

Safety Data Sheet

according to Regulation (EC) No 1907/2006



GLYKOSOL 100

Print date: 26.02.2014

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
Telefax: +49 2421 59196-10
Responsible for the safety data sheet: sds@gbk-ingelheim.de

1.4. Emergency telephone number: Emergency telephone :+49 (0) 6132 / 84463 (GBK GmbH, Ingelheim)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

R phrases:
Flammable.
Vapours may cause drowsiness and dizziness.

GHS classification

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

Signal word: Warning
Pictograms: GHS02-GHS07



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.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ventilating/lighting equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

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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/ 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 to hazardous or special waste collection point .

2.3. Other hazards

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

EC No	Chemical name	Quantity
CAS No	Classification	
Index No	GHS classification	
REACH No		
203-539-1	1-methoxy-2-propanol; monopropylene glycol methyl ether	50 - 100 %
107-98-2	R10-67	
603-064-00-3	Flam. Liq. 3, STOT SE 3; H226 H336	
200-578-6	ethanol, ethyl alcohol	10 - 25 %
64-17-5	F - Highly flammable R11	
603-002-00-5	Flam. Liq. 2, Eye Irrit. 2; H225 H319	
01-2119457610-43		

Full text of R and H phrases: 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.

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.

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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 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

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Requirements for storage rooms and vessels

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

Advice on storage compatibility

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
		-	-		STEL (15 min)	WEL

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 (EN 368).

Respiratory protection

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

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	pearl-white
Odour:	characteristic

Test method

pH-Value (at 20 °C):	8 - 9
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Changes in the physical state

Melting point:	n.a.
Initial boiling point and boiling range:	78 °C
Flash point:	> 23 °C
Lower explosion limits:	2,3 vol. %
Upper explosion limits:	20,0 vol. %
Vapour pressure: (at 20 °C)	58,7 hPa
Density (at 20 °C):	approx. 0,93 g/cm ³
Water solubility: (at 20 °C)	Completely miscible
Ignition temperature:	270 °C
Explosive properties	The product is considered non-explosive; nevertheless explosive vapour/air mixt
Oxidizing properties	The product is not self-igniting

9.2. Other information

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.

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.

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Acute toxicity

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

Acute toxicity

CAS No	Chemical name	Exposure routes	Method	Dose	Species	Source
107-98-2	1-methoxy-2-propanol; monopropylene glycol methyl ether					
	oral	LD50	> 5000	mg/kg	Ratte	IUCLID
	dermal	LD50	11000	mg/kg	Kaninchen	
	inhalative vapour	LC50	54,6	mg/l	Ratte	
64-17-5	ethanol, ethyl alcohol					
	oral	LD50	6200	mg/kg	Rat	
	inhalative (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.

STOT-single exposure

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

Severe effects after repeated or prolonged exposure

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.

Aspiration hazard

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

SECTION 12: Ecological information

12.1. Toxicity

No data available.

CAS No	Chemical name	Aquatic toxicity	Method	Dose	[h] [d]	Species	Source
107-98-2	1-methoxy-2-propanol; monopropylene glycol methyl ether						
	Acute fish toxicity	LC50	4600 - 10000	mg/l	96 h	Leuciscus idus	IUCLID
	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.

12.3. Bioaccumulative potential

No data available.

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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

Advice on disposal

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.

Waste disposal number of waste from residues/unused products

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

Waste disposal number of 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 640E

Limited quantity:

5 L

Transport category:

3

Hazard No:

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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 640E
Limited quantity: 5 L

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
EmS: F-E, S-E

Air transport (ICAO)

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
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.

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14.7. Transport in bulk according to Annex II of MARPOL73/78 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

National regulatory information

Employment restrictions: Observe employment restrictions for young people.
Water contaminating class (D): 1 - slightly water contaminating

15.2. Chemical safety assessment

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

SECTION 16: Other information

Changes

Changes in chapter: 4, 8, 14, 15

Abbreviations and acronyms

EC Directives: acts of the European Union, part of the secondary Union law
CAS-Nr.: Chemical Abstracts Service
TRGS 510: Technical Rules for Hazardous Substances "storage of hazardous materials in portable tanks"
TRGS 900: Technical Rules for Hazardous Substances "workplace exposure limits"
EN 374: Standard for protective gloves (gloves for protection against chemicals and micro-organisms)
EN 166: European safety standards for eye and face protection (requirements)
STOT: Specific target organ toxicity
AVV: European Waste Catalogue
VOC: Volatile organic compound
GHS: Globally Harmonized System of Classification, Labelling and Packaging of Chemicals
ADR: Agreement concerning the international carriage of Dangerous goods by Road
RID: Regulation Concerning the International Transport of Dangerous Goods by Rail
IMDG-Code: International Maritime Code for Dangerous Goods
ADN: sea and inland waterway transport
ICAO: International Civil Aviation Organization
MARPOL 73/78: International Convention for the Prevention of Pollution From Ships
IBC-Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
n.a. - not applicable

Full text of R phrases referred to under Sections 2 and 3

10 Flammable.
11 Highly flammable.
67 Vapours may cause drowsiness and dizziness.

Full text of H statements referred to under Sections 2 and 3

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.

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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.)