



SAFETY DATA SHEET

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Material name Bel-Ray Silicone DOT 5 Brake Fluid
Product code 99450
MSDS Number 6420
Version No. 1.0
Revision Date 16-June-2010
Manufacturer

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2. HAZARDS IDENTIFICATION

HAZARDOUS SUBSTANCE. DANGEROUS GOODS.

Classification Carc. Cat. 3;R40
Risk phrase(s) R40 Limited evidence of a carcinogenic effect.
Safety phrase(s) S1/2 Keep locked up and out of the reach of children.
S36/37 Wear suitable protective clothing and gloves.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS #	Percent
TRIBUTYL PHOSPHATE	126-73-8	<= 10

4. FIRST-AID MEASURES

Inhalation Move to fresh air. Oxygen or artificial respiration if needed. Get medical attention, if needed.
Skin contact Wash off immediately with soap and plenty of water. Get medical attention if irritation develops and persists.
Eye contact Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists.
Ingestion Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not use mouth-to-mouth method if victim ingested the substance. If swallowed, seek medical advice immediately and show this container or label. Never give liquid to an unconscious person.
General advice Call a physician if symptoms develop or persist.
Notes to physician In case of shortness of breath, give oxygen. Keep victim warm. Symptoms may be delayed.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media Water. Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
Specific hazards Fire may produce irritating, corrosive and/or toxic gases.
Special protective equipment for fire-fighters Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.
Specific methods Cool containers exposed to flames with water until well after the fire is out.
Hazardous combustion products May include oxides of Phosphorus. Carbon monoxide and carbon dioxide.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	Keep unnecessary personnel away. Keep upwind. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Ventilate closed spaces before entering them. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. In case of spills, beware of slippery floors and surfaces.
Environmental precautions	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Dike far ahead of spill for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Following product recovery, flush area with water. Never return spills in original containers for re-use.

7. HANDLING AND STORAGE

Handling	Do not use in areas without adequate ventilation. Wash thoroughly after handling.
Storage	Keep locked up. Room temperature - normal conditions. Keep out of the reach of children.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limits

ACGIH

Components	Type	Value
TRIBUTYL PHOSPHATE (126-73-8)	TWA	0.2000 ppm

Australia

Components	Type	Value
TRIBUTYL PHOSPHATE (126-73-8)	TWA	0.2000 ppm 2.2000 mg/m3

Engineering measures	Ensure adequate ventilation, especially in confined areas.
Personal protective equipment	
Hand protection	Wear suitable gloves.
Skin and body protection	Wear suitable protective clothing.
General	Applicable for industrial settings only: Use personal protective equipment as required. Keep working clothes separately.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Liquid.
Physical state	Liquid
Form	Liquid.
Colour	Purple
Odour	Odourless.
Odour threshold	Not available.
pH	Not available.
Vapour pressure	< 0.1 mm Hg
Density	958 kg/m3
Vapour density	Not available.
Boiling point	289 °C (552.2 °F) estimated
Melting point/Freezing point	0 °C (32 °F) estimated / 0 °C (32 °F) estimated
Solubility (water)	Not available.
Solubility (other)	Not available.
Relative density	0.958
Relative density	Not available.
Flash point	206 °C (402.8 °F)
Flammability limits in air, upper, % by volume	Not available.
Flammability limits in air, lower, % by volume	Not available.
Auto-ignition temperature	Not available.
Viscosity	42 - 43 cSt @ 25 °C (77 °F)

10. STABILITY AND REACTIVITY

Chemical stability	Material is stable under normal conditions.
Materials to avoid	Strong oxidising agents.
Hazardous decomposition products	Oxides of phosphorus. At thermal decomposition temperatures, carbon monoxide and carbon dioxide.

11. TOXICOLOGICAL INFORMATION

Toxicological data

Product	Test results
Bel-Ray Silicone DOT 5 Brake Fluid (Mixture)	Acute Inhalation LC50 Cat: 10089 mg/l estimated Acute Inhalation LC50 Rat: 5467 mg/l estimated Acute Oral LD50 Chicken: 82800 mg/kg estimated Acute Other LD50 Mouse: 7044 mg/kg estimated Acute Other LD50 Rat: 35.56 g/kg estimated
Components	Test results
TRIBUTYL PHOSPHATE (126-73-8)	Acute Dermal LD50 Rabbit: > 3100 mg/kg Acute Inhalation LC50 Cat: 227 mg/l 4.00 Hours Acute Inhalation LC50 Rat: 123 mg/l 6.00 Hours Acute Oral LD50 Chicken: 1863 mg/kg Acute Other LD50 Mouse: 158.5 mg/kg Acute Other LD50 Rat: 100 mg/kg Acute Other LD50 Rat: 0.8 g/kg

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

Routes of exposure	Not applicable.
Local effects	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea. Contact with eyes may cause irritation. May cause skin irritation.

12. ECOLOGICAL INFORMATION

Ecotoxicological data

Product	Test results
Bel-Ray Silicone DOT 5 Brake Fluid (Mixture)	LC50 Fish: 337 mg/l 96.00 hours estimated
Components	Test results
TRIBUTYL PHOSPHATE (126-73-8)	LC50 Fathead minnow (Pimephales promelas): 1 - 10 mg/l 96.00 hours

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

Ecotoxicity	Not expected to be harmful to aquatic organisms.
Environmental Effects	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

13. DISPOSAL CONSIDERATIONS

Disposal instructions	Must be incinerated in a suitable incineration plant holding a permit delivered by the competent authorities. Dispose in accordance with all applicable regulations.
Waste from residues / unused products	Dispose of in accordance with local regulations.

14. TRANSPORT INFORMATION

ADG
Not regulated as dangerous goods.

IATA
Not regulated as dangerous goods.

IMDG
Not regulated as dangerous goods.

15. REGULATORY INFORMATION

National regulations This Material Safety Data Sheet was prepared in accordance with the Australia National Code of Practice for the Preparation of Material Safety Data Sheets (NOHSC: 2011.) No poison schedule number allocated.

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	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

Risk phrase(s) R40 Limited evidence of a carcinogenic effect.

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. The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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