

according to Regulation (EC) No 1907/2006

## **HIGHTEC ANTIFREEZE COOLANT AN 12++**

Revision date: 19.11.2024

Product code: 21033

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

## 1.1. Product identifier

HIGHTEC ANTIFREEZE COOLANT AN 12++

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

### Use of the substance/mixture

Radiator antifreeze

## 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:	· · · · ·	) 921 66, Healthcare Professionals +353 ncy CONTACT (24-Hour-Number): GBK

# **SECTION 2: Hazards identification**

# 2.1. Classification of the substance or mixture

# Regulation (EC) No 1272/2008

Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Irrit. 2; H319 STOT RE 2; H373

Full text of hazard statements: see SECTION 16.

## 2.2. Label elements

#### Regulation (EC) No 1272/2008

#### Hazard components for labelling

ethanediol; ethylene glycol Potassium 3,5,5-trimethylhexanoate

Signal word: Warning

Pictograms:



## Hazard statements

H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H373	May cause damage to organs through prolonged or repeated exposure.

#### **Precautionary statements**

,	
P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264	Wash hands thoroughly after handling.



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P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.	
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.	
P337+P313 P501	If eye irritation persists: Get medical advice/attention. Dispose of contents/container to of the disposal according to local regulations.	

#### 2.3. Other hazards

following inhalation: Vapour and mist concentrations above the allowable levels or unusually high concentrations may cause irritation to the nose and throat as well as headache, nausea and drowsiness. After skin contact: Brief contact with the product may cause slight skin irritation. Prolonged contact (e.g. through soaked clothing) may result in serious skin irritation with symptoms such as redness and swelling. Following eye contact: Conjunctival redness.

after ingestion: Oral ingestion of small amounts causes kidney damage. Caution if victim vomits: Risk of aspiration!

# **SECTION 3: Composition/information on ingredients**

## 3.2. Mixtures

## **Relevant ingredients**

CAS No	Chemical name				
	EC No	Index No	REACH No		
	Classification (Regulation (EC)	No 1272/2008)	·		
107-21-1	1-1 ethanediol; ethylene glycol				
	203-473-3	603-027-00-1 01-2119456816-28			
	Acute Tox. 4, STOT RE 2; H302				
93918-10-6	Potassium 3,5,5-trimethylhexanoate			1 - < 2.5 %	
	299-890-3				
	Acute Tox. 4, Skin Corr. 1, Eye	Dam. 1; H302 H314 H318			
29385-43-1	methyl-1H-benzene triazole		0.1 - < 0.3 %		
	249-596-6		01-2119979081-35		
	Repr. 2, Acute Tox. 4, Aquatic Chronic 2; H361d H302 H411				

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				
107-21-1	203-473-3	ethanediol; ethylene glycol	60 - < 100 %		
	dermal: LD50 = 10600 mg/kg; oral: ATE = 500 mg/kg				
93918-10-6	299-890-3	Potassium 3,5,5-trimethylhexanoate			
	oral: LD50 = >= 2000 mg/kg				
29385-43-1	249-596-6	249-596-6 methyl-1H-benzene triazole			
	oral: LD50 = 72	20 mg/kg			

# **SECTION 4: First aid measures**

# 4.1. Description of first aid measures

## After inhalation

Provide fresh air. Medical treatment necessary.

#### After contact with skin

Wash with plenty of water. Immediately remove any contaminated clothing, shoes or stockings. Medical treatment necessary.



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## After contact with eyes

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

#### After ingestion

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

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

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

Non-flammable.

#### 5.3. Advice for firefighters

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

#### Additional information

Suppress gases/vapours/mists with water spray jet. 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

Avoid contact with skin, eyes and clothes. Do not breathe mist/vapours/spray.

#### 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

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

#### 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



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## Advice on safe handling

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

### 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 and face before breaks and after work and take a shower if necessary. 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.

#### Hints on joint storage

No special measures are necessary.

## 7.3. Specific end use(s)

Radiator antifreeze

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

## 8.1. Control parameters

#### **Occupational exposure limits**

CAS No	Substance	ppm	mg/m³	fib/cm³	Category	Origin
107-21-1	1,2-Dihydroxyethane, vapour	20	52		TWA (8 h)	
		40	104		STEL (15 min)	
107-21-1	Ethane-1,2-diol, vapour	20	52		TWA (8 h)	
		40	104		STEL (15 min)	
107-21-1	Ethylene glycol, vapour	20	52		TWA (8 h)	
		40	104		STEL (15 min)	

## **DNEL/DMEL** values

CAS No	Substance		-	-
DNEL type		Exposure route	Effect	Value
107-21-1	ethanediol; ethylene glycol			
Worker DNEL	, long-term	inhalation	local	35 mg/m³
Worker DNEL	, long-term	dermal	systemic	106 mg/kg bw/day
Consumer DN	IEL, long-term	inhalation	local	7 mg/m³
Consumer DN	IEL, long-term	dermal	systemic	53 mg/kg bw/day
29385-43-1	methyl-1H-benzene triazole			
Worker DNEL	, long-term	inhalation	systemic	21,2 mg/m³
Worker DNEL	, long-term	dermal	systemic	0,3 mg/kg bw/day
Consumer DNEL, long-term		dermal	systemic	0,01 mg/kg bw/day
Consumer DN	IEL, long-term	oral	systemic	0,01 mg/kg bw/day



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#### **PNEC** values

CAS No	Substance						
Environmen	tal compartment	Value					
107-21-1	1 ethanediol; ethylene glycol						
Freshwater	Freshwater 10 mg/l						
Freshwater	(intermittent releases)	10 mg/l					
Marine wate	er en	1 mg/l					
Freshwater	sediment	37 mg/kg					
Marine sedi	3,7 mg/kg						
Micro-organisms in sewage treatment plants (STP) 199,5 mg/l							
Soil		1,53 mg/kg					
29385-43-1	methyl-1H-benzene triazole						
Freshwater		0,008 mg/l					
Freshwater	(intermittent releases)	0,086 mg/l					
Marine wate	er	0,02 mg/l					
Freshwater	Freshwater sediment						
Marine sedi	ment	0,292 mg/kg					
Micro-organ	Micro-organisms in sewage treatment plants (STP)						
Soil		0,0187 mg/kg					

### 8.2. Exposure controls





#### Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

## Individual protection measures, such as personal protective equipment

#### Eye/face protection

Suitable eye protection: goggles.

### Hand protection

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

Use of protective clothing.

## **Respiratory protection**

In case of inadequate ventilation wear respiratory protection.

# **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



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Colour:	magenta		
Odour:	characteristic		
			Test method
Melting point/freezing point:		not determined	
Boiling point or initial boiling point and boiling range:		not determined	
Flammability:		Non-flammable.	
Lower explosion limits:		not determined	
Upper explosion limits:		not determined	
Flash point:		>100 °C	DIN 51758
Auto-ignition temperature: Decomposition temperature:		not determined not determined	
pH-Value:		~ 7,5-8,8 (33%)	in H2O
Viscosity / kinematic:		not determined	ISO 3219
Water solubility:		completely miscible	
Solubility in other solvents not determined			
Partition coefficient n-octanol/water:		not determined	
Vapour pressure: (at 20 °C)		<0,1 hPa	
Density (at 20 °C):		~ 1,12 g/cm³	DIN 51757
Relative vapour density:		not determined	
Particle characteristics:		not relevant	
9.2. Other information			

## 9.2. Other information

pH pur (pH pure) ~8

## **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

Harmful if swallowed.

## **ATEmix calculated**

ATE (oral) 526,7 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l



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CAS No	Chemical name									
	Exposure route	Dose		Species	Source	Method				
107-21-1	ethanediol; ethylene glyc	ethanediol; ethylene glycol								
	oral	ATE mg/kg	500							
	dermal	LD50 mg/kg	10600	Rabbit	GESTIS					
93918-10-6	Potassium 3,5,5-trimethy	lhexanoate								
	oral	LD50 mg/kg	>= 2000	Rat	Study report (1986)	OECD Guideline 401				
29385-43-1	methyl-1H-benzene triazole									
	oral	LD50 mg/kg	720	Rat	ECHA	OECD Guideline 401				

### 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.

#### STOT-single exposure

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

#### STOT-repeated exposure

May cause damage to organs through prolonged or repeated exposure. (ethanediol; ethylene glycol)

## Aspiration hazard

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

## Additional information on tests

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

## 11.2. Information on other hazards

Other information

No information available.

## **SECTION 12: Ecological information**

#### 12.1. Toxicity

Based on available data, the classification criteria are not met. The product is not: Ecotoxic.



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CAS No	Chemical name							
	Aquatic toxicity	Dose		[h]   [d]	Species	Source	Method	
93918-10-6	Potassium 3,5,5-trimethylhexanoate							
	Acute algae toxicity	ErC50 mg/l	189,87	72 h	Raphidocelis subcapitata	Study report (2016)	OECD Guideline 201	
	Acute crustacea toxicity	EC50 mg/l	>100		Daphnia magna (Big water flea)	ECHA	OECD Guideline 202	
29385-43-1	methyl-1H-benzene triazo	le						
	Acute fish toxicity	LC50	55 mg/l	96 h	Cyprinodon variegatus	ECHA		
	Acute algae toxicity	ErC50	75 mg/l	72 h	Pseudokirchneriella subcapitata	ECHA	OECD Guideline 201	
	Acute crustacea toxicity	EC50 mg/l	15,8	48 h	Daphnia galeata	ECHA	OECD Guideline 202	
	Crustacea toxicity	NOEC mg/l	<0,4	21 d	Daphnia magna	ECHA		

## 12.2. Persistence and degradability

The product has not been tested.

CAS No	Chemical name				
	Method	Value	d	Source	
	Evaluation				
93918-10-6	Potassium 3,5,5-trimethylhexanoate				
	OECD 301B	87,9	28		
	Readily biodegradable (according to OECD criteria).				

#### 12.3. Bioaccumulative potential

The product has not been tested.

#### Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
107-21-1	ethanediol; ethylene glycol	-1,36
93918-10-6	Potassium 3,5,5-trimethylhexanoate	-0,47
29385-43-1	methyl-1H-benzene triazole	1,079

## 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**

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

160114 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; end-of-life vehicles from different means of transport (including off-road machinery) and wastes from dismantling of end-of-life vehicles and vehicle maintenance (except 13, 14, 16 06 and 16 08); antifreeze fluids containing hazardous substances; hazardous waste

#### List of Wastes Code - used product

160114 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; end-of-life vehicles from different means of transport (including off-road machinery) and wastes from dismantling of end-of-life vehicles and vehicle maintenance (except 13, 14, 16 06 and 16 08); antifreeze fluids containing hazardous substances; hazardous waste

### Contaminated packaging

Hazardous waste according to Directive 2008/98/EC (waste framework directive). 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 dangerous good in sense of this tra	insport regulation.				
14.7. Maritime transport in bulk according to	o IMO instruments				
No dangerous good in sense of this tra	nsport 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					

2012/18/EU (SEVESO III):

Information according to Directive

Not subject to 2012/18/EU (SEVESO III)



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work protection guideline' (94/33/EC).

1 - slightly hazardous to water

Observe restrictions to employment for juveniles according to the 'juvenile

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# National regulatory information

Employment restrictions:

Water hazard class (D):

### 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): 2,11.



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## Abbreviations and acronyms

Acute Tox: Acute toxicity Skin Irrit: Skin irritation Skin Corr: Skin corrosion Eye Dam: Eye damage Eye Irrit: Eye irritation Repr: Reproductive toxicity STOT RE: Specific target organ toxicity - repeated exposure Aquatic Chronic: Chronic aquatic hazard ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association GHS: Globally Harmonized System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances CAS: Chemical Abstracts Service LC50: Lethal concentration. 50% LD50: Lethal dose, 50% 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** DNEL: Derived No Effect Level DMEL: Derived Minimal Effect Level PNEC: Predicted No Effect Concentration ATE: Acute toxicity estimate 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 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) EmS: Emergency Schedules MFAG: Medical First Aid Guide ICAO: International Civil Aviation Organization 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).

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

Classification	Classification procedure
Acute Tox. 4; H302	Calculation method
Skin Irrit. 2; H315	Calculation method
Eye Irrit. 2; H319	Calculation method
STOT RE 2; H373	Calculation method

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



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H302	Harmful if swallowed.	
H314	Causes severe skin burns and eye damage.	
H315	Causes skin irritation.	
H318	Causes serious eye damage.	
H319	Causes serious eye irritation.	
H361d	Suspected of damaging the unborn child.	
H373	May cause damage to organs through prolonged or repeated exposure.	
H411	Toxic to aquatic life with long lasting effects.	
Further Information		

#### **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.)