



SAFETY DATA SHEET

Conforme to réglementation 453/2010 - REACH

KENNOL BRAKE FLUID DOT 5.1

Replace version xx/xx/xxxx

FDS :957-165630-170316

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SECTION 1 - IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

- Product name: **KENNOL BRAKE FLUID DOT 5.1**

1.2. Relevant identified uses of the substance or mixture and uses advised against

- Commercial use: Brake Fluid (for more details, please report back to the technical manual)

1.3. Details of the supplier of the Safety Data Sheet

- Fournisseur **ACCOR LUBRIFIANTS SA**

Adresse : 8 Rue du Mans - BP 30406 - 49304 CHOLET CEDEX

Téléphone : 02.41.75.26.70

Télécopie : 02.41.62.67.02

Contact e-mail : emilie.auribault@accor-lubrifiants.com

1.4. Emergency telephone number

In France, the valid emergency number is the ORFILA (INRS) number: + 33 (0)1 45 42 59 59. This telephone number gives contacts of all French poison centers ("centres anti-poison et de toxicovigilance"). These information centers provide you with free medical advice (except the cost of call), 24 hours a day, 7 days a week. For the information related to other countries, see the web page dedicated to national helpdesks of the ECHA website (European Chemicals Agency) that lists all the information by country:

<http://echa.europa.eu/web/guest/support/helpdesks/national-helpdesks/list-of-national-helpdesks>

SECTION 2 - HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification CE 1272/2008 (CLP)

This product does not meet these classification requirements.



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2.2. Label elements

Label Conforms to Norm (CE) N° 1272/2008 (CLP) :

Hazard pictogram(s):

None

Signal word(s):

None

Hazard statement(s):

None

Precautionary statement(s) – Prevention

P102 – Keep out of reach of children

Precautionary statement(s) - Intervention

P305/P351/P338 –If in eyes rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

P337/313 –If eye irritation persists, get medical advice.

P301/311 –If swallowed, call a poison centre or doctor/physician and have container or label at hand.

Precautionary advice- Storage

None

Precautionary advice - Elimination

P501 - Dispose of contents/container to a hazardous waste collection center, as per national regulation

2.3. Other hazards

Product is not classified as flammable or combustible but will burn.

Product is not classified as PBT or vPvB according to Annex XIII.



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SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

3.2. Mixtures

- Chemical nature: Blend of polyglycol ethers, glycol ether esters and polyglycols with added corrosion and oxidation inhibitors.

- Hazardous ingredients:

COMPOSNENTS	Percentage (in weight)	CLP Classification (EC) No 1272/2008	NUMBERS INDEX CE CAS Registration
Butyltriglycol	<20	Eye Damage –Cat 1; H318	- 205-592-6 143-22-6 01-2119531322-53
Diéthylèneglycol	<10	Acute Oral Toxicity Cat 4 – H302. STOT-RE Cat 2 –H373.	- 203-872-2 111-46-6 01-2119457857-21
Méthylidiglycol	<3	Reproductive toxicity-Cat 2; H361d	- 203-906-6 111-77-3 01-2119475100-52
Butyldiglycol	<3	Eye Irritant –Cat 2 H 319	- 203-961-6 112-34-5 01-2119475104-44

The whole of the text of risk phrases and hazard statements of this section 3 appears in Section 16.

SECTION 4 - FIRST AID MEASURES

4.1. Description of first aid measures

If feeling unwell seriously or persistently, immediately seek medical attention



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General Advice

First Aid responders should pay attention to self-protection and use any recommended protective clothing – see section 8.

Inhalation

Remove victim to fresh air –and keep at rest. If recovery is not rapid, seek medical attention.

Skin contact

Remove contaminated clothing. Wash affected skin with soap and water. If irritation persists seek medical attention.

Eye contact

Flush eye with plenty of water for at least 10 minutes. If irritation persists seek medical attention.

Ingestion

Obtain medical advice immediately. If patient is fully conscious, wash out mouth with water and give plenty of water to drink. Never give anything by mouth to an unconscious person. Induce vomiting only under medical supervision.

4.2. Most important symptoms and effects, both acute and delayed

See section 11.

4.3. Indication of any immediate medical attention and special treatment needed

Medical personnel seeking to administer first aid are referred to the services of the Poisons Information Service, who can advise in such instances. There is no specific antidote and treatment of over exposure should be directed at control of symptoms and the patient's clinical condition.

SECTION 5 – FIRE FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media: Alcohol resistant foam, dry powder, carbon dioxide or water (fog or fine spray).

Unsuitable extinguishing media for safety reason: Water jets (although these may be used to cool adjacent containers).

5.2. Special hazards arising from the substance or mixture

No special risk – combustion products may contain harmful or irritant fumes. Containers may rupture from gas generation if exposed to fire.

5.3. Advice for firefighters



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Eye protection should be worn. Keep containers cool with water spray. In extreme conditions self-contained breathing apparatus and protective suit should be worn.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Prevent unnecessary personnel entering area of spillage. Avoid contact with eyes, skin, and clothing. When cleaning up large spills, appropriate protective clothing should be worn including eye protection and impervious gloves -see section 8 for details.

6.2. Environmental precautions

Prevent from entering drains, ditches or rivers. If this happens inform relevant authorities. Prevent gross contamination of soil.

6.3. Methods and material for containment and cleaning up

Contain spillage using sand earth or absorbent booms. Small spillages can be absorbed using rags or absorbent granules. Remove all material to a suitable container for subsequent disposal. Label Salvage Container appropriately. Flush contaminated area with plenty of water.

6.4. Reference to other sections

For personal protection see section 8. For disposal methods see section 13.

SECTION 7 - HANDLING AND STORAGE

7.1. Precautions for safe handling

Avoid any method of handling that generates mists or aerosols. Do not eat, drink or smoke when handling this product. Wash hands thoroughly after use.

7.2. Conditions for safe storage, including any incompatibilities

Suitable bulk storage vessels are mild/stainless steel tanks fitted with a dry air breathing system or tight head steel drums. Do not store in lined tanks or drums. Brake fluid absorbs water from the atmosphere - always keep containers tightly closed. Avoid contamination with any other substances and in particular with mineral oils which are incompatible

7.3. Specific end use(s)

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



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SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parameters

Occupational exposure limit values:

Mixture – No official figures available. Due to the low vapour pressure of the preparation, vapour is not generally a problem at ambient temperature.

Individual ingredients.

	Country	8 hours	15 min
Diethylene glycol	Australia	23 ppm / 101 mg/m ³	
	Austria	10 ppm / 44 mg/m ³	40ppm / 176 mg/m ³
	Denmark	2.5 ppm / 11 mg/m ³	5ppm / 22 mg/m ³
	Germany	10 ppm / 44 mg/m ³	40 ppm / 176 mg/m ³
	Latvia	10 mg/m ³	
	New Zealand	23 ppm / 101 mg/m ³	
	Sweden	10 ppm / 45 mg/m ³	20ppm / 90 mg/m ³
	Switzerland	10 ppm / 44 mg/m ³	40ppm / 176 mg/m ³
	UK	23 ppm / 101 mg/m ³	
	Butyl diglycol	Austria	10 ppm / 67.5 mg/m ³
Belgium		10 ppm / 67.5 mg/m ³	15ppm / 101.2 mg/m ³
Denmark		100 mg/m ³	200 mg/m ³
EU		10 ppm / 67.5 mg/m ³	15ppm / 101.2 mg/m ³
France		10 ppm / 67.5 mg/m ³	15ppm / 101.2 mg/m ³
Germany		10 ppm / 67.5 mg/m ³	15ppm / 101.2 mg/m ³
Hungary		67.5 mg/m ³	101.2 mg/m ³
Italy		10 ppm / 67.5 mg/m ³	15ppm / 101.2 mg/m ³
Latvia		10 ppm / 67.5 mg/m ³	15ppm / 101.2 mg/m ³
Poland		67.5 mg/m ³	100 mg/m ³
Spain		10 ppm / 67.5 mg/m ³	15ppm / 101.2 mg/m ³
Sweden		15 ppm / 100 mg/m ³	30ppm / 200 mg/m ³
Switzerland		10 ppm / 67.5 mg/m ³	15ppm / 101.2 mg/m ³
The Netherlands		50 mg/m ³	100 mg/m ³
UK		10 ppm / 67.5 mg/m ³	15ppm / 101.2 mg/m ³



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Methyl diglycol	Austria	10 ppm /	50.1 mg/m ³
	Belgium	10 ppm /	50.1 mg/m ³
	Denmar	25 ppm	(provisional)
	k EU	10 ppm /	50.1 mg/m ³
	France	10 ppm /	50.1 mg/m ³
	Germany	10 ppm /	50.1 mg/m ³
	Hungary		50.1 mg/m ³
	Italy	10 ppm /	50.1 mg/m ³
	Latvia	20 ppm /	100 mg/m ³
	Poland		50.1 mg/m ³
	Spain	10 ppm /	50.2 mg/m ³
	The Netherlands		45 mg/m ³
	UK	10 ppm /	50.1 mg/m ³

8.2. Exposure controls

Employ good industrial hygiene practice as part of a control banding approach.

Appropriate engineering controls : Not necessary under normal conditions. If fluid is being heated or atomised, local exhaust ventilation with filter / scrubber is recommended.

Individual protection measures / personal protective equipment.

Respiratory Protection –Not needed under normal conditions. Self contained breathing apparatus or Organic vapour respirators (A-P2) may be used where product is being heated or atomised and engineering control measures are not practical.

Hand Protection -Wear chemically resistant impervious gloves (EN 374) to avoid prolonged or repeated contact. Butyl rubber, Natural rubber, Nitrile rubber and PVC are suitable materials. Because of great variety of types of gloves see manufacturer's figures for breakthrough times. In the case of prolonged contact a glove with a protection class of 6 (breakthrough time of >480 min) is recommended.

Eye Protection -Wear close-fitting goggles (EN 166) or face shield where there is a risk of splashing (acrylic or PVC preferred to polycarbonate which may be attacked by brake fluid). Eye baths should be provided at locations where accidental exposure may occur.

Skin Protection -Where significant exposure is possible wear impervious body covering. It is recommended that showers are provided at locations where accidental exposure may occur.

Environmental Exposure Controls

No special measures required.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

9.1. Appearance

Test method

Appearance

Clear liquid - colourless to amber (although

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	al. some brake fluids may be dyed).	
Odour	Bland	N/A
Odour threshold	N/A –very low odour	
pH	7.0 to 11.50	SAE J 1703
Melting point	< -50 °C.	SAE J 1703
Boiling point	> 260 °C.	SAE J 1703
Flash point	> 120 °C.	IP
35		
Flammability limits in air.	Not established as non-volatile	
Auto ignition temp.	> 300°C.	ASTM D 286
Decomposition Temperature	>300°C	
Evaporation Rate	Negligible	
Density @ 20°C	1.030 – 1.090 g/ml	DIN 51757
Solubility	In water: miscible in any ratio In ethanol: miscible in any ratio	
Partition Coefficient (n-Octanol/Water)	< 2.0 (all main ingredients)	OECD 117
Viscosity @ 20°C	Approx. 5-10 cSt	ASTM D 445
Vapour pressure 20°C	< 2 milibars	
	Reid Vapour Density	
	Not established as non-volatile	
Explosive properties	Not explosive.	
Oxidising Properties	Not oxidising	

9.2. Other information

No other important information available.

SECTION 10 - STABILITY AND REACTIVITY

10.1. Reactivity

No hazardous reactions if stored and handled as indicated.

10.2. Chemical stability

Product is stable under normal conditions.

10.3. Possibility of hazardous reactions

Glycol Ethers can form peroxides on storage

Glycol ethers can react with light metals with the evolution of hydrogen.

10.4. Conditions to avoid

Do not distil to dryness without testing for peroxide formation.



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10.5. Incompatible materials

Strong oxidising agents. For user safety, brake fluid should never be contaminated with any other substance

10.6. Hazardous decomposition products

None known.

SECTION 11 - TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

11.1.1 Acute Toxicity

Ingestion -Product is of low acute oral toxicity – LD50 (oral) Rat = > 5000 mg/kg. (Sparse experience indicates lethal dose in man could be less). However, if any significant amount is ingested, there is a risk of renal damage which in extreme cases could lead to kidney failure, coma or death. Other symptoms of overexposure include Central Nervous System effects, abdominal discomfort, metabolic acidosis, headache and nausea.

Inhalation -Unlikely to be hazardous by inhalation at ambient temperatures due to low vapour pressure. If product is inhaled at elevated temperatures or as an aerosol it may irritate respiratory tract and may cause systemic effects similar to ingestion (see above).

Aspiration –No aspiration hazard expected.

Dermal - Acute percutaneous toxicity is low LD50 (sk) Rabbit = > 3000 mg/kg. Massive contact with damaged skin could result in the absorption of harmful amounts.

11.1.2 Irritation

Eye Contact Has a mildly irritating effect on the eye. (Test Method OECD 405).

Skin Contact - Based on available data the classification criteria are not met (Test Method OECD 404). Repeated contact may de-fat the skin and cause dermatitis.

11.1.3 Corrosivity

Based on available data the classification criteria are not met.

11.1.4 Sensitisation

Based on available data the classification criteria are not met.

11.1.5 Repeated dose toxicity

There are no reports of long term adverse affects in man.

11.1.6 Carcinogenicity

Not known to be carcinogenic.

11.1.7 Mutagenicity

Not known to be mutagenic

11.1.8 Toxicity for reproduction



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Major ingredients have not been shown to cause significant fertility or development problems at levels which are not themselves toxic to the animal concerned. One minor ingredient – Methyl diglycol – has been shown to affect foetus development in some studies and is classified as R63 / H361d.

SECTION 12 - ECOLOGICAL INFORMATION

12.1. Toxicity

Product is of low acute ecotoxicity.

Fish 96h LC50 = > 100 mg/l (Oncorhynchus Mykiss)

Daphnia 48h EC50 = Not Determined but expected to be virtually non toxic.

Algae 72h EC50 = Not Determined but expected to be virtually non toxic.

12.2. Persistence and degradability

Product is inherently biodegradable and is expected to be readily biodegradable based on ingredients.

OECD 302B (Zahn Wellans/EMPA) = 100% elimination at 21 days.

If admitted into adapted biological water treatment plants, no adverse effects on the degrading action of the live sludge are expected.

12.3. Bioaccumulative potential

Not expected to bio accumulate. Log POW for all main ingredients = < 2.0

12.4. Mobility in soil

Soluble in water and will partition to aqueous phase. Volatilisation from water to air not expected. Mobile in soil until degraded.

12.5. Results of PBT and vPvB assessment

Product is considered to be neither “persistent, bio-accumulating and toxic” nor “very persistent and very bio-accumulating” according to Annex XIII of Regulation EC 1907/2006.

12.6. Other adverse effects

Not relevant.

SECTION 13 - DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Dispose of in accordance with local and national regulations. In the E.U. used brake fluids are classified as Hazardous Waste. EWC number: 16.01.13.

Controlled incineration or recycling is recommended. Do not dispose of to landfill or drains. It is recommended that contaminated packaging is either incinerated or cleaned and sent for recycling.



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SECTION 14 - TRANSPORT INFORMATION

14.1. UN number

ADR, IMDG, IATA: Not regulated

14.2. UN proper shipping name

· **ADR**

Not regulated

· **IMDG**

Not regulated

· **IATA**

Not regulated

14.3. Transport hazard class(es)

· **ADR**

Not regulated

· **IMDG, IATA**

Not regulated

14.4. Packing group

Not regulated

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

None relevant

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code"

Not classified

SECTION 15 - REGULATORY INFORMATION

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

Be ensured that all notation or local regulations are observed.

European regulatory guidelines:



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- Regulation (CE) n° 1907/2006 of the European Parliament and of the Council of 18 December 2006 for Registration, Evaluation, Authorisation and Restriction of Chemical substances, as well as as restrictions applicable to these substances (REACH), and establishing a European Chemicals Agency modifying directive 1999/45/CE and repealing Commission Regulation (CEE) n° 793/93 of Council Regulation (CE) n° 1488/94 of the Commission as well as directive 76/769/CEE of Council and directives 91/155/CEE, 93/67/CEE, 93/105/CE and 2000/21/CE of the Commission, with modifications.
- Regulation (CE) n° 1272/2008 of the European Parliament and of the Council of 16 December 2008 for classification, labelling and packaging of substances and mixtures, modifying and repealing directives 67/548/CEE and 1999/45/CE and modifying the regulation (CE) n° 1907/2006, with modifications.

15.2. Chemical Safety Assessment

A chemical safety assessment has not been carried out for this product by the supplier.

SECTION 16 - OTHER INFORMATION

Symbols and hazard phrases used in this document section 3:

H302 –Harmful if swallowed

H318 – Causes serious eye damage

H319 – Causes serious eye irritation

H361d –Suspected of damaging fertility or the unborn child.

H373 –May cause damage to organs through prolonged or repeated exposure.

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