

HEALTH AND SAFETY SHEET
UNIVERSAL BRAKE FLUID

Product name: LS80 Universal Brake Fluid

DOT 3 – All grades

DOT 4 – Grades with wet boiling points less than 165 deg. C.

DOT 5 – Grades with wet boiling points less than 165 deg. C.

Supplier

Beal UK Ltd

Composition/information on ingredients

General

Blend of Glycol ethers, glycol ether borate esters and polyglycols with added corrosion and oxidation inhibitors.

Hazard Ingredients

Hazardous Ingredients	CAS-Number	Concentration %	Classification	Risks
Butyl tri glycol	143-22-6	>20	X I	R 36
Di ethylene glycol	111-46-6	<20	X N	R 22
Methyl di glycol	111-77-3	<5	X N	R 63

Hazards Identification

Physical Hazards

Not significant

Health Hazards

R 36: Irritating to eyes. Mildly irritating to skin. When ingested it may be absorbed and cause renal damage at high dosage.

Environmental Hazards

Low

First Aid Measures

Inhalation - Remove to fresh air. If recovery is not rapid, seek medical attention.

Skin Contact – Remove contaminated clothing. Wash affected skin with soap and water. If irritation persists seek medical attention.

Eye Contact – Flush eye with water at least 10 mins. If irritation persists seek medical attention.

Ingestion – Do not induce vomiting. Wash out mouth with water give plenty of water to drink. Obtain medical advice immediately.

Note to Physician – Medical personnel should refer to the Poisons Information Unit for advice. There is no specific antidote and treatment of over exposure should be directed at control of symptoms.

Fire Fighting Measures

Suitable Extinguishing Media – Alcohol resistant foam, Dry Powder or Water (Fog or Fine Spray)

Unsuitable Extinguishing Media – Water Jets (Can be used to cool adjacent containers)

Exposure Hazards – No special risk. Combustion may contain harmful or irritant fumes.

Special Protective Equipment – In extreme conditions self-contained breathing apparatus may be worn.

Accidental Release Measures

Personal Precautions – Avoid contact with eyes, skin and clothing. When cleaning up large spillages, suitable protective clothing should be worn including eye protection and impervious gloves.

Environmental Precaution

Prevent from entering drains, ditches or rivers. If this happens inform relevant authorities. Prevent gross contamination of soil.

Methods for cleaning up

Contain spillage using sand or earth. Remove all material to a suitable container for subsequent disposal. Label 'salvage container' appropriately. Flush contaminated area with plenty of water.

Handling and Storage

Storage – Suitable bulk storage vessels are mild/stainless steel tanks fitted with a dry air breathing system or tight head steel drums. Do not store in lined tanks or drums. Brake fluid absorbs water from the atmosphere – always keep containers tightly closed. Avoid contamination with any other substances and in particular with mineral oils that are compatible.

Handling – No specific handling precautions are necessary.

Exposure controls/personal handling

Exposure controls – No official TLV/OEL figures available for the entire preparation. However, 8 h TWA limits of 100 mg/m³ vapour or 10 mg/m³ particulates should be adhered to.

Respiratory Protection – No specific precautions at ambient temperatures. If fluid is being heated or atomised, use suitable engineering control measures.

Hand Protection – Wear suitable impervious gloves to avoid prolonged or repeated contact.

Eye Protection – Wear close-fitting goggles where there is a risk of splashing. Eye baths should be provided at locations where accidental exposure may occur.

Skin Protection – Where significant exposure is possible where impervious clothing. It is recommended that showers be provided where accidental exposure may occur.

Physical and Chemical Properties

Appearance	Clear liquid, some may be dyed.
Odour	Bland
PH	7.0 to 10.50
Boiling Point	>205 deg. C DOT3 – 230min DOT4- 210min
Melting Point	<-50 deg. C
Flash Point	>80 deg. Cn DOT 3, >90 deg. C DOT 4
Ignition Temp	>300 deg. C
Density at 20 deg. C	1.030 – 1.070 g/ml
Solubility in water	Miscible
Viscosity at 20 deg. C	Approx 5 – 10 cSt 1500max
Vapour Pressure	<2 milibars

Stability and reactivity

Conditions to avoid – Product is stable under normal conditions

Materials to avoid – Strong oxidising agents.

Hazardous decomposition products – None Known

Toxicology Information

Inhalation – Unlikely to be hazardous by inhalation at ambient due to low vapour.

Skin Contact – Mild skin irritation

Eye contact – Irritating to eyes

Ingestion – Low oral toxicity – however, if any significant amount is ingested there is a risk of renal damage which in extreme cases could lead to kidney failure, coma and death. There are no reports of long term adverse effects in man.

LD 50 Rat = >5000 mg/kg. Sparse experience indicates lethal dose in man could be considerably less.

Ecological Information

Mobility – Soluble in water and will partition in aqueous phase. Volatisation from water to air not expected. Mobile in soil until degraded.

Persistence/ Degradability – Moderately biodegradable. Bio accumulative Potential – None

Eco-toxicity – Low LC 50 100 mg/l

Disposal Considerations

Disposal dangers – As for spillages – avoid liquid entering drains, rivers, etc.

Disposal methods – Controlled incineration or recycling is recommended.

Regulations – Dispose of in accordance with local and national regulations. In the E.U> used brake fluids are classified as ‘Special Waste’.

Transport Information

IMO Class	Not classified as hazardous
UN No.	None
IATA/IACO Class	Not classified as hazardous
ADR/RID	Not classified as hazardous
U.K/E.U. regulations	Not classified as hazardous

Regulatory Information

E.U. Classification	XI – Irritant
Risk Phrases	R36 – Irritating to eyes
Safety Phrases	S2 – Keep out of reach of children S26 (Modified) In case of contact with eyes, rinse immediately with water for 10 mins. If irritation persists seek medical advice. S46 – If swallowed seek medical advice immediately and show container or label.

Restrictions on use or exposure – To be in accord with local and national regulations including HSWA and COSHH.

Other Information

Legal Disclaimer – The information herein is based on the present knowledge and experience of Beal UK Ltd. It in no way constitutes the users own assessment of work place risk as required by other health and safety regulations.

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