

FACTORY GLY

FLUIDO ANTIGELO ECOLOGICO

FACTORY GLY è un fluido termovettore caratterizzato da una formula moderna che permette di rilevare le perdite nell'impianto. FACTORY GLY è basato sul glicolo ecologico. È un'alternativa più economica per fluidi a base di glicole monopropilenico. Questo prodotto è perfetto per gli impianti idraulici dove la sicurezza d'uso è il requisito primario. Protegge dal ghiaccio, dalla corrosione e dalla formazione di depositi. FACTORY GLY è approvato per l'uso in impianti domestici, impianti di pubblica utilità e impianti chiusi dell'industria alimentare. È dedicato ai sistemi con una temperatura di funzionamento più elevata. È perfettamente miscibile con altri liquidi a base di glicole propilenico.



FLUIDO ANTIGELO

VANTAGGI:

- Dotato della funzione di individuazione delle perdite,
- Soluzione conveniente in termini di costo,
- Certificato dall'Istituto Nazionale di Igiene polacco (PZH),
- Non comporta rischi per la salute umana e per l'ambiente.



CONDIZIONAMENTO



REFRIGERAZIONE



SISTEMI DI RISCALDAMENTO



COLLETTORI SOLARI



POMPE DI CALORE



DISPOSITIVI SPRINKLER



CONCENTRATO
1000 ml

TABELLA DI MISCIBILITÀ DEL CONCENTRATO

Punto di congelamento	-15°C	-20°C	-25°C	-30°C	-35°C
(vol. %) contenuto concentrato nella miscela	42%	49%	54%	59%	63%
(vol. %) contenuto di acqua demineralizzata	58%	51%	46%	41%	37%

SmartSol
SISTEMI SOLARI
Solare termico - Bollitori - Termoaccumulatori

PROPRIETÀ FISICO-CHIMICHE

Proprietà fisico-chimiche		FACTORY GLY			
Opzioni di temperatura:		-15°C	-20°C	-25°C	-35°C
Punto di ebollizione:		103	103	104	105
Colour:		rosa con rilevatore	rosa con rilevatore	rosa con rilevatore	rosa con rilevatore
Densità: [g/cm ³]	a 50°C:	1,083	1,098	1,111	1,134
	20°C:	1,098	1,114	1,128	1,152
	0°C:	1,107	1,120	1,137	1,163
	-10°C:	1,110	1,127	1,142	1,166
Viscosità cinematica [mm ² /s]	a 50°C:	1,496	1,837	2,210	3,270
	20°C:	3,379	4,417	5,620	9,273
	0°C:	7,420	10,29	13,67	25,47
	-10°C:	12,41	17,76	24,26	48,66
pH a 20°C:		7,5-9,5	7,5-9,5	7,5-9,5	7,5-9,5
Riserva alcalina:		>8	>8	>8	>8
Conducibilità termica [W/mK]:		0,50	0,48	0,46	0,43

Date of issue: 02.05.2023

[In accordance with the criteria of Regulation No 1907/2006 (REACH) as amended]

Section 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

 Trade name: **FACTORY GLY**

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses: antifreeze heat transfer fluid based on glycerin. Uses advised against: not determined.

1.3 Details of the supplier of the safety data sheet

 Distributor: **Procold Sp. z o.o.**

Address: ul. Leszczyce 10, 63-200 Jarocin, Poland

Telephone: +48 506 291 441

E-mail address for a competent person responsible for SDS: biuro@procold.pl

1.4 Emergency telephone number 112

Section 2: Hazards identification

2.1 Classification of the substance or mixture

Product is not classified as hazardous for human health and life and for the environment.

2.2 Label elements

Hazard pictograms and signal words

None.

Names of hazardous components placed on the label

None.

Hazard statements

None.

Precautionary statements

None.

2.3 Other hazards

The components of this mixture do not meet the criteria for PBT or vPvB in accordance with Annex XIII of REACH. The product does not contain substances included in the list established in accordance with Article 59(1) for having endocrine disrupting properties, or substances identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 (3) or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0.1 % by weight.

Section 3: Composition/information on ingredients

3.1 Substances

Not applicable.

3.2 Mixtures

CAS number: 56-81-5 EC number: 200-289-5 Index number: - Registration number: 01-2119471987-18-XXXX	<u>glycerol</u> Substance is not classified as hazardous.	35 – 90 %
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Substance with occupational exposure limits defined on the UK level.

Section 4: First aid measures

4.1 Description of first aid measures

Skin contact: take off contaminated clothes. Wash contaminated skin thoroughly with water. Seek medical advice if disturbing symptoms appear.

Eye contact: rinse contaminated eyes with water for at least few minutes, remove contact lenses. Avoid strong stream of water – risk of damage of the cornea. Contact an ophthalmologist if disturbing symptoms appear.

Ingestion: do not induce vomiting. Rinse mouth with water. Never give anything by mouth to an unconscious person. Consult a doctor, show the container or label.

Inhalation: remove the victim to fresh air, keep warm and calm. Consult a doctor, show the container or label.

4.2 Most important symptoms and effects, both acute and delayed

Skin contact: possible redness, burning.

Eye contact: possible redness, tearing.

Ingestion: may cause abdominal pains, diarrhea, nausea, vomiting.

Inhalation: negative effects of exposure are not known.

4.3 Indication of any immediate medical attention and special treatment needed

Physician makes a decision regarding further medical treatment after thoroughly examination of the injured. Symptomatic treatment.

Section 5: Firefighting measures**5.1 Extinguishing media**

Suitable extinguishing media: adapt the extinguishing media to surrounding materials.

Unsuitable extinguishing media: water jet – risk of the propagation of the flame.

5.2 Special hazards arising from the substance or mixture

During the fire, the product may produce harmful vapours and gases containing, e.g. carbon oxides and other unidentified thermal decomposition products. Do not inhale combustion products, they can be dangerous for human health.

5.3 Advice for firefighters

Use personal protection typical in case of fire. Do not stay in the fire zone without self-contained breathing apparatus and protective clothing resistant to chemicals. In case of fire cool endangered containers with water spray from safe distance. Collect used extinguishing media.

Section 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

Limit the access for the outsiders into the breakdown area, until the suitable cleaning operations are completed. In case of large spills, isolate the exposed area. Ensure that only the trained personnel removes the effects of the accident. Avoid skin and eyes contamination. Ensure adequate ventilation. Wear personal protective equipment. Do not walk on the released product - risk of slipping.

6.2 Environmental precautions

In case of release of large amounts of the product, it is necessary to take appropriate steps to prevent it from spreading into the environment. Notify relevant emergency services.

6.3 Methods and material for containment and cleaning up

Collect the spilled product with absorbing materials (e.g. diatomaceous earth) and place it in labeled waste containers. Treat the collected material as waste. Clean and ventilate the contaminated place. **6.4 Reference to other sections**

Appropriate conduct with waste product – see section 13. Personal protective equipment – see section 8.

Section 7: Handling and storage

7.1 Precautions for safe handling

Handle in accordance with good occupational hygiene and safety practices. Avoid contact with skin and eyes. Ensure adequate ventilation. Do not eat, drink or smoke when using the product. Before break and after work wash hands. Take off contaminated clothing and wash it before reuse. Unused containers keep tightly closed. Use personal protective equipment.

7.2 Conditions for safe storage, including any incompatibilities

Keep only in original, properly labelled, tightly closed containers in a cool, dry and well ventilated place. Keep away from food, beverages or feed for animals. Do not store with incompatible materials (see subsection 10.5). Avoid direct exposure to sunlight, sources of heat and ignition. After opening, seal the container and store it in an upright position to avoid leakage.

7.3 Specific end use(s)

No information about other uses than those mentioned in subsection 1.2.

Section 8: Exposure controls/personal protection

8.1 Control parameters

Specification	TWA 8 hour	STEL 15 min
Glycerol, mist [56-81-5]	10 mg/m ³	-

The table above shows the maximum workplace concentration values in the UK.

Legal basis: Commission Directive 2000/39/EC, 2006/15/EC, 2009/161/EC, 2017/164/EU, 2019/1831/EU; EH40/2005 Workplace exposure limits (Fourth edition 2020)

Recommended control procedures

Procedures Concerning the control over the dangerous components concentrations in the air and control over the air quality in the workplace - if they are available and Justified for the position - in Accordance with the European Standards, with the conditions within the exposure place and a proper test methodology adapted to the working conditions.

DNEL values

Glycerol [CAS 56-81-5]

Workers	
Route of exposure	local effects, long-term exposure
inhalation	56 mg/m ³

PNEC values

Glycerol [CAS 56-81-5]

fresh water	0,885 mg/l
marine water	0,088 mg/l
fresh water sediment	3,3 mg/l
marine water sediment	0,33 mg/kg
STP	1000 mg/l
soil	0,141 mg/kg dw

8.2 Exposure controls

Appropriate engineering controls

Observe good occupational hygiene and safety practices. Do not eat, drink or smoke when using the product. Avoid contact with skin and eyes. Ensure adequate ventilation. Take off contaminated clothing and wash it before next use. Before break and after work wash hands carefully. Use personal protective equipment.

Personal protective equipment

The necessity to use and selection of appropriate personal protective equipment should take into account the type of risk posed by the product, working conditions and the way of handling the product. The personal protective equipment used must meet the requirements of Regulation (EU) 2016/425 and the relevant standards. The

employer is obliged to provide protection measures appropriate to the activities performed and meeting all quality requirements, including their maintenance and cleaning. Any contaminated or damaged PPE must be replaced immediately.

Skin protection

Use protective gloves in accordance with EN 374 standard resistant to the product and protective clothing in case of a prolonged or repeated contact. Material for gloves select individually at the workplace.

The material that the gloves are made of must be impenetrable and resistant to the product's effects. The selection of material must be performed with consideration of breakthrough time, penetration speed and degradation. Moreover, the selection of proper gloves depends not only on the material, but also on other quality features and changes depending on the manufacturer. The producer should provide detailed information regarding the exact breakthrough time. This information should be followed. It is recommended to change gloves regularly and replace them immediately if there are any signs of wear, damage or change in appearance (color, elasticity, shape).

Eyes or face protection

Use protective glasses in accordance with EN 166 standard.

Respiratory protection

Not required in case of adequate ventilation. In emergency situations, in case of insufficient ventilation, use respiratory protection equipment.

Thermal hazards

Do not occur.

Environmental exposure controls

Do not allow large amounts of the product to get into groundwater, sewage system, sewage or soil. Possible emissions from the ventilation systems and processing equipment should be controlled in order to determinate their compatibility with environmental protection regulations.

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state:	liquid
Colour:	pink
Odour:	feeble
Melting point/freezing point:	not determined
Boiling point or initial boiling point and boiling range:	not determined
Flammability:	not applicable
Lower and upper explosion limit:	not determined
Flash point:	not determined
Auto-ignition temperature:	not determined
Decomposition temperature:	not determined
pH:	not determined
Kinematic viscosity:	not determined
Solubility:	soluble in water
Partition coefficient n-octanol/water (log value):	not determined
Vapour pressure:	not determined
Density and/or relative density:	1,09 – 1,2 g/cm ³
Relative vapour density:	not determined
Particle characteristics:	not applicable

9.2 Other information

No additional test results.

Section 10: Stability and reactivity

10.1 Reactivity

The product is feeble reactive. It does not undergo hazardous polymerization. See also subsections 10.3-10.5.

10.2 Chemical stability

The product is stable under normal conditions of use and storage.

10.3 Possibility of hazardous reactions

Hazardous reactions are not known.

10.4 Conditions to avoid

Avoid sources of heat, ignition and direct sunlight.

10.5 Incompatible materials

Strong oxidants, strong bases.

10.6 Hazardous decomposition products Not known under normal conditions of storage.**Section 11: Toxicological information****11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**

Information on acute and / or delayed effects of exposure was determined on the basis of information on product classification and / or toxicological tests as well as the knowledge and experience of the manufacturer.

Mixture toxicityAcute 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.

Information on likely routes of exposure

Routes of exposure: skin contact, eye contact, inhalation, ingestion. See subsection 4.2 for more information on the effects from each possible route of exposure.

Symptoms related to the physical, chemical and toxicological characteristics

No data.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

No data.

11.2 Information on other hazardsEndocrine disrupting properties

The product does not contain substances as having endocrine disrupting properties.

Other information No data.

Section 12: Ecological information**12.1 Toxicity Toxicity of components**

Glycerol [CAS 56-81-5]

LC₅₀ (fish)

54000 mg/l/96 h *Oncorhynchus mykiss*

Mixture toxicity

Product is not classified as hazardous for the environment.

12.2 Persistence and degradability

Data for components:

Glycerol [CAS 56-81-5]

Biodegradation: > 60 % in 14 days Product

is readily biodegradable.

12.3 Bioaccumulative potential

Data for components:

Glycerol [CAS 56-81-5] Log

Po/w: -1,75 (pH 7,4, 25 °C)

Bioaccumulation is not expected.

12.4 Mobility in soil

Mobility of components of the mixture depends on their hydrophilic and hydrophobic properties and biotic and abiotic conditions of soil, including its structure, climatic conditions, seasons and soil organisms.

12.5 Results of PBT and vPvB assessment

Components of this mixture do not meet the criteria of PBT or vPvB substances.

12.6 Endocrine disrupting properties

The product does not contain substances as having endocrine disrupting properties.

12.7 Other adverse effects

The mixture is not classified as hazardous to the ozone layer. The possibility of other harmful effects of individual components of the mixture on the environment should be considered (e.g. global warming potential).

Section 13: Disposal considerations**13.1****Waste treatment methods**

Disposal methods for the product: disposal in accordance with the local legislation. Do not empty into drains. Send the waste product to an authorized waste recipient. Waste code should be given in the place of waste formation.

Disposal methods for used packing: reuse/recycle/eliminate empty containers in accordance with the local legislation. Only completely empty packaging can be recycled.

Legal basis: Directive 2008/98/EC as amended, 94/62/EC as amended.

Section 14: Transport information**14.1 UN number or ID number**

Not applicable, product is not classified as dangerous during transport.

14.2 UN proper shipping name

Not applicable.

14.3 Transport hazard class(es) Not

applicable.

14.4 Packing group

Not applicable.

14.5 Environmental hazards

Not applicable.

14.6 Special precautions for user

Not applicable.

14.7 Maritime transport in bulk according to IMO instruments

Not applicable.

Section 15: Regulatory information

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

ADR Agreement concerning the International Carriage of Dangerous Goods by Road IMDG

Code International Maritime Dangerous Goods Code.

IATA Dangerous Goods Regulations.

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 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 as amended.

Commission Regulation (EU) No 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling 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.

Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives as amended.

European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste as amended.

Commission Regulation (EU) No 2016/425 of the European Parliament and of the Council of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC.

Commission Directive 2000/39/EC of 8 June 2000 establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Commission Directive 2006/15/EC of 7 February 2006 establishing a second list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Directives 91/322/EEC and 2000/39/EC.

Commission Directive 2009/161/EU of 17 December 2009 establishing a third list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Commission Directive 2000/39/EC.

Commission Directive 2017/164/EU of 31 January 2017 establishing a fourth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC, and amending Commission Directives 91/322/EEC, 2000/39/EC and 2009/161/EU.

Commission Directive 2019/1831/EU of 24 October 2019 establishing a fifth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC and amending Commission Directive 2000/39/EC.

15.2 Chemical safety assessment

Chemical safety assessment is not required for the mixture.

Section 16: Other information

Clarification of aberrations and acronyms

PBT	Persistent, Bioaccumulative and Toxic substance
vPvB	very Persistent, very Bioaccumulative substance
DNEL	Derived No-Effect Level
PNEC	Predicted No-Effect Concentration
dw	dry weight

Trainings

SAFETY DATA SHEET

VERSION: 1.0/EN

Before commencing work with the product, the user should learn the Health & Safety regulations, regarding handling chemicals, and in particular, undergo a proper workplace training.

Key literature references and sources of data

This SDS was prepared on the basis of the manufacturer's safety data sheet, literature data, online databases as well as our knowledge and experience, taking into account current legislation.

Procedures used to classify the mixture

Classification was based on the basis of the data on the content of hazardous components using calculation method under the guidance of Regulation 1272/2008/EC (CLP) as amended.

Other data

Date of issue: 02.05.2023

Version: 1.0/EN

The information above is based on a current available data concerning the product, but also on the experience and knowledge in this field of the producer. They are neither a quality description of the product nor a guarantee of particular features. They are to be treated as aid to safety in transport, storage and usage of the product. That does not free the user from the responsibility of improper usage of the information above and also of improper compliance with the law norms in the field.