



MATERIAL SAFETY DATA SHEET



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

Identification of substance / preparation

PRODUCT : BREAK FLUID DOT 4
HEALTH HAZARD : HAZARDOUS SUBSTANCE

Application

Brake Fluid
For specific application advice see appropriate

Company Identification

AL-MARZOOQI HOLDING FZC
PO Box: 52300, Plot No. 4D-01F-19-20A
Tel.: +971 65277277

COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Composition

Composition	CAS No.	Percent
Triethylene glycol monobutyl ether	143-22-6	20- < 30 %
Triethylene glycol monomethyl ether, borate ester	30989-05-0	20 - 30 %
Diethylene glycol	111-46-6	0 - 9.9 %
Butyl polyglycol	9004-77-7	5-10 %
Diethylene glycol monobutyl ether	112-34-5	0- < 3 %
Diethylene glycol monomethyl ether	111-77-3	0- < 3 %
Ingredients determined to be Non-Hazardous	-	Balance

HAZARDS IDENTIFICATION

This material is considered to be hazardous, but should be handled in accordance with good industrial hygiene and safety practices.

FIRST-AID MEASURES

Eyes

If in eyes, hold eyelids apart and flush the eyes continuously with running water. Continue flushing until advised to stop by the Poisons Information Centre or a Doctor; or for at least 15 minutes and transport to Doctor or Hospital.

Skin

If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. If swelling, redness, blistering or irritation occurs seek medical assistance.

Ingestion

Rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water to drink. Never give anything by the mouth to an unconscious patient. If vomiting occurs give further water. Seek medical advice.

Inhalation

Remove victim from exposure - 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.

Medical Advice

Treatment should in general be symptomatic and directed to relieving any effects.

PPE for First Aiders : Wear safety shoes, overalls, gloves, chemical goggles. Available information suggests that gloves made from nitrile rubber should be suitable for intermittent contact. However, due to variations in glove construction and local conditions, the user should make a final assessment. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

FIRE-FIGHTING MEASURES

Hazchem Code: Not applicable.

Suitable extinguishing media: If material is involved in a fire use water fog (or if unavailable fine water spray), alcohol resistant foam, standard foam, dry agent (carbon dioxide, dry chemical powder).

Specific hazards: Combustible liquid.

Fire fighting further advice: On burning or decomposing may emit toxic fumes. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or products of combustion or decomposition.

ACCIDENTAL RELEASE MEASURES

Small Spills

Wear protective equipment to prevent skin and eye contamination. Avoid inhalation of vapours or dust. Wipe up with absorbent (clean rag or paper towels). Collect and seal in properly labelled containers or drums for disposal.

Large Spills

Clear area of all unprotected personnel. Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Work up wind or increase ventilation. Contain - prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Collect and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services.

Dangerous Goods - Initial Emergency Response Guide No: Not applicable

HANDLING AND STORAGE

Handling: Avoid eye contact and skin contact. Avoid inhalation of vapour, mist or aerosols.

Storage: Store in a cool, dry, well-ventilated place and out of direct sunlight. Store away from foodstuffs. Store away from incompatible materials described in Section 10. Store away from sources of heat and/or ignition. Store locked up. Keep container standing upright. Keep containers closed when not in use - check regularly for leaks.

Classified as a C2 (COMBUSTIBLE LIQUID) for the purpose of storage and handling, in accordance with the requirements of AS 1940. Refer to State Regulations for storage and transport requirements.

This material is a Scheduled Poison Schedule 6 (Poison) and must be stored, maintained and used in accordance with the relevant regulations.

EXPOSURE CONTROLS / PERSONAL PROTECTION

National occupational exposure limits:

	TWA		STEL		NOTICES
	ppm	mg/m ³	ppm	mg/m ³	
2,2'-Oxybis[ethanol]	23	100	-	-	-

TWA - The time-weighted 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 to 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. The standard was created for workers who are routinely, potentially exposed during product manufacture.

Ingestion: This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): >2,000 mg/Kg bw

Corrosion/Irritancy: Eye: this material has been classified as a Category 2A Hazard (reversible effects to eyes). Skin: this material has been classified as not corrosive or irritating to skin.

Sensitisation: Inhalation: this material has been classified as not a respiratory sensitiser. Skin: this material has been classified as not a skin sensitiser.

Aspiration hazard: This material has been classified as non-hazardous.

Specific target organ toxicity (single exposure): This material has been classified as non-hazardous.

Chronic Toxicity

Mutagenicity: This material has been classified as non-hazardous.

Carcinogenicity: This material has been classified as non-hazardous.

Reproductive toxicity (including via lactation): This material has been classified as a Category 2 Hazard.

Specific target organ toxicity (repeat exposure): This material has been classified as non-hazardous.

ECOLOGICAL INFORMATION

Avoid contaminating waterways.

Acute aquatic hazard: This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): >100 mg/L

Long-term aquatic hazard: This material has been classified as non-hazardous. Non-rapidly or rapidly degradable substance for which there are adequate chronic toxicity data available OR in the absence of chronic toxicity data, Acute toxicity estimate (based on ingredients): >100 mg/L, where the substance is not rapidly degradable and/or BCF < 500 and/or log Kow < 4.

Ecotoxicity: No information available.

Persistence and degradability: No information available.

Bioaccumulative potential: No information available.

Mobility: No information available.

DISPOSAL CONSIDERATIONS

Persons conducting disposal, recycling or reclamation activities should ensure that appropriate personal protection equipment is used, see "Section 8. Exposure Controls and Personal Protection" of this SDS.

If possible material and its container should be recycled. If material or container cannot be recycled, dispose in accordance with local, regional, national and international Regulations.

TRANSPORT INFORMATION

ROAD AND RAIL TRANSPORT

Not classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".

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.

REGULATORY INFORMATION

The Rotterdam Convention (Prior Informed Consent)

Basel Convention (Hazardous Waste)

International Convention for the Prevention of Pollution from Ships (MARPOL)

This material/constituent(s) is covered by the following requirements:

- The Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) established under the Therapeutic Goods Act (Commonwealth).
- All components of this product are listed on or exempt from the Australian Inventory of Industrial Chemicals (AIIC).
- All components of this product are listed on or exempt from the New Zealand Inventory of Chemical (NZIoC).

HSNO Group Standard: HSR002606 - Lubricants, Lubricant Additives, Coolants and Anti-freeze Agents (Subsidiary Hazard) Group Standard

OTHER INFORMATION

Reason for issue:

First Issue

This Safety Data Sheet has been prepared by Chemical Data Services Pty Ltd on behalf of its client. Safety Data Sheets are updated frequently. Please ensure that you have a current copy. This information was prepared in good faith from the best information available at the time of issue. It is based on the present level of research and to this extent we believe it is accurate. However, no guarantee of accuracy is made or implied and since conditions of use are beyond our control, all information relevant to usage is offered without warranty. The manufacturer will not be held responsible for any unauthorised use of this information or for any modified or altered versions. 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.

Biological Limit Values: As per the "National Model Regulations for the Control of Workplace Hazardous Substances" the ingredients in this material do not have a Biological Limit Allocated.

Engineering Measures: Ensure ventilation is adequate to maintain air concentrations below Exposure Standards. Use only in well ventilated areas. Use with local exhaust ventilation or while wearing appropriate respirator. Vapour heavier than air - prevent concentration in hollows or sumps. Do NOT enter confined spaces where vapour may have collected.

Personal Protection Equipment: SAFETY SHOES, OVERALLS, GLOVES, CHEMICAL GOGGLES.

Personal protective equipment (PPE) must be suitable for the nature of the work and any hazard associated with the work as identified by the risk assessment conducted.

Wear safety shoes, overalls, gloves, chemical goggles. Available information suggests that gloves made from nitrile rubber should be suitable for intermittent contact. However, due to variations in glove construction and local conditions, the user should make a final assessment. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

Hygiene measures: Keep away from food, drink and animal feeding stuffs. When using do not eat, drink or smoke. Wash hands prior to eating, drinking or smoking. Avoid contact with clothing. Avoid eye contact and skin contact. Avoid inhalation of vapour, mist or aerosols. Ensure that eyewash stations and safety showers are close to the workstation location.

PHYSICAL AND CHEMICAL PROPERTIES

Form:	Liquid
Colour:	Amber
Odour:	Mild
Solubility:	Miscible with water
Density:	1.02 - 1.07 g/cm ³
Relative Vapour Density (air=1):	>1
Vapour Pressure (20 °C):	0.1 kPa
Flash Point (°C):	>100
Flammability Limits (%):	N Av
Autoignition Temperature (°C):	>280
Melting Point/Range (°C):	<-50
Boiling Point/Range (°C):	>260
Decomposition Point (°C):	300
pH:	7 - 10.5
Viscosity:	5 - 10 cSt @ 20°C
Total VOC (g/Litre):	N Av

(Typical values only - consult specification sheet)
N Av = Not available, N App = Not applicable

STABILITY AND REACTIVITY

Chemical stability: This material is thermally stable when stored and used as directed.

Conditions to avoid: Elevated temperatures and sources of ignition.

Incompatible materials: Oxidising agents.

Hazardous decomposition products: Oxides of carbon and nitrogen, smoke and other toxic fumes.

Hazardous reactions: No known hazardous reactions.

TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

Acute Effects

Inhalation: Material may be an irritant to mucous membranes and respiratory tract.

Skin contact: Contact with skin may result in irritation.

Ingestion: Swallowing can result in nausea, vomiting and irritation of the gastrointestinal tract.

Eye contact: An eye irritant.

Acute toxicity

Inhalation: This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): LC50 > 20.0 mg/L for vapours or LC50 > 5.0 mg/L for dust and mist or LC50 > 20,000 ppm for gas

Skin contact: This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): >2,000 mg/Kg bw