



## SAFETY DATA SHEET

BRAKE FLUID DOT 4 ESP

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Compilation date: 14/03/2016

Revision No: 1a

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

#### 1.1. Product identifier

**Product name:** BRAKE FLUID DOT 4 ESP

**Product code:** 1810

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

**Use of substance / mixture:** Automotive products

#### 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:** Eye Irrit. 2: H319

**Most important adverse effects:** Causes serious eye irritation.

#### 2.2. Label elements

**Label elements:**

**Hazard statements:** H319: Causes serious eye irritation.

**Signal words:** Warning

**Hazard pictograms:** GHS07: Exclamation mark



**Precautionary statements:** P264: Wash hands thoroughly after handling.

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

[cont...]

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

P337+313: If eye irritation persists: Get medical attention.

## 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-(2-BUTOXYETHOXY)ETHOXY]ETHANOL - REACH registered number(s): 01-21194575107-38

EINECS	CAS	PBT / WEL	CLP Classification	Percent
205-592-6	143-22-6	-	Eye Dam. 1: H318	10-30%

DIETHYLENE GLYCOL MONOMETHYL ETHER

203-906-6	111-77-3	-	Repr. 2: H361d	1-10%
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3,6,9,12-TETRAOXAHEXADECAN-1-OL

216-322-1	1559-34-8	-	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	1-10%
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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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## 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 irritation persists, 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. If conscious, give half a litre of water to drink immediately. Do not induce vomiting.

**Inhalation:** Move to fresh air in case of accidental inhalation of vapours. If symptoms persist consult a doctor

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

**Skin contact:** There may be irritation and redness at the site of contact.

**Eye contact:** There may be irritation and redness. The eyes may water profusely. May cause serious eye damage

**Ingestion:** No specific symptoms known

**Inhalation:** No specific symptoms known

[cont...]

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**Delayed / immediate effects:** Immediate effects can be expected after short-term exposure.

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

**Immediate / special treatment:** Treat symptomatically

## 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:** Mark out the contaminated area with signs and prevent access to unauthorised personnel. Do not attempt to take action without suitable protective clothing - see section 8 of SDS. Turn leaking containers leak-side up to prevent the escape of liquid.

### 6.2. Environmental precautions

**Environmental precautions:** Do not discharge into drains or rivers. Contain the spillage using bunding.

### 6.3. Methods and material for containment and cleaning up

**Clean-up procedures:** Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

### 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. Avoid contact with skin and eyes.

### 7.2. Conditions for safe storage, including any incompatibilities

**Storage conditions:** Store in a cool, well ventilated area. Keep container tightly closed.

**Suitable packaging:** Must only be kept in original packaging.

### 7.3. Specific end use(s)

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

[cont...]

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## Section 8: Exposure controls/personal protection

### 8.1. Control parameters

**Hazardous ingredients:**

**DIETHYLENE GLYCOL MONOMETHYL ETHER**

**Workplace exposure limits:**

**Respirable dust**

State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
EU	50,1 mg/m <sup>3</sup>	-	-	-

**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

**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 <sup>3</sup>	Workers	Systemic
DNEL	Dermal	25 mg/kg/day	Consumers	Systemic
DNEL	Inhalation	117 mg.m <sup>3</sup>	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 <sup>3</sup>	Workers	Systemic
DNEL	Dermal	0.27 mg/kg/day	Consumers	Systemic
DNEL	Inhalation	25 mg/m <sup>3</sup>	Consumers	Systemic
DNEL	Oral	1.5 mg/kg/day	Consumers	Systemic
PNEC	Fresh water	12 mg/l	-	-
PNEC	Marine water	1.2 mg/l	-	-

[cont...]

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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/m3	Workers	Short term
DNEL	Dermal	20mg/kg/day	Workers	Long term
DNEL	Inhalation	67.5 mg/m3	Workers	Long term
DNEL	Inhalation	50.6 mg/m3	Consumers	Short term
DNEL	Dermal	10 mg/kg/day	Consumers	Long term
DNEL	Inhalation	34.4 mg/m3	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:** Self-contained breathing apparatus must be available in case of emergency.

**Hand protection:** Chemically resistant gloves

**Eye protection:** Tightly fitting safety goggles. Ensure eye bath is to hand.

**Skin protection:** Protective clothing.

## Section 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

**State:** Liquid

**Colour:** Amber

**Odour:** No characteristic odour

**Solubility in water:** Miscible

**Also soluble in:** Ethanol.

**Boiling point/range°C:** 260-300

**Flash point°C:** >200

**Vapour pressure:** <0.1 mPa

**pH:** 7.0-10.5

**Melting point/range°C:** -50

**Autoflammability°C:** >300

**Relative density:** 1.035 @15 deg c

### 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.  
Decomposition may occur on exposure to conditions or materials listed below.

### 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

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

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

#### 1,1'-IMINODIPROPAN-2-OL

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

#### Relevant hazards for substance:

Hazard	Route	Basis
Serious eye damage/irritation	OPT	Hazardous: calculated

[cont...]

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## Symptoms / routes of exposure

**Skin contact:** There may be irritation and redness at the site of contact.

**Eye contact:** There may be irritation and redness. The eyes may water profusely. May cause serious eye damage

**Ingestion:** No specific symptoms known

**Inhalation:** No specific symptoms known

**Delayed / immediate effects:** Immediate effects can be expected after short-term exposure.

## Section 12: Ecological information

### 12.1. Toxicity

**Ecotoxicity values:** No data available.

### 12.2. Persistence and degradability

**Persistence and degradability:** Biodegradable.

### 12.3. Bioaccumulative potential

**Bioaccumulative potential:** No bioaccumulation potential.

### 12.4. Mobility in soil

**Mobility:** Readily absorbed into soil.

### 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.

**Disposal of packaging:** Waste material and any included combustible absorbent and containers should be should for incineration at an approved facility.

**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:** H318: Causes serious eye damage.

H319: Causes serious eye irritation.

H361d: Suspected of damaging the unborn child.

**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.