

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**HIGHTEC Brake Fluid DOT 4 LV**

Revision date: 10.01.2018

Product code: 25114-998-00

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

HIGHTEC Brake Fluid DOT 4 LV

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

Hydraulic fluids

**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**

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

**2.2. Label elements**
**SECTION 3: Composition/information on ingredients**
**3.2. Mixtures**
**Hazardous components**

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	GHS Classification			
161907-77-3	Ethanol, 2-butoxy-, production of, by-product of			>3 - <10 %
	310-287-7		01-2119475115-41	
	Eye Dam. 1; H318			
110-97-4	1,1'-iminodipropan-2-ol; di-isopropanolamine			>1 - <10 %
	203-820-9	603-083-00-7		
	Eye Irrit. 2; H319			

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.

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**After inhalation**

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

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**

Call a physician immediately.

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

Carbon dioxide (CO<sub>2</sub>). Dry extinguishing powder. alcohol resistant foam. Water spray.

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

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.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

Provide adequate ventilation.  
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.

**SECTION 7: Handling and storage****7.1. Precautions for safe handling****Advice on safe handling**

No special handling instructions are necessary.

**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 and dry.

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****8.2. Exposure controls**

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**Protective and hygiene measures**

Change 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/face protection.

**Hand protection**

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

**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:	whitish - light yellow
Odour:	characteristic

pH-Value (at 20 °C):	ca. 8	ASTM-D 1287
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**Changes in the physical state**

Initial boiling point and boiling range:	>264 °C	ASTM D 1120
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Setting point:.	<-70 °C	ASTM-D 1177
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Flash point:	>138 °C	DIN EN ISO 2719
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Lower explosion limits:	not determined
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Upper explosion limits:	not determined
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Ignition temperature:	>300 °C	DIN 51794
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Vapour pressure: (at 20 °C)	0,27 hPa
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Density (at 20 °C):	ca. 1,06 g/cm <sup>3</sup>	DIN 51757
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Water solubility: (at 20 °C)	completely miscible
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**Solubility in other solvents**

not determined

Partition coefficient:	not applicable
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Viscosity / dynamic:	13 mPa·s
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Viscosity / kinematic: (at 20 °C)	12 mm <sup>2</sup> /s	DIN 51562
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Vapour density:	not determined
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Evaporation rate:	not determined
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**9.2. Other information**

The product is hygroscopic.

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**SECTION 10: Stability and reactivity**
**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.

**10.4. Conditions to avoid**

none

**10.5. Incompatible materials**

none

**10.6. Hazardous decomposition products**

No hazardous decomposition products known.

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

not determined

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
110-97-4	1,1'-iminodipropan-2-ol; di-isopropanolamine				
	oral	LD50 mg/kg	4765	Rat	

**Irritation and corrosivity**

not determined

**Sensitising effects**

not determined

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

not determined

**Additional information on tests**

The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

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

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
110-97-4	1,1'-iminodipropan-2-ol; di-isopropanolamine					
	Acute fish toxicity	LC50 mg/l	> 1000- 2200	96 h Leuciscus idus		

**12.2. Persistence and degradability**

Product is biodegradable. (70% / 28d)

**12.3. Bioaccumulative potential**
**Partition coefficient n-octanol/water**

CAS No	Chemical name	Log Pow
110-97-4	1,1'-iminodipropan-2-ol; di-isopropanolamine	-0,82

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**Further information**

The classification was carried out according to the calculation method of the Preparations Directive (1999/45/EC).

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

Send to a hazardous waste incinerator facility under observation of official regulations.

**Waste disposal number of waste from 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

**Waste disposal number of 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

**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

**15.2. Chemical safety assessment**

For this substance a chemical safety assessment has not been carried out.

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

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

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

H318 Causes serious eye damage.  
H319 Causes serious eye irritation.



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