



DOT 5 BRAKE FLUID

Released: 2017-12-22

Version: 1.0
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1. IDENTIFICATION OF THE SUBSTANCE / APPLICATION AND THE COMPANY

1.1 Product Identifier

Trade Name: DOT 5 Brake Fluid
Product Number: 80-81916

1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Product Use: Brake Fluid

Restrictions on Use: None known

1.3 Details of the Supplier of the Safety Data Sheet

Manufacturer: Maxima Racing Oils
 9266 Abraham Way
 Santee, CA 92071
 USA
Information Phone Number: +1 619 449 5000
E-mail: info@maximausa.com

1.4 Emergency Telephone Number

Emergency Spill Information: In USA: CHEMTREC +1 703 527 3887 (24 hours)
 Outside USA: +1 619 449 5000

2. HAZARDS IDENTIFICATION

2.1 Classification of the Substance or Mixture

CLP (1272/2008) Classification:

The mixture is not classified as hazardous according to Regulation (EC) CLP (1272/2008)

2.2 Label Elements

Hazard Statements	Precautionary Phrases
None	None

2.3 Other Hazards: None

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixture

Chemical Name	CAS#	EINECS#	REACH registration#	CLP Classification	% w/w



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Polydimethyl-siloxane	63148-62-9	613-156-5	-	NC	90-100
Tributyl-phosphate	126-73-8	204-800-2	01-2119492859-14-xxxx	Acute Toxicity 4 (H302) Skin Irritation 2 (H315) Carcinogenicity 2 (H351) Aquatic Chronic 3 (H412)	0.1-<1

The exact percentage and composition are being withheld as a trade secret.

SECTION 4: FIRST AID MEASURES

4.1 Description of First Aid Measures

Eye: Flush eyes with water for several minutes. Remove contact lenses, if present and easy to do so. If eye irritation persists, get medical attention.

Skin: Wash skin with soap and water. Remove clothing and shoes if contaminated. Launder clothing before reuse. If irritation or rash develops, get medical attention.

Inhalation: If inhaled remove to fresh air. If irritation or difficulty in breathing occurs, get medical attention.

Ingestion: If conscious, rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention.

4.2 Most Important symptoms and effects, both acute and delayed: May cause mild eye irritation. Prolonged skin contact may cause irritation. Inhalation of vapours or mists may cause respiratory irritation. Swallowing may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

4.3 Indication of any immediate medical attention and special treatment needed: As a general rule, and in all cases of doubt or when symptoms persist, always seek medical attention. Never give anything by mouth to an unconscious person.

SECTION 5: FIRE AND EXPLOSION DATA

5.1 Extinguishing Media Use foam, dry chemical or carbon dioxide (CO₂) to extinguish flames. A solid stream of water or foam can cause frothing.

5.2 Special Hazards Arising from the Substance or Mixture

Unusual Fire and Explosion Hazards: This material will burn although it is not easily ignited.

Combustion Products: Combustion will produce carbon oxides and unidentified organic compounds.

5.3 Advice for Fire-Fighters:



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Special Fire Fighting Procedures: Firefighters should wear full emergency equipment and an approved positive pressure self-contained breathing apparatus. Cool exposed intact containers with water.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment and Emergency Procedures:

Wear appropriate protective equipment. Wash thoroughly after handling. See also: "Personal Protection" section 8.

6.2 Environmental Precautions:

Avoid release into the environment. Report spill as required by local and national regulations.

6.3 Methods and Material for Containment and Cleaning Up:

Dike spill and collect with an inert absorbent. Place into closable containers for disposal. Collected material is handled in accordance with section 13 "Disposal Considerations".

6.4 Reference to Other Sections: Refer to Section 8 for personal protective equipment and Section 13 for disposal information.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for Safe Handling: Avoid contact with eyes, skin and clothing. Avoid breathing vapours and mists. Wash thoroughly with soap and water after handling. Remove soaked clothing and launder before re-use.

7.2 Conditions for Safe Storage, Including any Incompatibilities: Store in a cool area away from oxidising agents. Protect containers from physical damage. Brake fluids absorb water from the atmosphere – always keep containers tightly closed.

7.3 Specific end use(s): The product is to be used as a brake fluid. Prolonged contact with the skin should be prevented due to the risk of skin dryness and cracking. If inhalation of high concentrations of vapours and mists cannot be prevented appropriate personal protective equipment should be used.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters: Refer to country-specific legislation for specific requirements where not listed below.

Chemical Name	Exposure Limits
Polydimethylsiloxane	None Established
Tributylphosphate	None Established



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8.2 Exposure Controls:

Appropriate Engineering Controls: Use with adequate local exhaust ventilation to minimize exposure. Use explosion proof equipment where required.

Respiratory Protection: If the exposure is excessive or irritation is experienced, an approved particulate/organic vapour respirator appropriate for the form and concentration of the contaminants should be used. Selection and use of respiratory equipment must be in accordance with local regulations and good industrial hygiene practice.

Skin Protection: Wear impervious gloves in accordance with EN 374 to avoid skin contact. Protective clothing if needed to avoid skin contact and contamination of personal clothing. Suitable washing should be available in the work area. Contaminated clothing should be removed and laundered before re-use.

Eye Protection: Wear chemical goggles in accordance with EN 166 to prevent eye contact.

Other Protective Equipment: None should be needed under normal use conditions. In Europe follow EN 13034.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic Physical and Chemical Properties

Appearance	Clear liquid
Colour	Usually dyed purple
Odour	Bland
Odour Threshold	N/A – very low odour
pH	7.0 to 11.5 (SAE J 1703)
Freezing Point	<-50°C (SAE J 1703)
Boiling Point	>260°C (SAE J 1703)
Flash Point	>150°C (IP 35)
Evaporation Rate	Negligible
Flammability (solid, gas)	Not established (non-volatile)
Upper Explosion Limit	No data available
Lower Explosion Limit	No data available
Vapour Pressure	< 2 mbar (Reid)
Vapour Density (Air=1)	Not established (non-volatile)
Relative Density	0.945-0.965 g/ml @20°C (DIN 51757)
Solubility	In ethanol: partly soluble; In water: immiscible
Partition Coefficient: n-octanol/water	Not established
Auto Ignition Temperature	>400°C (ASTM D 286)
Decomposition Temperature	>400°C
Volatile Organic Compounds (VOC)	No data available
Viscosity	Approx. 35-50 cSt @20°C (ASTM D 445)



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9.2 Other Information: None available

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity: Not expected to be reactive

10.2 Chemical Stability: Stable

10.3 Possibility of Hazardous Reactions: None known.

10.4 Conditions to Avoid: Avoid contact with moisture as product is hygroscopic.

10.5 Incompatible Materials: Avoid contact with strong oxidising agents. For user safety, brake fluid should never be contaminated with any other substance.

10.6 Hazardous Decomposition Products: Thermal decomposition may produce carbon oxides and unidentified organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological Effects:

Potential Health Effects:

Eye Contact: May cause mild irritation.

Skin Contact: Prolonged or repeated contact may cause mild irritation or dryness. Repeated skin contact may cause non-allergic dermatitis.

Inhalation: Excessive inhalation of vapours or mists may cause upper respiratory tract irritation.

Ingestion: Swallowing large amounts may cause gastrointestinal effects including nausea and diarrhoea.

Acute Toxicity Values:

Product: Oral rat LD50 >5000 mg/kg, Inhalation rat LC50 NA, Dermal rabbit LD50 >3000 mg/kg.

Tributylphosphate: Oral rat LD50 300-2000 mg/kg, Inhalation rat LC50 >4.0 mg/L/4 hr, Dermal rabbit LD50 >2000 mg/kg

Skin corrosion/irritation: The product does not meet the criteria to be classified as a skin irritant.

Eye damage/irritation: The product does not meet the criteria to be classified as an eye irritant.

Respiratory Irritation: The product does not contain any components that are respiratory irritants.



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Respiratory Sensitization: The product does not contain any components that are respiratory sensitisers.

Skin Sensitization: The product does not contain any components that are skin sensitisers.

Germ Cell Mutagenicity: The product does not contain any components that are germ cell mutagens.

Carcinogenicity: Tributylphosphate has been shown to cause cancer in the urinary bladder in rats in feeding studies.

Reproductive Toxicity: This product is not expected to cause reproductive or developmental effects.

Specific Target Organ Toxicity:

Single Exposure: No data available

Repeat Exposure: No data available

Aspiration Hazard: This product does not meet the criteria of an aspiration hazard.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Tributylphosphate: 96 hr LC50 Goldfish >170 mg/L, 48 hr EC50 water flea >70 mg/L, 72 hr EC50 green algae >20 mg/L

12.2 Persistence and Degradability

Tributylphosphate is readily biodegradable.

12.3 Bioaccumulative Potential

Tributylphosphate has a BCF of 21-35 which suggests a low potential for bioaccumulation.

12.4 Mobility in Soil

The product is not water soluble (floats on water). Limited mobility in soil.

12.5 Results of PBT and vPvB Assessment: Components do not meet the criteria of PBT or vPvB.

12.6 Other Adverse Effects: None known

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods:

Dispose in accordance with all local and national regulations.



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SECTION 14: TRANSPORTATION INFORMATION

	14.1 UN Number	14.2 UN Proper Shipping Name	14.3 Hazard Class(s)	14.4 Packing Group	14.5 Environmental Hazards
EU ADR/RID	None	Not Regulated	None	None	
IMDG	None	Not Regulated	None	None	
IATA/ICAO	None	Not Regulated	None	None	

14.6 Special Precautions for User: Not applicable

14.7 Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code: Not applicable – product is transported only in packaged form

SECTION 15: REGULATORY INFORMATION

15.1 Safety, Health and Environment Regulations/Legislation Specific for the Substance or Mixture:

This SDS conforms to Regulation (EU) No. 1907/2006 and 2015/830.
Label in accordance with Regulation (EC) No. 1272/2008 (CLP).

SECTION 16: OTHER INFORMATION

Supersedes: None

Date Updated: December 22, 2017

Revision Summary:

12/22/17: New document

CLP Classification for Reference (See Sections 2 and 3):

- Acute Tox. 4 Acute Toxicity Category 4
- Skin Irrit. 2 Skin Irritation Category 2
- Carc. 2 Carcinogenicity Category 2
- Aquatic Chronic 3 Aquatic Chronic Category 3
- H302 Harmful if swallowed
- H315 Causes skin irritation
- H351 Suspected of causing cancer
- H412 Harmful to aquatic life with long lasting effects
- NC Not Classified

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The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.