SAFETY DATA SHEET

1. Product and company identification

Product name **Bel-Ray Super DOT 4 Brake Fluid**

Product code 99480

SDS number 6419

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Recommended use and Limitations on use

Not available.

2. Hazards identification

GHS classification

Physical hazards Not classified.

Health hazards Reproductive toxicity Category 2

Environmental hazards Not classified.

Label elements

Symbols

Signal word Warning

Hazard statement Suspected of damaging fertility or the unborn child.

Precautionary statement

Prevention Keep out of reach of children. Read label before use. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required.

Response If medical advice is needed, have product container or label at hand. IF exposed or concerned: Get medical advice/attention.

Storage Store locked up.

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

3. Composition / information on ingredients

Substance or mixture Mixture

Chemical property	CAS Number	Concentration (%)
Diethylene glycol Diethylene Glycol	111-46-6	1 - < 3
Other components below reportable levels		90 - 100

4. First aid measures

Inhalation Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact Rinse skin with water/shower. Get medical attention if irritation develops and persists.

Eye contact Rinse with water. Get medical attention if irritation develops and persists.

Ingestion	Do not induce vomiting. Never give liquid to an unconscious person.
Potential delayed effects	Not available.
Personal protection for first-aid responders	IF exposed or concerned: Get medical advice/attention.
Notes to physician	Not available.

5. Fire-fighting measures

Extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
Extinguishing media to avoid	Water. Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards during fire fighting	None.
Special fire fighting procedures	None.
Protection of fire-fighters	None.
Hazards from combustion products	Carbon monoxide and carbon dioxide.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Local authorities should be advised if significant spillages cannot be contained. Keep people away from and upwind of spill/leak. Ensure adequate ventilation.
Environmental precautions	No special environmental precautions required.
Spill cleanup methods	Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water. Small Spills: Clean surface thoroughly to remove residual contamination. Never return spills in original containers for re-use. For waste disposal, see section 13.

7. Handling and storage

Handling

Precautions	Obtain special instructions before use. Use personal protective equipment as required. When using, do not eat, drink or smoke. Wash hands thoroughly after handling.
Safe handling advice	Do not handle until all safety precautions have been read and understood. Avoid contact during pregnancy/while nursing. Avoid prolonged exposure. Use personal protection recommended in Section 8 of the MSDS.
Prevention of fire and explosion	No specific recommendations.

Storage

Suitable storage conditions	Store locked up.
Incompatible materials	None known.
Safe packaging materials	Keep in original container.

8. Exposure controls/personal protection

Exposure limits

New Zealand. WES. (Workplace Exposure Standards)

Components	Type	Value
Diethylene glycol (111-46-6)	TWA	101 mg/m3 23 ppm

UK. EH40 Workplace Exposure Limits (WELs)

Components	Type	Value
Diethylene glycol (111-46-6)	TWA	101 mg/m3 23 ppm

Australia. OELs. (Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment)

Components	Type	Value
Diethylene glycol (111-46-6)	TWA	100 mg/m3 23 ppm

Engineering controls	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide adequate general and local exhaust ventilation.

Personal protective equipment

Respiratory protection	When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
Skin protection	Normal work clothing (long sleeved shirts and long pants) is recommended.
Eye/face protection	Not normally needed.
Radioactive or thermal hazards	Not available.
Hygiene measures	When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product. Handle in accordance with good industrial hygiene and safety practices.

9. Physical and chemical properties

Appearance

Physical state	Liquid.
Form	Liquid.
Colour	Not available.
Odour	Not available.
pH	7 - 11.5
Odour threshold	Not available.
Melting point/freezing point	-10.4 °C (13.28 °F) estimated
Boiling point, initial boiling point, and boiling range	> 275 °C (> 527 °F)
Flash point	> 129 °C (> 264.2 °F)
Auto-ignition temperature	228.89 °C (444 °F) estimated
Flammability (solid, gas)	Not available.
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit	Not available.
Vapour pressure	0.11 hPa estimated
Density	1.07 - 1.09 g/cm3
Vapour density	Not available.
Evaporation rate	Not available.
Relative density	Not available.
Solubility	350 g/l
Solubility (other)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Decomposition temperature	Not available.
Viscosity	17 - 18 mm^2/s
Percent volatile	2 % estimated

Other data

Flammability class	Combustible IIIB estimated
Specific gravity	1.07 estimated
Viscosity temperature	20 °C (68 °F)
VOC (Weight %)	2 % estimated

10. Stability and reactivity

Stability	Material is stable under normal conditions.
Conditions to avoid	Avoid temperatures exceeding the flash point.
Incompatible materials	None known.
Hazardous decomposition products	At thermal decomposition temperatures, carbon monoxide and carbon dioxide.

Possibility of hazardous reactions None.

11. Toxicological information

Acute toxicity Not available.

Components	Test results
Diethylene glycol (111-46-6)	Acute Dermal LD50 Rabbit: 11890 mg/kg
	Acute Oral LD50 Cat: 3300 mg/kg
	Acute Oral LD50 Dog: 9000 mg/kg
	Acute Oral LD50 Guinea pig: 8700 mg/kg
	Acute Oral LD50 Guinea pig: 14 g/kg
	Acute Oral LD50 Mouse: 23700 mg/kg
	Acute Oral LD50 Mouse: 13.3 g/kg
	Acute Oral LD50 Rabbit: 26.9 g/kg
	Acute Oral LD50 Rat: > 7700 mg/kg
	Acute Oral LD50 Rat: 15.6 g/kg
	Acute Other LD50 Mouse: 22500 mg/kg
	Acute Other LD50 Mouse: 9.6 g/kg
	Acute Other LD50 Rabbit: 2000 mg/kg
	Acute Other LD50 Rat: 7700 mg/kg
	Acute Other LD50 Rat: 7.7 g/kg

* Estimates for product may be based on additional component data not shown.

Routes of exposure Inhalation.

Symptoms Not available.

Skin corrosion / irritation Not available.

Serious eye damage / eye irritation Not available.

Respiratory sensitizer Not available.

Skin sensitizer Not available.

Germ cell mutagenicity Not available.

Carcinogenicity Not available.

Toxic to reproduction Suspected of damaging fertility or the unborn child.

Specific target organ toxicity - single exposure Not available.

Specific target organ toxicity - repeated exposure Not available.

Aspiration hazard Not available.

Chronic effects Prolonged inhalation may be harmful.

Relevant negative data Not available.

12. Ecological information

Ecotoxicological data

Components	Test results
Diethylene glycol (111-46-6)	LC50 Western mosquitofish (Gambusia affinis): > 32000 mg/l 96 hours

* Estimates for product may be based on additional component data not shown.

Ecotoxicity Not expected to be harmful to aquatic organisms.

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulation Not available.

Mobility Not available.

Environmental fate - Partition coefficient	Not available.
Other hazardous effects	Not available.

13. Disposal considerations

Disposal methods/information	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
Special precautions	Not available.

14. Transport information

International regulations

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

15. Regulatory information

Applicable regulations

New Zealand Inventory of Chemicals (NZIoC): Registration status

Diethylene glycol (CAS 111-46-6)	HSNO Approved

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

16. Other information

References	Not available.

Issued by

Not available.

Prepared by

Not available.

Disclaimer	Bel-Ray Company cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use.
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