

SHIELD CHEMICALS (PTY) LTD

MATERIAL SAFETY DATA SHEET

Shield Universal DOT 4 Brake Fluid

1 - IDENTIFICATION OF THE PRODUCT AND COMPANY

PRODUCT NAME	Shield Universal DOT 4 Brake Fluid 200mL
PRODUCT CODE	SH852
APPLICATION	Brake fluid
MANUFACTURER	Shield Chemicals (Pty) Ltd No. 9 London Road, Apex, Benoni Gauteng South Africa
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2 - HAZARDS IDENTIFICATION

2.1 Classification of the substance mixture composite:

Classification as per EC 1272/2008
Physical and chemical hazards: Not Classified
Human health: Eye damage 1-H318
Environment: Not Classified

Classification as per 1999/45/EEC:

Xi; R41

R-Phrases and Hazard statements can be obtained under section 15 of this document.
Environment: This product is not expected to be hazardous to the environment

2.2 Label elements

This product contains 2-[2-(2-BUTOXYETHOXY)ETHOXY]ETHANOL
Label in accordance with (EC) No.: 1272/2008



Signal word:	Danger	
Hazardous statement/s	H318	Causes serious eye damage.
Precautionary statements protection.	P280 P305&351&338	Wear protective gloves/protective clothing/eye protection/face protection. IF IN EYES: Remove contact lenses, if present and easy to do. Rinse cautiously with water for several minutes.
Supplementary Precautionary Statements	P310	Immediately call a POISON CENTRE or Doctor/physician
Supplemental label information	EUH208	Contains 2,4-dimethyl-6-tert-butyl phenol. May produce allergic reaction.

2.3 Other hazards

Not classified as PBT/vPvB by current EU criteria

3 - COMPOSITION/INFORMATION ON INGREDIENTS:

NAME	CAS #	EC No.:	Classification EC1272/2008	Classification 67/548/EEC	%(^m / _{wt})
2-[2-(2-BUTOXYETHOXY)ETHOXY]ETHANOL	143-22-6	205-592-6	Eye Dam. 1-H318	Xi;R41	25 – 50%
2,2'-OXYBISETHANOL	111-46-6	203-872-2	Acute Tox. 4 – H302	Xn;R22	10 – 25%
2-(2-BUTOXYETHOXY)ETHANOL	112-34-5	203-961-6	Eye Irrit. 2 – H319	Xi;R36	1 – 5%
TRIETHYLENE GLYCOL	112-27-6	203-953-2	Not classified	Not classified	1 – 5%
DIISOPROPANOLAMINE	110-97-4	203-820-9	Eye Irrit. 2 – H319	Xi;R36	1 - 5%
ETHYL DIGLYCOL	111-90-0	203-919-7	Not classified	Not classified	1 – 5%
2,4-DIMETHYL-6-TERT-BUTYL PHENOL	1879-09-0	217-533-1	Acute Tox. 4 – H302 Skin Irrit. 2 – H315 Eye Irrit. 2 – H319 Skin Sens. 1 – H317 STOT RE 2 – H373 Aquatic Acute 1 – H400 Aquatic Chronic 1 – H410	Xn;R22,R48/22 Xi; R36/38 N;R50/53 R43	< 0.1%

Composition comments: This product contains Borate Ester.

4 - FIRST AID MEASURE(S)

INHALATION	In case of inhalation remove victim from the source of exposure and seek medical attention immediately.
INGESTION	NEVER INDUCE VOMITTING! Immediately rinse mouth and drink water (200 – 300ml) Directly seek medical attention.
SKIN CONTACT	Remove contaminated clothing immediately and wash skin thoroughly with soap and water. If irritation persists, seek medical attention.
EYE CONTACT	Make sure to remove any contact lenses from the eyes before rinsing. Rinse thoroughly with plenty of water for 15 minutes, if irritation persists, seek medical attention.

5 - FIRE-FIGHTING MEASURES

CLASSIFICATION	Non flammable, but may burn in the case of fire
EXTINGUISHING MEDIA	Use Foam, Carbon dioxide (CO ₂) or dry powder extinguishers.
EXPOSURE HAZARDS	Combustion may evolve toxic vapours/gases
PROTECTIVE EQUIPMENT	Fire fighters should wear self-contained breathing apparatus and suitable personal protective equipment.

6 - ACCIDENTAL RELEASE MEASURES

Method of disposal	Absorb onto dry sand if possible, and dispose of safely as commercial waste. Rinse residues thoroughly with water.
Personal Protection	Wear gloves and eye/face protection.

7 - HANDLING AND STORAGE

HANDLING	Do not inhale vapor, avoid skin contact and do not ingest. Do not add any other substances to this product.
STORAGE	Store upright in original closed containers. Keep away from heat or sources of ignition. Keep away from oxidizing or flammable materials.

8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

EYE PROTECTION	When handling this product wear suitable eye/face protection.
HAND PROTECTION	For prolonged use, make use of chemical resistant gloves.
SKIN PROTECTION	Protective overalls may be worn
INHALATION	Personal protective equipment should only be considered where ventilation is very poor, or in the case of fire generated vapors.

9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE/COLOUR/ODOUR	Clear colourless to amber coloured liquid with no characteristic odour.
SOLUBILITY	Miscible in water and Ethanol
INITIAL BOILING POINT AND BOILING RANGE	>205°C, 760mm Hg
VAPOUR PRESSURE	<2 mbar @ 20°C
RELATIVE DENSITY	1.01 – 1.07 @ 20°C
pH VALUE CONC SOLUTION	7.0 – 10.5

VISCOSITY	5 – 10cSt @ 20°C
FLASH POINT	>90°C CC (Closed cup)
AUTO IGNITION TEMPERATURE	>300°C

10 – STABILITY AND REACTIVITY

STABILITY	No hazardous decomposition products are generated if the product is stored and handled as prescribed.
MATERIALS TO AVOID	Prevent contamination of the product with foreign materials.
HAZARDOUS DECOMPOSITION PRODUCTS	If product is handles as prescribed, there will be no hazardous decomposition products.

11 - TOXICOLOGICAL INFORMATION

TOXICITY TESTS	LD50 Rat 5170mg/kg
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12 - ECOLOGICAL INFORMATION

ECOTOXICITY	The product is not expected to be hazardous to the environment. The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large and frequent spills can have a harmful or damaging effect on the environment.
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13 - DISPOSAL CONSIDERATIONS

DISPOSAL METHODS	Do not pour down waste water drains. Absorb onto dry sand or other absorber, and dispose of safely as commercial waste. Rinse contaminated area with plenty of water
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14 - TRANSPORT INFORMATION

Local Regulations	Not applicable
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15 - REGULATORY INFORMATION

Risk Phrase	Phrase description
R22	Harmful if swallowed
R48/22	Harmful: danger of serious damage to health by prolonged exposure if swallowed
R36/38	Irritating to eyes and skin
R36	Irritating to eyes
R43	May cause sensitization by skin contact
NC	Not classified
R41	Risk of serious damage to eyes
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Hazard Phrase	Phrase description
H318	Causes serious eye damage
H319	Causes serious eye irritation
H315	Causes skin irritation
H302	Harmful if swallowed
H317	May cause an allergic skin reaction
H373	May cause damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life

16 - OTHER INFORMATION

This materials safety data sheet has been compiled according to SABS 1104-1 and SABS 0265, and provides the best advice under our current state of knowledge. The user is ultimately responsible for ensuring that the requirements of the relevant legislation are complied with.

DISCLAIMER: This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.