

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

<b>Product name</b>	Formula RS 0W-40
<b>SDS #</b>	450279
<b>Product Use</b>	Automotive engine crankcase lubricant For specific application advice see appropriate Technical Data Sheet or consult your Castrol representative.
<b>Supplier</b>	Castrol (UK) Ltd Wakefield House Pipers Way Swindon Wiltshire SN3 1RE
<b>EMERGENCY TELEPHONE NUMBER</b>	<b>+44 (0)1793 512712</b>

## 2. Composition/information on ingredients

Synthetic base stock. Highly refined mineral oil (IP 346 DMSO extract < 3%). Proprietary performance additives.

Chemical name	CAS no.	%	EINECS / ELINCS.	Classification
Phosphorodithioc acid, O,O - di- C1-14- alkyl esters zinc salts	68649-42-3	1 - 10	272-028-3	Xi; R38, 41 N; R51/53
Calcium sulphonate	Not available.	1 - 10		R43 R53

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.

<b>Physical/chemical Hazards</b>	Not classified as dangerous.
<b>Human health hazards</b>	Not classified as dangerous
<b>Environmental hazards</b>	Unlikely to be harmful to aquatic organisms.
<b>Effects and symptoms</b>	
<b>Eyes</b>	No significant health hazards identified.
<b>Skin</b>	No significant health hazards identified.
	<b>USED ENGINE OILS</b> Used engine oil may contain hazardous components which have the potential to cause skin cancer. See Toxicological Information, section 11 of this Safety Data Sheet.
<b>Inhalation</b>	No significant health hazards identified.
<b>Ingestion</b>	No significant health hazards identified.

## 4. First-aid measures

<b>Eye Contact</b>	In case of contact, immediately flush eyes with a copious amount of water for at least 15 minutes. Get medical attention if irritation occurs.
<b>Skin contact</b>	Wash with soap and water. Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if irritation persists.
<b>Inhalation</b>	If inhaled, remove to fresh air. Get medical attention if symptoms appear.
<b>Ingestion</b>	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.
<b>Notes to physician</b>	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).

**Unusual fire/explosion Hazards** None.

**Special fire-fighting procedures** None identified.

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## 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.

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## 7. Handling and storage

**Handling** Do not get on skin or clothing. Wash thoroughly after handling.

**Storage** Keep container tightly closed. Keep container in a cool, well-ventilated area.

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## 8. Exposure controls/personal protection

**Occupational Exposure Limits** None assigned.

**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 after handling compounds and before eating, smoking, using lavatory, and at the end of day.

### Personal protective equipment

**Respiratory system** None required; however, use of adequate ventilation is good industrial practice.

**Skin and body** Do not get on skin or clothing. Wear suitable protective clothing.

**Hands** Wear suitable gloves.

**Eyes** Safety glasses with side shields.

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## 9. Physical and chemical properties

**Flash point** 234 °C (CLOSED CUP)

**Explosion Limits** LOWER: 0.6 %  
UPPER: 6.5 %

**Colour** Brown.

**Odour** Slight.

**Odour threshold** Not available.

**Physical state** Liquid.

**Boiling point / range** >300 °C

**Melting point / range** -63 °C

**Density** 0.84 g/cm<sup>3</sup> at 20 °C

**Solubility** Insoluble in cold water.

**Viscosity** kinematic at 40°C: 75 cSt  
kinematic: 12.9 cSt at 100°C

## 10. Stability and reactivity

Incompatibility with Various Substances	Reactive with oxidizing agents.
Hazardous Polymerization	Will not occur.

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## 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.  Product not classified for sensitisation. Based on data available for this or related materials.  <b>USED ENGINE OILS</b> Combustion products resulting from the operation of internal combustion engines contaminate engine oils during use. Used engine oil may contain hazardous components which have the potential to cause skin cancer. Frequent or prolonged contact with all types and makes of used engine oil must therefore be avoided and a high standard of personal hygiene maintained.  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).

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## 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.

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## 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.
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## 14. Transport information

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

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## 15. Regulatory information

Label Requirements	
Risk Phrases	This product is not classified according to the EU regulations.
Restrictions to product use	Classification and labeling have been performed according to EU directives 1999/45/EC and 67/548/EEC as amended and adapted. - Industrial applications.
Other Regulations	
Inventories	AUSTRALIAN INVENTORY (AICS): Not determined  CANADA INVENTORY (DSL): Not determined.  CHINA INVENTORY (IECS): Not determined.  EC INVENTORY (EINECS): In compliance.  JAPAN INVENTORY (ENCS): Not determined.

KOREA INVENTORY (ECL): In compliance.

PHILIPPINE INVENTORY (PICCS): Not determined.

US INVENTORY (TSCA): In compliance.

**Additional Warning Phrases** Contains (Calcium sulphonate, Phenol, bis(1,1-dimethylethyl)dodecyl-). May produce an allergic reaction.

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## 16. Other information

**Full text of R-phrases appearing in section 2**

R38- Irritating to skin.  
R41- Risk of serious damage to eyes.  
R43- May cause sensitization by skin contact.  
R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
R53- May cause long-term adverse effects in the aquatic environment.

### HISTORY

**Date of issue** 12/09/2002.  
**Date of previous issue** 15/08/2002.  
**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.*

<b>Product Name</b> Formula RS 0W-40	<b>Product Code</b> 450279-BE02	<b>Page:</b> 4/4
<b>Version</b> 1	<b>Date of issue</b> 12 September 2002	<b>Format</b> United Kingdom (UK)
		<b>Language</b> ( )