wash, deodorisers for textiles or fabrics).
Floor wax.
Odoured distilled water (that can be added to steam irons).

* Class 5, Facial masks: There are several types of masks: peel off (similar to rinse-off, rinse-off and leave-on (you only remove the excess with a facial tissue). To ease the split the most restrictive, i.e. leave-on is applied for all.

** Liquitabs corresponds to a dose of liquids wrapped in a film: no contact with hands is expected under normal conditions of use




The table was prepared with the intention to cover the vast majority of the products; however it may not cover some specific applications. In this case other classes may be attributed based on a specific risk assessment.

MATERIAL SAFETY DATA SHEET

01. IDENTIFICATION OF THE SUBSTANCE/PREPARATION & THE COMPANY/UNDERTAKING

1.1 Product Identifier					
Product Name	Organic Thyme Oil White Sweet Linalool				OCTHYM
Biological Definition	Thymus Vulgaris Leaf Oil is the volatile oil obtained from the leaves of <i>Thymus vulgaris</i> , Lamiaceae (ct. Linalool).				
INCI Name	Thymus Vulgaris Leaf Oil.				
Synonyms & Trade Names					
CAS-No	84929-51-1	EC No.	284- 535-7	EINECS No.	284- 535-7
1.2 Relative identified uses of the substance or mixture and uses advised against					
Suitable for use in cosmetics, fragrances, flavourings and professional applications only.					
1.3 Details of the supplier of the safety data sheet					
MADAR Corporation Limited, 19-20 Sandleheath Industrial Estate, Fordingbridge, Hampshire SP6 1PA					
1.4 Emergency Tel. No.		+ 44 (0) 1425 655555			

02. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture		
The full text for all hazard statements, are displayed in Section 16.		
Classification (EC 1272/2008)		
Physical hazards:	Not classified.	
Health hazards:	Acute Tox. 4: Acute toxicity – Ingestion, Category 4, H302 Asp. Tox. 1: Aspiration hazard, category1, H304. Skin Irrit. 2: Skin irritation, Category 2, H315. Skin Sens. 1B: Sensitisation, skin, Category 1B, H317. Eye Irrit. 2: Eye irritation, Category 2, H319.	
Environmental hazards:	Aquatic Chronic 2: Hazardous to the aquatic environment long-term hazard, Category 2, H411.	
2.2 Label Elements		
Label in accordance with (EC) No 1272/2008		
GHS08	GHS07	GHS09
		
Signal Word	Danger.	
Contains	Myrcene, gamma-Terpinene, alpha-Terpinene, alpha-Pinene, d-Limonene, p-Cymene.	
Hazard Statements		
H302 - Harmful if swallowed. H304 - May be fatal if swallowed and enters airways H315 - Causes skin irritation.		

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H317 - May cause an allergic skin reaction.
H319 - Causes serious eye irritation.
H411 - Toxic to aquatic life with long lasting effects.

Precautionary Statements

P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
P264: Wash thoroughly after handling.
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.
P302+P352: IF ON SKIN: Wash with plenty of water.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P331: Do NOT induce vomiting.
P391: Collect spillage.
P501: Dispose of contents/container in accordance with regulations on hazardous waste or packaging and packaging waste respectively.

Supplementary Precautionary Statements

Linalool; 7-methyl-3-methylenoocta-1,6-diene; p-mentha-1,4-diene; P-mentha-1,3-diene.

2.3 Other Hazards

PBT or vPvB according to Annex XIII	See section 12.
Adverse physio-chemical properties	No additional data available.
Adverse effects on human health	No additional data available.

03. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

30-42% Linalool

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

8-20% P-menth-1-en-4-ol (4-Terpineol)

CAS-No: 562-74-3 EC-No: 209-235-5

Classification (EC 1272/2008): Acute Tox. 4: H302; Skin Irrit. 2: H315; Eye Irrit. 2: H319

5-10% Myrcene (7-methyl-3-methylenoocta-1,6-diene)

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; Aquatic Acute 1: H400; Aquatic Chronic 1: H410

5-10% gamma-Terpinene

CAS No: 99-85-4 EC-No: 202-794-6

Classification (EC 1272/2008): Flam. Liq. 3: H226; Asp. Tox. 1: H304

4-7% (alpha-Terpinene) P-mentha-1,3-diene

CAS-No: 99-86-5 EC-No: 202-795-1

Classification (EC 1272/2008): Flam. Liq. 3: H226; Acute Tox. 4: H302; Asp. Tox. 1: H304; Aquatic Chronic 2: H411

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1-5% alpha-Pinene

CAS-No: 80-56-8

EC-No: 201-291-9

Classification (EC 1272/2008): Flam. Liq. 3: H226; Acute Tox. 4: H302; Asp. Tox. 1: H304, Skin Irrit. 2: H315; Skin Sens. 1: H317; Aquatic Acute 1: H400; Aquatic Chronic 1: H410

≤4% d-Limonene

CAS-No: 5989-27-5

EC-No: 227-813-5

Classification (EC 1272/2008): Flam. Liq. 3: H226; Acute Tox. 4: H302; Asp. Tox. 1: H304, Skin Irrit. 2: H315; Skin Sens. 1: H317; Aquatic Acute 1: H400; Aquatic Chronic 1: H410

1-4% p-Cymene

CAS-No: 99-87-6

EC-No: 202-796-7

Classification (EC 1272/2008): Flam. Liq. 3: H226; Asp. Tox. 1: H304; Skin Irrit. 2: H315; Eye Irrit. 2: H319; STOT SE 3: H355

1-4% Camphene

CAS-No: 79-92-5

EC-No: 201-234-8

Classification (EC 1272/2008): Flam. Sol. 2: H228; Eye Irrit. 2: H319; Aquatic Acute 1: H400; Aquatic Chronic 1: H410

04. FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation	Remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.
Ingestion	Request medical assistance immediately, showing the SDS of this product. Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. In the case of loss of consciousness do not administer anything orally unless supervised by a doctor. Rinse out the mouth and throat, as they may have been affected during ingestion. Keep the person affected at rest.
Skin Contact	Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.
Eye Contact	Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

4.2 Most important symptoms and effects, both acute and delayed

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of any immediate medical attention and special treatment needed

No additional data available.

MATERIAL SAFETY DATA SHEET

05. FIRE-FIGHTING MEASURES

5.1 Extinguishing Media	Product is non-flammable under normal conditions of storage and use. If involved in a fire extinguish with the following media: carbon dioxide, dry chemical, foam. It is not recommended to use water as an extinguishing agent.
5.2 Special hazards arising from the product	As a result of combustion or thermal decomposition, reactive sub-products are created, that can become highly toxic and, consequently, can present a serious health risk.
5.3 Advice for firefighters	Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit) in accordance with Directive 89/654/EC. Additional Provisions: Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

06. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures	Isolate leaks provided that there is no additional risk for the people performing this task. Evacuate the area and keep out those without protection. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Prevent the formation of any vapour-air flammable mixtures, through ventilation. Destroy any source of ignition. Eliminate electrostatic charges by interconnecting all the conductive surfaces on which static electricity could form, and also ensuring that all surfaces are connected to the ground.
6.2 Environmental Precautions	Do not discharge into drains, water courses or onto the ground. Avoid at all cost any type of spillage into an aqueous medium. Contain the product absorbed appropriately in hermetically sealed containers. Notify the relevant authority in case of exposure to the general public or the environment.
6.3 Methods and material for containment and cleaning up.	Cover with an inert, inorganic, non-combustible absorbent material (e.g. dry-lime, sand, soda ash). Place in covered containers using non-sparking tools and transport outdoors. Avoid open flames or sources of ignition. Ventilate area and wash spill site after material pickup is complete. Dispose of in accordance with current laws and regulations. For any concern related to disposal consult section 13.
6.4 Reference to other sections	See sections 8 and 13.

07. HANDLING AND STORAGE

7.1 Precautions for safe handling
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Comply with the current legislation concerning the prevention of industrial risks. Keep containers sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

Technical recommendations for the prevention of fires and explosions

Avoid the evaporation of the product as it contains flammable substances, which could form flammable vapour/air mixtures in the presence of sources of ignition. Control sources of ignition (mobile phones, sparks.) and transfer slowly to avoid the creation of electrostatic charges.

Technical recommendations to prevent ergonomic and toxicological risks

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

Technical recommendations to prevent environmental risks

Due to the danger of this product for the environment it is recommended to use it within an area containing contamination control barriers in case of spillage, as well as having absorbent material in close proximity.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures for storage

Maximum Temp: 25°C.

General conditions for storage

Avoid sources of heat, radiation, static electricity. For additional information see subsection 10.5.

7.3 Specific end use(s)

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

08. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

There are no occupational exposure limits for the substances contained in the product.

DNEL (Workers):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Linalool	Oral	n/a	n/a	n/a	n/a
CAS: 78-70-6	Dermal	5mg/kg	n/a	2.5mg/kg	n/a
EC: 201-134-4	Inhalation	16.5 mg/m ³	n/a	2.8mg/m ³	n/a
Myrcene	Oral	n/a	n/a	n/a	n/a
CAS: 123-35-3	Dermal	n/a	n/a	0.83mg/kg	n/a
EC: 204-622-5	Inhalation	n/a	n/a	5.83mg/m ³	n/a
alpha-Pinene	Oral	n/a	n/a	n/a	n/a
CAS:50-56-8	Dermal	n/a	n/a	n/a	n/a
EC: 201-291-9	Inhalation	n/a	n/a	5.98mg/m ³	n/a
d-Limonene	Oral	n/a	n/a	n/a	n/a
CAS: 5989-27-5	Dermal	n/a	n/a	n/a	n/a
EC: 227-813-5	Inhalation	n/a	n/a	33.3mg/m ³	n/a
Camphene	Oral	n/a	n/a	n/a	n/a
CAS:79-92-5	Dermal	1.25mg/kg	n/a	0.21mg/kg	n/a

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EC:201-234-8 Inhalation 110.19 mg/m³ n/a 110.19 mg/m³ n/a

DNEL (General population):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Linalool	Oral	1.2mg/kg	n/a	0.2mg/kg	n/a
CAS: 78-70-6	Dermal	2.5mg/kg	n/a	1.25mg/kg	n/a
EC: 201-134-4	Inhalation	4.1mg/m ³	n/a	0.7mg/m ³	n/a
Myrcene	Oral	n/a	n/a	0.42mg/kg	n/a
CAS: 123-35-3	Dermal	n/a	n/a	0.42mg/kg	n/a
EC: 204-622-5	Inhalation	n/a	n/a	1.25mg/m ³	n/a
alpha-Pinene	Oral	n/a	n/a	0.31mg/kg	n/a
CAS:50-56-8	Dermal	n/a	n/a	n/a	n/a
EC: 201-291-9	Inhalation	n/a	n/a	1.06mg/m ³	n/a
d-Limonene	Oral	n/a	n/a	4.76mg/kg	n/a
CAS: 5989-27-5	Dermal	n/a	n/a	n/a	n/a
EC: 227-813-5	Inhalation	n/a	n/a	8.33mg/m ³	n/a
Camphene	Oral	0.625mg/kg	n/a	0.1mg/kg	n/a
CAS:79-92-5	Dermal	0.625mg/kg	n/a	0.1mg/kg	n/a
EC:201-234-8	Inhalation	54.3mg/m ³	n/a	54.3 mg/m ³	n/a

PNEC:

Identification

Linalool	STP 10 mg/L	Fresh water 0.2 mg/
CAS: 78-70-6	Soil 0.327 mg/kg	Marine water 0.02 mg/L
EC: 201-134-4	Intermittent 2 mg/L	Sediment (Fresh water) 2.22 mg/kg
	Oral 7.8 g/kg	Sediment (Marine water) 0.222 mg/kg
Myrcene	STP 0.2 mg/L	Fresh water 0.008 mg/L
CAS: 123-35-3	Soil 1.015 mg/kg	Marine water 0.0008 mg/L
EC: 204-622-5	Intermittent n/a	Sediment (Fresh water) 5.022 mg/kg
	Oral 2.78 g/kg	Sediment (Marine water) 0.502 mg/kg
alpha-Pinene	STP 3.26 mg/L	Fresh water 0.004 mg/
CAS: 80-56-8	Soil 0.539 mg/kg	Marine water 0.0004 mg/L
EC: 201-291-9	Intermittent n/a	Sediment (Fresh water) 1.033 mg/kg
	Oral 1.35 g/kg	Sediment (Marine water) 0.103 mg/kg
d-Limonene	STP 1.8 mg/L	Fresh water 0.0054 mg/L
CAS: 5989-27-5	Soil 0.262 mg/kg	Marine water 0.00054 mg/L
EC: 227-813-5	Intermittent n/a	Sediment (Fresh water) 1.32 mg/kg
	Oral 3.33 g/kg	Sediment (Marine water) 0.13 mg/kg

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Camphene
CAS: 79-92-5
EC: 201-234-8

STP 10 mg/L
Soil 0.0211 mg/kg
Intermittent 0.00072 mg/L
Oral 2.08 g/kg

Fresh water 0.00072 mg/
Marine water 0.000072 mg/L
Sediment (Fresh water) 0.0262 mg/kg
Sediment (Marine water) 0.00262 mg/kg

8.2 Exposure controls

Protective Equipment



Process Conditions

Provide eyewash station.

Engineering Measures

Provide adequate ventilation or respiratory protection.

Respiratory Equipment

If ventilation is insufficient, respiratory protection must be worn. Mandatory Tract protection.
PPE: Filter mask for gases and vapours.
CEN Standard: EN 405:2001+A1:2009.
Remarks: Replace when there is a taste or smell of the contaminant inside the face mask. If the contaminant comes with warnings it is recommended to use isolation equipment.

Hand Protection

Mandatory Hand Protection.
PPE: Protective gloves against minor risks.
Wear suitable protective gloves that are resistant to chemical agents in accordance with standard EN374.
Remarks: The Breakthrough Time indicated by the manufacturer must exceed the period during which the product is being used. Do not use protective creams after the product has come into contact with skin.

Eye Protection

Mandatory Face Protection.
Wear safety goggles in accordance with standard EN166.
Remarks: Clean daily and disinfect periodically according to the manufacturer's instructions.

Other Protection

PPE: anti-slip work shoes
CEN Standard: EN ISO 20347:2012

Hygiene Measures

Good personal hygiene practices are always advisable, especially when working with chemicals / oils.

Personal Protection

Avoid contact with skin and eyes. Avoid inhalation of vapours.

Skin Protection

PPE: Work clothing
Wear appropriate protective clothing to prevent skin contact.

Environmental Exposure Controls

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D
Volatile Organic Compounds:
With regard to Directive 2010/75/EU, this product has the following characteristics:
V.O.C. (Supply): 79.14% weight
V.O.C. density at 20 °C: 694.85 kg/m³ (694.85 g/l)

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	Average carbon number:	10
	Average molecular weight:	147.75 g/mol

09. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Clear liquid, pale Yellow.
Colour	Pale yellow.
Odour	Characteristic.
Relative Density	Approx. 0.880 @ 20°C
Flash Point (°C)	66.0
Refractive Index	Approx. 1.475 @ 20°C
Melting Point (°C)	No additional data available.
Boiling Point (°C)	190.0
Vapour Pressure	98 Pa @ 20°C 628 Pa (1 kPa) @ 50°C
Solubility in Water @20°C	No additional data available.
Auto-ignition temperature (°C)	235.0

9.2 Other information

No additional data available.

10. STABILITY AND REACTIVITY

10.1 Reactivity

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability

Chemically stable under the conditions of storage, handling and use.

10.3 Possible hazardous reactions

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

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:	Precaution.
Sunlight:	Precaution.
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

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See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO₂), carbon monoxide and other organic compounds.

11. TOXOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute Toxicity	Harmful if swallowed.(Calculation method)
Skin corrosion / irritation	Causes skin irritation. Contact with the skin: Produces skin inflammation.
Serious eye damage / irritation	Causes serious eye irritation. Contact with eyes: Produces eye damage after contact.
Respiratory or skin sensitisation	May cause an allergic skin reaction. Contact with skin: Prolonged contact with the skin can result in episodes of allergic contact dermatitis.
Germ Cell Mutagenicity	Based on available data, the classification criteria are not met, as it does not contain substances classified as mutagenic. For more information see section 3.
Carcinogenicity	Based on available data, the classification criteria are not met, as it does not contain substances classified as carcinogenic. For more information see section 3.
Reproductive toxicity	Based on available data, the classification criteria are not met, as it does not contain substances classified as toxic for reproduction.. For more information see section 3.
STOT-single exposure	Based on available data, the classification criteria are not met. However, it contains a substance classified as dangerous for inhalation. For more information see section 3.
STOT-repeated exposure	- 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.
Aspiration hazard	May be fatal if swallowed and enters airways. The consumption of a considerable dose can cause pulmonary damage.
Photo-toxicity	No additional data available.
Other Information	No additional data available.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Toxic to aquatic life with long lasting effects.

Camphene	CAS: 79-92-5 EC: 201-234-8		
LC50	0.72 mg/L (96 h)	Brachydanio rerio	(Fish)
EC50	46 mg/L (24 h)	Daphnia magna	(Crustacean)
EC50	n/a		(Algae)
p-cymene	CAS: 99-87-6 EC: 202-796-7		

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LC50	48 mg/L (96 h)	Cyprionodon variegatus (Fish)
EC50	6.5 mg/L (48 h)	Daphnia magna (Crustacean)
EC50	n/a	(Algae)
d-Limonene	CAS: 5989-27-58	EC: 227-813-5
LC50	0.1 - 1 mg/L (96 h)	(Fish)
EC50	0.1 - 1 mg/L	(Crustacean)
EC50	0.1 - 1 mg/L	(Algae)
P-mentha-1,3-diene (alpha Terpinene)	CAS: 99-86-5	EC: 202-795-1
LC50	1 - 10 mg/L (96 h)	(Fish)
EC50	1 - 10 mg/L	(Crustacean)
EC50	1 - 10 mg/L	(Algae)
Linalool	CAS: 78-70-6	EC: 201-134-4
LC50	27.8 mg/L (96 h)	Oncorhynchus mykiss (Fish)
EC50	59 mg/L (48 h)	Daphnia magna (Crustacean)
EC50	88.3 mg/L (96 h)	Scenedesmus subspicatus (Algae)

12.2 Persistence & degradability

Identification:	Degradability	Biodegradability
Linalool	BOD5 n/a	Concentration 100 mg/L
CAS: 78-70-6	COD n/a	Period 28 days
EC: 201-134-4	BOD5/COD 0.55	%Biodegradable 90 %
Myrcene	BOD5 n/a	Concentration 100 mg/L
CAS: 123-35-3	COD n/a	Period 14 days
EC: 204-622-5	BOD5/COD n/a	% Biodegradable 86 %
alpha-Pinene	BOD5 n/a	Concentration 100 mg/L
CAS: 80-56-8	COD n/a	Period 28 days
EC: 201-291-9	BOD5/COD n/a	% Biodegradable 95 %
p-cymene	BOD5 n/a	Concentration 100 mg/L
CAS: 99-87-6	COD n/a	Period 14 days
EC: 202-796-7	BOD5/COD n/a	% Biodegradable 88 %
Camphene	BOD5 n/a	Concentration 100 mg/L
CAS: 79-92-5	COD n/a	Period 28 days
EC: 201-234-8	BOD5/COD n/a	% Biodegradable 4 %

12.3 Bioaccumulation Potential

Identificaton:	Bioaccumulation Potential:
Linalool	BCF 39
CAS: 78-70-6	Pow Log 2.97
EC: 201-134-4	Potential Moderate
Myrcene	BCF 324

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CAS: 123-35-3 EC: 204-622-5	Pow Log Potential	5.29 High
alpha-Pinene CAS: 80-56-8 EC: 201-291-9	BCF Pow Log Potential	2800 4.83 Very High
d-Limonene CAS: 5989-27-5 EC: 227-813-5	BCF Pow Log Potential	660 4.83 High
p-cymene CAS: 99-87-6 EC: 202-796-7	BCF Pow Log Potential	286 4.1 High
Camphene CAS: 79-92-5 EC: 201-234-8	BCF Pow Log Potential	1290 4.22 Very High

12.4 Mobility in soil

Identification	Absorption/desorption		Volatility	
Myrcene	Koc	1300	Henry	6.515E+3 Pa·m ³ /mol
CAS: 123-35-3	Conclusion	Low	Dry soil	n/a
EC: 204-622-5	Surface tension	n/a	Moist soil	Yes
alpha-Terpinene	Koc	n/a	Henry	n/a
CAS: 99-86-5	Conclusion	n/a	Dry soil	n/a
EC: 202-795-1	Surface tension	2.79E-2 N/m (25°C)	Moist soil	n/a
alpha-Pinene	Koc	n/a	Henry	n/a
CAS: 80-56-8	Conclusion	n/a	Dry soil	n/a
EC: 201-291-9	Surface tension	2.587E-2 N/m (25°C)	Moist soil	n/a
p-cymene	Koc	4050	Henry	1.115E+3 Pa·m ³ /mol
CAS: 99-87-6	Conclusion	Low	Dry soil	n/a
EC: 202-796-7	Surface tension	2.835E-2 N/m (25°C)	Moist soil	Yes
Camphene	Koc	n/a	Henry	n/a
CAS: 79-92-5	Conclusion	n/a	Dry soil	n/a
EC: 201-234-8	Surface tension	1.098E-2 N/m (205.93°C)	Moist soil	n/a
d-Limonene	Koc	6324	Henry	n/a
CAS: 5989-27-5	Conclusion		Dry soil	n/a
EC: 227-813-5	Surface tension	2.675E-2 N/m (25°C)	Moist soil	n/a

12.5 Results of PBT and vPvB Assessment

Product fails to meet PBT/vPvB criteria

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12.6 Other adverse effects

Do not allow product to enter streams, sewers or other waterways.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Waste class (Regulation (EU) No 1357/2014: Dangerous.

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations in accordance with Annex 1 and Annex 2 (Directive 2008/98/EC). As under 15 01 (2014/955/EC) of the code and in case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See paragraph 6.2.

Regulations related to waste management:

In accordance with Annex II of Regulation (EC) n°1907/2006 (REACH) the community or state provisions related to waste management are stated.

Community legislation: Directive 2008/98/EC, 2014/955/EU, Regulation (EU) No 1357/2014.

14. TRANSPORT INFORMATION

14.1 UN number

UN No. Road	UN3082
UN No. SEA	UN3082
UN No. AIR	UN3082

14.2 UN proper shipping name

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

14.3 Transport hazard class(es)

ADR/RID/ADN Class: 9
IMDG Class: 9
ICAO Class/Division: 9

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 Substance/Marine Pollutant

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14.6 Special precautions for user

Special regulations: 274, 335, 375, 601.
 EmS Codes: F-A, S-F
 Physio-chemical properties: see section 9.
 Limited quantities: 5L

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC code

Packed and transferred according to transport regulations.

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Statutory Instruments

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (S.I 2009 No. 716).

Guidance Notes

Workplace Exposure Limits EH40. CHIP for everyone HSG(108).

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), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.

15.2 Chemical safety assessment

No additional information available.

16. OTHER INFORMATION

Hazard and/or Precautionary Statements in Full	H226 - Flammable liquid and vapour. H228 - Flammable solid. 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. H335 - May cause respiratory 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.
Other Information	None
Revision Date	29/05/2019
Rev No/Repl, SDS Generated	2



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DISCLAIMER: 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.



PRODUCT SPECIFICATION

Product Name	Organic Thyme Oil Sweet Linalool				
Date	17/01/2020	Product Code	OCTHYM	Rev	4
Description	Thymus Vulgaris Leaf Oil is the volatile oil obtained from the leaves of Thymus vulgaris, Lamiaceae.				
Appearance	Clear Liquid, Colourless – Pale Yellow				
Odour	Characteristic				
Origin	Spain/Portugal				
INCI Name	Thymus Vulgaris Leaf Oil				
CAS Number	84929-51-1	EC Number	284-535-7		

TEST SPECIFICATION

Analytical Test	Specification Range
Specific Gravity @ 20°C (g/ml)	0.872 – 0.895
Refractive Index @ 20°C	1.468 – 1.485
Optical Rotation (°)	-20.0 – 0.0

STORAGE

Store in a cool, dry, well-ventilated place. Keep away from heat and sunlight.

STABILITY

If stored for twenty-four months, check quality of product before use.

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Please note as this is a wholly natural material some parameters, in particular, appearance, colour and odour, may change due to natural variation and climate change. This in no way affects the quality and efficacy of the product.