



# Safety Data Sheet

## according to P.U.(A) 310/2013

Printing date 24.11.2025

Version number 12.0

Revision: 01.11.2025

### 1 Identification of the hazardous chemical and of the supplier

#### Product identifier

**Trade name:** Original ATE Brake Fluid SL (DOT 4)

**Article number:** 03.9901-58xx.x / 7058xx

#### Recommended use of the chemical and restrictions on use

No further relevant information available.

**Application of the substance / the mixture** hydraulic liquid

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

##### Manufacturer/Supplier:

AUMOVIO Aftermarket GmbH

Guerickestr. 7

60488 Frankfurt a. M.

Germany

Tel: +49-69-76031

Importer:

Name:

Address:

Phone:

e-Mail:

#### Further information obtainable from:

Hazardous Substances Management Aftermarket, Central Materials Laboratory

ate.sicherheit@aumovio.com

#### Emergency telephone number:

Malaysia National Poison Centre, USM

National Poison Centre Universiti Sains Malaysia 11800 Penang Malaysia

Tel: +604-657 0099

Emergency number:

Office Hours: +604-657 0099 (Monday-Friday: 8.10am-5.10pm)

After Office Hours: +6012-430 9499 (including weekends and public holidays)

Fax: +604-656 8417

Email: prnnet@usm.my

INFOTRAC

+1-352-323-3500 (International)

+60 3-2706 0106 (Kuala Lumpur)

+60 154-600 0376 (National)

### 2 Hazard identification

#### Classification of the substance or mixture

Repr. 2 H361 Suspected of damaging fertility or the unborn child.

#### Label elements

##### GHS label elements

The product is classified and labelled according to the Globally Harmonised System (GHS).

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**Hazard pictograms**

GHS08

**Signal word** Warning**Hazard-determining components of labelling:**

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

**Hazard statements**

H361 Suspected of damaging fertility or the unborn child.

**Precautionary statements**

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

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 in accordance with local/regional/national/international regulations.

**Other hazards****Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.

## 3 Composition and information of the ingredients of the hazardous chemical

**Chemical characterisation: Mixtures****Description:** Mixture of substances listed below with nonhazardous additions.**Dangerous components:**

|            |  |          |
|------------|--|----------|
| 30989-05-0 | Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate<br>Repr. 2, H361  | ≥30-<50% |
|            | Reaction mass of 2-(2-(2-butoxyethoxy)ethoxy)ethanol and 3,6,9,12-tetraoxahexadecan-1-ol<br>Eye Dam. 1, H318<br>Specific concentration limits: Eye Dam. 1; H318: C ≥ 30 %<br>Eye Irrit. 2; H319: 20 % ≤ C < 30 % | ≥10-<15% |
| 143-22-6   | 2-[2-(2-butoxyethoxy)ethoxy]ethanol<br>Eye Dam. 1, H318<br>Specific concentration limits: Eye Dam. 1; H318: C ≥ 30 %<br>Eye Irrit. 2; H319: 20 % ≤ C < 30 %  | ≥5-<10%  |
| 111-46-6   | 2,2'-oxybisethanol<br>Acute Tox. 4, H302   | ≥5-<10%  |
| 1559-34-8  | 3,6,9,12-Tetraoxahexadecan-1-ol<br>Eye Irrit. 2, H319  | ≥2-<5%   |
| 110-97-4   | 1,1'-Iminodipropan-2-ol<br>Eye Irrit. 2, H319  | ≥1-<2%   |

**Additional information:**

CAS 143-22-6 and 1559-34-8 are part of the Reaction mass of 2-(2-(2-butoxyethoxy)ethoxy)ethanol and 3,6,9,12-tetraoxahexadecan-1-ol, for which the SCL applies.

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For the wording of the listed hazard phrases refer to section 16.

### 4 First-aid measures

**Description of first aid measures**
**General information:**

Take affected persons out of danger area.  
Do not leave affected persons unattended.  
Remove/Take off immediately all contaminated clothing.

**After inhalation:**

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
Seek medical treatment.

**After skin contact:**

If skin irritation occurs: Get medical advice/attention.  
Immediately wash with water and soap and rinse thoroughly.

**After eye contact:**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
If eye irritation persists: Get medical advice/attention.  
Protect unharmed eye.

**After swallowing:**

Do NOT induce vomiting.  
Rinse mouth thoroughly with water.  
Call a doctor immediately.

**Information for doctor:**
**Most important symptoms and effects, both acute and delayed**

No further relevant information available.

**Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

### 5 Fire-fighting measures

**Extinguishing media**
**Suitable extinguishing agents:**

CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.  
Use fire extinguishing methods suitable to surrounding conditions.

**For safety reasons unsuitable extinguishing agents:** Water with full jet

**Special hazards arising from the substance or mixture**

In case of fire, the following can be released:

Carbon monoxide (CO)

Nitrogen oxides (NO<sub>x</sub>)

Boron oxides

During heating or in case of fire poisonous gases are produced.

**Advice for firefighters**
**Protective equipment:**

Do not inhale explosion gases or combustion gases.  
Wear self-contained respiratory protective device.

**Additional information**

Collect contaminated fire fighting water separately. It must not enter the sewage system.

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## 6 Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation

Wear protective equipment. Keep unprotected persons away.

Keep away from ignition sources.

### Environmental precautions:

Do not allow product to reach sewage system or any water course.

Do not allow to penetrate the ground/soil.

### Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders).

Dispose of the material collected according to regulations.

### Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

## 7 Handling and storage

### Handling:

**Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.

### Information about fire - and explosion protection:

Keep away from heat/sparks/open flames/hot surfaces – No smoking.

Temperature class: T3

### Conditions for safe storage, including any incompatibilities

#### Storage:

**Requirements to be met by storerooms and receptacles:** Storage at room temperature.

#### Information about storage in one common storage facility:

Store away from foodstuffs.

Store away from flammable substances.

#### Further information about storage conditions:

This product is hygroscopic.

Store in dry conditions.

Keep container tightly sealed.

**Specific end use(s)** No further relevant information available.

## 8 Exposure controls and personal protection

**Additional information about design of technical facilities:** No further data; see section 7.

### Control parameters

#### Ingredients with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

### Exposure controls

#### Personal protective equipment:

#### General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

Pregnant women should strictly avoid inhalation or skin contact.

Use skin protection cream for skin protection.

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**Respiratory protection:**

In the case of vapour formation use a respirator with an approved filter.

Equipment should conform to EN 14387.

If the occupational exposure limits cannot be met, in exceptional cases suitable respiratory equipment should be worn only for a short period of time.

filter ABEK-P2

**Protection of hands:**

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

**Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

**Penetration time of glove material**

Butyl caoutchouc (butyl rubber): minimum breakthrough time 480 min; minimum layer thickness: 0.7 mm

NBR (nitrile rubber): minimum breakthrough time 30 min; minimum layer thickness: 0.4 mm

**Eye protection:** Safety glasses

**Body protection:** Protective work clothing

**Limitation and supervision of exposure into the environment**

See section 6 and 7. No additional measures necessary.

## 9 Physical and chemical properties

**Information on basic physical and chemical properties****General Information****Appearance:**

|                         |                 |
|-------------------------|-----------------|
| <b>Form:</b>            | Fluid           |
| <b>Colour:</b>          | Yellow          |
| <b>Odour:</b>           | Characteristic  |
| <b>Odour threshold:</b> | Not determined. |

**pH-value at 20 °C:** 8.5 (50%) (FMVSS 116)

**Change in condition**

|  |                     |
|--|---------------------|
| <b>Melting point/freezing point</b>            | <-70 °C (DIN 51583) |
| <b>Initial boiling point and boiling range</b> | >260 °C (FMVSS 116) |

**Flash point:** 139 °C (ASTM D 7094 (closed cup))

**Flammability** Not applicable.

**Auto-ignition temperature** >200 °C (DIN 51794)

**Decomposition temperature:** ca. 360 °C (DSC)

**Ignition temperature:** Product is not selfigniting.

**Explosive properties:** Product does not present an explosion hazard.

**Explosion limits:**

|               |                 |
|---------------|-----------------|
| <b>Lower:</b> | 1.5 Vol %       |
| <b>Upper:</b> | Not determined. |

**Vapour pressure at 20 °C:** <1 hPa

**Density at 20 °C:** 1.06 g/cm<sup>3</sup> (DIN 51757)

**Relative density** Not determined.

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|   |  |
|---|--|
| <b>Vapour density</b>                         | Not determined.                            |
| <b>Evaporation rate</b>                       | Not determined.                            |
| <b>water:</b>                                 | Fully miscible.                            |
| <b>Partition coefficient: n-octanol/water</b> | Not determined.                            |
| <b>Viscosity:</b>                             |  |
| <b>Dynamic:</b>                               | Not determined.                            |
| <b>Kinematic at 20 °C:</b>                    | 15-17 mm <sup>2</sup> /s (FMVSS 116)       |
| <b>Other information</b>                      | No further relevant information available. |

## 10 Stability and reactivity

**Reactivity** No further relevant information available.

**Chemical stability**

**Thermal decomposition / conditions to be avoided:**

No decomposition if used according to specifications.

**Possibility of hazardous reactions** No dangerous reactions known.

**Conditions to avoid** No further relevant information available.

**Incompatible materials:** No further relevant information available.

**Hazardous decomposition products:**

Carbon monoxide and carbon dioxide

Nitrogen oxides (NO<sub>x</sub>)

Boron oxides

Hydrocarbons

## 11 Toxicological information

**Information on toxicological effects**

**Acute toxicity**

**LD/LC50 values relevant for classification:**

**30989-05-0 Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate**

|      |      |                               |
|------|------|-------------------------------|
| Oral | LD50 | >2,000 mg/kg (rat) (OECD 401) |
|------|------|-------------------------------|

|        |      |                               |
|--------|------|-------------------------------|
| Dermal | LD50 | >2,000 mg/kg (rat) (OECD 402) |
|--------|------|-------------------------------|

**Reaction mass of 2-(2-(2-butoxyethoxy)ethoxy)ethanol and 3,6,9,12-tetraoxahexadecan-1-ol**

|      |      |                    |
|------|------|--------------------|
| Oral | LD50 | >5,000 mg/kg (rat) |
|------|------|--------------------|

|        |      |                       |
|--------|------|-----------------------|
| Dermal | LD50 | >3,000 mg/kg (rabbit) |
|--------|------|-----------------------|

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

|      |      |                    |
|------|------|--------------------|
| Oral | LD50 | >5,000 mg/kg (rat) |
|------|------|--------------------|

|        |      |                       |
|--------|------|-----------------------|
| Dermal | LD50 | >2,000 mg/kg (rabbit) |
|--------|------|-----------------------|

**111-46-6 2,2'-oxybisethanol**

|      |      |                    |
|------|------|--------------------|
| Oral | LD50 | >5,000 mg/kg (rat) |
|------|------|--------------------|

|        |      |                       |
|--------|------|-----------------------|
| Dermal | LD50 | >5,000 mg/kg (rabbit) |
|--------|------|-----------------------|

**1559-34-8 3,6,9,12-Tetraoxahexadecan-1-ol**

|      |      |                               |
|------|------|-------------------------------|
| Oral | LD50 | >2,000 mg/kg (rat) (OECD 401) |
|------|------|-------------------------------|

**110-97-4 1,1'-Iminodipropyl-2-ol**

|      |      |                               |
|------|------|-------------------------------|
| Oral | LD50 | >2,000 mg/kg (rat) (OECD 401) |
|------|------|-------------------------------|

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Dermal LD50 &gt;5,000 mg/kg (rabbit)

**Primary irritant effect:****Skin corrosion or irritation** Based on available data, the classification criteria are not met.**Serious eye damage or eye irritation** Based on available data, the classification criteria are not met.**Respiratory / skin sensitization** Based on available data, the classification criteria are not met.**Additional toxicological information:****CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)****Germ cell mutagenicity** Based on available data, the classification criteria are not met.**Carcinogenicity** Based on available data, the classification criteria are not met.**Reproductive toxicity** Suspected of damaging fertility or the unborn child.**Specific target organ toxicity (STOT) – single exposure**

Based on available data, the classification criteria are not met.

**Specific target organ toxicity (STOT) – repeated exposure**

Based on available data, the classification criteria are not met.

**Aspiration hazard** Based on available data, the classification criteria are not met.

## 12 Ecological information

**Toxicity****Aquatic toxicity:**

|      |                                      |
|------|--------------------------------------|
| EC50 | 6.25 mg/l (bacteria)                 |
|      | 250-350 mg/l (fish) (DIN 38412 96 h) |

**30989-05-0 Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate**

|      |                            |
|------|----------------------------|
| EC50 | >100 mg/l (algae) (72 h)   |
|      | >100 mg/l (daphnia) (48 h) |
| LC50 | >100 mg/L (fish) (96 h)    |

**Reaction mass of 2-(2-(2-butoxyethoxy)ethoxy)ethanol and 3,6,9,12-tetraoxahexadecan-1-ol**

|      |                                   |
|------|-----------------------------------|
| EC50 | >100 mg/l (algae)                 |
| LC50 | >100 mg/L (daphnia)               |
|      | >100 mg/L (fish) (DIN 38412 96 h) |

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

|      |                     |
|------|---------------------|
| EC50 | >100 mg/l (algae)   |
| LC50 | >100 mg/L (daphnia) |
|      | >100 mg/L (fish)    |

**111-46-6 2,2'-oxybisethanol**

|      |                                      |
|------|--------------------------------------|
| EC50 | >100 mg/l (algae)                    |
|      | >100 mg/l (daphnia) (DIN 38412 T.11) |
| LC50 | >100 mg/L (fish) (96 h)              |

**1559-34-8 3,6,9,12-Tetraoxahexadecan-1-ol**

|      |                                     |
|------|-------------------------------------|
| EC50 | >100 mg/l (algae) (OECD 201 72 h)   |
|      | >100 mg/l (daphnia) (OECD 202 48 h) |

**110-97-4 1,1'-Iminodipropyl-2-ol**

|               |                                      |
|---------------|--------------------------------------|
| EC50 (static) | >100 mg/l (algae) (72 h)             |
|               | >100 mg/l (daphnia) (92/69/EWG 48 h) |
| LC50 (static) | >100 mg/L (fish) (OECD 203 96 h)     |

**Persistence and degradability** No further relevant information available.

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**Other information:** The product is easily biodegradable.

**Behaviour in environmental systems:**
**Bioaccumulative potential** No further relevant information available.

**Mobility in soil** No further relevant information available.

**Additional ecological information:**
**General notes:**

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

Do not allow product to reach ground water, water course or sewage system.

**Results of PBT and vPvB assessment**
**PBT:** Not applicable.

**vPvB:** Not applicable.

**Other adverse effects** No further relevant information available.

## 13 Disposal information

### Waste treatment methods

Disposal should be based on the relevant state and local laws and regulations, the disposal process should avoid pollution of the environment.

### Recommendation

After prior treatment product has to be disposed of in an incinerator for hazardous waste adhering to the regulations pertaining to the disposal of particularly hazardous waste.

### Uncleaned packaging:

#### Recommendation:

Packagings that may not be cleansed are to be disposed of in the same manner as the product.

## 14 Transportation information

|   |                 |
|---|-----------------|
| <b>UN-Number</b><br><b>ADR, IMDG, IATA</b>  | Void            |
| <b>UN proper shipping name</b><br><b>ADR, IMDG, IATA</b>                            | Void            |
| <b>Transport hazard class(es)</b><br><b>ADR, ADN, IMDG, IATA</b><br><b>Class</b>    | Void            |
| <b>Packing group</b><br><b>ADR, IMDG, IATA</b>                                      | Void            |
| <b>Environmental hazards:</b>   | Not applicable. |
| <b>Special precautions for user</b>   | Not applicable. |
| <b>Transport in bulk according to Annex II of</b><br><b>Marpol and the IBC Code</b> | Not applicable. |
| <b>UN "Model Regulation":</b>   | Void            |

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## 15 Regulatory information

**Safety, health and environmental regulations/legislation specific for the substance or mixture**

### EHS reference list

|          |                                     |
|----------|-------------------------------------|
| 143-22-6 | 2-[2-(2-butoxyethoxy)ethoxy]ethanol |
| 111-46-6 | 2,2'-oxybisethanol                  |
| 110-97-4 | 1,1'-Iminodipropyl-2-ol             |

### National regulations:

### Information about limitation of use:

Employment restrictions concerning pregnant and lactating women must be observed.

**Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship. It is the sole responsibility of the importer or distributor to identify and comply with all legal requirements necessary for the lawful placing of chemical products on the market in the respective target countries.

**Recommended restriction of use** For industrial or professional purposes only.

### Department issuing SDS:

Hazardous Substances Management Aftermarket  
ate.sicherheit@aumovio.com

### Abbreviations and acronyms:

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity - oral - Category 4

Eye Dam. 1: Serious eye damage or eye irritation - Category 1

Eye Irrit. 2: Serious eye damage or eye irritation - Category 2

Repr. 2: Reproductive toxicity - Category 2

**\* Data compared to the previous version altered.**

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