

**CHEMICAL SAFETY DATA SHEET**  
according to 1907/2006/EC Article 31, as amended by N°  
453/2010

2308800

Reviewed on: 15/07/19  
Printing date: 15/07/2019

**SECTION 01: Identification of the substance/mixture and of the company/undertaking**

1.1 Product identifier

- Trade name:  
FENNEL SWEET ORGANIC OIL
- Article number:  
B416
- CAS Number:  
8006-84-6
- EC Number:  
282-892-3
- No CAS EINECS:  
84455-29-8

1.2 Relevant identified uses of the substance or mixture and uses advised against  
Application of the substance / the preparation  
Only for industrial use

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:  
GOLGEMMA TEL: +33(0)4.68.74.17.89  
Route de FA email: fds@golgemma.com  
11260 ESPERAZA  
FRANCE

1.4 Emergency telephone number:  
FR-ORFILA (INRS):+33(0)1 45 42 59 59

**SECTION 02: Hazards identification**

2.1 Classification of the substance or mixture

- Classification according to Regulation (EC) No 1272/2008



GHS08

Muta. 2 - H341 Suspected of causing genetic defects.  
Carc. 2 - H351 Suspected of causing cancer.  
Asp. Tox. 1 - H304 May be fatal if swallowed and enters airways.



GHS07

Acute Tox. 4 - H302 Harmful if swallowed.  
Skin Sens. 1 - H317 May cause an allergic skin reaction.



GHS09

Aquatic Chronic 2 - H411 Toxic to aquatic life with long lasting effects.

2.2 Label elements

- Labelling according to Regulation (EC) No 1272/2008
- Hazard pictograms



GHS08



GHS07



GHS09

- Signal word  
Danger

- Hazard statements

H341 Suspected of causing genetic defects.  
H351 Suspected of causing cancer.  
H304 May be fatal if swallowed and enters airways.  
H302 Harmful if swallowed.

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- H317 May cause an allergic skin reaction.  
H411 Toxic to aquatic life with long lasting effects.
- Precautionary statements
  - P201 Obtain special instructions before use.
  - P202 Do not handle until all safety precautions have been read and understood.
  - P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
  - P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
  - P405 Store locked up.
  - P501 Dispose of contents/container in accordance with local/regional/ national/international regulations.

2.3 Other hazards

- Results of PBT and vPvB assessment
- PBT:  
Not applicable.
- vPvB:  
Not applicable.

**SECTION 03: Composition/information on ingredients**

3.1 Chemical characterization: Substances

**CAS No.**            **Description**  
8006-84-6            Foeniculum vulgare var. dulce (Mill.) Batt. & Trab.

- Identification number(s)
- EC number:  
282-892-3

- Dangerous components:

<b>CAS Number</b>		<b>%</b>
<b>4180-23-8</b>	<b>trans-Anethole</b> EC number: 224-052-0 ⚠ Skin Sens. 1B - H317	<b>50,001-100</b>
<b>80-56-8</b>	<b>pin-2(3)-ene</b> EC number: 201-291-9 ⚠ Asp. Tox. 1 - H304; ⚠ Flam. Liq. 3 - H226; ⚠ Acute Tox. 4 - H302, Skin Irrit. 2 - H315, Skin Sens. 1B - H317	<b>5,001-10,00</b>
<b>5989-27-5</b>	<b>d-limonene</b> ⚠ Asp. Tox. 1 - H304; ⚠ Flam. Liq. 3 - H226; ⚠ Skin Irrit. 2 - H315, Skin Sens. 1B - H317; ⚠ Aquatic Acute 1 - H400; Aquatic Chronic 3 - H412	<b>5,001-10,00</b>
<b>140-67-0</b>	<b>Estragole</b> EC number: 205-427-8 ⚠ Acute Tox. 4 - H302, Skin Sens. 1B - H317; ⚠ Muta. 2 - H341, Carc. 2 - H351	<b>5,001-10,00</b>
<b>123-35-3</b>	<b>Myrcene</b> EC number: 204-622-5 ⚠ Asp. Tox. 1 - H304; ⚠ Flam. Liq. 3 - H226; ⚠ Skin Irrit. 2 - H315, Eye Irrit. 2 - H319	<b>1,001- 5,00</b>
<b>127-91-3</b>	<b>beta-Pinene</b> ⚠ Asp. Tox. 1 - H304; ⚠ Flam. Liq. 3 - H226; ⚠ Skin Irrit. 2 - H315, Skin Sens. 1B - H317	<b>1,001- 5,00</b>

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<b>25679-28-1</b>	<b>(Z)-anethole</b> EC number: 247-181-4	<b>0,101-1,00</b>
<b>79-92-5</b>	<b>camphene</b> EC number: 201-234-8 ⚠ Flam. Sol. 1 - H228; ⚠ Aquatic Acute 1 - H400, Aquatic Chronic 1 - H410	<b>0,101-1,00</b>
<b>470-82-6</b>	<b>Eucalyptol</b> EC number: 207-431-5 ⚠ Flam. Liq. 3 - H226; ⚠ Skin Sens. 1B - H317	<b>0,101-1,00</b>
<b>99-87-6</b>	<b>p-cymene</b> EC number: 202-796-7 ⚠ Asp. Tox. 1 - H304; ⚠ Flam. Liq. 3 - H226; ⚠ Aquatic Chronic 2 - H411	<b>0,101-1,00</b>
<b>78-70-6</b>	<b>Linalool</b> EC number: 201-134-4 ⚠ Skin Irrit. 2 - H315, Eye Irrit. 2 - H319, Skin Sens. 1B - H317	<b>0,101-1,00</b>
<b>586-62-9</b>	<b>Terpinolene</b> EC number: 209-578-0 ⚠ Asp. Tox. 1 - H304; ⚠ Skin Sens. 1B - H317; ⚠ Aquatic Acute 1 - H400, Aquatic Chronic 1 - H410	<b>0,101-1,00</b>

**SECTION 04: First aid measures**

4.1 Description of first aid measures

- General information:  
Seek immediate medical advice.
- After inhalation:  
Supply fresh air and to be sure call for a doctor.
- After skin contact:  
If skin irritation continues, consult a doctor.
- After eye contact:  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- After swallowing:  
Seek immediate medical advice.
- Information for doctor:

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

**SECTION 05: Firefighting measures**

5.1 Extinguishing media

- Suitable extinguishing agents:  
CO2, sand, extinguishing powder. Do not use water.  
Use fire extinguishing methods suitable to surrounding conditions.
- For safety reasons unsuitable extinguishing agents:  
Water with full jet

5.2 Special hazards arising from the substance or mixture

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Formation of toxic gases is possible during heating or in case of fire.

**5.3 Advice for firefighters**

- Protective equipment:  
Do not inhale explosion gases or combustion gases.
- Additional information  
Cool endangered receptacles with water spray.

**SECTION 06: Accidental release measures**

**6.1 Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.  
Ensure adequate ventilation  
Keep away from ignition sources.

**6.2 Environmental precautions:**

Do not allow product to reach sewage system or any water course.

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

Dispose of the material collected according to regulations.

**6.4 Reference to other sections**

See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

**SECTION 07: Handling and storage**

• Handling:

**7.1 Precautions for safe handling**

Keep receptacles tightly sealed.  
Keep away from heat and direct sunlight.  
Ensure good ventilation/exhaustion at the workplace.  
Handle with care. Avoid jolting, friction and impact.

• Information about fire - and explosion protection:

Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.

**7.2 Conditions for safe storage, including any incompatibilities**

- Storage:
- Requirements to be met by storerooms and receptacles:  
Store only in the original receptacle.  
Use only receptacles specifically permitted for this substance/ product.
- Further information about storage conditions:  
Keep container tightly sealed.  
Protect from heat and direct sunlight.  
Store receptacle in a well ventilated area.

**7.3 Specific end use(s)**

No further relevant information available.

**SECTION 08: Exposure controls/personal protection**

**8.1 Control parameters**

- Ingredients with limit values that require monitoring at the workplace:  
Not required.

<b>CAS No.</b>	<b>Designation of material</b>	<b>%</b>	<b>Type</b>	<b>Value Unit</b>
Not required.				

- Additional information:  
The lists valid during the making were used as basis.

**8.2 Exposure controls**

- Personal protective equipment:
- General protective and hygienic measures:

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- The usual precautionary measures are to be adhered to when handling chemicals.  
Wash hands before breaks and at the end of work.
- Respiratory protection: Use suitable respiratory protective device in case of insufficient ventilation.
  - Protection of hands: Protective gloves The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
  - Material of gloves  
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
  - Penetration time of glove material  
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
  - Eye protection: Safety glasses

**SECTION 09: Physical and chemical properties**

**9.1 Information on basic physical and chemical properties**

**General Information**

**Appearance:**

<b>Form:</b>	fluid
<b>Colour:</b>	colourless to pale yellow
<b>Odour:</b>	aniseed
<b>Odour threshold:</b>	Not determined.

**Change in condition**

<b>Initial boiling point and boiling range:</b>	Not determined.
<b>Flash point:</b>	63,0 °C NFT 60-103 CC
<b>Flammability (solid, gas):</b>	Not determined.
<b>Auto-ignition temperature:</b>	Not determined.
<b>Explosive properties:</b>	Not determined.
<b>Vapour pressure:</b>	Not determined.
<b>Density:</b>	Not determined.
<b>Relative density :</b>	0,9550 0,981 D20/20

**Solubility in / Miscibility with**

<b>water:</b>	Not determined.
<b>Partition coefficient: n-octanol/water:</b>	Not determined.

**9.2 Other information** No further relevant information available.

**SECTION 10: Stability and reactivity**

**10.1 Reactivity**

No further relevant information available.

**10.2 Chemical stability**

Thermal decomposition / conditions to be avoided:  
Not determined.

**10.3 Possibility of hazardous reactions**

No dangerous reactions known.

**10.4 Conditions to avoid**

No further relevant information available.

**10.5 Incompatible materials:**

No further relevant information available.

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10.6 Hazardous decomposition products:  
Not determined.

**SECTION 11: Toxicological information**

11.1 Information on toxicological effects

- Acute toxicity
- LD/LC50 values relevant for classification:

ISO LD/LC

**8006-84-6 Foeniculum vulgare var. dulce (Mill.) Batt. &**

**Trab.**

Oral, LD50: 3800 mg/kg (rat)  
Dermal, LD50: >=5000 mg/kg (Rabbit)

**5989-27-5 (R)-p-mentha-1,8-diene**

Oral, LD50: 4400 mg/kg (rat)

**140-67-0 Estragole**

Oral, LD50: 1230 mg/kg (rat) (Moreno 1972)

**79-92-5 camphene**

Oral, LD50: 5000 mg/kg (rat)  
Dermal, LD50: 2500 mg/kg (Rabbit)

**470-82-6 Eucalyptol**

Oral, LD50: 3849 mg/kg (mouse) (Jiao Xu, 2014)

**78-70-6 Linalool**

Oral, LD50: 2790 mg/kg (rat)  
Dermal, LD50: 5610 mg/kg (Rabbit)

- Primary irritant effect:
- Skin corrosion/irritation  
No irritant effect.
- Serious eye damage/irritation  
No irritating effect.
- Respiratory or skin sensitisation  
No sensitizing effects known.
- Subacute to chronic toxicity:

**140-67-0 Estragole**

Oral, NOAEL: 37,5 mg/kg (rat) (NTP 2008)

- Germ cell mutagenicity

**470-82-6 Eucalyptol**

AMES: NEGATIVE (in vitro) (Haworth, 1983)

**78-70-6 Linalool**

AMES: NEGATIVE (in vitro) (Letizia and al., 2007)

- Carcinogenicity

**140-67-0 Estragole**

Micronoyau: NEGATIVE (mouse) (NTP 2008)

**78-70-6 Linalool**

Micronoyau: NEGATIVE (mouse) (in vivo, Letizia and al., 2007)  
Micronoyau: NEGATIVE (in vitro) (DiSotto and al., 2011)

- Reproductive toxicity  
Not determined.
- STOT-single exposure  
Not determined.
- STOT-repeated exposure  
Not determined.
- Aspiration hazard  
Not determined.

EU

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**SECTION 12: Ecological information**

12.1 Toxicity

- Aquatic toxicity:

**8006-84-6**                      **Foeniculum vulgare var. dulce (Mill.) Batt. &**

**Trab.**

CE50/48h: 38,10 mg/l (daphnia)

**5989-27-5**                      **(R)-p-mentha-1,8-diene**

LD50: 0,71 mg/l (fish) (OECD 203)

**123-35-3**                      **Myrcene**

LD50: 0,51 mg/l (fish) (OECD 203)

CE50/48h: 0,65 mg/l (daphnia)

**99-87-6**                      **p-cymene**

LD50: 1,63 mg/l (fish) (OECD 203)

**78-70-6**                      **Linalool**

LD50: 27,8 mg/l (fish) ((OECD 203) RIFM 1991)

ErC50(0-72h): 156,7 mg/l (algae)

ErC50(0-48h): 59 mg/l (daphnia) ((OECD 202)

12.2 Persistence and degradability

No further relevant information available.

- Behaviour in environmental systems:  
Not determined.

12.3 Bioaccumulative potential

No further relevant information available.

12.4 Mobility in soil

No further relevant information available.

- Ecotoxicological effects:  
Not determined.

12.5 Results of PBT and vPvB assessment

- PBT:  
Not applicable.
- vPvB:  
Not applicable.

12.6 Other adverse effects

No further relevant information available.

**SECTION 13: Disposal considerations**

13.1 Waste treatment methods

- Recommendation  
Must be specially treated adhering to official regulations.
- Uncleaned packaging:  
Recommendation:  
Disposal must be made according to official regulations.

**SECTION 14: Transport information**

14.1 UN-Number

**ADR**                                      UN3082

**IMDG**                                     UN3082

**IATA**                                      UN3082

14.2 UN proper shipping name

**ADR**                                      3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(FOENICULUM VULGARE VAR. DULCE)

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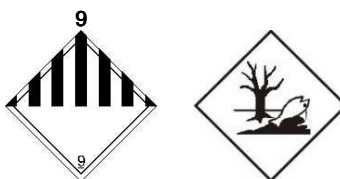
**IMDG** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(FOENICULUM VULGARE VAR. DULCE)  
**IATA** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(FOENICULUM VULGARE VAR. DULCE)

14.3 Transport hazard class(es)

**ADR**

**Class** 9 (M6) Miscellaneous dangerous substances and articles.

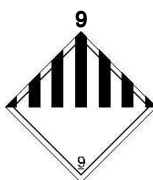
**Label**



**IMDG**

**Class** 9 Miscellaneous dangerous substances and articles.

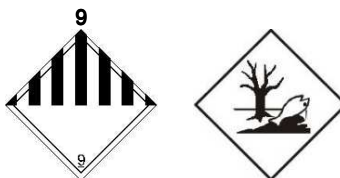
**Label**



**IATA**

**Class** 9 Miscellaneous dangerous substances and articles.

**Label**



14.4 Packing group

**ADR** III

**IMDG** III

**IATA** III

14.5 Environmental hazards:  
Not applicable.

14.6 Special precautions for user  
Warning: Miscellaneous dangerous substances and articles.

**Danger code (Kemler):** 90

**EMS Number:** F-A,S-F

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code  
Not applicable.

• Transport/Additional information:  
Not applicable.

**Excepted quantities (EQ):** E1

**Limited quantities (LQ)** 5L

**Transport category** 3

**IMDG**

**Limited quantities (LQ)** 5L

**Excepted quantities (EQ)** E1

• UN "Model Regulation":

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UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(FOENICULUM VULGARE VAR. DULCE), 9, III

**SECTION 15: Regulatory information**

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

- National regulations:
- Waterhazard class:  
Generally not hazardous for water.

15.2 Chemical safety assessment:  
A Chemical Safety Assessment has not been carried out.

**SECTION 16: Other information**

The information in this safety data sheet is based on the state of our knowledge at the date indicated. The information in this sheet must be regarded as a description of the safety requirements for the product, they are not to be considered a warranty or quality specification and have no contractual value on properties and application areas thereof. The information contained in this safety data sheet relate to the specific material designated and may not be valid with respect to the product associated with another product or process, unless it is specified in the text of this document.

The required information complies with EU regulations in force. It does not exempt the user from knowing and applying all the national regulations in force.

- **Relevant phrases**

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.
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.
H412	Harmful to aquatic life with long lasting effects.
- **Training hints**  
Minimum training in occupational risk prevention is recommended for personnel who will handle this product, in the purpose of facilitating the understanding and interpretation of this form of safety data in the same way as the labeling of the product.
- **Abbreviations and acronyms:**  
IFRA:International Fragrance Association IOFI:International Organization of the Flavor Industry  
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)  
IMDG: International Maritime Code for Dangerous Goods  
DOT: US Department of Transportation  
IATA: International Air Transport Association  
ICAO: International Civil Aviation Organisation  
GHS: Globally Harmonised System of Classification and Labelling of Chemicals  
EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative
- **Sources**  
IFRA/IOFI Labelling Manual, REACH registration dossier, supplier information
- \* Data compared to the previous version altered.