



Safety Data Sheet

1. MATERIAL AND SUPPLIER IDENTIFICATION

Product Name	Dot 4 Brake Fluid
Product Code	40001 (205L), 42001 (20L), 40501 (5L)
Product Use	Brake fluid
Company Name	Gulf Western Oil
Company Address	92 – 96 Links Rd St Marys NSW 2760 Australia
Telephone number / Fax	(02) 9673 9600 (phone) (02) 9673 9696 (fax)
Emergency Telephone number	(02) 9673 9600 (business hours only)
Other Information	Not applicable

2. HAZARDS IDENTIFICATION

Classification

Classified as NOT HAZARDOUS according to criteria of Worksafe Australia

Classified as Hazardous according to the HSNO Act, New Zealand, 6.4A (eye irritant)

HSNO Category:

Lubricants, Lubricant Additives, Coolants and Anti-freeze Agents (Subsidiary Hazard)

Group Standard 2006

HSNO Approval Number HSR002606

3. COMPOSITION / INFORMATION ON INGREDIENTS

Composition information

INGREDIENT NAME	CAS NO.	WEIGHT
TRIETHYLENE GLYCOL METHYL ETHER	112-35-6	10-30%
DIETHYLENE GLYCOL	111-46-6	1-5%
TRIETHYLENE GLYCOL	112-27-6	1-5%
TRIETHYLENE GLYCOL MONO-N-BUTYL ETHER	143-22-6	1-5%



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4. FIRST AID MEASURES

Inhaled

Vapour inhalation under ambient conditions is normally not a problem. If fumes or combustion products are inhaled the removed affected person to fresh air.

Ingestion

If swallowed, do not induce vomiting. Give water to rinse out mouth, then provide further liquid to drink. Seek medical attention. If vomiting occurs, keep head below hips to prevent aspiration into lungs. Never give anything by mouth to an unconscious person.

Skin

Remove contaminated clothing wipe off excess with absorbent tissue or towel and wash skin thoroughly with soap and water. Flush skin with plenty of soap and water for at least 15 minutes. If swelling, redness, blisters or irritation develops and persists seek medical attention.

Eye

If contact occurs, immediately wash with running water for 15 minutes, holding eyelids open. Continue flushing until advised to stop by the Poisons Information Centre, or a doctor, or for at least 15 minutes. Transport to hospital or doctor without delay. Removal of contact lenses after eye injury should only be undertaken by skilled personnel.

First Aid Facilities

Eye wash and normal washroom facilities.

Advice to Doctor

Treat symptomatically. Following ingestion this product is likely to hydrolyse to form a polyglycol ether and boric acid. For glycol ethers: blockade of alkoxyacetic acid metabolite may follow competitive inhibition of alcohol dehydrogenase with ethanol or 4-methylpyrazole. Maintain a plasma ethanol level of 100 – 150mg/dL. No specific antidote for boric acid.



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5. FIRE FIGHTING MEASURES

Combustible liquid C1.

Extinguishing Media

Dry chemical, foam or carbon dioxide. Water spray or fog may be used for large fires only.

Specific Hazards

Sealed containers may rupture when heated.

Hazardous Combustion Products

During combustion this product may emit toxic and or / irritating fumes including oxides of carbon.

Precautions

In the event of a fire, wear breathing apparatus, gloves and chemical resistant boots.

6. ACCIDENTAL RELEASE MEASURES

Remove all sources of ignition. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Contain and recover liquid when possible. Collect liquid in an appropriate container or absorb with an inert material (e. g., vermiculite, dry sand, earth), and place in a chemical waste container. Do not use combustible materials, such as saw dust. Do not flush to sewer!

Personal Precautions

Wear appropriate personal protective equipment. Minimise skin contact. Slippery when spilt.

Precautions To Protect The Environment

Keep product out of sewers and watercourses by isolating or compounding. Advise authorities if product has entered or may enter sewers, watercourses or extensive land areas. Assure conformity with applicable government regulations.

Spill Clean up Procedures

Avoid contact with eyes or skin. Place leaking containers in well ventilated area. Avoid discharge to natural waterways. Contain and recover liquid when possible. Collect liquid in an appropriate container or absorb with an inert material (e. g., vermiculite, dry sand, earth), and place in a chemical waste container. Do not use combustible materials, such as saw dust. Do not flush to sewer.

7. HANDLING AND STORAGE

Corrosiveness

Not corrosive.

Handling

Do not reuse container. Keep lid closed when not in use. Do not store or mix with strong oxidizers. Avoid spilling. Store upright in a cool, dry well ventilated area.



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Storage

Protect against physical damage. Store in a cool, dry well-ventilated location, away from any area where the fire hazard may be acute. Separate from incompatibles.

Reuse

Unopened containers received from the supplier should be safe to store for 18 months.

Opened containers should not be stored for more than 12 months.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits

Worksafe exposure standard:-

Time Weighted Average (TWA) 100 mg/m³ Glycol ether

Short Term Exposure Limit (STEL) - -

Respiratory Protection

Avoid breathing vapours or mists. Where ventilation is inadequate and vapours or mists are generated the use of an approved respirator with organic vapour/particulate filter complying with AS/NZS 1715 and AS/NZS 1716 is recommended.

Eye Protection

Wear splash proof eye goggles to prevent any possibility of eye contact.

Hand Protection

Wear gloves of impervious material if handling material for prolonged periods.

Body Protection

Wear appropriate clothing including chemical resistant apron where clothing is likely to be contaminated.

Engineering controls

Natural ventilation should be sufficient, however where vapours or mists are generated (either through confinement or elevated temperatures) the use of a local exhaust system is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance / Description	Clear, odourless, green liquid.
Boiling Point	Not determined
Solubility in Water	Soluble
Specific Gravity	>1.0 g/mL
pH	Not applicable



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Viscosity	Not applicable
Flash Point	>100°C
Flammability	Not flammable

10. STABILITY AND REACTIVITY

Stability

Stable under normal conditions.

Hazardous Polymerization

Will not occur.

Materials to Avoid

Strong oxidizing agents.

Hazardous Decomposition Products

Thermal decomposition and combustion produce noxious fumes containing oxides of carbon

Hazardous Reaction

Hazardous reaction with strong oxidizing agents

Conditions to Avoid

Heat, ignition sources. Avoid contact with acids and oxidizing substances.

11. TOXICOLOGICAL INFORMATION

Toxicological Information

Health Hazard

Summary

Use safe work practices to avoid eye or skin contact or vapour generation - inhalation. Due to the low vapour pressure of this product an inhalation hazard is not anticipated unless heated, sprayed or used in poorly ventilated areas. Chronic over exposure to glycols or glycol ethers may result in liver and kidney damage.

Eye Contact may result in irritation, lachrymation, pain, redness and conjunctivitis. May result in burns with prolonged contact.

Inhalation Over exposure may result in nausea, dizziness and potentially severe mucous membrane and respiratory irritation. Due to the low vapour pressure, an inhalation hazard is not anticipated with normal use.

Skin Contact may result in irritation, redness, itching, pain and rash. The manufacturer reports that the dermal LD50 (rat) is expected to be > 2000 mg/kg (based on testing using similar products).

Ingestion Ingestion may result in gastrointestinal irritation, nausea, vomiting, abdominal pain and diarrhoea.

Toxicity Data

DIETHYLENE GLYCOL (111-46-6)

LCLo (Inhalation): 130 mg/m³/2 hours (mouse)

LD50 (Ingestion): 3300 mg/kg (cat)



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LD50 (Intraperitoneal): 7700 mg/kg (mouse)
LD50 (Intravenous): 6565 mg/kg (rat)
LD50 (Skin): 11890 mg/kg (rabbit)
LDLo (Ingestion): 1000 mg/kg (human)
LDLo (Intraperitoneal): 2236 mg/kg (rabbit)
LDLo (Subcutaneous): 5000 mg/kg (mouse)
TDLo (Ingestion): 2400 mg/kg (child)
TRIETHYLENE GLYCOL METHYL ETHER (112-35-6)

LD50 (Ingestion): 11300 mg/kg (rat)
LD50 (Skin): 7100 mg/kg (rabbit)

TRIETHYLENE GLYCOL (112-27-6)

LD50 (Ingestion): 8400 mg/kg (rabbit)
LD50 (Intraperitoneal): 8141 mg/kg (mouse)
LD50 (Intravenous): 1900 mg/kg (rabbit)
LD50 (Skin): > 20 mL/kg (rabbit)
LD50 (Subcutaneous): 8750 mg/kg (mouse)
LDLo (Ingestion): 5000 mg/kg (human)
LDLo (Intramuscular): 8400 mg/kg (mouse)
TRIETHYLENE GLYCOL MONO-N-BUTYL ETHER (143-22-6)

LD50 (Ingestion): 5300 mg/kg (rat)
LD50 (Skin): 3.54 ml/kg (rabbit)

12. ECOLOGICAL INFORMATION

When released into the soil, this material may biodegrade to a moderate extent. When released into water, this material may biodegrade to a moderate extent. When released into the air, this material may be moderately degraded by reaction with photochemically produced hydroxyl radicals.

Environmental Protection

Prevent this material from entering the environment

Ecotoxicity

No specific data is available for this product.

Persistence / Degradability

No specific data is available for this product.

Mobility

No specific data is available for this product.

Bioaccumulation

No specific data is available for this product.



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13. DISPOSAL CONSIDERATIONS

Contain the spill with sand or earth or absorb with absorbent material. Collect the material and place into a suitably sealed and labeled container. Do not allow the product to enter drains, sewers or water courses. If large quantities of this material enters the waterways contact the Environmental Protection Authority, or your local Waste Management Authority. Recycle container if authorities permit it and facilities are available.

14. TRANSPORT INFORMATION

Not classified as a Dangerous Good according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.

Classified as a Combustible Liquid C1 under AS1940 for bulk storage purposes only.

15. REGULATORY INFORMATION

Poisons Schedule

Not a poison

Australian Inventory of Chemical Substances (AICS) and New Zealand Inventory of Chemicals (NZIoC)

All individual components are registered on the Australian and New Zealand Inventory of Chemical Substances

16. OTHER INFORMATION

Contact Person

For information concerning details on this Safety Data Sheet contact the Technical Manager on the following number:

(02) 9673 9600 (business hours)

0417 244 439 (after hours)

General Disclaimer

All reasonable care has been taken to ensure that the information and advice contained herein are accurate at the time of printing. Gulf Western Oil however accepts no liability for any loss or damages suffered as a consequence of reliance on the information and advice contained herein.

History

This Safety Data Sheet prepared in February 2014