

Safety Data Sheet

according to Regulation (EC) No 1907/2006

HIGHTEC ANTIFREEZE AN 13

Revision date: 16.03.2018

Product code: 21062-998-00

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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

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

Reproductive toxicity: Repr. 2

Specific target organ toxicity - repeated exposure: STOT RE 2

Hazard Statements:

Harmful if swallowed.

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

Sodium-2-ethylhexanoate

Signal word: Warning

Pictograms:

Hazard statements

H361d Suspected of damaging the unborn child.

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

Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

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

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.

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

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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			34-<80 %
	203-473-3	603-027-00-1	01-2119456816-28	
	Acute Tox. 4, STOT RE 2; H302 H373			
19766-89-3	Sodium-2-ethylhexanoate			3-<5 %
	243-283-8			
	Repr. 2; H361d			

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

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

Change contaminated clothing.

After inhalation

Provide fresh air. Medical treatment necessary. If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a physician immediately.

After contact with skin

Wash with plenty of water. Immediately remove any contaminated clothing, shoes or stockings. Medical treatment necessary. After contact with skin, wash immediately with plenty of water and soap.

After contact with eyes

After eye contact: Rinse immediately carefully and thoroughly with eye-bath or water. Consult an ophthalmologist.

After ingestion

Rinse mouth immediately and drink plenty of water. Induce vomiting when the affected person is not unconscious. Medical treatment necessary. If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Let water be drunken in little sips (dilution effect).

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. First Aid, decontamination, treatment of symptoms. No specific antidote known.

SECTION 5: Firefighting measures

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5.1. Extinguishing media**Suitable extinguishing media**

Co-ordinate fire-fighting measures to the fire surroundings. Dry extinguishing powder. Foam.

Unsuitable extinguishing media

High power water jet.

5.2. Special hazards arising from the substance or mixture

Non-flammable. In case of fire may be liberated: aerosol or mist generation. Gas/vapours, harmful.

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus. Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

Additional information

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.
Dispose of waste according to applicable legislation.

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. Use personal protection equipment. Use personal protective equipment as required. Use appropriate respiratory protection.

6.2. Environmental precautions

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

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. Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

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. No special measures required when used in accordance with the instructions.

Advice on protection against fire and explosion

Take precautionary measures against static discharges.

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. Provide adequate ventilation as well as local exhaust at critical locations. Keep container tightly closed in a cool place.

Hints on joint storage

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

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Further information on storage conditions

Keep away from heat.

7.3. Specific end use(s)

Radiator anti-freeze

SECTION 8: Exposure controls/personal protection
8.1. Control parameters
Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
107-21-1	Ethane-1,2-diol, vapour	20	52		TWA (8 h)	WEL
		40	104		STEL (15 min)	WEL
56-81-5	Glycerol, mist	-	10		TWA (8 h)	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. 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 or drink. Wear suitable protective clothing and gloves.

Eye/face protection

Wear eye/face protection.

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. Wear protective gloves. (EN 374 Butyl rubber. NBR (Nitrile rubber).)

Skin protection

Wear suitable protective clothing.

Respiratory protection

In case of inadequate ventilation wear respiratory protection. Wear breathing apparatus if exposed to vapours/dusts/aerosols. (particulates filter device (DIN EN 143).)

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

Physical state: liquid
 Colour: red
 Odour: characteristic

pH-Value:

Test method
 ~8,35 ASTM D1287

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Changes in the physical state

Melting point:	-18 °C
Initial boiling point and boiling range:	>170 °C ASTM D 1120
Flash point:	122 °C

Flammability

Solid:	No data available
Gas:	No data available
Lower explosion limits:	No data available
Upper explosion limits:	No data available

Auto-ignition temperature

Solid:	not applicable
Gas:	not applicable
Decomposition temperature:	not determined

Oxidizing properties

Not oxidizing.	
Vapour pressure:	not determined
Density (at 20 °C):	~1,13 g/cm ³ DIN 51757
Water solubility:	completely miscible

Solubility in other solvents

not determined	
Partition coefficient:	not determined
Viscosity / kinematic: (at 20 °C)	DIN 51562
Vapour density:	not determined
Evaporation rate:	not determined

9.2. Other information

Solid content:	not determined
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SECTION 10: Stability and reactivity
10.1. Reactivity

This product is stable under normal conditions. Hazardous reactions are unlikely.

10.2. Chemical stability

This product is stable under normal conditions. Hazardous reactions are unlikely.

10.3. Possibility of hazardous reactions

This product is stable under normal conditions. Hazardous reactions are unlikely.

10.4. Conditions to avoid

none

10.5. Incompatible materials

Oxidizing agents, strong. Strong acid

10.6. Hazardous decomposition products

No hazardous decomposition products known.

Further information

none

SECTION 11: Toxicological information

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11.1. Information on toxicological effects
Acute toxicity

Acute toxicity, dermal.

ATEmix tested

	Dose	Species	Source
LD50, oral	2016 mg/kg	Mouse	
LD50, dermal	>3500 mg/kg	Mouse	

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

Die Aussage ist von den Eigenschaften der Einzelkomponenten abgeleitet.

Angaben zu: Ethan-1,2-diol

Ein Risiko der Fruchtschädigung braucht bei Einhaltung des MAK-Wertes nicht befürchtet zu werden.

Gefahr der Hautresorption. Aus der Gesamtheit der vorliegenden Informationen ergeben sich keine

Hinweise auf eine krebserzeugende Wirkung.

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 mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP]. Special hazards arising from the substance or mixture!

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

The product is not: Ecotoxic.

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

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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

Biological degradation: Yes, rapidly

Partition coefficient n-octanol/water

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

12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT and vPvB assessment

The product has not been tested.

12.6. Other adverse effects

No information available.

Further information

Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation. Send to a hazardous waste incinerator facility under observation of official regulations .

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

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances; hazardous waste

Contaminated packaging

This material and its container must be disposed of as hazardous waste. Handle contaminated packages in the same way as the substance itself. Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

- 14.1. UN 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.

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Other applicable information (land transport)

No dangerous good in sense of this transport regulation.

Inland waterways transport (ADN)

- 14.1. UN 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.

Other applicable information (inland waterways transport)

No dangerous good in sense of this transport regulation.

Marine transport (IMDG)

- 14.1. UN 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.

Other applicable information (marine transport)

No dangerous good in sense of this transport regulation.

Air transport (ICAO-TI/IATA-DGR)

- 14.1. UN 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.

Other applicable information (air transport)

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. Transport in bulk according to Annex II of Marpol and the IBC Code

not applicable

SECTION 15: Regulatory information
15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
EU regulatory information
Additional information

To follow: 850/2004/EC, 79/117/EEC, 689/2008/EC

National regulatory information

Employment restrictions: Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

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

15.2. Chemical safety assessment

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

SECTION 16: Other information

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Changes

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

Abbreviations and acronyms

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%

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

Classification	Classification procedure
Acute Tox. 4; H302	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.
 H361d Suspected of damaging the unborn child.
 H373 May cause damage to organs through prolonged or repeated exposure.

Further Information

The information is based on present level of our knowledge. It does not, however, give assurances 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 hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)