



Material Safety Data Sheet

According to EU Regulation 1907/2006 in the current version

Version 05-11-16

FENNEL SWEET ESSENTIAL OIL

1. Identification of the substance/preparation and the company

Trade name: Fennel sweet essential oil, 100% pure and natural
Essential oil obtained by steam distillation of seeds of Sweet Fennel from Hungary.
Foeniculum vulgare Miller var. Dulce

Utilisation: Raw material for perfume, aromatherapy, cosmetics

Supplier company: **Elemental SRL**, Piata Cazarmii no.15, 410188-Oradea, jud.Bihor, Romania

Identification: Tel/Fax: +40259-436.755, www.elemental.eu

Emergency: RO: numar national pentru cazuri de urgenta: 021 3183606 Institutul de Sanatate Publica Bucuresti. International emergency number: +49 180 2273-112

2. Hazards Identification

EC Dir. : Harmful , dangerous for the environment carcinogen cat 2 and mutagen cat 2
N(Dangerous for the environment), Xn(Harmful),R40(Limited evidence of a carcinogenic effect), R43(May cause sensitisation by skin contact), R22(Harmful if swallowed), R51/53(Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment), R65(Harmful: may cause lung damage if swallowed), R68(Possible risk of irreversible effects), S24(Avoid contact with skin.), S36/37(Use protective clothing and suitable gloves), S61(Avoid release to the environment. Refer to special instructions / safety data sheets.), S62(If swallowed, do not induce vomiting; seek medical advice immediately and show this container or label.)



CLP/GHS : FL 4, ATO 4(1350), AH 1, SCI 3, SS 1, CAR 2, MUT 2, EH A2,C2

SGH07, SGH08, SGH09, H227(Combustible liquid), H317(May cause an allergic skin reaction), H316(Causes mild skin irritation), H351(Suspected of causing cancer), H341(Suspected of causing genetic defects), H401(Toxic to aquatic life), H411(Toxic to aquatic life with long lasting effects), P262(Do not get in eyes, on skin, or on clothing), P280(Wear protective gloves/protective clothing/eye protection/face protection), P273(Avoid release to the environment), P301/330/331(IF SWALLOWED: Rinse mouth. Do NOT induce vomiting), P315(Get immediate medical advice/attention), P101(If medical advice is needed, have product container or label at hand), H302(Harmful if swallowed), H304(May be fatal if swallowed and enters airways)

Signal word: Danger

3. Composition / Information on ingredients

INCI NAME : FOENICULUM VULGARE OIL

CAS TSCA: 8006-84-6, CAS EINECS: 84455-29-8, FEMA: 2483, EINECS: 282-892-3

trans-Anethole	N°CAS : 4180-23-8	N°CE : 224-052-0	60-80%
N, Xi SGH07	R51/53 - R43 H303, H316, H317, H401	ATO 5(3000), SCI 3, SS 1, EH A2	
alpha-Pinene	N°CAS : 80-56-8	N°CE : 201-291-9	7%
Xn SGH02, SGH07, SGH08	R(10)-38-43-65 H226-303-304-315-317	FL 3, ATO 5(3700), SCI 2, SS 1B, AH 1	
beta-Pinene	N°CAS : 127-91-3	N°CE : 204-872-5	1%
Xn SGH02, SGH07, SGH08	R(10)-38-43-65 H226-304-315-317	FL 3, SCI 2, SS 1B, AH 1	
Limonene	N°CAS : 138-86-3	N°CE : 205-341-0	4.00%
Xi,N SGH07, SGH08, SGH09, SGH02	R10-38-43-50/53 H304, 315, 317, 410, 226	AH 1, SCI 2, SS 1B, EH A1,C1, FL 3	



Material Safety Data Sheet

According to EU Regulation 1907/2006 in the current version

Version 05-11-16

FENNEL SWEET ESSENTIAL OIL

Estragole	N°CAS : 140-67-0	N°CE : 205-427-8	3.00%
Xn, Xi	R22-40-43-65		
SGH07, SGH08	H227-302-316-317-351-341	FL 4, ATO 4(1230), SCI 3, SS 1, CAR 2, MUT 2	
delta-3-Carene	N°CAS : 13466-78-9	N°CE : 236-719-3	0.02%
Xn	R(10)-43-38-65		
SGH02, SGH07, SGH08	H226, 303, 304, 315, 317	ATO 5(4800); AH1, SCI 2; SS 1; FL 3	
p-Cymene	N°CAS : 99-87-6	N°CE : 202-796-7	0.30%
Xn,N	R(10)-51/53-65		
SGH08, SGH09	H226, 304, 303, 316, 411	ATO 5(4750); AH 1, SCI 3; EH A2,C2; FL 3	
Myrcene	N°CAS : 123-35-3	N°CE : 204-622-5	0.90%
Xn	R(10)-65-38		
SGH08, SGH02, SGH07	H304, 319, 226, 315	FL 3, AH 1, SCI 2, EDI 2A	
Anisic aldehyde	N°CAS : 123-11-5	N°CE : 204-602-6	0.2%
Xn	R22		
SGH07	H302, H316, H412	ATO 4(1500), SCI 3, EH A3	

4. First Aid

Inhalation : Remove affected person to fresh air. In case of beathing difficulty, seek medical advice

Eye contact : Flush with plenty of water for at least 15 min. Seek medical advice if symptoms persist

Skin contact : Remove contaminated clothing. Rinse affected area with plenty of water. Contact a physician if symptoms persist.

Ingestion : Rinse mouth out with water and seek medical advice immediately. Do not induce vomiting.

5. Fire-fighting Measures

5.1 Extinguishing media

Recommended : foam, dry powder, carbon dioxide (CO₂). Inadvisable : avoid full water jet.

5.2 Special hazards

In case of fire, toxic fumes like carbon monoxide and carbon dioxide may be liberated. Burning produces heavy smoke, do not inhale fumes.

5.3 Particular protective measures

Particular protective measures when fire-fighting: The pressure in the closed containers may increase with high temperature. Cool the endangered drums by water spraying or by an appropriate produce if water is not authorized.

5.4 Advice for firefighters

Move undamaged containers from immediate hazard area if it can be done safely. Use suitable breathing apparatus. Regard to self protection.

6. Accidental release measures:

6.1 Individual precautions

Remove all sources of ignition (Avoid all flammable sources. Do not smoke.) Provide adequate ventilation. Give a warning to people in the hazardous area. Wear personal protection equipment. Avoid contact with skin, eyes, and clothing.

6.2 Precautions for environmental conservation

Stop the substance to enter into drains and groundwater. Prevent spreading over a wide area.



Material Safety Data Sheet

According to EU Regulation 1907/2006 in the current version

Version 05-11-16

FENNEL SWEET ESSENTIAL OIL

6.3 Cleaning methods

Limit the dispersion of the product. Absorb the liquid with an inert absorbent, such as oil or sand. Wash with a grease extractor. Get rid of the duster and sponges used, according to local regulations.

7. Handling and Storage

7.1 Handling

Handle with care. Keep the product away from heat and light. Remove all sources of ignition. Do not eat, drink, or smoke when handling the product. Do not ingest the product. Wear personal protective clothing. Use only in well-ventilated areas.

7.2 Storage

Fit quantities according to container volume, avoid too important empty spaces. It is recommended to stock the product in its original packaging, tightly closed, sheltered from heat sources, air and light. Avoid important temperature variation. Keep in temperate and well-ventilated area. Respect the usual hygiene rules.

7.3 Specific end use(s): No data available (confer to above recommendations)

8. Exposure Controls and Personal Protection

8.1 Control parameters

No data available.



8.2 Exposure controls

Use in well ventilated areas. Follow usual hygiene rules. Wash hands after handling the product. Keep away from food and beverages. Provide accessible fire-extinguisher.

Respiratory protection: Generally unnecessary in a well-ventillated area. If ventilation is insufficient, respiratory protection must be worn. For pulverulent products, the wearing of a mask is recommended.

Hand protection: The wearing of chemical solvent and acid resistant gloves is necessary. (according to EN374 regulation).

Eye protection: The wearing of adequate safety glasses is advised. Prescription glasses do not qualify as safety glasses.

Contact lenses users should wear prescription and safety glasses while using the product.

Skin protection: Wear personal safety equipment. Handle the product with care, avoiding skin contact.

9. Physical and Chemical Properties

Appearance : Liquid at room temperature, crystallization may occure

Colour : colourless to pale yellow

Odour : Characteristic, anised-eartly

Flash point in °C (closed cup) : +63°

Specific gravity at 20°C : 0.944 to 0.973

Refractive index at 20°C : 1.514 to 1.538

Optical rotation at 20°C : +11° to +29°

Solubility : Soluble in ethanol

Main components: Trans-anethol, fenchone, methyl-chavicol, limonene

10. Stability and Reactivity

10.1 Condition to avoid

Excessive heat, open flames or other sources of ignotion. This product is stable at room temperature. Temperatures above room temperature will allow the transfer from liquid to vapour phase and the formation of explosive atmosphere.

10.2 Material to avoid or incompatible: strong acids, alkali or oxidizing agents

**Material Safety Data Sheet**

According to EU Regulation 1907/2006 in the current version

Version 05-11-16

FENNEL SWEET ESSENTIAL OIL**10.3 Dangerous decomposition products**

No dangerous decomposition product known, if used according to specifications.

11. Toxicological Information

Effect by ingestion: LD50 for the rat > 3800 mg/kg (source RIFM)

Effect by skin contact: LD50 for the rabbit > 5000 mg/kg (source RIFM)

Residual solvent(s) : not applicable

Cosmetics Allergens (1223/2009/EEC) : see section 16

IFRA restrictions : Sweet Fennel essential oil is not explicitly regulated by IFRA. It contains on average 0.03% methyl eugenol, 0.01% geraniol, 0.01% trans-2-hexenal, 3% estragole, 0.01% benzaldehyde classified "R", 4% limonene, 0.1% linalool classified "S".

12. Ecological Information

Avoid any pollution of soil, ground and surface waters. Biodegradability not determined.

12.1 Toxicity: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

12.2 Mobility: No data available.

12.3 Persistence et degradability: No data available.

12.4 Bio-accumulative potential: No data available.

12.5 PBT evaluation results: No data available.

12.6 Other adverse effects: No data available.

13. Disposal Considerations

In accordance with local environmental laws. Avoid disposing into drainage systems and into the environment.

14. Transport Information

Customs code : 33012941

Transport : UN 3082 Environmentally hazardous substance, liquid, n.o.s., 9, III

15. Additional Regulatory Information

Regulations specific for the substance or mixture: not available data

Chemical safety assessment: not available data

16. Other Information

Abbreviations:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

CAS: Chemical Abstracts Service (division of the American Chemical Society).

CLP: Classification, Labeling, Packaging.

DNEL: Derived No Effect Level.

EINECS: European Inventory of Existing Commercial Chemical Substances.

GHS: Globally Harmonized System of Classification and Labeling of Chemicals.

IATA: International Air Transport Association.

IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).

ICAO: International Civil Aviation Organization.

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).



Material Safety Data Sheet

According to EU Regulation 1907/2006 in the current version

Version 05-11-16

FENNEL SWEET ESSENTIAL OIL

IMDG: International Maritime Code for Dangerous Goods.

INCI: International Nomenclature of Cosmetic Ingredients.

LTE: Long-term exposure.

PNEC: Predicted No Effect Concentration.

RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.

STE: Short-term exposure.

STEL: Short Term Exposure limit.

STOT: Specific Target Organ Toxicity.

DECLARATION OF ALLERGENS

7th Amendment to Directive 76/768/EC, annex III, part I (2003/15/EC)

INCI Name	CAS No	Typical Contents in %
2-(TERT-BUTYL PROPIONALDE) (Lilial)	80-54-6	0
3-METHYL-4-(2,6,6 TRIMETHYL-2-CYCLOHEXINE-1-YL)-3-BUTEN-2-ONE	127-51-5	0
AMYL CINNAMAL	122-40-7	0
AMYL CINNAMYL ALCOHOL	101-85-9	0
ANISYL ALCOHOL (Anise alcohol)	105-13-5	0
BENZYL ALCOHOL	100-51-6	0
BENZYL BENZOATE	120-51-4	0
BENZYL CINNAMATE	103-41-3	0
BENZYL SALICYLATE	118-58-1	0
CINNAMAL (Cinnamic Aldehyde)	104-55-2	0
CINNAMYL ALCOHOL	104-51-6	0
CITRAL	5392-40-5	0
CITRONELLOL	106-22-9	0
COUMARIN	91-64-5	0
LIMONENE	5989-27-5	<= 4.9000
EUGENOL	97-53-0	0
FARNESOL	4602-84-0	0
GERANIOL	106-24-1	<= 0.0100
HEXYL CINNAMIC ALDEHYDE (Hexyl Cinnamal)	101-86-0	0
HYDROXYCITRONELLAL	107-75-5	0
HYDROXYMETHYL PENTYL CYCLOHEXENE CARBOXALDEHYDE (Lyrall)	31906-04-4	0
ISO EUGENOL	97-54-1	0
LINALOOL	78-70-6	<= 0.1000
METHYL HEPTINE CARBONATE	111-12-6	0
OAK MOSS EXTRACT (Evernia Prunastri)	90028-68-5	0
TREE MOSS EXTRACT (Evernia Furfuracea)	90028-67-4	0

Disclaimer:

This material safety data sheet does not constitute a guarantee of the properties of the product and is not a contractual legal report. The information is given in good faith on the basis of our best knowledge of the product at the indicated time. However, we cannot accept responsibility or liability for any consequences arising from its use, no warranty for correctness and completeness is given. We caution the users against the incurred possible risks when the product is used at other ends than the use for which it was initially planned. It is the user's responsibility during handling, storage and product use to consult the main regulatory texts in force regarding workers and environment protection.