



SAFETY DATA SHEET DOT 5.1 BRAKE FLUID

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product Name DOT 5.1 BRAKE FLUID
Product No. BFG050

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses Brake fluid

1.3. Details of the supplier of the safety data sheet

Supplier: TETROSYL LIMITED
BEVIS GREEN WORKS
WALMERSLEY
BURY
BL9 6RE
0161 764 5981
0161 797 5899
info@tetrosyl.com

1.4. Emergency telephone number

0161 764 5981

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification (1999/45/EEC) Not classified.

Human Health

See section 11 for additional information on health hazards.

2.2. Label elements

Risk Phrases

NC

Not classified.

Safety Phrases

S2

Keep out of the reach of children.

S46

If swallowed, seek medical advice immediately and show this container or label.

2.3. Other hazards

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

DOT 5.1 BRAKE FLUID

2-(2-METHOXYETHOXY)ETHANOL		1-5%
CAS-No.: 111-77-3	EC No.: 203-906-6	
Classification (EC 1272/2008) Repr. 2 - H361d	Classification (67/548/EEC) Repr. Cat. 3;R63	
2-[2-(2-BUTOXYETHOXY)ETHOXY]ETHANOL		10-30%
CAS-No.: 143-22-6	EC No.: 205-592-6	
Classification (EC 1272/2008) Eye Dam. 1 - H318	Classification (67/548/EEC) Xi;R41	
DIETHYLENE GLYCOL		10-30%
CAS-No.: 111-46-6	EC No.: 203-872-2	
Classification (EC 1272/2008) Acute Tox. 4 - H302	Classification (67/548/EEC) Xn;R22	

The Full Text for all R-Phrases and Hazard Statements is Displayed in Section 16

Composition Comments

The data shown are in accordance with the latest EC Directives.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General Information

Remove affected person from source of contamination. Get medical attention if any discomfort continues.

Inhalation.

Get medical attention if any discomfort continues.

Ingestion

DO NOT induce vomiting. Get medical attention immediately. Rinse mouth thoroughly. Drink plenty of water.

Never give liquid to an unconscious person.

Skin Contact

Promptly wash contaminated skin with soap or mild detergent and water. Promptly remove clothing if soaked through and wash as above. Get medical attention if any discomfort continues.

Eye Contact

Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyes wide apart. Do not rub eye.

4.2. Most important symptoms and effects, both acute and delayed

General Information

The severity of the symptoms described will vary dependant of the concentration and the length of exposure.

NOTE! Effects may be delayed. Keep affected person under observation.

Inhalation.

In high concentrations, vapours are anaesthetic and may cause headache, fatigue, dizziness and central nervous system effects. Irritation of nose, throat and airway.

Ingestion

May cause discomfort if swallowed. May cause stomach pain or vomiting. Ingestion of large amounts may cause unconsciousness. May cause nausea, headache, dizziness and intoxication. Burning sensation in mouth.

Ingestion may result in unconsciousness, blindness and death.

DOT 5.1 BRAKE FLUID**Skin Contact**

Prolonged skin contact may cause redness and irritation. Mild dermatitis, allergic skin rash.

Eye Contact

Irritation of eyes and mucous membranes. Irritation, burning, lachrymation, blurred vision after liquid splash.

4.3. Indication of any immediate medical attention and special treatment needed

No recommendation given, but first aid may still be required in case of accidental exposure, inhalation or ingestion of this chemical. If in doubt, GET MEDICAL ATTENTION PROMPTLY!

SECTION 5: FIREFIGHTING MEASURES**5.1. Extinguishing media****Extinguishing Media**

Use fire-extinguishing media appropriate for surrounding materials.

5.2. Special hazards arising from the substance or mixture**Hazardous Combustion Products**

Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

Unusual Fire & Explosion Hazards

No unusual fire or explosion hazards noted.

Specific Hazards

Not relevant.

5.3. Advice for firefighters**Special Fire Fighting Procedures**

No specific fire fighting procedure given.

Protective Measures In Fire

Leave danger zone immediately.

SECTION 6: ACCIDENTAL RELEASE MEASURES**6.1. Personal precautions, protective equipment and emergency procedures**

For personal protection, see section 8. In case of spills, beware of slippery floors and surfaces. Follow precautions for safe handling described in this safety data sheet.

6.2. Environmental precautions

The product should not be dumped in nature but collected and delivered according to agreement with the local authorities.

6.3. Methods and material for containment and cleaning up

For waste disposal, see section 13. When dealing with a spillage, please consult the section relating to suitable protective measures. Provide ventilation and confine spill. Do not allow runoff to sewer. Absorb spillage with non-combustible, absorbent material. Contact Health and Safety department on 6147 or 6695 for further assistance.

6.4. Reference to other sections

Wear protective clothing as described in Section 8 of this safety data sheet. For waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE**7.1. Precautions for safe handling**

Read and follow manufacturer's recommendations. Avoid spilling, skin and eye contact. Always remove grease with soap and water or skin cleaning agent, never use organic solvents. Do not eat, drink or smoke when using the product. Good personal hygiene is necessary. Wash hands and contaminated areas with water and soap before leaving the work site.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from food, drink and animal feeding stuffs. Store in tightly closed original container in a dry, cool and well-ventilated place.

DOT 5.1 BRAKE FLUID**7.3. Specific end use(s)**

The identified uses for this product are detailed in Section 1.2.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**8.1. Control parameters**

Name	STD	TWA - 8 Hrs		STEL - 15 Min		Notes
DIETHYLENE GLYCOL	WEL	23 ppm	101 mg/m ³			

WEL = Workplace Exposure Limit.

8.2. Exposure controls

Protective Equipment



Process Conditions

Use engineering controls to reduce air contamination to permissible exposure level. Provide eyewash station.

Engineering Measures

Observe occupational exposure limits and minimize the risk of inhalation of vapours.

Respiratory Equipment

If ventilation is insufficient, suitable respiratory protection must be provided.

Hand Protection

Use suitable protective gloves if risk of skin contact.

Eye Protection

Goggles/face shield are recommended.

Other Protection

Wear suitable protective clothing as protection against splashing or contamination. Wear appropriate clothing to prevent reasonably probable skin contact.

Hygiene Measures

Wash contaminated clothing before reuse. Wash at the end of each work shift and before eating, smoking and using the toilet.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**9.1. Information on basic physical and chemical properties**

Appearance	Clear liquid
Colour	Colourless to Amber
Odour	Slight odour of alcohol
Solubility	Miscible with water Miscible with: Ethanol.
Melting Point (°C)	<-50°C
Relative Density	1.060 - 1.07 20
Vapour Density (Air=1)	Scientifically unjustified.
Vapour Pressure	<2 mbar 20°C
Evaporation Rate	Scientifically unjustified.
pH-Value, Conc. Solution	7.0-10.5
Viscosity	5 - 10 cSt
Decomposition Temperature (°C)	Scientifically unjustified.

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Odour Threshold, Lower

Scientifically unjustified.

Odour Threshold, Upper

Scientifically unjustified.

Flash Point (°C) >100°C CC (Closed cup).

Auto Ignition Temperature (°C) >300°C

C)

Flammability Limit - Lower(%)

Scientifically unjustified.

Flammability Limit - Upper(%)

Scientifically unjustified.

Partition Coefficient <2.0

(N-Octanol/Water)

Oxidising Properties

Not available.

9.2. Other information**SECTION 10: STABILITY AND REACTIVITY****10.1. Reactivity**

Reaction with: Acids. Strong oxidising agents. Alkalis.

10.2. Chemical stability

No particular stability concerns.

10.3. Possibility of hazardous reactions

Not determined.

10.4. Conditions to avoid

Avoid excessive heat for prolonged periods of time.

10.5. Incompatible materials

Materials To Avoid

Strong oxidising substances.

10.6. Hazardous decomposition products

None under normal conditions.

SECTION 11: TOXICOLOGICAL INFORMATION**11.1. Information on toxicological effects**

Toxic Dose 1 - LD 50 >5000 mg/kg (oral rat)

Toxicological Information

No information available.

Skin Contact

May cause defatting of the skin, but is not an irritant.

Eye Contact

May cause temporary eye irritation.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity:

The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

12.1. Toxicity

LC 50, 96 Hrs, Fish mg/l >100 mg/l

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Acute Toxicity - Aquatic Invertebrates
Not available.

12.2. Persistence and degradability

Degradability:
The product is biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative Potential:
No data available on bioaccumulation.

Partition Coefficient Partition coefficient
(n-octanol/water): <2.0

12.4. Mobility in soil

Mobility:
The product is soluble in water.
Adsorption/Desorption Coefficient
Not available.

12.5. Results of PBT and vPvB assessment

Not Classified as PBT/vPvB by current EU criteria.

12.6. Other adverse effects

Not available.

SECTION 13: DISPOSAL CONSIDERATIONS

General Information

When handling waste, consideration should be made to the safety precautions applying to handling of the product.

13.1. Waste treatment methods

Dispose of waste and residues in accordance with local authority requirements. Absorb in vermiculite or dry sand and dispose of at a licenced hazardous waste collection point.

SECTION 14: TRANSPORT INFORMATION

General Full protective clothing should be worn when handling this product.

14.1. UN number**14.2 UN Proper shipping name****14.3 Transport hazard class(es)****14.4. Packing group****14.5. Environmental hazards****14.6. Special precautions for user****14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code****SECTION 15: REGULATORY INFORMATION****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Uk Regulatory References

The Control of Substances Hazardous to Health Regulations 2002 (S.I 2002 No. 2677) with amendments.

DOT 5.1 BRAKE FLUID

EU Legislation

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.

15.2. Chemical Safety Assessment**SECTION 16: OTHER INFORMATION**

General Information

Only trained personnel should use this material.

Revision Comments

NOTE: Lines within the margin indicate significant changes from the previous revision.

Issued By Health & Safety Department

Revision Date 15/06/2011

Revision 5

Safety Data Sheet Status Approved.

Risk Phrases In Full

R22 Harmful if swallowed.

R63 Possible risk of harm to the unborn child.

R41 Risk of serious damage to eyes.

Hazard Statements In Full

H302 Harmful if swallowed.

H318 Causes serious eye damage.

H361d Suspected of damaging the unborn child.

Disclaimer

The information provided in this document has been compiled on the basis of our current knowledge and is believed to be in accordance with the requirements of the Dangerous Substances Directive, Dangerous Preparations Directive and Safety Data Sheets Directive. The information relates to the specific material designated and may not be valid for such material used in combination with any other materials or in any particular conditions or process. The conditions and extent of storage and use of material are outside of our control and within the control of the possessor or user. Consequently it is the responsibility of the possessor or user to satisfy themselves as to the completeness of such information and the suitability of the material for their own particular circumstances, conditions or use.