

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**1.1. Product identifier**

Product names: **BHL Antifreeze Fluid**
Płyn antyzamrozeniowy BHL

1.2. Relevant identified uses of the substance or mixture and uses advised against**Identified uses:**

Antifreeze fluid used in heating and cooling systems, including heat pumps. Applications: consumer, professional, industrial.

Uses Not Recommended:

Use the product in accordance with the application specified in Section 1.

1.3. Details of the supplier of the safety data sheet

Name: **AFRISO Sp. z o.o.**
 Address: **Szalsza, ul. Kościelna 7, 42-677 Czekanów**
 Phone: **+48 32 330 33 55**
 E-mail address: **info@afriso.pl**

1.4. Emergency telephone number

Emergency telephone number, tel. 112 (landlines and cell phones). Phone number in Poland (available from 8:00 a.m. to 4:00 p.m.): +48 32 330 33 55.

SECTION 2. HAZARDS IDENTIFICATION**2.1. Classification of the substance or mixture****Product definition:**

Mixture.

Classification in accordance with Regulation (EC) No. 1272/2008 (CLP)

Not classified as posing a hazard to human health, human life, or the environment.

2.2. Label elements**Labeling in accordance with Regulation (EC) No. 1272/2008 (CLP)**

Hazard pictogram: Not applicable.

Hazard statement: Not applicable.

Contains: Not applicable.

Hazard statements: Not applicable.

Precautionary statements: Not applicable.

2.3. Other hazards

No information is available regarding compliance with the PBT or vPvB criteria in accordance with Annex XIII of Regulation (EC) No. 1907/2006. The mixture does not contain any components with endocrine-disrupting properties - human health, environment - in accordance with the criteria set forth in Article 57(f) of REACH, Commission Delegated Regulation (EU) 2017/2100, or Commission Regulation (EU) 2018/605.

Other hazards not reflected in the classification: no data available.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**3.1. Substances**

Not applicable.

3.2. Mixtures**Mixture description:**

An aqueous mixture based on propylene glycol with added water-soluble excipients.

Hazardous components:

Does not contain components classified as posing a threat to human life, health, or the environment. A propylene glycol-based product with CAS No. 57-55-6, for which a maximum permissible concentration has been established at the national level.

It does not contain any additional ingredients that, to the best of the supplier's current knowledge, are classified and contribute to the classification of the mixture as hazardous to health or the environment.

Additional hazard:

For the full text of H-statements, see section 16.

SECTION 4. FIRST AID MEASURES**4.1. Description of first aid measures****Description of first aid measures:**

Ensure your own safety. If you experience any health problems or have any doubts, notify a doctor and provide them with the information from this safety data sheet.

In case of inhalation:

In case of accidental inhalation, move the affected person to fresh air and ensure they can rest in a position that allows for easy breathing; keep them warm and calm. Contact a doctor if any concerning symptoms occur.

In case of skin contact:

Remove contaminated clothing and shoes. Rinse the skin under running water or in a shower. If there are no skin wounds, soap, soapy water, or shampoo may be used. Seek medical attention if skin irritation persists.

In case of eyes contact:

Immediately rinse eyes with plenty of running water while keeping eyelids wide open. Rinse open eyes under running water, avoiding strong water jets. Continue rinsing for at least 10 minutes. Remove contact lenses. Seek medical advice. If necessary, contact a poison control center or call a doctor.

CAUTION: Do not use a water stream that is too strong, to avoid damaging the cornea.

In case of ingestion:

Immediately rinse the mouth and drink plenty of water. Induce vomiting only if the affected person is conscious. Medical attention is required.

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

Following inhalation: impaired concentration, headaches, and dizziness. Upon skin contact: possible redness, dryness, cracking of the skin, and degreasing. Upon eye contact: possible redness and tearing. Following ingestion: possible abdominal pain, vomiting, nausea, and diarrhea.

4.3. Indication of any immediate medical attention and special treatment needed**General recommendations:**

Emergency treatment should be determined by a physician after a thorough assessment of the victim's condition. Do not administer anything by mouth to an unconscious person and do not induce vomiting. Show the safety data sheet, label, or packaging to medical personnel providing assistance.

Guidance for the physician:

Symptomatic treatment.

SECTION 5. FIREFIGHTING MEASURES**5.1. Extinguishing media****Suitable extinguishing media:**

The product is non-flammable under normal conditions of handling, storage, and use. Select fire extinguishing media appropriate for the fire environment. Dry chemical powders, alcohol-resistant medium- and heavy-expansion foams, carbon dioxide, water mist.

Inappropriate extinguishing agents:

Do not use a full water jet.

5.2. Special hazards arising from the substance or mixture**Hazards from the substance or mixture:**

Non-flammable product. Do not inhale gases produced by a fire; they may pose a health hazard. Inhalation of hazardous combustion (pyrolysis) products may cause serious health damage.

Hazardous combustion products:

When burned, heated, or exposed to fire or high temperatures, gases and vapors toxic to health are released, including carbon monoxide, carbon dioxide, and other toxic gases.

5.3. Advice for firefighters**Special safety precautions for firefighters:**

Quickly cordon off the area by evacuating all people from the immediate vicinity of the incident if a fire breaks out. Do not take any actions that would put anyone at risk unless you are properly trained.

Special protective equipment for firefighters:

Self-contained breathing apparatus with chemical-resistant gloves. Use an oxygen-isolating breathing apparatus and a full-body protective suit. Supplementary information: Disperse gas/vapors/mist with a water spray. Collect contaminated water separately. It must not enter the sewer system or water bodies.

SECTION 6. ACCIDENTAL RELEASE MEASURES**6.1. Personal precautions, protective equipment and emergency procedures****For non-emergency personnel:**

Do not inhale gas, smoke, vapor, or aerosol. Evacuate personnel to safe areas.

For emergency responders:

If special clothing is required to clean up a spill, refer to the information in section 8 regarding suitable and unsuitable materials. See also the information in the section "For non-emergency responders."

6.2. Environmental precautions

Prevent soil contamination and entry into surface water or groundwater.

6.3. Methods and material for containment and cleaning up

Collect using liquid-binding materials (sand, diatomaceous earth, universal binding agent). Place in appropriate containers for disposal. Dispose of collected material in accordance with local regulations.

6.4. Reference to other sections

Emergency contact - see section 1. Information on appropriate personal protective equipment - see section 8. Waste management - see section 13.

SECTION 7. HANDLING AND STORAGE**7.1. Precautions for safe handling**

The product does not require special handling. The product is non-flammable under normal conditions of handling, storage, and use. Use the product only in areas where it will not come into contact with open flames or other ignition sources. Do not eat, drink, or smoke while using the product. Wash hands and any affected body parts thoroughly after use. Comply with applicable laws and regulations regarding safety and health protection. Ensure adequate ventilation in areas where dust may accumulate, and avoid contact with eyes and skin. Do not inhale gas/smoke/vapors/aerosols. Keep away from heat, sparks, open flames, or other sources of ignition. Additional information on hygiene measures is provided in section 8. Caution! Spilled product may cause slipping or falling.

7.2. Conditions for safe storage, including any incompatibilities

Store in tightly closed original containers in cool, dry, and well-ventilated areas. Recommended storage temperature: 0-35 °C. Do not store near food, beverages, or animal feed. Smoking, open flames, and eating must be prohibited in the storage area. Avoid exposure to high temperatures and direct sunlight.

7.3. Specific end use(s)

No data available regarding specific uses other than those listed in subsection 1.2. Antifreeze.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1. Control parameters**

Occupational exposure limit values should be monitored for the following substances:

Poland

component name	% by weight	No. CAS	NDS [mg/m ³]	NDSch [mg/m ³]	NDSP [mg/m ³]
propane-1,2-diol-vapors and inhalable fraction*	-	57-55-6	100	-	-

*) inhalable fraction - the fraction of an aerosol, defined in accordance with the PN-EN 481 standard, that enters through the nose and mouth and poses a health hazard upon deposition in the respiratory tract.

Regulation of the Minister of Family, Labor, and Social Policy of June 12, 2018, on the maximum permissible concentrations and intensities of healthhazardous agents in the workplace (Journal of Laws 2018, item 1286, as amended: Journal of Laws 2026, item 447).

UK

component name	% by weight	No. CAS	TWA [ppm] (long-term exposure limit)	TWA [mg/m ³] (long-term exposure limit)	STEL [mg/m ³] (short-term exposure limit)
propane-1,2-diol - total vapour and particulates	-	57-55-6	150	474 10	-

WEL - EH40/2005.

DNEL value for	propane-1,2-diol
workers, long-term exposure conditions (respiratory tract)	168 mg/m ³ (systemic)
workers, long-term exposure conditions (respiratory tract)	10 mg/m ³ (local)
general population, including consumers, long-term exposure conditions (skin)	213 mg/kg (systemic)
general population, including consumers, long-term exposure conditions (respiratory tract)	50 mg/m ³ (systemic)
general population, including consumers, long-term exposure conditions (respiratory tract)	10 mg/m ³ (local)
general population, including consumers, long-term exposure conditions (ingestion)	85 mg/kg (systemic)
PNEC value	propane-1,2-diol
freshwater	260 mg/l
seawater	26 mg/l
sediment (freshwater)	572 mg/kg dry weight
sediment (seawater)	57,2 mg/kg dry weight
microorganisms during wastewater treatment	20000 mg/l
soil	50 mg/kg dry soil weight
water (intermittent discharge, freshwater)	183 mg/l

8.2. Exposure controls**8.2.1 Appropriate engineering controls**

Ensure good ventilation of the work area.

8.2.2 Individual protection measures, such as personal protective equipment**Hygiene measures**

Follow general safety precautions required when handling chemicals. Avoid direct contact of the product with the eyes or skin. Immediately remove contaminated clothing and thoroughly wash contaminated skin with water. Wash contaminated clothing before reuse. Wash your hands before breaks, meals, smoking, and after finishing work. Do not eat, drink, or smoke while using the product. Keep the product away from food, beverages, and animal feed.

Eye/Face Protection:

Wear safety goggles if there is a risk of eye exposure (EN 166).

**Skin and Hand Protection:**

Wear protective gloves resistant to the product (EN 374). Select the glove material individually based on the workstation. Recommended gloves: - nitrile rubber, material thickness: 0.4 mm, breakthrough time: ≥120 min (class 3), - chloroprene rubber (neoprene), material thickness: 0.5 mm, breakthrough time: ≥60 min (class 2), - PVC, material thickness: 0.7 mm, breakthrough time: >480 min. (class 6).



Personal Protection:

Wear appropriate protective clothing.

**Respiratory protection:**

Use personal respiratory protection if ventilation is inadequate.

8.2.3 Environmental exposure controls

Do not allow large quantities of the product to enter groundwater, sewers, wastewater, or soil.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**9.1. Information on basic physical and chemical properties**

Physical state		liquid
Colour		blue or green
Odour		characteristic
Melting point/freezing point		>-59 °C (value for propylene glycol)
Boiling point or initial boiling point and boiling range		approx. 188 °C (value for propylene glycol)
Flammability		the product is not flammable
Lower and upper explosion limit		not determined
Flash point		not determined
Auto-ignition temperature		not determined
Decomposition temperature		not determined
pH (at 20 °C)		7,5÷9,5
Kinematic viscosity (at 20 °C)		not determined
Solubility	w wodzie (at 20 °C)	soluble
	in other solvents	acetone, ethanol, ethers
Partition coefficient n-octanol/water (log value)		not determined
Vapour pressure (at 20 °C)		not determined
Density and/or relative density (at 20 °C)		1,030÷1,054 g/dm³
Relative vapour density		not determined
Particle characteristics		not applicable

9.2. Other information**9.2.1. Information with regard to physical hazard classes**

Not applicable.

9.2.2. Other safety characteristics

No data available.

SECTION 10. STABILITY AND REACTIVITY**10.1. Reactivity**

Under normal storage and handling conditions - no reactivity.

10.2. Chemical stability

The product is stable when used and stored properly.

10.3. Possibility of hazardous reactions

No hazardous reactions are known

10.4. Conditions to avoid

None under recommended storage and use conditions (see section 7).

10.5. Incompatible materials

Keep away from strong acids and bases, as well as oxidizing agents.

10.6. Hazardous decomposition products

Under normal storage and use conditions, no hazardous decomposition of the product should occur. At high temperatures and during a fire, hazardous products are formed, such as carbon monoxide and carbon dioxide.

SECTION 11. TOXICOLOGICAL INFORMATION**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**

Inhalation of vapors at concentrations exceeding occupational exposure limits may result in acute inhalation poisoning, depending on the concentration and duration of exposure. No toxicological data are available for the mixture.

Acute toxicity:

Based on available data, the classification criteria are not met.

Skin corrosion/irritation:

Based on available data, the classification criteria are not met.

Serious eye damage/irritation:

Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation:

Based on available data, the classification criteria are not met.

Germ cell mutagenicity:

Based on available data, the classification criteria are not met.

Carcinogenicity:

Based on available data, the classification criteria are not met.

Reproductive toxicity:

Based on available data, the classification criteria are not met.

STOT-single exposure:

Based on available data, the classification criteria are not met.

STOT-repeated exposure:

Based on available data, the classification criteria are not met.

Aspiration hazard:

Based on available data, the classification criteria are not met.

Effects and symptoms of acute exposure:

Following inhalation: impaired concentration, headaches, and dizziness.

Upon skin contact: possible redness, dryness, cracking of the skin, and degreasing.

Upon eye contact: possible redness and tearing.

If swallowed: possible abdominal pain, vomiting, nausea, diarrhea.

Toxicological data:

Route of exposure	ATE mix value for the product
Inhalation	not classified
Oral	not classified
Skin	not classified
Ingredient name	propane-1,2-diol
LC50 (inhalation, rat)	> 44.9 mg/dm ³
LC50 (inhalation, rabbit)	> 317042 mg/m ³ /2 h
LD50 (oral, rat)	> 22000 mg/kg
LD50 (dermal, rabbit)	> 2000 mg/kg

11.2. Information on other hazards**Endocrine disrupting properties:**

The mixture does not contain any substances with endocrine-disrupting properties, as defined by the criteria set forth in Regulation 2017/2100/EU or Regulation 2018/605/EU, at a concentration of 0.1% or higher.

Other information:

Not applicable.

SECTION 12. ECOLOGICAL INFORMATION**12.1. Toxicity**

The mixture does not pose a risk to the environment.

Toksyczność ostra	propane-1,2-diol
LC50 (fish; <i>oncorhynchus mykiss</i>)	40613 mg/dm ³ /96 h
EC50 (algae; <i>selenastrum capricornutum</i>)	24200 mg/dm ³ /72 h

12.2. Persistence and degradability

No data available.

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

The product is miscible with water. The mobility of the mixture's components depends on their hydrophilic and hydrophobic properties, as well as on abiotic and biotic soil conditions, including soil structure, climatic conditions, seasons, and soil organisms (primarily bacteria, fungi, algae, and invertebrates).

12.5. Results of PBT and vPvB assessment

Does not meet the PBT and vPvB criteria.

12.6. Endocrine disrupting properties

Does not contain substances with endocrine-disrupting properties.

12.7. Other adverse effects

No reports of adverse effects or critical hazards.

SECTION 13. DISPOSAL CONSIDERATIONS**13.1. Waste treatment methods****Recommendation for the mixture:**

Do not discharge into the sewer system. Recover or dispose of waste product in accordance with applicable regulations. Disposal consists of incineration at locations or facilities designated by environmental protection authorities, in accordance with national and local legal requirements.

Waste code:

07 06 99 - other wastes not otherwise specified, or 16 05 09 - used chemicals other than those listed under 16 05 06, 16 05 07, or 16 05 08. Waste category (Commission Regulation (EU) No. 1357/2014): Non-hazardous. Waste type (Commission Regulation (EU) No. 1357/2014): Not applicable. Dispose of in accordance with applicable waste disposal regulations. Note: Since the waste code is assigned based on the source of the waste, the end user should, taking into account the specific conditions of product use, define the waste and assign the appropriate code in accordance with applicable regulations.

Recommendations regarding used packaging:

Recover, recycle, or dispose of packaging waste in accordance with applicable regulations. Recover, recycle, or dispose of single-use packaging in accordance with applicable EU and local regulations. Note: Only completely empty packaging may be recycled!

Used packaging must be thoroughly cleaned of dry residues of the original product.

15 01 02 - plastic packaging.

SECTION 14. TRANSPORT INFORMATION

In accordance with the requirements of ADR 2025, RID 2025, IMDG 41-22, IATA/ICAO 2025.

14.1. UN number or ID number

ADR/RID/IMDG/IATA: Not applicable.

14.2. UN proper shipping name

ADR/RID/IMDG/IATA: Not applicable.

14.3. Transport hazard class(es)

Not applicable..

14.4. Packing group

ADR/RID/IMDG/IATA: Not applicable.

14.5. Environmental hazards

ADR/RID/IMDG/IATA: Not applicable.

14.6. Special precautions for user

Always transport in closed containers that are in an upright position and properly secured. Ensure that those transporting the product know what to do in the event of an emergency.

14.7. Maritime transport in bulk according to IMO instruments

Not applicable.

The product must be transported in a manner that prevents damage to the packaging.

SECTION 15. REGULATORY INFORMATION**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

1. Regulation (EC) No. 1907/2006 of the European Parliament and of the Council of December 18, 2006, concerning the Registration, Evaluation, Authorization, and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94, as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC, and 2000/21/EC.
2. Commission Regulation (EU) 2020/878 of June 18, 2020, amending Annex II to Regulation (EC) No. 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorization, and Restriction of Chemicals (REACH).
3. Regulation (EC) No. 1272/2008 of the European Parliament and of the Council of December 16, 2008, on the classification, labeling, and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No. 1907/2006, as amended.
4. The ADR Agreement on the International Carriage of Dangerous Goods by Road.

Restrictions on the sale and use of certain hazardous substances and mixtures (REACH Annex XVII): Not listed in the annex. List of substances subject to the authorization procedure (REACH Annex XIV): Not listed in the annex (authorization list).

Candidate List of Substances of Very High Concern (SVHC) awaiting authorization: Not included on the REACH Candidate List.

15.2. Chemical safety assessment

No chemical safety assessment has been conducted for the mixture.

SECTION 16. OTHER INFORMATION**Changes from the previous version:**

Not applicable.

Explanation of abbreviations and acronyms:

NDS	Maximum Permissible Concentration
NDSCh	Maximum permissible short-term concentration
NDSP	Maximum permissible ceiling concentration
vPvB	(Substances) that are very persistent and very bioaccumulative (PBT)
PBT	Persistent, highly bioaccumulative, and toxic substance
LD50	The dose at which 50% of the test animals die

LC50	Concentration at which 50% of the test animals die
LOEC	Lowest concentration producing an observable effect
NOEL	The highest concentration of a substance at which no effects are observed
PNEC	Predicted No-Effect Concentration
DNEL	Derived No-Effect Level
UVCB	Substances of unknown or variable composition, complex reaction products, or biological materials
CLP	Regulation on Classification, Labeling, and Packaging (Regulation (EC) No. 1272/2008)
GHS	Globally Harmonized System of Classification and Labeling of Chemicals
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
IMDG	International Maritime Dangerous Goods Code
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization

Source data:

Applicable legal regulations cited in Section 15 of the safety data sheet. Data contained in the safety data sheets for the chemical and hazardous substances included in this safety data sheet.

Classification and procedure used to classify the mixture:

Based on data regarding the content of hazardous components using a calculation method.

Full text of H-statements and CLP/GHS classification text:

Not applicable.

Training:

Persons involved in the handling of the mixture should be trained in occupational safety and health regulations.

Additional information:

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The information provided in this safety data sheet is intended solely to describe the product from a safety perspective. The user is responsible for ensuring safe conditions for the use of the product and assumes full responsibility for any consequences resulting from the improper use of this product.
