MATERIAL SAFETY DATA SHEET

GARLIC OIL
PRODUCT CODE: **4283**

1. IDENTIFICATION

Product Description:	GARLIC OIL
CAS #:	8000-78-0
INCI Name:	Allium Sativum (Garlic) Seed Oil
Botanical Name:	Allium sativum
Other means of identification Product Code #:	4283
Recommended use:	Cosmetics and Personal Care Formulation
REACH Registration #:	This product is REACH exempt as per Annex IV and V according to EU Regulation 1907/2006
Company Name:	BIORUŽA s.r.o.
Website:	www.emerosa.sk
Email:	info@emerosa.sk

2. HAZARD(S) IDENTIFICATION

Physical hazards:	Not classified.
Health hazards:	Not classified.
Environmental hazards:	Not classified.
Hazard(s) not otherwise classified (HNOC):	None known.
Supplemental information:	100% of the substance consists of component(s) of unknown acute oral toxicity. 100% of the substance consists of component(s) of unknown acute dermal toxicity. 100% of the substance consists of component(s) of unknown acute inhalation toxicity. 100% of the substance consists of component(s) of unknown long-term hazards to the aquatic environment.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances

Chemical Name	CAS number	EINECS number	%
Allium Sativum (Garlic) Seed Oil	8000-78-0	616-782-7	100

Allergens substance in accordance with 2003/15/CEE Directive 7th amendment: None known.

4. FIRST-AID MEASURES

Inhalation	If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. For breathing difficulties, oxygen may be necessary. Call a physician if symptoms develop or persist.
Skin contact	Take off immediately all contaminated clothing. Get medical attention if irritation develops and persists. Wash skin thoroughly with soap and water for several minutes.
Eye contact	Remove contact lenses, if present and easy to do. Get medical attention if irritation develops and persists. Promptly wash eyes with plenty of water while lifting the eye lids.
Ingestion	Call a physician or poison control center immediately. If swallowed, rinse mouth with water (only if the person is conscious). Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs.
Most important symptoms/effects, acute and delayed	Direct contact with eyes may cause temporary irritation.
Indication of immediate medical attention and special treatment needed	Not available.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media:	Water spray, fog, CO2, dry chemical, or alcohol resistant foam.
Unsuitable extinguishing media:	Do not use a solid water stream as it may scatter and spread fire.
Specific hazards arising from the chemical:	Fire may produce irritating, corrosive and/or toxic gases.
Special protective equipment and precautions for firefighters:	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Structural firefighters protective clothing will only provide limited protection. Wear self-contained breathing apparatus with a full facepiece operated in the positive pressure demand mode when fighting fires.
Fire fighting equipment/instructions:	In case of fire and/or explosion do not breathe fumes. Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. Water runoff can cause environmental damage. Ventilate closed spaces before entering them. Keep run-off water out of sewers and water sources. Dike for water control.
Specific methods:	Use water spray to cool unopened containers.
General fire hazards:	Static charges generated by emptying package in or near flammable vapor may cause flashfire.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:	Eliminate all sources of ignition. Avoid contact with skin or inhalation of spillage, dust or vapor. Keep unnecessary personnel away. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them.
Methods and materials for containment and cleaning up:	Collect and dispose of spillage as indicated in section 13 of the SDS. Absorb with inert absorbent such as dry clay, sand or diatomaceous earth, commercial sorbents, or recover using pumps. The product is immiscible with water and will spread on the water surface. Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Never return spills in original containers for re-use. This material and its container must be disposed of as hazardous waste. Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Prevent product from entering drains. Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.
Environmental precautions:	Retain and dispose of contaminated wash water. Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water.

7. HANDLING AND STORAGE

Precautions for safe handling:	Do not handle or store near an open flame, heat or other sources of ignition. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Avoid breathing vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Wash thoroughly after handling.
Conditions for safe storage, including any incompatibilities:	Keep container closed. Handle containers with care. Open slowly in order to control possible pressure release. Store in a cool, well-ventilated area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limits:	This substance has no PEL, TLV, or other recommended exposure limit.
Biological limit values:	No biological exposure limits noted for the ingredient(s).
Appropriate engineering controls:	Use explosion-proof ventilation equipment to stay below exposure limits. Adequate ventilation should be provided so that exposure limits are not exceeded.

Individual protection measures, such as personal protective equipment

Eye/face protection:	Wear safety glasses with side shields (or goggles).
Skin protection	
Hand protection:	Chemical resistant gloves.
Other:	Wear suitable protective clothing.
Respiratory protection:	Respiratory protection not required. If ventilation is insufficient, suitable respiratory protection must be provided.
Thermal hazards:	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations:	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Pale yellow to golden colored liquid
Odor:	Slightly pungent, characteristic garlic aroma
pH:	Not available.
Melting point/freezing point:	Not available.
Initial boiling point and boiling range:	Not available.
Flash point:	> 482.0 °F (> 250.0 °C) Closed Cup
Evaporation rate:	Not available.
Flammability (solid, gas):	Not applicable
Vapor pressure:	Not available.
Refractive Index:	1.455 - 1.480 @ 20°C.
Relative density:	0.905 - 0.935 @ 30°C.
Solubility in water:	Insoluble.
Auto-ignition temperature:	Not available.
Decomposition temperature:	Not available.
Viscosity:	Not available

10. STABILITY AND REACTIVITY

Reactivity:	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability:	Material is stable under normal conditions.
Possibility of hazardous reactions:	No dangerous reaction known under conditions of normal use.
Conditions to avoid:	Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials:	Strong oxidizing agents.
Hazardous decomposition products:	No hazardous decomposition products if stored and handled as indicated.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation:	Knowledge about health hazard isincomplete.
Skin contact:	Knowledge about health hazard isincomplete.
Eye contact:	Knowledge about health hazard isincomplete.
Ingestion:	Expected to be a low ingestion hazard.
Symptoms related to the physical, chemical and toxicological characteristics:	Direct contact with eyes may cause temporary irritation.

Information on toxicological effects

Acute toxicity:	Not available.
Skin corrosion/irritation:	Due to partial or complete lack of data the classification is not possible.
Serious eye damage/eye irritation:	Due to partial or complete lack of data the classification is not possible.
Respiratory or skin sensitization	
Respiratory sensitization:	Due to partial or complete lack of data the classification is not possible.
Skin sensitization:	Due to partial or complete lack of data the classification is not possible.
Germ cell mutagenicity:	Due to partial or complete lack of data the classification is not possible.
Carcinogenicity:	Due to partial or complete lack of data the classification is not possible.

IARC Monographs. Overall Evaluation of Carcinogenicity:

Not listed.

OSHA Specifically Regulated Substances (29 CFR1910.1001-1053):

Not listed.

US. National Toxicology Program (NTP) Report on Carcinogens:

Not listed.

Reproductive toxicity:	Due to partial or complete lack of data the classification is not possible.
Specific target organ toxicity - single exposure:	Due to partial or complete lack of data the classification is not possible.
Specific target organ toxicity - repeated exposure:	Due to partial or complete lack of data the classification is not possible.
Aspiration hazard:	Due to partial or complete lack of data the classification is not possible.

12. ECOLOGICAL INFORMATION

Ecotoxicity:	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
Persistence and degradability:	No data is available on the degradability of this substance.
Bioaccumulative potential:	No data available.
Mobility in soil:	No data available.
Other adverse effects:	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. DISPOSAL CONSIDERATIONS

Disposal instructions:	Do not discharge into drains, water courses or onto the ground. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations:	Dispose in accordance with all applicable regulations.
Hazardous waste code:	Not established.
Waste from residues / unused products:	Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging:	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. TRANSPORT INFORMATION

Transport	Rule	Hazard class	Packing group	UN number
Land	RID/ADR	Not Regulated	Not Regulated	Not Regulated
Maritime	IMDG			
Air	IATA/DGR			

15. REGULATORY INFORMATION

US federal regulations

Toxic Substances Control Act (TSCA):

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4):

Not listed.

SARA 304 Emergency release notification:

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053):

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance:

Not listed.

SARA 311/312 Hazardous:

No listed

SARA 313 (TRI reporting):

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List:

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):

Not regulated.

Safe Drinking Water Act (SDWA):

Not regulated.

5. OTHER INFORMATION

Disclaimer: BIORUŽA s.r.o. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The above information relates only to this product and not to its use in combination with any other material or any particular process and is designed only as guidance for the safe handling, use, processing, storage, transportation, and disposal and should not be considered as a guarantee or quality specification. It is the sole responsibility of the individual(s) purchasing this product to assess its' safety in the final application. The above information is based on data provided by and collected from recognized sources such as distributors, manufacturers, and technical groups and is considered to be accurate to the best of our knowledge. Appropriate warnings and safe handling procedures should be provided to all handlers and users, taking into account the intended use and the specific conditions and factors relating to such use in accordance with all applicable laws and regulations.