

Material Safety Data Sheet

Print Date: 01/11/2006

Revision Date : 12/16/2005

Version : 1.0

Trade name: **Original ATE Brake Fluid DOT 3 G (yellow); 3m(DOT3)**

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Original ATE Brake Fluid DOT 3 G (yellow); 3m(DOT3)
MSDS Number : 888100003543
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 number : + 49 61 32 84 46 3

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

Regulatory status : While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of the product.

Form : liquid
Odour : characteristic
Odour - Control parameters : no data available

Potential Health Effects

Carcinogenicity:

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.

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

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No.	Weight %
Poly(oxy-1,2-ethanediyl),.alpha.-butyl-.omega.-hydroxy	9004-77-7	>= 30 - < 60
2,2'-(Ethylenedioxy)diethanol	112-27-6	>= 10 - < 30
2-(2-(2-Methoxyethoxy)ethoxy)ethanol	112-35-6	>= 10 - < 30
3,6,9-Trioxaundecane-1,11-diol	112-60-7	>= 10 - < 30
2-(2-methoxyethoxy)ethanol; diethylene glycol monomethyl ether	111-77-3	>= 5 - < 10

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.

SECTION 5. FIRE-FIGHTING MEASURES

Form : liquid

Flash point : > 118 °C (> 244 °F)
Method: ISO 2592

Ignition temperature : 230 °C (446 °F)
Method: DIN 51794

Lower explosion limit : 1.5 %(V)

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- Upper explosion limit : Note: not determined

- Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

- Extinguishing media which must not be used for safety reasons : high volume water jet

- Specific hazards during fire fighting : Fire will produce dense black smoke containing hazardous combustion products (see heading 10).

- 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 : Wipe up with absorbent material (e.g. cloth, fleece).

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

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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 feeding stuffs.
Keep away from oxidising agents, strongly acid or alkaline materials and amines.
- Storage temperature : 5 - 30 °C (41 - 86 °F)
- 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.

- Protective measures : Avoid contact with skin, eyes and clothing.
Do not breathe vapours or spray mist.
- Engineering measures : Provide adequate ventilation.
- Eye protection : In case of splash hazard, 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.
- Respiratory protection : In case of insufficient ventilation wear suitable respiratory equipment.
respirator with A filter
Respirator with a vapour filter (EN 141)
- Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.

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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.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Form	: liquid
Odour	: characteristic
Flash point	: > 118 °C (> 244 °F) Method: ISO 2592
Ignition temperature	: 230 °C (446 °F) Method: DIN 51794
Thermal decomposition	: > 360 °C (> 680 °F)
Lower explosion limit	: 1.5 %(V)
Upper explosion limit	: not determined
pH	: 7.5 - 10 at 20 °C (68 °F)
Boiling point/range	: < 245 °C (< 473 °F)
Vapour pressure	: < 10 mbar at 20 °C (68 °F)
Relative vapour density	: not applicable
Density	: 1.04 - 1.07 g/cm ³ Method: DIN 51757
Bulk density	: not applicable
Water solubility	: at 20 °C (68 °F) in all proportions
Partition coefficient (n-octanol/water)	: not applicable
Viscosity, kinematic	: 14.5 - 17 mm ² /s

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at 20 °C (68 °F)

VOC : 38.9 %

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 (CO), oxides of nitrogen (NO_x), dense black smoke.
- Thermal decomposition : > 360 °C
- Hazardous reactions : Note: No decomposition if used as directed.

SECTION 11. TOXICOLOGICAL INFORMATION

- Acute oral toxicity : LD50 rat
Dose: > 2,000 mg/kg
Effects due to ingestion may include:
vomiting
- Acute dermal toxicity : no data available
- Acute inhalation toxicity : no data available
- Skin irritation : Result: No skin irritation
May cause skin irritation in susceptible persons.
- Eye irritation : Result: No eye irritation
The liquid splashed in the eyes may cause irritation and reversible damage.
- Carcinogenicity : No data is available on the product itself.
- Toxicity to reproduction : No data is available on the product itself.
- Teratogenicity : No data is available on the product itself.

Component:

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.

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Result: Risk of serious damage to eyes.

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

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

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-methoxyethoxy)ethanol;
diethylene glycol monomethyl
ether

111-77-3

Acute oral toxicity: LD50 rat
Dose: ca. 6,500 mg/kg

Acute dermal toxicity: LD50 rat
Dose: ca. 6,450 mg/kg

Acute inhalation toxicity: LC50 rat
Dose: > 200 mg/l
Exposure time: 1 h

Skin irritation: No skin irritation
Eye irritation: No eye irritation

SECTION 12. ECOLOGICAL INFORMATION

Biodegradability : Result: Readily biodegradable.
90 %

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Physico-chemical removability	:	> 70 % readily eliminated
Bioaccumulation	:	no data available
Toxicity to fish	:	LC50 Species: Leuciscus idus (Golden orfe) Dose: 596 mg/l Exposure time: 96 h
Adsorbed organic bound halogens (AOX)	:	not included
Volatile organic compounds (VOC) content	:	38.9 %
Additional ecological information	:	Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants.

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

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Not dangerous goods

SECTION 15. REGULATORY INFORMATION

OSHA Hazards : No OSHA Hazards

TSCA Status : On TSCA Inventory

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

SARA 313 Components : 2-(2-(2-Methoxyethoxy)ethoxy)ethanol 112-35-6
 2-(2-methoxyethoxy)ethanol; 111-77-3
 diethylene glycol monomethyl ether

SARA 311/312 Hazards : No SARA Hazards

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
2-(2-methoxyethoxy)ethanol; diethylene glycol monomethyl ether	111-77-3

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

Components	CAS-No.
Poly(oxy-1,2-ethanediyl), .alpha.-methyl-.omega.-methoxy-	24991-55-7
1-(2-Butoxy-1-methylethoxy)propan-2-ol	29911-28-2
2-(2-methoxyethoxy)ethanol; diethylene glycol monomethyl ether	111-77-3
3,6,9,12-Tetraoxotridecanol	23783-42-8
3,6,9-Trixaundecane-1,11-diol	112-60-7
2,2'-oxybisethanol diethylene glycol	111-46-6
2,2'-(Ethylenedioxy)diethanol	112-27-6
2-(2-(2-Methoxyethoxy)ethoxy)ethanol	112-35-6
Poly(oxy-1,2-ethanediyl),.alpha.-butyl-.omega.-hydroxy	9004-77-7

MASS RTK US. Massachusetts Commonwealth's Right-to-Know Law (Appendix A to 105 Code of Massachusetts Regulations Section 670.000)

Components	CAS-No.
2-(2-methoxyethoxy)ethanol; diethylene glycol monomethyl ether	111-77-3

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NJ RTK

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

<u>Components</u>	<u>CAS-No.</u>
2-(2-methoxyethoxy)ethanol; diethylene glycol monomethyl ether	111-77-3
3,6,9-Trixaundecane-1,11-diol	112-60-7
2,2'-oxybisethanol diethylene glycol	111-46-6
2,2'-(Ethylenedioxy)diethanol	112-27-6
2-(2-(2-Methoxyethoxy)ethoxy)ethanol	112-35-6
Poly(oxy-1,2-ethanediyl),.alpha.-butyl-.omega.-hydroxy	9004-77-7

California Prop. 65

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

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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