



Brake Fluid DOT 5.1

Safety Data Sheet

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

Date of issue: 16/03/2015

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Supersedes: 16/03/2015

Version: 3.1

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

1.1. Product identifier

Product form : Mixture
Article number : 53600
Product code : 536

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

1.2.1. Relevant identified uses

Function or use category : Brake fluids

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

BARDAHL NL - OCD NEDERLAND BV
Maxwellstraat 41
3316 GP Dordrecht - Nederland
T 0031 78 651 2322 - F 0031 78 617 4848
rjonker@bardahl.nl - www.bardahl.nl

1.4. Emergency telephone number

Emergency number : +31 (0) 6 2908 2010
During office hours: 8.30 t/m 17:00 h

Country	Official advisory body	Address	Emergency number	Comment
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 +353 1 809 2166 (public, 8am - 10pm, 7/7)	

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

The product has to be labeled due to the calculation procedure of the General Classification guideline for preparations of the EU", DIR.".

2.2. Label elements

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

No labelling applicable

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
2-[2-(2-butoxyethoxy)ethoxy]ethanol, TEGBE, triethylene glycol monobutyl ether, butoxytriethylene glycol	(CAS No) 143-22-6 (EC no) 205-592-6 (EC index no) 603-183-00-0 (REACH-no) 01-2119475107-38	3 - 10	Eye Dam. 1, H318

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2-(2-methoxyethoxy)ethanol, diethylene glycol monomethyl ether	(CAS No) 111-77-3 (EC no) 203-906-6 (EC index no) 603-107-00-6 (REACH-no) 01-2119475100-52	1 - 2.5	Repr. 2, H361d
1,1'-iminodipropan-2-ol, di-isopropanolamine	(CAS No) 110-97-4 (EC no) 203-820-9 (EC index no) 603-083-00-7 (REACH-no) 01-2119475444-34	1 - 2.5	Eye Irrit. 2, H319

Specific concentration limits:

Name	Product identifier	Specific concentration limits
2-[2-(2-butoxyethoxy)ethoxy]ethanol, TEGBE, triethylene glycol monobutyl ether, butoxytriethylene glycol	(CAS No) 143-22-6 (EC no) 205-592-6 (EC index no) 603-183-00-0 (REACH-no) 01-2119475107-38	(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

First-aid measures general	: Remove/Take off immediately all contaminated clothing. Seek medical attention if ill effect develops.
First-aid measures after inhalation	: Allow breathing of fresh air. When unconsciousness transport in a recovery position. Seek medical advice.
First-aid measures after skin contact	: Wash skin thoroughly with mild soap and water. Get immediate medical advice/attention.
First-aid measures after eye contact	: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 15 minutes, holding the eyelids apart.
First-aid measures after ingestion	: Obtain emergency medical attention.

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

Symptoms/injuries	: Limited evidence of a carcinogenic effect.
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4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Carbon dioxide. Powder. Alcohol resistant foam. Water haze.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: High temperature may liberate toxic gases.
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5.3. Advice for firefighters

Firefighting instructions	: Use water spray or fog for cooling exposed containers.
Protection during firefighting	: Use self-contained breathing apparatus. Wear suitable protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Wear proper protective equipment. See Heading 8.
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6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up	: Soak up with inert absorbent material (for example sand, sawdust, a universal binder, silica gel).
Other information	: Stop leak, if possible without risk. May be dangerously slippery if spilled.

6.4. Reference to other sections

See Headings 7 and 8. See Heading 13.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Ensure adequate ventilation. Take precautionary measures against static discharges. Do not expose pregnant or breastfeeding women.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in dry, cool, well-ventilated area. Keep container tightly closed.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Personal protective equipment : Protective goggles. Dust production: dust mask with filter type P2.

Materials for protective clothing : Wear suitable protective clothing. EN 340

Hand protection : Wear suitable gloves resistant to chemical penetration. Selection of the glove material on consideration of the penetration times, permeability and degradation. Wear suitable gloves tested to EN374. neoprene/butyl rubber. Recommended thickness of the material: ≥ 0.7 mm. Gloves material: Nitrile. Recommended thickness of the material: ≥ 0.45 mm. Penetration time of glove material: 30 min (Nitril). Refer to manufacturer's information

Eye protection : Use eye protection to EN 166, designed to protect against liquid splashes

Respiratory protection : In case of inadequate ventilation wear respiratory protection. Filtering Half-face mask (DIN EN 149). Extra personal protection: A/P2 filter respirator for organic vapour and harmful dust



Other information : The usual precautionary measures are to be adhered to when handling chemicals. Keep away from food, drink and animal feedingstuffs. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Remove contaminated clothing immediately. Do not eat, drink or smoke when using this product. Pregnant women must avoid to breathe or to have skin contact with product.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Colour : Yellow.
Odour : characteristic.
Odour threshold : No data available
pH : 7 - 8.5 (20°C) FMVSS, S6, 4
Relative evaporation rate (butylacetate=1) : No data available
Melting point : No data available
Freezing point : No data available
Boiling point : 265 °C (ASTDM D1120)
Flash point : 135.5 °C (DIN EN 22719; ISO 2719)
Auto-ignition temperature : > 200 °C (DIN EN 14522)
Decomposition temperature : No data available
Flammability (solid, gas) : No data available
Vapour pressure : 1 bar (20°C)
Relative vapour density at 20 °C : No data available
Relative density : No data available
Density : 1.06 g/cm³ (20°C)
Solubility : Soluble in water.
Organic solvent: 1.9%
Log Pow : No data available

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Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: Product is not explosive.
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

Additional information : Material is hygroscopic

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

No decomposition if used according to specifications.

10.3. Possibility of hazardous reactions

No dangerous reactions known.

10.4. Conditions to avoid

Moisture.

10.5. Incompatible materials

Oxidizer.

10.6. Hazardous decomposition products

At high temperature may liberate dangerous gases.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

2-(2-methoxyethoxy)ethanol, diethylene glycol monomethyl ether (111-77-3)

LD50 oral rat	> 5000 mg/kg (OECD 401)
LD50 dermal rabbit	> 6500 mg/kg (OECD 402)
LC50 inhalation rat (mg/l)	1.2 mg/l/4h (OECD 403)

Skin corrosion/irritation : Not classified
pH: 7 - 8.5 (20°C) FMVSS, S6, 4

Serious eye damage/irritation : Irritating to eyes
pH: 7 - 8.5 (20°C) FMVSS, S6, 4

Respiratory or skin sensitisation : No sensitisation responses were observed

Germ cell mutagenicity : Not classified

Carcinogenicity : The product is not considered carcinogenic, mutagenic or repro-toxic. May impair fertility and cause harm to the unborn child

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Not classified

2-(2-methoxyethoxy)ethanol, diethylene glycol monomethyl ether (111-77-3)

NOAEL (oral, rat, 90 days)	900 mg/kg bodyweight/day
NOAEL (dermal, rat/rabbit, 90 days)	40 mg/kg bodyweight/day

Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity

53600

LC50 other aquatic organisms 1	> 100 mg/l (Leuciscus Idus)
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2-(2-methoxyethoxy)ethanol, diethylene glycol monomethyl ether (111-77-3)

LC50 fish 1	5741 mg/l (Pimephales promelas) (US-EPA)
EC50 Daphnia 1	1192 mg/l (EPA-660/3-75-009 (1975))
EC50 other aquatic organisms 1	> 1000 mg/l (OECD 209)
EC50 other aquatic organisms 2	> 1000 mg/l (Selenastrum Capricornutum) (OECD 201)

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12.2. Persistence and degradability

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Biodegradation	70 % (OESO 302B; 88/302/EEG, Part C)
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12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

53600

Ecology - soil	Prevent entry to sewers and public waters.
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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

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: Transport information

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

14.1. UN number

UN-No. (ADR)	: Not applicable
UN-No. (IMDG)	: Not applicable
UN-No. (IATA)	: Not applicable
UN-No. (ADN)	: Not applicable
UN-No. (RID)	: Not applicable

14.2. UN proper shipping name

Proper Shipping Name (ADR)	: Not applicable
Proper Shipping Name (IMDG)	: Not applicable
Proper Shipping Name (IATA)	: Not applicable
Proper Shipping Name (ADN)	: Not applicable
Proper Shipping Name (RID)	: Not applicable

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : Not applicable

IMDG

Transport hazard class(es) (IMDG) : Not applicable

IATA

Transport hazard class(es) (IATA) : Not applicable

ADN

Transport hazard class(es) (ADN) : Not applicable

RID

Transport hazard class(es) (RID) : Not applicable

14.4. Packing group

Packing group (ADR)	: Not applicable
Packing group (IMDG)	: Not applicable
Packing group (IATA)	: Not applicable
Packing group (ADN)	: Not applicable
Packing group (RID)	: Not applicable

14.5. Environmental hazards

Dangerous for the environment	: No
Marine pollutant	: No

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Other information : No supplementary information available

14.6. Special precautions for user

- Overland transport

No data available

- Transport by sea

No data available

- Air transport

No data available

- Inland waterway transport

No data available

- Rail transport

No data available

14.7. Transport in bulk according to Annex II of MARPOL 73/78 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

SECTION 16: Other information

Indication of changes:

15.2	Chemical safety assessment	Modified	
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Abbreviations and acronyms:

	Abbreviations and acronyms: RID: Regulations Concerning the International Transport of Dangerous Goods by Rail ICAO: International Civil Aviation Organization ADR: 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 (division of the American Chemical Society) VOC: Volatile Organic Compounds (USA, EU) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent
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Full text of H- and EUH-statements:

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
H318	Causes serious eye damage
H319	Causes serious eye irritation
H361d	Suspected of damaging the unborn child

SDS EU (REACH Annex II)

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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