

## Material Safety Data Sheet

Print Date: 03/04/2011

Revision Date : 03/04/2011

Version : 5.2

Trade name: **Original ATE Brake Fluid TYP 200 (DOT4)**

### SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Original ATE Brake Fluid TYP 200 (DOT4)  
MSDS Number : 888100003547  
Product Use Description : Hydraulic fluid  
Company : **Continental Aftermarket GmbH**  
**Guerickestr. 7**  
**60488 Frankfurt a. M.**  
**Germany**  
Telephone : + 49 69 76 03 1  
Telefax : + 49 69 76 10 61  
Contact person : Central Environment & Safety , Central Laboratory  
Emergency telephone number : + 49 61 32 84 46 3

### SECTION 2. HAZARDS IDENTIFICATION

#### Emergency Overview

**Regulatory status** : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Signal Word : WARNING  
Form : liquid  
Odour : characteristic  
Odour - Control parameters : no data available  
Hazard Summary : Irritant

#### Potential Health Effects

Eyes : Causes eye irritation.  
Skin : May cause skin irritation.  
Target Organs : Eyes  
Skin

Carcinogenicity:

ACGIH : No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

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- |            |                                                                                                                                                           |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| NTP        | : No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.                 |
| IARC       | : No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. |
| OSHA       | : No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.             |
| CA Prop 65 | : This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.                |
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### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No.	Weight percent
2-(2-(2-Methoxyethoxy)ethoxy)ethanol	112-35-6	>= 5 - < 7
2,2'-(Octylimino)bisethanol	15520-05-5	>= 3 - < 5
2,2'-oxybisethanol	111-46-6	>= 3 - < 5

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### SECTION 4. FIRST AID MEASURES

- |                |                                                                                                                                                                                                          |
|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| General advice | : Never give anything by mouth to an unconscious person. In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Remove from exposure, lie down. |
| Inhalation     | : Move to fresh air in case of accidental inhalation of vapours or decomposition products. Keep patient warm and at rest. If symptoms persist, call a physician.                                         |
| Skin contact   | : Wash off with soap and water.                                                                                                                                                                          |
| Eye contact    | : In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.                                                                                                      |
| Ingestion      | : If swallowed, seek medical advice immediately and show this container or label. If a person vomits when lying on his back, place him in the recovery position.                                         |

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### SECTION 5. FIRE-FIGHTING MEASURES

- Form : liquid
- Flash point : > 130 °C (> 266 °F)  
Method: ISO 2592
- Ignition temperature : > 200 °C (> 392 °F)  
Method: DIN 51794
- Lower explosion limit : Note: not determined
- Upper explosion limit : Note: not determined
- Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- Extinguishing media which shall not be used for safety reasons : High volume water jet
- Special protective equipment for fire-fighters : Use personal protective equipment.  
Wear self-contained breathing apparatus and protective suit.  
Complete suit protecting against chemicals
- Further information : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.  
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.  
Standard procedure for chemical fires.

### SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions : Refer to protective measures listed in sections 7 and 8.  
Ventilate the area.  
Avoid contact with skin, eyes and clothing.  
Avoid inhalation of vapour or mist.
- Environmental precautions : Do not flush into surface water or sanitary sewer system.
- Methods for cleaning up : Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations.

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### SECTION 7. HANDLING AND STORAGE

#### Handling

- Handling : For personal protection see section 8.
- Advice on protection against fire and explosion : Normal measures for preventive fire protection.
- Dust explosion class : not applicable

#### Storage

- Requirements for storage areas and containers : Store in original container.  
Keep containers tightly closed in a dry, cool and well-ventilated place.
- Advice on common storage : Never allow product to get in contact with water during storage.  
Keep away from food, drink and animal feedingstuffs.  
Keep away from oxidising agents, strongly acid or alkaline materials and amines.
- Other data : No decomposition if stored and applied as directed.

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Exposure Guidelines

Components	CAS-No.	List	Type:	Value	Update
2,2'-oxybisethanol	111-46-6	US WEEL	TWA	10 mg/m3	2008-01-01

- Engineering measures : Provide adequate ventilation.
- Eye protection : In case of splash hazard, please wear protective goggles.
- Hand protection : Choose gloves to protect hands against chemicals depending on the concentration and quantity of the hazardous substance and specific to place of work.  
For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer.

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- Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.  
Respirator with filter type A  
Respirator with a vapour filter (EN 141)
- Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.  
Please thoroughly clean and care for the skin after finishing work.  
Wash contaminated clothing before re-use.  
When using do not eat, drink or smoke.
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### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Form : liquid
- Odour : characteristic
- Flash point : > 130 °C (> 266 °F)  
Method: ISO 2592
- Ignition temperature : > 200 °C (> 392 °F)  
Method: DIN 51794
- Thermal decomposition : > 360 °C (> 680 °F)
- Lower explosion limit : not determined
- Upper explosion limit : not determined
- pH : 7 - 8  
at 20 °C (68 °F)
- Boiling point/boiling range : > 280 °C (> 536 °F)  
at 1,013 mbar
- Vapour pressure : < 0.1 mbar  
at 20 °C (68 °F)
- Density : 1.07 - 1.09 g/cm<sup>3</sup>  
at 20 °C (68 °F) Method: DIN 51757
- Bulk density : not applicable
- Water solubility : 350 g/l
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at 20 °C (68 °F)

Partition coefficient: n-  
octanol/water : no data available

Viscosity, kinematic : 17 - 18 mm<sup>2</sup>/s  
at 20 °C (68 °F)

Volatile organic compounds  
(VOC) content : 5 %

### SECTION 10. STABILITY AND REACTIVITY

Conditions to avoid : no data available

Materials to avoid : Strong acids and oxidizing agents

Hazardous decomposition  
products : nitrogen oxides (NO<sub>x</sub>)  
Carbon dioxide (CO<sub>2</sub>)  
Carbon monoxide

Thermal decomposition : > 360 °C

Hazardous reactions : Note: No decomposition if used as directed.

### SECTION 11. TOXICOLOGICAL INFORMATION

Acute oral toxicity : no data available

Acute dermal toxicity : no data available

Acute inhalation toxicity : no data available

Skin irritation : no data available

Eye irritation : no data available

Sensitisation : no data available

Carcinogenicity : No data is available on the product itself.

Reproductive toxicity : No data is available on the product itself.

Teratogenicity : No data is available on the product itself.

**Component:**

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2-(2-(2-Methoxyethoxy)ethoxy)ethanol

112-35-6

Acute oral toxicity: LD50 rat  
Dose: 11,850 mg/kg

Acute dermal toxicity: LD50 rabbit  
Dose: 7,448 mg/kg

Skin irritation: Classification: Irritating to skin.  
Result: Mild skin irritation

Eye irritation: Classification: Irritating to eyes.  
Result: Mild eye irritation

2,2'-oxybisethanol

111-46-6

Acute oral toxicity: LD50 rat  
Dose: 12,565 mg/kg

Acute dermal toxicity: LD50 rabbit  
Dose: 11,890 mg/kg

### SECTION 12. ECOLOGICAL INFORMATION

Biodegradability : Result: Readily biodegradable.  
97 %

Physico-chemical  
removability : > 70 %  
readily eliminated

Bioaccumulation : no data available

Toxicity to fish : LC50  
Species: Leuciscus idus (Golden orfe)  
Dose: 250 - 350 mg/l  
Exposure time: 96 h

Toxicity to bacteria : EC50  
Species: Bacteria  
Dose: > 5,000 mg/l

Adsorbed organic bound  
halogens (AOX) : not included

Volatile organic compounds  
(VOC) content : 5 %

Additional ecological  
information : Contains no substances known to be hazardous to the  
environment or not degradable in waste water treatment plants.

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**Component:**

2,2'-oxybisethanol

111-46-6

Acute and prolonged toxicity for aquatic invertebrates:

EC50

Species: Daphnia magna (Water flea)

Dose: > 10,000 mg/l

Exposure time: 24 h

Toxicity to bacteria:

EC0

Species: Pseudomonas putida

Dose: 8,000 mg/l

Exposure time: 16 h

### SECTION 13. DISPOSAL CONSIDERATIONS

Adequate disposal : In accordance with local and national regulations.

### SECTION 14. TRANSPORT INFORMATION

**DOT 49 CFR**

Not dangerous goods

**TDGR**

Not dangerous goods

**ICAO / IATA-DGR**

Not dangerous goods

**IMDG-Code**

Not dangerous goods

### SECTION 15. REGULATORY INFORMATION

**OSHA Hazards** : Moderate skin irritant  
Severe eye irritant

**TSCA Status** : On TSCA Inventory

**DSL Status** : This product contains the following components listed on the Canadian NDSL list. All other components are on the Canadian



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DSL list.

2,2'-(Octylimino)bisethanol                      15520-05-5

**SARA 311/312 Hazards**                      : Acute Health Hazard

**SARA III**                      US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required

Components	CAS-No.
2-(2-(2-Methoxyethoxy)ethoxy)ethanol	112-35-6

**PENN RTK**                      US. Pennsylvania Worker and Community Right-to-Know Law (34 Pa. Code Chap. 301-323)

Components	CAS-No.
tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate	30989-05-0
2-(2-(2-Methoxyethoxy)ethoxy)ethanol	112-35-6
2,2'-(Octylimino)bisethanol	15520-05-5
2,2'-oxybisethanol	111-46-6

**NJ RTK**                      US. New Jersey Worker and Community Right-to-Know Act (New Jersey Statute Annotated Section 34:5A-5)

Components	CAS-No.
tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate	30989-05-0
2-(2-(2-Methoxyethoxy)ethoxy)ethanol	112-35-6
2,2'-(Octylimino)bisethanol	15520-05-5
2,2'-oxybisethanol	111-46-6

**California Prop. 65**                      : This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

### SECTION 16. OTHER INFORMATION

**Further information**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Prepared by                      : TechniData BCS GmbH

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03/04/2011

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