

Safety Data Sheet

according to Regulation (EC) No 1907/2006



GLYKOSOL 100

Revision date: 24.03.2020

Product code: 11386-0002

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

1.1. Product identifier

GLYKOSOL 100

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

Use of the substance/mixture

Various

1.3. Details of the supplier of the safety data sheet

Company name: pro Kühlsole GmbH
Street: Am Langen Graben 37
Place: D-52353 Düren
Telephone: +49 2421 59196-0
Responsible Department: Responsible for the safety data sheet: sds@gbk-ingelheim.de
Telefax: +49 2421 59196-10

1.4. Emergency telephone number:

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

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Hazard categories:
Flammable liquid: Flam. Liq. 3
Specific target organ toxicity - single exposure: STOT SE 3
Hazard Statements:
Flammable liquid and vapour.
May cause drowsiness or dizziness.

2.2. Label elements

Regulation (EC) No. 1272/2008

Hazard components for labelling

1-methoxy-2-propanol; monopropylene glycol methyl ether

Signal word: Warning

Pictograms:



Hazard statements

H226 Flammable liquid and vapour.
H336 May cause drowsiness or dizziness.

Precautionary statements

P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P103 Read label before use.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 Keep container tightly closed.
P240 Ground and bond container and receiving equipment.
P241 Use explosion-proof electrical/ventilating/lighting equipment.

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P242	Use non-sparking tools.
P243	Take action to prevent static discharges.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312	Call a POISON CENTER/doctor if you feel unwell.
P235	Keep cool.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

Additional advice on labelling

The product is labeled in accordance with Regulation (EC) no. 1272/2008 (GHS).

2.3. Other hazards

According to Regulation (EC) No 1907/2006 (REACH), this product is regarded to be neither PBT nor vPvB. PED Category Group 2.

High risk of slipping due to leakage/spillage of product.

The vapour/air mixture is explosive, even in empty, uncleaned receptacles.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Aqueous solution

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	GHS Classification			
107-98-2	1-methoxy-2-propanol; monopropylene glycol methyl ether			50 - 100 %
	203-539-1	603-064-00-3	01-2119457435-35	
	Flam. Liq. 3, STOT SE 3; H226 H336			
64-17-5	ethanol, ethyl alcohol			10 - 25 %
	200-578-6	603-002-00-5	01-2119457610-43	
	Flam. Liq. 2, Eye Irrit. 2; H225 H319			

Full text of H and EUH statements: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Remove contaminated soaked clothing immediately. In the event of persistent symptoms receive medical treatment.

After inhalation

Move to fresh air in case of accidental inhalation of vapours. In the event of symptoms refer for medical treatment.

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After contact with skin

Wash off immediately with soap and plenty of water. Consult a doctor if skin irritation persists.

After contact with eyes

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Seek medical treatment by eye specialist.

After ingestion

Never give anything by mouth to an unconscious person. Do not induce vomiting. Rinse out mouth and give plenty of water to drink. Consult a physician.

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

Vapours may cause drowsiness and dizziness.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptoms.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Alcohol-resistant foam, dry chemical, carbon dioxide (CO₂), water-spray.

Unsuitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

Fire may produce: carbon monoxide and carbon dioxide Under certain fire conditions traces of other toxic substances cannot be excluded. Vapours may form explosive mixture with air.

5.3. Advice for firefighters

Suppress gases/vapours/mists with water spray jet. Cool containers at risk with water spray jet. Use breathing apparatus with independent air supply. Wear full protective suit.

Additional information

Collect contaminated fire-fighting water, avoid any release into the sewerage. Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

In case of vapour formation use respirator. Ensure adequate ventilation. Avoid contact with eyes, skin or mucous membrane. Use personal protective clothing.

6.2. Environmental precautions

Do not discharge into the drains/surface waters/ground water.

6.3. Methods and material for containment and cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder).
Shovel into suitable container for disposal.

6.4. Reference to other sections

Information for disposal see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Use only in thoroughly ventilated areas. Avoid contact with eyes, skin or mucous membrane. Care for thoroughly room ventilation, if necessary suck off at workplace. Provide good room ventilation even at ground

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level (vapours are heavier than air).

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking. Take measures against electrostatically charging. Vapours can form an explosive mixture with air. Vapour/air mixture is explosive, even in empty uncleaned receptacles.

Further information on handling

Avoid formation of aerosols. Do not inhale vapour/aerosol.. In case of insufficient ventilation, especially in confined areas.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Store only in original container at cool and aired place.
Keep in a dry place.

Hints on joint storage

Keep away from food, drink and animal feeding stuffs.

Further information on storage conditions

Protect from heat and direct solar radiation.

7.3. Specific end use(s)

No data available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
107-98-2	1-Methoxypropan-2-ol	100	375		TWA (8 h)	WEL
		150	560		STEL (15 min)	WEL
64-17-5	Ethanol	1000	1920		TWA (8 h)	WEL

DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
107-98-2	1-methoxy-2-propanol; monopropylene glycol methyl ether			
Consumer DNEL, long-term		oral	systemic	33 mg/kg bw/day
Consumer DNEL, long-term		dermal	systemic	183 mg/kg bw/day
Worker DNEL, long-term		dermal	systemic	78 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	43,9 mg/m ³
Worker DNEL, long-term		inhalation	systemic	369 mg/m ³

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PNEC values

CAS No	Substance	Value
107-98-2	1-methoxy-2-propanol; monopropylene glycol methyl ether	
Freshwater		10 mg/l
Freshwater (intermittent releases)		100 mg/l
Marine water		1 mg/l
Freshwater sediment		52,3 mg/kg
Marine sediment		5,2 mg/kg
Micro-organisms in sewage treatment plants (STP)		100 mg/l
Soil		4,59 mg/kg

8.2. Exposure controls



Appropriate engineering controls

Ensure adequate ventilation, especially in confined areas.

Protective and hygiene measures

Wash hands before breaks and immediately after handling the product. When using do not eat, drink or smoke. Avoid contact with skin, eyes and clothing. Take off immediately all contaminated clothing.

Eye/face protection

Tightly fitting goggles (EN 166).
Eye wash bottle with pure water (EN 15154).

Hand protection

Chemical-resistant gloves (EN 374) Suitable materials also for extended, direct contact (recommended: protection index 6, corresponding to a permeation rate > 480 minutes according to EN 374): Nitrile rubber, Butyl rubber.

Follow the recommendations of the glove manufacturer for breakthrough properties especially for workplace conditions involving mechanical stress and contact duration.

Skin protection

Long sleeved clothing (DIN EN ISO 6530)

Respiratory protection

No personal respiratory protective equipment normally required.
Breathing apparatus in the event of aerosol or mist formation.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	pearl-white
Odour:	Characteristic
pH-Value (at 20 °C):	8 - 9

Changes in the physical state

Melting point: Not applicable

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Initial boiling point and boiling range: 78 °C

Sublimation point: No data available

Softening point: No data available

Flash point: > 23 °C

Sustaining combustion: No data available

Flammability

Solid: No data available

Explosive properties

The product is considered non-explosive; nevertheless explosive vapour/air mixture can be generated

Lower explosion limits: 2,3 vol. %

Upper explosion limits: 20,0 vol. %

Ignition temperature: 270 °C

Auto-ignition temperature

Solid: No data available

Decomposition temperature: No data available

Oxidizing properties

The product is not self-igniting

Vapour pressure:
(at 20 °C) 58,7 hPa

Density (at 20 °C): approx. 0,93 g/cm³

Water solubility:
(at 20 °C) Completely miscible

Solubility in other solvents

No data available

Partition coefficient: No data available

Viscosity / dynamic: No data available

Viscosity / kinematic: No data available

Flow time: No data available

Vapour density: No data available

Solvent content: 81,20 %, AQUA / Water: 18,60 %

9.2. Other information

Solid content: 0 %

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Evolution of explosive gases/vapours. In use formation of flammable/explosive vapour-air mixtures possible.
Uncleaned empty vessels may contain product gases which can form explosive mixtures with air.

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10.4. Conditions to avoid

Avoid high temperatures, impact, friction, electromagnetic fields, electrostatic charging, sparks and flames.

10.5. Incompatible materials

Strong oxidizing agents

10.6. Hazardous decomposition products

Carbon monoxide and carbon dioxide

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicokinetics, metabolism and distribution

Vapours may cause drowsiness and dizziness.

Acute toxicity

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

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
107-98-2	1-methoxy-2-propanol; monopropylene glycol methyl ether				
	oral	LD50 mg/kg 4016	Rat	ECHA	EU B1
	dermal	LD50 mg/kg > 2000	Rabbit	ECHA	EU B3
64-17-5	ethanol, ethyl alcohol				
	oral	LD50 mg/kg 6200	Rat		
	inhalation (4 h) vapour	LC50 95,6 mg/l	Rat		

Irritation and corrosivity

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

Sensitising effects

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

Carcinogenic/mutagenic/toxic effects for reproduction

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

STOT-single exposure

May cause drowsiness or dizziness. (1-methoxy-2-propanol; monopropylene glycol methyl ether)

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.

SECTION 12: Ecological information

12.1. Toxicity

No data available

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CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
107-98-2	1-methoxy-2-propanol; monopropylene glycol methyl ether					
	Acute fish toxicity	LC50 >1000 mg/l	96 h	Oncorhynchus mykiss	ECHA	OECD 203
	Acute algae toxicity	ErC50 > 1000 mg/l	72 h	Selenastrum capricornutum		
	Acute crustacea toxicity	EC50 > 500 mg/l	48 h	Daphnia magna	IUCLID	
64-17-5	ethanol, ethyl alcohol					
	Acute fish toxicity	LC50 8140 mg/l	96 h	Golden orfe		
	Acute crustacea toxicity	EC50 9268 - 14221 mg/l	48 h	Daphnia magna		

12.2. Persistence and degradability

Readily biodegradable.

CAS No	Chemical name				
	Method	Value	d	Source	Evaluation
107-98-2	1-methoxy-2-propanol; monopropylene glycol methyl ether				
	OECD 301E	96%	28	ECHA	
	DOC decrease				

12.3. Bioaccumulative potential

No data available

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
107-98-2	1-methoxy-2-propanol; monopropylene glycol methyl ether	-0,437
64-17-5	ethanol, ethyl alcohol	- 0,31

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

Not determined.

12.6. Other adverse effects

Low hazard to waters.

Further information

Do not release undiluted or in higher quantities into the groundwater, sewerage or waters.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Should not be disposed of with household waste. Do not flush into surface water or sanitary sewer system. Where possible recycling is preferred to disposal. The waste code number must be agreed with the disposer / manufacturer / competent authority.

List of Wastes Code - residues/unused products

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160508 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; discarded organic chemicals consisting of or containing hazardous substances; hazardous waste

List of Wastes Code - used product

160508 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; discarded organic chemicals consisting of or containing hazardous substances; hazardous waste

List of Wastes Code - contaminated packaging

150102 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); plastic packaging

Contaminated packaging

Empty containers should be taken for local recycling, recovery or waste disposal. Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse. Packaging that cannot be cleaned should be disposed of like the product.

Cleaning agent: Water

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number: UN 1993
14.2. UN proper shipping name: FLAMMABLE LIQUID, N.O.S. (Ethanol, 1-Methoxy-2-propanol)
14.3. Transport hazard class(es): 3
14.4. Packing group: III
Hazard label: 3



Classification code: F1
Special Provisions: 274 601
Limited quantity: 5 L
Excepted quantity: E1
Transport category: 3
Hazard No: 30
Tunnel restriction code: D/E

Inland waterways transport (ADN)

14.1. UN number: UN 1993
14.2. UN proper shipping name: FLAMMABLE LIQUID, N.O.S. (Ethanol, 1-Methoxy-2-propanol)
14.3. Transport hazard class(es): 3
14.4. Packing group: III
Hazard label: 3



Classification code: F1
Special Provisions: 274 601
Limited quantity: 5 L
Excepted quantity: E1

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Marine transport (IMDG)

14.1. UN number:	UN 1993
14.2. UN proper shipping name:	FLAMMABLE LIQUID, N.O.S. (Ethanol, 1-Methoxy-2-propanol)
14.3. Transport hazard class(es):	3
14.4. Packing group:	III
Hazard label:	3



Special Provisions:	223, 274, 955
Limited quantity:	5 L
Excepted quantity:	E1
EmS:	F-E, S-E

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number:	UN 1993
14.2. UN proper shipping name:	FLAMMABLE LIQUID, N.O.S. (Ethanol, 1-Methoxy-2-propanol)
14.3. Transport hazard class(es):	3
14.4. Packing group:	III
Hazard label:	3



Special Provisions:	A3
Limited quantity Passenger:	10 L
Passenger LQ:	Y344
Excepted quantity:	E1
IATA-packing instructions - Passenger:	355
IATA-max. quantity - Passenger:	60 L
IATA-packing instructions - Cargo:	366
IATA-max. quantity - Cargo:	220 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

No specific precautions required. Take the usual precautions when handling with chemicals.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

The transport takes place only in approved and appropriate packaging.

SECTION 15: Regulatory information

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

EU regulatory information

2010/75/EU (VOC):	81,2 %
Information according to 2012/18/EU (SEVESO III):	P5c FLAMMABLE LIQUIDS

National regulatory information

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Employment restrictions: Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).
Water hazard class (D): 1 - slightly hazardous to water

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Changes

Update 2020

Abbreviations and acronyms

ADR: Accord européen relatif au transport international des marchandises Dangereuses par Route (Agreement concerning the international carriage of Dangerous goods by Road)

IMDG-Code: International Maritime Code for Dangerous Goods

ICAO: International Civil Aviation Organisation (IATA: The International Air Transport Association)

GHS: Globally Harmonized System of Classification, Labelling and Packaging of Chemicals

Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]

Classification	Classification procedure
Flam. Liq. 3; H226	On basis of test data
STOT SE 3; H336	Calculation method

Relevant H and EUH statements (number and full text)

H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

Further Information

Data of items 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.

(n.a. = not applicable; n.d. = not determined)

The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)