



DOT 5.1 BRAKE FLUID

Creation date: March 2024

SECTION 1– HAZARDS IDENTIFICATION

Classification of the substance or mixture

Poisons Schedule	Not scheduled.
Dangerous Goods	Not classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.
GHS Classification	Classified as Hazardous according to the Globally Harmonised System of Classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia. <ul style="list-style-type: none"> Toxic to Reproduction - Category 2

Label elements

GHS label pictograms	 <p>GHS08</p>
Signal word	WARNING

Hazard statement(s)

H361	Suspected of damaging fertility or the unborn child.
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Precautionary statement(s): General

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P103	Read label before use.

Precautionary statement(s): Prevention

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

Precautionary statement(s): Response

P308 + P313	IF exposed or concerned: Get medical advice/attention.
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Precautionary statement(s): Storage

P405	Store locked up.
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Precautionary statement(s): Disposal

P501	Dispose of contents/ container in accordance with local regulations.
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Note

IMPORTANT	This SDS and the Hazard Classifications contained therein, only apply to the product in its concentrated form, as supplied. When diluted to 1:20 or greater with water, they no longer apply. However, good hygiene and housekeeping practices should be adhered to.
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SECTION 2 – COMPOSITION AND INFORMATION ON INGREDIENTS

Ingredients:	CAS Number:	Proportion:
Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate	30989-05-0	30 - 60 % w/w
2-(2-(2-Butoxyethoxy)ethoxy)ethanol	143-22-6	1 - 10 % w/w
1,1'-Iminodipropen-2-ol	110-97-4	1 - 10 % w/w
Water and ingredients determined to be non-hazardous at concentrations present.	various	to 100 % w/w

NOTE: Ingredients determined not to be hazardous are present in concentrations that do not exceed the relevant cut-off concentrations as found from Safe Work Australia: Hazardous Chemical Information System (HCIS), European Chemicals Agency (ECHA), or have been found NOT to meet the criteria of a hazardous substance as defined in the Safe Work Australia publication "Approved Criteria for Classifying Hazardous Substances", or have been found NOT to meet the criteria of a dangerous substance as defined in the GLOBALLY HARMONIZED SYSTEM OF CLASSIFICATION AND LABELLING OF CHEMICALS (GHS7). Listed ingredients may be below the cut-off concentrations for classification as hazardous, but are listed for information purposes and for additive effects

SECTION 3 – FIRST AID MEASURES

Inhalation	Remove victim to fresh air away from exposure. Obtain medical attention if symptoms occur.
Skin contact	Immediately wash contaminated skin with plenty of soap and water. Remove contaminated clothing and wash before re-use. Seek medical advice (e.g. doctor) if irritation, burning or redness persists.
Eye contact	If in eyes, hold eyelids apart and flush the eyes continuously with running water. Remove contact lenses. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. If symptoms persist, seek medical attention.
Ingestion	Do NOT induce vomiting. Do NOT attempt to give anything by mouth to an unconscious person. Rinse mouth thoroughly with water immediately. Give water to drink. If vomiting occurs, give further water to achieve effective dilution. Seek medical advice (e.g. doctor).
Advice to Doctor	Treat symptomatically.
Scheduled Poisons	Poisons Information Centre in each Australian State capital city or in Christchurch, New Zealand can provide additional assistance for scheduled poisons. (Phone Australia 131126 or New Zealand 0800 764 766).
First Aid Facilities	Eye wash station. Normal washroom facilities.

SECTION 4 – FIRE FIGHTING MEASURES

Fire and Explosion Hazards	Not flammable.
Extinguishing Media	Fine water spray, Alcohol-resistant foam, dry agent (carbon dioxide, dry chemical powder). Do NOT use water jet.
Fire Fighting	On burning will emit toxic fumes, including those of oxides of carbon. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or products of combustion. Heating can cause expansion or decomposition of the material, which can lead to the containers exploding. If safe to do so, remove containers from the path of fire. Keep containers cool with water spray.
Flash Point	None allocated.

SECTION 5 – ACCIDENTAL RELEASE MEASURES

Emergency Procedures	Minor spills do not normally need any special clean-up measures – rinse with water. In the event of a major spill, prevent spillage from entering drains or water courses. Wear appropriate personal protective equipment and clothing to prevent exposure. Increase ventilation. If possible contain the spill. Place inert absorbent material onto spillage. Collect the material and place into a suitable labelled container. Do not dilute material but contain. Dispose of waste according to the applicable local and national regulations. If contamination of sewers or waterways occurs inform the local water and waste management authorities in accordance with local regulations.
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SECTION 6 – HANDLING AND STORAGE

Handling	Avoid eye and skin contact with concentrate. Avoid breathing vapour. Wear protective clothing when risk of exposure occurs. Avoid contact with incompatible materials. When handling, DO NOT eat, drink or smoke. Keep containers closed at all times. Avoid physical damage to containers. Always wash hands with soap and water after handling. Work clothes should be laundered. Launder contaminated clothing before re-use.
Storage	Store in a cool, dry, well-ventilated area, out of direct sunlight. Store in suitable, labelled containers. Keep containers tightly closed. Store away from incompatible materials. Ensure that storage conditions comply with applicable local and national regulations.

SECTION 7 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Limits	National Occupational Exposure Limits, as published by SAFEWORK AUSTRALIA: Time-weighted Average (TWA): None established for product. Short Term Exposure Limit (STEL): None established for product.
Ventilation	Ensure adequate ventilation. Ensure ventilation is adequate and that air concentrations of components are controlled below quoted Workplace Exposure Standards. Vapour heavier than air - prevent concentration in hollows or sumps. DO NOT enter confined spaces where vapour may have collected. Keep containers closed when not in use.
Personal Protective Equipment	Use good occupational work practice. The use of protective clothing and equipment depends upon the degree and nature of exposure. The following protective equipment should be available;
Eye Protection 	Safety glasses should be used for handling concentrate in quantity, cleaning up spills, decanting, etc. Eye protection devices should conform to relevant regulations. 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 butyl rubber, natural latex, neoprene, PVC and nitrile – to handle in quantity, clean up spills, decanting, etc. Final choice of appropriate gloves will vary according to individual circumstances. i.e. methods of handling or according to risk assessments undertaken. Occupational protective gloves should conform to relevant regulations. Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.
Body Protection  	Suitable protective workwear, e.g. rubber or plastic apron, sleeves, boots and cotton overalls buttoned at neck and wrist are recommended. Chemical resistant apron is recommended where large quantities are handled.
Respirator	Generally not required for typical applications as per label directions. Use with adequate ventilation. If determined by a risk assessment an inhalation risk exists, wear an organic vapour respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716.

SECTION 8 – PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid	Colour	Yellow
Odour	characteristic	Specific Gravity	1.06 (@ 20 °C)
Boiling Point	270 °C	Freezing Point	Not available
Vapour Pressure	Ca. 0.27 Pa (20 °C)	Vapour Density	Not available
Flash Point	130 °C	Flammable Limits	Not applicable
Water Solubility	Completely miscible (20 °C)	pH	ca. 9 (20 °C, 50g/L 50%)
Volatile Organic Compounds (VOC)	Not available	Per Cent Volatile	Not available
Viscosity	Not available	Odour Threshold	Not available

SECTION 9 – STABILITY AND REACTIVITY

Reactivity	Stable at normal temperatures and pressure. Hygroscopic.
Conditions to Avoid	None known.



Incompatibilities	None known.
Hazardous Decomposition	Thermal decomposition may result in the release of toxic and/or irritating fumes/Oxides of carbon. When handled and stored appropriately, no dangerous decomposition products are known.

SECTION 10 – TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

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:

Inhalation	Not expected to cause respiratory irritation.
Skin contact	Not expected to cause skin irritation.
Eye contact	Eye contact with concentrate may cause stinging, blurring, tearing.
Ingestion	Swallowing can result in nausea, vomiting, diarrhoea and abdominal pain.
Chronic exposure	No data.
Toxicology Information	Not classified as toxic. Oral LD50 (ATE calculated): >2,000 mg/kg (body weight).
Carcinogen Status	
SAFEWORK AUSTRALIA	No significant ingredient is classified as carcinogenic by SAFEWORK AUSTRALIA.
NTP	No significant ingredient is classified as carcinogenic by NTP.
IARC	No significant ingredient is classified as carcinogenic by IARC.
Respiratory sensitisation	Not expected to be a respiratory sensitizer.
Skin Sensitisation	Not expected to be a skin sensitizer.
Germ cell mutagenicity	Not considered to be a mutagenic hazard.
Reproductive Toxicity	Toxic to Reproduction - Category 2 (Tris[2-[2-(2-methoxyethoxy)ethoxy]ethyl] orthoborate). Some evidence of adverse effects on sexual function and fertility, based on animal experiments. Some evidence of adverse effects on development, based on animal experiments.
STOT-single exposure	Not expected to cause toxicity to a specific target organ.
STOT-repeated exposure	Not expected to cause toxicity to a specific target organ.
Aspiration Hazard	Not expected to be an aspiration hazard.

SECTION 11 – ECOLOGICAL INFORMATION

Acute Aquatic Toxicity Product (as sold)	Not harmful to aquatic life. LC50 > 100mg/L. Acute Aquatic Toxicity (ATE Calculated) LC50: 358.7 mg/L Acute Aquatic Toxicity NOT HAZARDOUS
Persistence and degradability	Readily biodegradable, based on ingredients.
Bio accumulative potential	No bioaccumulation is expected.
Mobility in soil	Due to its physico-chemical characteristics, highly mobile in the environment and will partition to the aquatic compartment.
Other adverse effects	Not available
Environmental Protection	Do not discharge this material into waterways.

SECTION 12 – DISPOSAL CONSIDERATIONS

	Dispose of waste according to applicable local and national regulations. Do not allow into drains or watercourses or dispose of where ground or surface waters may be affected. Wastes including emptied containers are controlled wastes and should be disposed of in accordance with all applicable local and national regulations.
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SECTION 13 – TRANSPORT INFORMATION

Labels Required	
ADG	Not classified as Dangerous Goods.



IMDG Marine Pollutant	No
HAZCHEM	None allocated.
Land Transport (ADG)	
UN Number	None allocated.
ADG Code	None allocated.
HAZCHEM Code	None allocated.
Special Provisions	None allocated.
Packing Group	None allocated.

SECTION 14 – REGULATORY INFORMATION

GHS Classification	Classified as Hazardous according to the Globally Harmonised System of Classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.
SUSMP	Not scheduled.
ADG Code	Not DG
AICIS	All ingredients present on Australian Inventory of Industrial Chemicals.

SECTION 15 – OTHER INFORMATION

Issue Date	7 th March 2024
Version Number	V 3.0 GHS7 classification
Abbreviations and acronyms	<p>ADG Code: Australian Code for the Transport of Dangerous Goods by Road and Rail.</p> <p>AICIS: Australian Industrial Chemicals Introduction Scheme.</p> <p>CAS Number: Chemical Abstracts Service Registry Number.</p> <p>GHS: Globally Harmonized System of Classification and Labelling of Chemicals</p> <p>HAZCHEM: An emergency action code of numbers and letters which gives information to emergency services.</p> <p>HSIS: Hazardous Substances Information System</p> <p>IARC: International Agency for Research on Cancer.</p> <p>NOHSC: National Occupational Health and Safety Commission.</p> <p>NTP: National Toxicology Program (USA).</p> <p>SDS: Safety Data Sheet</p> <p>STEL: Short Term Exposure Limit.</p> <p>SUSMP: Standard for the Uniform Scheduling of Medicines and Poisons.</p> <p>TWA: Time Weighted Average.</p> <p>UN Number: United Nations Number.</p>
Literature references	<p>Preparation of Safety Data Sheets for Hazardous Chemicals – Code of Practice (Safe Work Australia)</p> <p>GHS Hazardous Chemical Information List (Safe Work Australia)</p> <p>Guidance on the Classification of Hazardous Chemicals under the WHS Regulations.</p> <p>Global Harmonized System of Classification and Labelling of Chemicals (GHS)</p> <p>“Australian Exposure Standards”. Safework Australia</p> <p>Australian Code For The Transport Of Dangerous Goods By Road And Rail</p> <p>Standard for the Uniform Scheduling of Medicines and Poisons</p> <p>Safety Data Sheets – individual raw materials – Suppliers</p> <p>HSIS – Hazardous Substance Information System – National Safe Work Australia Data Base.</p> <p>HCIS – Hazardous Chemical Information System – National Safe Work Australia Data Base.</p> <p>ECHA – European Chemicals Agency</p>
Disclaimer	This SDS summarizes at the date of issue our best knowledge of the health and safety hazard information of this product, and in particular how to safely handle and use this product in the workplace. Since the supplier 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 supplier.

End of SDS