SAFETY DATA SHEET

1. IDENTIFICATION

Product Name:	**Bendix Brake Fluid – DOT 4**
Recommended Use:	Hydraulic fluid for use in automotive brake and clutch systems
Supplier:	FMP Group (Australia) Pty. Ltd
ABN:	14 004 332 496
Street Address:	Elizabeth Street Ballarat, Victoria 3350 Australia
Telephone:	**1300 737 162**
Facsimile:	**+61 35336 1274**
Emergency:	**+61 35327 0211**

2. HAZARDS IDENTIFICATION

CLASSIFICATION

Classified according to GHS and Safe Work Australia criteria

LABEL ELEMENTS

Signal Word: **DANGER**

Hazard Symbol (s):

Corrosive

Hazard Statement (s): **H318 Causes serious eye damage**

Precautionary Statements:		
General	**P101** **P102** **P103**	If medical advice is needed, have product container or label at hand Keep out of reach of children Read Label before use
Prevention	**P262** **P280** **P281**	Do not get in eyes, on skin, or on clothing Wear protective gloves/protective clothing/eye protection/face protection/suitable respirator Use personal protective equipment as required
Response	**P305 + P351+ P338** **P301 + P311** **P337 + P313** **P314** **P363**	If in eyes rinse cautiously with water for several minutes Remove contact lenses if present and easy to do so. Continue rinsing. If swallowed immediately call a Poison Centre or Doctor / physician If eye irritation persists: Get medical advice / attention Get medical advice / attention if you feel unwell Wash contaminated clothing before reuse
Storage	**P405**	Store locked up
Disposal	**P501**	Dispose of contents to hazardous waste collection point

3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	CAS number	Classification for ingredients	Proportion%
Ethanol; 2 [2-(2-butyloxyethoxy)ethoxy]-	143-22-6	Eye Damage CAT 1	20-45
2,2'-oxybisethanol	111-46-6	Acute Toxicity CAT 4	0-10
Diethylene glycol monobutyl ether	112-34-5	Eye Irritant CAT 2	0-3
Ingredients determined to be non-hazardous			to 100%
Total			**100%**

4. FIRST AID MEASURES

If poisoning occurs, contact a doctor or Poisons Information Centre

Australia 131 126 New Zealand 0800 764 766

Inhalation	Move to fresh air - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical advice if effects persist.
Skin Contact	If skin or hair contact occurs, remove contaminated clothing and footwear. Wash affected skin and hair with soap and running water. If swelling, redness, blistering or irritation occurs seek medical assistance.
Eye Contact	If in eyes wash out immediately with plenty of water, also under eyelids, for at least 30-60 minutes. In all cases of eye contamination it is a sensible precaution to seek medical advice.
Ingestion	Seek immediate medical advice. If the patient is conscious - Rinse mouth with water. If swallowed, do NOT induce vomiting. Give plenty of water to drink. Never give anything by the mouth to an unconscious patient.
Notes to Physician	Treat Symptomatically. Can cause corneal burns.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Equipment	If material is involved in a fire use water fog (or if unavailable fine water spray), alcohol resistant foam, dry agent (carbon dioxide, dry chemical powder).
Specific Hazards Arising from the Chemical / Mixture	Non-combustible material, however following evaporation of aqueous component residual material can burn if ignited.
Special Protective Equipment and Precautions for Fire Fighters	Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or products of combustion.
HAZCHEM Code	Not Applicable

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures	• Clear area of all unprotected personnel • Wear protective equipment to prevent skin and eye contamination • Avoid inhalation of fumes / vapours. • Remove all ignition sources • Provide sufficient ventilation
Environmental Precautions	• Prevent product from entering sewers or waterways • If contamination of sewers or waterways has occurred advise local emergency services. • Prevent gross contamination of soil
Methods and Materials for Containment and Cleaning up	• Wipe up with absorbent materials (clean rag /paper towels or granules). • Collect and seal in properly labelled containers or drums for disposal.

7. HANDLING AND STORAGE

Precautions for Safe Handling	• Avoid eye contact and repeated or prolonged skin contact. • Avoid inhalation of dust/ mists and aerosols • Do not eat, drink or smoke when handling this product • Wash thoroughly after handling with soap and water
Conditions for Safe Storage	• Store sealed in original container • Store in a cool, dry, well ventilated place out of direct sunlight. • Store away from foodstuffs. • Store away from incompatible materials and sources of heat / ignition. • This material is a Scheduled Poison (Schedule 5) and must be stored, maintained and used with caution and in accordance with relevant regulations.

8. EXPOSURE STANDARDS AND PERSONAL PROTECTION

EXPOSURE STANDARDS

Chemical component	TWA		STEL		Classification Category	Notices
	PPM	mg/m^3	PPM	mg/m^3		
Diethylene Glycol	23	100				

mg/m3 = milligrams per cubic meter

PPM = Parts per Million

As Published by Safe Work Australia (SWA). A list of current Australian Exposure Standards is available on the Hazardous Substances Information System (HSIS), which can be accessed from www.safeworkaustralia.gov.au

TWA = Time Weighted Average	The average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life.
STEL = Short term Exposure Limit	The average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight-hour workday.

These Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.
If the directions for use on the product label are followed, exposure of individuals using the product should not exceed the above standard.

Biological Limit Values	No Biological limit allocated

Engineering Controls	Handle with good industrial hygiene and safe work practices Ensure ventilation is adequate to maintain air concentrations below Exposure Standards using engineering controls if necessary Use only in well ventilated areas. Use with local exhaust ventilation or wearing an appropriate respirator.

INDIVIDUAL PROTECTION MEASURES

Avoid the generation of aerosols or vapors. Where contamination exists, wear protective gear.
Wash contaminated clothing and protective equipment before storing or re-using

Eye and Face Protection	Safety Goggles or a face shield. Eye baths/ wash stations should be provided.
Skin Protection	Overalls and/ or other removable protective clothing is recommended. Where significant contamination is possible wear impervious body covering. Shower facilities are recommended where significant contamination is possible. Handle with gloves. Gloves must be inspected prior to use. Nitrile rubber gloves are suitable for intermittent product handling. Dispose of contaminated gloves after use in accordance with applicable laws and good workplace practices. Wash and dry hands
Respiratory Protection	Where risk assessment shows respiratory protection is appropriate, an A-P2 organic vapour mask marked as conforming to the AS/NZ 1716 standard *Respiratory Protective Devices* is required. Respiratory equipment should be used in reference to AN/NZ 1715 standard *Selection, Use and Maintenance of Respiratory Protective Equipment.*
Thermal Hazards	Standard Personal Protective Equipment required for the safe handling of this product should not adversely increase the thermal load of the wearer.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear Liquid – colourless to amber
Odour	Bland
pH	7 – 11.5
Melting point	< 50ºC
Boiling Point	> 260ºC
Flash Point	> 100ºC
Evaporation Rate	Negligible
Flammability (solid, gas)	Not Established
Upper / Lower flammability or explosive limits	Not Established
Vapour Pressure	<2
Vapour Density	Not Established
Density	1.02 -1.07 g/ml
Solubility	Miscible with water
Partition Coefficient: n-octanol / water	<2
Auto ignition temperature	>300 ºC
Decomposition temperature	>300 ºC
Viscosity	5-10 cSt@20 ºC
Total VOC	Not Available

10. STABILITY AND REACTIVITY

Chemical Reactivity	The material is stable when used and stored as directed
Chemical Stability	The material is thermally stable when used and stored as directed
Hazardous Reactions	Glycol Ethers can form peroxides on storage. Glycol ethers can react with light metals with the evolution of hydrogen.
Conditions to Avoid	Do not distil to dryness without testing for peroxide formation. Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition
Incompatible Materials	Strong Oxidising agents
Hazardous Decomposition Products	Oxides of nitrogen, smoke and other toxic fumes.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity	No information available	
Skin corrosion / Irritation	Mixture	Contact may result in skin irritation
Serious Eye Damage / Irritation	Mixture	Causes serious eye damage CAT 1. Corrosive to eyes, may cause corneal burns. Contamination of eyes can result in permanent injury.
Respiratory or skin sensitization	Mixture	Classified as non-hazardous
Germ cell mutagenicity	Mixture	Classified as non-hazardous
Carcinogenicity	Mixture	Classified as non-hazardous
Reproductive toxicity	Mixture	Classified as non-hazardous
Specific Target Organ Toxicity (STOT) – single exposure	Mixture	Classified as non-hazardous
Specific Target Organ Toxicity (STOT) – repeated exposure	Mixture	Classified as non-hazardous
Aspiration Hazard	Mixture	Classified as non-hazardous

12. ECOLOGICAL INFORMATION

Avoid contaminating Waterways		
Ecotoxicity	No information available	
Persistence and biodegradability	Mixture	No information available.
Bio accumulative Potential	Mixture	No information available.
Mobility in Soil	Mixture	No information available.
Other Adverse Effects	Mixture	Classified as non-hazardous (Acute and Chronic)

13. DISPOSAL CONSIDERATIONS

Disposal	Dispose of in accordance with local and national regulations. Contaminated packaging must be recovered or disposed of in compliance with local waste management regulations.
Disposal Considerations	Persons conducting disposal activities please refer to the information in section 8 – Exposure Controls and Personal Protection of this SDS

14. TRANSPORT INFORMATION

ROAD AND RAIL TRANSPORT	
Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail.	
UN Number	Not Available
Proper Shipping or Technical Name	Not Available
Transport Hazard Class	Not Available
Packing Group	Not Available
Environmental; Hazards for Transport Purposes	Not Available
Special Precautions for the User	Not Available
Additional Information	Not Available
HAZCHEM or Emergency Action Code	Not Available

MARINE TRANSPORT
Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

AIR TRANSPORT
Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

15. REGULATORY INFORMATION

The product is subject to the following international agreements

Montreal Protocol (Ozone Depleting Substances)	Not Applicable
The Stockholm Convention (Persistent Organic Pollutants)	Not Applicable
The Rotterdam Convention (Prior Informed Consent)	Not Applicable
Basel Convention (Hazardous Waste)	Not Applicable
International Convention for the prevention of Pollution from Ships (MARPOL)	Not Applicable
The product is subject to the following Health Safety and Environmental Regulation	
Standard for the uniform scheduling of medicines and poisons (SUSMP)	Poisons Schedule: S5
Australian inventory of chemical substances (AICS)	Not Applicable for product Constituents as listed
HSNO Group Standard	Lubricants, Lubricant additives, coolants and anti-freeze agents

16. OTHER INFORMATION

Safety Data Sheets are updated frequently. Please ensure that you have a current copy.

SDS Preparation Information

SDS Version	Reason for Revision	Notes
1.0	Release in GHS Format	SDSID: DOT4231116
2.0	Ingredient update	SDSID: DOT4231116
3.0	Ingredient update	SDSID: DOT4000019

This SDS summarises at the date of issue our best knowledge of the health and safety hazard information of the product, and in particular how to safely handle and use the product in the workplace. Since FMP Group (Australia) Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to

usage, review this SDS in the context of how the user intends to handle and use the product in the workplace.

If clarification or further information is needed to ensure that an appropriate assessment can be made, the user should contact this company.

Our responsibility for product as sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available upon request.

Safety Data Sheets are updated frequently. Please ensure you have a current copy.

Abbreviations and Acronyms Used in preparation of the SDS	
GHS	Global Harmonized System of Classification and Labeling
ADG	Australian Dangerous Goods Code
SWA	Safe Work Australia
TWA	Time Weighted Average
PPM	Parts Per Million
mg/m3	Milligrams per cubic meter
STEL	Short Term Exposure Limit
LD50	Lethal Dose 50%
LC50	Lethal Concentration 50%
IARC	International Agency for Research on Cancer
STOT	Specific Target Organ Toxicity