



## SAFETY DATA SHEET

BRAKE FLUID DOT 4

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Compilation date: 26/11/2015

Revision No: 1

### 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](mailto: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.

**Signal words:** Warning

**Hazard pictograms:** GHS07: Exclamation mark

GHS08: Health hazard



[cont...]

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**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 - REACH registered number(s): 01-2119457857-21

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 - REACH registered number(s): 01-21194575107-38

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] - REACH registered number(s): 01-2119486683-25-0006

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 - REACH registered number(s): 01-2119475444-34

203-820-9	110-97-4	-	Eye Irrit. 2: H319	1-10%
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2-(2-BUTOXYETHOXY)ETHANOL - REACH registered number(s): 01-2119475104-44

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.

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

[cont...]

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## 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.

### 7.3. Specific end use(s)

**Specific end use(s):** No data available.

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## 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 <sup>3</sup>	-	-	-

**DIETHYLENE GLYCOL MONOMETHYL ETHER**

EU	50,1 mg/m <sup>3</sup>	-	-	-
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**2-(2-BUTOXYETHOXY)ETHANOL**

UK	67.5 mg/m <sup>3</sup>	101.2 mg/m <sup>3</sup>	-	-
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### DNEL/PNEC Values

**DNEL / PNEC** No data available.

### 8.2. Exposure controls

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

**Respiratory protection:** Not required under normal use

**Hand protection:** Protective gloves.

**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

**Odour:** Barely perceptible odour

**Solubility in water:** Miscible

**Viscosity:** 5-10 cSt @ 20°C

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

**Flash point°C:** >90

**Autoflammability°C:** >300 deg C

**Relative density:** 1.05-1.07@20deg C

**pH:** 7-10.5 -concentrated

### 9.2. Other information

**Other information:** No data available.

[cont...]

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## 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

#### 2-(2-BUTOXYETHOXY)ETHANOL

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

#### Relevant hazards for substance:

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

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STOT-repeated exposure	-	Hazardous: calculated
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## 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.

## 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.

[cont...]

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## 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 453/2010.

\* 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.