BIORUŽA, s. r. o.

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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: Lime
SDS Created: June 2, 2025
Revision Date: June 2, 2027

CHAPTER 1: IDENTIFICATION OF THE PRODUCT AND COMPANY

1.1 Globally Harmonized System (GHS) product identifier
Product name: Lime
Latin name of botanical source: *Citrus aurantifolia* (Christm.) *Swingle*
INCI name: Citrus Aurantifolia (Lime) Peel Oil

1.2 Recommended use of the chemical and restrictions on use:
Aromatherapy, natural perfumery, as recommended. Do not ingest.

1.3 Supplier's details:
1.1 Company name: BIORUŽA s.r.o.
Company address: Laborecká 1, 01001 Žilina, Slovakia

11. Company contact:
00421 905 864 140
www.bioruza.sk
info@bioruza.sk

1.4 Emergency telephone number:

National Toxicology Information Center: Phone: 02/54774166

CHAPTER 2: HAZARD(S) IDENTIFICATION

2.1 Classification of the substance or mixture
Skin Sensitization, Category 1
Skin Corrosion/Irritation, Category 2
Aspiration Hazard, Category 1
Hazardous to aquatic environment Long term/Chronic, Category 1

2.2 GHS label elements, including precautionary statements

Signal Word	Hazardous Statement	Precautionary Statement	Hazard Pictograms
Danger	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 H410 – Very toxic to aquatic life with long lasting effects	P102 – Keep out of reach of children. P210 – Keep away from heat/sparks/open flames/hot surfaces. –No smoking P233 – Keep container tightly closed. P240 – Ground/bond container and receiving equipment. P241 – Use explosion-proof electrical/ventilating/lighting equipment. P242 – Use only non-sparking tools. P243 – Take precautionary measures against static discharge. P273 - Avoid release to the environment. P280 - Wear protective gloves/protective clothing/eye protection/face protection.	

		P301+310 – IF SWALLOWED: Immediately call POISON CENTER/doctor/physician. P331 – Do not induce vomiting P405 – Store locked up. P303 + P361 + P353 – IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. 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 approved waste disposal plant. P264 –Wash hands thoroughly after handling. P302+352 –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. P261 –Avoid breathing dust/fumes/gas/mist/vapours/spray. P272 – Contaminated work clothing should not be allowed out of the workplace. P391 – Collect spillage.	

2.4 Other hazards that do not result in classification

May cause skin irritation/allergy. Patch test recommended. Potentially mild photosensitizer. Avoid exposure to sun if oil has been applied to skin in pure or diluted amounts.

CHAPTER 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Composition

Chemical Name (common name)	CAS# TSCA	CAS# EINECS	ICSC#	RTECS#	UN#	EINECS#	% by weight
Lime Essential Oil	8008-26-2	90063-52-8	N/A	N/A	N/A	290-010-3	100 %
EU Allergens:							
Limonene	138-86-3	N/A	N/A	N/A	N/A	N/A	39 -52%
Linalool	78-70-6	N/A	N/A	N/A	N/A	N/A	<0.2%
Citral	106-26-3	N/A	N/A	N/A	N/A	N/A	<3%
Geraniol	106-24-1	N/A	N/A	N/A	N/A	N/A	<0.4%
Prop 65:							
Beta-Myrcene	123-35-3	N/A	N/A	N/A	N/A	N/A	1.3-2.1

CHAPTER 4: FIRST-AID MEASURES

4.1 Description of necessary first-aid measures (of Substance) Eye contact:

Check for and remove any contact lenses. Immediately wash thoroughly with soft, clean water for 15 minutes while holding the eyelids open. Cold water may be used. If symptoms persist, seek medical attention.

Skin Contact:

Remove contaminated clothing and wash the skin thoroughly with soap and water. Watch out for any remaining product between skin and clothing,

watches, shoes, etc. In the event of an allergic reaction, seek medical attention. If the contaminated area is widespread and/or there is damage to the skin, a doctor must be consulted or the patient transferred to a hospital.

Inhalation:

If breathed in, move person to fresh air. If not breathing, give artificial respiration. Consult a physician.

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 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:

Potentially mild photosensitizer. Repeated contact may cause allergic dermatitis.

Skin Contact:

Known photosensitizer.

Inhalation:

Not specified

Ingestion:

Not specified

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

No data available.

CHAPTER 5: FIRE-FIGHTING MEASURES

5.1 Flash point (Celsius/Fahrenheit)

+69˚C

5.2 Extinguishing media

Keep packages near the fire cool, to prevent pressurized containers from bursting.

Suitable extinguishing media: sprayed water or water mist, alcohol-resistant foam, multipurpose ABC powder, BC powder, carbon dioxide (CO2)

Unsuitable extinguishing media: water jet (straight stream).

5.3 Specific hazards arising from the chemical

A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health. In the event of a fire, the following may be formed: carbon monoxide (CO) and carbon dioxide (CO2).

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 non-firefighters:

Avoid any contact with the skin and eyes.

For firefighters:

Fire-fighters will be equipped with suitable personal protective equipment (See CHAPTER 8).

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. 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.

Fire prevention: Handle in well-ventilated areas. Vapors are heavier than air. They can spread along the ground and form mixtures that are explosive with air. Prevent the formation of flammable or explosive concentrations in air and avoid vapor concentrations higher than the occupational exposure limits. Prevent the accumulation of electrostatic charges with connections to earth. Use the mixture in premises free of naked flames or other sources of ignition and ensure that electrical equipment is suitably protected. Keep packages tightly closed and away from sources of heat, sparks and naked flames. Do not use tools which may produce sparks. Do not smoke.

7.2 Conditions for safe storage, including any incompatibilities
Store in tight glass, aluminum, or double-lined containers in a dark, cool, or refrigerated area away from direct heat. Always keep in packaging made of an identical material to the original. The floor must be impermeable and form a collecting basin so that, in the event of an accidental spillage, the liquid cannot spread beyond this 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: Flame-retardant, antistatic protective clothing.
Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate, use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as back-up to engineering controls.



CHAPTER 9: PHYSICAL CHEMICAL PROPERTIES

Physical state: Transparent liquid
Color: Colorless to yellow
Odor: Soft, zesty, slightly fruity Lime aroma; more tart than sweet
Miscibility in water: Insoluble
Miscibility in alcohol: Insoluble
Miscibility in essential oil: Souble
Lipsolubility: Liposoluble
pH: Not applicable
Boiling point/boiling range: Not applicable
Flash Point: +69°C
Vapor pressure: 19.1 Pa (0.143 mm
Hg) **Evaporation rate:** Not specified
Density: Not specified
Water solubility: Insoluble
Melting point/melting range: Not specified

Self-ignition temperature: Not specified
Decomposition point/decomposition range: Not specified
Refractive index @ 25˚C: 1.4600 – 1.4900 **Partition coefficient:** Not specified **Specific gravity @ 20 ˚C**: 0.8500 – 0.8800 **Viscosity:** Not specified

CHAPTER 10: STABILITY AND REACTIVITY

10.1 Reactivity
Presents no significant reactivity hazard by itself or in contact with water.

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

10.3 Possibility of hazardous reactions
Oxidizing agent acid alkali light and air condition to avoid under nitrogen surface.

10.4. Conditions to avoid
Any apparatus likely to produce flame or to have a metallic surface at high temperature (burners, electric arcs, furnaces etc.) must not be allowed on the premises. Avoid accumulation of electrostatic charges. Avoid heating, heat, flames, hot surfaces, humidity.

10.5 Incompatible materials
Polytheen

10.6 Hazardous decomposition products
The thermal decomposition may release/form carbon monoxide (CO) and carbon dioxide (CO2).

CHAPTER 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects Acute toxicity:
Oral route (rat): LD50 = 5000 mg/kg
Dermal route (rabbit) : LD50 = 5000 mg/kg

Skin corrosion/irritation:
May be irritating to the skin. Potentially mild Photosensitizer. See CHAPTER 3.

Serious eye damage/irritation:
Eye exposure to essential oils may irritate the eyes. Prompt rinsing and removal of the substance will avoid damage.

Respiratory or skin sensitization:
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. See EU allergen list in CHAPTER 3. **Germ cell mutagenicity:**
Not specified

Carcinogenicity:
IARH: 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:
May be fatal if swallowed and enters airways. Aspiration toxicity includes severe acute effects such as chemical pneumonia, varying degrees of pulmonary injury or death following aspiration.

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 acting as a photosensitizer.

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 Other information
Not specified

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
Carbon monoxide may be performing during combustion.

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
Some little portion dissolve in the water and move

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
regulatedAir (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° and IBC Code
Not specified

14.8 Additional transport information
Not specified

15: REGULATORY INFORMATION

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

Country	Notification
EU	See EU Allergens in Section 3

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 disposalof 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.