



# Eurol Brake Fluid DOT 4

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878  
Issue date: 17-2-2014 Revision date: 27-10-2025 Supersedes: 11-6-2024 Version: 9.2

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

#### 1.1. Product identifier

Product form : Mixture  
Product name : Eurol Brake Fluid DOT 4  
UFI : 6PF8-S2X7-M80E-WAV0  
Product code : E801400  
Product group : Trade product

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

##### Relevant identified uses

Intended for general public  
Main use category : Industrial use, Professional use, Consumer use  
Use of the substance/mixture : Brake fluid.

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

Eurol B.V.  
Energiestraat 12  
NL-7442 DA Nijverdal  
The Netherlands  
Tel: +31 548 615 165  
[reach@eurol.com](mailto:reach@eurol.com) - [www.eurol.com](http://www.eurol.com)

#### 1.4. Emergency telephone number

Emergency number : For Transport Emergency Call +31 88 303 7598 (24hr/day 7days/week)

Country/Area	Organisation/Company	Address	Emergency number	Comment
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 (Healthcare professionals- 24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)	
Malta	Medicines & Poisons Info Office	Mater Dei Hospital Msida MSD 2090 Msida	112 +356 2545 6508	
United Kingdom	National Poisons Information Service (Birmingham Centre) City Hospital	Dudley Road B18 7QH	0344 892 0111	Only for healthcare professionals
United Kingdom	NHS 111/NHS 24/NHS Direct		111 0845 4647	or call a doctor

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

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

Reproductive toxicity, Category 2 H361fd

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

##### Adverse physicochemical, human health and environmental effects

Suspected of damaging fertility or the unborn child.

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### 2.2. Label elements

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

Hazard pictograms (CLP) :



GHS08

CLP Signal word :

Warning

Contains :

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

Hazard statements (CLP) :

H361fd - Suspected of damaging fertility. Suspected of damaging the unborn child.

Precautionary statements (CLP) :

P102 - Keep out of reach of children.

P201 - Obtain special instructions before use.

P280 - Wear protective gloves, protective clothing, eye protection, face protection.

P308+P313 - IF exposed or concerned: Get medical advice/attention.

P405 - Store locked up.

P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

EUH-statements :

EUH208 - Contains dihydro-3-(tetrapropenyl)furan-2,5-dione. May produce an allergic reaction.

Child-resistant fastening :

Not applicable

Tactile warning :

Applicable

### 2.3. Other hazards

Other hazards not contributing to the classification : Attacks some forms of plastics, rubber, and coatings.

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

Component	
Substance(s) not meeting the PBT criteria of REACH regulation, in accordance with Annex XIII	diethylene glycol (111-46-6)
Substance(s) not meeting the vPvB criteria of REACH regulation, in accordance with Annex XIII	diethylene glycol (111-46-6)

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]
Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate	CAS-No.: 30989-05-0 EC-No.: 250-418-4 REACH-no: 01-2119462824-33	35 – 50	Repr. 2, H361fd
2-[2-(2-butoxyethoxy)ethoxy]ethanol	CAS-No.: 143-22-6 EC-No.: 205-592-6 EC Index-No.: 603-183-00-0 REACH-no: 01-2119457107-38	10 – 25	Eye Dam. 1, H318

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
diethylene glycol substance with national workplace exposure limit(s) (IE, GB)	CAS-No.: 111-46-6 EC-No.: 203-872-2 EC Index-No.: 603-140-00-6 REACH-no: 01-2119457857-21	5 – 10	Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg bodyweight)
2-(2-methoxyethoxy)ethanol substance with national workplace exposure limit(s) (IE, MT, GB); substance with a Community workplace exposure limit	CAS-No.: 111-77-3 EC-No.: 203-906-6 EC Index-No.: 603-107-00-6 REACH-no: 01-2119475100-52	1 – 3	Repr. 1B, H360D
dihydro-3-(tetrapropenyl)furan-2,5-dione	CAS-No.: 26544-38-7 EC-No.: 247-781-6 REACH-no: 01-2119979080-37	< 0,1	Eye Irrit. 2, H319 Skin Sens. 1A, H317 Aquatic Chronic 4, H413

### Specific concentration limits:

Name	Product identifier	Specific concentration limits (%)
2-[2-(2-butoxyethoxy)ethoxy]ethanol	CAS-No.: 143-22-6 EC-No.: 205-592-6 EC Index-No.: 603-183-00-0 REACH-no: 01-2119457107-38	(20 ≤ C < 30) Eye Irrit. 2; H319 (30 ≤ C ≤ 100) Eye Dam. 1; H318
2-(2-methoxyethoxy)ethanol	CAS-No.: 111-77-3 EC-No.: 203-906-6 EC Index-No.: 603-107-00-6 REACH-no: 01-2119475100-52	(3 ≤ C ≤ 100) Repr. 1B; 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	: IF exposed or concerned: Get medical advice/attention.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water.
First-aid measures after eye contact	: Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.
Personal Protection in First Aid and Measures	: First aid workers will be equipped with suitable personal protective equipment.

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

Symptoms/effects after inhalation	: At normal ambient temperatures this product will be unlikely to present an inhalation hazard because of its low volatility. May be harmful by inhalation if exposure to vapour, mists or fumes resulting from thermal decomposition products occurs.
Symptoms/effects after skin contact	: Unlikely to cause harm to the skin on brief or occasional contact but prolonged or repeated exposure may lead to dermatitis. High pressure injection of product into the skin may lead to local necrosis if the product is not surgically removed.
Symptoms/effects after eye contact	: Unlikely to cause more than transient stinging or redness if accidental eye contact occurs.
Symptoms/effects after ingestion	: Bad taste. Unlikely to cause harm if accidentally swallowed in small doses, though larger quantities may cause nausea and diarrhoea.
Symptoms/effects upon intravenous administration	: Unknown.

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### 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 : Water spray. Dry powder. Foam. Carbon dioxide.  
Unsuitable extinguishing media : Do not use a heavy water stream. Use of heavy stream of water may spread fire.

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

Fire hazard : Combustion generates: CO, CO<sub>2</sub>.  
Explosion hazard : Not expected to be a fire/explosion hazard under normal conditions of use.  
Hazardous decomposition products in case of fire : Toxic fumes may be released.

### 5.3. Advice for firefighters

Precautionary measures fire : Do not enter fire area without proper protective equipment, including respiratory protection.  
Firefighting instructions : Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection.  
Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.  
Other information : Prevent fire fighting water from entering the environment. Sweep up and remove to a suitable, clearly marked container for disposal in accordance with local regulations.

## SECTION 6: Accidental release measures

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

General measures : Stop leak if safe to do so. Notify authorities if product enters sewers or public waters.  
Absorb spillage to prevent material damage.

#### For non-emergency personnel

Protective equipment : When the risk of skin exposure is high (e.g. when cleaning up spillages or if there is a risk of splashing) then chemical resistant aprons and/or impervious chemical suits and boots will be required. Use protective clothing.  
Emergency procedures : Ventilate spillage area.

#### For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".  
Emergency procedures : Evacuate unnecessary personnel. Stop leak if safe to do so.

### 6.2. Environmental precautions

Avoid release to the environment.

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

For containment : Absorb spilled material with sand or earth. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak without risks if possible.  
Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.  
Other information : Dispose of materials or solid residues at an authorized site.

### 6.4. Reference to other sections

For further information refer to section 13.

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### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

- Additional hazards when processed : 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.
- Precautions for safe handling : Ensure good ventilation of the work station. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment.
- Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

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

- Technical measures : Keep container tightly closed and in well ventilated place.
- Storage conditions : Store locked up.
- Incompatible products : Reacts vigorously with strong oxidizers and acids.
- Maximum storage period : 2 year
- Storage temperature : ≤ 40 °C
- Information on mixed storage : Keep away from : Oxidizing materials. Strong acids.
- Storage area : Store at ambient temperature.
- Special rules on packaging : Keep container tightly closed and dry.
- Packaging materials : Always store product in container of same material as original container.

#### 7.3. Specific end use(s)

Brake fluid.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

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

diethylene glycol (111-46-6)	
<b>Ireland - Occupational Exposure Limits</b>	
Local name	Diethylene glycol [2,2'-Oxydiethanol]
OEL (8 hours ref) (mg/m <sup>3</sup> )	100 mg/m <sup>3</sup>
OEL (8 hours ref) (ppm)	23 ppm
Regulatory reference	Chemical Agents Code of Practice 2021
<b>United Kingdom - Occupational Exposure Limits</b>	
Local name	2,2'-Oxydiethanol
WEL TWA (mg/m <sup>3</sup> )	101 mg/m <sup>3</sup>
WEL TWA (ppm)	23 ppm
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE
2-(2-methoxyethoxy)ethanol (111-77-3)	
<b>EU - Indicative Occupational Exposure Limit (IOEL)</b>	
Local name	2-(2-Methoxyethoxy)ethanol
IOELV TWA (mg/m <sup>3</sup> )	50,1 mg/m <sup>3</sup>
IOELV TWA (ppm)	10 ppm
IOELV STEL (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup>

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2-(2-methoxyethoxy)ethanol (111-77-3)	
Notes	Skin
Regulatory reference	COMMISSION DIRECTIVE 2006/15/EC
<b>Ireland - Occupational Exposure Limits</b>	
Local name	2-(2-Methoxyethoxy)ethanol
OEL (8 hours ref) (mg/m <sup>3</sup> )	50,1 mg/m <sup>3</sup>
OEL (8 hours ref) (ppm)	10 ppm
Remark	IOELV (Indicative Occupational Exposure Limit Values), Skin (Substances which have the capacity to penetrate intact skin when they come in contact with it and be absorbed into the body. A substantial contribution to the total body burden via dermal exposure is possible)
Regulatory reference	Chemical Agents Code of Practice 2024
<b>Malta - Occupational Exposure Limits</b>	
Local name	2-(2-Methoxyethoxy)ethanol
OEL TWA (mg/m <sup>3</sup> )	50,1 mg/m <sup>3</sup>
OEL TWA (ppm)	10 ppm
Remark	Skin # Ġilda
Regulatory reference	S.L. 424.24 - Chemical Agents at Work Regulations (L.N. 356 of 2021) # L.S. 424.24 - Regolamenti dwar Aġenti Kimiċi fuq il-Post tax-Xogħol (A.L. 356 tal-2021)
<b>United Kingdom - Occupational Exposure Limits</b>	
Local name	2-(2-Methoxyethoxy) ethanol
WEL TWA (mg/m <sup>3</sup> )	50,1 mg/m <sup>3</sup>
WEL TWA (ppm)	10 ppm
Remark (WEL)	Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

## 8.2. Exposure controls

### Appropriate engineering controls

#### Appropriate engineering controls:

Ensure good ventilation of the work station.

### Personal protection equipment

#### Personal protective equipment:

Gloves. In case of splash hazard: safety glasses. Eye protection should only be necessary where liquid could be splashed or sprayed.

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



### Eye and face protection

#### Eye protection:

Safety glasses

### Skin protection

#### Skin and body protection:

Wear suitable protective clothing

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### Hand protection:

Protective gloves

### Other skin protection

#### Materials for protective clothing:

PVC gloves. Nitrile rubber. Butyl-rubber protective gloves

### Respiratory protection

#### Respiratory protection:

Wear respiratory protection

### Environmental exposure controls

#### Environmental exposure controls:

Avoid release to the environment.

#### Consumer exposure controls:

PVC gloves. Nitrile-rubber protective gloves. Butylrubber protective gloves.

#### Other information:

Do not put the product-soaked rags into the pockets of working clothes. Do not use cloths stained with the product to dry hands. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Do not eat, drink or smoke during use. Wash contaminated clothing before reuse.

## SECTION 9: Physical and chemical properties

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

Physical state	: Liquid
Colour	: Yellow.
Appearance	: Oily. Liquid.
Odour	: characteristic.
Odour threshold	: Not available
Melting point	: $\leq -50$ °C ASTM D 97
Freezing point	: Not available
Boiling point	: $> 260$ °C
Flammability (solid, gas)	: Non flammable.
Lower explosive limit (LEL)	: 0,6 vol %
Upper explosive limit (UEL)	: 7 vol %
Flash point	: $> 120$ °C ASTM D 93
Auto-ignition temperature	: $> 300$ °C
Decomposition temperature	: $> 300$ °C
pH	: 7 – 10,5
Viscosity, kinematic	: 5 – 10 mm <sup>2</sup> /s at 40 °C, ASTM D 445
Solubility	: Completely miscible with water.
Log Kow	: Not available
Log Pow	: $< 2$
Vapour Pressure 20°C	: $< 0,2$ hPa
Vapour pressure at 50°C	: Not available
Density	: 1,03 – 1,06 kg/l ASTM D 4052
Relative density	: Not available
Relative vapour density at 20°C	: $> 1$ (air = 1)
Particle characteristics	: Not applicable

### 9.2. Other information

#### Other safety characteristics

Relative evaporation rate (butylacetate=1)	: $< 0,1$
VOC content	: $< 1,15$ %
Other properties	: Gas/vapour heavier than air at 20°C

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### 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

Refer to section 10.1 on Reactivity.

#### 10.4. Conditions to avoid

Moisture. Overheating.

#### 10.5. Incompatible materials

Strong oxidizing agents. Strong acids.

#### 10.6. Hazardous decomposition products

Carbon oxides (CO, CO<sub>2</sub>).

### SECTION 11: Toxicological information

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

Acute toxicity (oral) : Not classified (Based on available data, the classification criteria are not met)  
Acute toxicity (dermal) : Not classified (Based on available data, the classification criteria are not met)  
Acute toxicity (inhalation) : Not classified (Based on available data, the classification criteria are not met)

diethylene glycol (111-46-6)	
LD50 oral rat	19600 mg/kg bodyweight
LD50 dermal rabbit	11890 mg/kg
LC50 Inhalation - Rat	> 4,6 mg/l air
2-(2-methoxyethoxy)ethanol (111-77-3)	
LD50 dermal rabbit	9404 mg/kg bodyweight Animal: rabbit, Animal sex: male, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), 95% CL: 6696 - 13212
2-[2-(2-butoxyethoxy)ethoxy]ethanol (143-22-6)	
LD50 dermal rabbit	3540 mg/kg bodyweight Animal: rabbit, Animal sex: male, 95% CL: 1050 - 11800
Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate (30989-05-0)	
LD50 oral rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity), Guideline: EU Method B.1 (Acute Toxicity (Oral))
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EU Method B.3 (Acute Toxicity (Dermal)), Remarks on results: other:
Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met) pH: 7 – 10,5
diethylene glycol (111-46-6)	
pH	5 – 8
Serious eye damage/irritation	: Not classified (Based on available data, the classification criteria are not met) pH: 7 – 10,5

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<b>diethylene glycol (111-46-6)</b>	
pH	5 – 8
Respiratory or skin sensitisation	: Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met)
<b>diethylene glycol (111-46-6)</b>	
NOAEL (chronic, oral, animal/male, 2 years)	1210 mg/kg bodyweight Animal: rat, Animal sex: male
NOAEL (chronic, oral, animal/female, 2 years)	1160 mg/kg bodyweight Animal: rat, Animal sex: female
Reproductive toxicity	: Suspected of damaging fertility. Suspected of damaging the unborn child.
<b>Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate (30989-05-0)</b>	
NOAEL (animal/male, F0/P)	300 mg/kg bodyweight
NOAEL (animal/male, F1)	300
STOT-single exposure	: Not classified (Based on available data, the classification criteria are not met)
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met)
<b>diethylene glycol (111-46-6)</b>	
LOAEL (oral, rat, 90 days)	40000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity Study in Rodents)
<b>dihydro-3-(tetrapropenyl)furan-2,5-dione (26544-38-7)</b>	
NOAEL (oral, rat, 90 days)	50 mg/kg bodyweight Animal: rat, Guideline: other:, Guideline: other:
<b>2-(2-methoxyethoxy)ethanol (111-77-3)</b>	
LOAEL (oral, rat, 90 days)	1800 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity Study in Rodents)
NOAEL (oral, rat, 90 days)	900 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity Study in Rodents), Remarks on results: other:
NOAEC (inhalation, rat, vapour, 90 days)	> 1,06 mg/l air Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study)
<b>2-[2-(2-butoxyethoxy)ethoxy]ethanol (143-22-6)</b>	
NOAEL (dermal, rat/rabbit, 90 days)	> 1000 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study)
<b>Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate (30989-05-0)</b>	
NOAEL (oral, rat, 90 days)	≥ 1000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents), Guideline: EU Method B.26 (Sub-Chronic Oral Toxicity Test: Repeated Dose 90-Day Oral Toxicity Study in Rodents), Guideline: EPA OPPTS 870.3100 (90-Day Oral Toxicity in Rodents)
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)
<b>Eurol Brake Fluid DOT 4</b>	
Viscosity, kinematic	5 – 10 mm <sup>2</sup> /s at 40 °C, ASTM D 445
<b>diethylene glycol (111-46-6)</b>	
Viscosity, kinematic	33 mm <sup>2</sup> /s
<b>dihydro-3-(tetrapropenyl)furan-2,5-dione (26544-38-7)</b>	
Viscosity, kinematic	0,428 mm <sup>2</sup> /s

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### 2-[2-(2-butoxyethoxy)ethoxy]ethanol (143-22-6)

Viscosity, kinematic	9,2 mm <sup>2</sup> /s Temp.: 'other:' Parameter: 'kinematic viscosity (in mm <sup>2</sup> /s)' Remarks on result: 'other:'
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### 11.2. Information on other hazards

#### Other information

Other information : Toxicological data have not been determined specifically for this product. Information given is based on a knowledge of the components and the toxicology of similar products, Likely route of exposure: ingestion, skin and eye.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

Hazardous to the aquatic environment, short-term (acute) : Not classified (Based on available data, the classification criteria are not met)

Hazardous to the aquatic environment, long-term (chronic) : Not classified (Based on available data, the classification criteria are not met)

### diethylene glycol (111-46-6)

LC50 fish 1	75200 mg/l Test organisms (species): Pimephales promelas
LC50 fish 2	75200 mg/l
EC50 Daphnia 1	> 3200 mg/l EC50 48h - Daphnia magna [mg/l]
EC50 Daphnia 2	> 10000 mg/l
EC50 72h - Algae [1]	1054 mg/l Scenedesmus subspicatus
EC50 96h - Algae [1]	6500 – 13000 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
EC50 96h - Algae [2]	9362 mg/l Test organisms (species): other:
NOEC (chronic)	≥ 1000 mg/l Test organisms (species): Americamysis bahia (previous name: Mysidopsis bahia) Duration: '23 d'

### dihydro-3-(tetrapropenyl)furan-2,5-dione (26544-38-7)

LC50 fish 1	> 100 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
EC50 96h - Algae [1]	110 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
EC50 96h - Algae [2]	160 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)

### 2-(2-methoxyethoxy)ethanol (111-77-3)

LC50 fish 1	5741 mg/l Test organisms (species): Pimephales promelas
EC50 Daphnia 1	1192 mg/l Test organisms (species): Daphnia magna
EC50 96h - Algae [1]	> 1000 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)

### 2-[2-(2-butoxyethoxy)ethoxy]ethanol (143-22-6)

LC50 fish 1	75200 mg/l Pimephales promelas
EC50 Daphnia 1	> 500 mg/l Test organisms (species): Daphnia magna

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<b>2-[2-(2-butoxyethoxy)ethoxy]ethanol (143-22-6)</b>	
EC50 72h - Algae [1]	780 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
EC50 72h - Algae [2]	840 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
NOEC (chronic)	> 100 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic algae	> 100 mg/l Pseudokirchneriella subcapitata

<b>Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate (30989-05-0)</b>	
LC50 fish 1	> 222,2 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
LC50 fish 2	> 1010 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
EC50 Daphnia 1	> 211,2 mg/l Test organisms (species): Daphnia magna
EC50 Daphnia 2	> 960 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	> 224,4 mg/l Test organisms (species): other:
EC50 72h - Algae [2]	> 1020 mg/l Test organisms (species): other:

### 12.2. Persistence and degradability

<b>EuroI Brake Fluid DOT 4</b>	
Persistence and degradability	Not readily biodegradable.

<b>diethylene glycol (111-46-6)</b>	
Persistence and degradability	.
Biochemical oxygen demand (BOD)	0,02 g O <sub>2</sub> /g substance
Chemical oxygen demand (COD)	1,51 g O <sub>2</sub> /g substance
ThOD	1,51 g O <sub>2</sub> /g substance
BOD (% of ThOD)	0,015

<b>dihydro-3-(tetrapropenyl)furan-2,5-dione (26544-38-7)</b>	
Persistence and degradability	Rapidly degradable

<b>2-(2-methoxyethoxy)ethanol (111-77-3)</b>	
Persistence and degradability	Rapidly degradable

<b>2-[2-(2-butoxyethoxy)ethoxy]ethanol (143-22-6)</b>	
Persistence and degradability	Rapidly degradable

<b>Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate (30989-05-0)</b>	
Persistence and degradability	Rapidly degradable

### 12.3. Bioaccumulative potential

<b>EuroI Brake Fluid DOT 4</b>	
Log Pow	< 2
Bioaccumulative potential	This product is not expected to bioaccumulate through food chains in the environment.

<b>diethylene glycol (111-46-6)</b>	
BCF fish 1	100

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diethylene glycol (111-46-6)	
Bioconcentration factor (BCF REACH)	100
Log Pow	-1,98
2-[2-(2-butoxyethoxy)ethoxy]ethanol (143-22-6)	
Log Pow	0,51
Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate (30989-05-0)	
Log Pow	1

### 12.4. Mobility in soil

Eurol Brake Fluid DOT 4	
Ecology - soil	Spillages may penetrate the soil causing ground water contamination. This product floats on water and may affect the oxygen-balance in the water.
diethylene glycol (111-46-6)	
Surface tension	0,0485 N/m
Log Koc	0

### 12.5. Results of PBT and vPvB assessment

Component	
Substance(s) not meeting the PBT criteria of REACH regulation, in accordance with Annex XIII	diethylene glycol (111-46-6)
Substance(s) not meeting the vPvB criteria of REACH regulation, in accordance with Annex XIII	diethylene glycol (111-46-6)

### 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

Regional waste regulation	: Disposal must be done according to official regulations.
Product/Packaging disposal recommendations	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations	: Disposal must be done according to official regulations.
Waste disposal recommendations	: Disposal must be done according to official regulations.
Additional information	: Do not re-use empty containers.
Ecology - waste materials	: Every mixture with foreign substances such as solvents, brake- and cooling liquids is forbidden. 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. When not empty dispose of this container at hazardous or special waste collection point.
European List of Waste (LoW, EC 2000/532)	: 16 01 13* - brake fluids

## SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN

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ADR	IMDG	IATA	ADN
<b>14.1. UN number or ID number</b>			
Not regulated for transport			
<b>14.2. UN proper shipping name</b>			
Not regulated	Not regulated	Not regulated	Not regulated
<b>14.3. Transport hazard class(es)</b>			
Not regulated	Not regulated	Not regulated	Not regulated
<b>14.4. Packing group</b>			
Not regulated	Not regulated	Not regulated	Not regulated
<b>14.5. Environmental hazards</b>			
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

#### Inland waterway 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

#### EU-Regulations

#### REACH Annex XVII (Restriction List)

EU restriction list (REACH Annex XVII)		
Reference code	Applicable on	Entry title or description
3(b)	Eurol Brake Fluid DOT 4 ; diethylene glycol ; dihydro-3-(tetrapropenyl)furan-2,5-dione ; 2-(2-methoxyethoxy)ethanol ; 2-[2-(2-butoxyethoxy)ethoxy]ethanol ; Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10

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EU restriction list (REACH Annex XVII)		
Reference code	Applicable on	Entry title or description
3(c)	dihydro-3-(tetrapropenyl)furan-2,5-dione	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard class 4.1
54.	2-(2-methoxyethoxy)ethanol	2-(2-methoxyethoxy)ethanol (DEGME)

### 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 (2024/590)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 2024/590 on substances that deplete the ozone layer)

### Council Regulation (EC) for the control of dual-use items

Contains no substance subject to the COUNCIL REGULATION (EC) for the control of dual-use items

### VOC Directive (2004/42)

VOC content : < 1,15 %

### Explosives Precursors Regulation (EU 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 (EC 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)

## 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

Indication of changes		
Section	Changed item	Comments
1.1	UFI on SDS 1.1	<b>Modified</b>
4	Personal Protection in First Aid and Measures	<b>Added</b>
9	Relative vapour density at 20°C	<b>Modified</b>
9	Viscosity, kinematic	<b>Modified</b>
9.1	Explosive limits (vol %)	<b>Removed</b>
10.4	Conditions to avoid	<b>Modified</b>
10.6	Hazardous decomposition products	<b>Modified</b>
15.1	REACH Annex XVII	<b>Modified</b>
16	Abbreviations and acronyms	<b>Modified</b>

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Abbreviations and acronyms:	
ACGIH	American Conference of Government Industrial Hygienists
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
CAS-No.	Chemical Abstract Service number
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
COD	Chemical oxygen demand (COD)
CSA	Chemical safety assessment
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
ED	Endocrine disruptor
EN	European Standard
EWC	European waste catalogue
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
Log Kow	Partition coefficient n-octanol/water (Log Kow)
Log Pow	Partition coefficient n-octanol/water (Log Pow)
MAK	maximum workplace concentration
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
N.O.S.	Not Otherwise Specified
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
OSHA	Occupational Safety Health Administration
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
PPE	Personal protection equipment
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet

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### Abbreviations and acronyms:

STP	Sewage treatment plant
TF	Technical function
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
TWA	Time Weighted Average
VOC	Volatile Organic Compounds
vPvB	Very Persistent and Very Bioaccumulative
UFI	Unique Formula Identifier

Data sources	: REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006. Supplier's safety documents. ECHA (European Chemicals Agency).
Training advice	: Normal use of this product shall imply use in accordance with the instructions on the packaging.
Other information	: The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

### Full text of H- and EUH-statements:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Chronic 4	Hazardous to the aquatic environment – Chronic Hazard, Category 4
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Repr. 1B	Reproductive toxicity, Category 1B
Repr. 2	Reproductive toxicity, Category 2
Skin Sens. 1A	Skin sensitisation, category 1A
H302	Harmful if swallowed.
H317	May cause an allergic skin reaction.
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.
H413	May cause long lasting harmful effects to aquatic life.
EUH208	Contains dihydro-3-(tetrapropenyl)furan-2,5-dione. May produce an allergic reaction.

### Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Repr. 2	H361fd	Calculation method
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Safety Data Sheet (SDS), EU

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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.