

1. Identification of the substance/preparation and of the company/undertaking

Product name	Castrol Response DOT 4
SDS #	450606
Product Use	Brake fluids. For specific application advice see appropriate Technical Data Sheet or consult your Castrol representative.
Supplier	Castrol (UK) Ltd Wakefield House Pipers Way Swindon Wiltshire SN3 1RE
EMERGENCY TELEPHONE NUMBER	+44 (0)1793 512712

2. Composition/information on ingredients

Polyalkylene glycol ethers / glycols

Chemical name	CAS no.	%	EINECS / ELINCS.	Classification
Poly(oxy-1,2-ethanediyl), α -butyl- ω -hydroxy-1,2-Bis(2-methoxyethoxy)ethane	9004-77-7 112-49-2	10 - 20 1 - 5	500-012-0 203-977-3	Xi; R36 Repr. Cat. 3; R62, 63
1,1'-Iminodipropan-2-ol	110-97-4	1 - 5	203-820-9	Xi; R36
Diethylene glycol	111-46-6	1 - 5	203-872-2	Xn; R22

See Section 16 for the full text of the R Phrases declared above

Occupational Exposure Limit(s), if available, are listed in Section 8

3. Hazards identification

This preparation is not classified as dangerous according to Directive 1999/45/EC as amended and adapted.

Physical/chemical Hazards	Not classified as dangerous.
Human health hazards	Not classified as dangerous.
Environmental hazards	Unlikely to be harmful to aquatic organisms.
Effects and symptoms	
Eyes	No significant health hazards identified.
Skin	No significant health hazards identified.
Inhalation	No significant health hazards identified.
Ingestion	No significant health hazards identified.

4. First-aid measures

Eye Contact	In case of contact, immediately flush eyes with a copious amount of water for at least 15 minutes. Get medical attention if irritation occurs.
Skin contact	In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if irritation develops.
Inhalation	If inhaled, remove to fresh air. Get medical attention if symptoms appear.
Ingestion	Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately.
Notes to physician	Treatment should in general be symptomatic and directed to relieving any effects.

5. Fire-fighting measures

Extinguishing Media	
Suitable	In case of fire, use water fog, foam, dry chemical or CO2 extinguisher or spray.
Not Suitable	Do not use water jet.
Hazardous decomposition products	These products are carbon oxides (CO, CO2), nitrogen oxides (NO, NO2...). Some metallic oxides.
Unusual fire/explosion Hazards	This material is not explosive as defined by established regulatory criteria.
Special fire-fighting procedures	None identified.

6. Accidental release measures

Personal Precautions	Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment (Section 8). Follow all fire fighting procedures (Section 5).
Environmental precautions and cleanup methods	If emergency personnel are unavailable, contain spilled material. For small spills add absorbent (soil may be used in the absence of other suitable materials) scoop up material and place in a sealed, liquid-proof container for disposal. For large spills dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Place spilled material in an appropriate container for disposal. Minimize contact of spilled material with soils to prevent runoff to surface waterways. See Section 13 for Waste Disposal Information.
Personal Protection in Case of a Large Spill	Splash goggles. Full suit. Boots. Gloves.

7. Handling and storage

Handling	Wash thoroughly after handling.
Storage	Keep container tightly closed. Keep container in a cool, well-ventilated area.

8. Exposure controls/personal protection

Ingredient Name	Occupational Exposure Limits
Diethylene glyco	EH40-OES (United Kingdom (UK), 2002). Notes: OES TWA: 101 mg/m ³ 8 hour(s). TWA: 23 ppm 8 hour(s).
Control Measures	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapours below their respective occupational exposure limits. Ensure that eyewash stations and safety showers are close to the workstation location.
Hygiene measures	Wash hands, forearms, and face thoroughly after handling compounds and before eating, smoking, using lavatory, and at the end of day.
Personal protective equipment	
Respiratory system	Use with adequate ventilation.
Skin and body	Avoid contact with skin. Wear clothing and footwear that cannot be penetrated by chemicals or o
Hands	Wear gloves that cannot be penetrated by chemicals or oil.
Eyes	Safety glasses with side shields.

9. Physical and chemical properties

Flash point	>115 °C (CLOSED CUP)
Colour	Amber.
Odour	Sweetish.
Odour threshold	Not available.
Physical state	Liquid.
Boiling point / range	>200 °C
Solubility	Soluble in water in any proportion.

10. Stability and reactivity

Incompatibility with Various Substances Miscible in water. Strong oxidising materials Incompatible with some strong acids. Do not use in brake systems requiring mineral oil. On contact these fluids will soften and may lift industrial coatings and paints.

11. Toxicological information

Acute toxicity Unlikely to cause more than transient stinging or redness if accidental eye contact occurs.

Unlikely to cause harm to the skin on brief or occasional contact but prolonged or repeated exposure may lead to dermatitis.

Unlikely to cause harm if accidentally swallowed in small doses, though larger quantities may cause nausea and diarrhoea.

At normal ambient temperatures this product will be unlikely to present an inhalation hazard because of its low volatility. May be harmful by inhalation if exposure to vapour, mists or fumes resulting from thermal decomposition products occurs.

Chronic toxicity

Carcinogenic effects No component of this product at levels greater than 0.1% is identified as a carcinogen by ACGIH, the International Agency for Research on Cancer (IARC) or the European Commission (EC).

12. Ecological information

Persistence/degradability Inherently biodegradable

Mobility Spillages may penetrate the soil causing ground water contamination.

Bioaccumulative potential This product is not expected to bioaccumulate through food chains in the environment.

Environmental hazards Unlikely to be harmful to aquatic organisms.

Other Ecological Information Spills may form a film on water surfaces causing physical damage to organisms. Oxygen transfer could also be impaired.

13. Disposal considerations

Disposal Consideration / Waste information Where possible, arrange for product to be recycled.
Dispose of via an authorised person/ licensed waste disposal contractor in accordance with local regulations. Incineration may be carried out under controlled conditions provided that local regulations for emissions are met.

14. Transport information

Not classified as hazardous for transport (ADR, RID, UN , IMO, IATA/ICAO).

15. Regulatory information

Label Requirements

Risk Phrases This product is not classified according to the EU regulations.

EU Regulations Classification and labelling have been performed according to EU directives 1999/45/EC and 67/548/EEC as amended and adapted.

Other Regulations

Inventories

AUSTRALIAN INVENTORY (AICS): Not determined

CANADA INVENTORY (DSL): In compliance.

CHINA INVENTORY (IECS): In compliance.

EC INVENTORY (EINECS): In compliance.

JAPAN INVENTORY (ENCS): In compliance.

KOREA INVENTORY (ECL): Not determined.

PHILIPPINE INVENTORY (PICCS): In compliance.

US INVENTORY (TSCA): In compliance.

Additional Warning Phrases Safety data sheet available for professional user on request.

16. Other information

Full text of R-phrases appearing in section 2

R62- Possible risk of impaired fertility.
R63- Possible risk of harm to the unborn child.
R22- Harmful if swallowed.
R36- Irritating to eyes.

HISTORY

Date of issue 18/09/2002.
Date of previous issue 16/09/2002.
Prepared by Product Stewardship Group

Notice to Reader

The data and advice given apply when the product is sold for the stated application or applications. The product is not sold as suitable for any other application. Use of the product for applications other than as stated in this sheet may give rise to risks not mentioned in this sheet. You should not use the product other than for the stated application or applications without seeking advice from us.

If you have purchased the product for supply to a third party for use at work, it is your duty to take all necessary steps to secure that any person handling or using the product is provided with the information in this sheet.

If you are an employer, it is your duty to tell your employees and others who may be affected of any hazards described in this sheet and of any precautions which should be taken

Further copies of this Safety Data Sheet may be obtained from Castrol International.