

BIORUŽA, s. r. o.

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MATERIAL SAFETY DATA SHEET

Created on: 15.06.2025

Under Regulation № 830/2015 (EU)

Version No: 3.00

1 - Identification of Product and Supplier

1.1. Product Identification

Product Name: Clove Leaf Essential Oil

INCI Name: Eugenia Caryophyllus Leaf Oil

Chemical composition: The volatile oil obtained by steam distillation of the leaves of Eugenia caryophyllus.

H-No: 3301291100

CAS No: 8015-97-2 / 8000-34-8 / 84961-50-2

Status: Natural

FEMA: 2325

IFRA: Restricted

Additives: None

EC No: 284-638-7

EINECS No: - / - / 284-638-7

CoE No: 188n

FDA: 184.1257

RIFM: Monograph

REACH registration number: Due to its natural (non-chemical) of natural origin are exempt from REACH registration European Union L286/16 (9/10/08); Directive 67/548/EEC

1.2. Relevant identified uses of the substance or mixture and uses

Application: Skincare, aromatherapy, Masking, Perfuming, Skin conditioning, Tonic

Uses advised against: No data

1.3. Supplier data

Producer: The Kerfoot Group Ltd

Address: Olive House, Standard Way Industrial Estate, Darlington Road, Northallerton, North Yorkshire, England

Supplier for Bulgaria: **BIORUŽA s.r.o**

Address: Laborecká 1, 01001 Žilina, Slovakia

Tel/Fax: 00421 905 864 140

Email: info@bioruza.sk

URL website: www.bioruza.sk

1.4. Emergency Contact

Tel: National Toxicology Information Center: Phone: 02/54774166

2 - Hazards identification:

2.1. Substance or mixture classification

SGH Classification:

(Legislation CLP)

AH1 Aspiration hazard 1

EDI1 Serious eye damage / eye irritation 1

EHC3 Hazardous to the aquatic environment, long-term hazard 3

SCI2 Skin corrosion / irritation 2

SS1 Sensitisation skin 1

H304 - May be fatal if swallowed and enters airways.

H315 - Causes skin irritation

H317 - May cause an allergic skin reaction

H318 - Causes serious eye damage.

H412 - Harmful to aquatic life with long lasting effects.

Classification according to EU Directives 67/548/EEC and 1999/45/EC:

- Health Hazards : Xi

R38:Irritating to skin.

R41:Risk of serious damage to eyes.

R43:May cause sensitization by skin contact.

- Environmental Hazards : N

R51-53:Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

2.2. Label elements

According to Regulation (EC) No 1272/2008 on the classification, labeling and packaging of substances and mixtures.

Label Informationn:

SGH Classification:

(LegislationCLP)

Mention d'avertissement : Danger

AH1 Aspiration hazard 1

ED11 Serious eye damage / eye irritation 1

EHC3 Hazardous to the aquatic environment, long-term hazard 3

SCI2 Skin corrosion / irritation 2

SS1 Sensitisation skin 1

Hazards Statement:

H304 - May be fatal if swallowed and enters airways.

H315 - Causes skin irritation

H317 - May cause an allergic skin reaction

H318 - Causes serious eye damage.

H412 - Harmful to aquatic life with long lasting effects.

Safetyphrases:

Safetyphrases (PREVENTION):

P261 - Avoid breathing dust/fume/gas/mist/vapours/spray

P264 - Wash ... thoroughly after handling

P272 - Contaminated work clothing should not be allowed out of the workplace

P273 - Avoid release to the environment

P280 - Wear protective gloves/protective clothing/eye protection/face protection

Safetyphrases(RESPONSE):

P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.



Classification according to EU Directives 67/548/EEC and 1999/45/EC:

- Health Hazards : Xn

R38:Irritating to skin.

R41:Risk of serious damage to eyes.

R43:May cause sensitization by skin contact.

- Environmental Hazards : N

R51-53:Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

S24: Avoid contact with skin.

S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S37: Wear suitable gloves.

S39: Wear eye/face protection.

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.

In accordance with Directive 67/548/EEC on classification, packaging and labeling of dangerous substances.

Labeling Information :



Xn - Nocif



N - Dangereux pour l'environnement

2.3. Other hazards

PBT/vPvB assessment :

According to Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH)

No data available.

3 - Composition and information on ingredients:

Category:

Substance

Substances representing the danger: Composition: (Hold for the classification in "IFRA IOFI LM-2011")

Chemical Name	No. CE	No. CAS	%
Eugenia Caryophyllus Leaf Oil	284-638-7	8015-97-2 / 8000-34-8 / 84961-50-2	100

Components list :

3.1. Substances

Material	C.A.S	EINECS	Risk Symbol	GHS classification	Percent %
Citronellol	106-22-9	203-375-0	N, Xi R38 R43 R51-53	ED12, SC12, SS1 - H315, H317, H319	[20-40]
Geraniol	106-24-1	203-377-1	Xi R38 R41 R43	ED11, SC12, SS1 - H315, H317, H318	[5-15]
Citral	5392-40-5	226-394-6	Xi R38 R43	ED12, SC12, SS1 - H315, H317, H319	[1-5]
Linalool	78-70-6	201-134-4	Xi R38	ED12, SC12 - H315, H319	[1-5]
Limonene	5989-27-5	227-813-5	N, Xi R10 R38 R43 R50-53	AH1, EHA1, EHC1, FL3, SC12, SS1 - H226, H304, H315, H317, H400, H410	[0.1-1]

4 - First aid measures:

4.1. First aid measures Description

General Tips:	Remove contaminated clothing. If you feel unwell: consult a doctor. Show container, label and / or safety data sheet to the doctor. If there is unconsciousness of the victim put in recovery position. Consider the risk phrases and safety section -15.
In case of contact with skin:	Wash the contaminated skin with soap and water. Remove contaminated clothing and shoes. Wash thoroughly with water contaminated clothing before removing or wear gloves. If symptoms, avoid exposing greater length.
In case of eye contact:	Rinse immediately with clean water or any solution provided for this purpose for 15 minutes holding the eye open. Check if the victim is wearing contact lenses and in this case, remove him. Consult ophthalmologist immediately.
If swallowed:	Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person. Do not induce vomiting. Consult a doctor. If vomiting occurs, keep head down to prevent the passage of vomit into the lungs. In case of persistent or worsening symptoms consult a doctor. If unconscious, place the person in recovery position (SLP) and call a doctor.
If inhaled:	Evacuate person to uncontaminated area. Breathe fresh air. If breathing difficulties persist, consult a doctor. If unconscious, place the person in recovery position and call a doctor.

4.2 Most important symptoms and effects, both acute and delayed :

Potential acute health

In case of eye contact:	No significant effects or critical hazards.
In case of contact with skin :	May cause skin irritation.
In case of contact with skin :	May cause an allergic skin reaction.
If swallowed :	No significant effects or critical hazards.
If inhaled :	No significant effects or critical hazards.

Signs / symptoms of overexposure

In case of eye contact :	No specific data.
In case of contact with skin :	Signs / symptoms may include harmful: Irritation, redness.
If swallowed :	No specific data.
If inhaled :	No specific data.

4.3 Indication of any immediate medical attention and special treatment needed :

Note to doctor :	No special treatment.
Specific treatment :	No special treatment.

5 - Fire - Fighting measures:

5.1. Extinguishing media

Suitable extinguishing media : Extinguisher recommended for Carbon Dioxide or Dry Chemical, Foam Universal otherwise.

Unsuitable extinguishing media : None known.

5.2 Special hazards arising from the substance or mixture :

Hazards from the substance or mixture

Special hazards of fire and explosion: The pressure in closed containers may increase at high temperature.
Cool if possible containers with water spray.
Evolution of fumes / fog.

Hazardous Combustion Products

Decomposition products can eventually leave the following substances: carbon dioxide, carbon monoxide.

5.3 Advice for firefighters :

Special precaution for firefighters:	In the presence of fire, quickly identify the site by removing all persons located near the scene of the accident. No action shall be taken involving any personal risk or the absence of proper training.
Special protective equipment :	Wear breathing apparatus and protective suit against chemical agents.

Protective measures :	In case of fire keep containers cool by spraying with water.
Other information:	Collect separately contaminated extinguishing water, do not allow to enter drains and sewers. Dispose of fire debris and contaminated water in accordance with local regulations.

6 - Accidental release measures:

6.1 Personal precautions, protective equipment and emergency procedures :

For non-emergency personnel:	No action shall be taken in the absence of proper training or involves personal risk. Prevent access to persons not required and not wearing protective clothing. DO NOT touch or walk through spilled material. Avoid breathing vapor or mist. Ensure adequate ventilation. If the ventilation is inadequate, wear appropriate respiratory protection. Wear protective equipment.
For emergency responders:	If specialized clothing is needed to address the spill, see Section 8 for appropriate and inappropriate materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions :

Avoid dispersal of spilled product, and runoff to avoid contamination of drains, surface water and groundwater. Respect the national legislative and inform the competent authorities in case of pollution by the product of the environment (sewers, waterways, soil and air). Suitable material to pollute the water. May be harmful to the environment if released in large quantities. Collect spillage.

6.3 Methods and material for containment and cleaning up :

Small accidental spill:

Stop leak if without risk. Remove containers from spill area. Dilute with water and mop up if watersoluble. Otherwise, or if the material is insoluble in water, absorb with an inert dry material and place in appropriate waste container. Dispose of via a licensed waste collection company.

Large accidental spill:

Stop leak if without risk. Remove containers from spill area. Prevent entry into sewers, rivers, exhaust ducts, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Dispose of via a licensed waste collection company. Contain leaks and pick up the product using absorbent non-combustible materials such as sand, earth, vermiculite or diatomaceous earth. Then place in a container according to local regulations. Dispose of via a licensed waste collection company. Contaminated absorbent material may pose the same hazards as the spilled product.

6.4 Reference to other sections :

- : See Section 1 for contact information in case of emergency.
- : See Section 8 for information on appropriate personal protective equipment.
- : See Section 13 for additional information on waste treatment.

7 - Handling and storage:

7.1 Precautions for safe handling :

Protective measures:

Put on appropriate personal protective equipment (see Section 8). People with a history of skin sensitization should not intervene in the processes using this product. Do not allow contact with eyes, skin or clothing. Do not ingest. Avoid breathing vapor or mist. Avoid release to the environment. Keep in original container or in a container approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be dangerous. Do not reuse this container.

General advice on occupational health:

It is forbidden to eat, drink or smoke in areas where this material is handled, stored or used. It is recommended that staff wash their hands and face before eating, drinking or smoking. Remove contaminated clothing and protective equipment before entering a food court. See also Section 8 for more information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities :

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well ventilated place away from incompatible materials (see Section 10). Keep container tightly closed when not in use. The containers have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate container to avoid environmental contamination.

7.3 Specific end use(s) :

Recommendations : Not available.

Specific guidance at industrial level : Not available.

100% natural essential oil is used in pharmaceuticals, food and cosmetics.

8 - Exposure controls and personal protection:

8.1 Control parameters

Occupational exposure limits: No data

Recommended monitoring procedures:

If the product contains ingredients with occupational exposure limits, it may be necessary to track people, the atmosphere in the workplace to determine the effectiveness of the ventilation or other measures control or the necessity to use protective equipment in the airways. It is important to refer to European Standard EN 689 for methods for assessing exposure by inhalation to chemical agents and national legislative documents relating to methods for determining hazardous substances.

8.2 Exposure controls :

Appropriate engineering controls:

No special ventilation requirements. Good general ventilation should be sufficient to control exposure to airborne contaminants stakeholders in the air. If this product contains ingredients which constraints exposure limits, use process enclosures, local exhaust ventilation or other controls to keep worker exposure below the limits of stakeholders recommended or Legal.

Individual protection measures

Hygiene measures:

Thoroughly wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and at the end of the workday. It is recommended to use appropriate techniques to remove potentially contaminated work clothes. Contaminated work clothing should not leave the workplace. Wash contaminated clothing before reuse. Ensure that eyewash stations and safety showers are near the location of workstations.

Eye / face protection:

Use eye protection that conforms to a standard validated when a risk assessment indicates the need to limit or avoid exposure to liquid splashes, mists, gases or dusts.

Skin Protection

Hand Protection:

The impervious gloves and chemical resistant, according to a standard validated, is mandatory at all times when handling chemical products if a risk assessment stated.

Body Protection:

The personal protective equipment for the body should be selected according to the task performed and the risks involved. It is recommended to validate the equipment by a specialist before handling this product.

Other skin protection:

The proper footwear and any measure of skin protection should be chosen according to the task performed and the risks involved. It is recommended to validate the equipment by a specialist before handling this product.

Respiratory Protection:

Wear a respirator fitted with an air purifier or an air supply, good fitting and conforming to a standard if a risk assessment indicates this is necessary. The choice of respiratory protection should be based on levels of known or anticipated exposure, the danger of the product and the limits of safe use of the device used.

Control of Environmental Exposure:

It is important to test emissions from ventilation systems or manufacturing equipment to ensure they comply with legislative requirements on environmental protection

Remark(s):

The recommended glove depends not only on their terms. Other factors may have an influence, as their thickness, a specific use or temperature conditions. Ask your supplier if the gloves are suitable for such use.

9 - Physical data and chemical properties:

9.1 Information on basic physical and chemical properties.

Appearance:

Mobile liquid

Colour:

Clear, colourless to pale yellow brown

Odour:

Strong, spicy, typical clove

Relative Density @ 20°C

1.041 – 1.054

Refractive Index @ 25°C

1.528 – 1.537

Refractive Index @ 20°C:

1.475 – 1.482

Flash Point (°C): >100

9.2. Other information

Other physical and chemical parameters – certificate of analysis

10 - Stability and Reactivity:

10.1 Reactivity

Corrosion of metals: No corrosive effect on metals expected.
Formation of flammable gas: With water, no formation of flammable gases.

10.2 Chemical stability

The product is stable.
The product does not contain peroxides.

10.3 Possibility of hazardous reactions

No hazardous reactions under conditions of storage and use according to instructions.

10.4 Conditions to avoid

Avoid any source of ignition, heat, sparks or flames.

10.5 Incompatible materials

No specific data.

10.6 Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should be formed.

11 - Toxicological information:

11.1. Information on toxicological

Potential acute health : This preparation has not suffered as such toxicology tests, but it is composed of substances with an established toxicological literature. The health hazards have been assessed following the conventional method of calculation described in Annex II of Directive 1999/45/EC.

Additional information : We recommend handling this product with all the usual precautions in view of the difficulty of the routine toxicological evaluation techniques to prevent potentially dangerous and unpredictable synergy of people particularly susceptible.

Toxicological Informations Acute :

Orale:	1,37g/kg (Determined)
Inhalation:	Not determined
Skin:	Not determine

12 - Ecological information:

Ecotoxicity :

Toxicity to fish : CL50 (96h) : mg/l
Toxicity to aquatic invertebrates : CE50 (48h) : mg/l
Toxicity to aquatic plants : CE50 (72h) : mg/l

Toxicity to microorganisms / Effect on activated sludge :
CE10 (16h) : mg/l
CE10 (0,5h) : mg/l

Persistence and degradability

Assessment of persistence and degradability : No Additional Information.

Potential Bioaccumulative

Assessment of bioaccumulation potential : No Additional Information.

Additional informations

Other ecotoxicological informations :

Avoid intentional release into the ecosystem and report any accidental release.

Do not let the product in the waters without any treatment.

13 - Disposal considerations:

13.1 Waste treatment methods

Product

Methods of waste disposal:

It is recommended to avoid or minimize waste generation. Do not dispose of significant quantities of wastes produced by the sewers. Treat them to a processing plant wastewater properly. Remove all sheets exécutives products and non-recyclable products via a licensed waste collection. Disposing of this product, solutions and sub-products should at all times comply with the legal requirements of environmental protection and disposal of wastes and the requirements of all local authorities.

Hazardous Waste:

It may be that the classification of the product meets the criteria of hazardous waste

Packaging

Methods of waste disposal:

It is recommended to avoid or minimize waste generation. Recycle packaging waste. Consider incineration or landfilling only if recycling is impossible.

Special precautions:

Do not dispose of this material and its container in a safe way. Handle with care uncleaned empty containers or rinsed. Empty containers may contain product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, sewers and drainage pipes.

14 - Transport information:

<u>UN:</u>	No
<u>Road (ADR/RID):</u>	No
<u>AIR (IATA):</u>	No
<u>SEA (IMDG):</u>	No
<u>CHIP:</u>	See section 15

15 - Regulatory information:

<u>Hazards:</u>	Irritant, Dangerous for the environment
<u>Symbols:</u>	Xi, N
<u>Risk Phrases:</u>	R38:Irritating to skin. R41:Risk of serious damage to eyes. R43:May cause sensitization by skin contact. R51/53 Toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.
<u>Safety Phrases:</u>	S24:Avoid contact with skin. S26:In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S37:Wear suitable gloves. S39:Wear eye/face protection. 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.

16 - Other information:

IFRA maximum usage level = 0.55% (Leave on applications).

Full text of H-phrases mentioned in Section 3 :

H226 Flammable liquid and vapour.

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation

H317 May cause an allergic skin reaction

H318 Causes serious eye damage.

H319 Causes serious eye irritation
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.

Full text of R-phrases mentioned in Section 3 :

R10 Flammable.

R38 Irritating to skin.

R41 Risk of serious damage to eyes.

R43 May cause sensitization by skin contact.

R51-53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

R50-53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

The information contained herein are based on our present knowledge of the product concerned on the date indicated. They are based on "IFRA IOFI LM-2012".

PACKAGING:

Type	Suitability
Glass	Yes
Lacquer lined steel/tin	Yes
Aluminium	Yes
HPPE	No
F/HDPE	Yes
Other plastic	No

SHELF LIFE

When stored within advised conditions, re-test after 12 months then every 3 months up to a maximum shelf life of 36 months.

Q.C. REQUIREMENTS

In-line with general product specification. Always satisfy suitability for specific application.

The data provided in this material safety data sheet is meant to represent typical data/analysis for this product and is correct to the best of our knowledge. The data was obtained from current and reliable sources, but is supplied without warranty, expressed or implied, regarding it's' correctness or accuracy. It is the user's responsibility to determine safe conditions for the use of this product, and to assume liability for loss, injury, damage or expense arising from improper use of this product. The information provided does not constitute a contract to supply to any specification, or for any given application, and buyers should seek to verify their requirements and product use.

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