



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

Manufacturer 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 (EC 1272/2008)

Physical and Chemical Hazards	Not classified.
Human health	Not classified.
Environment	Not classified.

Classification (1999/45/EEC) Not classified.

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

Human health

See section 11 for additional information on health hazards.

2.2. Label elements

DOT 5.1 BRAKE FLUID

Label In Accordance With (EC) No. 1272/2008

No pictogram required.

Precautionary Statements

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

2.3. Other hazards**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS****3.2. Mixtures**

2-(2-BUTOXYETHOXY)ETHANOL	0.5 - < 1.0%
CAS-No.: 112-34-5	EC No.: 203-961-6
Classification (EC 1272/2008) Eye Irrit. 2 - H319	Classification (67/548/EEC) Xi;R36
2-(2-METHOXYETHOXY)ETHANOL	1.0 - <3.0%
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	10.0 - <20.0%
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	10.0 - <20.0%
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 are 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.

DOT 5.1 BRAKE FLUID**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.

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 equipment for fire-fighters

Leave danger zone immediately.

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

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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.

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
		ppm	mg/m ³	ppm	mg/m ³	
2-(2-BUTOXYETHOXY)ETHANOL	WEL	10 ppm	67.5 mg/m ³	15 ppm	101.2 mg/m ³	
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.

DOT 5.1 BRAKE FLUID**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 hands 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)	
Not determined.	
Vapour pressure	<2 mbar 20°C
Evaporation rate	
Not determined.	
pH-Value, Conc. Solution	7.0-10.5
Viscosity	5 - 10 cSt
Decomposition temperature (°C)	
Not determined.	
Odour Threshold, Lower	
Not determined.	
Odour Threshold, Upper	
Not determined.	
Flash point (°C)	>100°C CC (Closed cup).
Auto Ignition Temperature (°C)	>300°C
Flammability Limit - Lower(%)	
Not determined.	
Flammability Limit - Upper(%)	
Not determined.	
Partition Coefficient (N-Octanol/Water)	<2.0
Oxidising properties	
Not available.	

9.2. Other information

None.

SECTION 10: STABILITY AND REACTIVITY**10.1. Reactivity**

Reaction with: Acids. Strong oxidising agents. Alkalis.

10.2. Chemical stability

DOT 5.1 BRAKE FLUID

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)

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
Not regarded as dangerous for the environment.

12.1. Toxicity

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

12.2. Persistence and degradability

Degradability
The product is biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential
No data available on bioaccumulation.
Partition coefficient <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.

DOT 5.1 BRAKE FLUID**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**

Not applicable.

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.

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

No chemical safety assessment has been carried out.

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.

Revision Date 04/11/2013

Revision 7

Supersedes date 28/10/2013 v6

Safety Data Sheet Status Approved.

DOT 5.1 BRAKE FLUID

Risk Phrases In Full

R22	Harmful if swallowed.
R36	Irritating to eyes.
NC	Not classified.
R63	Possible risk of harm to the unborn child.
R41	Risk of serious damage to eyes.

Hazard Statements In Full

H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H302	Harmful if swallowed.
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.