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Page 1 of 10

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 21.08.2015 / 0009

Replacing version dated / version: 21.01.2013 / 0008

Valid from: 21.08.2015 PDF print date: 24.08.2015 Klimaanlagen-Reiniger 1 L

Art.: 4091

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

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

1.1 Product identifier

Klimaanlagen-Reiniger 1 L

Art.: 4091

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

Biocide Cleaner

Uses advised against:

No information available at present.

1.3 Details of the supplier of the safety data sheet

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LIQUI MOLY GmbH, Jerg-Wieland-Str. 4, 89081 Ulm-Lehr, Germany Phone: (+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:

Telephone number of the company in case of emergencies:

+49 (0) 700 / 24 112 112 (LMR)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) 1272/2008 (CLP)

The mixture is not classified as dangerous in the terms of the Regulation (EC) 1272/2008 (CLP).

2.2 Label elements

Labeling according to Regulation (EC) 1272/2008 (CLP)

Not applicable

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.

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

REGULATION (EC) No 648/2004

disinfectants perfumes LIMONENE

SECTION 3: Composition/information on ingredients



Page 2 of 10

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 21.08.2015 / 0009

Replacing version dated / version: 21.01.2013 / 0008

Valid from: 21.08.2015 PDF print date: 24.08.2015 Klimaanlagen-Reiniger 1 L

Art.: 4091

3.1 Substance

n.a. 3.2 Mixture

Bronopol (INN)	
Registration number (REACH)	
Index	603-085-00-8
EINECS, ELINCS, NLP	200-143-0
CAS	52-51-7
content %	0,18
Classification according to Regulation (EC) 1272/2008 (CLP)	Acute Tox. 4, H312
	Acute Tox. 4, H302
	STOT SE 3, H335
	Skin Irrit. 2, H315
	Eye Dam. 1, H318
	Aquatic Acute 1, H400 (M=10)

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 3.1/3.2 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.

SECTION 4: First aid measures

4.1 Description of first aid measures Inhalation

The following may occur:

Vomiting

Remove person from danger area.

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

Skin contact

The following may occur:

Irritation of the skin.

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

Eye contact

The following may occur:

Irritation of the eyes

Wash thoroughly for several minutes using copious water - call doctor immediately, have Data Sheet available.

Ingestion

The following may occur:

Vomiting

Coughing

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.

4.3 Indication of any immediate medical attention and special treatment needed

n.c

SECTION 5: Firefighting measures

5.1 Extinguishing media Suitable extinguishing media

Adapt to the nature and extent of fire.

Unsuitable extinguishing media



Œ

Page 3 of 10

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 21.08.2015 / 0009

Replacing version dated / version: 21.01.2013 / 0008

Valid from: 21.08.2015 PDF print date: 24.08.2015 Klimaanlagen-Reiniger 1 L

Art.: 4091

5.2 Special hazards arising from the substance or mixture

In case of fire the following can develop:

Oxides of carbon Toxic gases Hydrogen chloride Phosgene

5.3 Advice for firefighters

Protective respirator with independent air supply.

Dispose of contaminated extinction water according to official regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure sufficient supply of air.

Avoid contact with eyes or skin.

6.2 Environmental precautions

If leakage occurs, dam up.

Resolve leaks if this possible without risk.

Prevent from entering drainage system.

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

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.

Observe directions on label and instructions for use.

Do not use the product in enclosed spaces.

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

Store product closed and only in original packing.

Not to be stored in gangways or stair wells.

Store in a well ventilated place.

Store cool.

7.3 Specific end use(s)

No information available at present.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.2 Exposure controls

8.2.1 Appropriate engineering controls



Œ

Page 4 of 10

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 21.08.2015 / 0009

Replacing version dated / version: 21.01.2013 / 0008

Valid from: 21.08.2015 PDF print date: 24.08.2015 Klimaanlagen-Reiniger 1 L

Art.: 4091

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.

Eve/face protection:

Tight fitting protective goggles with side protection (EN 166).

Skin protection - Hand protection:

Recommended

Rubber gloves (EN 374).

Minimum layer thickness in mm:

0.65

Permeation time (penetration time) in minutes:

> 240

The breakthrough times determined in accordance with EN 374 Part 3 were not obtained under practical conditions.

The recommended maximum wearing time is 50% of breakthrough time.

Skin protection - Other:

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

Respiratory protection:

Normally not necessary.

Thermal hazards:

If applicable, these are included in the individual protective measures (eye/face protection, skin protection, respiratory protection).

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:

Colour:

Colour:

Odour:

Definitial boiling point:

Initial boiling point:

Flash point:

Liquid

Colourless

Lemon

Not determined

7

Not determined

Not determined

>100 °C

Flash point:

Not determined

Evaporation rate:

Flammability (solid, gas):

Lower explosive limit:

Upper explosive limit:

Vapour pressure:

Not determined

Not determined

Not determined

Vapour pressure:

<8 hPa

Vapour pressure:<8 hPa</th>Vapour density (air = 1):Not determinedDensity:1 g/ml (20°C)Bulk density:Not determinedSolubility(ies):Not determinedWater solubility:Mixable

Partition coefficient (n-octanol/water):

Not determined



Page 5 of 10

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 21.08.2015 / 0009

Replacing version dated / version: 21.01.2013 / 0008

Valid from: 21.08.2015 PDF print date: 24.08.2015 Klimaanlagen-Reiniger 1 L

Art.: 4091

Not determined Auto-ignition temperature: Decomposition temperature: Not determined Not determined Viscosity: Explosive properties: Not determined No

Oxidising properties:

9.2 Other information

Miscibility: Not determined Fat solubility / solvent: Not determined Conductivity: Not determined Surface tension: Not determined Not determined Solvents content:

SECTION 10: Stability and reactivity

10.1 Reactivity

See also Subsection 10.2 to 10.6. The product has not been tested.

10.2 Chemical stability

See also Subsection 10.1 to 10.6. Stable with proper storage and handling.

10.3 Possibility of hazardous reactions

See also Subsection 10.1 to 10.6.

10.4 Conditions to avoid

See also section 7.

Do not use on hot surfaces.

10.5 Incompatible materials

See also section 7.

Avoid contact with other chemicals.

10.6 Hazardous decomposition products

See also Subsection 10.1 to 10.5.

See also section 5.2

SECTION 11: Toxicological information

11.1 Information on toxicological effects

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

Toxicity / effect	Endpoin t	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	-					n.d.a.
Acute toxicity, by dermal route:						n.d.a.
Acute toxicity, by inhalation:						n.d.a.
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.
Specific target organ toxicity - single exposure (STOT-SE):						n.d.a.
Specific target organ toxicity - repeated exposure (STOT-RE):						n.d.a.
Aspiration hazard:						n.d.a.
Symptoms:						n.d.a.
Other information:						Classification according to calculation procedu



Page 6 of 10
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 21.08.2015 / 0009

Replacing version dated / version: 21.01.2013 / 0008

Valid from: 21.08.2015 PDF print date: 24.08.2015 Klimaanlagen-Reiniger 1 L

Art.: 4091

Toxicity / effect	Endpoin	Value	Unit	Organism	Test method	Notes
	t					
Acute toxicity, by oral route:	LD50	305	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	data of a diluted aequous solution
Acute toxicity, by dermal route:	LD50	1600	mg/kg	Rat		
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Irritant
Serious eye damage/irritation:				Rabbit	(Draize-Test)	Risk of serious damage to eyes.
Specific target organ toxicity - single exposure (STOT-SE):						May cause respiratory irritation.
Symptoms:						eyes, reddened, drowsiness, coughing, mucous membrane irritation, nausea and vomiting.

SECTION 12: Ecological information

Possibly more information on environmental effects, see Section 2.1 (classification).

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
Toxicity to fish:							n.d.a.
Toxicity to daphnia:							n.d.a.
Toxicity to algae:							n.d.a.
Persistence and							The surfactant(s)
degradability:							contained in this mixture
							complies(comply) with the
							biodegradability criteria as
							laid down in Regulation
							(EC) No.648/2004 on
							detergents. Data to
							support this assertion are
							held at the disposal of the
							competent authorities of
							the Member States and
							will be made available to
							them, at their direct
							request or at the request
							of a detergent
							manufacturer.
Persistence and							Biodegradable
degradability:							
Bioaccumulative							n.d.a.
potential:							
Mobility in soil:							n.d.a.
Results of PBT and							n.d.a.
vPvB assessment							
Other adverse effects:							n.d.a.
Other information:							According to the recipe,
							contains no AOX.

Bronopol (INN)								
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes	
Toxicity to fish:	LC50	96h	35,7	mg/l	Lepomis			
					macrochirus			
Toxicity to fish:	LC50	96h	41,2	mg/l	Oncorhynchus			
					mykiss			
Toxicity to daphnia:	EC50	48h	1,4	mg/l	Daphnia magna			



(GB)

Page 7 of 10

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 21.08.2015 / 0009

Replacing version dated / version: 21.01.2013 / 0008

Valid from: 21.08.2015 PDF print date: 24.08.2015 Klimaanlagen-Reiniger 1 L

Art.: 4091

Toxicity to algae:	EC50	72h	0,4 - 2,8	mg/l	Pseudokirchneriell a subcapitata		
Persistence and degradability:	DOC		50	%		ISO 9888	Biodegradable
Bioaccumulative potential:	Log Pow		0,18				Not accepted due to the log Pow - value.
Toxicity to bacteria:	EC50	16h	>50	mg/l	Pseudomonas putida		

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 99 wastes not otherwise specified

Recommendation:

Sewage disposal shall be discouraged.

Pay attention to local and national official regulations.

Implement substance recycling.

E.g. dispose at suitable refuse site.

E.g. suitable incineration plant.

For contaminated packing material

Pay attention to local and national official regulations.

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

15 01 02 plastic packaging

SECTION 14: Transport information

General statements

UN number: n.a.

Transport by road/by rail (ADR/RID)

UN proper shipping name:

Transport hazard class(es):

Packing group:

Classification code:

LQ (ADR 2015):

n.a.

n.a.

Environmental hazards: Not applicable

Tunnel restriction code:

Transport by sea (IMDG-code)

UN proper shipping name:
Transport hazard class(es):
Packing group:
Marine Pollutant:

n.a.

Environmental hazards: Not applicable

Transport by air (IATA)

UN proper shipping name:

Transport hazard class(es):

Packing group:

n.a.

n.a.

Environmental hazards: Not applicable

Special precautions for user

Unless specified otherwise, general measures for safe transport must be followed.

Transport in bulk according to Annex II of MARPOL and the IBC Code

Non-dangerous material according to Transport Regulations.

SECTION 15: Regulatory information



Page 8 of 10

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 21.08.2015 / 0009

Replacing version dated / version: 21.01.2013 / 0008

Valid from: 21.08.2015 PDF print date: 24.08.2015 Klimaanlagen-Reiniger 1 L

Art.: 4091

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

Additional data acc. to Art. 69 (2), Regulation (EU) No 528/2012

(Biocide products):

For classification and labelling see Section 2.

The identity of every active substance and its concentration in metric

units:

Bronopol (INN)

0,18 g/100 g The uses:

Disinfection

Biocidal product authorisation number (Regulation (EU) No. 528/2012):

Registration number BAuA (Federal Institute for Occupational Health

and Safety, Germany):

baua:Reg.-Nr. N-10278

Observe restrictions:

General hygiene measures for the handling of chemicals are applicable.

Directive 2010/75/EU (VOC):

0 %

15.2 Chemical safety assessment

A chemical safety assessment is not provided for mixtures.

SECTION 16: Other information

1 - 16 Revised sections:

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

Not applicable

The following phrases represent the posted Hazard Class and Risk Category Code (GHS/CLP) of the product and the constituents (specified in Section 2 and 3).

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H335 May cause respiratory irritation.

H400 Very toxic to aquatic life.

Observe Regulation (EU) No 528/2012 concerning the placing of biocidal products on the market.

Acute Tox. — Acute toxicity - dermal Acute Tox. — Acute toxicity - oral

STOT SE — Specific target organ toxicity - single exposure - respiratory tract irritation

Skin Irrit. — Skin irritation

Eye Dam. — Serious eye damage

Aquatic Acute — Hazardous to the aquatic environment - acute

Any abbreviations and acronyms used in this document:

AC **Article Categories**

according, according to acc., acc. to

ACGIH American Conference of Governmental Industrial Hygienists

ADR Accord européen relatif au transport international des marchandises Dangereuses par Route (= European Agreement concerning the International Carriage of Dangerous Goods by Road)

AOEL Acceptable Operator Exposure Level

AOX Adsorbable organic halogen compounds

approx. approximately

Article number Art., Art. no.

ATE Acute Toxicity Estimate according to Regulation (EC) 1272/2008 (CLP)



(GB)

Page 9 of 10

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 21.08.2015 / 0009

Replacing version dated / version: 21.01.2013 / 0008

Valid from: 21.08.2015 PDF print date: 24.08.2015 Klimaanlagen-Reiniger 1 L

Art.: 4091

Bundesanstalt für Materialforschung und -prüfung (Federal Institute for Materials Research and Testing, Germany) BAM BAuA Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (= Federal Institute for Occupational Health and Safety, Germany)

BCF Bioconcentration factor

Berufsgenossenschaftliche Vorschrift (= Accident Prevention Regulation) BGV

Butylhydroxytoluol (= 2,6-Di-t-butyl-4-methyl-phenol) BHT BMGV Biological monitoring guidance value (EH40, UK)

BOD Biochemical oxygen demand

BSEF Bromine Science and Environmental Forum

body weight bw

CAS Chemical Abstracts Service

Coordinating European Council for the Development of Performance Tests for Fuels, Lubricants and Other Fluids CEC

CESIO Comité Européen des Agents de Surface et de leurs Intermédiaires Organiques

CIPAC Collaborative International Pesticides Analytical Council

CLP Classification, Labelling and Packaging (REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures)

CMR carcinogenic, mutagenic, reproductive toxic

COD Chemical oxygen demand

CTFA Cosmetic, Toiletry, and Fragrance Association

DMEL Derived Minimum Effect Level DNEL Derived No Effect Level DOC Dissolved organic carbon

DT50 Dwell Time - 50% reduction of start concentration

DVS Deutscher Verband für Schweißen und verwandte Verfahren e.V. (= German Association for Welding and Allied Processes)

dw dry weight

for example (abbreviation of Latin 'exempli gratia'), for instance e.g.

EC **European Community** ECHA European Chemicals Agency EEA European Economic Area **EEC** European Economic Community

EINECS European Inventory of Existing Commercial Chemical Substances

ELINCS European List of Notified Chemical Substances

ΕN European Norms

EPA United States Environmental Protection Agency (United States of America)

ERC Environmental Release Categories

FS Exposure scenario etc. et cetera EU **European Union EWC** European Waste Catalogue

Fax number Fax. aen. general

GHS Globally Harmonized System of Classification and Labelling of Chemicals

GWP Global warming potential

HET-CAM Hen's Egg Test - Chorionallantoic Membrane

HGWP Halocarbon Global Warming Potential IARC International Agency for Research on Cancer IATA International Air Transport Association **IBC** Intermediate Bulk Container

IBC (Code) International Bulk Chemical (Code)

IC Inhibitory concentration

IMDG-code International Maritime Code for Dangerous Goods

including, inclusive incl.

IUCLID International Uniform Chemical Information Database

LC lethal concentration

LC50 lethal concentration 50 percent kill LCLo lowest published lethal concentration

Lethal Dose of a chemical LD LD50 Lethal Dose, 50% kill LDLo Lethal Dose Low

LOAEL Lowest Observed Adverse Effect Level LOEC Lowest Observed Effect Concentration

LOEL Lowest Observed Effect Level

Limited Quantities 10

MARPOL International Convention for the Prevention of Marine Pollution from Ships

n.a. not applicable



(GB)

Page 10 of 10

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 21.08.2015 / 0009

Replacing version dated / version: 21.01.2013 / 0008

Valid from: 21.08.2015 PDF print date: 24.08.2015 Klimaanlagen-Reiniger 1 L

Art.: 4091

n.av. not available n.c. not checked n.d.a. no data available

NIOSH National Institute of Occupational Safety and Health (United States of America)

NOAEC No Observed Adverse Effective Concentration

NOAEL No Observed Adverse Effect Level NOEC No Observed Effect Concentration NOEL No Observed Effect Level ODP Ozone Depletion Potential

OECD Organisation for Economic Co-operation and Development

org. organic

PAH polycyclic aromatic hydrocarbon PBT persistent, bioaccumulative and toxic

PC Chemical product category

PE Polyethylene

PNEC Predicted No Effect Concentration POCP Photochemical ozone creation potential

ppm parts per million PROC Process category PTFE Polytetrafluorethylene

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. 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)

SADT Self-Accelerating Decomposition Temperature

SAR Structure Activity Relationship

SU Sector of use

SVHC Substances of Very High Concern

Tel. Telephone

ThOD Theoretical oxygen demand TOC Total organic carbon

TRGS Technische Regeln für Gefahrstoffe (=Technical Regulations for Hazardous Substances)
UN RTDG United Nations Recommendations on the Transport of Dangerous Goods
VbF Verordnung über brennbare Flüssigkeiten (= Regulation for flammable liquids (Austria))

VOC Volatile organic compounds

vPvB very persistent and very bioaccumulative

WEL-TWA, WEL-STEL WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period), WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period) (EH40, UK).

WHO World Health Organization

wwt wet weight

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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