

## SAFETY DATA SHEET Technolube Dot 4 ESP Brake Fluid

SECTION 1: Identification of the	ne substance/mixture and of the company/undertaking
1.1. Product identifier	
Product name	Technolube Dot 4 ESP Brake Fluid
Product number	AEF500
Internal identification	S-Eth
1.2. Relevant identified uses o	f the substance or mixture and uses advised against
1.3. Details of the supplier of the	he safety data sheet
Supplier Manufacturer	A1 MOTOR STORES LIMITED Unit 20 Waterfield Way Sketchley Meadows Ind Est Hinckley Leicestershire LE10 3ER Tel: 01455 895904 Fax: 01455 631646 TETROSYL LIMITED Bury Lancashire England BL9 7NY 0161 764 5981 0161 797 5899 info@tetrosyl.com
1.4. Emergency telephone nur	nber
Emergency telephone	0161 764 5981
SECTION 2: Hazards identification	ation
2.1. Classification of the subst	ance or mixture
Classification	
Physical hazards	Not Classified
Health hazards	Eye Dam. 1 - H318 Repr. 2 - H361d
Environmental hazards	Not Classified
Classification (67/548/EEC or 1999/45/EC) 2.2. Label elements	Xi;R36.

#### Pictogram



•	
Signal word	Danger
Hazard statements	H318 Causes serious eye damage. H361d Suspected of damaging the unborn child.
Precautionary statements	<ul> <li>P101 If medical advice is needed, have product container or label at hand.</li> <li>P102 Keep out of reach of children.</li> <li>P201 Obtain special instructions before use.</li> <li>P202 Do not handle until all safety precautions have been read and understood.</li> <li>P280 Wear protective gloves/protective clothing/eye protection/face protection.</li> <li>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</li> <li>P308+P313 IF exposed or concerned: Get medical advice/attention.</li> <li>P310 Immediately call a POISON CENTER/doctor.</li> <li>P405 Store locked up.</li> <li>P501 Dispose of contents/container in accordance with national regulations.</li> </ul>
Contains	2-[2-(2-BUTOXYETHOXY)ETHOXY]ETHANOL, 2-(2-METHOXYETHOXY)ETHANOL

## 2.3. Other hazards

SECTION 3: Composition/information on ingredients		
3.2. Mixtures		
2-[2-(2-BUTOXYETHOXY)ETHOXY]E	THANOL	10-30%
CAS number: 143-22-6	EC number: 205-592-6	REACH registration number: 01- 2119531322-53
Classification	Clas	sification (67/548/EEC or 1999/45/EC)
Eye Dam. 1 - H318	Xi;R	41
DIETHYLENE GLYCOL		10-30%
CAS number: 111-46-6	EC number: 203-872-2	REACH registration number: 01- 2119457857-21
Classification	Clas	sification (67/548/EEC or 1999/45/EC)
Acute Tox. 4 - H302	Xn;F	222
2-(2-METHOXYETHOXY)ETHANOL		1-5%
CAS number: 111-77-3	EC number: 203-906-6	REACH registration number: 01- 2119475100-52
Classification	Clas	sification (67/548/EEC or 1999/45/EC)
Repr. 2 - H361d	Rep	r. Cat. 3;R63

2-(2-BUTOXYETHOXY)ETHANOL			1-5%
CAS number: 112-34-5	EC number: 203-961-6	REACH registration number: 01- 2119475104-44	
<b>Classification</b> Eye Irrit. 2 - H319	<b>Cla</b> s Xi;F	<b>ssification (67/548/EEC or 1999/45/EC)</b> R36	

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

SECTION 4: First aid measures		
4.1. Description of first aid measures		
General information	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 affected person from source of contamination. Place unconscious person on the side in the recovery position and ensure breathing can take place. Never give anything by mouth to an unconscious person.	
Inhalation	Remove affected person from source of contamination. Get medical attention if any discomfort continues. For breathing difficulties, oxygen may be necessary. If breathing stops, provide artificial respiration. If spray/mist has been inhaled, proceed as follows. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. If throat irritation or coughing persists, proceed as follows. Get medical attention. Show this Safety Data Sheet to the medical personnel.	
Ingestion	Get medical attention immediately. Never give anything by mouth to an unconscious person. Try to induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Rinse mouth thoroughly with water. Give plenty of water to drink. Get medical attention if a large quantity has been ingested. Show this Safety Data Sheet to the medical personnel.	
Skin contact	Remove contaminated clothing and rinse skin thoroughly with water. Get medical attention if any discomfort continues.	
Eye contact	Do not rub eye. Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention if irritation persists after washing. Show this Safety Data Sheet to the medical personnel.	
4.2. Most important symptom	s and effects, both acute and delayed	
General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure. Effects may be delayed. Keep affected person under observation.	
Inhalation	Irritation of nose, throat and airway.	
Ingestion	May cause discomfort if swallowed. May cause unconsciousness, blindness and possibly death. Central nervous system depression.	
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		
Notes for the doctor	No specific recommendations. If in doubt, get medical attention promptly.	
SECTION 5: Firefighting measures		

## 5.1. Extinguishing media

Suitable extinguishing media	Extinguish with the following media: Foam, carbon dioxide or dry powder. Use fire- extinguishing media suitable for the surrounding fire.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
5.2. Special hazards arising fro	om the substance or mixture
Specific hazards	No unusual fire or explosion hazards noted.
Hazardous combustion products	Oxides of carbon. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.
5.3. Advice for firefighters	
Protective actions during firefighting	No specific firefighting precautions known.
Special protective equipment for firefighters	Leave danger zone immediately. Use protective equipment appropriate for surrounding materials.
SECTION 6: Accidental releas	e measures
6.1. Personal precautions, pro	tective equipment and emergency procedures
Personal precautions	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 precaution	S
Environmental precautions	Collect and dispose of spillage as indicated in Section 13. Avoid release to the environment. Avoid discharge into drains or watercourses or onto the ground.
6.3. Methods and material for	containment and cleaning up
Methods for cleaning up	Stop leak if possible without risk. Eliminate all sources of ignition. No smoking, sparks, flames or other sources of ignition near spillage. Provide adequate ventilation. Provide adequate ventilation. Contain spillage with sand, earth or other suitable non-combustible material. Avoid the spillage or runoff entering drains, sewers or watercourses. Absorb spillage with non-combustible, absorbent material.
6.4. Reference to other section	1S
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 sto	rage
7.1. Precautions for safe hand	ling
Usage precautions	Read and follow manufacturer's recommendations. Keep away from heat, sparks and open flame. Wear suitable protective equipment for prolonged exposure and/or high concentrations of vapours, spray or mist. Good personal hygiene procedures should be implemented. Wash hands and any other contaminated areas of the body with soap and water 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 the formation of mists. Observe any occupational exposure limits for the product or ingredients. Avoid inhalation of vapours and spray/mists. Pregnant or breastfeeding women should not work with this product if there is any risk of exposure. Pregnant or breastfeeding women should not work with this product if there is any risk of exposure.

## 7.2. Conditions for safe storage, including any incompatibilities

there is any risk of exposure.

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

7.3. Specific end use(s)

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

#### Occupational exposure limits

No exposure limits known for ingredient(s).

#### DIETHYLENE GLYCOL

Long-term exposure limit (8-hour TWA): WEL 23 ppm 101 mg/m<sup>3</sup> Short-term exposure limit (15-minute): WEL

## 2-(2-METHOXYETHOXY)ETHANOL

Long-term exposure limit (8-hour TWA): WEL 10 ppm(Sk) 50.1 mg/m3(Sk)

## 2-(2-BUTOXYETHOXY)ETHANOL

Long-term exposure limit (8-hour TWA): WEL 10 ppm 67.5 mg/m<sup>3</sup> Short-term exposure limit (15-minute): WEL 15 ppm 101.2 mg/m<sup>3</sup>

WEL = Workplace Exposure Limit

### 8.2. Exposure controls

Protective equipment



Appropriate engineering controls	Avoid inhalation of vapours. Observe any occupational exposure limits for the product or ingredients. Provide adequate ventilation.
Eye/face protection	Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Tight-fitting safety glasses.
Hand protection	It is recommended that gloves are made of the following material: Nitrile rubber. Chemical- resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible.
Other skin and body protection	Wear suitable protective clothing as protection against splashing or contamination.
Hygiene measures	Provide eyewash station. Wash contaminated clothing before reuse. Wash hands at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes contaminated. Promptly remove any clothing that becomes contaminated. When using do not eat, drink or smoke.
Respiratory protection	No specific recommendations. Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit.
SECTION 9: Physical and Che	emical Properties

## 9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Colourless. to Amber

Odour	Mild.
Odour threshold	Not determined. Not determined.
Melting point	<-50°C
Initial boiling point and range	>260°C @
Flash point	>100°C
Evaporation rate	Not determined.
Upper/lower flammability or explosive limits	Not determined.
Vapour pressure	Not determined.
Vapour density	Not determined.
Solubility(ies)	Miscible with water. Miscible with the following materials: Ethanol.
Partition coefficient	Not determined.
Auto-ignition temperature	>300°C
Decomposition Temperature	Not determined.
Viscosity	5-10 cSt @ 20°C
Oxidising properties	Not available.
9.2. Other information	
Other information	None.
SECTION 10: Stability and rea	activity
10.1. Reactivity	
10.1. Reactivity Reactivity	The following materials may react with the product: Oxidising materials.
	The following materials may react with the product: Oxidising materials.
Reactivity	The following materials may react with the product: Oxidising materials. Stable at normal ambient temperatures and when used as recommended.
Reactivity 10.2. Chemical stability	Stable at normal ambient temperatures and when used as recommended.
Reactivity 10.2. Chemical stability Stability	Stable at normal ambient temperatures and when used as recommended.
Reactivity 10.2. Chemical stability Stability 10.3. Possibility of hazardous Possibility of hazardous	Stable at normal ambient temperatures and when used as recommended.
Reactivity 10.2. Chemical stability Stability 10.3. Possibility of hazardous Possibility of hazardous reactions	Stable at normal ambient temperatures and when used as recommended.
Reactivity 10.2. Chemical stability Stability 10.3. Possibility of hazardous Possibility of hazardous reactions 10.4. Conditions to avoid	Stable at normal ambient temperatures and when used as recommended. reactions Not determined.
Reactivity 10.2. Chemical stability Stability 10.3. Possibility of hazardous Possibility of hazardous reactions 10.4. Conditions to avoid Conditions to avoid	Stable at normal ambient temperatures and when used as recommended. reactions Not determined.
Reactivity 10.2. Chemical stability Stability 10.3. Possibility of hazardous Possibility of hazardous reactions 10.4. Conditions to avoid Conditions to avoid 10.5. Incompatible materials	Stable at normal ambient temperatures and when used as recommended.  reactions Not determined.  Avoid contact with the following materials: Oxidising materials.  Strong oxidising agents.
Reactivity 10.2. Chemical stability Stability 10.3. Possibility of hazardous Possibility of hazardous reactions 10.4. Conditions to avoid Conditions to avoid 10.5. Incompatible materials Materials to avoid	Stable at normal ambient temperatures and when used as recommended.  reactions Not determined.  Avoid contact with the following materials: Oxidising materials.  Strong oxidising agents.
Reactivity 10.2. Chemical stability Stability 10.3. Possibility of hazardous Possibility of hazardous reactions 10.4. Conditions to avoid Conditions to avoid 10.5. Incompatible materials Materials to avoid 10.6. Hazardous decomposition	Stable at normal ambient temperatures and when used as recommended.  reactions Not determined.  Avoid contact with the following materials: Oxidising materials.  Strong oxidising agents.  n products Oxides of carbon. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.
Reactivity 10.2. Chemical stability Stability 10.3. Possibility of hazardous Possibility of hazardous reactions 10.4. Conditions to avoid Conditions to avoid 10.5. Incompatible materials Materials to avoid 10.6. Hazardous decomposition products	Stable at normal ambient temperatures and when used as recommended.  reactions Not determined.  Avoid contact with the following materials: Oxidising materials.  Strong oxidising agents.  n products Oxides of carbon. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.  Formation
Reactivity 10.2. Chemical stability Stability 10.3. Possibility of hazardous Possibility of hazardous reactions 10.4. Conditions to avoid Conditions to avoid 10.5. Incompatible materials Materials to avoid 10.6. Hazardous decomposition Hazardous decomposition products SECTION 11: Toxicological in	Stable at normal ambient temperatures and when used as recommended.  reactions Not determined.  Avoid contact with the following materials: Oxidising materials.  Strong oxidising agents.  n products Oxides of carbon. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.  Formation

Acute toxicity - oral

ATE oral (mg/kg)	5,000.0		
Specific target organ toxicity - single exposure			
Target organs	Central nervous system Heart and cardiovascular system Kidneys		
Inhalation	Unlikely to be hazardous by inhalation because of the low vapour pressure of the product at ambient temperature. Vapours may irritate throat/respiratory system. Symptoms following overexposure may include the following: Coughing.		
Ingestion	May cause liver and/or renal damage. Irritating. Symptoms following overexposure may include the following: Nausea, vomiting. Stomach pain. Harmful: possible risk of irreversible effects if swallowed.		
Skin contact	Slightly irritating.		
Eye contact	Irritating to eyes.		
Acute and chronic health hazards	May cause liver and/or renal damage. Possible risk of adverse reproductive effects. A single exposure may cause the following adverse effects: Central nervous system depression. May cause damage to the kidneys. May cause damage to the kidneys. Contains a substance/a group of substances which may damage fertility and the unborn child.		
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.		
SECTION 12: Ecological Infor	mation		
Ecotoxicity	The product components are not classified as environmentally hazardous. However, large or frequent spills may have hazardous effects on the environment.		
Ecotoxicity 12.1. Toxicity			
12.1. Toxicity	frequent spills may have hazardous effects on the environment.		
12.1. Toxicity Acute toxicity - fish Acute toxicity - aquatic	frequent spills may have hazardous effects on the environment. LC₅₀, 96 hours: >100mg/l mg/l, Fish Not available.		
12.1. Toxicity Acute toxicity - fish Acute toxicity - aquatic invertebrates 12.2. Persistence and degrad	frequent spills may have hazardous effects on the environment. LC₅₀, 96 hours: >100mg/l mg/l, Fish Not available.		
12.1. Toxicity Acute toxicity - fish Acute toxicity - aquatic invertebrates 12.2. Persistence and degrad	frequent spills may have hazardous effects on the environment. LC₅₀, 96 hours: >100mg/l mg/l, Fish Not available. ability The product is readily biodegradable.		
<ul> <li>12.1. Toxicity</li> <li>Acute toxicity - fish</li> <li>Acute toxicity - aquatic invertebrates</li> <li>12.2. Persistence and degrada</li> <li>Persistence and degradability</li> </ul>	frequent spills may have hazardous effects on the environment. LC₅₀, 96 hours: >100mg/l mg/l, Fish Not available. ability The product is readily biodegradable.		
<ul> <li>12.1. Toxicity</li> <li>Acute toxicity - fish</li> <li>Acute toxicity - aquatic invertebrates</li> <li>12.2. Persistence and degrada</li> <li>Persistence and degradability</li> <li>12.3. Bioaccumulative potentia</li> </ul>	frequent spills may have hazardous effects on the environment. LC₅₀, 96 hours: >100mg/l mg/l, Fish Not available. ability The product is readily biodegradable. al		
<ul> <li>12.1. Toxicity</li> <li>Acute toxicity - fish</li> <li>Acute toxicity - aquatic invertebrates</li> <li>12.2. Persistence and degrada</li> <li>Persistence and degradability</li> <li>12.3. Bioaccumulative potential</li> </ul>	frequent spills may have hazardous effects on the environment. LC₅₀, 96 hours: >100mg/l mg/l, Fish Not available. ability The product is readily biodegradable. al The product is not bioaccumulating.		
<ul> <li>12.1. Toxicity</li> <li>Acute toxicity - fish</li> <li>Acute toxicity - aquatic invertebrates</li> <li>12.2. Persistence and degrada</li> <li>Persistence and degradability</li> <li>12.3. Bioaccumulative potential</li> <li>Bioaccumulative potential</li> <li>Partition coefficient</li> </ul>	frequent spills may have hazardous effects on the environment. LC₅₀, 96 hours: >100mg/l mg/l, Fish Not available. ability The product is readily biodegradable. al The product is not bioaccumulating.		
12.1. ToxicityAcute toxicity - fishAcute toxicity - aquatic invertebrates12.2. Persistence and degradaPersistence and degradability12.3. Bioaccumulative potentialBioaccumulative potentialPartition coefficient12.4. Mobility in soilAdsorption/desorption	frequent spills may have hazardous effects on the environment. LC <sub>50</sub> , 96 hours: >100mg/l mg/l, Fish Not available. <b>ability</b> The product is readily biodegradable. <b>al</b> The product is not bioaccumulating. Not determined. Not available.		
<ul> <li>12.1. Toxicity</li> <li>Acute toxicity - fish</li> <li>Acute toxicity - aquatic invertebrates</li> <li>12.2. Persistence and degradability</li> <li>12.3. Bioaccumulative potential</li> <li>Bioaccumulative potential</li> <li>Partition coefficient</li> <li>12.4. Mobility in soil</li> <li>Adsorption/desorption coefficient</li> </ul>	frequent spills may have hazardous effects on the environment. LC <sub>50</sub> , 96 hours: >100mg/l mg/l, Fish Not available. <b>ability</b> The product is readily biodegradable. <b>al</b> The product is not bioaccumulating. Not determined. Not available.		
<ul> <li>12.1. Toxicity</li> <li>Acute toxicity - fish</li> <li>Acute toxicity - aquatic invertebrates</li> <li>12.2. Persistence and degrada</li> <li>Persistence and degradability</li> <li>12.3. Bioaccumulative potential</li> <li>Bioaccumulative potential</li> <li>Partition coefficient</li> <li>12.4. Mobility in soil</li> <li>Adsorption/desorption coefficient</li> <li>12.5. Results of PBT and vPvB</li> </ul>	frequent spills may have hazardous effects on the environment. LC <sub>50</sub> , 96 hours: >100mg/l mg/l, Fish Not available. ability The product is readily biodegradable. al The product is not bioaccumulating. Not determined. Not available. B assessment		

SECTION 13: Disposal consid	SECTION 13: Disposal considerations		
13.1. Waste treatment method	ls		
General information	Waste is classified as hazardous waste. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.		
Disposal methods	Confirm disposal procedures with environmental engineer and local regulations.		
SECTION 14: Transport information			
General	The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).		
14.1. UN number			
Not applicable.			
14.2. UN proper shipping nam Not applicable.	e		
14.3. Transport hazard class(e	es)		
No transport warning sign req			
14.4. Packing group			
Not applicable.			
14.5. Environmental hazards			
Environmentally hazardous su	ibstance/marine pollutant		
14.6. Special precautions for u	Iser		
Not applicable.			
14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code			
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable.		
SECTION 15: Regulatory information			
15.1. Safety, health and enviro	onmental regulations/legislation specific for the substance or mixture		
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) (as amended).		
15.2. Chemical safety assess	nent		
No chemical safety assessment has been carried out.			
SECTION 16: Other information			
Revision comments	NOTE: Lines within the margin indicate significant changes from the previous revision.		
Revision date	20/07/2015		
Revision	0		
SDS number	31378		
SDS status	Approved.		

Risk phrases in full	R22 Harmful if swallowed. R36 Irritating to eyes. R41 Risk of serious damage to eyes. R63 Possible risk of harm to the unborn child.
Hazard statements in full	H302 Harmful if swallowed. H318 Causes serious eye damage. H319 Causes serious eye irritation. H361d Suspected of damaging the unborn child.