# BRAKE FLUID XBF DOT 4 BARDAHL

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
SDS Reference Number: 5914
Issue date: 06-01-21 Revision date: 16-07-24 Supersedes version of: 19-01-24 Version: 2.1

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

### 1.1. Product identifier

Product form : Mixture
Product name : BRAKE FLUID XBF DOT 4 BARDAHL
UFI : 5U3F-A00N-AJ0T-7J6E
Product code : 5914 # 734591VR2

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

#### 1.2.1. Relevant identified uses

Main use category : Professional use
Function or use category : brake fluids

#### 1.2.2. Uses advised against

No additional information available

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

**Distributor**
SADAPS BARDAHL Additives & Lubricants
ZI TOURNAI OUEST 2 - RUE DU MONT DES CARLIERS, 3
7522 TOURNAI
BELGIQUE
T +32 (0).69.59.03.60, F +32 (0).69.59.03.61
msds@bardahlfrance.com, www.bardahl.be

**Supplier**
SADAPS BARDAHL Additives & Lubricants
ZI TOURNAI OUEST 2 - RUE DU MONT DES CARLIERS, 3
7522 TOURNAI
BELGIQUE
T +32 (0).69.59.03.60, F +32 (0).69.59.03.61
msds@bardahlfrance.com, www.bardahl.be

### 1.4. Emergency telephone number

Emergency number : + 32 (0)70.245.245 / +33 (0)1.45.42.59.59

| Country/Area | Organisation/Company | Address | Emergency number | Comment |
|---|---|---|---|---|
| Ireland | National Poisons Information Centre<br>Beaumont Hospital | PO Box 1297<br>Beaumont Road<br>9 Dublin | +353 1 809 2566<br>(Healthcare professionals-24/7)<br>+353 1 809 2166 (public, 8am - 10pm, 7/7) | |
| Malta | Medicines & Poisons Info Office | Mater Dei Hospital<br>Msida<br>MSD 2090 Msida | +356 2545 6508 | |
| Saudi Arabia | Poison Control Center-Riyadh | General Directorate of Health Affairs<br>Medial Province | +966 112324180<br>+966 112324189 | |
| United Arab Emirates | Health Authority – Abu Dhabi (HAAD)<br>Poison & Drug Information Center (PDIC) | P.O. Box 5674 | + 800-424 | |
| United Kingdom | Guy's & St Thomas' Poisons Unit<br>Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust | Avonley Road<br>SE14 5ER | +44 20 7188 7188 | |

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

**Classification according to Regulation (EC) No. 1272/2008 [CLP]**

Serious eye damage/eye irritation, Category 2 H319
Reproductive toxicity, Category 2 H361fd

Full text of H- and EUH-statements: see section 16

### Adverse physicochemical, human health and environmental effects

No additional information available

## 2.2. Label elements

### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS07 GHS08

Signal word (CLP) : Warning

Contains : Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate

Hazard statements (CLP) : H319 - Causes serious eye irritation.
H361fd - Suspected of damaging fertility. Suspected of damaging the unborn child.

Precautionary statements (CLP) : P201 - Obtain special instructions before use.
P280 - Wear protective gloves, protective clothing, eye protection, face protection.
P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER, a doctor.
P308+P313 - IF exposed or concerned: Get medical advice/attention.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P501 - Dispose of contents/container to a hazardous or special waste collection point.

Extra phrases : For professional users only.

## 2.3. Other hazards

Contains no PBT and/or vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

# SECTION 3: Composition/information on ingredients

## 3.2. Mixtures

| Name | Product identifier | % | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|---|---|---|---|
| 2-[2-(2-butoxyethoxy)ethoxy]ethanol; TEGBE; triethylene glycol monobutylether; butoxytriethylene glycol | CAS-No.: 143-22-6<br>EC-No.: 205-592-6<br>EC Index-No.: 603-183-00-0<br>REACH-no: 01-2119475108-38 | 25-40 | Eye Dam. 1, H318 |
| Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate | CAS-No.: 30989-05-0<br>EC-No.: 250-418-4<br>REACH-no: 01-2119462824-33 | 15-25 | Repr. 2, H361fd |
| 2,2' -oxybisethanol; diethylene glycol<br>substance with national workplace exposure limit(s) (AT, DE, DK, GB, IE, LV, PL, RO, SE) | CAS-No.: 111-46-6<br>EC-No.: 203-872-2<br>EC Index-No.: 603-140-00-6 | 5-10 | Acute Tox. 4 (Oral), H302 |
| 3,6,9,12-tetraoxahexadecan-1-ol | CAS-No.: 1559-34-8<br>EC-No.: 216-322-1 | 5-10 | Eye Irrit. 2, H319 |

| Name | Product identifier | % | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|---|---|---|---|
| 2-(2-butoxyethoxy)ethanol<br>substance with national workplace exposure limit(s) (BE, DK, FI, FR, GB, HU, IE, IT, LV, NL, PL, RO, SE); substance with a Community workplace exposure limit | CAS-No.: 112-34-5<br>EC-No.: 203-961-6<br>EC Index-No.: 603-096-00-8<br>REACH-no: 01-2119475104-44 | 1-3 | Eye Irrit. 2, H319 |
| 2-(2-methoxyethoxy)ethanol<br>substance with national workplace exposure limit(s) (AT, BE, BG, CY, CZ, DE, DK, ES, FI, FR, GB, GI, GR, HR, HU, IE, IT, LT, LU, LV, MT, NL, PL, PT, RO, SE, SI, SK); substance with a Community workplace exposure limit | CAS-No.: 111-77-3<br>EC-No.: 203-906-6<br>EC Index-No.: 603-107-00-6<br>REACH-no: 01-2119475100-52 | <1 | Repr. 1A, H360D |

| Specific concentration limits: | | |
|---|---|---|
| **Name** | **Product identifier** | **Specific concentration limits (%)** |
| 2-[2-(2-butoxyethoxy)ethoxy]ethanol; TEGBE; triethylene glycol monobutylether; butoxytriethylene glycol | CAS-No.: 143-22-6<br>EC-No.: 205-592-6<br>EC Index-No.: 603-183-00-0<br>REACH-no: 01-2119475108-38 | (20 ≤ C < 30) Eye Irrit. 2; H319<br>(30 ≤ C ≤ 100) Eye Dam. 1; H318 |
| 2-(2-methoxyethoxy)ethanol | CAS-No.: 111-77-3<br>EC-No.: 203-906-6<br>EC Index-No.: 603-107-00-6<br>REACH-no: 01-2119475100-52 | (3 ≤ C < 100) Repr. 1A; H360D |

Full text of H- and EUH-statements: see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If medical advice is needed, have product container or label at hand.

First-aid measures after inhalation : If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

First-aid measures after skin contact : Remove contaminated clothes. Wash skin with plenty of water. Wash contaminated clothing before reuse.

First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

First-aid measures after ingestion : Do NOT induce vomiting. Immediately call a POISON CENTER/doctor.

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

Symptoms/effects : Suspected of damaging fertility. Suspected of damaging the unborn child.

Symptoms/effects after eye contact : Causes serious eye irritation.

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

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : Carbon dioxide. Water spray. Dry powder. Foam.

Unsuitable extinguishing media : Do not use a heavy water stream.

### 5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Incomplete combustion releases dangerous carbon monoxide, carbon dioxide and other toxic gases.

### 5.3. Advice for firefighters

Firefighting instructions : Exercise caution when fighting any chemical fire.
Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.
Other information : Prevent liquid from entering sewers, watercourses, underground or low areas.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

General measures : Evacuate area. Eliminate every possible source of ignition. Ensure adequate ventilation, especially in confined areas. Keep public away from danger area. Equip cleanup crew with proper protection.

#### 6.1.1. For non-emergency personnel

No additional information available

#### 6.1.2. For emergency responders

No additional information available

### 6.2. Environmental precautions

Dike for recovery or absorb with appropriate material. Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

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

For containment : Recover the product with absorbent material.
Methods for cleaning up : Clean up any spills as soon as possible, using an absorbent material to collect it.

### 6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For disposal of solid materials or residues refer to section 13 : "Disposal considerations".

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Do not eat, drink or smoke when using this product.
Hygiene measures : Wash contaminated clothing before reuse. Always wash hands after handling the product.

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

Technical measures : Provide local exhaust or general room ventilation.
Storage conditions : Store in a closed container. Keep out of frost.
Heat and ignition sources : Keep away from naked flames/heat. Keep away from ignition sources.
Storage area : Store in a dry place. Store in a well-ventilated place.
Special rules on packaging : Store in original container.

#### Switzerland

Storage class (LK) : LK 6.1 - Toxic materials

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### 8.1.1 National occupational exposure and biological limit values

| 2,2' -oxybisethanol; diethylene glycol (111-46-6) | |
|---|---|
| **Austria - Occupational Exposure Limits** | |
| MAK (OEL TWA) | 44 mg/m³ |
| | 10 ppm |
| MAK (OEL STEL) | 176 mg/m³ |
| | 40 ppm |
| **Denmark - Occupational Exposure Limits** | |
| OEL TWA | 11 mg/m³ |
| | 2,5 ppm |
| OEL STEL | 22 mg/m³ |
| | 5 ppm |
| **Germany - Occupational Exposure Limits (TRGS 900)** | |
| AGW (OEL TWA) | 44 mg/m³ |
| | 10 ppm |
| **Ireland - Occupational Exposure Limits** | |
| OEL TWA | 100 mg/m³ |
| | 23 ppm |
| **Latvia - Occupational Exposure Limits** | |
| OEL TWA | 10 mg/m³ |
| **Poland - Occupational Exposure Limits** | |
| NDS (OEL TWA) | 10 mg/m³ |
| **Romania - Occupational Exposure Limits** | |
| OEL TWA | 500 mg/m³ |
| | 115 ppm |
| OEL STEL | 800 mg/m³ |
| | 184 ppm |
| **Sweden - Occupational Exposure Limits** | |
| NGV (OEL TWA) | 45 mg/m³ |
| | 10 ppm |
| KGV (OEL STEL) | 90 mg/m³ |
| | 20 ppm |
| **United Kingdom - Occupational Exposure Limits** | |
| WEL TWA (OEL TWA) | 101 mg/m³ |
| | 23 ppm |
| **Switzerland - Occupational Exposure Limits** | |
| MAK (OEL TWA) | 44 mg/m³ |

| 2,2' -oxybisethanol; diethylene glycol (111-46-6) | |
|---|---|
| | 10 ppm |
| KZGW (OEL STEL) | 176 mg/m³ |
| | 40 ppm |

| 2-(2-butoxyethoxy)ethanol (112-34-5) | |
|---|---|
| **EU - Indicative Occupational Exposure Limit (IOEL)** | |
| IOEL TWA | 67,5 mg/m³ |
| | 10 ppm |
| IOEL STEL | 101,2 mg/m³ |
| | 15 ppm |
| **Belgium - Occupational Exposure Limits** | |
| OEL TWA | 67,5 mg/m³ |
| | 10 ppm |
| OEL STEL | 101,2 mg/m³ |
| | 15 ppm |
| **Denmark - Occupational Exposure Limits** | |
| OEL TWA | 68 mg/m³ |
| | 10 ppm |
| OEL STEL | 136 mg/m³ |
| | 20 ppm |
| **Finland - Occupational Exposure Limits** | |
| HTP (OEL TWA) | 68 mg/m³ |
| | 10 ppm |
| **France - Occupational Exposure Limits** | |
| VME (OEL TWA) | 67,5 mg/m³ |
| | 10 ppm |
| VLE (OEL C/STEL) | 101,2 mg/m³ |
| | 15 ppm |
| **Hungary - Occupational Exposure Limits** | |
| CK (OEL STEL) | 67,5 mg/m³ |
| **Ireland - Occupational Exposure Limits** | |
| OEL TWA | 67,5 mg/m³ |
| | 10 ppm |
| OEL STEL | 101,2 mg/m³ |
| | 15 ppm |
| **Italy - Occupational Exposure Limits** | |
| OEL TWA | 67,5 mg/m³ |
| | 10 ppm |
| OEL STEL | 101,2 mg/m³ |
| | 15 ppm |

| 2-(2-butoxyethoxy)ethanol (112-34-5) | |
|---|---|
| **Latvia - Occupational Exposure Limits** | |
| OEL TWA | 67,5 mg/m³ |
| | 10 ppm |
| OEL STEL | 101,2 mg/m³ |
| | 15 ppm |
| **Netherlands - Occupational Exposure Limits** | |
| TGG-8u (OEL TWA) | 50 mg/m³ |
| TGG-15min (OEL STEL) | 100 mg/m³ |
| **Poland - Occupational Exposure Limits** | |
| NDS (OEL TWA) | 67 mg/m³ |
| NDSP (OEL C) | 100 mg/m³ |
| **Romania - Occupational Exposure Limits** | |
| OEL TWA | 67,5 mg/m³ |
| | 10 ppm |
| OEL STEL | 101,2 mg/m³ |
| | 15 ppm |
| **Sweden - Occupational Exposure Limits** | |
| NGV (OEL TWA) | 68 mg/m³ |
| | 10 ppm |
| KGV (OEL STEL) | 101 mg/m³ |
| | 15 ppm |
| **United Kingdom - Occupational Exposure Limits** | |
| WEL TWA (OEL TWA) | 67,5 mg/m³ |
| | 10 ppm |
| WEL STEL (OEL STEL) | 101,2 mg/m³ |
| | 15 ppm |

| 2-(2-methoxyethoxy)ethanol (111-77-3) | |
|---|---|
| **EU - Indicative Occupational Exposure Limit (IOEL)** | |
| IOEL TWA | 50,1 mg/m³ |
| | 10 ppm |
| **Austria - Occupational Exposure Limits** | |
| MAK (OEL TWA) | 50,1 mg/m³ |
| | 10 ppm |
| **Belgium - Occupational Exposure Limits** | |
| OEL TWA | 50,1 mg/m³ |
| | 10 ppm |
| **Bulgaria - Occupational Exposure Limits** | |
| OEL TWA | 50,1 mg/m³ |
| | 10 ppm |

| 2-(2-methoxyethoxy)ethanol (111-77-3) | |
|---|---|
| **Croatia - Occupational Exposure Limits** | |
| GVI (OEL TWA) | 50,1 mg/m³ |
| | 10 ppm |
| **Cyprus - Occupational Exposure Limits** | |
| OEL TWA | 50,1 mg/m³ |
| | 10 ppm |
| **Czech Republic - Occupational Exposure Limits** | |
| PEL (OEL TWA) | 50 mg/m³ |
| **Denmark - Occupational Exposure Limits** | |
| OEL TWA | 50 mg/m³ |
| | 10 ppm |
| **Finland - Occupational Exposure Limits** | |
| HTP (OEL TWA) | 50 mg/m³ |
| | 10 ppm |
| **France - Occupational Exposure Limits** | |
| VME (OEL TWA) | 50,1 mg/m³ |
| | 10 ppm |
| **Germany - Occupational Exposure Limits (TRGS 900)** | |
| AGW (OEL TWA) | 50,1 mg/m³ |
| | 10 ppm |
| **Gibraltar - Occupational Exposure Limits** | |
| OEL TWA | 50,1 mg/m³ |
| | 10 ppm |
| **Greece - Occupational Exposure Limits** | |
| OEL TWA | 50,1 mg/m³ |
| | 10 ppm |
| **Hungary - Occupational Exposure Limits** | |
| AK (OEL TWA) | 50,1 mg/m³ |
| **Ireland - Occupational Exposure Limits** | |
| OEL TWA | 50,1 mg/m³ |
| | 10 ppm |
| OEL STEL | 150,3 mg/m³ |
| | 30 ppm |
| **Italy - Occupational Exposure Limits** | |
| OEL TWA | 50,1 mg/m³ |
| | 10 ppm |
| **Latvia - Occupational Exposure Limits** | |
| OEL TWA | 50,1 mg/m³ |
| | 10 ppm |

| 2-(2-methoxyethoxy)ethanol (111-77-3) | |
|---|---|
| **Lithuania - Occupational Exposure Limits** | |
| IPRV (OEL TWA) | 50,1 mg/m³ |
| | 10 ppm |
| **Luxembourg - Occupational Exposure Limits** | |
| OEL TWA | 50,1 mg/m³ |
| | 10 ppm |
| **Malta - Occupational Exposure Limits** | |
| OEL TWA | 50,1 mg/m³ |
| | 10 ppm |
| **Netherlands - Occupational Exposure Limits** | |
| TGG-8u (OEL TWA) | 45 mg/m³ |
| **Poland - Occupational Exposure Limits** | |
| NDS (OEL TWA) | 50 mg/m³ |
| **Portugal - Occupational Exposure Limits** | |
| OEL TWA | 50,1 mg/m³ |
| | 10 ppm |
| **Romania - Occupational Exposure Limits** | |
| OEL TWA | 50,1 mg/m³ |
| | 10 ppm |
| **Slovakia - Occupational Exposure Limits** | |
| NPHV (OEL TWA) | 50,1 mg/m³ |
| | 10 ppm |
| **Slovenia - Occupational Exposure Limits** | |
| OEL TWA | 50,1 mg/m³ |
| | 10 ppm |
| **Spain - Occupational Exposure Limits** | |
| VLA-ED (OEL TWA) | 50,1 mg/m³ |
| | 10 ppm |
| **Sweden - Occupational Exposure Limits** | |
| NGV (OEL TWA) | 50 mg/m³ |
| | 10 ppm |
| **United Kingdom - Occupational Exposure Limits** | |
| WEL TWA (OEL TWA) | 50,1 mg/m³ |
| | 10 ppm |
| WEL STEL (OEL STEL) | 150,3 mg/m³ |
| | 30 ppm |
| **Norway - Occupational Exposure Limits** | |
| Grenseverdi (OEL TWA) | 50 mg/m³ |
| | 10 ppm |

| 2-(2-methoxyethoxy)ethanol (111-77-3) | |
|---|---|
| Korttidsverdi (OEL STEL) | 75 mg/m³ |
| | 20 ppm |

#### 8.1.2. Recommended monitoring procedures

No additional information available

#### 8.1.3. Air contaminants formed

No additional information available

#### 8.1.4. DNEL and PNEC

No additional information available

#### 8.1.5. Control banding

No additional information available

### 8.2. Exposure controls

#### 8.2.1. Appropriate engineering controls

No additional information available

#### 8.2.2. Personal protection equipment

**Personal protective equipment symbol(s):**



#### 8.2.2.1. Eye and face protection

**Eye protection:**
Safety glasses. ISO 16321-1. Wear eye protection

#### 8.2.2.2. Skin protection

**Skin and body protection:**
Wear suitable protective clothing

**Hand protection:**
Gloves. ISO 374-1. Wear protective gloves

#### 8.2.2.3. Respiratory protection

**Respiratory protection:**
Good ventilation of the workplace required

#### 8.2.2.4. Thermal hazards

No additional information available

#### 8.2.3. Environmental exposure controls

No additional information available

## SECTION 9: Physical and chemical properties

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

| | | |
|---|---|---|
| Physical state | : | Liquid |
| Colour | : | brown. |
| Appearance | : | Liquid. |
| Odour | : | sweet odour. |
| Odour threshold | : | Not available |
| Melting point | : | < -50 °C |
| Freezing point | : | < -50 °C |
| Boiling point | : | > 260 °C |
| Flammability | : | Not available |

| | | |
|---|---|---|
| Lower explosion limit | : | Not available |
| Upper explosion limit | : | Not available |
| Flash point | : | > 100 °C |
| Auto-ignition temperature | : | > 280 °C |
| Decomposition temperature | : | 300 °C |
| pH | : | 7 – 10,5 |
| Viscosity, kinematic | : | 5 – 10 mm²/s (20°C) |
| Solubility | : | In water, material soluble. |
| Partition coefficient n-octanol/water (Log Kow) | : | Not available |
| Vapour pressure | : | 1 mbar |
| Vapour pressure at 50°C | : | Not available |
| Density | : | Not available |
| Relative density | : | Not available |
| Relative vapour density at 20°C | : | Not available |
| Particle characteristics | : | Not applicable |

### 9.2. Other information

#### 9.2.1. Information with regard to physical hazard classes

No additional information available

#### 9.2.2. Other safety characteristics

Relative evaporation rate (ether=1) : >

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Stable under normal conditions of use.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

Not established.

### 10.4. Conditions to avoid

Heat. Open flame. Sparks. Water, humidity. Freezing.

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

Incomplete combustion releases dangerous carbon monoxide, carbon dioxide and other toxic gases.

## SECTION 11: Toxicological information

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

| | | |
|---|---|---|
| Acute toxicity (oral) | : | Not classified |
| Acute toxicity (dermal) | : | Not classified |
| Acute toxicity (inhalation) | : | Not classified |

| 2-[2-(2-butoxyethoxy)ethoxy]ethanol; TEGBE; triethylene glycol monobutylether; butoxytriethylene glycol (143-22-6) | |
|---|---|
| LD50 oral rat | 5300 mg/kg |
| LD50 dermal rabbit | > 2000 |

| Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate (30989-05-0) | |
|---|---|
| LD50 oral rat | > 2000 mg/kg |
| LD50 oral | > 2000 mg/kg |
| LD50 dermal rat | > 2000 mg/kg |
| LD50 dermal | > 2000 mg/kg |

| 2-(2-methoxyethoxy)ethanol (111-77-3) | |
|---|---|
| LD50 oral rat | 4 ml/kg |
| LD50 oral | 4 ml/kg |
| LD50 dermal rabbit | 9404 mg/kg |
| LD50 dermal | 9404 mg/kg |

Skin corrosion/irritation : Not classified
pH: 7 – 10,5

Serious eye damage/irritation : Causes serious eye irritation.
pH: 7 – 10,5

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Suspected of damaging fertility. Suspected of damaging the unborn child.

STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified

| BRAKE FLUID XBF DOT 4 BARDAHL | |
|---|---|
| Viscosity, kinematic | 5 – 10 mm²/s (20°C) |

### 11.2. Information on other hazards

#### 11.2.1. Endocrine disrupting properties

No additional information available

#### 11.2.2. Other information

No additional information available

## SECTION 12: Ecological information

### 12.1. Toxicity

Hazardous to the aquatic environment, short–term (acute) : Not classified

Hazardous to the aquatic environment, long–term (chronic) : Not classified

| 2-[2-(2-butoxyethoxy)ethoxy]ethanol; TEGBE; triethylene glycol monobutylether; butoxytriethylene glycol (143-22-6) | |
|---|---|
| LC50 - Fish [1] | 2400 mg/l |
| EC50 - Crustacea [1] | > 500 mg/l |

| Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate (30989-05-0) | |
|---|---|
| LC50 - Fish [1] | > 222,2 mg/l (Oncorhynchus mykiss) |
| EC50 - Crustacea [1] | > 211,2 mg/l |
| EC50 - Other aquatic organisms [1] | > 224,4 mg/l (Pseudokirchneriella subcapitata) |
| EC50 96h - Algae [1] | 430 mg/l (Species: Pseudokirchneriella subcapitata) |

| 2-(2-methoxyethoxy)ethanol (111-77-3) | |
|---|---|
| LC50 - Fish [1] | 7500 mg/l (Lepomis macrochirus [static]) |
| LC50 - Fish [2] | 7500 mg/l (Lepomis macrochirus) |
| EC50 - Crustacea [1] | > 500 mg/l (Daphnia magna) |
| EC50 72h - Algae [1] | > 500 mg/l (Desmodesmus subspicatus) |

### 12.2. Persistence and degradability

| BRAKE FLUID XBF DOT 4 BARDAHL | |
|---|---|
| Persistence and degradability | Rapidly degradable |

| 2-[2-(2-butoxyethoxy)ethoxy]ethanol; TEGBE; triethylene glycol monobutylether; butoxytriethylene glycol (143-22-6) | |
|---|---|
| Persistence and degradability | Rapidly degradable |

| Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate (30989-05-0) | |
|---|---|
| Persistence and degradability | Readily biodegradable. |

| 2,2' -oxybisethanol; diethylene glycol (111-46-6) | |
|---|---|
| Persistence and degradability | Rapidly degradable |

| 3,6,9,12-tetraoxahexadecan-1-ol (1559-34-8) | |
|---|---|
| Persistence and degradability | Rapidly degradable |

| 2-(2-butoxyethoxy)ethanol (112-34-5) | |
|---|---|
| Persistence and degradability | Rapidly degradable |

| 2-(2-methoxyethoxy)ethanol (111-77-3) | |
|---|---|
| Persistence and degradability | Readily biodegradable. |

### 12.3. Bioaccumulative potential

| Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate (30989-05-0) | |
|---|---|
| Partition coefficient n-octanol/water (Log Pow) | -4,37 |
| Bioaccumulative potential | not bioaccumulable. |

### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Endocrine disrupting properties

No additional information available

### 12.7. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods : Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

| | | |
|---|---|---|
| Sewage disposal recommendations | : | Do not discharge into drains or the environment. |
| Product/Packaging disposal recommendations | : | Collect all waste in suitable and labelled containers and dispose according to local legislation. |
| Additional information | : | Empty the packaging completely prior to disposal. Do not re-use empty containers. |
| Ecological waste information | : | Do not discharge the product into the environment. |

## SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / RID

| ADR | IMDG | IATA | RID |
|---|---|---|---|
| **14.1. UN number or ID number** | | | |
| Not regulated for transport | | | |
| **14.2. UN proper shipping name** | | | |
| Not regulated | Not regulated | Not regulated | Not regulated |
| **14.3. Transport hazard class(es)** | | | |
| Not regulated | Not regulated | Not regulated | Not regulated |
| **14.4. Packing group** | | | |
| Not regulated | Not regulated | Not regulated | Not regulated |
| **14.5. Environmental hazards** | | | |
| Not regulated | Not regulated | Not regulated | Not regulated |
| No supplementary information available | | | |

### 14.6. Special precautions for user

**Overland transport**

Not regulated

**Transport by sea**

Not regulated

**Air transport**

Not regulated

**Rail transport**

Not regulated

### 14.7. Maritime transport in bulk according to IMO instruments

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

**REACH Annex XVII (Restriction List)**

| EU restriction list (REACH Annex XVII) | |
|---|---|
| **Reference code** | **Applicable on** |
| 54. | 2-(2-methoxyethoxy)ethanol |

**REACH Annex XIV (Authorisation List)**

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

### REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

### PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

### POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

### Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

### Dual-Use Regulation (428/2009)

Contains no substance subject to the COUNCIL REGULATION (EC) No 428/2009 of 5 May 2009 setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items.

### Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

### Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

### 15.1.2. National regulations

### France

| **Occupational diseases** | |
|---|---|
| Code | Description |
| RG 84 | Conditions caused by liquid organic solvents for professional use: saturated or unsaturated aliphatic or cyclic liquid hydrocarbons and mixtures thereof; liquid halogenated hydrocarbons; nitrated derivatives of aliphatic hydrocarbons; alcohols; glycols, glycol ethers; ketones; aldehydes; aliphatic and cyclic ethers, including tetrahydrofuran; esters; dimethylformamide and dimethylacetamine; acetonitrile and propionitrile; pyridine; dimethylsulfone and dimethylsulfoxide |

### Germany

Employment restrictions : Observe restrictions according Act on the Protection of Working Mothers (MuSchG). Observe restrictions according Act on the Protection of Young People in Employment (JArbSchG).

Water hazard class (WGK) : WGK 3, Highly hazardous to water (Classification according to AwSV, Annex 1).

Hazardous Incident Ordinance (12. BImSchV) : Is not subject to the Hazardous Incident Ordinance (12. BImSchV)

### Netherlands

SZW-lijst van kankerverwekkende stoffen : None of the components are listed

SZW-lijst van mutagene stoffen : None of the components are listed

SZW-lijst van reprotoxische stoffen – Borstvoeding : None of the components are listed

SZW-lijst van reprotoxische stoffen – Vruchtbaarheid : None of the components are listed

SZW-lijst van reprotoxische stoffen – Ontwikkeling : 2-(2-methoxyethoxy)ethanol is listed

### Denmark

Danish National Regulations : Young people below the age of 18 years are not allowed to use the product
Pregnant/breastfeeding women working with the product must not be in direct contact with the product

### Poland

Polish National Regulations : Act of 25 February 2011 on chemical substances and their mixtures (J. o L. No. 63, item 322 as amended; consolidated text J. o L. 2019, item 1225).
Act of 14 December 2012 on waste (J. o L. 2013, item 322 as amended; consolidated text J. o L. 2020, item 797).
The announcement of Marshal of the Sejm of the Republic of Poland dated 19 October 2016 concerning the consolidated text announcement of the decree on the management of packaging and packaging waste (J. o L. 2016, item 1863 as amended).
Decree of the Minister of Environment of 14 December 2014 on the catalogue of waste (J. o L. 2014, item 1923).
Act of 19 August 2011 on the Carriage of Dangerous Goods (J. o L. 2011 No. 227, item 1367 as amended; consolidated text J. o L. 2020, item 154).
The ADR Agreement - Annex to the J. o L. of 26 April 2019 Government Statement of 18 February 2019 on the entry into force of the amendments to Annex A and B to the European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR), signed in Geneva on 30 September 1957 (J. o L. 2019, item 769)
Regulation of the Minister of Family, Labour and Social Policy of 12 June 2018 on the highest permissible concentration and intensity of noxious agents for health at work environment (J. o L. item 1286 as amended).
The announcement of Minister of Health dated 9 September 2016 concerning the consolidated text announcement of the decree of the Minister of Health of 30 December 2004 on health and safety at work related to exposure to chemical agents at work (J. o L. of 16 September 2016, item 1488)
Regulation of the Minister of Health of 2 February 2011 on tests and measurements of the noxious agents for health at work environment (J. o L. No. 33, item 166 as amended).
Regulation of the Minister of Environment of 9 December 2003 on particularly hazardous substances to the environment (J. o L. No. 217, item 2141).

## 15.2. Chemical safety assessment

No additional information available

## SECTION 16: Other information

| Full text of H- and EUH-statements: | |
|---|---|
| Acute Tox. 4 (Oral) | Acute toxicity (oral), Category 4 |
| Eye Dam. 1 | Serious eye damage/eye irritation, Category 1 |
| Eye Irrit. 2 | Serious eye damage/eye irritation, Category 2 |
| H302 | Harmful if swallowed. |
| H318 | Causes serious eye damage. |
| H319 | Causes serious eye irritation. |
| H360D | May damage the unborn child. |
| H361fd | Suspected of damaging fertility. Suspected of damaging the unborn child. |
| Repr. 1A | Reproductive toxicity, Category 1A |
| Repr. 2 | Reproductive toxicity, Category 2 |

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.