

# **Material Safety Data Sheet**

According to EU Regulation 1907/2006 in the current version

#### **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 EC No. : 84455-29-8

Utilization: Raw material for personal care, aromatherapy

Supplier company identification: Elemental SRL, Piaţa Cazărmii no.15, 410188-Oradea, jud.Bihor, Romania

Tel/Fax: +40259-436.755, www.ellemental.com

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 Regulation (EC) No 1272/2008 (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 + P361 + P

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.

H315 - Causes skin irritation.

H317 – May cause an allergic skin reaction.

H341 – Suspected of causing genetic defects.

H351 – Suspected of causing cancer.



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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

#### 3.1. Substances

The product contains the following components to declare:

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%



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delta-3-Carene	13466-78-9	236-719-3	H317, H315, H226, H304,	≤ 0.1%
			H410, H400, H332	

## 3.2. Mixtures

Not Applicable

#### 4. First aid measures

#### 4.1 Description of first aid measures

General Information: In case of accident or unwellness, seek medical advice immediately, show directions for use or safety data sheet if possible.

After inhalation

In case of accident by inhalation: remove casualty to fresh air and keep at rest. In case of respiratory tract irritation, consult a physician.

After contact with skin

Gently wash with plenty of soap and water. In case of skin irritation, seek medical treatment.

After contact with eyes

Rinse cautiously with water for several minutes. In case of troubles or persistent symptoms, consult an ophthalmologist.

After ingestion

Rinse mouth thoroughly with water. Do NOT induce vomiting. In all cases of doubt, or when symptoms persist, seek medical advice.

## 4.2 Main symptoms and effects, both acute and delayed

Generally, if in doubt or if symptoms persist, consult a doctor. Never give anything by mouth to an unconscious person. It is recommended that those who provide first aid have a personal protective equipment. No action shall be taken involving any personal risk or without suitable training.

## 4.3 Indication to consult a physician immediately or any special treatments

In case of illness contact your physician immediately. Treat symptomatically. Contact a specialist for treatment of poisoning if large amounts are ingested or inhaled.

# 5. Fire fighting measures

# 5.1 Means of extinction

Suitable extinguishing media: Foam, Co2, Dry Chemical Powder.

Unsuitable extinguishing media: High power water jet.

## 5.2 Special hazards arising from the substance or mixture

During the fire toxic fumes could be released, use protective masks. Overpressure can be created in containers exposed to fire with danger of explosion, cool the containers before handling them

#### 5.3 Recommendations for fire-fighters

Always wear full fire protection equipment: protective helmet with visor, fireproof clothing, intervention gloves, breathing apparatus.

#### 6. Accidental release measures



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## 6.1 Personal precautions, protective devices and emergency procedures

In case of loss or spillage of the product, remove any flames or other sources of heat from the area where the leak occurred. Use protection if necessary for airways; protective clothing must be worn (eg. safety glasses or masks). Do not handle damaged containers or spilled product without wearing the appropriate protective equipment.

#### 6.2 Environmental precautions

Discharge into the environment must be avoided. Prevent the product from entering drains, superficial drains, groundwater and confined areas. In case of such contamination inform the competent authorities.

#### 6.3 Methods and materials for containment and remediation

Absorb spilled product with inert absorbent material: sand, vermiculite, diatomaceous earth. Collect most of the resulting material and deposit it in containers for disposal. Ensure adequate ventilation of the site.

6.4 Reference to other sections Refer to section 7, 8 and 13

## 7. Handling and storage

#### 7.1 Precautions for safe handling

Handle in accordance with good hygiene and safety practice. Keep containers sealed when not in use. Prevent spills & leaks to avoid slip hazard. Always wear personal protective clothing (refer to section 8). Do not eat, drink, or smoke whilst handling this product. Provide suitable mechanical equipment for the safe handling of drums & heavy packages.

## 7.2 Conditions for safe storage, including any incompatibilities

Keep the product container tightly closed, in a dry, ventilated area. Keep away from potential sources of ignition and protected from heat and light. Maintain limited contact with oxygen. Do not smoke. Store in original container or other container approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain residue product.

## 7.3 Specific end uses

No other that mentioned in section 1. Comply with regulations and specifications of the product.

## 8. Exposure controls / personal protection

## 8.1 Control parameters

Handle in accordance with good industrial hygiene and safety practice.

## 8.2 Exposure controls

Hand protection: Protect hands with category I work gloves (ref. Directive 89/686 / EEC and standard EN 374) such as latex, PVC or equivalent.

Skin protection: Wear work clothes with long sleeves and safety footwear for professional use of category I (ref. Directive 89/686 / EEC and standard EN 344). Wash with soap and water after removing protective clothing. Respiratory protection: Use protective masks. The use of respiratory protection is necessary in the absence of technical measures to limit worker exposure.

Eye protection: it is recommended to wear airtight protective goggles (ref. Standard EN 166).

#### 8.3 Environmental exposure controls



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Environmental protection legislation for every country must be observed.

## 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

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

None

## 10. Stability and reactivity

## 10.1 Reactivity

The product is stable under storage at normal ambient temperatures. In the presence of light and heat, oxidation can occur.

#### 10.2 Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature. No significant changes in the composition in time respecting the storage conditions

## 10.3 Possibility of dangerous reactions

According to our knowledge none in normal use. No hazardous reactions known if stored and handled as recommended.

#### 10.4 Conditions to avoid



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Do not heat to high temperature. Do not expose sealed containers in the sun. Keep away from sources of ignition.

#### 10.5 Incompatible materials

Concentrated acids, alkalis and oxidising agents.

## 10.6 Hazardous decomposition products

This product does not decompose under normal conditions. Under fire conditions the product will produce a mixture of irritating fumes and smoke

#### 11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity (oral): Not classified Acute toxicity (dermal): Not classified Acute toxicity (inhalation): Not classified

LD50 oral rat ≈ 3800 mg/kg LD50 dermal rabbit > 5000 mg/kg

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 mm<sup>2</sup>/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



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No additional information available.

#### 13. Disposal considerations

#### 13.1 Waste treatment methods

Always recover spilled product. Discard waste material with authorized waste management services. Act in accordance with local and national waste regulations.

## 14. Transport information

ADR / RID		IMDG	IATA	
	9		9	3

14.1 UN number ADR: 3082 IMDG: 3082 IATA: 3082

Customs Code: 3301294100

## 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



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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 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



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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

The following rest	rictions 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:



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ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR -Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Test-ing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regula-tion (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN -Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx -Loading rate associated with x% response; EmS - Emergen-cy Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration as-sociated with x% growth rate response; GHS - Globally Harmonized System; GLP -Good La-boratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships car-rying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - Interna-tional Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; INCI: International Nomenclature of Cosmetic Ingredients; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 -Lethal Concentration to 50 % of a test popula-tion; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - Interna-tional Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Ef-fect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT -Persistent, Bioaccumulative and Toxic sub-stance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quanti-tative) Structure Activity Relationship; PNEC: Predicted No Effect Concentration; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Re-striction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; STE: Short-term exposure; STEL: Short Term Exposure limit; STOT: Specific Target Organ Toxicity; TCSI -Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

16.2 Full text of the H phrases mentioned in section 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.

## **DECLARATION OF ALLERGENS**

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

I.N.C.I.	C.A.S.	Max %
Alpha-Hexyl cinnamic aldehyde (HCA)	101-86-0	-
Amyl cinnamic alcohol	101-85-9	-
Amyl cinnamic aldehyde (ACA)	122-40-7	-



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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
Lyral (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.