

SAFETY DATA SHEET (SDS)

Version 2.0

Revision Date : April 21,2022

Print Date : March 18, 2023

1. PRODUCT AND COMPANY IDENTIFICATION

| | | |
|-------------------|---|----------------------------|
| Product name | : | Fennel Sweet Essential Oil |
| Botanical name | : | Foeniculum vulgare dulce |
| INCI name | : | Foeniculum Vulgare Oil |
| CAS # | : | 8006-84-6 |
| Country of Origin | : | Hungary |
| Product use | : | Domestic and Industrial |

2. HAZARDS IDENTIFICATION

Emergency Overview

GHS Classification

Flammable liquids - Category 4

Aspiration toxicity - Category 1

Skin Sensitization - Category 1

Carcinogenicity - Category 2

Germ cell mutagenicity - Category 2

Hazardous to the aquatic environment - Chronic Category 2

GHS Label elements, including precautionary statements



Signal: Danger

Hazard statement(s)

| | |
|------|--|
| H227 | Combustible liquid. |
| 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 statement(s)

| | |
|-----------|--|
| P201 | Obtain special instructions before use. |
| P202 | Do not handle until all safety precautions have been read and understood. |
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P261 | Avoid breathing dust/fumes/gas/mist/vapours/spray. |
| P272 | Contaminated work clothing should not be allowed out of the workplace. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P281 | Use personal protective equipment as required. |
| P301+P310 | IF SWALLOWED: Immediately call a POISON CENTER/doctor. |
| P302+P352 | IF ON SKIN: Wash with plenty of water. |
| P308+P313 | If exposed: Call a POISON CENTER or doctor/physician. |
| P321 | Specific treatment (see section 4 on this label). |
| P333+P313 | If skin irritation or a rash occurs: Get medical advice/attention. |
| P363 | Wash contaminated clothing before reuse. |
| P370+P378 | In case of fire: Use appropriate fire extinguisher to extinguish. |
| P403+P235 | Store in a well ventilated place. Keep cool. |
| P405 | Store locked up. |
| P501 | Dispose of contents/container according to local regulations. |

Other Info

The substance does not meet persistent (P), bio-accumulation (B) and toxicity (T) criteria. The product is not PBT or vPvB.

3. COMPOSITION / INFORMATION INGREDIENTS

| Product Name | CAS NO | EC NO | Concentration |
|-----------------|-----------|-----------|---------------|
| trans-Anethole | 4180-23-8 | 224-052-0 | 70 - 80 % |
| Limonene | 5989-27-5 | 227-813-5 | 3 - 8 % |
| alpha-Pinenes | 80-56-8 | 201-291-9 | 1 - 7 % |
| Methyl Chavicol | 140-67-0 | 205-427-8 | ≤ 6 % |
| p-Cymene | 99-87-6 | 202-796-7 | 1.5 % |

4. FIRST AID MEASURES

Eye contact

Immediately flush eyes with plenty of cool water for at least 15 minutes. Get medical attention if irritation occurs.

Skin contact

Remove contaminated clothing. Wash area with soap and water. If irritation occurs, get medical attention.

Inhalation

If inhaled, removed to fresh air. Get medical attention if symptoms appear.

Ingestion

Seek medical attention or contact local poison control center.

5. FIRE FIGHTING MEASURES

Suitable extinguishing media

Foam. Dry Powder. Carbon dioxide.

Unsuitable extinguishing media

Water spray, water jet.

Special protective equipment and precautions for fire-fighters

Wear proper protective equipment. Exercise caution when fighting any chemical fire. Use water spray or fog for cooling exposed containers.

Special hazards arising from the substance or its combustible products

Hazardous decomposition products may be formed at extreme heat or if burned.

Resulting gases

Carbon oxides.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures.

Equip clean crew with proper protection. Respiratory protection equipment may be necessary.

Environmental precautions

Do not flush into surface water or sanitary sewer system. Notify authorities if product enters sewers or public waters.

Methods and materials for containment and cleaning up

Clean up any spills as soon as possible, using an absorbent material, such as sand, diatomite, acid binders, universal binders, sawdust, to collect it. Use suitable disposal containers.

7. HANDLING AND STORAGE

Precautions for safe handling

No direct lighting. No smoking. Ensure prompt removal from eyes, skin and clothing. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Handle in accordance with good industrial hygiene and safety procedures.

Conditions for safe storage, including any incompatibilities

Provide local exhaust or general room ventilation to minimize dust and/or vapour concentrations. Keep container closed when not in use.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Eyes

Use tightly sealed goggles.

Skin

If skin contact or contamination of clothing is likely, protective clothing should be worn. Use protective gloves.

Respiratory

In case of insufficient ventilation, wear suitable respiratory equipment.

Ingestion

Not for ingestion.

9. PHYSICAL AND CHEMICAL PROPERTIES

| | | |
|-------------|---|--|
| Appearance | : | Colorless to pale yellow clear liquid. |
| Odor | : | Characteristic spicy sweet woody odor. |
| Flash point | : | 62°C |

| | | |
|------------------|---|------------------------|
| Relative density | : | 0.953 to 0.973 @ 20 °C |
| Solubility (ies) | : | 1:1 in 90% alcohol. |
| Refractive index | : | 1.532 to 1.543 @ 20 °C |
| Optical rotation | : | +12° to +24° @ 20 °C |

10. STABILITY AND REACTIVITY

Reactivity

This material presents no significant reactivity hazard.

Chemical stability

Chemically stable.

Possibility of hazardous reactions

Hazardous polymerization will not occur.

Conditions to avoid

Avoid sparks, flame and other heat sources.

Incompatible materials

Strong oxidizing agents.

Hazardous decomposition products

Carbon Oxides.

11. TOXICOLOGICAL INFORMATION

Chronic toxicity

May cause allergic reactions on skin.

Inhalation

Inhalation of high concentrations of vapor may result in irritation of eyes, nose and throat, headache, nausea, and dizziness.

Skin contact

Adverse skin effects should be prevented by normal care and personal hygiene.

Eye contact

Possible irritation should be prevented by wearing safety glasses.

Ingestion

Low order toxicity causing irritation of the stomach and intestines which results in nausea and vomiting

12. ECOLOGICAL INFORMATION

Ecotoxicity

Toxic to aquatic organisms, may cause long-term adverse effects environment. Avoid any pollution of ground, surface or underground water.

Persistence and degradability

Not available.

Bio - accumulative potential

Not available.

Mobility in soil

Not available.

Other adverse effects

Not available.

13. DISPOSAL CONSIDERATION

Dispose of product in accordance with local, state or provincial and federal regulations. Check with local municipal authority to ensure compliance.

14. TRANSPORT INFORMATION

UN Number

3082

UN proper shipping name

Environmentally hazardous substance, liquid, n.o.s. (Fennel oil)

Transport hazard class

9

Packing group

III

US DOT Shipping Description (Land)

3082

Proper shipping name

Environmentally hazardous substance, liquid, n.o.s. (Fennel oil)

Class

9

Packaging group

III

IMO-IMDG Shipping Description (Sea)

3082

Proper shipping name

Environmentally hazardous substance, liquid, n.o.s. (Fennel oil)

Class

9

Packaging group

III

IMDG-Marine pollution

Yes.

IATA Shipping Description (Air)

3082

Proper shipping name

Environmentally hazardous substance, liquid, n.o.s. (Fennel oil)

Class

9

Packaging group

III

15. REGULATORY INFORMATION

California Proposition 65

• This product can expose you to Estragole, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

• This product can expose you to beta-Mycrene, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

GHS Hazard Statements

Please refer to section 2.

GHS Precautionary Statements

Please refer to section 2.

16. OTHER INFORMATION

Revision date : April 21,2022

CERTIFICATE OF ANALYSIS**Product** : **Fennel Sweet Essential Oil**

Lot No : 11054A10822

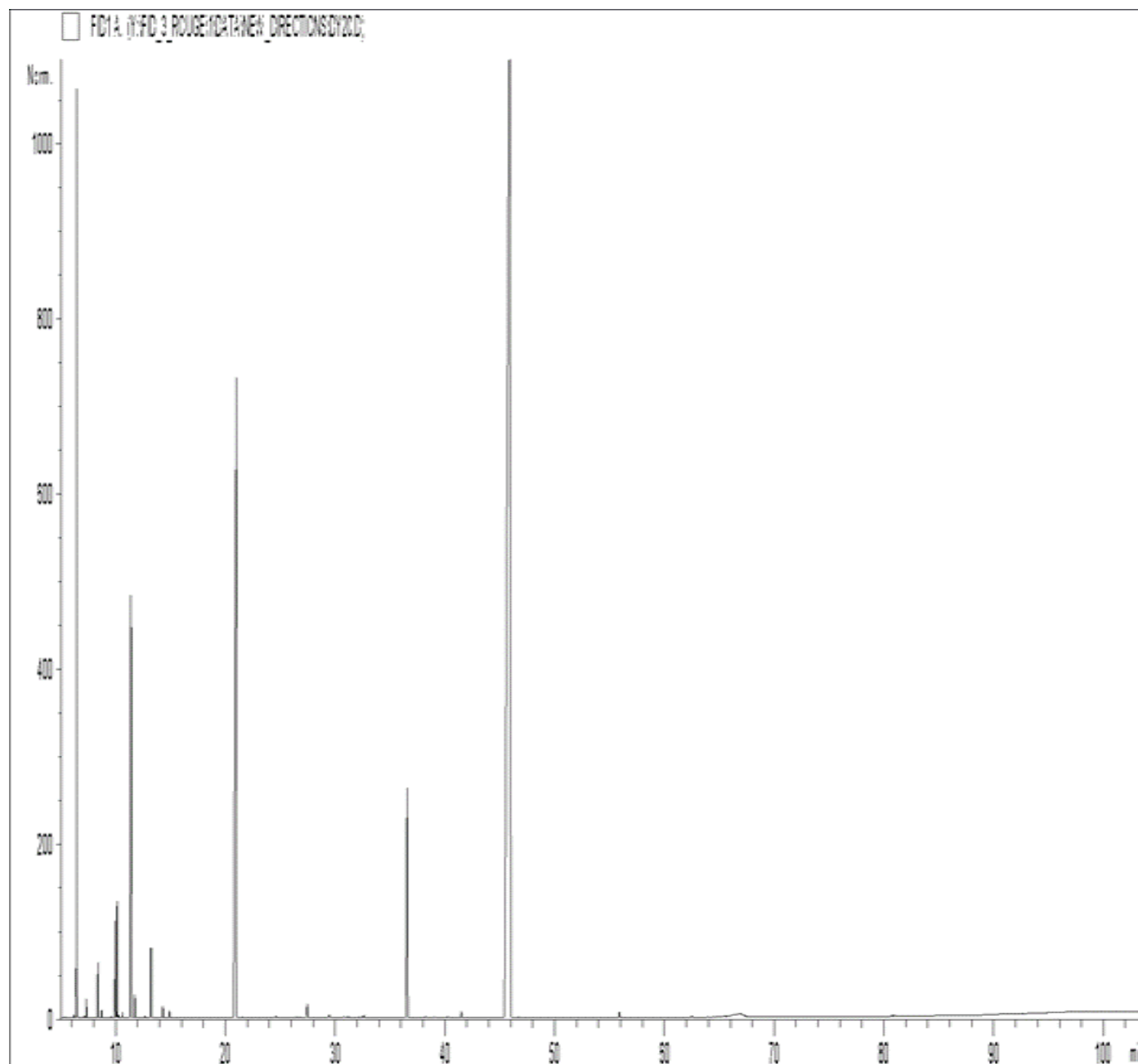
Best Before : July, 2024

| <u>Properties</u> | <u>Specifications</u> | <u>Results</u> |
|--------------------------|--|-----------------------|
| Appearance | : Colorless to pale yellow clear liquid. | Complies |
| Odor | : Characteristic spicy sweet woody odor. | Complies |
| Solubility | : 1:1 in 90% alcohol. | Complies |
| Specific Gravity | : 0.9530to 0.9735@ 20°C | 0.960 |
| Refractive Index | : 1.525 to 1.546 @ 20 °C | 1.530 |
| Optical Rotation | : + 8.0° to +24° @ 20°C | 16.220 |
| Trans-Anethol | : 60 - 80 % | 67.9 |
| Fenchon | : 8 - 20 % | 16.8 |
| Estragol | : 2 - 6 % | 2.0 |

GCMS ANALYSIS

PRODUCT NAME: FENNEL SWEET ESSENTIAL OIL - 11054

DATE: March 03, 2021



Due to volume turnover, this report is not lot specific, It is representative of the quality of this oil produced by the manufacturer of this product, Specific lots may vary slightly as is the case in natural products,

GCMS ANALYSIS (cont'd.)

PRODUCT NAME: FENNEL SWEET ESSENTIAL OIL - 11054

| Peak | RT (min) | Compound | % |
|------|----------|---------------------------|--------------|
| 1 | 4,93 | ISOVALERALDEHYDE | 0,01 |
| 2 | 6,19 | TRICYCLENE | 0,02 |
| 3 | 6,40 | alpha-PINENE | 6,42 |
| 4 | 6,47 | alpha-THUYENE | 0,02 |
| 5 | 7,16 | alpha-FENCHENE | 0,01 |
| 6 | 7,35 | CAMPHENE | 0,12 |
| 7 | 8,38 | beta-PINENE | 0,39 |
| 8 | 8,71 | SABINENE | 0,05 |
| 9 | 9,56 | delta3-CARENE | 0,01 |
| 10 | 9,94 | beta-MYRCENE | 0,79 |
| 11 | 10,12 | alpha-PHELLANDRENE | 0,90 |
| 12 | 10,25 | psi-LIMONENE | 0,02 |
| 13 | 10,61 | alpha-TERPINENE | 0,04 |
| 14 | 11,38 | LIMONENE | 5,03 |
| 15 | 11,70 | 1,8-CINEOLE | 0,04 |
| 16 | 11,72 | beta-PHELLANDRENE | 0,15 |
| 17 | 12,65 | cis-beta-OCIMENE | 0,01 |
| 18 | 13,22 | gamma-TERPINENE | 0,65 |
| 19 | 13,40 | trans-beta-OCIMENE | 0,01 |
| 20 | 14,11 | m-CYMENE | 0,01 |
| 21 | 14,28 | p-CYMENE | 0,11 |
| 22 | 14,88 | TERPINOLENE | 0,06 |
| 23 | 15,16 | OCTANAL | 0,01 |
| 24 | 20,99 | FENCHONE | 16,78 |
| 25 | 24,59 | trans-THUYANOL | 0,02 |
| 26 | 26,43 | alpha-COPAENE | 0,01 |
| 27 | 27,46 | CAMPHOR | 0,18 |
| 28 | 29,40 | trans-2-PINANOL | 0,01 |
| 29 | 29,47 | LINALOOL | 0,03 |
| 30 | 30,80 | LONGIFOLENE | 0,02 |

GCMS ANALYSIS (cont'd.)

PRODUCT NAME: FENNEL SWEET ESSENTIAL OIL - 11054

| Peak | RT (min) | Compound | % |
|------|----------|----------------------------|--------------|
| 31 | 31,19 | alpha-cis-BERGAMOTENE | 0,02 |
| 32 | 31,52 | FENCHOL | 0,01 |
| 33 | 32,17 | alpha-trans-BERGAMOTENE | 0,02 |
| 34 | 32,48 | beta-CARYOPHYLLENE | 0,03 |
| 35 | 32,67 | TERPINENE-4-OL | 0,04 |
| 36 | 33,25 | AROMADENDRENE | 0,01 |
| 37 | 34,15 | trans-p-MENTHA-2,8-DIENOL | 0,01 |
| 38 | 36,56 | ESTRAGOL | 3,76 |
| 39 | 38,21 | alpha-TERPINEOL | 0,02 |
| 40 | 39,05 | GERMACRENE D | 0,01 |
| 41 | 40,24 | CARVONE | 0,01 |
| 42 | 41,49 | cis-ANETHOL | 0,09 |
| 43 | 41,85 | GERANYL ACETATE | 0,01 |
| 44 | 44,35 | SABINOL ISOMER | 0,01 |
| 45 | 45,95 | trans-ANETHOL | 63,85 |
| 46 | 46,69 | GERANIOL | 0,01 |
| 47 | 55,88 | ANISALDEHYDE | 0,08 |
| 48 | 62,48 | ANICETONE | 0,02 |
| 49 | 63,95 | METHYLISOEUGENOL | 0,01 |
| 50 | 65,36 | THYMOL | 0,01 |
| 51 | 65,49 | GERANYLGERANIADIENE ISOMER | 0,01 |
| 52 | 80,74 | 3-METHOXYCINNAMALDEHYDE | 0,01 |
| 53 | 95,11 | bis-ETHYLHEXYL ADIPATE | 0,01 |
| | | TOTAL | 99,99 |

Limitación de Responsabilidad

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