



Material safety data sheet

According to EU Regulation 1907/2006 in the current version

PURE SWEET FENNEL ESSENTIAL OIL

1. Identification of the substance/mixture and company

Trade name:	Pure Sweet Fennel essential oil Natural product obtained by steam distillation of the seeds.
I.N.C.I.	Foeniculum Vulgare Dulce seed oil
CAS No. :	282-892-3
EINESCS No. :	84455-29-8
REACH pre-registration No. :	/
Utilization:	Raw material for cosmetic or professional use
Supplier company identification:	Elemental SRL , Piața Cazărmii no.15, 410188-Oradea, jud.Bihor, Romania Tel/Fax: +40259-436.755, www.elemental.eu
Emergency:	RO: număr național pentru cazuri de urgență: 021 3183606 Institutul de Sănătate Publică București. International emergency number: +49 180 2273-112

2. Hazards Identification

2.1 Classification of the substance or mixture

Classification according to EC Reg. 1272/2008 (Norm. GHS-CLP)

Skin corrosion/irritation, Category 2

Skin sensitization, Category 1

Germ cell mutagenicity, Category 2

Carcinogenicity, Category 2

Aspiration hazard, Category 1

Hazardous to the aquatic environment - Chronic Hazard, Category 2

The full text of the risk phrases and precautionary phrases cited below is shown in point 16 of this sheet.

Hazards: H315 – H317 – H341 – H351 – H304 – H411

Precautions: P201 – P261 – P264 – P280 – P301+P310+P331 – P308+P313 – P333+P313 – P362+P364 – P391

Special instructions: none

Adverse physicochemical, human health and environmental effects:

- Suspected of causing cancer.
- Suspected of causing genetic defects.
- Causes skin irritation.
- May cause an allergic skin reaction.
- May be fatal if swallowed and enters airways.
- Toxic to aquatic life with long lasting effects.

2.2 Label elements

Hazard pictograms:



Hazard statement:

H304 – May be fatal if swallowed and enters airways.



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- H315 – Causes skin irritation.
- 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 statement:

- P201 – Obtain special instructions before use.
- P261 – Avoid breathing dust/fume/gas/mist/vapors/spray.
- P264 – Wash hands, forearms and face thoroughly after handling.
- P280 – Wear protective gloves/protective clothing/eye protection/face protection.
- P301+P310+P331 – IF SWALLOWED: Immediately call a POISON CENTER/doctor/.... Do NOT induce vomiting.
- P308+P313 – IF exposed or concerned: Get medical advice/attention.
- 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.

Special instructions: none

2.3 Other hazards

No additional information available.

3. Declaration of ingredients

The product contains the following ingredients:

Substance	C.A.S.	EINECS	Hazard symbols	Percent %
(E)-Anethole	4180-23-8	224-052-0	H317	≤ 80%
Fenchone	1195-79-5	214-804-6	-	≤ 16%
alpha-Pinene	80-56-8	201-291-9	H226, H302, H315, H317, H304, H400, H410	≤ 7%
Methyl chavicol (estragol)	140-67-0	205-427-8	H317, H315, H341, H351, H412, H302	≤ 6%
(R)-p-mentha-1,8-diene, d-limonene	5989-27-5	227-813-5 (Index no. 601-029-00-7)	H226, H315, H317, H304, H400, H410	≤ 6%
Myrcene	123-35-3	204-622-5	H226, H315, H319, H304, H400, H411	≤ 2%
beta-Pinene	127-91-3	204-872-5	H226, H315, H317, H304, H400, H410	≤ 1%
p-Cymene	99-87-6	202-796-7	H361, H226, H304, H411	≤ 1%
Anethole (isomer unspecified)	104-46-1	203-205-5	H317	≤ 0.5%
Anisaldehyde	123-11-5	204-602-6	-	≤ 0.2%
(E)-beta-Ocimene	3779-61-1	223-241-5	-	≤ 0.2%
delta-3-Carene	13466-78-9	236-719-3	H317, H315, H226, H304, H410, H400, H332	≤ 0.1%



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4. First aid measures

4.1 Description of first aid measures

In case of contact with skin: Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.

In case of contact with eyes: Rinse eyes with water as a precaution.

In case of inhalation: Remove person to fresh air and keep comfortable for breathing.

In case of ingestion: Do not induce vomiting. Call a doctor immediately

4.2 Main symptoms and effects, both acute and delayed

Symptoms/effects after skin contact: Irritation. May cause an allergic skin reaction.

Symptoms/effects after ingestion: Risk of lung oedema.

4.3 Indication to consult a physician immediately or any special treatments

Treat symptomatically.

5. Fire fighting measures

5.1 Means of extinction

Suitable extinguishing media: Dry powder, foam, carbon dioxide.

Unsuitable extinguishing media: Do not use water jet.

5.2 Special hazards arising from the substance or mixture

During the fire toxic fumes could be released, use protective masks.

5.3 Recommendations for fire-fighters

Do not attempt to take action without suitable protective equipment: self-contained breathing apparatus, complete protective clothing.

6. Accidental release measures

6.1 Personal precautions, protective devices and emergency procedures

For non-emergency personnel

- Emergency procedures: Ventilate spillage area. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapors/spray.

For emergency responders

- Protective equipment: Do not attempt to take action without suitable protective equipment. For further information refer to section 8.

6.2 Environmental precautions

Avoid release to the environment.

6.3 Methods and materials for containment and remediation

For containment: Collect spillage.



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Methods for cleaning up: Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.

Other information: Dispose of materials or solid residues at an authorized site.

6.4 Reference to other sections

For further information refer to section 13.

7. Handling and storage

7.1 Precautions for safe handling

Ensure good ventilation of the work station. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapors/spray.

Hygiene measures: Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2 Conditions for safe storage, including any incompatibilities

Store locked up. Store in a well-ventilated place. Keep cool.

7.3 Specific end uses

No additional information available.

8. Exposure controls / personal protection

8.1 Control parameters

No additional information available.

8.2 Exposure controls



Hand protection: Wear protective gloves.

Skin protection: Wear suitable protective clothing.

Respiratory protection: [In case of inadequate ventilation] wear respiratory protection.

Eye protection: Wear safety glasses.

9. Physical and chemical properties

9.1 Information on physical and chemical properties

Physical state: Liquid

Appearance: liquid at room temperature, crystals can appear

Color: Colorless, pale yellow

Odor: aniseed, earthy

Odor threshold: No data available

pH: No data available



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Relative evaporation rate (butylacetate=1): No data available
Melting point: Not applicable
Freezing point: No data available
Boiling point: No data available
Flash point: 63 °C
Auto-ignition temperature: No data available
Decomposition temperature: No data available
Flammability (solid, gas): Not applicable
Vapor pressure: No data available
Relative vapor density at 20 °C: No data available
Relative density: 0.944 - 0.973
Solubility: No data available
Log Pow: No data available
Viscosity, kinematic: < 20 mm²/s
Viscosity, dynamic: No data available
Explosive properties: No data available
Oxidizing properties: No data available
Explosive limits: No data available

9.2 Other information

Refractive index: 1.514 - 1.543

10. Stability and reactivity

10.1 Responsiveness

The product is non-reactive under normal conditions of use, storage and transport.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of dangerous reactions

No dangerous reactions known under normal conditions of use.

10.4 Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5 Incompatible materials

No additional information available.

10.6 Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity (oral): Not classified

Acute toxicity (dermal): Not classified

Acute toxicity (inhalation): Not classified

Pure Sweet Fennel essential oil:

LD50 oral rat \approx 3800 mg/kg

LD50 dermal rabbit > 5000 mg/kg



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Skin corrosion/irritation: Causes skin irritation.
Serious eye damage/irritation: Not classified
Respiratory or skin sensitization: May cause an allergic skin reaction.
Germ cell mutagenicity: Suspected of causing genetic defects.
Carcinogenicity: Suspected of causing cancer.
Reproductive toxicity: Not classified
STOT-single exposure: Not classified
STOT-repeated exposure: Not classified
Aspiration hazard: May be fatal if swallowed and enters airways.
Viscosity, kinematic: < 20 mm²/s

12. Ecological information

12.1 Toxicity

Ecology - general: Toxic to aquatic life with long lasting effects.
Acute aquatic toxicity: Not classified
Chronic aquatic toxicity: Toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability

No additional information available.

12.3 Bioaccumulation potential

No additional information available.

12.4 Ground mobility

No additional information available.

12.5 Results of PBT and vPvB assessment

No additional information available.

12.6 Other adverse effects

No additional information available.

13. Disposal considerations

13.1 Waste treatment methods

Dispose of contents/container in accordance with licensed collector's sorting instructions.

14. Transport information

ADR / RID		IMDG		IATA	
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14.1 UN number

ADR: 3082

IMDG: 3082

IATA: 3082

Customs Code: 3301294100



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14.2 UN shipping name

ADR: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (alpha-Pinene)
IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (alpha-Pinene)
IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (alpha-Pinene)

14.3 Class of danger for transport

ADR: 9
IMDG: 9
IATA: 9

14.4 Packing group

ADR: III
IMDG: III
IATA: III

14.5 Environmental hazards

ADR:
- Dangerous for the environment: Yes
IMDG:
- Dangerous for the environment: Yes
- Marine pollutant: Yes
IATA:
- Dangerous for the environment: Yes

14.6 Special precautions for users

Overland transport

Classification code (ADR): M6
Special provisions (ADR): 274, 335, 375, 601
Limited quantities (ADR): 5I
Excepted quantities (ADR): E1
Packing instructions (ADR): P001, IBC03, LP01, R001
Special packing provisions (ADR): PP1
Mixed packing provisions (ADR): MP19
Portable tank and bulk container instructions (ADR): T4
Portable tank and bulk container special provisions (ADR): TP1, TP29
Tank code (ADR): LGBV
Vehicle for tank carriage: AT
Transport category (ADR): 3
Special provisions for carriage - Packages (ADR): V12
Special provisions for carriage - Loading, unloading and handling (ADR): CV13
Hazard identification number (Kemler No.): 90
Orange plates:



Tunnel restriction code (ADR) : -
EAC code: •3Z

Transport by sea

Special provisions (IMDG): 274, 335, 969



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Packing instructions (IMDG): P001, LP01
Special packing provisions (IMDG): PP1
IBC packing instructions (IMDG): IBC03
Tank instructions (IMDG): T4
Tank special provisions (IMDG): TP2, TP29
EmS-No. (Fire): F-A
EmS-No. (Spillage): S-F
Stowage category (IMDG): A

Air transport

PCA Excepted quantities (IATA): E1
PCA Limited quantities (IATA): Y964
PCA limited quantity max net quantity (IATA): 30kgG
PCA packing instructions (IATA): 964
PCA max net quantity (IATA): 450L
CAO packing instructions (IATA): 964
CAO max net quantity (IATA): 450L
Special provisions (IATA): A97, A158, A197
ERG code (IATA): 9L

Inland waterway transport

Classification code (ADN): M6
Special provisions (ADN): 274, 335, 375, 601
Limited quantities (ADN): 5 L
Excepted quantities (ADN): E1
Carriage permitted (ADN): T
Equipment required (ADN): PP
Number of blue cones/lights (ADN): 0

Rail transport

Classification code (RID): M6
Special provisions (RID): 274, 335, 375, 601
Excepted quantities (RID): E1
Packing instructions (RID): P001, IBC03, LP01, R001
Special packing provisions (RID): PP1
Mixed packing provisions (RID): MP19
Portable tank and bulk container instructions (RID): T4
Portable tank and bulk container special provisions (RID): TP1, TP29
Tank codes for RID tanks (RID): LGBV
Transport category (RID): 3
Special provisions for carriage – Packages (RID): W12
Special provisions for carriage - Loading, unloading and handling (RID): CW13, CW31
Colis express (express parcels) (RID): CE8
Hazard identification number (RID): 90

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code
Not applicable

15. Regulatory information

15.1 Regulations and legislation on health, safety and environment specific to the substance or mixture

EU regulations



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The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:	
Reference code	Applicable on
3 (a)	Myrcene; beta-Pinene; alpha-Pinene; p-Cymene; (R)-p-mentha-1,8-diene, d-limonene; delta-3-Carene
3 (b)	Pure Sweet Fennel essential oil; Myrcene; beta-Pinene ; Methyl chavicol (estragol); (E)-Anethole; alpha-Pinene; p-Cymene; (R)-p-mentha-1,8-diene, d-limonene; Anethole (isomer unspecified); delta-3-Carene
3 (c)	Pure Sweet Fennel essential oil; Myrcene; beta-Pinene; alpha-Pinene; p-Cymene; (R)-p-mentha-1,8-diene, d-limonene; delta-3-Carene

Pure Sweet Fennel essential oil is not on the REACH Candidate List.

Pure Sweet Fennel essential oil is not on the REACH Annex XIV List.

Pure Sweet Fennel essential oil is not subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.

Pure Sweet Fennel essential oil is not subject to Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC.

15.2 Chemical safety assessment.

No chemical safety assessment has been carried out.

16. Additional information

16.1 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).

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.

16.2 Full text of the H phrases mentioned in point 3:

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.

H411 – Toxic to aquatic life with long lasting effects.



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DECLARATION OF ALLERGENS

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

I.N.C.I.	C.A.S.	%
Alpha-Hexyl cinnamic aldehyde (HCA)	101-86-0	-
Amyl cinnamic alcohol	101-85-9	-
Amyl cinnamic aldehyde (ACA)	122-40-7	-
Anisyl alcohol	105-13-5	-
Benzyl salicylate	118-58-1	-
Benzyl benzoate	120-51-4	-
Benzyl cinnamate	103-41-3	-
Benzyl alcohol	100-51-6	-
Cinnamic alcohol	104-54-1	-
Cinnamic aldehyde	104-55-2	-
Citral	5392-40-5	≤ 0.1000
Citronellol	106-22-9	-
Coumarin (2p-1-benzopyran-2-one)	91-64-5	-
d-Limonene	5989-27-5	≤ 6.0000
Eugenol	97-53-0	-
Farnesol	4602-84-0	-
Geraniol	106-24-1	≤ 0.0100
Lylal (Hydroxymethylpentyl cyclohexene carbaldoxaldehyde)	31906-04-4	-
Hydroxycitronellal	107-75-5	-
Isoeugenol	97-54-1	-
alpha-Iso-methyl ionone	127-51-5	-
Linalool	78-70-6	≤ 0.2000
Methyl heptine carbonate	12/06/11	-
Oakmoss absolute	9000-50-4	-
p-tert-Butyl-alpha- methylhydrocinnamic aldehyde	80-54-6	-
Tree moss	68648-41-9	-

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.