

according to Regulation (EC) No 1907/2006

#### HIGHTEC RADIATOR CLEANER

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

### 1.1. Product identifier

HIGHTEC RADIATOR CLEANER

UFI: Y7UJ-XN7R-V00A-U0JX

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

#### Use of the substance/mixture

Corrosion inhibitor Cleaning agent

### 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

<u>1.4. Emergency telephone</u> Ireland: Public (8am-10pm) +353 180 921 66, Healthcare Professionals +353

number: 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

Skin Irrit. 2; H315 Eye Irrit. 2; H319

Full text of hazard statements: see SECTION 16.

## 2.2. Label elements

## Regulation (EC) No 1272/2008

Signal word: Warning

Pictograms:



# **Hazard statements**

H315 Causes skin irritation.
H319 Causes serious eye irritation.

# **Precautionary statements**

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P280 Wear protective gloves/protective clothing and eye protection/face protection.

P302+P352 IF ON SKIN: Wash with plenty of water.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

P332+P313 If skin irritation occurs: Get medical advice/attention.
P337+P313 If eye irritation persists: Get medical advice/attention.

P501 Dispose of contents/container to an appropriate recycling or disposal facility.



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### 2.3. Other hazards

No information available.

## **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		1 - < 10 %	
	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. L	Specific Conc. Limits, M-factors and ATE	
111-76-2	203-905-0	2-butoxyethanol; ethylene glycol monobutyl ether; butyl cellosolve	1 - < 10 %
	inhalation: ATE	3 mg/l (vapours); oral: ATE 1200 mg/kg	

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

preservation agents (Benzisothiazolinone).

## **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.

## After contact with skin

After contact with skin, wash immediately with polyethylene glycol, followed by plenty of water. Take off contaminated clothing and wash it before reuse.

## After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water.

# After ingestion

Observe risk of aspiration if vomiting occurs. Rinse mouth immediately and drink 1 glass of of water.

## 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 (CO2).

Co-ordinate fire-fighting measures to the fire surroundings.

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

Non-flammable. Vapours can form explosive mixtures with air.





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### 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 to enter into surface water or drains.

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

#### 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

No special measures are necessary.

# Advice on protection against fire and explosion

No special fire protection measures are necessary.

#### 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.

#### Further information on handling

maximum process temperature: 100 °C

### 7.2. Conditions for safe storage, including any incompatibilities

## Requirements for storage rooms and vessels

Keep container tightly closed.

#### Hints on joint storage

No special measures are necessary.

#### Further information on storage conditions

Do not store at temperatures below 0 °C



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# 7.3. Specific end use(s)

Corrosion inhibitor Cleaning agent

# **SECTION 8: Exposure controls/personal protection**

# 8.1. Control parameters

# **Occupational exposure limits**

CAS No	Substance	ppm	mg/m³	fib/cm³	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

## **DNEL/DMEL values**

CAS No	Substance				
DNEL type		Exposure route	Effect	Value	
111-76-2	2-butoxyethanol; ethylene glycol monobutyl ether; bu	tyl cellosolve			
Worker DNE	L, long-term	inhalation	systemic	98 mg/m³	
Worker DNE	L, acute	inhalation	systemic	1091 mg/m³	
Worker DNEL, acute		inhalation	local	246 mg/m³	
Consumer DNEL, long-term		inhalation	systemic	59 mg/m³	
Consumer DNEL, acute		inhalation	systemic	426 mg/m³	
Consumer DNEL, acute		inhalation	local	147 mg/m³	
Consumer DNEL, long-term		oral	systemic	6,3 mg/kg bw/day	
Consumer DNEL, acute		oral	systemic	26,7 mg/kg bw/dav	

# PNEC values

CAS No	Substance				
Environment	Environmental compartment \				
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		3,46 mg/kg			
Secondary poisoning 20 n		20 mg/kg			
Micro-organisms in sewage treatment plants (STP)  463 m		463 mg/l			
Soil 2,33 mg/kg					

# 8.2. Exposure controls



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### Appropriate engineering controls

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

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

### Eye/face protection

Wear eye protection/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.

## 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

< 0 °C Melting point/freezing point: Boiling point or initial boiling point and 100 °C

boiling range:

Flammability: Combustible. Non-flammable. Lower explosion limits: not determined not determined Upper explosion limits: Flash point: > 93 °C > 200 °C Auto-ignition temperature: Decomposition temperature: not determined pH-Value (at 20 °C): Viscosity / kinematic: 1,2 mm<sup>2</sup>/s

(at 40 °C)

Water solubility: easily soluble

Solubility in other solvents

not determined

Partition coefficient n-octanol/water: not determined Vapour pressure: not determined Density: 1,01 g/cm3





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Relative vapour density: not determined Particle characteristics: not applicable

### 9.2. Other information

## Information with regard to physical hazard classes

Explosive properties

The product is not: Explosive.

Oxidizing properties

The product is not: oxidising.

### **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.

#### 10.3. Possibility of hazardous reactions

No known hazardous reactions.

#### 10.4. Conditions to avoid

none

### 10.5. Incompatible materials

No information available.

### 10.6. Hazardous decomposition products

No known hazardous decomposition products.

## **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) > 5000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 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

Skin corrosion/irritation: Causes skin irritation.

Serious eye damage/eye irritation: Causes serious eye irritation.

### Sensitising effects

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

## Carcinogenic/mutagenic/toxic effects for reproduction

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

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

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



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### 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

The mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

# **SECTION 12: Ecological information**

#### 12.1. Toxicity

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

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 1490 mg/l	96 h	Lepomis macrochirus		

## 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 (25°C)

## 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.

The product has not been tested.

## 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**

Avoid release to the environment.

### **SECTION 13: Disposal considerations**

## 13.1. Waste treatment methods

## **Disposal recommendations**

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



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### 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

#### Contaminated packaging

Wash with plenty of water. Completely emptied packages can be recycled.

## **SECTION 14: Transport information**

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 dangerous good in sense of this transport regulation.

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

No dangerous good in sense of this transport regulation.

# **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 3, Entry 75

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**

## Abbreviations and acronyms

Acute Tox. 3: Acute toxicity, hazard category 3 Skin Irrit. 2: Skin irritation, hazard category 2 Eye Irrit. 2: Eye irritation, hazard category 2 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** 

EC/EEC: European Community/European Economic Community

EU: European Union

CAS: Chemical Abstracts Service
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

M-factor: Multiplying factor

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 DGR: Dangerous Goods Regulations

ICAO: International Civil Aviation Organization

TI: Technical Instructions

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

IBC: Intermediate Bulk Container SVHC: Substance of Very High Concern

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

### 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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# Classification for mixtures and used evaluation method according to Regulation (EC) No 1272/2008 [CLP]

Classification	Classification procedure
Skin Irrit. 2; H315	Calculation method
Eye Irrit. 2; H319	Calculation method

### 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.)