

# Certificate of Analysis

PRODUCT DETAILS		
Product Name	FENNEL OIL SWEET	
Product Code	OEFENNSWEE	
INCI Name	Foeniculum vulgare Mill. Var. dulce	
Batch Number	4387510	
Best Before End	February 2023	
Manufacturing Process	Obtained by steam distillation from the fruits of Foeniculum vulgare Mill. Var. dulce (Umbelliferae).	
Identification	CAS No: 84455-29-8 Alternative Cas: 8006-84-6 EINECS No: 282-892-3 FEMA: 2483	
PHYSICAL AND CHEMICAL CHARACTERISTIC		
	SPECIFICATION RANGE	RESULTS
Appearance	Liquid	Conforms
Colour	Colourless to light yellow	Conforms
Odour	Characteristic	Conforms
Relative Density @ 20°C	0.950 - 0.985	0.971
Refractive Index @ 20°C	1.520 - 1.560	1.535
Flash Point	>65°C	Conforms
Optical Rotation	+4.0 to +25.0	13.77
STORAGE AND SHELF LIFE		
Storage	Store in tightly closed container with minimum headspace in a cool, dark and dry place.	

**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 users responsibility to satisfy himself as to the suitability of such information for his own particular use. Where MADAR Corporation 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. **It is the ultimate responsibility of the customer to ensure the safety of the intended final product containing this material, by carrying out additional tests if necessary.**

**SAFETY DATA SHEET  
FENNEL SWEET**

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

**1.1. Product identifier**

Product name	FENNEL SWEET
Product number	ORFENSWEE
Synonyms; trade names	Foeniculum vulgare oil
CAS number	8006-84-6
Alternative Cas Number	
FEMA No:	2482

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

Identified uses	Industrial, only for professional use
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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
Telephone	01425 655555
Approved Sellers	Mystic Moments, New Directions, World of Moulds

**1.4. Emergency telephone number**

**SECTION 2: Hazards identification**

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

**Classification (EC 1272/2008)**

Physical hazards	Not Classified
Health hazards	Skin Sens. 1 - H317 Muta. 2 - H341 Carc. 2 - H351 Asp. Tox. 1 - H304
Environmental hazards	Aquatic Chronic 2 - H411

**Human health** Corrosive to skin and eyes. May be fatal if swallowed and enters airways. The liquid may be irritating to skin. Suspected of causing cancer. Suspected of causing genetic defects.

**Environmental** The product contains a substance which is toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

**2.2. Label elements**

## FENNEL SWEET



## Pictogram



## Signal word

Danger

## Hazard statements

H304 May be fatal if swallowed and enters airways.  
 H317 May cause an allergic skin reaction.  
 H341 Suspected of causing genetic defects.  
 H351 Suspected of causing cancer.  
 H411 Toxic to aquatic life with long lasting effects.

## Precautionary statements

P202 Do not handle until all safety precautions have been read and understood.  
 P273 Avoid release to the environment.  
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
 P501 Dispose of contents/ container in accordance with national regulations.  
 P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
 P310 Immediately call a POISON CENTER/ doctor.

## Contains

trans-anethole, (R)-p-mentha-1,8-diene, Estragole, Alpha Pinene

## Supplementary precautionary statements

P201 Obtain special instructions before use.  
 P261 Avoid breathing vapour/ spray.  
 P272 Contaminated work clothing should not be allowed out of the workplace.  
 P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.  
 P302+P352 IF ON SKIN: Wash with plenty of water.  
 P308+P313 IF exposed or concerned: Get medical advice/ attention.  
 P321 Specific treatment (see medical advice on this label).  
 P331 Do NOT induce vomiting.  
 P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.  
 P362+P364 Take off contaminated clothing and wash it before reuse.  
 P391 Collect spillage.  
 P405 Store locked up.

## 2.3. Other hazards

## SECTION 3: Composition/information on ingredients

## 3.1. Substances

## Molecular Weight

## 3.2. Mixtures

trans-anethole

60-100%

CAS number: 4180-23-8

EC number: 224-052-0

## Classification

Skin Sens. 1 - H317

## FENNEL SWEET



<b>(R)-p-mentha-1,8-diene</b>		<b>3-8%</b>
CAS number: 5989-27-5	EC number: 227-813-5	
M factor (Acute) = 1	M factor (Chronic) = 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 1 - H410		
<b>Estragole</b>		<b>1-5%</b>
CAS number: 140-67-0	EC number: 205-427-8	
<b>Classification</b>		
Acute Tox. 4 - H302		
Skin Sens. 1 - H317		
Muta. 2 - H341		
Carc. 2 - H351		
<b>p-Cymene</b>		<b>1-5%</b>
CAS number: 99-87-6	EC number: 202-796-7	
<b>Classification</b>		
Flam. Liq. 3 - H226		
Asp. Tox. 1 - H304		
Aquatic Chronic 2 - H411		
<b>Alpha Pinene</b>		<b>1-7%</b>
CAS number: 80-56-8	EC number: 201-291-9	
<b>Classification</b>		
Flam. Liq. 3 - H226		
Skin Irrit. 2 - H315		
Skin Sens. 1 - H317		
Asp. Tox. 1 - H304		

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>Inhalation</b>	Move affected person to fresh air at once. Get medical attention if any discomfort continues.
<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.

**FENNEL SWEET****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****4.3. Indication of any immediate medical attention and special treatment needed**

**Notes for the doctor**                      Treat symptomatically.

**SECTION 5: Firefighting measures****5.1. Extinguishing media**

**Suitable extinguishing media**      Use as appropriate carbon dioxide (CO<sub>2</sub>), dry chemical or foam

**Unsuitable extinguishing media**      Do not use water, if avoidable.

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

**Specific hazards**                      In case of fire, the following can be released: carbon monoxide (CO), carbon dioxide (CO<sub>2</sub>), smoke, soot.

**5.3. Advice for firefighters**

**Protective actions during firefighting**      Avoid breathing fire gases or vapours. Containers close to fire should be removed or cooled with water.

**Special protective equipment for firefighters**      Use protective equipment appropriate for surrounding materials.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

**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 and eyes. Avoid inhalation of vapours.

**6.2. Environmental precautions**

**Environmental precautions**      Do not discharge into drains or watercourses or onto the ground.

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

**Methods for cleaning up**                      Absorb with liquid binding material (e.g sand, diatomaceous earth, acid or universal binding agents). Collect in closed and suitable containers for disposal.

**6.4. Reference to other sections**

**Reference to other sections**      For waste disposal, see Section 13.

**SECTION 7: Handling and storage****7.1. Precautions for safe handling**

**Usage precautions**                      Avoid contact with skin and eyes. Do not breathe vapours. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use only in well-ventilated areas.

**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)**

## FENNEL SWEET

## SECTION 8: Exposure Controls/personal protection

## 8.1. Control parameters

(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

Alpha Pinene (CAS: 80-56-8)

**DNEL** Workers - Inhalation; Long term systemic effects: 5.98 mg/m<sup>3</sup>  
 General population - Oral; Long term systemic effects: 0.31 mg/kg  
 General population - Inhalation; Long term systemic effects: 1.06 mg/m<sup>3</sup>

**PNEC**

- STP; 3.26 mg/l
- Soil; 0.539 mg/kg
- Fresh water; 0.004 mg/l
- Marine water; 0.0004 mg/l
- Sediment (Freshwater); 1.033 mg/kg
- Sediment (Marinewater); 0.103 mg/kg

## 8.2. Exposure controls

## Protective equipment



**Appropriate engineering controls**

Provide adequate ventilation.

**Personal protection**

Use personal protection according to Directive 89/686/EEC

**Eye/face protection**

Approved safety goggles.

**Hand protection**

Chemical resistant gloves (PVC)

**Other skin and body protection**

Wear protective clothing.

**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.



**FENNEL SWEET**

**Colour** Colourless to pale yellow.

**Odour** Characteristic.

**Flash point** 62°C

**Relative density** 0.950 - 0.970 @ 20°C

**Optical rotation**

**9.2. Other information**

**Refractive index** 1.530 - 1.550 @ 20°C

**SECTION 10: Stability and reactivity****10.1. Reactivity**

**Reactivity** No other information known.

**10.2. Chemical stability**

**Stability** Stable under normal conditions.

**10.3. Possibility of hazardous reactions**

**Possibility of hazardous reactions** None known.

**10.4. Conditions to avoid**

**Conditions to avoid** Temperatures above room temperature will allow the transfer from liquid to vapour phase and the formation of explosive atmosphere. Storing the product in open containers will benefit the formation of peroxides and derogate the quality.

**10.5. Incompatible materials**

**Materials to avoid** Strong acids. Strong alkalis. Strong oxidising agents.

**10.6. Hazardous decomposition products**

**Hazardous decomposition products** No known hazardous decomposition products.

**SECTION 11: Toxicological information****11.1. Information on toxicological effects****Acute toxicity - oral**

**ATE oral (mg/kg)** 16,666.67

**SECTION 12: Ecological Information**

**Ecotoxicity** The product contains substances which are toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

**12.1. Toxicity****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**

## FENNEL SWEET



## General information

Dispose of in compliance with all local and national regulations.

## SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID)	3082
UN No. (IMDG)	3082
UN No. (ICAO)	3082
UN No. (ADN)	3082

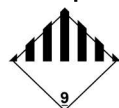
14.2. UN proper shipping name

Proper shipping name (ADR/RID)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Proper shipping name (IMDG)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Proper shipping name (ICAO)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Proper shipping name (ADN)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

14.3. Transport hazard class(es)

ADR/RID class	9
ADR/RID classification code	M6
ADR/RID label	9
IMDG class	9
ICAO class/division	9
ADN class	9

## Transport labels

14.4. Packing group

ADR/RID packing group	III
IMDG packing group	III
ICAO packing group	III
ADN packing group	III

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

14.6. Special precautions for user

EmS	F-A, S-F
ADR transport category	3



**FENNEL SWEET**

Emergency Action Code •3Z

Hazard Identification Number 90  
(ADR/RID)

Tunnel restriction code (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 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

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****SECTION 16: Other information**

Revision date 20/10/2016

Revision 1

SDS number 4755

**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.  
H341 Suspected of causing genetic defects.  
H351 Suspected of causing cancer.  
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.

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# Product Specification

PRODUCT DETAILS		
Product Name	FENNEL OIL SWEET	
Product Code	OEFENNSWEE	
INCI Name	Foeniculum Vulgare Oil	
Country or Origin	Bulgaria	
Tariff Number	33012941	
Natural Status	We hereby declare, to the best of our knowledge and from information received from our supplier, that this product is in accordance to the requirements of Articles 3 (2) (d) of Regulation (EC) 1334/2008 and therefore can be designated as natural.	
Food Grade Status	We confirm, from information received from our supplier, that this product conforms with EU Regulations and can be used in food.	
Kosher Certified	No	
Halal Certified	We hereby declare, from information received from our supplier, that this product does not contain any ingredient derived from animal origin, extracted from hair or feathers, animal fats, animal extracts, blood of any origin, blood plasma, pork and/or other meat products, except sea food, dairy and poultry egg origin. This product does not contain alcohol (ethanol or grain alcohol) and has not been used in the manufacturing process.	
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	Foeniculum Vulgare Oil is the volatile oil obtained by steam distillation of the crushed seeds of Fennel, Foeniculum vulgare, Umbelliferae.	
Identification	CAS No: 8006-84-6	EINECS No: NA
	FEMA No: 2482	Alternative Cas: NA
PHYSICAL AND CHEMICAL CHARACTERISTIC		
Appearance	Liquid	
Colour	Colourless to pale yellow	
Odour	Characteristic	
Relative Density @ 20°C (g/ml)	0.950 - 0.985	
Refractive Index @ 20°C	1.520 - 1.560	
Optical Rotation @ 20°C	+4.0 to +25.0	
FRAGRANCE ALLERGENS		
Limonene (5989-27-5) <b>3 - 8%</b>		
FOOD ALLERGENS		
NONE PRESENT		
IFRA		
Limonene (5989-27-5) <b>3 - 8%</b>	Estragole (140-67-0) <b>1-5%</b>	Anisaldehyde (123-11-5) <b>&lt;0.5%</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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Issue No: 1