

# BIORUŽA, s. r. o.

Laborecká 1, 010 01 Žilina, IČO: 52234070, IČ DPH: SK2120953802, tel. : 00421 905 864 140, [info@bioruza.sk](mailto:info@bioruza.sk)

## SAFETY DATA SHEET (SDS)

(According to Regulation (EC) No. 2015/830)

According to Regulation (EC) No 1907/2006, modified by the Commission Regulation (EU) 2020/878

**Essential Oil:** Fennel

**SDS Created:** 10, June 2025

**Revision Date:** 10, June 2027

### CHAPTER 1: IDENTIFICATION OF THE PRODUCT AND COMPANY

#### 1.1 Globally Harmonized System (GHS) product identifier

Product name: Fennel

Latin name of botanical source: *Foeniculum vulgare*

INCI Name: Foeniculum Vulgare (Fennel) Oil

#### 1.2 Company name: BIORUŽA s.r.o.

Company address: Laborecká 1, 01001 Žilina

Slovakia

Company contact: 00421 905 864 140

[info@bioruza.sk](mailto:info@bioruza.sk)

[www.bioruza.sk](http://www.bioruza.sk)

#### 1.3 Emergency phone number:

National Toxicology Information Center: Phone: 02/54774166

### CHAPTER 2: HAZARD(S) IDENTIFICATION

#### 2.1 Classification of the substance or mixture

Aspiration Hazard, Category 1

Skin Sensitization, Category 1

Germ cell mutagenicity, Category 2


Carcinogenicity, Category 2

Hazardous to aquatic environment Short term/Acute, Category 2

Hazardous to aquatic environment Long term/Chronic, Category 2

#### 2.2 GHS label elements, including precautionary statements

Signal Word	Hazardous Statement	Precautionary Statement	Hazard Pictograms
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<p>Danger</p>	<p>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  H401 - Toxic to aquatic life  H411 - Toxic to aquatic life with long-lasting effects</p>	<p>P102 - Keep out of reach of children.  P210 – Keep away from flames and hot surfaces. No smoking.  P280 – Wear protective gloves/eye protection/face protection.  P370 + P378 – In case of fire: Use dry sand, dry chemical, or alcohol-resistant foam for extinction.  P403 + P235 – Store in well-ventilated place. Keep cool.  P501 – Dispose of contents/container to an</p>	
		<p>approved waste disposal plant.  P301 + P310 – IF SWALLOWED: Immediately call a POISON CENTER/doctor/physician.  P331 – Do NOT induce vomiting.  P405 – Store locked up.  P261 –Avoid breathing dust/fume/gas/mist/vapours/spray.  P272 –Contaminated work clothing should not be allowed out of the workplace.  P302 + P352 – IF ON SKIN: Wash with plenty of water/soap.  P333 + P313 –If skin irritation or rash occurs: Get medical advice/attention.  P362 + P364 –Take off contaminated clothing and wash before reuse.  P201 – Obtain special instructions before use.  P202 – Do not handle until all safety precautions have been read and understood.  P308 + P313 – IF exposed or concerned: Get medical advice/attention.  P273 – Avoid release to the environment.  P391 – Collect spillage.</p>	

### 2.3 Other hazards that do not result in classification

May cause skin irritation/allergy. Patch test recommended.

## CHAPTER 3: COMPOSITION / INFORMATION ON INGREDIENTS

### 3.1 Composition

Chemical Name (common name)	CAS# TSCA	CAS# EINECS	ICSC#	RTECS#	UN#	EINECS#	% by weight
Fennel Oil	8006-84-6	84455-29-8	N/A	N/A	N/A	282-892-3	100 %
EU Allergens:							
Limonene	138-86-3	N/A	N/A	N/A	N/A	N/A	≤10 %
Linalool	78-70-6	N/A	N/A	N/A	N/A	N/A	≤0.03 %
Prop 65:							
Estragole	140-67-0	N/A	N/A	N/A	N/A	N/A	≤4 %
Myrcene	123-35-3	N/A	N/A	N/A	N/A	N/A	0.5-1.5 %

## CHAPTER 4: FIRST-AID MEASURES

### 4.1 Description of necessary first-aid measures (of Substance)

#### Eye contact:

Check for and remove any contact lenses. Flush with water for 15 minutes. If symptoms persist get medical attention.

#### Skin Contact:

No harmful effect with normal skin. If skin irritation does occur, wash with water and soap and rinse thoroughly. If skin irritation continues, consult a doctor.

#### Inhalation:

Not likely to occur under normal conditions of use. If symptoms occur, move to fresh air and obtain medical advice.

**Ingestion:**

Not an expected route of exposure. In the event of swallowing, if the quantity is small (no more than one mouthful), rinse the mouth with milk or water and consult a doctor. Keep the exposed person at rest. Do NOT force vomiting unless directed to do so by medical personnel. Seek immediate medical attention and show the Substance's label to medical personnel.

**4.2 Most important symptoms and effects, both acute and delayed (of Substance)**

**Eye contact:**

May cause eye irritation and corneal damage if not immediately rinsed out.

**Skin Contact:**

Repeated contact may cause allergic dermatitis.

**Inhalation:**

Breathing high concentrations of vapor may cause anesthetic effects.

**Ingestion:**

Not an expected route of exposure.

**4.3 Indication of any immediate medical attention and special treatment needed (of Substance)**

None known.

**CHAPTER 5: FIRE-FIGHTING MEASURES**

**5.1 Flash point**

+72°C

**5.2 Extinguishing media**

*Suitable extinguishing media:* sprayed water or water mist, alcohol-resistant foam, multipurpose ABC powder, BC powder, carbon dioxide (CO<sub>2</sub>)

*Unsuitable extinguishing media:* water jet (straight stream).

**5.3 Specific hazards arising from the chemical**

None known.

**5.4 Special protective actions for firefighters**

Use self-contained breathing apparatus and protective clothing.

**CHAPTER 6: ACCIDENTAL RELEASE MEASURES**

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

Stop leak if you can do so without risk. Consult safety measures listed under CHAPTERS 7 and 8.

**For fire-fighters:**

Fire-fighters will be equipped with suitable personal protective equipment (See CHAPTER 8). High temperature may increase the pressure inside the container—cool the container by sprinkling water. Avoid breathing emitted vapors.

**6.2 Environmental precautions**

Contain and control the leaks or spills with non-combustible absorbent materials such as sand, earth, vermiculite, or diatomaceous earth in drums for waste disposal. Avoid allowing product to reach sewage system or any waterways. Inform respective authorities in case of seepage into sewage system or waterways.

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

Absorb spill with non-combustible matter (such as detergent—do not use solvents) and transfer to containers.

**CHAPTER 7: HANDLING AND STORAGE**

**7.1 Precautions for safe handling**

Handle in accordance with good industrial hygiene and safety practice. Avoid unintentional contact with skin surfaces. Wear suitable protective clothing. Avoid inhalation. Ensure good ventilation or exhaust in workplace. Do not allow contact with eyes. Always wash hands after handling. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas.

## 7.2 Conditions for safe storage, including any incompatibilities

Store in closed glass containers, away from heat, light and other sources of ignition. Store in cool area.

## CHAPTER 8: EXPOSURE CONTROL / PERSONAL PROTECTION

### 8.1 Control parameters

OSHA TWA: None established

OSHA STEL: None established

ACGIH TWA: None established

ACGIH STEL: None established

NOHSC TWA: None established

NOHSC STEL: None established

### 8.2 Appropriate engineering controls

General room or local exhaust ventilation is usually required to meet exposure limit(s). Electrical equipment should be grounded and conform to applicable electrical code.

### 8.3 Individual protection measures

#### Personal protective equipment:

Use personal protective equipment that is clean and has been properly maintained. Store personal protective equipment in a clean place away from the work area. Never eat, drink, or smoke during use. Remove and wash contaminated clothing before re-using.

#### Eye/face protection:

Avoid contact with eyes. Use eye protectors (safety goggles in accordance with standard EN166) designed to protect against liquid splashes.

#### Hand protection:

Wear suitable protective gloves (resistant to chemical agents in accordance with standard EN374) in the event of prolonged or repeated skin contact.

Type of gloves recommended: Nitrile rubber (butadiene-acrylonitrile copolymer rubber (NBR)) or PVA (Polyvinyl alcohol).

**Body protection:** Work clothing worn by personnel shall be laundered regularly. After contact with the product, all parts of the body that have been soiled must be washed.



## CHAPTER 9: PHYSICAL CHEMICAL PROPERTIES

**Physical state:** Transparent liquid

**Color:** Colorless to pale yellow

**Odor:** Sweet, anise, refreshing, characteristic of Fennel

**Miscibility in water:** Insoluble

**Miscibility in alcohol:** Soluble

**Miscibility in essential oil:** Soluble

**Liposolubility:** Liposoluble

**pH:** Not applicable

**Boiling point/boiling range:** Not specified

**Flash Point:** +72

**Vapor pressure:** Not specified

**Evaporation rate:** Not specified

**Density:** Not specified

**Water solubility:** Insoluble

**Self-ignition temperature:** Not specified

**Decomposition point/decomposition range:** Not specified

**Refractive index @ 20°C:** 1.52 – 1.56

**Partition coefficient:** Not specified

**Specific gravity @ 20 °C:** 0.950 – 0.985

## CHAPTER 10: STABILITY AND REACTIVITY

### 10.1 Reactivity

Not reactive.

### 10.2 Chemical stability

This substance is stable under the recommended handling and storage conditions in CHAPTER 7.

### 10.3 Possibility of hazardous reactions

When exposed to high temperatures, the substance may release hazardous decomposition products, such as carbon monoxide, carbon dioxide, fumes, and nitrogen oxide.

### 10.4. Conditions to avoid

None known.

### 10.5 Incompatible materials

Alkali metals, ammonia, oxidizing agents, peroxides strong inorganic acids.

### 10.6 Hazardous decomposition products

The thermal decomposition may release/form carbon monoxide (CO) and carbon dioxide (CO<sub>2</sub>).

## CHAPTER 11: TOXICOLOGICAL INFORMATION

### 11.1 Substance

#### Acute toxicity:

No data available.

#### Skin corrosion/irritation:

May be irritating to skin.

#### Serious eye damage/irritation:

May be irritating to eyes. Prompt rinsing and removal of the substance will avoid damage.

#### Respiratory sensitization:

Breathing high concentrations of vapor may cause anesthetic effects.

#### Germ cell mutagenicity:

Category 2

#### Carcinogenicity:

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

#### Reproductive toxicity:

Not specified

#### STOT-single exposure:

Not specified

#### STOT-related exposure:

Not specified

#### Aspiration hazard:

Not specified

### 11.2 Information on the likely routes of exposure

Skin/scalp contact.

### 11.3 Symptoms related to the physical, chemical, and toxicological characteristics

None known. Irritation of the eye if exposed. Redness of the skin if irritated.

### 11.4 Delayed and immediate effects and also chronic effects from short-term and long-term exposure

Exposure to vapors from this solvent in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on kidney, liver, and central nervous system. Repeated or prolonged contact with the substance may cause removal of natural oil from the skin, resulting in non-allergic contact dermatitis and absorption through the skin. Splashes in the eyes may cause irritation and reversible damage.

#### **11.6 Interactive effects**

Not specified

#### **11.7 Where specific chemical data are not available**

Not specified

#### **11.8 Substances**

Not specified

#### **11.9 Substances verses ingredient information**

Not specified

Other Information

None

## **CHAPTER 12: ECOLOGICAL INFORMATION**

### **12.1 Info summery of Ecological information**

Balance of data on substance as a whole, not determined.

### **12.2 Eco toxicological properties of specific substances**

See each category below for specific substances

#### **12.3 Toxicity**

##### **Acute fish toxicity:**

LC50 / 96 HOUR – No data available

Toxicity to aquatic plants – No data available

Toxicity to microorganisms – No data available

Toxicity threshold – No data available

#### **12.4 Persistence and degradability**

Biodegradation is expected

#### **12.5 Bio-accumulative potential**

Bioaccumulation is unlikely

#### **12.6 Mobility in soil**

Unknown

#### **12.7 Other adverse effect**

Avoid exposure to marine environments and waterways

## **CHAPTER 13: DISPOSAL CONSIDERATIONS**

### **13.1 Waste treatment methods**

Do not pour into drains or waterways. Observe all federal, state, and local environmental regulations. Member State-specific and Community-specific provisions must be considered. Considering the relevant known environmental and human health hazards of the materials, review and implement appropriate technical and procedural wastewater and waste disposal measures to prevent occupational exposure and environmental release. It is recommended that waste minimization be practiced. The best available technology should be utilized to prevent environmental release. This may include destructive techniques for waste and wastewater. In extreme situations, contact a licensed professional waste disposal service to dispose of this material.

#### **Waste:**

Proper waste management of the substance and/or its container must be determined in accordance with Directive 2008/98/EC. Do not pour into

drains or waterways. Waste management is carried out without endangering human health, without harming the environment, and in particular without risk to water, air, soil, plants, or animals. Recycle or dispose of waste in compliance with current legislation, preferably via a certified collector or company.

**Soiled packaging:**

Empty all containers completely. Keep label(s) on every container. Give to a certified disposal contractor.

**CHAPTER 14: TRANSPORT INFORMATION**

**14.1 UN Number**

Not regulated

**14.2 UN Proper shipping name**

Not regulated

**14.3 Transportation hazard classes**

Road (U.S. DOT): Not

regulated

Air (IATA):

Not regulated

Sea (IMDG): Not regulated

**14.4 Packing group, if applicable**

N/A

**14.5 Environmental hazards**

Substance not determined. Avoid exposure to waterways.

**14.6 Special precautions for user**

Not specified

**14.7 Transport in bulk according to Annex II of MARPOL 73/78<sup>o</sup> and IBC Code**

Not specified

**14.8 Additional transport information**

Not specified

**CHAPTER 15: REGULATORY INFORMATION**

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

<b>Country</b>	<b>Notification</b>
EU	See EU Allergens in Section 3

**CHAPTER 16: OTHER INFORMATION**

**Disclaimer:**

The information in this Safety Data Sheet (SDS) is believed to be accurate as of the date issued. The information provided relates only to the specified product designated and may not be applicable where such product is used in combination with any other materials or in any process. Since the conditions and methods of handling, storage, use and disposal of the product are beyond the control of BIORUŽA s.r.o., BIORUŽA s.r.o expressly disclaims any and all liability, loss or damage arising out of or relating to the use, storage, handling or disposal of the product or reliance on the information in this SDS. Users are cautioned to satisfy themselves as to the suitability of said information, procedures and recommendations for the purposes intended prior to use.