



SAFETY DATA SHEET CARLUBE DOT 3 BRAKE FLUID

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

1.1. Product identifier

Product name CARLUBE DOT 3 BRAKE FLUID
Product No. BRF005, BRF100, BRF050, BRF300, BRF455, BRF504

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

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	Eye Irrit. 2 - H319; Repr. 2 - H361d
Environment	Not classified.

Classification (1999/45/EEC) Xi;R36.

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

2.2. Label elements

Contains 2-(2-METHOXYETHOXY)ETHANOL

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

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Signal Word	Warning	
Hazard Statements	H319	Causes serious eye irritation.
	H361d	Suspected of damaging the unborn child.
Precautionary Statements	P101	If medical advice is needed, have product container or label at hand.
	P102	Keep out of reach of children.
	P201	Obtain special instructions before use.
	P281	Use personal protective equipment as required.
	P280	Wear eye and face protection.
	P305+351+338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	P308+313	IF exposed or concerned: Get medical advice/attention.
	P337+313	If eye irritation persists: Get medical advice/attention.
	P405	Store locked up.
	P501	Dispose of contents/container in accordance with local regulations.
Supplementary Precautionary Statements	P202	Do not handle until all safety precautions have been read and understood.
	P264	Wash contaminated skin thoroughly after handling.

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

2-(2-BUTOXYETHOXY)ETHANOL	3.0 - <5.0%
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	3.0 - <5.0%
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

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2-[2-(2-BUTOXYETHOXY)ETHOXY]ETHANOL		25.0 - <50.0%
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		20.0 - <25.0%
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

NOTE! Effects may be delayed. Keep affected person under observation. For breathing difficulties oxygen may be necessary. If breathing stops, provide artificial respiration. Get medical attention. Remove victim immediately from source of exposure. Place unconscious person on the side in the recovery position and ensure breathing can take place. Do not give victim anything to drink if they are unconscious.

Inhalation

Remove victim immediately from source of exposure. Get medical attention if any discomfort continues. For breathing difficulties oxygen may be necessary. If breathing stops, provide artificial respiration. In case of inhalation of spray mist: Move person into fresh air and keep at rest. In case of persistent throat irritation or coughing: Seek medical attention and bring these instructions.

Ingestion

Get medical attention immediately! Do not give victim anything to drink if he is unconscious. Try to induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Immediately rinse mouth and drink plenty of water. If person becomes uncomfortable or if ingested in large amounts (50-100 ml for an adult person): Take to hospital along with these instructions.

Skin contact

Remove contaminated clothes and rinse skin thoroughly with water. Get medical attention if any discomfort continues.

Eye contact

Do not rub eye. Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyelids widely. If irritation persists: Seek medical attention and bring along these instructions.

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

Irritation of nose, throat and airway.

Ingestion

May cause discomfort if swallowed. Ingestion may result in unconsciousness, blindness and death. Central nervous system depression.

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Skin contact

Prolonged skin contact may cause redness and irritation.

Eye contact

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: Foam, carbon dioxide or dry powder. Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

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.

5.3. Advice for firefighters

Special Fire Fighting Procedures

No specific fire fighting procedure given.

Protective equipment for fire-fighters

Leave danger zone immediately. Use protective equipment appropriate for surrounding materials.

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

Wear protective clothing as described in Section 8 of this safety data sheet. Avoid inhalation of spray mist and contact with skin and eyes. In case of spills, beware of slippery floors and surfaces.

6.2. Environmental precautions

The product should not be dumped in nature but collected and delivered according to agreement with the local authorities. Avoid release to the environment. Avoid discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up

Stop leak if possible without risk. Extinguish all ignition sources. Avoid sparks, flames, heat and smoking.

Ventilate. Provide ventilation and confine spill. Do not allow runoff to sewer. Absorb spillage with suitable absorbent material.

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**

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Read and follow manufacturer's recommendations. Keep away from heat, sparks and open flame. Wear full protective clothing for prolonged exposure and/or high concentrations. Good personal hygiene is necessary. Wash hands and contaminated areas with water and soap before leaving the work site. Do not eat, drink or smoke when using the product. Avoid inhalation of vapours/spray and contact with skin and eyes. Avoid forming spray/aerosol mists. Observe occupational exposure limits and minimise the risk of inhalation of vapours and mist. Pregnant or breastfeeding women must not handle this product. Pregnant women should not work with the product, if there is the least risk of exposure.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from heat, sparks and open flame. Keep containers tightly closed. Keep upright. Keep in original container. Avoid contact with oxidising agents.

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
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.

Hand protection

Use suitable protective gloves if risk of skin contact.

Eye protection

Goggles/face shield are recommended.

Other Protection

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	Liquid
Colour	Light (or pale). Yellow.

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Odour	Mild.
Solubility	Miscible with water Miscible with: Ethanol.
Initial boiling point and boiling range (°C)	>205°C 760 mm Hg
Melting point (°C)	<-50°C
Relative density	1.01 - 1.06g/cm ³ 20°C
Vapour density (air=1)	
Not determined.	
Vapour pressure	<2 mbar 20°C
Evaporation rate	
Not determined.	
pH-Value, Conc. Solution	
Scientifically unjustified.	
Viscosity	~ 5 - 10 cSt 20°C
Decomposition temperature (°C)	
Not determined.	
Odour Threshold, Lower	
Not determined.	
Odour Threshold, Upper	
Not determined.	
Flash point (°C)	>93°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)	0.44
Oxidising properties	
Not available.	

9.2. Other information

None.

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

No specific reactivity hazards associated with this product.

10.2. Chemical stability

The substance is hygroscopic and will absorb water by contact with the moisture in the air.

10.3. Possibility of hazardous reactions

Not determined.

10.4. Conditions to avoid

Avoid heat, flames and other sources of ignition.

10.5. Incompatible materials

Materials To Avoid

Strong oxidising substances. Strong acids. Strong alkalis. Water, steam, water mixtures.

10.6. Hazardous decomposition products

During fire, toxic gases (CO, CO₂) are formed.

CARLUBE DOT 3 BRAKE FLUID**SECTION 11: TOXICOLOGICAL INFORMATION****11.1. Information on toxicological effects**

Toxic Dose 1 - LD 50
>5000 mg/kg (oral rat)
Toxic Dose 2 - LD 50
5000 (Ethanediol) mg/kg (oral-rbt)
Toxicological information
No information available.

Target Organs
Central nervous system Heart & cardiovascular system Kidneys

Inhalation
Unlikely to be hazardous by inhalation because of the low vapour pressure of the substance at ambient temperature. Vapours may irritate throat and respiratory system and cause coughing.

Ingestion
May cause liver and/or renal damage. Irritating. May cause nausea, stomach pain and vomiting. Harmful: possible risk of irreversible effects if swallowed.

Skin contact
Slightly irritating.

Eye contact
Irritating to eyes.

Health Warnings
May cause liver and/or renal damage. Possible reproductive impact. CNS depressant. Nephrotoxin.

Route of entry
Ingestion.

Target Organs
Central nervous system Heart & cardiovascular system Kidneys

Medical Symptoms
Allergic rash. Delayed, often serious breathing problems. Tachycardia, (excessively rapid heart beat, including rapid and weak pulse). Unconsciousness, possibly death.
Specific effects
May cause damage to the kidneys. Contains a substance/a group of substances with possible risk of harm to the unborn child and with possible risk of impaired fertility.

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 >100mg/l
Acute Toxicity - Fish
Not available.

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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
The product is not bioaccumulating.
Partition coefficient 0.44

12.4. Mobility in soil

Mobility:
The product is miscible with water. May spread in water systems.
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 applicable.

SECTION 13: DISPOSAL CONSIDERATIONS

General information
Waste is classified as hazardous waste. Disposal to licensed waste disposal site in accordance with the local Waste Disposal Authority.

13.1. Waste treatment methods

Confirm disposal procedures with environmental engineer and local regulations.

SECTION 14: TRANSPORT INFORMATION**14.1. UN number****14.2. UN proper shipping name****14.3. Transport hazard class(es)****14.4. Packing group****14.5. Environmental hazards**

Environmentally Hazardous Substance/Marine Pollutant
No.

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

CARLUBE DOT 3 BRAKE FLUID**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Uk Regulatory References

Chemicals (Hazard Information & Packaging) Regulations.

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 22/09/2014

Revision 8

Supersedes date 21/10/2011 v7

Safety Data Sheet Status Approved.

Risk Phrases In Full

R22 Harmful if swallowed.

R36 Irritating to eyes.

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.