

according to Regulation (EC) No 1907/2006

HIGHTEC ANTIFREEZE COOLANT AN

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

1.1. Product identifier

HIGHTEC ANTIFREEZE COOLANT AN

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

<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

Acute Tox. 4; H302 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

Signal word: Warning

Pictograms:





Hazard statements

H302 Harmful if swallowed.

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.

P270 Do not eat, drink or smoke when using this product.

P501 Dispose of contents/container to of the disposal according to local regulations.

2.3. Other hazards



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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			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No	1272/2008)		
107-21-1	ethanediol; ethylene glycol			60 - < 100 %
	203-473-3	603-027-00-1	01-2119456816-28	
	Acute Tox. 4, STOT RE 2; H302 H373			
93918-10-6	Potassium 3,5,5-trimethylhexanoate			1 - < 2.5 %
	299-890-3			
	Skin Irrit. 2, Eye Irrit. 2; H315 H319			
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

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CAS No	EC No	nemical name Quar		
	Specific Conc. I	Limits, M-factors and ATE		
107-21-1	203-473-3	ethanediol; ethylene glycol	60 - < 100 %	
	oral: ATE = 500	0 mg/kg		
93918-10-6	299-890-3	Potassium 3,5,5-trimethylhexanoate	1 - < 2.5 %	
	oral: LD50 = >=	= 2000 mg/kg		
29385-43-1	249-596-6	methyl-1H-benzene triazole	0.1 - < 0.3 %	
	inhalation: LC5 mg/kg	60 = >1730 mg/l (vapours); dermal: LD50 = > 4000 mg/kg; oral: LD50 = 720		

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.

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.



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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

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.



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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	(OLD) 1,2-Dihydroxyethane, particulate	-	10		TWA (8 h)	

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	EL, long-term	inhalation	local	7 mg/m³
Consumer DN	EL, 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 DNI	EL, long-term	dermal	systemic	0,01 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	0,01 mg/kg bw/day



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PNEC values

CACNE	Cubatanas	
CAS No	Substance	
Environmenta	I compartment	Value
107-21-1	ethanediol; ethylene glycol	
Freshwater		10 mg/l
Freshwater (ii	ntermittent releases)	10 mg/l
Marine water		1 mg/l
Freshwater se	ediment	37 mg/kg
Marine sediment		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 water		0,02 mg/l
Freshwater sediment		0,117 mg/kg
Marine sediment		0,292 mg/kg
Micro-organisms in sewage treatment plants (STP)		39,4 mg/l
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: dark blue Odour: odourless

Test method

Melting point/freezing point:

Boiling point or initial boiling point and

not determined
not determined

boiling range:

Flammability:

Lower explosion limits:

Not readily combustible.

not determined

Upper explosion limits:

not determined

Flash point: >100 °C DIN 51758

Auto-ignition temperature: not determined Decomposition temperature: not determined pH-Value (at 20 °C): 7,5 - 8,5

Viscosity / kinematic: not determined DIN 51562

Water solubility: completely miscible

Solubility in other solvents

not determined

Partition coefficient n-octanol/water: not determined Vapour pressure: <0,1 hPa

(at 20 °C)

Density (at 20 °C): ~ 1,12 g/cm³ DIN 51757

Relative vapour density: not determined Particle characteristics: not relevant

9.2. Other information

Other safety characteristics

Pour point: ~ -38 (50 Vol-% in H2O) °C

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) 538,7 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	Chemical name				
	Exposure route	Dose		Species	Source	Method
107-21-1	ethanediol; ethylene glyc	ol				
	oral	ATE mg/kg	500			
93918-10-6	Potassium 3,5,5-trimethylhexanoate					
	oral	LD50 mg/kg	>= 2000	Rat	Study report (1986)	OECD Guideline 401
29385-43-1	methyl-1H-benzene triaz	methyl-1H-benzene triazole				
	oral	LD50 mg/kg	720	Rat	Study report (1983)	OECD Guideline 401
	dermal	LD50 mg/kg	> 4000	Rabbit		
	inhalation (1 h) vapour	LC50 mg/l	>1730	Rat		

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

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

Frequently or prolonged contact with skin may cause dermal irritation.

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.

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CAS No	Chemical name							
	Aquatic toxicity	Dose		[h] [d]	Species	Source	Method	
107-21-1	ethanediol; ethylene glyco	ol						
	Acute fish toxicity	LC50 mg/l	> 72860	96 h	Pimephales promelas	Environ. Toxicology and Chemistry, Vol.	EPA 600/4-90/027. U.S. Environmental Pro	
	Acute algae toxicity	ErC50 13000 mg/l	6500 -	96 h	Pseudokirchneriella subcapitata	Study report (1982)	other: EPA 600/9-78-018, 1978	
	Acute crustacea toxicity	EC50 mg/l	> 100	48 h	Daphnia magna	Study report (1998)	OECD Guideline 202	
	Fish toxicity	NOEC mg/l	15380	7 d	Pimephales promelas	Environ. Toxicology and Chemistry, Vol.	other: EPA 600/4-89/001. U.S. Environmen	
	Algae toxicity	NOEC mg/l	> 100	8 d	Scenedesmus quadricauda	REACh Registration Dossier	OECD Guideline 201	
	Crustacea toxicity	NOEC 15000 mg/l	7500 -	21 d	Daphnia magna	REACh Registration Dossier	other: ASTM	
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	
29385-43-1	methyl-1H-benzene triazole							
	Acute fish toxicity	LC50	55 mg/l	96 h	Cyprinodon variegatus	Study report (2003)	other: The test procedure is based on te	
	Acute algae toxicity	ErC50	75 mg/l	72 h	Pseudokirchneriella subcapitata	Study report (1994)	OECD Guideline 201	
	Acute crustacea toxicity	EC50 mg/l	15,8	48 h	other aquatic crustacea: Daphnia galeata	Environ Sci Pollut Res 19:1781-1790 (201	OECD Guideline 202	
	Crustacea toxicity	NOEC mg/l	<0,4	21 d	Daphnia magna	Study report (1995)	other: "Daphnia Reproduction Test" of OE	

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.



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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.

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)

nana matermaye transport (, 1211)	
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.



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14.3. Transport hazard class(es):14.4. Packing group:No dangerous good in sense of this transport regulation.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

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

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): 2,9.



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Abbreviations and acronyms

Acute Tox: Acute toxicity Skin Irrit: Skin irritation 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 table at http://abbrev.esdscom.eu

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

Classification	Classification procedure
Acute Tox. 4; H302	Calculation method
STOT RE 2; H373	Calculation method

Relevant H and EUH statements (number and full text)

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

H361d Suspected of damaging the unborn child.

H373 May cause damage to organs through prolonged or repeated exposure.

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H411

Toxic to aquatic life with long lasting effects.

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.)