

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

- **1.1 Product identifier**
- **Trade name: BRAKE FLUID DOT 5.1**
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture**  
Only for proper handling.  
Brake fluid
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
BUCHER AG LANGENTHAL  
MOTOREX-Schmiertechnik  
Bern-Zürich-Strasse 31  
CH-4901 Langenthal  
Telefon +41 (0)62 919 75 75
- **Only representative in EU:**  
MOTOREX Deutschland AG, Bismarckstrasse 28, D-69198 Schriesheim
- **Further information obtainable from: [msds@motorex.com](mailto:msds@motorex.com)**
- **1.4 Emergency telephone number:**  
Toxicological Information Centre, CH-8028 Zurich,  
[info@toxi.ch](mailto:info@toxi.ch),  
T. +41 (0) 44 251 51 51

## **SECTION 2: Hazards identification**

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**  
Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**  
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements**  
H412 Harmful to aquatic life with long lasting effects.
- **Precautionary statements**  
P101 If medical advice is needed, have product container or label at hand.  
P102 Keep out of reach of children.  
P103 Read label before use.  
P273 Avoid release to the environment.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Additional information:**  
Contains N,N-bis(2-ethylhexyl)-4-methyl-1H-benzotriazole-1-methylamine. May produce an allergic reaction.
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.

(Contd. on page 2)

# Safety data sheet

## according to 1907/2006/EC, Article 31

Printing date 03.07.2015

Version number 1

Revision: 03.07.2015

Trade name: BRAKE FLUID DOT 5.1

(Contd. of page 1)

· **vPvB:** Not applicable.

### SECTION 3: Composition/information on ingredients

- **3.2 Chemical characterisation: Mixtures**
- **Description:** Mixture of substances listed below with nonhazardous additions.

- **Dangerous components:**

CAS: 111-46-6 EINECS: 203-872-2 Reg.nr.: 01-2119457857-21	2,2'-oxybisethanol ⚠ STOT RE 2, H373; ⚠ Acute Tox. 4, H302	1-2.5%
CAS: 101-83-7 EINECS: 202-980-7	dicyclohexylamine ⚠ Acute Tox. 3, H301; ⚠ Acute Tox. 3, H311; ⚠ Skin Corr. 1B, H314; ⚠ Aquatic Chronic 1, H410	0.25-1%
CAS: 80584-90-3 EINECS: 279-503-4	N,N-bis(2-ethylhexyl)-4-methyl-1H-benzotriazole-1-methylamine ⚠ Aquatic Chronic 2, H411; ⚠ Skin Irrit. 2, H315; ⚠ Skin Sens. 1, H317	0.25-1%

- **Additional information:** For the wording of the listed risk phrases refer to section 16.

### SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**  
Remove residues with soap and water.  
Remove contaminated clothing immediately.
- **After eye contact:**  
Rinse opened eye for several minutes under running water.  
Consult a physician if irritation develops.
- **After swallowing:**  
Rinse mouth and drink large amount of water.  
Consult a physician immediately.
- **4.2 Most important symptoms and effects, both acute and delayed**  
No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**  
Use fire extinguishing methods suitable to surrounding conditions.
- **5.2 Special hazards arising from the substance or mixture**  
No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

### SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**  
Not required.

(Contd. on page 3)

## Safety data sheet

### according to 1907/2006/EC, Article 31

Printing date 03.07.2015

Version number 1

Revision: 03.07.2015

Trade name: BRAKE FLUID DOT 5.1

(Contd. of page 2)

- **6.2 Environmental precautions:**  
Do not allow product to reach sewage system or any water course.  
Inform respective authorities in case of seepage into water course or sewage system.  
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **6.4 Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

### SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**  
Good general ventilation should be sufficient for most conditions.
- **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**  
Keep container tightly closed; product is hygroscopic.  
Store in cool, dry well ventilated area away from sources of ignition and heat.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **Storage class:** 10
- **7.3 Specific end use(s)** No further relevant information available.

### SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.

- **8.1 Control parameters**

- **Ingredients with limit values that require monitoring at the workplace:**

111-46-6 2,2'-oxybisethanol
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WEL	Long-term value: 101 mg/m <sup>3</sup> , 23 ppm
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- **Additional information:** The lists valid during the making were used as basis.

- **8.2 Exposure controls**

- **Personal protective equipment:**
- **General protective and hygienic measures:**  
Wash hands before breaks and at the end of work.
- **Respiratory protection:** Not required.
- **Protection of hands:**  
Impervious gloves  
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves** Use CR or NBR rubber gloves. Material thickness: 0.5 mm

(Contd. on page 4)

GB

## Safety data sheet

### according to 1907/2006/EC, Article 31

Printing date 03.07.2015

Version number 1

Revision: 03.07.2015

Trade name: BRAKE FLUID DOT 5.1

(Contd. of page 3)

- **Penetration time of glove material**  
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Goggles recommended during refilling

### SECTION 9: Physical and chemical properties

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

##### · General Information

##### · Appearance:

Form:	Fluid
Colour:	Yellowish
Odour:	Characteristic
Odour threshold:	Not determined.

· pH-value: Not determined.

##### · Change in condition

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	> 260 °C (DIN EN ISO 3405)

· Flash point: > 130 °C

· Flammability (solid, gaseous): Not applicable.

##### · Ignition temperature:

Decomposition temperature: Not determined.

· Self-igniting: Product is not selfigniting.

· Danger of explosion: Product does not present an explosion hazard.

##### · Explosion limits:

Lower:	Not determined.
Upper:	Not determined.

· Vapour pressure: Not determined.

· Density at 20 °C: 1.06 g/cm<sup>3</sup> (ASTM D 4052)

· Relative density: Not determined.

· Vapour density: Not determined.

· Evaporation rate: Not determined.

##### · Solubility in / Miscibility with water:

Not miscible or difficult to mix.

· Partition coefficient (n-octanol/water): Not determined.

##### · Viscosity:

Dynamic:	Not determined.
Kinematic:	7 mm <sup>2</sup> /s @ 40 °C (DIN 51562-1)

· 9.2 Other information: No further relevant information available.

### SECTION 10: Stability and reactivity

· 10.1 Reactivity: No further relevant information available.

· 10.2 Chemical stability

· **Thermal decomposition / conditions to be avoided:**

No decomposition if used according to specifications.

(Contd. on page 5)

## Safety data sheet

### according to 1907/2006/EC, Article 31

Printing date 03.07.2015

Version number 1

Revision: 03.07.2015

Trade name: BRAKE FLUID DOT 5.1

(Contd. of page 4)

- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.
- **Additional information:** The product is stable but hygroscopic.

### SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity**

· <b>LD/LC50 values relevant for classification:</b>		
101-83-7 dicyclohexylamine		
Oral	LD50	373 mg/kg (rat)

- **Primary irritant effect:**

- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.

- **Serious eye damage/irritation**

Based on available data, the classification criteria are not met.

- **Respiratory or skin sensitisation**

Based on available data, the classification criteria are not met.

- **Additional toxicological information:**

The sweet taste can seduce children to drink large quantities; hence keep out of reach of children.

- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.

- **Carcinogenicity** Based on available data, the classification criteria are not met.

- **Reproductive toxicity** 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** Based on available data, the classification criteria are not met.

- **Aspiration hazard** Based on available data, the classification criteria are not met.

### SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.

- **Ecotoxicological effects:**

- **Remark:** Harmful to fish

- **Additional ecological information:**

- **General notes:**

Water hazard class 1 (German Regulation) (Self-classification according VwVwS, 17.05.1999): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Harmful to aquatic organisms

- **12.5 Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

- **12.6 Other adverse effects** No further relevant information available.

GB

(Contd. on page 6)

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 03.07.2015

Version number 1

Revision: 03.07.2015

Trade name: BRAKE FLUID DOT 5.1

(Contd. of page 5)

**SECTION 13: Disposal considerations**

- **13.1 Waste treatment methods**
- **Recommendation**  
Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· <b>European waste catalogue</b>
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16 01 13*   brake fluids
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- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

**SECTION 14: Transport information**

- |   |                 |
|---|-----------------|
| · <b>14.1 UN-Number</b><br>· <b>ADR,ADN, ADN, IMDG, IATA</b>                                    | Void            |
| · <b>14.2 UN proper shipping name</b><br>· <b>ADR,ADN, ADN, IMDG, IATA</b>                      | Void            |
| · <b>14.3 Transport hazard class(es)</b><br>· <b>ADR,ADN, ADN, IMDG, IATA</b><br>· <b>Class</b> | Void            |
| · <b>14.4 Packing group</b><br>· <b>ADR,ADN, IMDG, IATA</b>                                     | Void            |
| · <b>14.5 Environmental hazards:</b><br>· <b>Marine pollutant:</b>                              | No              |
| · <b>14.6 Special precautions for user</b>  | Not applicable. |
| · <b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</b>                | Not applicable. |
| · <b>UN "Model Regulation":</b>   | -               |

**SECTION 15: Regulatory information**

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **15.2 Chemical safety assessment:**  
A Chemical Safety Assessment has not been carried out.

**SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases**  
H301 Toxic if swallowed.

(Contd. on page 7)

GB

**Safety data sheet**  
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Version number 1

Revision: 03.07.2015

**Trade name: BRAKE FLUID DOT 5.1**

(Contd. of page 6)

*H302 Harmful if swallowed.**H311 Toxic in contact with skin.**H314 Causes severe skin burns and eye damage.**H315 Causes skin irritation.**H317 May cause an allergic skin reaction.**H373 May cause damage to organs through prolonged or repeated exposure.**H410 Very toxic to aquatic life with long lasting effects.**H411 Toxic to aquatic life with long lasting effects.*

· **Department issuing MSDS:** Abteilung Produktsicherheit

· **Abbreviations and acronyms:**

Acute Tox. 3: Acute toxicity, Hazard Category 3

Acute Tox. 4: Acute toxicity, Hazard Category 4

Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Skin Sens. 1: Sensitisation - Skin, Hazard Category 1

STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2

Aquatic Chronic 1: Hazardous to the aquatic environment - Chronic Hazard, Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2

Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3

GB