GLYKOSOL N

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015)

Issue date: 08/17/2021 Revision date: 04/01/2025 Supersedes: 12/21/2022 Version: 3.1

SDS No: 11386-0003

SECTION 1 Identification

1.1. GHS Product identifier

Product form : Mixture

Product name : GLYKOSOL N

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

Recommended use : Various

1.4. Supplier's details

pro Kühlsole GmbH
37 Am Langen Graben
Düren, 52353
Germany
T +49 2421 59196-0 - F +49 2421 59196-10
info@prokuehlsole.de
E-mail address of competent person responsible for the SDS: sds@gbk-ingelheim.de

1.5. Emergency phone number

Emergency number : INTERNATIONAL: +49 (0) 6132 / 84463 (GBK GmbH, Ingelheim)

SECTION 2 Hazard identification

2.1. Classification of the substance or mixture

Classification (GHS CA)

Acute toxicity (oral), Category 4	H302	Harmful if swallowed
Specific target organ toxicity, Repeated exposure, Category 2	H373	May cause damage to organs through prolonged or repeated exposure.

Full text of H-statements: see section 16

2.2. GHS label elements, including precautionary statements

GHS CA labelling

Hazard pictograms (GHS CA) :

Signal word (GHS CA) : Warning

Hazard statements (GHS CA) : H302 - Harmful if swallowed
H373 - May cause damage to organs through prolonged or repeated exposure.

Precautionary statements (GHS CA) : P260 - Do not breathe spray, vapours, mist.
P270 - Do not eat, drink or smoke when using this product.
P301+P312 - IF SWALLOWED: Call a doctor, a POISON CENTER if you feel unwell.
P314 - Get medical advice or attention if you feel unwell.
P330 - Rinse mouth.

P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards which do not result in classification

No additional information available

SECTION 3 Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Chemical name / Synonyms	Product identifier	%	Classification (GHS CA)
ethylene glycol	1,2-ethanediol	CAS-No.: 107-21-1	≥ 95	Acute Tox. 4 (Oral), H302 STOT RE 2, H373

Full text of hazard classes and H-statements : see section 16

SECTION 4 First-aid measures

4.1. Description of necessary first-aid measures

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact : Wash skin with plenty of water.
First-aid measures after eye contact : Rinse eyes with water as a precaution.
First-aid measures after ingestion : Rinse mouth. Call a poison center or a doctor if you feel unwell.
First-aid measures general : Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects after ingestion : Harmful if swallowed.
Chronic symptoms : May cause damage to organs through prolonged or repeated exposure.

4.3. Indication of immediate medical attention and special treatment needed, if necessary

Treatment : Treat symptomatically.

SECTION 5 Fire-fighting measures

5.1. Suitable extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media : Do not use a solid water stream as it may scatter and spread fire.

5.2. Specific hazards arising from the chemical

Explosion hazard : Product is not explosive.
Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Special protective actions for fire-fighters

Protection during firefighting : Do not attempt to take actionwithout suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Avoid contact with eyes, skin or mucous membrane. Evacuate the danger area. Evacuate personnel to a safe area.

Environmental precautions : Avoid release to the environment.

6.2. Methods and materials for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material.
Other information : Dispose of materials or solid residues at an authorized site.

For further information refer to section 13

SECTION 7 Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Do not breathe spray, mist.
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.
Additional hazards when processed : Avoid contact with eyes, skin or mucous membrane.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool. Keep container tightly closed.
Information on mixed storage : Keep away from food, drink and animal feeding stuffs.
Specific end uses : See Section 1.

SECTION 8 Exposure controls/personal protection

8.1. Control parameters

ethylene glycol (107-21-1)	
Canada (Alberta) - Occupational Exposure Limits	
Local name	Ethylene glycol
OEL C	100 mg/m³
Notations and remarks	Occupational exposure limit is based on irritation effects and its adjustment to compensate for unusual work schedules is not required.
Regulatory reference	Alberta Regulation 191/2021
Canada (Quebec) - Occupational Exposure Limits	
Local name	Ethylene glycol (vapour and mist)

ethylene glycol (107-21-1)	
Plafond (OEL C)	127 mg/m³
	50 ppm
Notations and remarks	RP
Regulatory reference	S-2.1, r. 13 - Regulation respecting occupational health and safety
Canada (British Columbia) - Occupational Exposure Limits	
Local name	Ethylene glycol
OEL TWA	10 mg/m³ Total, aerosol only
OEL STEL	20 mg/m³ Total, aerosol only
OEL C	100 mg/m³ Total, aerosol only
	50 ppm Vapour
Regulatory reference	OHS Guidelines Part 5: Chemical Agents and Biological Agents (WorkSafe BC)
Canada (Manitoba) - Occupational Exposure Limits	
Local name	Ethylene glycol
OEL TWA	25 ppm (V - Vapor fraction)
OEL STEL	10 mg/m³ (I - Inhalable particulate matter, H - Aerosol only)
	50 ppm (V - Vapor fraction)
OEL C	100 mg/m³ (aerosol only)
Notations and remarks	TLV® Basis: URT irr. Notations: A4 (Not classifiable as a Human Carcinogen)
Regulatory reference	ACGIH 2024
Canada (New Brunswick) - Occupational Exposure Limits	
OEL C	100 mg/m³ (aerosol)
Canada (Newfoundland and Labrador) - Occupational Exposure Limits	
Local name	Ethylene glycol
OEL TWA	25 ppm (V - Vapor fraction)
OEL STEL	10 mg/m³ (I - Inhalable particulate matter, H - Aerosol only)
	50 ppm (V - Vapor fraction)
OEL C	100 mg/m³ (aerosol only)
Notations and remarks	TLV® Basis: URT irr. Notations: A4 (Not classifiable as a Human Carcinogen)
Regulatory reference	ACGIH 2024
Canada (Nova Scotia) - Occupational Exposure Limits	
Local name	Ethylene glycol
OEL TWA	25 ppm (V - Vapor fraction)
OEL STEL	10 mg/m³ (I - Inhalable particulate matter, H - Aerosol only)
	50 ppm (V - Vapor fraction)
OEL C	100 mg/m³ (aerosol only)

ethylene glycol (107-21-1)	
Notations and remarks	TLV® Basis: URT irr. Notations: A4 (Not classifiable as a Human Carcinogen)
Regulatory reference	ACGIH 2024
Canada (Nunavut) - Occupational Exposure Limits	
Local name	Ethylene glycol, (as an aerosol)
OEL C	100 mg/m³
Regulatory reference	Occupational Health and Safety Regulations, Nu Reg 003-2016 (Amendment R-044-2021)
Canada (Northwest Territories) - Occupational Exposure Limits	
Local name	Ethylene glycol, (as an aerosol)
OEL C	100 mg/m³
Regulatory reference	Occupation Health and Safety Regulations R-039-2015 (R-090-2024)
Canada (Ontario) - Occupational Exposure Limits	
Local name	Ethylene glycol
OEL C	100 mg/m³ (H - Aerosol only)
Regulatory reference	Ontario Occuational Exposure Limits under Regulation 833
Canada (Prince Edward Island) - Occupational Exposure Limits	
Local name	Ethylene glycol
OEL TWA	25 ppm (V - Vapor fraction)
OEL STEL	10 mg/m³ (I - Inhalable particulate matter, H - Aerosol only)
	50 ppm (V - Vapor fraction)
OEL C	100 mg/m³ (aerosol only)
Notations and remarks	TLV® Basis: URT irr. Notations: A4 (Not classifiable as a Human Carcinogen)
Regulatory reference	ACGIH 2024
Canada (Saskatchewan) - Occupational Exposure Limits	
Local name	Ethylene glycol, (as an aerosol)
OEL C	100 mg/m³
Regulatory reference	The Occupational Health and Safety Regulations, 2020. Chapter S-15.1 Reg 10
Canada (Yukon) - Occupational Exposure Limits	
OEL TWA	10 mg/m³ (particulate) 250 mg/m³ (vapour)
	100 ppm (vapour)
OEL STEL	20 mg/m³ (particulate) 325 mg/m³ (vapour)
	10 ppm (particulate) 125 ppm (vapour)

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures, such as personal protective equipment (PPE)

Hand protection:

Chemically resistant protective gloves

Type	Material	Permeation	Thickness (mm)	Penetration
Chemically resistant protective gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	0,35	
Chemically resistant protective gloves	Butyl rubber	6 (> 480 minutes)	0,5	

Eye protection:

Protective goggles (EN 166). Eyewash bottle with clean water (EN 15154)

Skin and body protection:

Long sleeved protective clothing (DIN EN ISO 6530)

Respiratory protection:

Breathing apparatus in the event of aerosol or mist formation

SECTION 9 Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state	:	Liquid
Appearance	:	No data available
Colour	:	Yellow Clear
Odour	:	Odourless
Odour threshold	:	No data available
pH	:	8 – 9 (20 °C)
pH solution concentration	:	100 %
Relative evaporation rate (butylacetate=1)	:	No data available
Relative evaporation rate (ether=1)	:	No data available
Melting point	:	No data available
Freezing point	:	≈ -30 °C
Boiling point	:	190 °C
Flash point	:	116 °C
Auto-ignition temperature	:	410 °C
Decomposition temperature	:	No data available
Flammability (solid, gas)	:	Not applicable
Vapour pressure	:	0.1 hPa (20 °C)
Relative vapour density at 20°C	:	No data available
Relative density	:	No data available
Density	:	1.125 g/cm³ (20 °C)
Solubility	:	Water: completely miscible
Log Pow	:	No data available
Viscosity, kinematic	:	No data available
Explosive properties	:	Product is not explosive.
Oxidising properties	:	Non oxidizing.
Explosive limits	:	Lower explosive limit (LEL): 3.2 vol % Upper explosive limit (UEL): 15.3 vol %

Particle characteristics : No data available

9.2. Data relevant with regard to physical hazard classes (supplemental)

VOC content : ≤ 95 % (1068,8 g/l)
Additional information : Solvent content 95,00 %

SECTION 10 Stability and reactivity

Reactivity : The product is non-reactive under normal conditions of use, storage and transport.
Chemical stability : Stable under normal conditions.
Possibility of hazardous reactions : No dangerous reactions known under normal conditions of use.
Conditions to avoid : None under recommended storage and handling conditions (see section 7).
Incompatible materials : Strong oxidizing agent.
Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Hardening time: : No additional information available

SECTION 11 Toxicological information

11.1. Likely routes of exposure

Acute toxicity (oral) : Harmful if swallowed.
Acute toxicity (dermal) : Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation) : Not classified (Based on available data, the classification criteria are not met)

GLYKOSOL N	
ATE CA (oral)	526.316 mg/kg bodyweight

ethylene glycol (107-21-1)	
LD50 oral	6140 mg/kg
LD50 dermal	9530 mg/kg
ATE CA (oral)	500 mg/kg bodyweight

Skin corrosion/irritation : Not classified (Based on available data, the classification criteria are not met)
pH: 8 – 9 (20 °C)
Serious eye damage/irritation : Not classified (Based on available data, the classification criteria are not met)
pH: 8 – 9 (20 °C)
Respiratory or skin sensitization : Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity : Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure : Not classified (Based on available data, the classification criteria are not met)
STOT-repeated exposure : May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard : Not classified (Based on available data, the classification criteria are not met)
Symptoms/effects after ingestion : Harmful if swallowed.
Chronic symptoms : May cause damage to organs through prolonged or repeated exposure.

SECTION 12 Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

Hazardous to the aquatic environment, short–term (acute) : Not classified (Based on available data, the classification criteria are not met)

Hazardous to the aquatic environment, long–term (chronic) : Not classified (Based on available data, the classification criteria are not met).

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Ozone : Not classified (Based on available data, the classification criteria are not met)

Fluorinated greenhouse gases : No

SECTION 13 Disposal considerations

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14 Transport information

In accordance with TDG / DOT / IMDG / IATA

TDG	DOT	IMDG	IATA
14.1. UN Number			
Not regulated for transport			
14.2. UN Proper Shipping Name			
Not regulated	Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)			
Not regulated	Not regulated	Not regulated	Not regulated
14.4. Packing group, if applicable			
Not regulated	Not regulated	Not regulated	Not regulated
14.5. Environmental hazards			
Not regulated	Not regulated	Not regulated	Not regulated
No supplementary information available			

14.6. Special precautions for user

TDG

Not regulated

DOT

Not regulated

IMDG

Not regulated

IATA

Not regulated

14.7. Transport in bulk according to Annex II of MARPOL 73/78[9] and the IBC Code[10]

Not applicable

SECTION 15 Regulatory information

ethylene glycol (107-21-1)
Listed on the Canadian DSL (Domestic Substances List)

SECTION 16 Other Information

Issue date : 08-17-2021
Revision date : 04-01-2025
Supersedes : 12-21-2022

Other information : Data of sections 4 to 8, as well as 10 to 12, do partly not refer to the use and the regular employing of the product (in this sense consult information on use and on product), but to liberation of major amounts in case of accidents and irregularities. The information describes exclusively the safety requirements for the product(s) and is based on the present level of our knowledge. The delivery specifications are contained in the corresponding product sheet. This data does not constitute a guarantee for the characteristics of the product(s) as defined by the legal warranty regulations.

Full text of hazard classes and H-statements:	
H302	Harmful if swallowed
H373	May cause damage to organs through prolonged or repeated exposure.

Abbreviations and acronyms:	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration

Abbreviations and acronyms:	
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disruptor
DOT	Department of Transport
TDG	Transportation of Dangerous Goods
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
GHS	Globally Harmonized System of Classification, Labelling and Packaging of Chemicals
CAS	CAS (Chemical Abstracts Service) number
IBC-Code	International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
MARPOL 73/78	MARPOL 73/78: International Convention for the Prevention of Pollution From Ships
ADG	Transport of Australian Dangerous Goods

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should therefore not be construed as guaranteeing any specific property of the product.