

Material Safety Data Sheet

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Infosafe No. LPV44 Issue Date : January 2006 ISSUED by PENRITEO

Product Name : BRAKE FLUID

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

Product Name BRAKE FLUID
Product Code BF
Company Name PENRITE OIL COMPANY P/L (ABN 005 001 525)
Address 88 Lewis Road Wantirna South
Victoria 3152 Australia
Emergency Tel. 03 9801 0877 B.H
Telephone/Fax Number Tel: 03 9801 0877
Recommended Use Motor vehicle brake fluid.

2. HAZARDS IDENTIFICATION

Hazard Classification NON-HAZARDOUS SUBSTANCE.
NON-DANGEROUS GOODS.
Hazard classification according to the criteria of NOHSC.
Dangerous goods classification according to the Australia Dangerous Goods Code.
Safety Phrase(s) S2 Keep out of reach of children.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	Name	CAS	Proportion
	Ingredients determined not to be hazardous	Not required	60-100 %
	Diethylene glycol		0-19.9 %
	Methyl di glycol		0-4.9 %

4. FIRST AID MEASURES

Inhalation If inhaled, remove from contaminated area. Apply artificial respiration if not breathing. If symptoms develop seek medical attention.
Ingestion Do NOT induce vomiting. Wash out mouth with water. If symptoms develop seek medical attention.
Skin Wash affected area thoroughly with soap and water. Remove contaminated clothing and wash before reuse or discard. If symptoms develop seek medical attention.
Eye If contact with the eye(s) occurs, wash with copious amounts of water holding eyelid(s) open. Take care not to rinse contaminated water into the non-affected eye. If symptoms persist seek medical attention.
First Aid Facilities Eye wash and normal washroom facilities.
Advice to Doctor Treat symptomatically.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media Alcohol resistant foam, dry powder or water (fog or fine spray).
Hazards from Combustion Products Under fire conditions this product may emit toxic and/or irritating fumes including carbon monoxide and carbon dioxide.
Special Protective Equipment for fire fighters Full protective clothing and self-contained breathing apparatus.
Specific Hazards Combustible liquid. This product will burn if exposed to fire.
Hazchem Code None Allocated
Precautions in connection with Fire Fire-fighters should wear full protective clothing and self contained breathing apparatus (SCBA) operated in positive pressure mode.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures Wear appropriate personal protective equipment and clothing to minimise exposure. Extinguish or remove all sources of ignition and stop leak if safe to do so. Increase ventilation. Evacuate all unnecessary personnel. If

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possible contain the spill. Place inert absorbent material onto spillage. Use clean non-sparking tools to collect the material and place into a suitable labelled container. Do not dilute material but contain. Clean area with soap and water. Do not allow product to enter drains, sewers or water courses. Dispose of waste according to federal, Environmental Protection Authority and state regulations. If the spillage enters the waterways contact the Environmental Protection Authority, or your local Waste Management Authority.

7. HANDLING AND STORAGE

Precautions for Safe Handling	Use in a well ventilated area. DO NOT store or use in confined spaces. Build up of mists or vapours in the atmosphere must be prevented. Avoid breathing in spray or mists or vapours. Do not use near welding or other ignition sources and avoid sparks. Do not smoke. Repeated or prolonged skin exposure without protection should be prevented in order to lessen the possibility of skin disorders. It is essential that all who come into contact with this material maintain high standards of personal hygiene ie. washing hands prior to eating, drinking, smoking or using toilet facilities.
Conditions for Safe Storage	Store in a cool, dry well-ventilated area away from heat, sources of ignition, oxidising agents, foodstuffs, and clothing and out of direct sunlight. Avoid contamination with any other substances and in particular with mineral oils which are incompatible. Keep containers closed when not in use and securely sealed and protected against physical damage. Inspect regularly for deficiencies such as damage or leaks. Do NOT pressurise, cut, heat or weld containers as they may contain hazardous residues. For information on the design of the storeroom, reference should be made to Australian Standard AS1940 - The storage and handling of flammable and combustible liquids. Reference should also be made to all State and Federal regulations.
Recommended Materials	Suitable bulk storage vessels are mild/stainless steel tanks fitted with a dry air breathing system or tight head steel drums.
Unsuitable Materials	Do not store in lined tanks or drums.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards	No exposure standards have been established for this material, however, the TWA National Occupational Health And Safety Commission (NOHSC) exposure standards for oil mist is 5 mg/m ³ . As with all chemicals, exposure should be kept to the lowest possible levels.
Biological Limit Values	No biological limit allocated.
Engineering Controls	Provide sufficient ventilation to keep airborne levels below the exposure limit. Where vapours or mists are generated, particularly in enclosed areas, and natural ventilation is inadequate, a local exhaust ventilation system is required. Refer to AS1940 - The storage and handling of flammable and combustible liquids and AS2430 - Explosive gas atmospheres for further information concerning ventilation requirements.
Respiratory Protection	If engineering controls are not effective in controlling airborne exposure then respiratory protective equipment should be used suitable for protecting against airborne contaminants. Final choice of appropriate breathing protection is dependant upon actual airborne concentrations and the type of breathing protection required will vary according to individual circumstances. Expert advice may be required to make this decision. Reference should be made to Australian Standards AS/NZS 1715, Selection, Use and maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices.
Eye Protection	Where there is a chance of splashing safety glasses with side shields, goggles or full-face shield as appropriate recommended. Final choice of appropriate eye/face protection will vary according to individual circumstances i.e. methods of handling or engineering controls and according to risk assessments undertaken. Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337 - Eye Protectors for Industrial Applications.
Hand Protection	Wear gloves of impervious material such as Polyethylene natural or butyl rubber and PVC. Final choice of appropriate gloves will vary according to individual circumstances i.e. methods of handling or according to risk assessments undertaken. Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.

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Body Protection Wear appropriate clothing including chemical resistant apron where clothing is likely to be contaminated. It is advisable that a local supplier of personal protective clothing is consulted regarding the choice of material.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear liquid - Usually colourless to amber although some grades of brake fluid may be highly dyed.
Odour	Odourless.
Melting Point	< -50°C
Boiling Point	> 270°C
Solubility in Water	Completely soluble.
Specific Gravity	1.05
pH Value	7.0 to 8.0
Vapour Pressure	< 1 kPa
Vapour Density (Air=1)	Not available.
Viscosity	1300 cSt at 40°C 2.0 cSt at 100°C.
Pour Point	50°C
Flash Point	> 120°C
Flammability	Combustible.
Auto-Ignition Temperature	310°C
Flammable Limits - Lower	Not available.
Flammable Limits - Upper	Not available.

10. STABILITY AND REACTIVITY

Chemical Stability	Stable under normal conditions.
Conditions to Avoid	Hygroscopic. Avoid exposure to water or moisture. Do not distill to dryness.
Incompatible Materials	Strong oxidising agents.
Hazardous Decomposition Products	None known.
Hazardous Reactions	Reacts with strong oxidising agents.

11. TOXICOLOGICAL INFORMATION

Toxicology Information	No toxicity data available for this product.
Inhalation	Inhalation of product vapours may cause irritation of the nose, throat and respiratory system.
Ingestion	Ingestion of this product may irritate the gastric tract causing nausea and vomiting.
Skin	May cause redness, itching and irritation.
Eye	May cause eye irritation, tearing, stinging, blurred vision, and redness.
Chronic Effects	There are no reports of long term adverse affects.

12. ECOLOGICAL INFORMATION

Ecotoxicity	Product is of low acute ecotoxicity.
Persistence / Degradability	Product is inherently biodegradable and is expected to be readily biodegradable.
Mobility	Soluble in water.

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Bioaccumulative Potential Not expected to bioaccumulate.
Environ. Protection Do not allow product to enter drains, waterways or sewers.

13. DISPOSAL CONSIDERATIONS

Disposal Considerations Dispose of waste according to federal, EPA and state regulations.

14. TRANSPORT INFORMATION

Transport Information Not classified as a Dangerous Good, according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.
U.N. Number None Allocated
Proper Shipping Name None Allocated
DG Class None Allocated
Hazchem Code None Allocated
Packing Group None Allocated

15. REGULATORY INFORMATION

Poisons Schedule Not Scheduled

16. OTHER INFORMATION

Date of preparation or last revision of MSDS MSDS Reviewed: January 2006
MSDS Supersedes: December 1997
Contact Person/Point TITLE: Technical and Marketing Director
TELEPHONE NUMBER: 03 9801 0877 B.H
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