

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**HIGHTEC RADIATOR CLEANER / KÜHLERREINIGER**

Revision date: 09.02.2024

Product code: 22016

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking**
**1.1. Product identifier**

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

Engine cleaners

**1.3. Details of the supplier of the safety data sheet**

Company name:	ROWE Mineralölwerk GmbH	
Street:	Langgewann 101	
Place:	D-67547 Worms	
Telephone:	+49 (0)6241 5906-0	Telefax: +49 (0)6241 5906-999
E-mail:	info@rowe-oil.com	
Contact person:	Product Compliance	
E-mail:	sdb@rowe-oil.com	
Internet:	www.rowe-oil.com	

**1.4. Emergency telephone number:**

Ireland: Public (8am-10pm) +353 180 921 66, Healthcare Professionals +353 1809 2566 other Countries: Emergency CONTACT (24-Hour-Number): GBK GmbH +49 (0)6132-84463

**SECTION 2: Hazards identification**
**2.1. Classification of the substance or mixture**
**Regulation (EC) No 1272/2008**

This mixture is not classified as hazardous in accordance with Regulation (EC) No 1272/2008.

**2.2. Label elements**
**Additional advice on labelling**

GHS label elements, including precautionary statements: none

**2.3. Other hazards**

The components in this formulation do not meet the criteria for classification as PBT or vPvB.

**SECTION 3: Composition/information on ingredients**
**3.2. Mixtures**
**Relevant ingredients**

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
111-76-2	2-butoxyethanol; ethylene glycol monobutyl ether; butyl cellosolve			2.5 - < 5 %
	203-905-0	603-014-00-0	01-2119475108-36	
	Acute Tox. 3, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2; H331 H302 H315 H319			

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

**Specific Conc. Limits, M-factors and ATE**

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
111-76-2	203-905-0	2-butoxyethanol; ethylene glycol monobutyl ether; butyl cellosolve	2.5 - < 5 %
		inhalation: ATE 3 mg/l (vapours); oral: ATE 1200 mg/kg	

**Labelling for contents according to Regulation (EC) No 648/2004**

&lt; 5 % anionic surfactants, preservation agents (Benzisothiazolinone).

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**SECTION 4: First aid measures****4.1. Description of first aid measures****General information**

When in doubt or if symptoms are observed, get medical advice.

**After inhalation**

Provide fresh air. If experiencing respiratory symptoms: Call a doctor.

**After contact with skin**

Take off contaminated clothing and wash it before reuse. After contact with skin, wash immediately with plenty of water and soap. In case of skin reactions, consult a physician.

**After contact with eyes**

Rinse immediately carefully and thoroughly with eye-bath or water. In case of eye irritation consult an ophthalmologist.

**After ingestion**

Observe risk of aspiration if vomiting occurs. If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention.

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

No information available.

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

Treat symptomatically.

**SECTION 5: Firefighting measures****5.1. Extinguishing media****Suitable extinguishing media**

Water spray jet. Foam. Carbon dioxide (CO<sub>2</sub>).  
Co-ordinate fire-fighting measures to the fire surroundings.

**5.2. Special hazards arising from the substance or mixture**

Combustible. Non-flammable.  
In case of fire may be liberated: Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>), Pyrolysis products, toxic.

**5.3. Advice for firefighters**

In case of fire: Wear self-contained breathing apparatus. Full protection suit.

**Additional information**

Use water spray jet to protect personnel and to cool endangered containers. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures****General advice**

Remove all sources of ignition. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes.

**For non-emergency personnel**

Provide adequate ventilation. Use personal protection equipment. Remove persons to safety.

**For emergency responders**

Wear personal protection equipment (refer to section 8).

**6.2. Environmental precautions**

Do not allow uncontrolled discharge of product into the environment.

**6.3. Methods and material for containment and cleaning up**

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**For containment**

Prevent spread over a wide area (e.g. by containment or oil barriers). Cover drains. Stop leak if safe to do so.

**For cleaning up**

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

**Other information**

Clean contaminated articles and floor according to the environmental legislation.

**6.4. Reference to other sections**

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

**SECTION 7: Handling and storage**
**7.1. Precautions for safe handling**
**Advice on safe handling**

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with eyes and skin. Use personal protection equipment.

**Advice on protection against fire and explosion**

Usual measures for fire prevention.

**Advice on general occupational hygiene**

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme.

Wash hands before breaks and after work. When using do not eat, drink, smoke, sniff.

**7.2. Conditions for safe storage, including any incompatibilities**
**Requirements for storage rooms and vessels**

Keep container tightly closed in a cool, well-ventilated place. Store in a dry place.

**Hints on joint storage**

Do not store together with: Oxidizing agent.

**Further information on storage conditions**

Keep away from heat.

**7.3. Specific end use(s)**

Engine cleaners

**SECTION 8: Exposure controls/personal protection**
**8.1. Control parameters**
**Occupational exposure limits**

CAS No	Substance	ppm	mg/m <sup>3</sup>	fib/cm <sup>3</sup>	Category	Origin
111-76-2	2-Butoxyethanol (EGBE)	20	98		TWA (8 h)	
		50	246		STEL (15 min)	

**Biological limit values**

CAS No	Substance	Parameter	Value	Test material	Sampling time
111-76-2	2-Butoxyethanol	BAA	200 mg/g	Creatinine	End of shift

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#### DNEL/DMEL values

CAS No	Substance		
DNEL type	Exposure route	Effect	Value
111-76-2	2-butoxyethanol; ethylene glycol monobutyl ether; butyl cellosolve		
Worker DNEL, long-term	inhalation	systemic	98 mg/m <sup>3</sup>
Worker DNEL, acute	inhalation	systemic	1091 mg/m <sup>3</sup>
Worker DNEL, acute	inhalation	local	246 mg/m <sup>3</sup>
Consumer DNEL, long-term	inhalation	systemic	59 mg/m <sup>3</sup>
Consumer DNEL, acute	inhalation	systemic	426 mg/m <sup>3</sup>
Consumer DNEL, acute	inhalation	local	147 mg/m <sup>3</sup>
Consumer DNEL, long-term	oral	systemic	6,3 mg/kg bw/day
Consumer DNEL, acute	oral	systemic	26,7 mg/kg bw/day

#### PNEC values

CAS No	Substance	
Environmental compartment	Value	
111-76-2	2-butoxyethanol; ethylene glycol monobutyl ether; butyl cellosolve	
Freshwater	8,8 mg/l	
Freshwater (intermittent releases)	26,4 mg/l	
Marine water	0,88 mg/l	
Freshwater sediment	34,6 mg/kg	
Marine sediment	3,46 mg/kg	
Secondary poisoning	20 mg/kg	
Micro-organisms in sewage treatment plants (STP)	463 mg/l	
Soil	2,33 mg/kg	

#### 8.2. Exposure controls



##### Appropriate engineering controls

Provide adequate ventilation as well as local exhaust at critical locations.

##### Individual protection measures, such as personal protective equipment

###### Eye/face protection

Wear eye/face protection. (EN 166)

###### Hand protection

Tested protective gloves must be worn (EN ISO 374)

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

###### Skin protection

Wear suitable protective clothing.

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#### Respiratory protection

In case of inadequate ventilation wear respiratory protection.

#### Thermal hazards

No information available.

#### Environmental exposure controls

Avoid release to the environment.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state:	liquid
Colour:	colourless
Odour:	characteristic
Odour threshold:	not determined

#### Test method

Melting point/freezing point:	not determined
Boiling point or initial boiling point and boiling range:	100 °C
Flammability:	Combustible. Non-flammable.
Lower explosion limits:	not determined
Upper explosion limits:	not determined
Flash point:	> 93 °C
Auto-ignition temperature:	> 200 °C
Decomposition temperature:	not determined
pH-Value (at 20 °C):	> 10
Viscosity / kinematic: (at 20 °C)	1,2 mm <sup>2</sup> /s berechnet
Water solubility:	completely miscible
Solubility in other solvents	not determined
Partition coefficient n-octanol/water:	not determined
Vapour pressure: (at 20 °C)	23 hPa
Density (at 20 °C):	1,01 g/cm <sup>3</sup>
Bulk density:	1000 kg/m <sup>3</sup>
Relative vapour density:	not determined
Particle characteristics:	not applicable

### 9.2. Other information

#### Other safety characteristics

Solvent content:	5,1 %
Solid content:	11 %
Viscosity / dynamic: (at 20 °C)	1,2 mPa·s

#### Further Information

No information available.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No hazardous reaction when handled and stored according to provisions.

### 10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

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**10.3. Possibility of hazardous reactions**

No known hazardous reactions.

**10.4. Conditions to avoid**

Heat

**10.5. Incompatible materials**

Oxidizing agent.

**10.6. Hazardous decomposition products**

 In case of fire may be liberated: Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>), Pyrolysis products, toxic.

**SECTION 11: Toxicological information**
**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**
**Acute toxicity**

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

**ATEmix calculated**

ATE (oral) 24490 mg/kg; ATE (dermal) &gt; 2000 mg/kg; ATE (inhalation vapour) 61,22 mg/l; ATE (inhalation dust/mist) &gt; 5 mg/l

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
111-76-2	2-butoxyethanol; ethylene glycol monobutyl ether; butyl cellosolve				
	oral	ATE 1200 mg/kg			
	inhalation vapour	ATE 3 mg/l			

**Irritation and corrosivity**

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

**Sensitising effects**

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

**Carcinogenic/mutagenic/toxic effects for reproduction**

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

**STOT-single exposure**

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

**STOT-repeated exposure**

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

**Aspiration hazard**

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

**Information on likely routes of exposure**

Inhalation, oral, Skin contact, Eye contact.

**11.2. Information on other hazards**
**Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

**Other information**

No information available.

**SECTION 12: Ecological information**
**12.1. Toxicity**

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

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CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
111-76-2	2-butoxyethanol; ethylene glycol monobutyl ether; butyl cellosolve					
	Acute fish toxicity	LC50 mg/l	1474	96 h	Oncorhynchus mykiss	Toxicol Mech Meth 12, 255-63 (2002)
	Acute algae toxicity	ErC50	911 mg/l	72 h	Pseudokirchneriella subcapitata	Toxicol Mech Meth 12, 255-63 (2002)
	Acute crustacea toxicity	EC50 mg/l	1550	48 h	Daphnia magna	Toxicol Mech Meth 12, 255-63 (2002)
	Fish toxicity	NOEC mg/l	> 100	21 d	Danio rerio	Toxicol Mech Meth 12, 255-63 (2002)
	Crustacea toxicity	NOEC	100 mg/l	21 d	Daphnia magna	Toxicol Mech Meth 12, 255-63 (2002)

**12.2. Persistence and degradability**

The product has not been tested.

**12.3. Bioaccumulative potential**

The product has not been tested.

**Partition coefficient n-octanol/water**

CAS No	Chemical name	Log Pow
111-76-2	2-butoxyethanol; ethylene glycol monobutyl ether; butyl cellosolve	0,81

**12.4. Mobility in soil**

The product has not been tested.

**12.5. Results of PBT and vPvB assessment**

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

**12.6. Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

**12.7. Other adverse effects**

No information available.

**Further information**

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

**SECTION 13: Disposal considerations**
**13.1. Waste treatment methods**
**Disposal recommendations**

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.

**List of Wastes Code - residues/unused products**

070704 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of fine chemicals and chemical products not otherwise specified; other organic solvents, washing liquids and mother liquors; hazardous waste

**List of Wastes Code - used product**

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070704 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of fine chemicals and chemical products not otherwise specified; other organic solvents, washing liquids and mother liquors; hazardous waste

#### Contaminated packaging

Handle contaminated packages in the same way as the substance itself.

### SECTION 14: Transport information

#### Land transport (ADR/RID)

**14.1. UN number or ID number:** No dangerous good in sense of this transport regulation.  
**14.2. UN proper shipping name:** No dangerous good in sense of this transport regulation.  
**14.3. Transport hazard class(es):** No dangerous good in sense of this transport regulation.  
**14.4. Packing group:** No dangerous good in sense of this transport regulation.

#### Inland waterways transport (ADN)

**14.1. UN number or ID number:** No dangerous good in sense of this transport regulation.  
**14.2. UN proper shipping name:** No dangerous good in sense of this transport regulation.  
**14.3. Transport hazard class(es):** No dangerous good in sense of this transport regulation.  
**14.4. Packing group:** No dangerous good in sense of this transport regulation.

#### Marine transport (IMDG)

**14.1. UN number or ID number:** No dangerous good in sense of this transport regulation.  
**14.2. UN proper shipping name:** No dangerous good in sense of this transport regulation.  
**14.3. Transport hazard class(es):** No dangerous good in sense of this transport regulation.  
**14.4. Packing group:** No dangerous good in sense of this transport regulation.

#### Air transport (ICAO-TI/IATA-DGR)

**14.1. UN number or ID number:** No dangerous good in sense of this transport regulation.  
**14.2. UN proper shipping name:** No dangerous good in sense of this transport regulation.  
**14.3. Transport hazard class(es):** No dangerous good in sense of this transport regulation.  
**14.4. Packing group:** No dangerous good in sense of this transport regulation.

#### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

#### 14.6. Special precautions for user

No information available.

#### 14.7. Maritime transport in bulk according to IMO instruments

not applicable

### SECTION 15: Regulatory information

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

##### EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 75

Directive 2010/75/EU on industrial emissions: < 5 %

Information according to Directive 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)

##### National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

Water hazard class (D): 1 - slightly hazardous to water

##### Additional information

Observe in addition any national regulations!



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#### 15.2. Chemical safety assessment

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

### SECTION 16: Other information

#### Changes

This data sheet contains changes from the previous version in section(s):  
1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16.

#### Abbreviations and acronyms

Acute Tox: Acute toxicity

Skin Irrit: Skin irritation

Eye Irrit: Eye irritation

CLP: Classification, labelling and Packaging

REACH: Registration, Evaluation and Authorization of Chemicals

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

UN: United Nations

CAS: Chemical Abstracts Service

M-Factor: Multiplication Factor

DNEL: Derived No Effect Level

DMEL: Derived Minimal Effect Level

PNEC: Predicted No Effect Concentration

ATE: Acute toxicity estimate

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

LL50: Lethal loading, 50%

EL50: Effect loading, 50%

EC50: Effective Concentration 50%

ErC50: Effective Concentration 50%, growth rate

NOEC: No Observed Effect Concentration

BCF: Bio-concentration factor

PBT: persistent, bioaccumulative, toxic

vPvB: very persistent, very bioaccumulative

ADR: Accord européen sur le transport des marchandises dangereuses par Route  
(European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Regulations concerning the international carriage of dangerous goods by rail

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways  
(Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures)

IMDG: International Maritime Code for Dangerous Goods

EmS: Emergency Schedules

MFAG: Medical First Aid Guide

IATA: International Air Transport Association

ICAO: International Civil Aviation Organization

TI: Technical Instructions

DGR: Dangerous Goods Regulations

MARPOL: International Convention for the Prevention of Marine Pollution from Ships

IBC: Intermediate Bulk Container

VOC: Volatile Organic Compounds

EG or EC: European Community

IE: Industrial Emissions

SVHC: Substance of Very High Concern

#### Key literature references and sources for data

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations). (v.1.2, 2013)

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**Relevant H and EUH statements (number and full text)**

H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.

**Further Information**

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

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