

# Safety Data Sheet



## SECTION 1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1 Product identifier

#### **BRAKE FLUID DOT 4**

**Product Number(s):** 025004

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

**Identified Uses:** Brake Fluid

### 1.3 Details of the supplier of the safety data sheet

Chevron Products UK Limited  
1 Westferry Circus  
Canary Wharf  
London E14 4HA  
United Kingdom  
email : eumsds@chevron.com

### 1.4 Emergency telephone number

#### **Transportation Emergency Response**

Europe: 0044/(0)18 65 407333

#### **Health Emergency**

Europe: 0044/(0)18 65 407333

#### **Product Information**

FAX number: 0044/20 77 19 5171

## SECTION 2 HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

**DSD/DPD CLASSIFICATION:** Not classified as dangerous according to EU regulatory guidelines.

### 2.2 Label elements

Under the criteria of Directive 1999/45/EC (dangerous preparations):  
Not classified

**2.3 Other hazards** Not applicable.

## SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS

### 3.1 Mixtures

This material is a mixture.

COMPONENTS	EC	SYMBOL / RISK PHRASES	AMOUNT
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	NUMBER		
Triethylene glycol monobutyl ether	205-592-6	Xi/R41	< 20 %weight
Diethylene glycol	203-872-2	Xn/R22	< 20 %weight
2-(2-Methoxyethoxy)ethanol	203-906-6	Xn/Repro. Cat. 3/R63	< 5 %weight

The full text of all R-phrases is shown in Section 16.

COMPONENTS	CAS NUMBER	EC NUMBER	REGISTRATION NUMBER	CLP CLASSIFICATION	AMOUNT
Triethylene glycol monobutyl ether	143-22-6	205-592-6	**	Eye Dam. 1/H318; Eye Irrit. 2/H319	< 20 %weight
Diethylene glycol	111-46-6	203-872-2	**	Acute Tox. 4/H302	< 20 %weight
2-(2-Methoxyethoxy)ethanol	111-77-3	203-906-6	**	Repr. 2/H361	< 5 %weight

The full text of all CLP H-statements is shown in Section 16.

\*\*Not available or substance is not currently required for registration under REACH.

#### SECTION 4 FIRST AID MEASURES

##### 4.1 Description of first aid measures

**Eye:** No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

**Skin:** No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

**Ingestion:** No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice.

**Inhalation:** No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

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

###### IMMEDIATE SYMPTOMS AND HEALTH EFFECTS

**Eye:** Not expected to cause prolonged or significant eye irritation.

**Skin:** Contact with the skin is not expected to be harmful.

**Ingestion:** Not expected to be harmful if swallowed.

**Inhalation:** Not expected to be harmful if inhaled. Contains a synthetic hydrocarbon oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

**DELAYED OR OTHER SYMPTOMS AND HEALTH EFFECTS:** Not classified.

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

Not applicable.

#### SECTION 5 FIRE FIGHTING MEASURES

##### 5.1 Extinguishing media

Dry Chemical, CO<sub>2</sub>, AFFF Foam or alcohol resistant foam.

## 5.2 Special hazards arising from the substance or mixture

**Combustion Products:** Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.

## 5.3 Advice for firefighters

This material will burn although it is not easily ignited. See Section 7 for proper handling and storage. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

# SECTION 6 ACCIDENTAL RELEASE MEASURES

## 6.1 Personal precautions, protective equipment and emergency procedures

Eliminate all sources of ignition in vicinity of spilled material. Refer to Sections 5 and 8 for more information.

## 6.2 Environmental precautions

Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater.

## 6.3 Methods and material for containment and cleaning up

Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil and dispose of in a manner consistent with applicable requirements. Place other contaminated materials in disposable containers and dispose of in a manner consistent with applicable requirements. Report spills to local authorities as appropriate or required.

## 6.4 Reference to other sections

See sections 8 and 13.

# SECTION 7 HANDLING AND STORAGE

## 7.1 Precautions for safe handling

Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. Do not taste or swallow.

## 7.2 Conditions for safe storage, including any incompatibilities

**General Handling Information:** Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

**Static Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures.

**Container Warnings:** Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

## 7.3 Specific end use(s): Brake Fluid

# SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

## GENERAL CONSIDERATIONS:

Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances. Refer to appropriate CEN standards.

**8.1 Control parameters**

**Occupational Exposure Limits:**

Component	Country/ Agency	TWA	STEL	Ceiling	Notation
Diethylene glycol	United Kingdom	101 mg/m3	--	--	--

**8.2 Exposure controls**

**ENGINEERING CONTROLS:**

Use in a well-ventilated area.

**PERSONAL PROTECTIVE EQUIPMENT**

**Eye/Face Protection:** No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

**Skin Protection:** No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: Neoprene, Nitrile Rubber, Polyvinyl Chloride (PVC or Vinyl), Viton.

**Respiratory Protection:** No respiratory protection is normally required. If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge.

**ENVIRONMENTAL EXPOSURE CONTROLS:**

See relevant Community environmental protection legislation or the Annex, as applicable.

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

**Attention: the data below are typical values and do not constitute a specification.**

**9.1 Information on basic physical and chemical properties**

**Appearance**

**Color:** Varies depending on specification

**Physical State:** Liquid

**Odor:** Faint or Mild

**Odor Threshold:** No data available

**pH:** 7 - 10.5

**Melting Point:** No data available

**Freezing Point:** No data available

**Initial Boiling Point:** 260°C (500°F) Minimum

**Flashpoint:** (Cleveland Open Cup) > 100 °C (> 212 °F)

**Evaporation Rate:** No data available

**Flammability (solid, gas):** No Data Available

**Flammability (Explosive) Limits (% by volume in air):**

Lower: Not Applicable Upper: Not Applicable

**Vapor Pressure:** No data available

**Vapor Density (Air = 1):** No data available @ 20°C (68°F) / 20°C (68°F)

**Density:** 1.04 kg/l - 1.09 kg/l  
**Solubility:** Soluble in water.  
**Partition coefficient: n-octanol/water:** <2  
**Auto-ignition temperature:** No data available  
**Decomposition temperature:** No Data Available  
**Viscosity:** 1.5mm<sup>2</sup>/s @ 100°C (212°F) Minimum  
**Explosive Properties:** No Data Available  
**Oxidising properties:** No Data Available  
**9.2 Other Information:** No Data Available

**SECTION 10 STABILITY AND REACTIVITY**

**10.1 Reactivity:** This material is not expected to react.  
**10.2 Chemical Stability:** This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.  
**10.3 Possibility of hazardous reactions:** Hazardous polymerization will not occur.  
**10.4 Conditions to Avoid:** Not applicable  
**10.5 Incompatible materials to avoid:** May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.  
**10.6 Hazardous decomposition products:** None known (None expected)

**SECTION 11 TOXICOLOGICAL INFORMATION**

**11.1 Information on toxicological effects**  
**Serious Eye Damage/Irritation:** The eye irritation hazard is based on evaluation of data for product components.  
**Skin Corrosion/Irritation:** The skin irritation hazard is based on evaluation of data for product components.  
**Skin Sensitization:** The skin sensitization hazard is based on evaluation of data for product components.  
**Acute Dermal Toxicity:** The acute dermal toxicity hazard is based on evaluation of data for product components.  
**Acute Oral Toxicity:** The acute oral toxicity hazard is based on evaluation of data for product components.  
**Acute Inhalation Toxicity:** The acute inhalation toxicity hazard is based on evaluation of data for product components.  
**Germ Cell Mutagenicity:** The hazard evaluation is based on data for components or a similar material.  
**Carcinogenicity:** The hazard evaluation is based on data for components or a similar material.  
**Reproductive Toxicity:** The hazard evaluation is based on data for components or a similar material.  
**Specific Target Organ Toxicity - Single Exposure:** The hazard evaluation is based on data for components or a similar material.  
**Specific Target Organ Toxicity - Repeated Exposure:** The hazard evaluation is based on data for components or a similar material.

**SECTION 12 ECOLOGICAL INFORMATION**

**12.1 Toxicity**  
This material is not expected to be harmful to aquatic organisms. The product has not been tested. The statement has been derived from the properties of the individual components.

### 12.2 Persistence and degradability

This material is expected to be readily biodegradable. The product has not been tested. The statement has been derived from the properties of the individual components.

### 12.3 Bioaccumulative potential

Bioconcentration Factor: No Data Available

Octanol/Water Partition Coefficient: <2

### 12.4 Mobility in soil

No data available.

### 12.5 Results of PBT and vPvB assessment

This product is not, or does not contain, a substance that is a potential PBT or a vPvB.

### 12.6 Other adverse effects

No other adverse effects identified.

## SECTION 13 DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

Use material for its intended purpose or recycle if possible. This material, if it must be discarded, may meet the criteria of a hazardous waste as defined by international, country, or local laws and regulations. In accordance with European Waste Catalogue (E.W.C.) the codification is the following: 13 02 06

## SECTION 14 TRANSPORT INFORMATION

The description shown may not apply to all shipping situations. Consult appropriate Dangerous Goods Regulations for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

### ADR/RID

NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT

14.1 UN number: Not applicable

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: Not applicable

14.6 Special precautions for user: Not applicable

### ICAO

NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT

14.1 UN number: Not applicable

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: Not applicable

14.6 Special precautions for user: Not applicable

### IMO

NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORT

14.1 UN number: Not applicable

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: Not applicable
- 14.6 Special precautions for user: Not applicable
- 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  
REGULATORY LISTS SEARCHED:**

- 01=EU. Directive 76/769/EEC: Restrictions on the marketing and use of certain dangerous substances.
- 02=EU Directive 90/394/EEC: Carcinogens at work.
- 03=EU Directive 92/85/EEC: Pregnant or breastfeeding workers.
- 04=EU Directive 96/82/EC (Seveso II): Article 9.
- 05=EU Directive 96/82/EC (Seveso II): Articles 6 and 7.
- 06=EU Directive 98/24/EC: Chemical agents at work.
- 07=EU Directive 2004/37/EC: On the protection of workers.
- 08=EU Regulation EC No. 689/2008: Annex 1, Part 1.
- 09=EU Regulation EC No. 689/2008: Annex 1, Part 2.
- 10=EU Regulation EC No. 689/2008: Annex 1, Part 3.
- 11=EU Regulation EC No. 850/2004: Prohibiting and restricting persistent organic pollutants (POPs).
- 12=EU REACH, Annex XVII: Restrictions on manufacture, placing on the market and use of certain dangerous substances, mixture & article.
- 13=EU REACH, Annex XIV: Candidate List of Substances of Very High Concern for Authorization (SVHC).

The following components of this material are found on the regulatory lists indicated.

2-(2-Methoxyethoxy)ethanol	01, 03, 06
Diethylene glycol	06
Triethylene glycol monobutyl ether	06

**CHEMICAL INVENTORIES:**

All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), EINECS (European Union), ENCS (Japan), IECSC (China), KECI (Korea), PICCS (Philippines), TSCA (United States).

**15.2 Chemical safety assessment**

No chemical safety assessment.

**SECTION 16 OTHER INFORMATION**

**REVISION STATEMENT:** This revision updates the following sections of this Material Safety Data Sheet: 1-16

**Revision Date:** APRIL 03, 2013

**Full text of R-phrases:**

- R22; Harmful if swallowed.
- R41; Risk of serious damage to eyes.
- R63; Possible risk of harm to the unborn child.

**Full text of CLP H-statements:**

- H318; Causes serious eye damage
- H361; Suspected of damaging fertility or the unborn child

**ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:**

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	PEL - Permissible Exposure Limit
CVX - Chevron	CAS - Chemical Abstract Service Number
NQ - Not Quantifiable	

Prepared according to the criteria of EU Regulation 1907/2006 by the Chevron Energy Technology Company, 100 Chevron Way, Richmond, California 94802.

**The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.**

**No Annex**