



BRAKE FLUID DOT 5.1

Safety Data Sheet

according to Regulation (EC) No. 453/2010

Date of issue: 04/11/2003

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Version: 6.0

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

1.1. Product identifier

Product form Product : Mixture
name. : BRAKE FLUID DOT 5.1
Product code :
Product group : Blend

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
Industrial/Professional use spec. : Used in closed systems Non-dispersive use
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

ELVEDES CABLE SYSTEMS B.V.
Grutter 7
NL-5253 RM NIEUWKUIJK
T +31 (0)416 374 597
info@elvedes.com

1.4. Emergency telephone number

Emergency number : 003 (0)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Eye Irrit. 2 H319

Full text of H-phrases: see section 16

Classification according to Directive 67/548/EEC or 1999/45/EC Not classified **Adverse physicochemical, human health and environmental effects** No additional information available

2.2. Label elements

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

Hazard pictograms (CLP)



GHS07

Signal word (CLP) : Warning

BRAKE FLUID DOT 5.1

Safety Data Sheet according to Regulation (EC) No. 453/2010

Hazard statements (CLP) : H319 - Causes serious eye irritation
Precautionary statements (CLP) : P101 - If medical advice is needed, have product container or label at hand
P102 - Keep out of reach of children
P280 - Wear eye protection, protective gloves
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
P501 - Dispose of contents/container in accordance with local/regional/national/international regulations

2.3. Other hazards

No additional information available

07/08/2015

EN (English)

1/6

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification according to Directive 67/548/EEC
butoxytriethylene glycol	(CAS No) 143-22-6 (EC no) 205-592-6 (EC index no) 603-183-00-0 (REACH-no) 01-2119531322-53	10 - 30	Xi; R41
1,1'-iminodipropan-2-ol	(CAS No) 110-97-4 (EC no) 203-820-9 (EC index no) 603-083-00-7	1 - 2,99	Xi; R36
2-(2-butoxyethoxy)ethanol	(CAS No) 112-34-5 (EC no) 203-961-6 (EC index no) 603-096-00-8	1 - 2,99	Xi; R36
3,6,9,12-tetraoxahexadecan-1-ol	(CAS No) 1559-35-8 (EC no) 216-322-1	1 - 2,99	Not classified
2-(2-methoxyethoxy)ethanol	(CAS No) 111-77-3 (EC no) 203-906-6 (EC index no) 603-107-00-6	0,1 - 1	Repr.Cat.3; R63

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
butoxytriethylene glycol	(CAS No) 143-22-6 (EC no) 205-592-6 (EC index no) 603-183-00-0 (REACH-no) 01-2119531322-53	10 - 30	Eye Dam. 1, H318
1,1'-iminodipropan-2-ol	(CAS No) 110-97-4 (EC no) 203-820-9 (EC index no) 603-083-00-7	1 - 2,99	Eye Irrit. 2, H319
2-(2-butoxyethoxy)ethanol	(CAS No) 112-34-5 (EC no) 203-961-6 (EC index no) 603-096-00-8	1 - 2,99	Eye Irrit. 2, H319
3,6,9,12-tetraoxahexadecan-1-ol	(CAS No) 1559-35-8 (EC no) 216-322-1	1 - 2,99	Eye Irrit. 2, H319
2-(2-methoxyethoxy)ethanol	(CAS No) 111-77-3 (EC no) 203-906-6 (EC index no) 603-107-00-6	0,1 - 1	Repr. 2, H361d

Full text of R-, H- and EUH-phrases: see section 16

SECTION 4: First aid measures

07/08/2015

EN (English)

2/9

BRAKE FLUID DOT 5.1

Safety Data Sheet according to Regulation (EC) No. 453/2010

4.1. Description of first aid measures

First-aid measures general	: Remove/Take off immediately all contaminated clothing.
First-aid measures after inhalation	: If inhaled, remove to fresh air and keep at rest in a position comfortable for breathing. Seek medical advice.
First-aid measures after skin contact	: After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water.
First-aid measures after eye contact	: In case of eye contact, immediately rinse with clean water for 10-15 minutes. Seek medical attention if ill effect or irritation develops.
First-aid measures after ingestion	: Get immediate medical advice/attention.

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

Symptoms/injuries after inhalation	: Not expected to present a significant inhalation hazard under anticipated conditions of normal use.
Symptoms/injuries after skin contact	: Not expected to present a significant skin hazard under anticipated conditions of normal use.
Symptoms/injuries after eye contact	: Not expected to present a significant eye contact hazard under anticipated conditions of normal use.
Symptoms/injuries after ingestion	: Not expected to present a significant ingestion hazard under anticipated conditions of normal use.

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Carbon dioxide. Powder. Strong water jet. Alcohol resistant foam.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

Precautionary measures fire	: Exercise caution when fighting any chemical fire.
Firefighting instructions	: Use water spray or fog for cooling exposed containers.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment : Wear suitable protective clothing and gloves.

6.1.2. For emergency responders

Protective equipment : Wear suitable protective clothing and gloves.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment	: Impound and recover large spill by mixing it with inert granular solids.
Methods for cleaning up	: Detergent. Take up liquid spill into absorbent material sand, saw dust, kieselguhr.
Other information	: Spill area may be slippery. Use suitable disposal containers.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Avoid all unnecessary exposure. Both local exhaust and general room ventilation are usually required.

BRAKE FLUID DOT 5.1

Safety Data Sheet according to Regulation (EC) No. 453/2010

Handling temperature : < 40 °C
Hygiene measures : Wash hands and other exposed areas with mild soap and water before eat, drink or smoke and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Storage temperature : < 40 °C
Storage area : Store in dry, cool, well-ventilated area.

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 : Safety glasses. Gloves.



Hand protection : Wear suitable gloves resistant to chemical penetration. butyl rubber gloves.
Eye protection : Safety glasses.
Skin and body protection : No special clothing/skin protection equipment is recommended under normal conditions of use.
Respiratory protection : No special respiratory protection equipment is recommended under normal conditions of use with adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Appearance : Liquid.
Colour : yellow.
Odour : Characteristic.
Odour threshold : No data available
pH : 7 - 11,5

Relative evaporation rate (butylacetate=1) : No data available

Melting point : < -50 °C

Freezing point : < °C

Boiling point : > 260 °C

Flash point : > 126 °C ISO 2719

Self ignition temperature : > 300 °C DIN 51794

Decomposition temperature : No data available
07/08/2015 EN (English)

BRAKE FLUID DOT 5.1

Safety Data Sheet according to Regulation (EC) No. 453/2010

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 : 1,03 - 1,09 kg/m³ DIN 51757 Solubility	: Complete.
Log Pow	: No data available
Viscosity, kinematic	: 5 - 10 mm²/s @ 20°C ASTM D445
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

None under normal conditions.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

None under normal conditions.

10.4. Conditions to avoid

No data available.

10.5. Incompatible materials

Strong oxidizers. acids. Bases.

10.6. Hazardous decomposition products

None under normal conditions.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

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LD50 oral rat	5000 mg/kg
LD50 dermal rabbit	3000 mg/kg OECD 404

Skin corrosion/irritation	: Not classified pH: 7 - 11,5
Serious eye damage/irritation	: OECD 405 pH: 7 - 11,5

BRAKE FLUID DOT 5.1

Safety Data Sheet according to Regulation (EC) No. 453/2010

Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified

Reproductive toxicity : Not classified
Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated : Not classified exposure)

Aspiration hazard : Not classified

BRAKE FLUID DOT 5.1

Safety Data Sheet according to Regulation (EC) No. 453/2010

SECTION 12: Ecological information

12.1. Toxicity

BRAKE FLUID DOT 5.1	
LC50 fishes 1	> 100 mg/l (96 h, Oncorhynchus mykiss) DIN 38412 T.9
EC50 other aquatic organisms 1	> g/l

12.2. Persistence and degradability

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Biodegradation	100 % 21d OECD 302B

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

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

Additional information : Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: Transport information

In accordance with ADR / RID / ADNR / IMDG / ICAO / IATA

14.1. UN number

No dangerous good in sense of transport regulations

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

Not applicable

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

BRAKE FLUID DOT 5.1

Safety Data Sheet according to Regulation (EC) No. 453/2010

14.6.1. Overland transport

No additional information available

14.6.2. Transport by sea

No additional information available

14.6.3. Air transport

No additional information available

14.6.4. Inland waterway transport

No additional information 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

No REACH Annex XVII restrictions

Contains no REACH candidate substance

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Other information

The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.

Full text of R-, H- and EUH-phrases::

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
R36	Irritating to eyes
R41	Risk of serious damage to eyes

BRAKE FLUID DOT 5.1

Safety Data Sheet according to Regulation (EC) No. 453/2010

R63	Possible risk of harm to the unborn child
Xi	Irritant

SDS EU (REACH Annex II)

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.