

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): 825004

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

YX Smøreolje AS

Lysaker Torg 35

NO-1366 Lysaker

Norway

www.olje.yx.no

email : olje.yx.no

1.4 Emergency telephone number

Transportation Emergency Response

Europe: 0044/(0)18 65 407333

Health Emergency

Europe: 0044/(0)18 65 407333

Poison Control Centre Norway: 0047/22591300

Product Information

Technical Information: (+47)04210

SECTION 2 HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

CLP CLASSIFICATION: Not classified as dangerous according to EU regulatory guidelines.

2.2 Label elements

Under the criteria of Regulation (EC) No 1272/2008 (CLP):

Not classified

2.3 Other hazards Not Applicable

SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS

3.2 Mixtures

This material is a mixture.

COMPONENTS	CAS NUMBER	EC NUMBER	REGISTRATION NUMBER	CLP CLASSIFICATION	AMOUNT
Triethylene glycol monobutyl ether	143-22-6	205-592-6	01-2119475107-38	Eye Dam. 1/H318; Eye Irrit. 2/H319	0 - 20 %weight
Diethylene glycol	111-46-6	203-872-2	01-2119456816-28	Acute Tox. 4/H302	0 - 10 %weight
2-(2-butoxyethoxy)ethanol	112-34-5	203-961-6	01-2119475104-44	None	< 3 %weight
2-(2-Methoxyethoxy)ethanol	111-77-3	203-906-6	01-2119475100-52	Repr. 2/H361	< 3 %weight

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

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

Use water fog, foam, dry chemical or carbon dioxide (CO₂) to extinguish flames.

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

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

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

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.

7.2 Conditions for safe storage, including any incompatibilities

Not Applicable

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	Form	TWA	STEL	Ceiling	Notation
2-(2-butoxyethoxy)ethanol	EU-Indicative	--	67.5 mg/m ³	101.2 mg/m ³	--	--
2-(2-butoxyethoxy)ethanol	Norway	--	68 mg/m ³	--	--	--
2-(2-Methoxyethoxy)ethanol	EU-Indicative	--	50.1 mg/m ³	--	--	Skin
2-(2-Methoxyethoxy)ethanol	Norway	--	50 mg/m ³	--	--	Skin

Consult local authorities for appropriate values.

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 - 10.50

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: 1.50 mm²/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: May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

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: Not applicable

10.6 Hazardous decomposition products: None known (None expected)

SECTION 11 TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Product Information:

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 Toxicity Estimate (dermal): Not Applicable

Acute Oral Toxicity: The acute oral toxicity hazard is based on evaluation of data for product components.

Acute Toxicity Estimate (oral): Not Applicable

Acute Inhalation Toxicity: The acute inhalation toxicity hazard is based on evaluation of data for product components.

Acute Toxicity Estimate (inhalation): Not Applicable

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.

Aspiration Hazard: No data available

Component Information:

Serious Eye Damage/Irritation:	
Triethylene glycol monobutyl ether	Based on available data, the classification criteria are not met
Diethylene glycol	Based on available data, the classification criteria are not met
2-(2-butoxyethoxy)ethanol	Based on available data, the classification criteria are not met
2-(2-Methoxyethoxy)ethanol	Based on available data, the classification criteria are not met

Skin Corrosion/Irritation:	
Triethylene glycol monobutyl ether	Based on available data, the classification criteria are not met
Diethylene glycol	Based on available data, the classification criteria are not met
2-(2-butoxyethoxy)ethanol	Based on available data, the classification criteria are not met
2-(2-Methoxyethoxy)ethanol	Based on available data, the classification criteria are not met

Skin Sensitization:	
Triethylene glycol monobutyl ether	Based on available data, the classification criteria are not met
Diethylene glycol	Based on available data, the classification criteria are not met
2-(2-butoxyethoxy)ethanol	Based on available data, the classification criteria are not met
2-(2-Methoxyethoxy)ethanol	Based on available data, the classification criteria are not met

Acute Dermal Toxicity:	
Triethylene glycol monobutyl ether	Based on available data, the classification criteria are not met
Diethylene glycol	Based on available data, the classification criteria are not met
2-(2-butoxyethoxy)ethanol	Based on available data, the classification criteria are not met
2-(2-Methoxyethoxy)ethanol	Based on available data, the classification criteria are not met

Acute Oral Toxicity:	
Triethylene glycol monobutyl ether	Based on available data, the classification criteria are not met
Diethylene glycol	Based on available data, the classification criteria are not met
2-(2-butoxyethoxy)ethanol	Based on available data, the classification criteria are not met
2-(2-Methoxyethoxy)ethanol	Based on available data, the classification criteria are not met

Acute Inhalation Toxicity:	
Triethylene glycol monobutyl ether	Based on available data, the classification criteria are not met
Diethylene glycol	Based on available data, the classification criteria are not met
2-(2-butoxyethoxy)ethanol	Based on available data, the classification criteria are not met
2-(2-Methoxyethoxy)ethanol	Based on available data, the classification criteria are not met

Germ Cell Mutagenicity:	
Triethylene glycol monobutyl ether	Based on available data, the classification criteria are not met
Diethylene glycol	Based on available data, the classification criteria are not met
2-(2-butoxyethoxy)ethanol	Based on available data, the classification criteria are not met
2-(2-Methoxyethoxy)ethanol	Based on available data, the classification criteria are not met

Carcinogenicity:	
Triethylene glycol monobutyl ether	Based on available data, the classification criteria are not met
Diethylene glycol	Based on available data, the classification criteria are not met
2-(2-butoxyethoxy)ethanol	Based on available data, the classification criteria are not met
2-(2-Methoxyethoxy)ethanol	Based on available data, the classification criteria are not met

Reproductive Toxicity:	
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Triethylene glycol monobutyl ether	Based on available data, the classification criteria are not met
Diethylene glycol	Based on available data, the classification criteria are not met
2-(2-butoxyethoxy)ethanol	Based on available data, the classification criteria are not met
2-(2-Methoxyethoxy)ethanol	Test Result: Suspected of damaging fertility or the unborn child

Specific Target Organ Toxicity - Single Exposure:	
Triethylene glycol monobutyl ether	Based on available data, the classification criteria are not met
Diethylene glycol	Based on available data, the classification criteria are not met
2-(2-butoxyethoxy)ethanol	Based on available data, the classification criteria are not met
2-(2-Methoxyethoxy)ethanol	Based on available data, the classification criteria are not met

Specific Target Organ Toxicity - Repeated Exposure:	
Triethylene glycol monobutyl ether	Based on available data, the classification criteria are not met
Diethylene glycol	Based on available data, the classification criteria are not met
2-(2-butoxyethoxy)ethanol	Based on available data, the classification criteria are not met
2-(2-Methoxyethoxy)ethanol	Based on available data, the classification criteria are not met

SECTION 12 ECOLOGICAL INFORMATION

Product 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.

Component Information:

Acute Toxicity:	
Triethylene glycol monobutyl ether	Based on available data, the classification criteria are not met
Diethylene glycol	Based on available data, the classification criteria are not met
2-(2-butoxyethoxy)ethanol	Based on available data, the classification criteria are not met
2-(2-Methoxyethoxy)ethanol	Based on available data, the classification criteria are not met

Long-term Toxicity:	
Triethylene glycol monobutyl ether	Based on available data, the classification criteria are not met
Diethylene glycol	Based on available data, the classification criteria are not met
2-(2-butoxyethoxy)ethanol	Based on available data, the classification criteria are not met

2-(2-Methoxyethoxy)ethanol	Based on available data, the classification criteria are not met
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Biodegradation:	
Triethylene glycol monobutyl ether	Based on available data, the classification criteria are not met
Diethylene glycol	Based on available data, the classification criteria are not met
2-(2-butoxyethoxy)ethanol	Based on available data, the classification criteria are not met
2-(2-Methoxyethoxy)ethanol	Based on available data, the classification criteria are not met

Bioaccumulative Potential:	
Triethylene glycol monobutyl ether	Based on available data, the classification criteria are not met
Diethylene glycol	Based on available data, the classification criteria are not met
2-(2-butoxyethoxy)ethanol	Based on available data, the classification criteria are not met
2-(2-Methoxyethoxy)ethanol	Based on available data, the classification criteria are not met

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.

Triethylene glycol monobutyl ether	06
Diethylene glycol	06
2-(2-butoxyethoxy)ethanol	06
2-(2-Methoxyethoxy)ethanol	03, 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), NZIoC (New Zealand), 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: 1,3,8,11,12,15,16

Revision Date: July 17, 2019

Full text of CLP H-statements:

H318; Causes serious eye damage

H302; Harmful if swallowed

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 EU Regulation 1907/2006 (as amended) by Chevron Energy Technology Company, 6001 Bollinger Canyon Road, San Ramon, CA 94583.

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