



SAFETY DATA SHEET

BRAKE FLUID DOT 4

Page: 1

Compilation date: 26/11/2015

Revision date: 06/03/2018

Revision No: 3

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

1.1. Product identifier

Product name: BRAKE FLUID DOT 4

Product code: 1804,1803,0184,1822,1746

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

1.3. Details of the supplier of the safety data sheet

Company name: Granville Oil & Chemicals Ltd.

Unit 29 Goldthorpe Industrial Estate

Goldthorpe

Rotherham

South Yorkshire

S63 9BL

United Kingdom

Tel: +44 (0)1709 890099

Fax: +44 (0)1709 891121

Email: technical@granvilleoil.com

1.4. Emergency telephone number

Emergency tel: +44 (0)1709 890099

(office hours only)

Section 2: Hazards identification

2.1. Classification of the substance or mixture

Classification under CLP: Acute Tox. 4: H302; Eye Irrit. 2: H319; STOT RE 2: H373

Most important adverse effects: Harmful if swallowed. Causes serious eye irritation. May cause damage to organs - through prolonged or repeated exposure if swallowed.

2.2. Label elements

Label elements:

Hazard statements: H302: Harmful if swallowed.

H319: Causes serious eye irritation.

H373: May cause damage to organs - through prolonged or repeated exposure if swallowed.

Hazard pictograms: GHS07: Exclamation mark

GHS08: Health hazard



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SAFETY DATA SHEET

BRAKE FLUID DOT 4

Page: 2

Signal words: Warning

Precautionary statements: P260: Do not breathe vapours/spray.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P501: Dispose of contents/container to national regulations.

2.3. Other hazards

PBT: This product is not identified as a PBT/vPvB substance.

Section 3: Composition/information on ingredients

3.2. Mixtures

Hazardous ingredients:

2,2'-OXYBISETHANOL

EINECS	CAS	PBT / WEL	CLP Classification	Percent
203-872-2	111-46-6	-	Acute Tox. 4: H302	10-30%

2-[2-(2-BUTOXYETHOXY)ETHOXY]ETHANOL

205-592-6	143-22-6	-	Eye Dam. 1: H318	10-30%
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BORIC ACID [1] BORIC ACID, CRUDE NATURAL, CONTAINING NOT MORE THAN 85% OF H3BO3 CALCD. BY DRY WEIGHT [2]

233-139-2, 234-343-4	10043-35-3, 11113-50	-	Repr. 1B: H360FD	1-10%
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DIETHYLENE GLYCOL MONOMETHYL ETHER

203-906-6	111-77-3	-	Repr. 2: H361d	1-10%
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1,1'-IMINODIPROPAN-2-OL

203-820-9	110-97-4	-	Eye Irrit. 2: H319	1-10%
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2-(2-BUTOXYETHOXY)ETHANOL

203-961-6	112-34-5	-	Eye Irrit. 2: H319	<1%
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Contains: Borate Ester

Section 4: First aid measures

4.1. Description of first aid measures

Skin contact: Remove all contaminated clothes and footwear immediately unless stuck to skin. Wash immediately with plenty of soap and water. If symptoms persist, consult a doctor

Eye contact: Bathe the eye with running water for 15 minutes. Get medical attention if any discomfort continues.

Ingestion: Immediate medical attention is required. Wash out mouth with water. Give plenty of water to drink. Do not induce vomiting. Never give anything by mouth to an unconscious person.

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SAFETY DATA SHEET

BRAKE FLUID DOT 4

Page: 3

Inhalation: Move to fresh air in case of accidental inhalation of vapours. Consult a doctor.

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

Skin contact: Repeated exposure may cause skin dryness or cracking.

Eye contact: There may be irritation and redness.

Ingestion: There may be irritation of the throat.

Inhalation: Unlikely to be hazardous because of low vapor pressure at ambient temperature

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

Immediate / special treatment: Not applicable.

Section 5: Fire-fighting measures

5.1. Extinguishing media

Extinguishing media: Suitable extinguishing media for the surrounding fire should be used. Alcohol resistant foam. Carbon dioxide. Dry chemical powder. Water fog. Do not use strong water jet

5.2. Special hazards arising from the substance or mixture

Exposure hazards: In combustion emits toxic fumes.

5.3. Advice for fire-fighters

Advice for fire-fighters: Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: Refer to section 8 of SDS for personal protection details.

6.2. Environmental precautions

Environmental precautions: Do not discharge into drains or rivers.

6.3. Methods and material for containment and cleaning up

Clean-up procedures: Absorb into dry earth or sand. Transfer to a suitable container.

6.4. Reference to other sections

Reference to other sections: Refer to section 8 of SDS.

Section 7: Handling and storage

7.1. Precautions for safe handling

Handling requirements: Avoid direct contact with the substance.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in a cool, well ventilated area.

Suitable packaging: Must only be kept in original packaging.

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SAFETY DATA SHEET

BRAKE FLUID DOT 4

Page: 4

7.3. Specific end use(s)

Specific end use(s): No data available.

Section 8: Exposure controls/personal protection

8.1. Control parameters

Hazardous ingredients:

2,2'-OXYBISETHANOL

Workplace exposure limits:

Respirable dust

State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
UK	101 mg/m ³	-	-	-

DIETHYLENE GLYCOL MONOMETHYL ETHER

EU	50,1 mg/m ³	-	-	-
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2-(2-BUTOXYETHOXY)ETHANOL

UK	67.5 mg/m ³	101.2 mg/m ³	-	-
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DNEL/PNEC Values

Hazardous ingredients:

2-[2-(2-BUTOXYETHOXY)ETHOXY]ETHANOL

Type	Exposure	Value	Population	Effect
DNEL	Dermal	50mg/kg/day	Workers	Systemic
DNEL	Inhalation	195 mg/m ³	Workers	Systemic
DNEL	Dermal	25 mg/kg/day	Consumers	Systemic
DNEL	Inhalation	117 mg.m ³	Consumers	Systemic
DNEL	Oral	2.5 mg/kg/day	Consumers	Systemic
PNEC	Fresh water	1.5 mg/l	-	-
PNEC	Marine water	0.15 mg/l	-	-
PNEC	Fresh water sediments	5.77 mg/kg	-	-
PNEC	Marine sediments	0.13 mg/kg	-	-
PNEC	Soil (agricultural)	0.45 mg/kg	-	-
PNEC	STP	200 mg/l	-	-

DIETHYLENE GLYCOL MONOMETHYL ETHER

Type	Exposure	Value	Population	Effect
DNEL	Dermal	0.53 mg/kg/day	Workers	Systemic
DNEL	Inhalation	50.1 mg/m ³	Workers	Systemic
DNEL	Dermal	0.27 mg/kg/day	Consumers	Systemic

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SAFETY DATA SHEET

BRAKE FLUID DOT 4

Page: 5

DNEL	Inhalation	25 mg/m ³	Consumers	Systemic
DNEL	Oral	1.5 mg/kg/day	Consumers	Systemic
PNEC	Fresh water	12 mg/l	-	-
PNEC	Marine water	1.2 mg/l	-	-
PNEC	Intermittent Release	12 mg/l	-	-
PNEC	Fresh water sediments	44.4 mg/kg	-	-
PNEC	Marine sediments	4.44 mg/kg	-	-
PNEC	Soil (agricultural)	2.44 mg/kg	-	-
PNEC	STP	10000mg/l	-	-

2-(2-BUTOXYETHOXY)ETHANOL

Type	Exposure	Value	Population	Effect
DNEL	Inhalation	101.2mg/m ³	Workers	Short term
DNEL	Dermal	20mg/kg/day	Workers	Long term
DNEL	Inhalation	67.5 mg/m ³	Workers	Long term
DNEL	Inhalation	50.6 mg/m ³	Consumers	Short term
DNEL	Dermal	10 mg/kg/day	Consumers	Long term
DNEL	Inhalation	34.4 mg/m ³	Consumers	Long term
DNEL	Oral	1.25 mg/kg/day	Consumers	Long term
PNEC	Fresh water	1 mg/l	-	-
PNEC	Marine water	0.1 mg/l	-	-
PNEC	Marine sediments	4 mg/kg	-	-
PNEC	Soil (agricultural)	0.4 mg/kg	-	-

8.2. Exposure controls

Engineering measures: Ensure there is sufficient ventilation of the area.

Respiratory protection: Not required under normal use

Hand protection: Wear chemically resistant gloves (EN 374) to avoid prolonged or repeated contact. Butyl rubber, Natural rubber and PVC are suitable materials. See manufacturers figures for breakthrough times. In the case of prolonged or repeated contact a glove with a protection class of 6 (breakthrough time of >480 min) is recommended. For general use gloves should have a thickness of 0.35mm.

Eye protection: Safety goggles.

Skin protection: Protective clothing.

Environmental: An environmental assessment must be made to ensure compliance with local environmental legislation.

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

State: Liquid

Colour: Colourless to Amber

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SAFETY DATA SHEET

BRAKE FLUID DOT 4

Page: 6

Odour: Barely perceptible odour

Solubility in water: Miscible

Viscosity: 5-10 cSt @ 20°C

Boiling point/range°C: >205degC@760mm Hg

Autoflammability°C: >300 deg C

pH: 7-10.5 -concentrated

Flash point°C: >90

Relative density: 1.05-1.07@20deg C

9.2. Other information

Other information: No data available.

Section 10: Stability and reactivity

10.1. Reactivity

Reactivity: Stable under recommended transport or storage conditions.

10.2. Chemical stability

Chemical stability: Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions: Hazardous reactions will not occur under normal transport or storage conditions.

10.4. Conditions to avoid

Conditions to avoid: Avoid forming spray/aerosol mists

10.5. Incompatible materials

Materials to avoid: Strong oxidising agents.

10.6. Hazardous decomposition products

Haz. decomp. products: No hazardous decomposition products under normal conditions of storage and use.

Section 11: Toxicological information

11.1. Information on toxicological effects

Hazardous ingredients:

DIETHYLENE GLYCOL MONOMETHYL ETHER

IPR	RAT	LD50	2722	mg/kg
ORL	MUS	LD50	8222	mg/kg
ORL	RAT	LD50	4	ml/kg

1,1'-IMINODIPROPAN-2-OL

IPR	MUS	LD50	96	mg/kg
ORL	RAT	LD50	4765	mg/kg

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SAFETY DATA SHEET

BRAKE FLUID DOT 4

Page: 7

2-(2-BUTOXYETHOXY)ETHANOL

ORL	MUS	LD50	6050	mg/kg
ORL	RAT	LD50	4500	mg/kg

Relevant hazards for product:

Hazard	Route	Basis
Acute toxicity (ac. tox. 4)	ING	Hazardous: calculated
Serious eye damage/irritation	OPT	Hazardous: calculated
STOT-repeated exposure	-	Hazardous: calculated

Symptoms / routes of exposure

Skin contact: Repeated exposure may cause skin dryness or cracking.

Eye contact: There may be irritation and redness.

Ingestion: There may be irritation of the throat.

Inhalation: Unlikely to be hazardous because of low vapor pressure at ambient temperature

Section 12: Ecological information

12.1. Toxicity

Ecotoxicity values: No data available.

12.2. Persistence and degradability

Persistence and degradability: No data available.

12.3. Bioaccumulative potential

Bioaccumulative potential: No data available.

12.4. Mobility in soil

Mobility: No data available.

12.5. Results of PBT and vPvB assessment

PBT identification: This product is not identified as a PBT/vPvB substance.

12.6. Other adverse effects

Other adverse effects: Negligible ecotoxicity.

Section 13: Disposal considerations

13.1. Waste treatment methods

Disposal operations: Transfer to a suitable container and arrange for collection by specialised disposal company.

Waste code number: 2001/118/EC

Disposal of packaging: Dispose of as normal industrial waste.

NB: The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

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SAFETY DATA SHEET

BRAKE FLUID DOT 4

Page: 8

Section 14: Transport information

Transport class: This product does not require a classification for transport.

Section 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Specific regulations: Not applicable.

15.2. Chemical Safety Assessment

Chemical safety assessment: A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

Section 16: Other information

Other information

Other information: This safety data sheet is prepared in accordance with Commission Regulation (EU) No 2015/830.

* indicates text in the SDS which has changed since the last revision.

Phrases used in s.2 and s.3: H302: Harmful if swallowed.

H318: Causes serious eye damage.

H319: Causes serious eye irritation.

H360FD: May damage fertility. May damage the unborn child.

H361d: Suspected of damaging the unborn child.

H373: May cause damage to organs <or state all organs affected, if known> through prolonged or repeated exposure <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.

Legal disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.