

Safety Data Sheet 1907/2006/EC - GB

Revision: 03.02.2009

Publication No.
XRB157F(EN)

1 Identification of the substance / preparation and of the company

Product: DOT 3

Registration number: not applicable

Use: Brake Fluid

Identified use: none

Method of operation: See product information.

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2 Hazards identification

Physico-chemical hazards: See chapter 10.

Human health dangers: Frequent persistent contact with the skin can cause skin irritation.
If swallowed or in the event of vomiting, risk of product entering the lungs.

Environmental hazards: See chapter 12.

Other hazards: No particular hazards known.

Hazard symbols:



Irritant

R-phrases: R 36: Irritating to eyes.

3 Composition / Information on ingredients

2-(2-Butoxyethoxy)ethanol	1 - < 20%
Xi, R36 CAS: 112-34-5, EINECS/ELINCS: 203-961-6, EU-INDEX: 603-096-00-8, ECBnr:	
2-2'-Oxydiethanol	1 - < 10%
Xn, R22 CAS: 111-46-6, EINECS/ELINCS: 203-872-2, EU-INDEX: 603-140-00-6, ECBnr:	
2-(2-(2-Butoxyethoxy)ethoxy)ethanol	20 - < 40%
Xi, R41 CAS: 143-22-6, EINECS/ELINCS: 205-592-6, EU-INDEX: 603-183-00-0, ECBnr:	
2-(2-Ethoxyethoxy)-ethanol	1 - < 20%
CAS: 111-90-0, EINECS/ELINCS: 203-919-7, EU-INDEX: , ECBnr:	
2-(2-Methoxyethoxy)ethanol	1 - < 5%
Xn, R63 CAS: 111-77-3, EINECS/ELINCS: 203-906-6, EU-INDEX: 603-107-00-6, ECBnr:	
2,2'-(Ethylendioxy)diethanole	1 - < 20%
CAS: 112-27-6, EINECS/ELINCS: 203-953-2, EU-INDEX: , ECBnr:	
(2-methoxymethylethoxy)propanol	1 - < 15%
CAS: 34590-94-8, EINECS/ELINCS: 252-104-2, EU-INDEX: , ECBnr:	

Comment on component parts: For the wording of the listed risk phrases refer to section 16.

4 First aid measures

General information: Change soaked clothing.

Inhalation: Ensure supply of fresh air.
In the event of symptoms seek for medical treatment.

Skin contact: When in contact with the skin, clean with soap and water.
Consult a doctor if skin irritation persists.

Eye contact: In case of contact with eyes rinse thoroughly with plenty of water and seek medical advice.

Ingestion: Supply with medical care.
Do not induce vomiting.
Rinse out mouth and give plenty of water to drink.

Advice to doctor: If swallowed or in the event of vomiting, risk of product entering the lungs.

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5 Fire-fighting measures

Suitable extinguishing media: Foam, dry powder, water spray jet, carbon dioxide.

Extinguishing media that must not be used:

Full water jet.

Special exposure hazards arising from the substance or preparation itself or combustion products:

Unknown risk of formation of toxic pyrolysis products.

Special protective equipment for firefighters:

Do not inhale explosion and/or combustion gases.

Use self-contained breathing apparatus.

Additional information:

Cool containers at risk with water spray jet.

Fire residues and contaminated firefighting water must be disposed of in accordance within the local regulations.

6 Accidental release measures

Personal precautions:

Keep away from all sources of ignition.

High risk of slipping due to leakage/spillage of product.

Environmental precautions:

Prevent spread over a wide area (e.g. by containment or oil barriers).

Do not discharge into the drains/surface waters/groundwater.

Methods for cleaning up:

Pick up with absorbent material (e.g. sand, sawdust, universal absorbent, diatomaceous earth).

Dispose of absorbed material in accordance within the regulations.

7 Handling and storage

Advice on safe handling:

Use only in well-ventilated areas.

Avoid spilling or spraying in enclosed areas.

Users are referred to the Specification SAE J1707 "Service Maintenance of Brake Fluids".

Advice on protection against fire and explosion:

Keep away from all sources of ignition.

Requirements for storage rooms and vessels:

Prevent penetration into the ground.

Keep only in original container.

Advice on storage compatibility:

Do not store together with oxidizing agents.

Further information on storage conditions:

Keep container tightly closed.

Keep container in a well-ventilated place.

Store in a dry place.

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8 Exposure controls / personal protection

Additional advice on system design:

Ensure adequate ventilation on workstation.

Ingredients with occupational exposure limits to be monitored:

(2-methoxymethylethoxy)propanol, 50ppm*, 308mg/m ³ , General remarks: IOELV, SK 72	1 - < 15%
2-(2-Butoxyethoxy)ethanol, 10ppm*, 67,5mg/m ³ , General remarks: EU	1 - < 20%
2-2'-Oxydiethanol, 23ppm*, 101mg/m ³ ,	1 - < 10%
2-(2-Methoxyethoxy)ethanol, 10ppm*, 50,1mg/m ³ , General remarks: EU, H	1 - < 5%

* WEL: Workplace exposure limit

Respiratory protection: Breathing apparatus in the event of high concentrations.

Short term: filter apparatus, filter A.

Hand protection: Butyl rubber, >120 min (EN 374).

Eye protection: Safety glasses.

Skin protection: not applicable

General protective measures: Do not inhale gases/vapours/aerosols.

Avoid contact with eyes and skin.

Hygiene measures: Do not eat, drink, smoke or take drugs at work.

Wash hands before breaks and after work.

Use barrier skin cream.

Delimitation and monitoring of the environmental exposition:

not determinated

9 Physical and chemical properties

Form: liquid

Color: clear

colourless

amber colour

Odor: perceptible

pH-value: 7-11,5 (SAE J 1703)

pH-value [1%]: not determinated

Boiling point [°C]: > 205 (SAE J 1703)

Flash point [°C]: >80 (IP35)

Flammability [°C]: not determinated

Lower explosion limit: not determinated

Upper explosion limit: not determinated

Oxidizing properties: no

Vapour pressure [kPa]: < 2 mbar (20°C)

Density [g/ml]: 1,01 - 1,07 (DIN 51757)

Density at [°C]: 20

Bulk density [kg/m³]: not applicable

Solubility in water: partially miscible

Partition coefficient [n-octanol/water]:

< 2 (OECD 117)

Viscosity: 5 - 10 cSt (20°C) (ASTM D 445)

Relative vapour density determined in air:

not determinated

Evaporation speed: not determinated

Melting point [°C]: <-50 (SAE J 1703)

Autoignition temperature [°C]: >300 (ASTM D 286)

Decomposition temperature: not applicable

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10 Stability and reactivity

Hazardous reactions: Reactions with strong oxidizing agents.
Glycol Ethers can form peroxide on storage – do not distil to dryness.

Hazardous decomposition products:
No hazardous decomposition products known.

11 Toxicological information

Acute oral toxicity: LD50: > 5000 mg/kgRat
Acute dermal toxicity: LD50: >2000 mg/kgRat
Acute inhalational toxicity: not determined
Irritant effect on eye: Irritant (rabbit).
Irritant effect on skin: Non-irritant (rabbit).
Sensitization: Non-sensitizing.
Subacute toxicity: not determined
Chronic toxicity: not determined
Mutagenicity: not determined
Reproduction toxicity: not determined
Carcinogenicity: not determined
Experiences made in practice: none
General remarks: The toxicological data are those of the pure product.

12 Ecological information

Fish toxicity: LC50(96h): > 100 mg/l Oncorhynchus Mykiss
Daphnia toxicity: not determined
Behaviour in environment compartments:
not determined
Behaviour in sewage plant: not applicable
Bacteria toxicity: not determined
Biological degradability: OECD 302B (100% 21d)The product is readily biodegradable.
COD: not determined
BOD 5: not determined
AOX-advice: No dangerous components.
2006/11/EC: not applicable
General information: Do not allow to enter soil, waterways or waste water.

13 Disposal considerations

Product: Dispose of as hazardous waste.
Disposal in an incineration plant in accordance with the regulations of the local authorities.
Contaminated packaging: Uncontaminated packaging may be taken for recycling.
Packaging that cannot be cleaned should be disposed of as for product.
Waste no. (recommended): 160113*

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14 Transport information

Classification according to ADR: NO DANGEROUS GOODS

- **Classification Code:**

- **Label:**

- **ADR LQ**

- **ADR 1.1.3.6 (8.6):** Transport category (tunnel restriction code): -

Classification according to IMDG: NOT CLASSIFIED AS "DANGEROUS GOODS"

- **EMS:**

- **Label:**

- **IMDG Limited Quantities:**

Classification according to IATA: NOT CLASSIFIED AS "DANGEROUS GOODS"

- **Label:**

15 Regulatory information

Exposure scenario: not determined

Chemical safety report: not determined

Labelling: The product is classified and labelled in accordance within EC-directives.

Hazard symbols:



Irritant

R-phrases: R 36: Irritating to eyes.

S-phrases: S 2: Keep out of the reach of children.

S 26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 46: If swallowed, seek medical advice immediately and show this container or label.

Special labelling: not applicable

Authorisation, TITEL VII: not determined

Restrictions, TITEL VIII: not determined

EEC-REGULATIONS: 1967/548 (2008/58, 30. ATP/ 31. ATP); 1991/689 (2001/118); 1999/13; 2004/42; 648/2004; 1907/2006.

TRANSPORT-REGULATIONS: DOT-Classification, ADR (2009); IMDG-Code (34. Amdt.); IATA-DGR (2009).

NATIONAL REGULATIONS EH40/2005 Workplace exposure limits with amendments October 2007.

16 Other informations

R-phrases (Chapter 03): R 63: Possible risk of harm to the unborn child.

R 41: Risk of serious damage to eyes.

R 36: Irritating to eyes.

R 22: Harmful if swallowed.

Observe employment restrictions for people:

yes

VOC (1999/13/CE): not determined

Customs Tariff: not determined

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