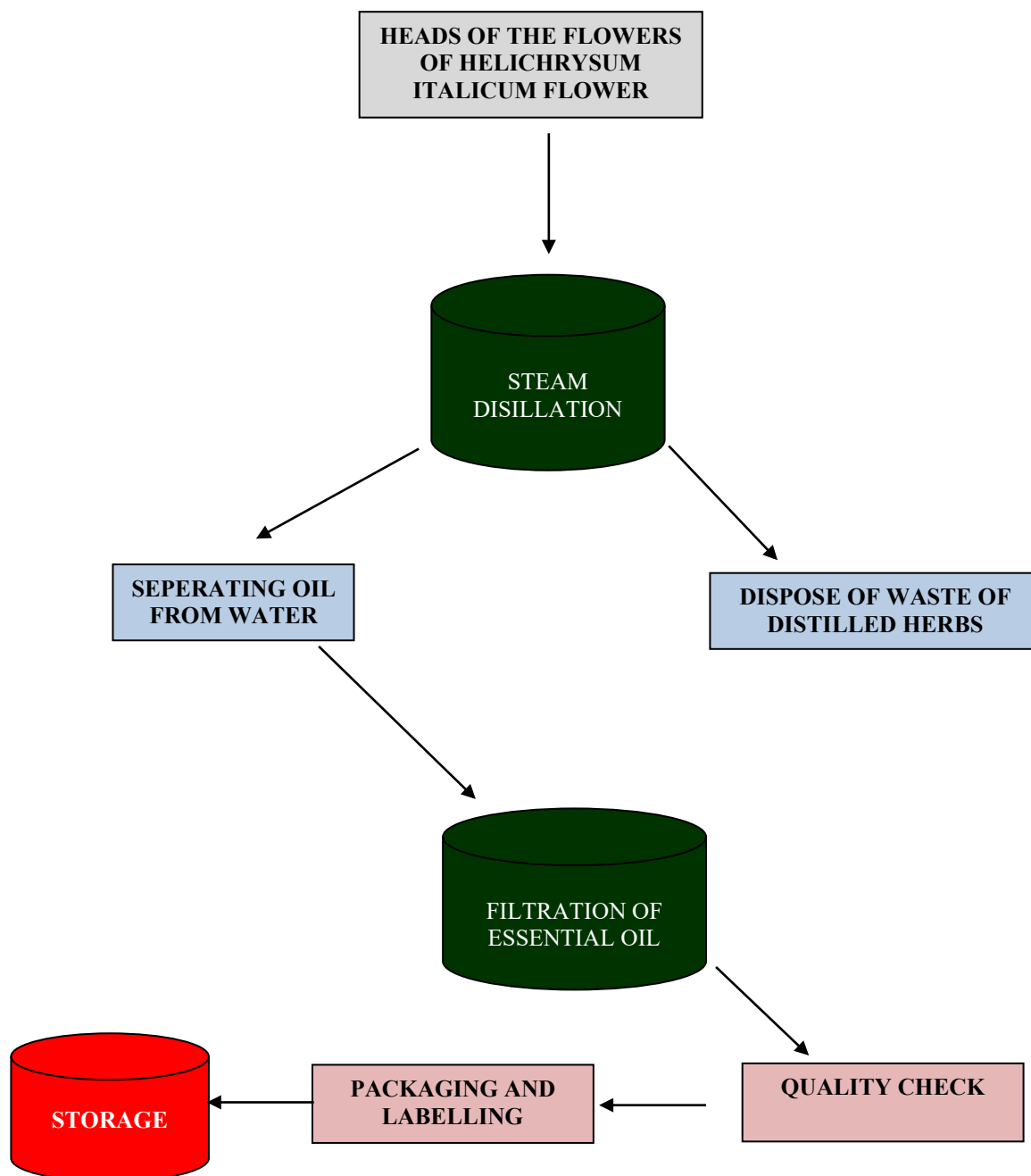




## Certificate of Analysis

PRODUCT DETAILS					
Product Name		HELICHRYSUM ORGANIC OIL			
Product Code		OCHELI			
INCI Name		Helichrysum italicum flower oil			
Batch Number		4401969			
Best Before End		July 2023			
Manufacturing Process		Steam distillation of the heads of the flower			
Identification		CAS No: 90045-56-0		EINECS No: 289-918-2	
		FDA No: 172.510		Alternative Cas: 8023-95-8	
		CoE No: 225n			
PHYSICAL AND CHEMICAL CHARACTERISTIC					
		SPECIFICATION RANGE		RESULTS	
Appearance		Liquid		Conforms	
Colour		Pale yellow to green		Conforms	
Odour		Characteristic		Conforms	
Density @ 20c		0.875 - 0.920		0.875	
Refractive Index @ 20c		1.460 - 1.485		1.478	
Optical Rotation @ 20c		-20 to +10		+2.1	
MAIN CONSTITUENTS					
CONSTITUENT RANGE		RESULTS	CONSTITUENT RANGE	RESULTS	CONSTITUENTS RANGE
Alpha Pinene 10-30%		18.70%	Terpinene-1-ol-4 <8%	0.43%	( R )-p-mentha-1,8-diene 1-5%
Nerol 0.01-5%		0.26%	Beta Caryophyllene 1-8%	6.15%	Linalool 0.01-5%
STORAGE AND SHELF LIFE					
Storage		Store in tightly closed container with minimum headspace in a cool, dark and dry place.			
<p><b>DISCLAIMER:</b> 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 users responsibility to satisfy himself as to the suitability of such information for his own particular use. Where MADAR make a declaration that allergenic material are not present in any product, this statement is made assuming reasonable levels of detection. It is impossible to guarantee the "absolute absence" of any material.</p>					

## PROCESSING – HELICHRYSUM OIL ORGANIC FLOW CHART





## SAFETY DATA SHEET HELICHRYSUM OIL ORGANIC

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product name	HELICHRYSUM OIL ORGANIC
Product number	OCHLI
Synonyms; trade names	Helichrysum italicum flower oil
CAS number	90045-56-0
Alternative Cas Number	8023-95-8
EC number	289-918-2

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses	Fragrance and flavour
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#### 1.3. Details of the supplier of the safety data sheet

Supplier	MADAR Corporation Limited 19-20 Sandleheath Industrial Estate Fordingbridge Hampshire SP6 1PA  Tel. +44 1425 655555  e-mail sales@madarcorporation.co.uk
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#### 1.4. Emergency telephone number

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification (EC 1272/2008)

Physical hazards	Flam. Liq. 3 - H226
Health hazards	Acute Tox. 4 - H302 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317 Asp. Tox. 1 - H304
Environmental hazards	Aquatic Acute 1 - H400 Aquatic Chronic 3 - H412
Human health	Fatal if swallowed The liquid may be irritating to skin.
Environmental	The product contains a substance which is very toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

#### 2.2. Label elements

EC number	289-918-2
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## HELICHRYSUM OIL ORGANIC

### Hazard pictograms



### Signal word

Danger

### Hazard statements

H226 Flammable liquid and vapour.  
 H302 Harmful if swallowed.  
 H315 Causes skin irritation.  
 H319 Causes serious eye irritation.  
 H317 May cause an allergic skin reaction.  
 H304 May be fatal if swallowed and enters airways.  
 H400 Very toxic to aquatic life.  
 H412 Harmful 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.  
 P233 Keep container tightly closed.  
 P240 Ground and bond container and receiving equipment.  
 P241 Use explosion-proof electrical equipment.  
 P242 Use non-sparking tools.  
 P243 Take action to prevent static discharges.  
 P261 Avoid breathing vapour/ spray.  
 P264 Wash contaminated skin thoroughly after handling.  
 P270 Do not eat, drink or smoke when using this product.  
 P272 Contaminated work clothing should not be allowed out of the workplace.  
 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.  
 P301+P312 IF SWALLOWED: Call a POISON CENTRE/doctor if you feel unwell.  
 P302+P352 IF ON SKIN: Wash with plenty of water.  
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.  
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P321 Specific treatment (see medical advice on this label).  
 P330 Rinse mouth.  
 P331 Do NOT induce vomiting.  
 P332+P313 If skin irritation occurs: Get medical advice/ attention.  
 P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.  
 P337+P313 If eye irritation persists: 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.  
 P405 Store locked up.  
 P501 Dispose of contents/ container in accordance with national regulations.

### Contains

Alpha Pinene, 1, 8 cineole, Nerol, (R)-p-mentha-1,8-diene

### 2.3. Other hazards

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

## HELICHRYSUM OIL ORGANIC

<b>Alpha Pinene</b>		<b>10-40%</b>
CAS number: 80-56-8	EC number: 201-291-9	
M factor (Acute) = 1	M factor (Chronic) = 1	
<b>Classification</b> 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		
<b>Terpinene-1-ol-4</b>		<b>&lt;8%</b>
CAS number: 562-74-3	EC number: 209-235-5	
<b>Classification</b> Acute Tox. 4 - H302 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317 STOT SE 3 - H336		
<b>1, 8 cineole</b>		<b>1-5%</b>
CAS number: 470-82-6	EC number: 207-431-5	
<b>Classification</b> Flam. Liq. 3 - H226 Skin Sens. 1B - H317		
<b>Nerol</b>		<b>0.01 - 5%</b>
CAS number: 106-25-2	EC number: 203-378-7	
<b>Classification</b> Skin Irrit. 2 - H315 Eye Dam. 1 - H318 Skin Sens. 1 - H317		
<b>Beta Caryophyllene</b>		<b>1-8%</b>
CAS number: 87-44-5	EC number: 201-746-1	
<b>Classification</b> Skin Sens. 1B - H317 Asp. Tox. 1 - H304 Aquatic Chronic 4 - H413		

## HELICHRYSUM OIL ORGANIC

<b>(R)-p-mentha-1,8-diene</b>		<b>1-5%</b>
CAS number: 5989-27-5	EC number: 227-813-5	
M factor (Acute) = 1		
<b>Classification</b> Flam. Liq. 3 - H226 Skin Irrit. 2 - H315 Skin Sens. 1 - H317 Asp. Tox. 1 - H304 Aquatic Acute 1 - H400 Aquatic Chronic 3 - H412		

<b>Linalool</b>		<b>0.01 - 5%</b>
CAS number: 78-70-6	EC number: 201-134-4	
<b>Classification</b> Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317		

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

<b>Ingestion</b>	Rinse mouth thoroughly with water. Do not induce vomiting. Get medical attention immediately.
<b>Skin contact</b>	Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if any discomfort continues.
<b>Eye contact</b>	Remove any contact lenses and open eyelids wide apart. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if any discomfort continues.

#### 4.2. Most important symptoms and effects, both acute and delayed

#### 4.3. Indication of any immediate medical attention and special treatment needed

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

<b>Suitable extinguishing media</b>	Extinguish with foam, carbon dioxide or dry powder.
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.

#### 5.2. Special hazards arising from the substance or mixture

<b>Specific hazards</b>	In case of fire, toxic fumes like carbon monoxide and carbon dioxide may be liberated. Burning produces heavy smoke. Closed containers may build up pressure at elevated temperatures.
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#### 5.3. Advice for firefighters

<b>Protective actions during firefighting</b>	Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Avoid breathing fire gases or vapours.
<b>Special protective equipment for firefighters</b>	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

## HELICHRYSUM OIL ORGANIC

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

**Personal precautions** Avoid contact with skin, eyes and clothing. No smoking, sparks, flames or other sources of ignition near spillage. Provide adequate ventilation. Wear protective clothing and gloves.

#### 6.2. Environmental precautions

**Environmental precautions** Avoid discharge into drains.

#### 6.3. Methods and material for containment and cleaning up

**Methods for cleaning up** Absorb spillage with sand or other inert absorbent. Collect spillage.

#### 6.4. Reference to other sections

**Reference to other sections** For personal protection, see Section 8.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

**Usage precautions** Do not eat, drink or smoke when using this product. Keep away from heat, sparks and open flame. Wear protective clothing as described in Section 8 of this safety data sheet.

#### 7.2. Conditions for safe storage, including any incompatibilities

**Storage precautions** Store in tightly-closed, original container in a dry, cool and well-ventilated place.

#### 7.3. Specific end use(s)

### SECTION 8: Exposure controls/Personal protection

#### 8.1. Control parameters

##### Occupational exposure limits

No data available.

#### Alpha Pinene (CAS: 80-56-8)

<b>DNEL</b>	Workers - Inhalation; Long term systemic effects: 3.8 mg/m <sup>3</sup>
	Workers - Dermal; Long term systemic effects: 0.54 bw/day, mg/kg
	General population - Inhalation; Long term systemic effects: 0.67 mg/m <sup>3</sup>
	General population - Dermal; Long term systemic effects: 0.19 bw/day, mg/kg
	General population - Oral; Long term systemic effects: 0.19 mg/kg, bw/day
<b>PNEC</b>	- Fresh water; Short term 0.606 mg/l
	- Fresh water, Intermittent release; 3.03 mg/l
	- marine water; Short term 0.061 mg/l
	- marine water, Intermittent release; 0.303 mg/l
	- STP; Short term 0.2 mg/l
	- Sediment (Freshwater); Short term 157 mg/kg
	- Sediment (Marinewater); Short term 15.7 mg/kg
	- Soil; Short term 31.7 mg/kg

#### 1, 8 cineole (CAS: 470-82-6)

<b>DNEL</b>	Workers - Inhalation; Long term systemic effects: 7.05 mg/m <sup>3</sup>
	Workers - Dermal; Long term systemic effects: 2 bw/day, mg/kg
	General population - Inhalation; Long term systemic effects: 1.74 mg/m <sup>3</sup>
	General population - Dermal; Long term systemic effects: 1 mg/kg, bw/day
	General population - Oral; Long term systemic effects: 600 bw/day, mg/kg

## HELICHRYSUM OIL ORGANIC

### PNEC

- Fresh water; Short term 5.7 mg/l
- Fresh water, Intermittent release; 0.57 mg/l
- marine water; Short term 5.7 mg/l
- STP; Short term 10 mg/l
- Sediment (Freshwater); Short term 1.425 mg/kg
- Sediment (Marinewater); Short term 0.142 mg/kg
- Soil; Short term 0.25 mg/kg

### (R)-p-mentha-1,8-diene (CAS: 5989-27-5)

### 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 (Marinewater); 0.13 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 (Marinewater); Short term 0.222 mg/kg

## 8.2. Exposure controls

### Protective equipment



### Appropriate engineering controls

Provide adequate ventilation.

### Eye/face protection

Wear tight-fitting, chemical splash goggles or face shield.

### Hand protection

It is recommended that chemical-resistant, impervious gloves are worn.

### Other skin and body protection

Wear protective clothing.



## HELICHRYSUM OIL ORGANIC

Hygiene measures	Good personal hygiene procedures should be implemented.
Respiratory protection	Generally unnecessary in a well ventilated area. If ventilation is insufficient, respiratory protection must be worn.
Environmental exposure controls	Avoid discharging into drains.

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Pale Yellow. to Green.
Odour	Characteristic.
Flash point	+53°C
Relative density	0.875 - 0.920 @ 20°C
Solubility(ies)	Insoluble in water.
Optical rotation	-20 to +10 @ 20c

#### 9.2. Other information

Refractive index	1.460 - 1.485 @ 20c
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Hydrocarbon Content

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

#### 10.2. Chemical stability

Stability	Stable at normal ambient temperatures.
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#### 10.3. Possibility of hazardous reactions

#### 10.4. Conditions to avoid

Conditions to avoid	Avoid heat, flames and other sources of ignition. Temperatures above room temperature will allow the transfer from liquid to vapour phase and the formation of explosive atmosphere.
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#### 10.5. Incompatible materials

Materials to avoid	No information available.
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#### 10.6. Hazardous decomposition products

Hazardous decomposition products	Not known.
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### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

##### Acute toxicity - oral

ATE oral (mg/kg)	500.0
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### SECTION 12: Ecological information

Ecotoxicity	The product contains a substance which is toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.
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#### 12.1. Toxicity

## HELICHRYSUM OIL ORGANIC

**Toxicity** No data available.

### 12.2. Persistence and degradability

### 12.3. Bioaccumulative potential

### 12.4. Mobility in soil

### 12.5. Results of PBT and vPvB assessment

### 12.6. Other adverse effects

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

**General information** Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

## SECTION 14: Transport information

### 14.1. UN number

UN No. (ADR/RID) 1169

UN No. (IMDG) 1169

UN No. (ICAO) 1169

UN No. (ADN) 1169

### 14.2. UN proper shipping name

**Proper shipping name (ADR/RID)** EXTRACTS, AROMATIC, LIQUID

**Proper shipping name (IMDG)** EXTRACTS, AROMATIC, LIQUID

**Proper shipping name (ICAO)** EXTRACTS, AROMATIC, LIQUID

**Proper shipping name (ADN)** EXTRACTS, AROMATIC, LIQUID

### 14.3. Transport hazard class(es)

ADR/RID class 3

ADR/RID classification code F1

ADR/RID label 3

IMDG class 3

ICAO class/division 3

ADN class 3

### Transport labels



### 14.4. Packing group

ADR/RID packing group III

IMDG packing group III

ICAO packing group III

ADN packing group III

## HELICHRYSUM OIL ORGANIC

### 14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant



### 14.6. Special precautions for user

EmS F-E, S-D

ADR transport category 3

Emergency Action Code 3Y

Hazard Identification Number 30  
(ADR/RID)

Tunnel restriction code (D/E)

### 14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

## SECTION 15: Regulatory information

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

**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) (as amended).

**Guidance** CHIP for everyone HSG228.

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

## SECTION 16: Other information

Revision date 18/02/2020

Revision 4

Supersedes date 02/11/2017

SDS number 4646

**Hazard 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.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H336 May cause drowsiness or dizziness.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.
- H412 Harmful to aquatic life with long lasting effects.
- H413 May cause long lasting harmful effects to aquatic life.

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BiOrigins, 19-20 Sandilands Industrial Estate, Fordingbridge, Hampshire, SP14 1PA, UK

Tel: 01425 655555 Email: [technical@madarcorporation.co.uk](mailto:technical@madarcorporation.co.uk)



## Product Specification

PRODUCT DETAILS		
Product Name	HELICHRYSUM OIL ORGANIC	
Product Code	OCHELI	
INCI Name	Helichrysum italicum flower oil	
Country of Origin	Various	
Tariff Number	3301 2941	
Natural Status	100% pure and natural	
GMO Declaration	To the best of our knowledge and from information received from our supplier, this product does not derive from genetically modified starting raw material, or additives that are derived from genetically modified organisms.	
Manufacturing Process	Steam distillation of the heads of the flower	
Identification	CAS No: 90045-56-0	EINECS No: 289-918-2
	FDA No: 172.510	Alternative Cas: 8023-95-8
	CoE No: 225n	
PHYSICAL AND CHEMICAL CHARACTERISTIC		
Appearance	Liquid	
Colour	Pale yellow to green	
Odour	Characteristic	
Density @ 20c	0.875 - 0.920	
Refractive Index @ 20c	1.460 - 1.485	
Optical Rotation @ 20c	-20 to +10	
Solubility in water	Insoluble	
Solubility in ethanol	Soluble	
Flash Point	+53c	
Hydrocarbon content	27%	
FRAGRANCE ALLERGENS		
d-limonene (5989-27-5) <b>1 - 5%</b>	Linalool (78-70-6) <b>0.01 - 5%</b>	Citral (5392-40-5) <b>&lt;0.5%</b>
Benzyl Cinnamate (103-41-3) <b>&lt;0.2%</b>	Geraniol (106-24-1) <b>&lt;0.05%</b>	
FOOD ALLERGENS		
NONE PRESENT		
IFRA		
Benzyl Cinnamate (103-41-3) <b>&lt;0.2%</b>	Citral (5392-40-5) <b>&lt;0.5%</b>	Geraniol (106-24-1) <b>&lt;0.05%</b>
Methyl Eugenol (93-15-2) <b>max 0.1%</b>	trans-2-hexenal (6728-26-3) <b>max 0.05%</b>	
STORAGE AND SHELF LIFE		
Storage	Store in tightly closed container with minimum headspace in a cool, dark and dry place.	

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# Vegan and Vegetarian Statement

IDENTIFICATION	
Product:	Helichrysum Oil Organic
Cas No:	90045-56-0
EINECS No:	289-918-2
STATEMENT	
<p>We, MADAR Corporation Limited, from information received from our supplier, hereby declare that the material listed above is compliant with a vegan or vegetarian diet.</p> <p>It does not contain any animal ingredients or animal by products. No animal ingredients or by products are used in the manufacturing process.</p> <p>This document represents to the best of our knowledge and from information received from our supplier. It does not release the buyer from the obligation to carry out an examination of the goods received. All uses made by the buyer are done under their own responsibility.</p>	