

Page 1 of 21 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II Revision date / version: 02.11.2023 / 0008 Replacing version dated / version: 18.09.2022 / 0007 Valid from: 02.11.2023 PDF print date: 02.11.2023 Motorsystemreiniger Benzin Gasoline Engine System Cleaner

### 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**

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### Motorsystemreiniger Benzin Gasoline Engine System Cleaner

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

### Uses advised against:

No information available at present.

### 1.3 Details of the supplier of the safety data sheet

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:

### Telephone number of the company in case of emergencies:

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

### **SECTION 2: Hazards identification**

2.1 Classification of the substance or mixture Classification according to Regulation (EC) 1272/2008 (CLP)					
Hazard class	Hazard category	Hazard statement			
Asp. Tox.	1	H304-May be fatal if swallowed and enters airways.			
Aquatic Chronic	3	H412-Harmful to aquatic life with long lasting effects.			

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



Page 2 of 21

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Safety data sheet according to Regulation (EC) No 1907/2006, Annex II Revision date / version: 02.11.2023 / 0008 Replacing version dated / version: 18.09.2022 / 0007 Valid from: 02.11.2023 PDF print date: 02.11.2023 Motorsystemreiniger Benzin Gasoline Engine System Cleaner



Danger

H304-May be fatal if swallowed and enters airways. H412-Harmful to aquatic life with long lasting effects.

P101-If medical advice is needed, have product container or label at hand. P102-Keep out of reach of children. P301+P310-IF SWALLOWED: Immediately call a POISON CENTER / doctor. P331-Do NOT induce vomiting. P405-Store locked up.

P501-Dispose of contents / container to an approved waste disposal facility.

EUH066-Repeated exposure may cause skin dryness or cracking.

Hydrocarbons, C10, aromatics, >1% naphthalene Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics

### 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

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics	
Registration number (REACH)	01-2119457273-39-XXXX
Index	
EINECS, ELINCS, NLP, REACH-IT List-No.	918-481-9
CAS	
content %	75-<100
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	EUH066
	Asp. Tox. 1, H304

2-Ethylhexanol	Substance for which an EU exposure limit value applies.
Registration number (REACH)	01-2119487289-20-XXXX
Index	
EINECS, ELINCS, NLP, REACH-IT List-No.	203-234-3
CAS	104-76-7
content %	1-<2,5
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Acute Tox. 4, H332
	Skin Irrit. 2, H315
	Eye Irrit. 2, H319
	STOT SE 3, H335
Reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-	
hydroxyphenyl)propionate	



Page 3 of 21

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Safety data sheet according to Regulation (EC) No 1907/2006, Annex II Revision date / version: 02.11.2023 / 0008 Replacing version dated / version: 18.09.2022 / 0007 Valid from: 02.11.2023 PDF print date: 02.11.2023 Motorsystemreiniger Benzin Gasoline Engine System Cleaner

Registration number (REACH)	01-0000015551-76-XXXX
Index	607-530-00-7
EINECS, ELINCS, NLP, REACH-IT List-No.	406-040-9
CAS	125643-61-0
content %	1-<2,5
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Aquatic Chronic 4, H413
Hydrocarbons, C10, aromatics, >1% naphthalene	
Registration number (REACH)	01-2119463588-24-XXXX
Index	
EINECS, ELINCS, NLP, REACH-IT List-No.	919-284-0
CAS	(64742-94-5)
content %	1-<2,5
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	EUH066
	STOT SE 3, H336
	Asp. Tox. 1, H304
	Aquatic Chronic 2, H411

Naphthalene	Substance for which an EU exposure limit value applies.
Registration number (REACH)	
Index	601-052-00-2
EINECS, ELINCS, NLP, REACH-IT List-No.	202-049-5
CAS	91-20-3
content %	0,1-<0,25
Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Acute Tox. 4, H302
	Carc. 2, H351
	Aquatic Acute 1, H400 (M=1)
	Aquatic Chronic 1, H410 (M=1)

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.

If, for example, the note P is applied for a hydrocarbon then this has already been taken into account for the classification named here. Quote: "Note P - The classification as a carcinogen or mutagen need not apply if it can be shown that the substance contains less than 0,1 % w/w benzene (EINECS No 200-753-7)."

Article 4 of the regulation (EC) no. 1272/2008 (CLP regulation) was also observed and taken into account for the classification named here. 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.

### Skin contact

Remove polluted, soaked clothing immediately, wash thoroughly with plenty of water and soap, in case of irritation of the skin (flare), consult a 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. Consult doctor immediately.

Danger of aspiration.

In case of vomiting, keep head low so that the stomach content does not reach the lungs.

4.2 Most important symptoms and effects, both acute and delayed



Page 4 of 21 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II Revision date / version: 02.11.2023 / 0008 Replacing version dated / version: 18.09.2022 / 0007 Valid from: 02.11.2023 PDF print date: 02.11.2023 Motorsystemreiniger Benzin Gasoline Engine System Cleaner

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. Headaches Dizziness Mental confusion Coordination disorders With long-term contact: Drying of the skin. Dermatitis (skin inflammation) Ingestion: Nausea Vomiting Danger of aspiration. Oedema of the lungs Chemical pneumonitis (condition similar to pneumonia)

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

Gastric lavage (stomach washing) only under endotracheal intubation. Subsequent observation for pneumonia and pulmonary oedema.

### **SECTION 5: Firefighting measures**

### 5.1 Extinguishing media

### Suitable extinguishing media

Water jet spray / alcohol resistant foam / CO2 / dry extinguisher.

Unsuitable extinguishing media

High volume water jet

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### 5.2 Special hazards arising from the substance or mixture

In case of fire the following can develop: Oxides of carbon Toxic gases Possible build up of explosive/highly flammable vapour/air mixture.

### **5.3 Advice for firefighters**

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.

Keep unprotected persons away.

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.

Resolve leaks if this possible without risk. Prevent surface and ground-water infiltration, as well as ground penetration.

Prevent from entering drainage system.



Page 5 of 21 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II Revision date / version: 02.11.2023 / 0008 Replacing version dated / version: 18.09.2022 / 0007 Valid from: 02.11.2023 PDF print date: 02.11.2023 Motorsystemreiniger Benzin Gasoline Engine System Cleaner

### 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. Fill the absorbed material into lockable containers.

### 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.

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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. Store product closed and only in original packing. Not to be stored in gangways or stair wells. Solvent resistant floor Do not store with flammable or self-igniting materials. Protect from direct sunlight and warming. Store in a well-ventilated place. Store cool.

### 7.3 Specific end use(s)

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

Workplace exposure limit (WEL) of the total hydrocarbon solvent content of the mixture (RCP method according to EH40): 800 mg/m3

Chemical Name	, , ,					
WEL-TWA: 800 mg/m3	WEL-STEL:					
Monitoring procedures:	<ul> <li>Draeger - Hydrocarbons 0,1%/c</li> </ul>	(81 03 571)				
	- Draeger - Hydrocarbons 2/a (81 03 581)					
- Compur - KITA-187 S (551 174)						
BMGV:		Other information: (C	EL acc. to RCP-method,			
		paragraphs 84-87, EH4	40)			
Chemical Name	2-Ethylhexanol					
WEL-TWA: 1 ppm (5,4 mg/m3) (W	(EL, EU) WEL-STEL:					
Monitoring procedures:	<ul> <li>Draeger - Alcohol 100/a (CH 29</li> </ul>	701)				
BMGV:		Other information:				
Chemical Name	Hydrocarbons, C10, aromatics, >1% naphthalene					



	g to Regulation (EC) No 1907/2006 .11.2023 / 0008	, ANNEX II				
	version: 18.09.2022 / 0007					
Valid from: 02.11.2023	GISIUII. 10.03.2022 / 0007					
PDF print date: 02.11.2023						
Motorsystemreiniger Benzi						
Gasoline Engine System C	leaner					
WEL-TWA: 500 mg/m3 (/	Aromatics) WF	EL-STEL:				
Monitoring procedures:		er - Hydrocarbons 0,1%/c (	81 03 571)			
g procedureer		jer - Hydrocarbons 2/a (81 0				
BMGV:		,,,	Other inforr	mation:	-	
Chemical Name	Naphthalene		·			
		EL-STEL:				
(50 mg/m3) (EU)						
Monitoring procedures:	- Comp	ur - KITA-153 U(C) (551 18	2)			
51		H 5506 (POLYNUCLEAR A		DROCARB	ONS by HPLC)	- 1998
		H 5515 (POLYNUCLEAR A				
		35 (Napthalene) - 1982			- /	
BMGV:			Other inform	mation:	-	
2-Ethylboxanol						
2-Ethylhexanol Area of application	Exposure route /	Effect on health	Descriptor	Value	Unit	Note
Area of application	Environmental	Enection health	Descriptor	value	Onic	Note
	compartment					
	Environment - freshwater		PNEC	0.017	mg/l	
	Environment - marine		PNEC	0,0017	mg/l	
	Environment - sporadic		PNEC	0,0017	mg/l	
	(intermittent) release			0,17	ing/i	
	Environment - sewage		PNEC	10	mg/l	
	treatment plant				ing/i	
	Environment - sediment,		PNEC	0,284	mg/kg dw	
	freshwater			0,201	ing/itg an	
	Environment - sediment,		PNEC	0.028	mg/kg dw	
	marine			0,020	ing/itg an	
	Environment - soil		PNEC	0,047	mg/kg dw	
	Environment - oral (animal		PNEC	55	mg/kg feed	
	feed)					
0	Human - oral	Long term, systemic	DNEL	1,1	mg/kg	
Consumer		effects			body	
Consumer			1		weight/day	
Consumer						
Consumer	Human - inhalation	Short term, local	DNEL	53,2	mg/m3	
Consumer		effects		,		
	Human - inhalation Human - dermal	effects Long term, systemic	DNEL DNEL	53,2 11,4	mg/kg	
Consumer Consumer	Human - dermal	effects Long term, systemic effects	DNEL	11,4	mg/kg bw/day	
Consumer		effects Long term, systemic effects Long term, systemic		,	mg/kg	
Consumer Consumer Consumer	Human - dermal Human - inhalation	effects Long term, systemic effects Long term, systemic effects	DNEL	11,4 2,3	mg/kg bw/day mg/m3	
Consumer Consumer Consumer	Human - dermal	effects Long term, systemic effects Long term, systemic effects Short term, systemic	DNEL	11,4	mg/kg bw/day mg/m3 mg/kg	
Consumer Consumer Consumer Consumer	Human - dermal Human - inhalation Human - oral	effects Long term, systemic effects Long term, systemic effects Short term, systemic effects	DNEL DNEL DNEL	11,4 2,3 1,1	mg/kg bw/day mg/m3 mg/kg bw/day	
Consumer Consumer Consumer Consumer Consumer	Human - dermal Human - inhalation Human - oral Human - inhalation	effects         Long term, systemic         effects         Long term, systemic         effects         Short term, systemic         effects         Long term, local effects	DNEL DNEL DNEL DNEL	11,4 2,3 1,1 26,6	mg/kg bw/day mg/m3 mg/kg bw/day mg/m3	
Consumer Consumer Consumer Consumer Consumer	Human - dermal Human - inhalation Human - oral	effects         Long term, systemic         effects         Long term, systemic         effects         Short term, systemic         effects         Long term, local effects         Long term, systemic         effects	DNEL DNEL DNEL	11,4 2,3 1,1	mg/kg bw/day mg/m3 mg/kg bw/day	
Consumer Consumer Consumer Consumer Consumer Workers / employees	Human - dermal Human - inhalation Human - oral Human - inhalation Human - inhalation	effects         Long term, systemic         effects         Long term, systemic         effects         Short term, systemic         effects         Long term, local effects         Long term, systemic         effects         Long term, systemic         effects         Long term, systemic         effects	DNEL DNEL DNEL DNEL DNEL DNEL	11,4       2,3       1,1       26,6       12,8	mg/kg bw/day mg/m3 mg/kg bw/day mg/m3 mg/m3	
Consumer Consumer Consumer Consumer Consumer	Human - dermal Human - inhalation Human - oral Human - inhalation	effects         Long term, systemic         effects         Long term, systemic         effects         Short term, systemic         effects         Long term, local effects         Long term, systemic         effects         Long term, local effects         Long term, systemic         effects         Long term, systemic         effects         Long term, systemic	DNEL DNEL DNEL DNEL	11,4 2,3 1,1 26,6	mg/kg bw/day mg/m3 mg/kg bw/day mg/m3 mg/m3 mg/kg	
Consumer Consumer Consumer Consumer Consumer Workers / employees Workers / employees	Human - dermal Human - inhalation Human - oral Human - inhalation Human - inhalation Human - dermal	effects         Long term, systemic         effects         Long term, systemic         effects         Short term, systemic         effects         Long term, local effects         Long term, systemic         effects	DNEL DNEL DNEL DNEL DNEL DNEL	11,4       2,3       1,1       26,6       12,8       23	mg/kg bw/day mg/m3 mg/kg bw/day mg/m3 mg/m3 mg/kg bw/day	
Consumer Consumer Consumer Consumer Consumer Workers / employees Workers / employees	Human - dermal Human - inhalation Human - oral Human - inhalation Human - inhalation	effects         Long term, systemic         effects         Long term, systemic         effects         Short term, systemic         effects         Long term, local effects         Long term, systemic         effects         Long term, systemic         effects         Long term, systemic         effects         Long term, systemic         effects         Short term, local	DNEL DNEL DNEL DNEL DNEL DNEL	11,4       2,3       1,1       26,6       12,8	mg/kg bw/day mg/m3 mg/kg bw/day mg/m3 mg/m3 mg/kg	
Consumer Consumer Consumer Consumer Consumer Workers / employees Workers / employees Workers / employees	Human - dermal         Human - inhalation         Human - oral         Human - inhalation         Human - inhalation         Human - dermal         Human - inhalation	effects         Long term, systemic         effects         Long term, systemic         effects         Short term, systemic         effects         Long term, local effects         Long term, systemic         effects         Long term, systemic         effects         Long term, systemic         effects         Short term, systemic         effects         Short term, local         effects	DNEL DNEL DNEL DNEL DNEL DNEL DNEL	11,4         2,3         1,1         26,6         12,8         23         53,2	mg/kg bw/day mg/m3 mg/kg bw/day mg/m3 mg/m3 mg/kg bw/day mg/m3	
Consumer Consumer Consumer Consumer Consumer Workers / employees	Human - dermal Human - inhalation Human - oral Human - inhalation Human - inhalation Human - dermal	effects         Long term, systemic         effects         Long term, systemic         effects         Short term, systemic         effects         Long term, local effects         Long term, systemic         effects         Long term, systemic         effects         Long term, systemic         effects         Long term, systemic         effects         Short term, local	DNEL DNEL DNEL DNEL DNEL DNEL	11,4       2,3       1,1       26,6       12,8       23	mg/kg bw/day mg/m3 mg/kg bw/day mg/m3 mg/m3 mg/kg bw/day	

Reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate						
Area of application	Exposure route /	Effect on health	Descriptor	Value	Unit	Note
	Environmental					
	compartment					
	Environment - sewage		PNEC	10	mg/l	
	treatment plant					
	Environment - sediment,		PNEC	0,37	mg/kg dw	
	freshwater					



Page 7 of 21 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II Revision date / version: 02.11.2023 / 0008 Replacing version dated / version: 18.09.2022 / 0007 Valid from: 02.11.2023 PDF print date: 02.11.2023 Motorsystemreiniger Benzin Gasoline Engine System Cleaner

	Environment - sediment, marine		PNEC	0,037	mg/kg dw	
	Environment - soil		PNEC	10	mg/kg dw	
	Environment - freshwater		PNEC	0,018	mg/l	
	Environment - marine		PNEC	0,002	mg/l	
	Environment - water, sporadic (intermittent) release		PNEC	0,018	mg/l	
	Environment - oral (animal feed)		PNEC	41,33	mg/kg feed	
	Environment - soil		PNEC	0,632	mg/kg	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	0,74	mg/m3	
Consumer	Human - dermal	Long term, systemic effects	DNEL	0,83	mg/kg bw/d	
Consumer	Human - oral	Long term, systemic effects	DNEL	0,93	mg/kg bw/d	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	1,67	mg/kg	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	6,6	mg/m3	
Workers / employees	Human - dermal	Short term, systemic effects	DNEL	20	mg/kg	
Workers / employees	Human - oral	Long term, systemic effects	DNEL	0,22	mg/kg	

Hydrocarbons, C10, aron	natics, >1% naphthalene					
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
Consumer	Human - dermal	Long term, systemic effects	DNEL	7,5	mg/kg bw/d	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	32	mg/m3	
Consumer	Human - oral	Long term, systemic effects	DNEL	7,5	mg/kg bw/d	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	151	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	12,5	mg/kg bw/d	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	151	mg/m3	

Naphthalene						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	2,4	µg/l	
	Environment - marine		PNEC	0,24	µg/l	
	Environment - sewage treatment plant		PNEC	2,9	mg/l	
	Environment - sediment, freshwater		PNEC	0,0672	mg/kg dry weight	
	Environment - sediment, marine		PNEC	0,0672	mg/kg dry weight	
	Environment - soil		PNEC	0,0533	mg/kg dry weight	
	Environment - sporadic (intermittent) release		PNEC	0,02	mg/l	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	3,57	mg/kg bw/day	



Page 8 of 21 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II Revision date / version: 02.11.2023 / 0008 Replacing version dated / version: 18.09.2022 / 0007 Valid from: 02.11.2023 PDF print date: 02.11.2023 Motorsystemreiniger Benzin Gasoline Engine System Cleaner

Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	25	mg/m3	
Workers / employees	Human - inhalation	Long term, local effects	DNEL	25	mg/m3	

WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period) EH40. AGW = "Arbeitsplatzgrenzwert" (workplace limit value, Germany).

(8) = Inhalable fraction (Directive 2017/164/EU, Directive 2004/37/CE). (9) = Respirable fraction (Directive 2017/164/EU, Directive 2004/37/CE). (11) = Inhalable fraction (Directive 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 (Directive 2004/37/CE). | WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period).

(8) = Inhalable fraction (2017/164/EU, 2017/2398/EU). (9) = Respirable fraction (2017/164/EU, 2017/2398/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. BGW = "Biologischer Grenzwert" (biological limit value, Germany) | Other information: Sen = Capable of causing occupational asthma. Sk = Can be absorbed through skin. Carc = Capable of causing cancer and/or heritable genetic damage.

\*\* = The exposure limit for this substance is repealed through the TRGS 900 (Germany) of January 2006 with the goal of revision. (13) = The substance can cause sensitisation of the skin and of the respiratory tract (Directive 2004/37/CE), (14) = The substance can cause sensitisation of the skin (Directive 2004/37/CE).

### 8.2 Exposure controls

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### 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). If applicable Protective Neoprene® / polychloroprene gloves (EN ISO 374). Protective nitrile gloves (EN ISO 374). Protective gloves made of polyvinyl alcohol (EN ISO 374). Protective Viton® / fluoroelastomer gloves (EN ISO 374). Minimum layer thickness in mm: 0.5

Permeation time (penetration time) in minutes:

>= 480

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. Protective hand cream recommended.

Skin protection - Other: Normally not necessary.

Respiratory protection: If OES or MEL is exceeded. Filter A P2 (EN 14387), code colour brown, white Observe wearing time limitations for respiratory protection equipment.

Thermal hazards:



Page 9 of 21 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II Revision date / version: 02.11.2023 / 0008 Replacing version dated / version: 18.09.2022 / 0007 Valid from: 02.11.2023 PDF print date: 02.11.2023 Motorsystemreiniger Benzin Gasoline Engine System Cleaner

### Not applicable

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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**

Yellow

>63 °C

Insoluble

Characteristic

There is no information available on this parameter.

Mixture is non-soluble (in water).

<=20,5 mm2/s (40°C)

0,800 g/cm3 (15°C)

Does not apply to mixtures.

Does not apply to liquids.

# **9.1 Information on basic physical and chemical properties**Physical state: Liquid

Physical state: 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.

### **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 Heating, open flame, ignition sources 10.5 Incompatible materials Avoid contact with strong oxidizing agents.

10.6 Hazardous decomposition products

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).



Page 10 of 21 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II Revision date / version: 02.11.2023 / 0008 Replacing version dated / version: 18.09.2022 / 0007 Valid from: 02.11.2023 PDF print date: 02.11.2023 Motorsystemreiniger Benzin Gasoline Engine System Cleaner

### Motorsystemreiniger Benzin Gasoline Engine System Cleaner

Toxicity / effect	Endpoint	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:	ATE	>20	mg/l/4h			calculated value, Vapours
Acute toxicity, by inhalation:	ATE	>5	mg/l/4h			calculated value, Aerosol, Mist
Skin corrosion/irritation:						Repeated exposure may cause skin dryness or cracking.
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.

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat	OECD 401 (Acute Oral	Analogous
					Toxicity)	conclusion
Acute toxicity, by dermal route:	LD50	>5000	mg/kg	Rabbit	OECD 402 (Acute	Analogous
					Dermal Toxicity)	conclusion
Acute toxicity, by inhalation:	LC50	>4951	mg/m3/4h	Rat	OECD 403 (Acute	Analogous
					Inhalation Toxicity)	conclusion,
						Vapours
Skin corrosion/irritation:					OECD 404 (Acute	Not irritant,
					Dermal	Analogous
					Irritation/Corrosion)	conclusion
Serious eye damage/irritation:					OECD 405 (Acute Eye	Not irritant,
					Irritation/Corrosion)	Analogous
						conclusion
Respiratory or skin					OECD 406 (Skin	Not sensitizising
sensitisation:					Sensitisation)	Analogous
					,	conclusion
Germ cell mutagenicity:					OECD 473 (In Vitro	Negative,
					Mammalian	Analogous
					Chromosome	conclusion
					Aberration Test)	
Germ cell mutagenicity:					OECD 474 (Mammalian	Negative,
					Erythrocyte	Analogous
					Micronucleus Test)	conclusion
Germ cell mutagenicity:				Salmonella	OECD 471 (Bacterial	Negative
				typhimurium	Reverse Mutation Test)	-
Carcinogenicity:					OECD 453 (Combined	Negative,
					Chronic	Analogous
					Toxicity/Carcinogenicity	conclusion
					Studies)	
Reproductive toxicity:					OECD 414 (Prenatal	Negative,
. ,					Developmental Toxicity	Analogous
					Study)	conclusion



## B Page 11 of 21

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II Revision date / version: 02.11.2023 / 0008 Replacing version dated / version: 18.09.2022 / 0007 Valid from: 02.11.2023 PDF print date: 02.11.2023 Motorsystemreiniger Benzin Gasoline Engine System Cleaner

Specific target organ toxicity - repeated exposure (STOT-RE):	OECD 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)	Negative, Analogous conclusion
Aspiration hazard:		Yes
Symptoms:		unconsciousness , headaches, dizziness, mucous membrane irritation

2-Ethylhexanol Toxicity / effect	Endneint	Value	Unit	Organiam	Test method	Notes
	Endpoint			Organism		Notes
Acute toxicity, by oral route:	LD50	2047	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	>3000	mg/kg	Rat	OECD 402 (Acute Dermal Toxicity)	
Acute toxicity, by inhalation:	LC50	2,7	mg/l/4h		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Aerosol
Acute toxicity, by inhalation:	LC50	>0,89-5,3	mg/l/4h	Rat	OECD 403 (Acute Inhalation Toxicity)	
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Skin Irrit. 2
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)literature
Germ cell mutagenicity:				Mouse	OECD 476 (In Vitro Mammalian Cell Gene Mutation Test)	Negative
Germ cell mutagenicity:				Salmonella typhimurium	OECD 471 (Bacterial Reverse Mutation Test)	Negative
Germ cell mutagenicity:				Mammalian	OECD 473 (In Vitro Mammalian Chromosome Aberration Test)	NegativeChines hamster
Carcinogenicity:	NOAEL	750	mg/kg bw/d	Mouse	OECD 451 (Carcinogenicity Studies)	Negative
Reproductive toxicity:	NOAEL	3000	ppm	Rat	OECD 416 (Two- generation Reproduction Toxicity Study)	Negative
Reproductive toxicity (Developmental toxicity):				Mouse	OECD 414 (Prenatal Developmental Toxicity Study)	Negativeoral
Specific target organ toxicity - single exposure (STOT-SE):						Irritation of the respiratory tract, STOT SE 3, H335
Specific target organ toxicity - repeated exposure (STOT-RE), oral:	NOAEL	125	mg/kg bw/d	Rat	OECD 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)	
Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.:	NOAEC	0,6384	mg/l	Rat	OECD 413 (Subchronic Inhalation Toxicity - 90- Day Study)	Vapours



### œ. Page 12 of 21

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II Revision date / version: 02.11.2023 / 0008 Replacing version dated / version: 18.09.2022 / 0007 Valid from: 02.11.2023 PDF print date: 02.11.2023 Motorsystemreiniger Benzin Gasoline Engine System Cleaner

Symptoms:					unconsciousness , drop in blood
					pressure,
					vomiting,
					headaches,
					cramps,
					drowsiness,
					mucous
					membrane
					irritation,
					dizziness,
					nausea
Specific target organ toxicity - repeated exposure (STOT-RE), oral:	NOAEL	200	mg/kg bw/d	Mouse	

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	> 2000	mg/kg	Rat	OECD 401 (Acute Oral	
57 5			0.0		Toxicity)	
Acute toxicity, by dermal route:	LD50	> 2000	mg/kg	Rat	OECD 402 (Acute	
					Dermal Toxicity)	
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute	Not irritant
					Dermal	
					Irritation/Corrosion)	
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye	Not irritant
					Irritation/Corrosion)	
Respiratory or skin				Guinea pig	OECD 406 (Skin	No (skin contact)
sensitisation:					Sensitisation)	
Germ cell mutagenicity:					OECD 473 (In Vitro	NegativeChinese
					Mammalian	hamster
					Chromosome	
					Aberration Test)	
Germ cell mutagenicity:				Salmonella	OECD 471 (Bacterial	Negative
				typhimurium	Reverse Mutation Test)	
Germ cell mutagenicity:					OECD 474 (Mammalian	NegativeChinese
					Erythrocyte	hamster
					Micronucleus Test)	
Reproductive toxicity:	NOAEL	150-600	mg/kg	Mouse	OECD 415 (One-	
			bw/d		Generation	
					Reproduction Toxicity	
					Study)	
Carcinogenicity:				Rat		Negative,
						Analogous
						conclusion
Aspiration hazard:						Negative

Hydrocarbons, C10, aromatics, >1% naphthalene									
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes			
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rabbit					
Acute toxicity, by inhalation:	LC50	>590	mg/m3	Rat		Vapours			
Aspiration hazard:						Yes			

Naphthalene						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	490	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	>2500	mg/kg	Rat		
Acute toxicity, by inhalation:	LC50	>110	mg/l/4h	Rat		Vapours
Acute toxicity, by inhalation:	LD50	>0,4	mg/l/4h	Rat	OECD 403 (Acute	Vapours
					Inhalation Toxicity)	
Respiratory or skin				Guinea pig		No (skin contact)
sensitisation:						



Page 13 of 21 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II Revision date / version: 02.11.2023 / 0008 Replacing version dated / version: 18.09.2022 / 0007 Valid from: 02.11.2023 PDF print date: 02.11.2023 Motorsystemreiniger Benzin Gasoline Engine System Cleaner

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Reproductive toxicity:	NOAEL	120	mg/kg	Rabbit	OECD 414 (Prenatal Developmental Toxicity Study)	Female
Reproductive toxicity:	LOAEL	50	mg/kg	Rat	OECD 414 (Prenatal Developmental Toxicity Study)	Female
Reproductive toxicity:	LOAEL	450	mg/kg	Rat	OECD 414 (Prenatal Developmental Toxicity Study)	Female
Specific target organ toxicity - repeated exposure (STOT-RE), oral:	LOAEL	400	mg/kg	Rat	OECD 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)	
Specific target organ toxicity - repeated exposure (STOT-RE), dermal:	NOAEL	1000	mg/kg	Rat	OECD 411 (Subchronic Dermal Toxicity - 90-day Study)	
Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.:	LOAEL	0,011	mg/l	Rat	OECD 413 (Subchronic Inhalation Toxicity - 90- Day Study)	Vapours
Symptoms:						lack of appetite, ataxia, breathing difficulties, unconsciousness, diarrhoea, cornea opacity, headaches, cramps, gastrointestinal disturbances, mucous membrane irritation, dizziness, nausea and vomiting., sweating, Reddening, eyes, reddened

### 11.2. Information on other hazards

Motorsystemreiniger Benzin								
Gasoline Engine System 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.		

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics										
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes				
Other information:						Repeated				
						exposure may				
						cause skin				
						dryness or				
						cracking.				

### **SECTION 12: Ecological information**



Product floats on the water surface.

Page 14 of 21 Safety data sheet accordii	na to Regulation	(EC) No 19	07/2006 400	ex II			
Revision date / version: 02			07/2000, Ann				
Replacing version dated /							
/alid from: 02.11.2023	version. 10.09.2	2022 / 0007					
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Motorsystemreiniger Benz Gasoline Engine System (							
Gasoline Engine System of	Jieaner						
Possibly more information	on environmen	tal affacts s	a Section 2	1 (classifics	ation)		
Motorsystemreiniger Be		tal ellects, s	Se Section 2.	1 (Classifica	allony.		
Gasoline Engine System							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	Lindpoint		Value	Onit	organishi	rest method	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:							n.u.a.
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		-	1				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(complex
							ng organic
							substance)>=
							80%/28d: No
Other information:	AOX			%			According to the
							recipe, contains
							no AOX.
Hydrocarbons, C10-C13						<b>.</b>	
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	NOELR	28d	0,101	mg/l	Oncorhynchus mykiss		
12.1. Toxicity to fish:	LL50	96h	>1000	mg/l	Oncorhynchus	OECD 203 (Fish,	
					mykiss	Acute Toxicity	
						Teet	
						Test)	
	EL50	48h	>1000	mg/l	Daphnia magna	OECD 202	
	EL50	48h	>1000	mg/l	Daphnia magna	OECD 202 (Daphnia sp.	
	EL50	48h	>1000	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute	
	EL50	48h	>1000	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation	
12.1. Toxicity to daphnia:						OECD 202 (Daphnia sp. Acute	
12.1. Toxicity to daphnia: 12.1. Toxicity to daphnia:	NOELR	21d	0,176	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to daphnia: 12.1. Toxicity to daphnia:					Daphnia magna Pseudokirchneriell	OECD 202 (Daphnia sp. Acute Immobilisation Test) OECD 201 (Alga,	
12.1. Toxicity to daphnia: 12.1. Toxicity to daphnia:	NOELR	21d	0,176	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test) OECD 201 (Alga, Growth Inhibition	
12.1. Toxicity to daphnia: 12.1. Toxicity to daphnia: 12.1. Toxicity to algae:	NOELR	21d 72h	0,176 >1000	mg/l mg/l	Daphnia magna Pseudokirchneriell a subcapitata	OECD 202 (Daphnia sp. Acute Immobilisation Test) OECD 201 (Alga, Growth Inhibition Test)	Peodily
12.1. Toxicity to daphnia: 12.1. Toxicity to daphnia: 12.1. Toxicity to algae: 12.2. Persistence and	NOELR	21d	0,176	mg/l	Daphnia magna Pseudokirchneriell	OECD 202 (Daphnia sp. Acute Immobilisation Test) OECD 201 (Alga, Growth Inhibition Test) OECD 301 F	Readily
12.1. Toxicity to daphnia: 12.1. Toxicity to daphnia: 12.1. Toxicity to algae: 12.2. Persistence and	NOELR	21d 72h	0,176 >1000	mg/l mg/l	Daphnia magna Pseudokirchneriell a subcapitata	OECD 202 (Daphnia sp. Acute Immobilisation Test) OECD 201 (Alga, Growth Inhibition Test) OECD 301 F (Ready	Readily biodegradable
12.1. Toxicity to daphnia: 12.1. Toxicity to daphnia: 12.1. Toxicity to algae: 12.2. Persistence and	NOELR	21d 72h	0,176 >1000	mg/l mg/l	Daphnia magna Pseudokirchneriell a subcapitata	OECD 202 (Daphnia sp. Acute Immobilisation Test) OECD 201 (Alga, Growth Inhibition Test) OECD 301 F (Ready Biodegradability -	
12.1. Toxicity to daphnia:	NOELR	21d 72h	0,176 >1000	mg/l mg/l	Daphnia magna Pseudokirchneriell a subcapitata	OECD 202 (Daphnia sp. Acute Immobilisation Test) OECD 201 (Alga, Growth Inhibition Test) OECD 301 F (Ready Biodegradability - Manometric	
12.1. Toxicity to daphnia: 12.1. Toxicity to daphnia: 12.1. Toxicity to algae: 12.2. Persistence and degradability:	NOELR EL50	21d 72h	0,176 >1000 80	mg/l mg/l	Daphnia magna Pseudokirchneriell a subcapitata	OECD 202 (Daphnia sp. Acute Immobilisation Test) OECD 201 (Alga, Growth Inhibition Test) OECD 301 F (Ready Biodegradability -	biodegradable
12.1. Toxicity to daphnia: 12.1. Toxicity to daphnia: 12.1. Toxicity to algae: 12.2. Persistence and degradability: 12.3. Bioaccumulative	NOELR	21d 72h	0,176 >1000	mg/l mg/l	Daphnia magna Pseudokirchneriell a subcapitata	OECD 202 (Daphnia sp. Acute Immobilisation Test) OECD 201 (Alga, Growth Inhibition Test) OECD 301 F (Ready Biodegradability - Manometric	
12.1. Toxicity to daphnia: 12.1. Toxicity to daphnia: 12.1. Toxicity to algae: 12.2. Persistence and degradability: 12.3. Bioaccumulative potential:	NOELR EL50	21d 72h	0,176 >1000 80	mg/l mg/l	Daphnia magna Pseudokirchneriell a subcapitata	OECD 202 (Daphnia sp. Acute Immobilisation Test) OECD 201 (Alga, Growth Inhibition Test) OECD 301 F (Ready Biodegradability - Manometric	biodegradable High
12.1. Toxicity to daphnia: 12.1. Toxicity to daphnia: 12.1. Toxicity to algae: 12.2. Persistence and degradability: 12.3. Bioaccumulative potential: 12.5. Results of PBT	NOELR EL50	21d 72h	0,176 >1000 80	mg/l mg/l	Daphnia magna Pseudokirchneriell a subcapitata	OECD 202 (Daphnia sp. Acute Immobilisation Test) OECD 201 (Alga, Growth Inhibition Test) OECD 301 F (Ready Biodegradability - Manometric	biodegradable High No PBT
12.1. Toxicity to daphnia: 12.1. Toxicity to daphnia: 12.1. Toxicity to algae: 12.2. Persistence and degradability: 12.3. Bioaccumulative potential: 12.5. Results of PBT	NOELR EL50	21d 72h	0,176 >1000 80	mg/l mg/l	Daphnia magna Pseudokirchneriell a subcapitata	OECD 202 (Daphnia sp. Acute Immobilisation Test) OECD 201 (Alga, Growth Inhibition Test) OECD 301 F (Ready Biodegradability - Manometric	biodegradable High No PBT substance, No
12.1. Toxicity to daphnia: 12.1. Toxicity to daphnia: 12.1. Toxicity to algae: 12.2. Persistence and degradability: 12.3. Bioaccumulative potential: 12.5. Results of PBT and vPvB assessment	NOELR EL50 BCF	21d 72h 28d	0,176 >1000 80 10-2500	mg/I mg/I %	Daphnia magna Pseudokirchneriell a subcapitata activated sludge	OECD 202 (Daphnia sp. Acute Immobilisation Test) OECD 201 (Alga, Growth Inhibition Test) OECD 301 F (Ready Biodegradability - Manometric	biodegradable High No PBT substance, No
12.1. Toxicity to daphnia: 12.1. Toxicity to daphnia: 12.1. Toxicity to algae: 12.2. Persistence and	NOELR EL50	21d 72h	0,176 >1000 80	mg/l mg/l	Daphnia magna Pseudokirchneriell a subcapitata activated sludge	OECD 202 (Daphnia sp. Acute Immobilisation Test) OECD 201 (Alga, Growth Inhibition Test) OECD 301 F (Ready Biodegradability - Manometric	biodegradable High No PBT
12.1. Toxicity to daphnia: 12.1. Toxicity to daphnia: 12.1. Toxicity to algae: 12.2. Persistence and degradability: 12.3. Bioaccumulative potential: 12.5. Results of PBT and vPvB assessment	NOELR EL50 BCF	21d 72h 28d	0,176 >1000 80 10-2500	mg/I mg/I %	Daphnia magna Pseudokirchneriell a subcapitata activated sludge	OECD 202 (Daphnia sp. Acute Immobilisation Test) OECD 201 (Alga, Growth Inhibition Test) OECD 301 F (Ready Biodegradability - Manometric	biodegradable High No PBT substance, No

Water solubility:



Page 15 of 21 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II Revision date / version: 02.11.2023 / 0008 Replacing version dated / version: 18.09.2022 / 0007 Valid from: 02.11.2023 PDF print date: 02.11.2023 Motorsystemreiniger Benzin Gasoline Engine System Cleaner

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	17,1	mg/l	Leuciscus idus	Regulation (EC) 440/2008 C.1 (ACUTE TOXICITY FOR FISH)	
12.1. Toxicity to fish:	LC50	96h	28,2	mg/l	Pimephales promelas	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to daphnia:	EC50	48h	39	mg/l	Daphnia magna	Regulation (EC) 440/2008 C.2 (DAPHNIA SP. ACUTE IMMOBILISATION TEST)	
12.1. Toxicity to algae:	EC50	72h	16,6	mg/l	Desmodesmus subspicatus	Regulation (EC) 440/2008 C.3 (FRESHWATER ALGAE AND CYANOBACTERI A, GROWTH INHIBITION TEST)	
12.1. Toxicity to algae:	NOEC/NOEL	72h	5,3	mg/l	Desmodesmus subspicatus	Regulation (EC) 440/2008 C.3 (FRESHWATER ALGAE AND CYANOBACTERI A, GROWTH INHIBITION TEST)	
12.2. Persistence and degradability:	COD	14d	100	%	activated sludge	OECD 301 C (Ready Biodegradability - Modified MITI Test (I))	Readily biodegradable
12.3. Bioaccumulative potential:	Log Pow		2,9			OECD 117 (Partition Coefficient (n- octanol/water) - HPLC method)	Low
12.3. Bioaccumulative potential:	BCF		25,33				calculated value, Low
12.4. Mobility in soil:			1,42				Not to be expected
12.4. Mobility in soil: 12.5. Results of PBT and vPvB assessment	Кос		800				No PBT substance, No vPvB substance
Toxicity to bacteria:	EC50	24h	>300	mg/l	activated sludge		
Toxicity to bacteria:	EC50	3h	540	mg/l	Pseudomonas putida		
Toxicity to bacteria:	EC50	12h	> 100	mg/l	activated sludge		

Reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	>74	mg/l	Brachydanio rerio	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to fish:	NOEC/NOEL	35d	0,001	mg/l	Brachydanio rerio	OECD 210 (Fish, Early-Life Stage Toxicity Test)	



Page 16 of 21 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II Revision date / version: 02.11.2023 / 0008 Replacing version dated / version: 18.09.2022 / 0007 Valid from: 02.11.2023 PDF print date: 02.11.2023 Motorsystemreiniger Benzin Gasoline Engine System Cleaner

12.1. Toxicity to daphnia:	EC50	48h	>100	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to daphnia:	NOEC/NOEL	21d	>=1	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	Water toxicology is above the water-solubility value.
12.1. Toxicity to algae:	EC50	72h	>3	mg/l	Desmodesmus subspicatus	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:		28d	2-4	%	activated sludge	OECD 301 B (Ready Biodegradability - Co2 Evolution Test)	Not readily biodegradable
12.2. Persistence and degradability:							Mechanical precipitation possible.
12.3. Bioaccumulative potential:	Log Pow		9,2				Possible@20°C
12.3. Bioaccumulative potential:	BCF	35d	260			OECD 305 (Bioconcentration - Flow-Through Fish Test)	Concentration in organisms possible.Oncorhy nchus mykiss
12.4. Mobility in soil:							Adsorption in ground., To be expected
12.4. Mobility in soil:	Кос		7673- 18432			OECD 106 (Adsorption/Desor ption Using a Batch Equilibrium Method)	
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Toxicity to bacteria:	IC50	3h	>100	mg/l	activated sludge	OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation))	
Other organisms:	NOEC/NOEL	28d	31,6	mg/kg		OECD 217 (Soil Microorganisms - Carbon Transformation Test)	
Other information:	EC50	19d	>100	mg/kg		OECD 208 (Terrestrial Plants, Growth Test)	Brassica rapa
Toxicity to annelids:	EC50	14d	>1000	mg/kg	Eisenia foetida	OECD 207 (Earthworm, Acute Toxicity Tests)	artificial soil
Toxicity to annelids:	NOEC/NOEL	56d	250	mg/kg	Eisenia foetida	OECD 222 (Earthworm Reproduction Test (Eisenia fetida/Eisenia andrei))	artificial soil



Insoluble

Page 17 of 21

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Safety data sheet according to Regulation (EC) No 1907/2006, Annex II Revision date / version: 02.11.2023 / 0008 Replacing version dated / version: 18.09.2022 / 0007 Valid from: 02.11.2023 PDF print date: 02.11.2023 Motorsystemreiniger Benzin Gasoline Engine System Cleaner

Water solubility:

New letter sterre

0,5 µg/l

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	2-5	mg/l	Pimephales		
				_	promelas		
12.1. Toxicity to daphnia:	EC50	48h	3-10	mg/l	Daphnia magna		
12.1. Toxicity to algae:	EC50	72h	1 - 3	mg/l	Pseudokirchneriell		
				_	a subcapitata		
12.2. Persistence and		28d	58	%		OECD 301 F	Inherent
degradability:						(Ready	
						Biodegradability -	
						Manometric	
						Respirometry Test)	
12.3. Bioaccumulative	Log Pow		3,3				
potential:							
12.3. Bioaccumulative potential:	BCF		<100				Low

Naphthalene							
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	1,99	mg/l	Pimephales promelas		Does not conform with EU classification.
12.1. Toxicity to fish:	LC50	96h	0,51	mg/l			
12.1. Toxicity to fish:	LC50	96h	0,11	mg/l	Oncorhynchus mykiss		
12.1. Toxicity to daphnia:	NOEC/NOEL	>60d	0,6	mg/l	Daphnia pulex		
12.1. Toxicity to daphnia:	EC50	48h	1,6-24,1	mg/l	Daphnia magna		
12.1. Toxicity to algae:	LC50	4h	2,96	mg/l	Selenastrum capricornutum		
12.1. Toxicity to algae:	ErC50	72h	0,4	mg/l	Skeletonema costatum		
12.2. Persistence and degradability:		28d	2	%			Not readily biodegradable
12.3. Bioaccumulative potential:	BCF	28d	40-300				Lowfish
12.4. Mobility in soil:	Koc		817				
12.4. Mobility in soil:	Koc		240- 1300				
Other information:	BOD5		0	%			
Other information:	COD		22	%			
Other information:	Log Pow		3,3				

### **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) 13 07 03 other fuels (including mixtures) Recommendation: Sewage disposal shall be discouraged. Pay attention to local and national official regulations. E.g. suitable incineration plant. E.g. dispose at suitable refuse site. For contaminated packing material Pay attention to local and national official regulations.

Empty container completely.



Page 18 of 21 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II Revision date / version: 02.11.2023 / 0008 Replacing version dated / version: 18.09.2022 / 0007 Valid from: 02.11.2023 PDF print date: 02.11.2023 Motorsystemreiniger Benzin Gasoline Engine System Cleaner

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

### **SECTION 14: Transport information**

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

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Transport by Toau/by Tail (ADR/RID)	
14.1. UN number or ID number:	Not applicable
14.2. UN proper shipping name:	
Not applicable	
14.3. Transport hazard class(es):	Not applicable
14.4. Packing group:	Not applicable
14.5. Environmental hazards:	Not applicable
Tunnel restriction code:	Not applicable
Classification code:	Not applicable
LQ:	Not applicable
Transport category:	Not applicable
Transport by sea (IMDG-code)	
14.1. UN number or ID number:	Not applicable
14.2. UN proper shipping name:	
Not applicable	
14.3. Transport hazard class(es):	Not applicable
14.4. Packing group:	Not applicable
14.5. Environmental hazards:	Not applicable
Marine Pollutant:	Not applicable
EmS:	Not applicable
Transport by air (IATA)	
14.1. UN number or ID number:	Not applicable
14.2. UN proper shipping name:	
Not applicable	
14.3. Transport hazard class(es):	Not applicable
14.4. Packing group:	Not applicable
14.5. Environmental hazards:	Not applicable
14.6. Special precautions for user	
I Inless specified otherwise general measures for safe transp	ort must be followed

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

14.7. Maritime transport in bulk according to IMO instruments

Non-dangerous material according to Transport Regulations.

### **SECTION 15: Regulatory information**

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

96.46 %

Observe restrictions:

Comply with national regulations/laws governing maternity protection (national implementation of the Directive 92/85/EEC)! Comply with trade association/occupational health regulations.

Directive 2010/75/EU (VOC):

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

### **15.2 Chemical safety assessment**

A chemical safety assessment is not provided for mixtures.

### **SECTION 16: Other information**

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

3, 6, 7, 8, 9, 11, 12, 15



Page 19 of 21

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Safety data sheet according to Regulation (EC) No 1907/2006, Annex II Revision date / version: 02.11.2023 / 0008 Replacing version dated / version: 18.09.2022 / 0007 Valid from: 02.11.2023 PDF print date: 02.11.2023 Motorsystemreiniger Benzin Gasoline Engine System Cleaner

# 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
	Classification according to calculation procedure.
Aquatic Chronic 3, H412	Classification according to calculation procedure.

H302 Harmful if swallowed.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H351 Suspected of causing cancer.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H411 Toxic to aquatic life with long lasting effects.
H413 May cause long lasting harmful effects to aquatic life.
EUH066 Repeated exposure may cause skin dryness or cracking.

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

Asp. Tox. — Aspiration hazard Aquatic Chronic — Hazardous to the aquatic environment - chronic Acute Tox. — Acute toxicity - inhalation Skin Irrit. — Skin irritation Eye Irrit. — Eye irritation STOT SE — Specific target organ toxicity - single exposure - respiratory tract irritation STOT SE — Specific target organ toxicity - single exposure - narcotic effects Acute Tox. — Acute toxicity - oral Carc. — Carcinogenicity Aquatic Acute — Hazardous to the aquatic environment - acute

### 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) ATE Acute Toxicity Estimate



ദ്ര Page 20 of 21 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II Revision date / version: 02.11.2023 / 0008 Replacing version dated / version: 18.09.2022 / 0007 Valid from: 02.11.2023 PDF print date: 02.11.2023 Motorsystemreiniger Benzin Gasoline Engine System Cleaner 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 BSEF The International Bromine Council body weight bw CAS **Chemical Abstracts Service** CLP Classification, Labelling and Packaging (REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures) CMR carcinogenic, mutagenic, reproductive toxic DMEL Derived Minimum Effect Level DNEL Derived No Effect Level DOC Dissolved organic carbon drv weight dw for example (abbreviation of Latin 'exempli gratia'), for instance e.q. EbCx, EyCx, EbLx ( $\dot{x} = 10, 50$ ) Effect Concentration/Level of x % on reduction of the biomass (algae, plants) EC European Community ECHA European Chemicals Agency ECx, ELx (x = 0, 3, 5, 10, 20, 50, 80, 100) Effect Concentration/Level for x % effect European Economic Community EEC EINECS European Inventory of Existing Commercial Chemical Substances ELINCS European List of Notified Chemical Substances ΕN European Norms FPA United States Environmental Protection Agency (United States of America)  $ErCx, E\mu Cx, ErLx (x = 10, 50)$ Effect Concentration/Level of x % on inhibition of the growth rate (algae, plants) etc. et cetera EU **European Union** EVAL Ethylene-vinyl alcohol copolymer Fax. Fax number general aen. GHS Globally Harmonized System of Classification and Labelling of Chemicals GWP Global warming potential Adsorption coefficient of organic carbon in the soil Koc octanol-water partition coefficient Kow International Agency for Research on Cancer IARC IATA International Air Transport Association IBC (Code) International Bulk Chemical (Code) IMDG-code International Maritime Code for Dangerous Goods including, inclusive incl. **IUCLID** International Uniform Chemical Information Database IUPAC International Union for Pure Applied Chemistry LC50 Lethal Concentration to 50 % of a test population LD50 Lethal Dose to 50% of a test population (Median Lethal Dose) Log Koc Logarithm of adsorption coefficient of organic carbon in the soil Log Kow, Log Pow Logarithm of octanol-water partition coefficient 10 Limited Quantities MARPOL International Convention for the Prevention of Marine Pollution from Ships not applicable n.a. not available n.av. not checked n.c. n.d.a. no data available NIOSH National Institute for Occupational Safety and Health (USA) NI P No-longer-Polymer NOEC, NOEL No Observed Effect Concentration/Level OECD Organisation for Economic Co-operation and Development organic org. OSHA Occupational Safety and Health Administration (USA) persistent, bioaccumulative and toxic PBT PE Polyethylene PNEC Predicted No Effect Concentration ppm parts per million PVC Polyvinylchloride REACHRegistration, Evaluation, Authorisation and Restriction of Chemicals (REGULATION (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals)



Page 21 of 21 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II Revision date / version: 02.11.2023 / 0008 Replacing version dated / version: 18.09.2022 / 0007 Valid from: 02.11.2023 PDF print date: 02.11.2023 Motorsystemreiniger Benzin Gasoline Engine System Cleaner

 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)

 SVHC
 Substances of Very High Concern

 Tel.
 Telephone

TOC Total organic carbon

œ

UN RTDG United Nations Recommendations on the Transport of Dangerous Goods

VOC Volatile organic compounds

vPvB very persistent and very bioaccumulative

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.

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