

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**HIGHTEC ANTIFREEZE AN-SF 12+**

Revision date: 04.05.2018

Product code: 21014-998-00

Page 1 of 8

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

HIGHTEC ANTIFREEZE AN-SF 12+

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

Radiator anti-freeze

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

Company name:	ROWE MINERALOELWERK GMBH	
Street:	Langgewann 101	
Place:	D-67547 Worms	
Telephone:	+49 (0)6241 5906-0	Telefax: +49 (0)6241 5906-999
e-mail:	info@rowe-mineraloel.com	
Internet:	www.rowe-mineraloel.com	
Responsible Department:	Kundenservice	

**1.4. Emergency telephone number:** Giftnotruf Mainz (DE; E) +49 (0)6131-19240

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

Hazard categories:

Acute toxicity: Acute Tox. 4

Serious eye damage/eye irritation: Eye Dam. 1

Reproductive toxicity: Repr. 2

Specific target organ toxicity - repeated exposure: STOT RE 2

Hazard Statements:

Harmful if swallowed.

Causes serious eye damage.

Suspected of damaging the unborn child.

May cause damage to organs through prolonged or repeated exposure.

**2.2. Label elements**
**Regulation (EC) No. 1272/2008**
**Hazard components for labelling**

ethanediol, ethylene glycol

2-ethylhexanoic acid, potassium salt

**Signal word:** Danger

**Pictograms:**

**Hazard statements**

H302	Harmful if swallowed.
H318	Causes serious eye damage.
H361d	Suspected of damaging the unborn child.
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.

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**HIGHTEC ANTIFREEZE AN-SF 12+**

Revision date: 04.05.2018

Product code: 21014-998-00

Page 2 of 8

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face 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.
P310	Immediately call a POISON CENTER/doctor.
P405	Store locked up.
P501	Dispose of contents/container to Dispose of waste according to applicable legislation..

**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**
**Hazardous components**

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	GHS Classification			
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			
3164-85-0	2-ethylhexanoic acid, potassium salt			1 - < 2.5 %
	221-625-7			
	Repr. 2, Skin Irrit. 2, Eye Dam. 1; H361d H315 H318			

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

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

Take off contaminated clothing.  
 Self-protection of the first aider

**After inhalation**

Provide fresh air.  
 In all cases of doubt, or when symptoms persist, seek medical advice.  
 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

**After contact with skin**

Wash with plenty of water.  
 Change contaminated clothing.  
 IF ON SKIN: Wash with plenty of water/?.  
 If skin irritation or rash occurs: Get medical advice/attention.

**After contact with eyes**

Rinse immediately carefully and thoroughly with eye-bath or water.  
 In case of troubles or persistent symptoms, consult an ophthalmologist.  
 Call a physician immediately.

according to Regulation (EC) No 1907/2006

**HIGHTEC ANTIFREEZE AN-SF 12+**

Revision date: 04.05.2018

Product code: 21014-998-00

Page 3 of 8

In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.

**After ingestion**

Medical treatment necessary.

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

Rinse mouth immediately and drink plenty of water.

Do NOT induce vomiting.

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

Ethylene glycol poisoning may cause initial symptoms such as behavioral disorders, drowsiness, vomiting, diarrhea, thirst and spasms. Kidney damage and kidney failure along with metabolic acidosis are late poisoning symptoms. Prompt medical treatment complemented by haemodialysis, if necessary, can reduce the toxic effect. Intravenous administration of ethanol in a sodium bicarbonate solution is a recognized antidote. For further treatment information, please consult the Poison Control Centre.

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

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

Dry extinguishing powder.

Water fog.

Foam.

Carbon dioxide.

**Unsuitable extinguishing media**

High power water jet.

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

The product itself does not burn.

Special exposure hazards arising from the substance itself, combustion products, resulting gases:

Carbon monoxide

carbon black

Pyrolysis products, toxic.

**5.3. Advice for firefighters**

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

In case of fire and/or explosion do not breathe fumes.

**Additional information**

Suppress gases/vapours/mists with water spray jet.

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

Use water spray jet to protect personnel and to cool endangered containers.

Move undamaged containers from immediate hazard area if it can be done safely.

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**

Provide adequate ventilation.

Do not breathe gas/fumes/vapour/spray.

Avoid contact with skin, eyes and clothes.

Wear personal protection equipment.

Do not breathe gas/fumes/vapour/spray.

Special danger of slipping by leaking/spilling product.

Ventilate affected area.

**6.2. Environmental precautions**

Do not allow to enter into surface water or drains.

according to Regulation (EC) No 1907/2006

**HIGHTEC ANTIFREEZE AN-SF 12+**

Revision date: 04.05.2018

Product code: 21014-998-00

Page 4 of 8

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

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

- Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).
- Treat the recovered material as prescribed in the section on waste disposal.
- Prevent spread over a wide area (e.g. by containment or oil barriers).
- Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).
- Take up mechanically, placing in appropriate containers for disposal.

**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.
- Avoid contact with skin and eyes.
- Wash hands thoroughly after handling.
- Protect skin by using skin protective cream.

**Advice on protection against fire and explosion**

- No special fire protection measures are necessary.

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

**Requirements for storage rooms and vessels**

- Keep container tightly closed.
- Keep locked up.
- Store in a place accessible by authorized persons only.
- Keep container in a well-ventilated place.

**Hints on joint storage**

- Do not store together with: Oxidizing agents.
- Do not store together with: Food and fodder

**Further information on storage conditions**

- Keep away from heat.

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

**8.1. Control parameters**

**Exposure limits (EH40)**

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
107-21-1	Ethane-1,2-diol, vapour	20	52		TWA (8 h)	WEL
		40	104		STEL (15 min)	WEL

**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.

**Protective and hygiene measures**

- Remove contaminated, saturated clothing immediately.
- Protect skin by using skin protective cream.
- After work, wash hands and face.
- Do not eat, drink, smoke or sneeze at the workplace.
- Keep away from food, drink and animal feedingstuffs.
- Protect skin by using skin protective cream.
- Wash hands before breaks and after work.

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**HIGHTEC ANTIFREEZE AN-SF 12+**

Revision date: 04.05.2018

Product code: 21014-998-00

Page 5 of 8

Apply skin care products after work.  
 Remove contaminated, saturated clothing immediately.  
 Do not put any product-impregnated cleaning rags into your trouser pockets.

**Eye/face protection**

Wear eye/face protection.

**Hand protection**

Avoid contact with skin.  
 Tested protective gloves are to be worn: Butyl rubber. / NBR (Nitrile rubber).

**Skin protection**

Body protection: not required.

**Respiratory protection**

With correct and proper use, and under normal conditions, breathing protection is not required.  
 The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, closed-circuit breathing apparatus must be used!

**SECTION 9: Physical and chemical properties**
**9.1. Information on basic physical and chemical properties**

Physical state: liquid  
 Colour: magenta

**Test method**

pH-Value: 7,5-9 (33%)

**Changes in the physical state**

Ignition temperature in °C:: >400 °C DIN 51794

Flash point: >110 °C DIN 51758

Lower explosion limits: not determined

Upper explosion limits: not determined

**Auto-ignition temperature**

Solid: No data available

Gas: No data available

Vapour pressure: <0,1 hPa  
 (at 20 °C)

Density (at 20 °C): 1,123 g/cm<sup>3</sup> DIN 51757

Water solubility: completely miscible

Viscosity / kinematic: >22 mm<sup>2</sup>/s DIN 51562  
 (at 20 °C)

**9.2. Other information**

Kapitel 9:  
 Anpassung der kinematischen Viskosität auf >22  
 Berger

**SECTION 10: Stability and reactivity**
**10.3. Possibility of hazardous reactions**

possible with strong oxidizing agents.  
 This product is stable under normal conditions. Hazardous reactions are unlikely.

**10.5. Incompatible materials**

Etchant and acids

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**HIGHTEC ANTIFREEZE AN-SF 12+**

Revision date: 04.05.2018

Product code: 21014-998-00

Page 6 of 8

**10.6. Hazardous decomposition products**

none

**Further information**

No thermal decomposition if properly stored / handled /transported.

**SECTION 11: Toxicological information**
**11.1. Information on toxicological effects**
**Acute toxicity**

Acute toxicity, dermal.

**ATEmix calculated**

ATE (oral) 538,6 mg/kg

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
107-21-1	ethanediol, ethylene glycol				
	oral	ATE mg/kg	500		
	dermal	LD50 mg/kg	10600	Rabbit	GESTIS

**Irritation and corrosivity**

Frequently or prolonged contact with skin may cause dermal irritation.

**Sensitising effects**

not determined

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

The product is not classified.

**STOT-repeated exposure**

Frequently or prolonged contact with skin may cause dermal irritation.

**Specific effects in experiment on an animal**

No data available

**Additional information on tests**

The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC). Oral ingestion of small amounts causes kidney damage.

Contact with the eyes causes eye inflammation.

Inhalation of mists and vapours causes impaired consciousness.

**Further information**

No special hazards known when the product is properly used and the precautionary measures indicated are observed.

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

according to Regulation (EC) No 1907/2006

**HIGHTEC ANTIFREEZE AN-SF 12+**

Revision date: 04.05.2018

Product code: 21014-998-00

Page 7 of 8

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
107-21-1	ethanediol, ethylene glycol					
	Acute fish toxicity	LC50 mg/l	18500	96 h	Oncorhynchus mykiss (Rainbow trout)	
	Acute algae toxicity	ErC50 mg/l	6500 - 7500	96 h	Pseudokirchneriella subcapitata	
	Acute crustacea toxicity	EC50 mg/l	> 10,000	48 h	Daphnia magna	

**12.2. Persistence and degradability**

According to EU criteria: expected to biodegrade fast  
The product basis (ethylene glycol) itself is readily biodegradable.

**12.3. Bioaccumulative potential**

No data available.

**Partition coefficient n-octanol/water**

CAS No	Chemical name	Log Pow
107-21-1	ethanediol, ethylene glycol	-1,34

**12.4. Mobility in soil**

No data available.

**Further information**

Do not allow to enter into surface water or drains.  
The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).  
Do not allow uncontrolled discharge of product into the environment.

**SECTION 13: Disposal considerations**
**13.1. Waste treatment methods**
**Advice on disposal**

Dispose of waste according to applicable legislation.

**Waste disposal number of waste from 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

**Waste disposal number of 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

**Waste disposal number of contaminated packaging**

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**

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself. Contaminated packaging should be emptied to the maximum possible extent. After appropriate cleaning, it can be routed to reuse. Packaging not amenable to cleaning must be disposed of in accordance with the statutory regulations.

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**HIGHTEC ANTIFREEZE AN-SF 12+**

Revision date: 04.05.2018

Product code: 21014-998-00

Page 8 of 8

**SECTION 14: Transport information**
**Land transport (ADR/RID)**
**Other applicable information (land transport)**

No dangerous good in sense of this transport regulation.

**Inland waterways transport (ADN)**
**Other applicable information (inland waterways transport)**

No dangerous good in sense of this transport regulation.

**Marine transport (IMDG)**
**Other applicable information (marine transport)**

No dangerous good in sense of this transport regulation.

**Air transport (ICAO-TI/IATA-DGR)**
**Other applicable information (air transport)**

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**
**National regulatory information**

Water contaminating class (D): 1 - slightly water contaminating

**SECTION 16: Other information**
**Changes**

This data sheet contains changes from the previous version in section(s): 1,3,11.

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

Classification	Classification procedure
Acute Tox. 4; H302	Calculation method
Eye Dam. 1; H318	Calculation method
Repr. 2; H361d	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.
H318	Causes serious eye damage.
H361d	Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.

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