



Brake Fluid DOT 5.1

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Revision date: 8-9-2015 version: 6.0

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

1.1. Product identifier

Product name : Brake Fluid DOT 5.1

Product code : 21000

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

1.2.1. Relevant identified uses

Main use category : Professional use

Use of the substance/mixture : Automotive care products

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

MPM International Oil Company
Cyclotronweg 1
2629 HN Delft - Nederland
T +31 (0)15 2514030 - F +31 (0)15 2514031
info@mpmoil.nl - www.mpmoil.nl

1.4. Emergency telephone number

Emergency number : +31 (0)15 2514030 (08.00 - 17.00)

Country	Official advisory body	Address	Emergency number	Comment
Ireland	National Poisons Information Centre Beaumont Hospital	Beaumont Hospital Beaumont Road 9 Dublin	: +353 1 8379964	
United Kingdom	Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Centre Hospitalier Universitaire de Constantine	Avonley Road SE14 5ER London	0870 243 2241	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Adverse physicochemical, human health and environmental effects

It is expected that the product is not harmful to the environment.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Precautionary statements (CLP) : P102 - Keep out of reach of children
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P337+P313 - If eye irritation persists: Get medical advice/attention
P301+P312 - IF SWALLOWED: Call a doctor, a POISON CENTER if you feel unwell
P501 - Dispose of contents/container to officially registered waste disposal company

EUH-statements : EUH210 - Safety data sheet available on request

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
2-[2-(2-butoxyethoxy)ethoxy] ethanol	(CAS No) 143-22-6 (EC No) 205-592-6 (EC Index No) 603-183-00-0 (REACH-no) 01-2119531322-53	0 - 20	Eye Dam. 1, H318
Diethylene glycol	(CAS No) 111-46-6 (EC No) 203-872-2 (EC Index No) 603-140-00-6 (REACH-no) 01-2119457857-21	0 - 10	Acute Tox. 4 (Oral), H302 STOT RE 2, H373
2-(2-Methoxyethoxy)ethanol	(CAS No) 111-77-3 (EC No) 203-906-6 (EC Index No) 603-107-00-6 (REACH-no) 01-2119475100-52	0 - 3	Repr. 2, H361d
2-(2-Butoxyethoxy)ethanol	(CAS No) 112-34-5 (EC No) 203-961-6 (EC Index No) 603-096-00-8 (REACH-no) 01-2119475104-44	0 - 3	Eye Irrit. 2, H319

Specific concentration limits:

Name	Product identifier	Specific concentration limits
2-[2-(2-butoxyethoxy)ethoxy] ethanol	(CAS No) 143-22-6 (EC No) 205-592-6 (EC Index No) 603-183-00-0 (REACH-no) 01-2119531322-53	(20 =<C < 30) Eye Irrit. 2, H319 (C >= 30) Eye Dam. 1, H318

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

After inhalation	: Provide fresh air. In all cases of doubt, or when symptoms persist, seek medical attention.
After skin contact	: After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water and soap. If irritation persists, consult a specialist.
After eye contact	: In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation persists, consult a specialist.
After ingestion	: Get immediate medical advice/attention. Rinse mouth. If the person is fully conscious, make him/her drink plenty of water. Never give an unconscious person anything to drink.

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

After skin contact	: Contact during a long period may cause light irritation.
After eye contact	: May cause severe irritation.

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

First Aid, decontamination, treatment of symptoms.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: powder, alcohol-resistant foam, water spray, carbon dioxide.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: On heating/burning: release of (highly) toxic gases/vapours e.g.: carbon monoxide - carbon dioxide.
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5.3. Advice for firefighters

Protection during firefighting	: In case of fire: Wear self-contained breathing apparatus.
Other information	: Use water spray/stream to protect personnel and to cool endangered containers.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Avoid contact with skin and eyes.
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6.1.1. For non-emergency personnel

Protective equipment	: Wear suitable protective clothing and eye/face protection.
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6.1.2. For emergency responders

Protective equipment	: Wear suitable protective clothing and eye/face protection.
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6.2. Environmental precautions

Do not release in groundwater, surfacewater or sewerage. Do not allow to enter into soil/subsoil.

6.3. Methods and material for containment and cleaning up

For containment : Prevent spreading over great surfaces (e.g. by damming or installing oil booms).
Methods for cleaning up : Clean up with absorbent material (for example sand, sawdust, neutral absorbent granule, silica gel).

6.4. Reference to other sections

Information on disposal - see Section 13. Information on personal protective equipment - see Chapter 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Avoid contact with skin and eyes.
Hygiene measures : Wash hands before breaks and at the end of work. When using do not eat, drink or smoke.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Keep only in the original container in a cool, well-ventilated place.
Storage area : Keep container tightly closed in a cool, well-ventilated place.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Diethylene glycol (111-46-6)		
EU	IOELV TWA (mg/m ³)	101 mg/m ³
United Kingdom	WEL TWA (mg/m ³)	101 mg/m ³
United Kingdom	WEL TWA (ppm)	23 ppm
2-(2-Methoxyethoxy)ethanol (111-77-3)		
EU	IOELV TWA (mg/m ³)	50,1 mg/m ³
EU	IOELV TWA (ppm)	10 ppm
United Kingdom	WEL TWA (mg/m ³)	50,1 mg/m ³
United Kingdom	WEL TWA (ppm)	10 ppm
2-(2-Butoxyethoxy)ethanol (112-34-5)		
EU	IOELV TWA (mg/m ³)	67,5 mg/m ³
EU	IOELV TWA (ppm)	10 ppm
EU	IOELV STEL (mg/m ³)	101,2 mg/m ³
EU	IOELV STEL (ppm)	15 ppm
United Kingdom	WEL TWA (mg/m ³)	67,5 mg/m ³
United Kingdom	WEL TWA (ppm)	10 ppm
United Kingdom	WEL STEL (mg/m ³)	101,2 mg/m ³
United Kingdom	WEL STEL (ppm)	15 ppm

8.2. Exposure controls

Technical measures:

Provide adequate ventilation.

Personal protective equipment:

Gloves. Safety glasses.

Hand protection:

Risk of skin contact: Wear suitable gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

If technical suction or ventilation measures are not possible or are insufficient, protective breathing apparatus must be worn

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Other information:

Wash hands before breaks and at the end of work. When using do not eat, drink or smoke.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: clear.
Colour	: colourless. amber.
Odour	: Low.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: < -50 °C
Freezing point	: No data available
Boiling point	: > 260 °C
Flash point	: > 110 °C
Auto-ignition temperature	: > 300 °C
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: < 2 mbar @ 20°C
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 1067 (1,01 - 1,07) g/l 20C
Solubility	: Miscible with: Water. Alcohol.
Log Pow	: No data available
Log Kow	: < 2
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: Product is not explosive.
Oxidising properties	: None.
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available.

10.2. Chemical stability

The product is stable at normal handling- and storage conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

aerosol or mist generation.

10.5. Incompatible materials

Oxidizing substances.

10.6. Hazardous decomposition products

No additional information available

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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified
Additional information : Probably harmless when inhaled because of the low vapor pressure of the substance at ambient temperature
May be harmful if swallowed

Brake Fluid DOT 5.1	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rat	> 2000 mg/kg

Skin corrosion/irritation : Not classified
Additional information : Repeated exposure may cause skin dryness or cracking
Serious eye damage/irritation : Not classified
Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified
STOT-single exposure : Not classified
STOT-repeated exposure : Not classified
Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity

General : It is expected that the product is not harmful to the environment. The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment. That does not mean that large or frequent spills can have on the environment.

Brake Fluid DOT 5.1	
LC50 fish 1	> 96 mg/l @96h

12.2. Persistence and degradability

Brake Fluid DOT 5.1	
Persistence and degradability	Is well eliminable from water.

12.3. Bioaccumulative potential

Brake Fluid DOT 5.1	
Log Kow	< 2
Bioaccumulative potential	No indication of bio-accumulation potential.

12.4. Mobility in soil

Brake Fluid DOT 5.1	
Soil	In water, material soluble.

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste) : Waste disposal according to official state regulations.
Waste treatment methods : Hand over to officially registered waste disposal company.
European List of Waste (LoW) code : 16 01 13* - brake fluids

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG
14.1. UN number	
Not applicable	Not applicable

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ADR	IMDG
14.2. UN proper shipping name	
Not applicable	Not applicable
14.3. Transport hazard class(es)	
Not applicable	Not applicable
Not applicable	Not applicable
14.4. Packing group	
Not applicable	Not applicable
14.5. Environmental hazards	
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No
No supplementary information available	

14.6. Special precautions for user

- Overland transport

No data available

- Transport by sea

No data 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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Full text of H- and EUH-statements:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Repr. 2	Reproductive toxicity, Category 2
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
H302	Harmful if swallowed.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H361d	Suspected of damaging the unborn child
H373	May cause damage to organs through prolonged or repeated exposure.
EUH210	Safety data sheet available on request.

SDS MPM REACH

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product