



SAFETY DATA SHEET CARLUBE DOT 4 BRAKE FLUID

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

PRODUCT NAME CARLUBE DOT 4 BRAKE FLUID
PRODUCT NO. BFL050, BFL300, BFL005, BFL100, BFL020, NFL003, BFL455
INTERNAL ID A
APPLICATION Brake fluid
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2 HAZARDS IDENTIFICATION

Harmful in contact with skin.
 CLASSIFICATION (1999/45) Xn;R21.

3 COMPOSITION/INFORMATION ON INGREDIENTS

Name	EC No.	CAS-No.	Content %	Classification (67/548/EEC)
1,1'-IMINODIPROPAN -2-OL	203-820-9	110-97-4	1-5%	Xi;R36
2,4-DIMETHYL-6-TERT-BUTYL PHENOL	217-533-1	1879-09-0	<0.5	T+;R27. Xn;R22. Xi;R36/38. N;R50/53.
DIETHYLENE GLYCOL	203-872-2	111-46-6	10-30%	Xn;R22

The Full Text for all R-Phrases is Displayed in Section 16

4 FIRST-AID MEASURES

GENERAL INFORMATION

Get medical attention if any discomfort continues. Remove affected person from source of contamination.
 NOTE! Effects may be delayed. Keep affected person under observation. When breathing is difficult, properly trained personnel may assist affected person by administering 100% oxygen. For breathing difficulties oxygen may be necessary. If breathing stops, provide artificial respiration.

NOTES TO THE PHYSICIAN

No recommendation given, but first aid may still be required in case of accidental exposure, inhalation or ingestion of this chemical. If in doubt, GET MEDICAL ATTENTION PROMPTLY!

INHALATION

Remove victim immediately from source of exposure. Get medical attention if any discomfort continues. For breathing difficulties oxygen may be necessary. If breathing stops, provide artificial respiration.

INGESTION

Immediately rinse mouth and drink plenty of water. If person becomes uncomfortable or if ingested in large amounts (50-100 ml for an adult person): Take to hospital along with these instructions. Get medical attention immediately!

CARLUBE DOT 4 BRAKE FLUID**SKIN CONTACT**

Remove contaminated clothes and rinse skin thoroughly with water. Get medical attention if any discomfort continues.

EYE CONTACT

Do not rub eye. Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyelids widely. If irritation persists: Seek medical attention and bring along these instructions.

5 FIRE-FIGHTING MEASURES**EXTINGUISHING MEDIA**

Use fire-extinguishing media appropriate for surrounding materials.

SPECIAL FIRE FIGHTING PROCEDURES

No specific fire fighting procedure given.

UNUSUAL FIRE & EXPLOSION HAZARDS

No unusual fire or explosion hazards noted.

SPECIFIC HAZARDS

Not relevant.

PROTECTIVE MEASURES IN FIRE

Leave danger zone immediately. Selection of respiratory protection for fire fighting: follow the general fire precautions indicated in the workplace.

6 ACCIDENTAL RELEASE MEASURES**PERSONAL PRECAUTIONS**

Wear protective clothing as described in Section 8 of this safety data sheet. Do not smoke, use open fire or other sources of ignition. Avoid inhalation of spray mist and contact with skin and eyes. In case of spills, beware of slippery floors and surfaces.

ENVIRONMENTAL PRECAUTIONS

Do not discharge into drains, water courses or onto the ground. The product should not be dumped in nature but collected and delivered according to agreement with the local authorities.

SPILL CLEAN UP METHODS

Stop leak if possible without risk. Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Provide ventilation and confine spill. Do not allow runoff to sewer. Absorb spillage with suitable absorbent material.

7 HANDLING AND STORAGE**USAGE PRECAUTIONS**

Read and follow manufacturer's recommendations. Keep away from heat, sparks and open flame. Wear full protective clothing for prolonged exposure and/or high concentrations. Good personal hygiene is necessary. Wash hands and contaminated areas with water and soap before leaving the work site. Do not eat, drink or smoke when using the product. Avoid inhalation of vapours/spray and contact with skin and eyes. Avoid forming spray/aerosol mists. Observe occupational exposure limits and minimise the risk of inhalation of vapours and mist.

STORAGE PRECAUTIONS

Keep away from heat, sparks and open flame. Keep containers tightly closed. Keep upright. Keep in original container. Store away from: Acids. Oxidising material. Alkalis.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Name	STD	TWA - 8 Hrs		STEL - 15 Min		Notes
DIETHYLENE GLYCOL	WEL	23 ppm	101 mg/m ³			

WEL = Workplace Exposure Limit.

PROTECTIVE EQUIPMENT

CARLUBE DOT 4 BRAKE FLUID**ENGINEERING MEASURES**

Observe occupational exposure limits and minimize the risk of inhalation of vapours. Provide adequate ventilation.

RESPIRATORY EQUIPMENT

No specific recommendation made, but respiratory protection must be used if the general level exceeds the recommended occupational exposure limit.

HAND PROTECTION

For prolonged or repeated skin contact use suitable protective gloves. Be aware that the liquid may penetrate the gloves. Frequent change is advisable.

EYE PROTECTION

Wear approved, tight fitting safety glasses where splashing is probable.

OTHER PROTECTION

Provide eyewash station.

HYGIENE MEASURES

Wash contaminated clothing before reuse. Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes contaminated. Promptly remove any clothing that becomes contaminated. When using do not eat, drink or smoke.

9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	Clear Liquid
COLOUR	Colourless
ODOUR	No characteristic odour.
SOLUBILITY	Miscible with water Miscible with: Ethanol.
BOILING POINT (°C)	>205°C
MELTING POINT (°C)	<-50°C
RELATIVE DENSITY	1.03 - 1.08 40
VAPOUR PRESSURE	<2 mbar 20°C
EVAPORATION RATE	negligable
pH-VALUE, CONC.	7.0 - 10.5
SOLUTION	
VISCOSITY	1500 cSt 40
FLASH POINT (°C)	>90 CC (Closed cup).
AUTO IGNITION	>300°C
TEMPERATURE (°C)	
PARTITION COEFFICIENT (N-Octanol/Water)	<2.0

10 STABILITY AND REACTIVITY

STABILITY

The substance is hygroscopic and will absorb water by contact with the moisture in the air.

CONDITIONS TO AVOID

Avoid contact with strong oxidisers. Avoid heat, flames and other sources of ignition. Avoid contact with acids and alkalis.

MATERIALS TO AVOID

Strong acids. Strong oxidising substances. Strong alkalis.

HAZARDOUS DECOMPOSITION PRODUCTS

None under normal conditions.

CARLUBE DOT 4 BRAKE FLUID**11 TOXICOLOGICAL INFORMATION**

TOXIC DOSE 1 - LD 50 >5000 mg/kg (oral rat)

TOXICOLOGICAL INFORMATION

No information available.

INHALATION

Unlikely to be hazardous by inhalation because of the low vapour pressure of the substance at ambient temperature.

INGESTION

Harmful if swallowed.

SKIN CONTACT

Repeated exposure may cause skin dryness or cracking.

EYE CONTACT

Irritation of eyes and mucous membranes.

HEALTH WARNINGS

This chemical can be hazardous when inhaled and/or touched.

12 ECOLOGICAL INFORMATION**ECOTOXICITY**

Dangerous for the environment if discharged into watercourses.

MOBILITY

The product is soluble in water.

BIOACCUMULATION

The product contains potentially bioaccumulating substances.

DEGRADABILITY

The product is biodegradable.

13 DISPOSAL CONSIDERATIONS**GENERAL INFORMATION**

Waste is classified as hazardous waste. Disposal to licensed waste disposal site in accordance with the local Waste Disposal Authority.

DISPOSAL METHODS

Confirm disposal procedures with environmental engineer and local regulations.

14 TRANSPORT INFORMATION

ENVIRONMENTALLY HAZARDOUS SUBSTANCE/MARINE POLLUTANT	No transport warning sign required.
ADR CLASS	No.
	Not classified for transportation.

15 REGULATORY INFORMATION**LABELLING**

Harmful

CONTAINS

2,4-DIMETHYL-6-TERT-BUTYL PHENOL

CARLUBE DOT 4 BRAKE FLUID

RISK PHRASES

R21 Harmful in contact with skin.

SAFETY PHRASES

S2 Keep out of the reach of children.

S13 Keep away from food, drink and animal feeding stuffs.

S36/37 Wear suitable protective clothing and gloves.

S46 If swallowed, seek medical advice immediately and show this container or label.

S56 Dispose of this material and its container to hazardous or special waste collection point.

16 OTHER INFORMATION

REVISION COMMENTS

NOTE: Lines within the margin indicate significant changes from the previous revision.

ISSUED BY

Health & Safety Department

REVISION DATE 10/06/2011

REV. NO./REPL. SDS 7

GENERATED

SAFETY DATA SHEET STATUS

Approved.

RISK PHRASES IN FULL

R22 Harmful if swallowed.

R36/38 Irritating to eyes and skin.

R36 Irritating to eyes.

R27 Very toxic in contact with skin.

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.