

## HIGHTEC DOT 4

Revision date: 18.09.2020

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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

Brake fluid

#### 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  
Internet: www.rowe-oil.com  
Responsible Department: sdb@rowe-oil.com

#### 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

This mixture is not classified as hazardous in accordance with Regulation (EC) No. 1272/2008.

#### 2.2. Label elements

#### 2.3. Other hazards

No information available.

### SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

##### Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	GHS Classification			
111-46-6	Diethylene glycol			<5 %
	203-872-2		01-2119457857-21	
	Acute Tox. 4; H302			

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

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

##### General information

Self-protection of the first aider

Change contaminated clothing.

Do not put any product-impregnated cleaning rags into your trouser pockets.

##### After inhalation

Provide fresh air. In case of inhalation of aerosols/spray mist/splash spots: Consult physician.

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Avoid breathing dust/fume/gas/mist/vapours/spray. 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. Take off contaminated clothing and wash it before reuse. After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water and soap. If skin irritation or rash occurs: Get medical advice/attention.

**After contact with eyes**

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

**After ingestion**

Rinse mouth immediately and drink plenty of water. Call a physician immediately.

**4.2. Most important symptoms and effects, both acute and delayed**

No known symptoms to date.

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

Treat symptomatically. Treat symptomatically.

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

Co-ordinate fire-fighting measures to the fire surroundings. Carbon dioxide (CO<sub>2</sub>). Dry extinguishing powder. alcohol resistant foam. Water spray.

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

Non-flammable. Special exposure hazards arising from the substance itself, combustion products, resulting gases:  
CO, NO<sub>x</sub>

**5.3. Advice for firefighters**

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

**Additional information**

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**

Wear suitable protective clothing.

**6.2. Environmental precautions**

Do not allow to enter into surface water or drains.

**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.

**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 handling instructions are necessary.

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#### Advice on protection against fire and explosion

Keep away from combustible material.

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

##### Requirements for storage rooms and vessels

Keep container tightly closed. Keep container tightly closed and dry.

##### Hints on joint storage

No special measures are necessary.

#### 7.3. Specific end use(s)

Brake fluid

### 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
111-46-6	2,2'-Oxydiethanol	23	101		TWA (8 h)	WEL

#### 8.2. Exposure controls



##### Protective and hygiene measures

Take off contaminated clothing. Wash hands before breaks and after work. When using do not eat or drink.  
Avoid contact with skin and eyes.

##### Eye/face protection

Wear eye protection/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. 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.

NBR (Nitrile rubber).; 0,4mm; 30min

Butyl rubber.; 0,7mm; 480min

##### Skin protection

Wear suitable protective clothing.

##### Respiratory protection

In case of inadequate ventilation wear respiratory protection. If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn. full mask (DIN EN 136).

Further regulations, limitations and legal requirements:

National regulations, Regulatory information, EU legislation

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Physical state: liquid  
Colour: yellow

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Odour: characteristic

### Test method

pH-Value (at 20 °C):

~8,5 FMVSS 116

### Changes in the physical state

Melting point:

not determined

Initial boiling point and boiling range:

&gt;260 °C FMVSS 116

Pour point:

&lt;-70 °C

:

DIN 51583

Flash point:

&gt;130 °C DIN EN ISO 2719

### Flammability

Solid:

not applicable

Gas:

not applicable

Lower explosion limits:

1,5 vol. %

Upper explosion limits:

not determined

Ignition temperature:

&gt;200 °C DIN 51794

### Auto-ignition temperature

Solid:

not applicable

Gas:

not applicable

Decomposition temperature:

~360 °C

### Oxidizing properties

Not oxidising.

Vapour pressure:

&lt;1 hPa

(at 20 °C)

Density (at 20 °C):

~1,06 g/cm³ DIN 51757

Water solubility:

completely miscible

(at 20 °C)

### Solubility in other solvents

not determined

Partition coefficient:

not applicable

Viscosity / kinematic:

15-17 mm²/s FMVSS 116

(at 20 °C)

Vapour density:

not determined

Evaporation rate:

not determined

### 9.2. Other information

Solid content:

not determined

The product is hygroscopic.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

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

### 10.2. Chemical stability

Onset of decomposition at elevated temperatures (~360°C)

### 10.3. Possibility of hazardous reactions

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

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### 10.4. Conditions to avoid

not determined

### 10.5. Incompatible materials

not determined

### 10.6. Hazardous decomposition products

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

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### Acute toxicity

not determined

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
111-46-6	Diethylene glycol				
	oral	ATE mg/kg	500		

#### Irritation and corrosivity

not determined

#### Sensitising effects

not determined

#### Carcinogenic/mutagenic/toxic effects for reproduction

not determined

## SECTION 12: Ecological information

### 12.1. Toxicity

The product is not: Ecotoxic.

### 12.2. Persistence and degradability

Product is biodegradable. (90% / 15d)

### 12.3. Bioaccumulative potential

The product has not been tested.

### 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

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

#### Disposal recommendations

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

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### List of Wastes Code - residues/unused products

160113 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); brake fluids; hazardous waste

### List of Wastes Code - used product

160113 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); brake fluids; hazardous waste

### Contaminated packaging

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)

<b><u>14.1. UN number:</u></b>	No dangerous good in sense of this transport regulation.
<b><u>14.2. UN proper shipping name:</u></b>	No dangerous good in sense of this transport regulation.
<b><u>14.3. Transport hazard class(es):</u></b>	No dangerous good in sense of this transport regulation.
<b><u>14.4. Packing group:</u></b>	No dangerous good in sense of this transport regulation.

### Inland waterways transport (ADN)

<b><u>14.1. UN number:</u></b>	No dangerous good in sense of this transport regulation.
<b><u>14.2. UN proper shipping name:</u></b>	No dangerous good in sense of this transport regulation.
<b><u>14.3. Transport hazard class(es):</u></b>	No dangerous good in sense of this transport regulation.
<b><u>14.4. Packing group:</u></b>	No dangerous good in sense of this transport regulation.

### Marine transport (IMDG)

<b><u>14.1. UN number:</u></b>	No dangerous good in sense of this transport regulation.
<b><u>14.2. UN proper shipping name:</u></b>	No dangerous good in sense of this transport regulation.
<b><u>14.3. Transport hazard class(es):</u></b>	No dangerous good in sense of this transport regulation.
<b><u>14.4. Packing group:</u></b>	No dangerous good in sense of this transport regulation.

### Air transport (ICAO-TI/IATA-DGR)

<b><u>14.1. UN number:</u></b>	No dangerous good in sense of this transport regulation.
<b><u>14.2. UN proper shipping name:</u></b>	No dangerous good in sense of this transport regulation.
<b><u>14.3. Transport hazard class(es):</u></b>	No dangerous good in sense of this transport regulation.
<b><u>14.4. Packing group:</u></b>	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. Transport in bulk according to Annex II of Marpol and the IBC Code

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

according to Regulation (EC) No 1907/2006

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Information according to 2012/18/EU  
(SEVESO III):

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

**National regulatory information**

Water hazard class (D):

2 - obviously hazardous to water

**Additional information**

Inventories for chemical substances

Switzerland: yes

**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): 9.

**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%

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

H302

Harmful if swallowed.

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