

Material Safety Data Sheet

Print Date: 04/08/2010

Revision Date : 04/08/2010

Version : 4.1

Trade name: **Original ATE Brake Fluid SL (DOT4)**

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Original ATE Brake Fluid SL (DOT4)
MSDS Number : 888100003545
Product Use Description : Hydraulic fluid
Company : **Continental Teves AG & Co. oHG**
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 : + 49 61 32 84 46 3

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

Regulatory status : This product, material or substance is a WHMIS controlled product per Sections 33 - 66, Part IV of the CPR.

Signal Word : DANGER
Form : liquid
Odour : characteristic
Odour - Control parameters : no data available
Hazard Summary : Corrosive

Potential Health Effects

Eyes : Causes eye burns.
Skin : Causes skin irritation.
Ingestion : May be harmful if swallowed.
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	>= 15 - < 20
2,2'-(Ethylenedioxy)diethanol	112-27-6	>= 15 - < 20
Poly(oxy-1,2-ethanediyl), alpha-butyl-omega-hydroxy	9004-77-7	>= 12.5 - < 15
3,6,9-Trioxaundecane-1,11-diol	112-60-7	>= 10 - < 12.5
2-(2-butoxyethoxy)ethanol	112-34-5	>= 2 - < 3
di-isopropanolamine	110-97-4	>= 1 - < 1.5

SECTION 4. FIRST AID MEASURES

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|----------------|--|
| 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 : > 125 °C (> 257 °F)
Method: ISO 2719
- Ignition temperature : > 200 °C (> 392 °F)
Method: DIN 51794
- Lower explosion limit : 1.5 %(V)
- Upper explosion limit : Note: not determined
- Flammability : not auto-flammable
- 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

- Contains no substances with occupational exposure limit values.
- 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 : > 125 °C (> 257 °F)
Method: ISO 2719
- Ignition temperature : > 200 °C (> 392 °F)
Method: DIN 51794
- Thermal decomposition : 360 °C (680 °F)
- Lower explosion limit : 1.5 %(V)
- Upper explosion limit : not determined
- Flammability : not auto-flammable
- pH : 7.5 - 9
at 20 °C (68 °F)
- Boiling point/boiling range : > 260 °C(> 500 °F)
at 1,013 mbar
- Vapour pressure : < 1 mbar
at 20 °C (68 °F)
- Relative vapour density : not determined
- Density : 1.055 - 1.075 g/cm³
at 20 °C (68 °F)Method: DIN 51757
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Bulk density : not applicable

Water solubility : at 20 °C (68 °F)
completely miscible

Volatile organic compounds (VOC) content : 20.3 %

Volatile organic compounds (VOC) content : 19.2 %

SECTION 10. STABILITY AND REACTIVITY

Conditions to avoid : no data available

Materials to avoid : Strong acids and oxidizing agents

Hazardous decomposition products : Carbon dioxide (CO₂)
Carbon monoxide
nitrogen oxides (NO_x)

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'-(Ethylenedioxy)diethanol

112-27-6

Acute oral toxicity: LD50 rat
Dose: 17,000 mg/kg

Acute dermal toxicity: LD50 rat
Dose: > 5,000 mg/kg

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

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

Poly(oxy-1,2-ethanediyl), alpha-butyl-omega-hydroxy

9004-77-7

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

Eye irritation: Classification: Irritating to eyes.
Result: Risk of serious damage to eyes.

3,6,9-Trioxaundecane-1,11-diol

112-60-7

Acute oral toxicity: LD50 rat
Dose: 29,000 mg/kg

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

2-(2-butoxyethoxy)ethanol

112-34-5

Acute oral toxicity: LD50 rat
Dose: 5,660 mg/kg

Acute dermal toxicity: LD50 rabbit
Dose: 4,120 mg/kg

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

di-isopropanolamine

110-97-4

Acute oral toxicity: LD50 rat
Dose: 4,765 mg/kg

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

Eye irritation: Classification: Risk of serious damage to eyes.
Result: Blindness

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SECTION 12. ECOLOGICAL INFORMATION

- Biodegradability : Result: Readily biodegradable.
90 %

- 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

- Adsorbed organic bound halogens (AOX) : not included
- Volatile organic compounds (VOC) content : 20.3 %
- Volatile organic compounds (VOC) content : 19.2 %
- Additional ecological information : Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants.

Component:

2-(2-butoxyethoxy)ethanol

112-34-5

Toxicity to fish:

LC0
Species: Leuciscus idus (Golden orfe)
Dose: > 1,000 mg/l
Exposure time: 48 h

Acute and prolonged toxicity for aquatic invertebrates:

EC50
Species: Daphnia magna (Water flea)
Dose: > 100 mg/l
Exposure time: 48 h

Toxicity to algae:

IC50
Species: Desmodesmus subspicatus (green algae)
Dose: > 100 mg/l
Exposure time: 24 h

Toxicity to bacteria:

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EC10
Species: Pseudomonas putida
Dose: 1,170 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

TSCA Status : On TSCA Inventory

DSL Status : All components of this product are on the Canadian DSL list.

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.

WHMIS Classification : D2B Toxic Material Causing Other Toxic Effects
E Corrosive Material
Severe skin irritant
Corrosive to eyes

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This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

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.

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