

Page 1 of 17 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II (last amended by Regulation (EU) 2020/878) Revision date / version: 09.01.2025 / 0016 Replacing version dated / version: 24.01.2023 / 0015 Valid from: 09.01.2025 PDF print date: 10.01.2025 Glas-Reiniger Glass Cleaner

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II (last amended by Regulation (EU) 2020/878)

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

1.1 Product identifier

Glas-Reiniger Glass Cleaner

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

Cleaner

(GB)

Uses advised against:

No information available at present.

1.3 Details of the supplier of the safety data sheet ${}_{\scriptscriptstyle{(\overline{\scriptscriptstyle (B)})}}$

LIQUI MOLY GmbH Jerg-Wieland-Str. 4 89081 Ulm-Lehr Tel.: (+49) 0731-1420-0 Fax: (+49) 0731-1420-88

Qualified person's e-mail address: info@chemical-check.de, k.schnurbusch@chemical-check.de Please DO NOT use for requesting Safety Data Sheets.

1.4 Emergency telephone number Emergency information services / official advisory body:

Landspitali- The National University Hospital of Iceland, tel. +354 543 2222 or 112 (valid only for Iceland)

Telephone number of the company in case of emergencies:

+49 (0) 700 / 24 112 112 (LMR) +1 872 5888271 (LMR)

SECTION 2: Hazards identification

	f the substance or mixtur rding to Regulation (EC)	
Hazard class	Hazard category	Hazard statement
Flam. Liq.	3	H226-Flammable liquid and vapour.
Eye Irrit.	2	H319-Causes serious eye irritation.
STOT SE	3	H336-May cause drowsiness or dizziness.

2.2 Label elements Labeling according to Regulation (EC) 1272/2008 (CLP)



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Warning

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

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. P261-Avoid breathing vapours or spray. P271-Use only outdoors or in a well-ventilated area. P280-Wear eye protection. P312-Call a POISON CENTRE / doctor if you feel unwell. P405-Store locked up. P501-Dispose of contents / container to an approved waste disposal facility.

Propan-2-ol

2.3 Other hazards

The mixture does not contain any vPvB substance (vPvB = very persistent, very bioaccumulative) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).

The mixture does not contain any PBT substance (PBT = persistent, bioaccumulative, toxic) or is not included under XIII of the regulation (EC) 1907/2006 (< 0.1 %).

The mixture does not contain any substance with endocrine disrupting properties (< 0,1 %).

SECTION 3: Composition/information on ingredients

3.1 Substances

n.a. **3.2 Mixtures**

Propan-2-ol	
Registration number (REACH)	
Index	603-117-00-0
EINECS, ELINCS, NLP, REACH-IT List-No.	200-661-7
CAS	67-63-0
content %	20-50
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Flam. Liq. 2, H225
	Eye Irrit. 2, H319
	STOT SE 3, H336

2-Butoxyethanol	Substance for which an EU exposure limit value applies.
Registration number (REACH)	
Index	603-014-00-0
EINECS, ELINCS, NLP, REACH-IT List-No.	203-905-0
CAS	111-76-2
content %	1-<10
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Acute Tox. 3, H331
	Acute Tox. 4, H302
	Skin Irrit. 2, H315
	Eye Irrit. 2, H319



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Specific Concentration Limits and ATE

ATE (oral): 1200 mg/kg ATE (as inhalation, Aerosol): 0,5 mg/l/4h ATE (as inhalation, Vapours): 3 mg/l

Impurities, test data and additional information may have been taken into account in classifying and labelling the product.

For the text of the H-phrases and classification codes (GHS/CLP), see Section 16.

The substances named in this section are given with their actual, appropriate classification!

For substances that are listed in appendix VI, table 3.1 of the regulation (EC) no. 1272/2008 (CLP regulation) this means that all notes that may be given here for the named classification have been taken into account.

The addition of the highest concentrations listed here can result in a classification. Only when this classification is listed in Section 2 does it apply. In all other cases the total concentration is below the classification.

SECTION 4: First aid measures

4.1 Description of first aid measures

First-aiders should ensure they are protected!

Never pour anything into the mouth of an unconscious person!

Inhalation

Remove person from danger area.

Supply person with fresh air and consult doctor according to symptoms.

If the person is unconscious, place in a stable side position and consult a doctor.

Skin contact

Wash thoroughly using copious water - remove contaminated clothing immediately. If skin irritation occurs (redness etc.), consult doctor.

Eye contact

Remove contact lenses.

Wash thoroughly for several minutes using copious water. Seek medical help if necessary.

Ingestion

Rinse the mouth thoroughly with water.

Do not induce vomiting - give copious water to drink. Consult doctor immediately.

4.2 Most important symptoms and effects, both acute and delayed

If applicable delayed symptoms and effects can be found in section 11 and the absorption route in section 4.1. In certain cases, the symptoms of poisoning may only appear after an extended period / after several hours. eyes, reddened watering eyes headaches dizziness Coordination disorders mental confusion

4.3 Indication of any immediate medical attention and special treatment needed

Symptomatic treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media Suitable extinguishing media CO2 Extinction powder Water jet spray Alcohol resistant foam Unsuitable extinguishing media High volume water jet 5.2 Special hazards arising from the substance or mixture In case of fire the following can develop: Oxides of carbon Oxides of nitrogen Toxic pyrolysis products. Explosive vapour/air or gas/air mixtures. 5.3 Advice for firefighters



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For personal protective equipment see Section 8. In case of fire and/or explosion do not breathe fumes. Protective respirator with independent air supply. According to size of fire Full protection, if necessary. Cool container at risk with water. Dispose of contaminated extinction water according to official regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel

In case of spillage or accidental release, wear personal protective equipment as specified in section 8 to prevent contamination. Ensure sufficient ventilation, remove sources of ignition.

Avoid dust formation with solid or powder products.

Leave the danger zone if possible, use existing emergency plans if necessary.

Avoid contact with eyes or skin.

If applicable, caution - risk of slipping.

6.1.2 For emergency responders

See section 8 for suitable protective equipment and material specifications.

6.2 Environmental precautions

If leakage occurs, dam up.

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Resolve leaks if this possible without risk.

Prevent surface and ground-water infiltration, as well as ground penetration.

Prevent from entering drainage system.

If accidental entry into drainage system occurs, inform responsible authorities.

6.3 Methods and material for containment and cleaning up

Soak up with absorbent material (e.g. universal binding agent, sand, diatomaceous earth) and dispose of according to Section 13.

Flush residue using copious water. 6.4 Reference to other sections

For personal protective equipment see Section 8 and for disposal instructions see Section 13.

SECTION 7: Handling and storage

In addition to information given in this section, relevant information can also be found in section 8 and 6.1.

7.1 Precautions for safe handling

7.1.1 General recommendations

Ensure good ventilation.

Keep away from sources of ignition - Do not smoke.

Take measures against electrostatic charging, if appropriate.

Avoid contact with eyes or skin. Eating, drinking, smoking, as well as food-storage, is prohibited in work-room.

Observe directions on label and instructions for use.

Use working methods according to operating instructions.

7.1.2 Notes on general hygiene measures at the workplace

General hygiene measures for the handling of chemicals are applicable.

Wash hands before breaks and at end of work.

Keep away from food, drink and animal feedingstuffs.

Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

7.2 Conditions for safe storage, including any incompatibilities

Keep out of access to unauthorised individuals.

Not to be stored in gangways or stair wells. Store product closed and only in original packing. Do not store with oxidizing agents. Protect from direct sunlight and warming. Store in a well ventilated place. Observe special storage conditions.

7.3 Specific end use(s)



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No information available at present.

Observe the instructions for good working practice and the recommendations for risk assessment. Consult hazardous substance information systems, e.g. from the professional associations, the chemical industry or different industries, depending on the application (building materials, wood, chemistry, laboratory, leather, metal).

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Chemical Name	Propan-2-ol		
WEL-TWA: 400 ppm (999 mg/m3)		WEL-STEL: 500 ppm (1250 mg/m3)	
Monitoring procedures:	-	Draeger - Alcohol 25/a i-Propanol (81 01 631)	
	-	Compur - KITA-122 SA(C) (549 277)	
	-	Compur - KITA-150 U (550 382)	
		DFG (D) (Loesungsmittelgemische), DFG (E) (Solvent mixtu	ires 6) - 2013, 2002 - EU
	-	project BC/CEN/ENTR/000/2002-16 card 66-3 (2004)	-
	-	NIOSH 1400 (ALCOHOLS I) - 1994	
	-	NIOSH 2549 (VOLATILE ORGANIC COMPOUNDS (SCREE	ENING)) - 1996
	-	Draeger - Alcohol 100/a (CH 29 701)	
BMGV:		Other information:	
Chemical Name	2-Butoxyethanol		
WEL-TWA: 25 ppm (123 mg/m3) (WEL-TWA), 20	WEL-STEL: 50 ppm (246 mg/m3) (WEL-STEL, EU)	
WEL-TWA: 25 ppm (123 mg/m3) (ppm (98 mg/m3) (EU)	WEL-TWA), 20	WEL-STEL. 50 ppm (246 mg/m3) (WEL-STEL, EO)	
	WEL-1WA), 20 -	Compur - KITA-190 U(C) (548 873)	
ppm (98 mg/m3) (EU)	WEL-TWA), 20 -	Compur - KITA-190 U(C) (548 873) DFG MethNr. 2 (D) (Loesungsmittelgemische 3), DFG (E)	
ppm (98 mg/m3) (EU)	WEL-TWA), 20 - -	Compur - KITA-190 U(C) (548 873) DFG MethNr. 2 (D) (Loesungsmittelgemische 3), DFG (E) 2002 - EU project BC/CEN/ENTR/000/2002-16 card 32-2 (2)	
ppm (98 mg/m3) (EU)	-	Compur - KITA-190 U(C) (548 873) DFG MethNr. 2 (D) (Loesungsmittelgemische 3), DFG (E) 2002 - EU project BC/CEN/ENTR/000/2002-16 card 32-2 (2 NIOSH 1403 (ALCOHOLS IV) - 2003	004)
ppm (98 mg/m3) (EU)	-	Compur - KITA-190 U(C) (548 873) DFG MethNr. 2 (D) (Loesungsmittelgemische 3), DFG (E) 2002 - EU project BC/CEN/ENTR/000/2002-16 card 32-2 (2 NIOSH 1403 (ALCOHOLS IV) - 2003 NIOSH 2549 (VOLATILE ORGANIC COMPOUNDS (SCREE	004)
ppm (98 mg/m3) (EU) Monitoring procedures:		Compur - KITA-190 U(C) (548 873) DFG MethNr. 2 (D) (Loesungsmittelgemische 3), DFG (E) 2002 - EU project BC/CEN/ENTR/000/2002-16 card 32-2 (2 NIOSH 1403 (ALCOHOLS IV) - 2003 NIOSH 2549 (VOLATILE ORGANIC COMPOUNDS (SCREE OSHA 83 (2-Butoxyethanol (Butyl Cellosolve)) - 1990	004)
ppm (98 mg/m3) (EU)		Compur - KITA-190 U(C) (548 873) DFG MethNr. 2 (D) (Loesungsmittelgemische 3), DFG (E) 2002 - EU project BC/CEN/ENTR/000/2002-16 card 32-2 (2 NIOSH 1403 (ALCOHOLS IV) - 2003 NIOSH 2549 (VOLATILE ORGANIC COMPOUNDS (SCREE OSHA 83 (2-Butoxyethanol (Butyl Cellosolve)) - 1990	004)

Area of application	Exposure route / Environmental	Effect on health	Descriptor	Value	Unit	Note
	compartment					
	Environment - freshwater		PNEC	140,9	mg/l	
	Environment - marine		PNEC	140,9	mg/l	
	Environment - sediment, freshwater		PNEC	552	mg/kg dw	
	Environment - sediment, marine		PNEC	552	mg/kg dw	
	Environment - soil		PNEC	28	mg/kg dw	
	Environment - sewage treatment plant		PNEC	2251	mg/l	
	Environment - water, sporadic (intermittent) release		PNEC	140,9	mg/l	
	Environment - oral (animal feed)		PNEC	160	mg/kg feed	
Consumer	Human - dermal	Long term, systemic effects	DNEL	319	mg/kg bw/day	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	89	mg/m3	
Consumer	Human - oral	Long term, systemic effects	DNEL	26	mg/kg bw/day	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	888	mg/kg bw/day	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	500	mg/m3	



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Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	8,8	mg/l	
	Environment - marine		PNEC	0,88	mg/l	
	Environment - sediment, freshwater		PNEC	34,6	mg/kg dw	
	Environment - soil		PNEC	2,8	mg/kg dw	
	Environment - sewage treatment plant		PNEC	463	mg/l	
	Environment - sediment, marine		PNEC	3,46	mg/kg dw	
	Environment - sporadic (intermittent) release		PNEC	9,1	mg/l	
	Environment - soil		PNEC	2,33	mg/kg	
	Environment - oral (animal feed)		PNEC	20	mg/kg	
Consumer	Human - inhalation	Long term, local effects	DNEL	123	mg/m3	
Consumer	Human - dermal	Short term, systemic effects	DNEL	44,5	mg/kg bw/d	
Consumer	Human - inhalation	Short term, systemic effects	DNEL	426	mg/m3	
Consumer	Human - oral	Short term, systemic effects	DNEL	13,4	mg/kg bw/d	
Consumer	Human - inhalation	Short term, local effects	DNEL	147	mg/m3	
Consumer	Human - dermal	Long term, systemic effects	DNEL	38	mg/kg bw/d	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	49	mg/m3	
Consumer	Human - oral	Long term, systemic effects	DNEL	3,2	mg/kg bw/d	
Workers / employees	Human - dermal	Short term, systemic effects	DNEL	89	mg/kg bw/d	
Workers / employees	Human - inhalation	Short term, systemic effects	DNEL	663	mg/m3	
Workers / employees	Human - inhalation	Short term, local effects	DNEL	246	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	75	mg/kg bw/d	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	98	mg/m3	

Inited Kingdom | WEL-TWA = Workplace Exposure Limit - Long-term exposure limit - 8-hour TWA (= time weighted average) reference period (EH40/2005 Workplace exposure limits (Fourth Edition 2020)).

(EU) = Directive 91/322/EEC, 98/24/EC, 2000/39/EC, 2004/37/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU or 2019/1831/EU:

(8) = Inhalable fraction (2004/37/CE, 2017/164/EU). (9) = Respirable fraction (2004/37/CE, 2017/164/EU). (11) = Inhalable fraction (2004/37/CE). (12) = Inhalable fraction. Respirable fraction in those Member States that implement, on the date of the entry into force of this Directive, a biomonitoring system with a biological limit value not exceeding 0,002 mg Cd/g creatinine in urine (2004/37/CE). | | WEL-STEL = Workplace Exposure Limit - Short-term exposure limit - 15-minute reference period (EH40/2005 Workplace exposure limits (Fourth Edition 2020)).

(EU) = Directive 91/322/EEC, 98/24/EC, 2000/39/EC, 2004/37/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU or 2019/1831/EU:

(8) = Inhalable fraction (2004/37/EC, 2017/164/EU). (9) = Respirable fraction (2004/37/EC, 2017/164/EU). (10) = Short-term exposure limit value in relation to a reference period of 1 minute (2017/164/EU). |

| BMGV = Biological monitoring guidance value (EH40/2005 Workplace exposure limits (Fourth Edition 2020)).

(EU) = Directive 98/24/EC or 2004/37/EC or SCOEL (Biological Limit Value - BLV, Recommendation from the Scientific Committee on Occupational Exposure Limits (SCOEL))

| Other information (EH40/2005 Workplace exposure limits (Fourth Edition 2020)): Sen = Capable of causing occupational asthma. Sk = Can be absorbed through skin. Carc = Capable of causing cancer and/or heritable genetic damage.

(EU) = Directive 91/322/EEC, 98/24/EC, 2000/39/EC, 2004/37/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU, 2019/1831/EU or 2024/869/EU: (13) = The substance can cause sensitisation of the skin and of the respiratory tract (98/24/EC, 2004/37/CE), (14) = The substance can cause sensitisation of the skin (2004/37/CE), (15) = Substantial contribution to the total body burden via dermal exposure possible.



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8.2 Exposure controls

8.2.1 Appropriate engineering controls

Ensure good ventilation. This can be achieved by local suction or general air extraction.

If this is insufficient to maintain the concentration under the WEL or AGW values, suitable breathing protection should be worn.

Applies only if maximum permissible exposure values are listed here.

Suitable assessment methods for reviewing the effectiveness of protection measures adopted include metrological and non-metrological investigative techniques.

These are specified by e.g. EN 14042.

EN 14042 "Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents".

8.2.2 Individual protection measures, such as personal protective equipment

General hygiene measures for the handling of chemicals are applicable.

Wash hands before breaks and at end of work.

Keep away from food, drink and animal feedingstuffs.

Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

Eye/face protection: Tight fitting protective goggles with side protection (EN 166).

Skin protection - Hand protection: Chemical resistant protective gloves (EN ISO 374). Recommended Protective gloves in butyl rubber (EN ISO 374). Minimum layer thickness in mm: 0,5

Permeation time (penetration time) in minutes:

> 120

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The breakthrough times determined in accordance with EN 16523-1 were not obtained under practical conditions. The recommended maximum wearing time is 50% of breakthrough time. Incorporate a recovery phase for regeneration of the skin. Protective hand cream recommended.

Skin protection - Other: Protective working garments (e.g. safety shoes EN ISO 20345, long-sleeved protective working garments).

Respiratory protection: If OES or MEL is exceeded. Gas mask filter A (EN 14387), code colour brown Observe wearing time limitations for respiratory protection equipment.

Thermal hazards: Not applicable

Additional information on hand protection - No tests have been performed.

In the case of mixtures, the selection has been made according to the knowledge available and the information about the contents. Selection of materials derived from glove manufacturer's indications.

Final selection of glove material must be made taking the breakthrough times, permeation rates and degradation into account.

Selection of a suitable glove depends not only on the material but also on other quality characteristics and varies from manufacturer to manufacturer.

In the case of mixtures, the resistance of glove materials cannot be predicted and must therefore be tested before use. The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.

8.2.3 Environmental exposure controls

No information available at present.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state:



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Colour:

Odour: Melting point/freezing point: Boiling point or initial boiling point and boiling range: Flammability: Lower explosion limit: Upper explosion limit: Flash point: Auto-ignition temperature: Decomposition temperature: pH: Kinematic viscosity: Solubility: Partition coefficient n-octanol/water (log value): Vapour pressure: Density and/or relative density: Relative vapour density: Particle characteristics:

9.2 Other information

No information available at present.

Blue Characteristic There is no information available on this parameter. There is no information available on this parameter.

There is no information available on this parameter. There is no information available on this parameter. There is no information available on this parameter. 23 - 34 °C There is no information available on this parameter. There is no information available on this parameter. 9,5-10 There is no information available on this parameter. Mixable

Does not apply to mixtures.

There is no information available on this parameter. 0,95 g/ml

There is no information available on this parameter. Does not apply to liquids.

SECTION 10: Stability and reactivity

10.1 Reactivity

The product has not been tested. **10.2 Chemical stability** Stable with proper storage and handling. **10.3 Possibility of hazardous reactions** No dangerous reactions are known. **10.4 Conditions to avoid** See also section 7. Heating, open flame, ignition sources

10.5 Incompatible materials

See also section 7. Avoid contact with strong oxidizing agents. **10.6 Hazardous decomposition products**

See also section 5.2 No decomposition when used as directed.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Possibly more information on health effects, see Section 2.1 (classification). Glas-Reiniger

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	ATE	>2000	mg/kg	-		calculated value
Acute toxicity, by dermal route:						n.d.a.
Acute toxicity, by inhalation:	ATE	>20	mg/l/4h			calculated value, Vapours
Acute toxicity, by inhalation:	ATE	>5	mg/l/4h			calculated value, Aerosol
Skin corrosion/irritation:						n.d.a.
Serious eye damage/irritation:						n.d.a.
Respiratory or skin sensitisation:						n.d.a.
Germ cell mutagenicity:						n.d.a.
Carcinogenicity:						n.d.a.
Reproductive toxicity:						n.d.a.



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Specific target organ toxicity -			1	1		n.d.a.
single exposure (STOT-SE):						1.0.0.
Specific target organ toxicity -						n.d.a.
repeated exposure (STOT-RE):						
Aspiration hazard:						n.d.a.
Symptoms:						n.d.a.
Propan-2-ol						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	4570-5840	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	12800-13900	mg/kg	Rabbit	OECD 402 (Acute	
Aguto toxicity by inhelation:	LC50	> 25	mall/Ch	Rat	Dermal Toxicity) OECD 403 (Acute	Vapours
Acute toxicity, by inhalation:			mg/l/6h		Inhalation Toxicity)	Vapours
Acute toxicity, by inhalation:	LC50	46600	mg/l/4h	Rat		Aerosol
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Not irritant
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Eye Irrit. 2
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	No (skin contact
Germ cell mutagenicity:				Salmonella typhimurium	OECD 471 (Bacterial Reverse Mutation Test)	Negative
Germ cell mutagenicity:				Mouse	OECD 474 (Mammalian Erythrocyte Micronucleus Test)	Negative
Germ cell mutagenicity:					OECD 476 (In Vitro Mammalian Cell Gene Mutation Test)	Negative
Carcinogenicity:						Negative
Reproductive toxicity:		500	mg/kg/d	Rat	OECD 416 (Two- generation Reproduction Toxicity Study)	Negative (oral, 7 weeks)
Reproductive toxicity:	NOAEL	853	mg/kg bw/d	Rat	OECD 415 (One- Generation Reproduction Toxicity Study)	Negative
Reproductive toxicity:	NOAEL	400	mg/kg bw/d	Rat	OECD 414 (Prenatal Developmental Toxicity Study)	Negative
Specific target organ toxicity - single exposure (STOT-SE):						STOT SE 3, H336, May cause drowsiness or dizziness.
Specific target organ toxicity - repeated exposure (STOT-RE):						Target organ(s):
Specific target organ toxicity - repeated exposure (STOT-RE), oral:	NOAEL	900	mg/kg	Rat	OECD 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)	
Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.:	NOAEL	5000	ppm	Rat		Vapours (OECE 451)



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Symptoms:		breathing difficulties,
		unconsciousness , vomiting, headaches,
		fatigue, dizziness,
		nausea, eyes, reddened, watering eyes

2-Butoxyethanol								
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes		
Acute toxicity, by oral route:	ATE	1200	mg/kg					
Acute toxicity, by dermal route:	LD50	2275	mg/kg	Rabbit	OECD 402 (Acute Dermal Toxicity)			
Acute toxicity, by inhalation:	ATE	3	mg/l			Vapours		
Acute toxicity, by inhalation:	ATE	0,5	mg/l/4h			Aerosol		
Skin corrosion/irritation:				Rabbit	Regulation (EC) 440/2008 B.4 (DERMAL IRRITATION/CORROSI ON)	Skin Irrit. 2, Product removes fat.		
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Eye Irrit. 2		
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	No (skin contact)		
Germ cell mutagenicity:				Mouse	OECD 474 (Mammalian Erythrocyte Micronucleus Test)	Negative		
Germ cell mutagenicity:				Salmonella typhimurium	OECD 471 (Bacterial Reverse Mutation Test)	Negative		
Germ cell mutagenicity:					OECD 473 (In Vitro Mammalian Chromosome Aberration Test)	Negative		
Germ cell mutagenicity:					OECD 476 (In Vitro Mammalian Cell Gene Mutation Test)	Negative		
Carcinogenicity:				Rat	OECD 451 (Carcinogenicity Studies)	Negative		
Carcinogenicity:	NOAEC	125	ppm	Mouse	OECD 451 (Carcinogenicity Studies)	Negative		
Reproductive toxicity:	NOAEL	720	mg/kg bw/d					
Specific target organ toxicity - repeated exposure (STOT-RE), oral:	NOAEL	<69	mg/kg bw/d	Rat	OECD 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)			
Specific target organ toxicity - repeated exposure (STOT-RE), dermal:	NOAEL	>150	mg/kg bw/d	Rabbit	OECD 411 (Subchronic Dermal Toxicity - 90-day Study)			
Aspiration hazard:						No		



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Symptoms:		acidosis, ataxia,
		breathing
		difficulties,
		respiratory
		distress,
		drowsiness,
		unconsciousness
		, annoyance,
		coughing,
		headaches,
		gastrointestinal
		disturbances,
		insomnia,
		mucous
		membrane
		irritation,
		dizziness,
		nausea

11.2. Information on other hazards

Glas-Reiniger						
Glass Cleaner						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Endocrine disrupting properties:						Does not apply
						to mixtures.
Other information:						No other
						relevant
						information
						available on
						adverse effects
						on health.

SECTION 12: Ecological information

Possibly more information							
Glas-Reiniger							
Glass Cleaner	En du aint	Time	Value	L lucit	Organiam	Test methed	Notes
Toxicity / effect	Endpoint	Time	value	Unit	Organism	Test method	
12.1. Toxicity to fish:							n.d.a.
12.1. Toxicity to daphnia:							n.d.a.
12.1. Toxicity to algae:			_				n.d.a.
12.2. Persistence and							n.d.a.
degradability:							
12.3. Bioaccumulative							n.d.a.
potential:							
12.4. Mobility in soil:							n.d.a.
12.5. Results of PBT							n.d.a.
and vPvB assessment							
12.6. Endocrine							Does not apply
disrupting properties:							to mixtures.
12.7. Other adverse							No information
effects:							available on
							other adverse
							effects on the
							environment.
Other information:							DOC-elimination
							degree(complexi
							ng organic
							substance)>=
							80%/28d: n.a.



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Other information:	AOX			%			According to the recipe, contains no AOX.
Propan-2-ol						·	
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	>100	mg/l	Leuciscus idus		
12.1. Toxicity to fish:	LC50	96h	1400	mg/l	Lepomis macrochirus		
12.1. Toxicity to daphnia:	EC50	48h	2285	mg/l	Daphnia magna		
12.1. Toxicity to daphnia:	EC50	16d	141	mg/l	Daphnia magna		
12.1. Toxicity to algae:	EC50	72h	>100	mg/l	Desmodesmus subspicatus		
12.2. Persistence and degradability:		21d	95	%	Subspicatus	OECD 301 E (Ready Biodegradability - Modified OECD Screening Test)	Readily biodegradable
12.2. Persistence and degradability:			99,9	%		OECD 303 A (Simulation Test - Aerobic Sewage Treatment - Activated Sludge Units)	Readily biodegradable
12.3. Bioaccumulative potential:	Log Pow		0,05			OECD 107 (Partition Coefficient (n- octanol/water) - Shake Flask Method)	Slight
12.3. Bioaccumulative potential:	BCF		3,2			,	Low
12.4. Mobility in soil:	Кос		1,1				Expert judgement
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Toxicity to bacteria:	EC50		>1000	mg/l	activated sludge		
Other organisms:	IC50	3d	2104	mg/l	Lactuca sativa		
Other information:	ThOD		2,4	g/g			
Other information:	BOD5		53	%			
Other information:	COD		96	%			References
Other information:	COD		2,4	g/g			
Other information:	BOD		1171	mg/g			
2-Butoxyethanol		1					
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	1474	mg/l	Oncorhynchus mykiss	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to fish:	NOEC/NOEL	21d	>100	mg/l	Brachydanio rerio	OECD 204 (Fish, Prolonged Toxicity Test - 14-Day Study)	
12.1. Toxicity to daphnia: 12.1. Toxicity to daphnia:	EC50 NOEC/NOEL	48h 21d	1550	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test) OECD 211	



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12.1. Toxicity to algae:	EC50	72h	1840	mg/l	Pseudokirchneriell a subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
12.1. Toxicity to algae:	NOEC/NOEL	72h	286	mg/l	Pseudokirchneriell a subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:		28d	95	%		OECD 301 E (Ready Biodegradability - Modified OECD Screening Test)	Readily biodegradable
12.2. Persistence and degradability:		28d	>99	%		OECD 302 B (Inherent Biodegradability - Zahn- Wellens/EMPA Test)	Readily biodegradable
12.3. Bioaccumulative potential:	BCF		3,2			,	Slight
12.3. Bioaccumulative potential:	Log Pow		0,81			OECD 107 (Partition Coefficient (n- octanol/water) - Shake Flask Method)	Not to be expected
12.4. Mobility in soil:	H (Henry)		0,00000 16	atm*m3/m ol			
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Toxicity to bacteria:	EC10	16h	>700	mg/l	Pseudomonas putida	DIN 38412 T.8	

SECTION 13: Disposal considerations

13.1 Waste treatment methods For the substance / mixture / residual amounts

EC disposal code no.:

The waste codes are recommendations based on the scheduled use of this product.

Owing to the user's specific conditions for use and disposal, other waste codes may be

allocated under certain circumstances. (2014/955/EU)

07 06 01 aqueous washing liquids and mother liquors

20 01 29 detergents containing hazardous substances

Recommendation:

Sewage disposal shall be discouraged.

Pay attention to local and national official regulations.

E.g. dispose at suitable refuse site.

E.g. suitable incineration plant.

For contaminated packing material

Pay attention to local and national official regulations.

Empty container completely.

Uncontaminated packaging can be recycled.

Dispose of packaging that cannot be cleaned in the same manner as the substance.

Residues may present a risk of explosion.

SECTION 14: Transport information

General statements Transport by road/by rail (ADR/RID)



(B)						
Page 14 of 17	gulation (EC) No 1907/2006, Annex II 5 / 0016	(last amended by Regulation (EU) 2	020/878)			
Replacing version dated / version:						
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Glas-Reiniger Glass Cleaner						
14.1. UN number or ID number:		1987				
14.2. UN proper shipping name:			A			
UN 1987 ALCOHOLS, N.O.S. (ISO 14.3. Transport hazard class(es):		3				
14.4. Packing group:		III	•			
14.5. Environmental hazards:		Not applicable				
Tunnel restriction code:		D/E				
Classification code:		F1				
LQ: Transport category:		5 L 3				
Transport by sea (IMDG	-code)	3				
14.1. UN number or ID number:	-coue,	1987				
14.2. UN proper shipping name:		1907				
UN 1987 ALCOHOLS, N.O.S. (ISO	PROPYL ALCOHOL)					
14.3. Transport hazard class(es):		3				
14.4. Packing group:		III Natappliashla				
14.5. Environmental hazards: Marine Pollutant:		Not applicable Not applicable				
EmS:		F-E, S-D				
Transport by air (IATA)		- , -				
14.1. UN number or ID number:		1987				
14.2. UN proper shipping name:			•			
UN 1987 Alcohols, n.o.s. (ISOPRO	PYL ALCOHOL)		<u> </u>			
14.3. Transport hazard class(es): 14.4. Packing group:		3 	•			
14.5. Environmental hazards:		Not applicable				
14.6. Special precaution	is for user					
Persons employed in transporting of						
All persons involved in transporting	g must observe safety regulations.					
Precautions must be taken to prevent damage.						
	in bulk according to IMO					
	er than in bulk, therefore not applicable	le.				
Minimum amount regulations have Danger code and packing code on						
Comply with special provisions.	Tequest.					
	SECTION 15, Dog	detary information				
	SECTION 15: Key	ulatory information				
15.1 Safety health and a	environmental regulations	Magielation energific for t	ha substance or mixture			
15.1 Salety, nearth and e		siegisiation specific for a				
Observe restrictions:						
Comply with national regulations/laws governing maternity protection (national implementation of the Directive 92/85/EEC)!						
Comply with trade association/occu	upational health regulations.					
Directive 2012/18/EU ("Seveso III") according to storage, handling etc.)), Annex I, Part 1 - The following cate;):	gories apply to this product (others m	ay also need to be considered			
Hazard categories	Notes to Annex I	Qualifying quantity (tonnes) of	Qualifying quantity (tonnes) of			
		dangerous substances as	dangerous substances as			
		referred to in Article 3(10) for the application of - Lower-tier	referred to in Article 3(10) for the application of - Upper-tier			
		requirements	requirements			

requirements 5000 P5c 50000 The Notes to Annex 1 of Directive 2012/18/EU, in particular those named in the tables here and notes 1-6, must be taken into account when assigning categories and qualifying quantities.

Directive 2010/75/EU (VOC): REGULATION (EC) No 648/2004

33,5 %

National requirements/regulations on safety and health protection must be applied when using work equipment.



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15.2 Chemical safety assessment

A chemical safety assessment is not provided for mixtures.

SECTION 16: Other information

Revised sections:

Glass Cleaner

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Employee training in handling dangerous goods is required. These details refer to the product as it is delivered. Employee instruction/training in handling hazardous materials is required.

Classification and processes used to derive the classification of the mixture in accordance with the ordinance (EG) 1272/2008 (CLP):

Classification in accordance with regulation (EC) No. 1272/2008 (CLP)	Evaluation method used
Flam. Liq. 3, H226	Classification based on test data.
Eye Irrit. 2, H319	Classification according to calculation procedure.
STOT SE 3, H336	Classification according to calculation procedure.

The following phrases represent the posted Hazard Class and Risk Category Code (GHS/CLP) of the product and the constituents. H225 Highly flammable liquid and vapour.

H302 Harmful if swallowed.

H315 Causes skin irritation.

H319 Causes serious eye irritation. H331 Toxic if inhaled.

H336 May cause drowsiness or dizziness.

Flam. Liq. — Flammable liquid Eye Irrit. — Eye irritation STOT SE — Specific target organ toxicity - single exposure - narcotic effects Acute Tox. — Acute toxicity - inhalation Acute Tox. — Acute toxicity - oral Skin Irrit. — Skin irritation

Key literature references and sources for data:

Regulation (EC) No 1907/2006 (REACH) and Regulation (EC) No 1272/2008 (CLP) as amended.

Guidelines for the preparation of safety data sheets as amended (ECHA).

Guidelines on labelling and packaging according to the Regulation (EG) Nr. 1272/2008 (CLP) as amended (ECHA).

Safety data sheets for the constituent substances.

ECHA Homepage - Information about chemicals.

GESTIS Substance Database (Germany).

German Environment Agency "Rigoletto" information site on substances that are hazardous to water (Germany).

EU Occupation Exposure Limits Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, (EU) 2017/164, (EU) 2019/1831, each as amended.

National Lists of Occupational Exposure Limits for each country as amended.

Regulations on the transport of hazardous goods by road, rail, sea and air (ADR, RID, IMDG, IATA) as amended.

Any abbreviations and acronyms used in this document:

acc., acc. to according, according to ADR Accord européen relatif au transport international des marchandises Dangereuses par Route (= European Agreement concerning the International Carriage of Dangerous Goods by Road) AOX Adsorbable organic halogen compounds approx. approximately Art., Art. no. Article number ASTM ASTM International (American Society for Testing and Materials)



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Polyvinylchloride PVC

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REACHRegistration, Evaluation, Authorisation and Restriction of Chemicals (REGULATION (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals)

REACH-IT List-No. 6/7/8/9xx-xxx-x No. is automatically assigned, e.g. to pre-registrations without a CAS No. or other numerical identifier. List Numbers do not have any legal significance, rather they are purely technical identifiers for processing a submission via REACH-IT.

RID Règlement concernant le transport International ferroviaire de marchandises Dangereuses (= Regulation concerning the International Carriage of Dangerous Goods by Rail)

SVHC Substances of Very High Concern

Tel. Telephone

TOC Total organic carbon

UN RTDG United Nations Recommendations on the Transport of Dangerous Goods

VOC Volatile organic compounds

vPvB very persistent and very bioaccumulative

The statements made here should describe the product with regard to the necessary safety precautions - they are not meant to guarantee definite characteristics - but they are based on our present up-to-date knowledge. No responsibility.

These statements were made by: Chemical Check GmbH, Chemical Check Platz 1-7, D-32839 Steinheim, Tel.: +49 5233 94 17 0, Fax: +49 5233 94 17 90

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