



## 1. Identification of the material and supplier

<b>Product name</b>	<b>Energol SHF-HV 46</b>
<b>SDS #</b>	456565
<b>Product use</b>	Hydraulic fluid For specific application advice see appropriate Technical Data Sheet or consult our company representative.
<b>Supplier</b>	BP Australia Pty Ltd (ABN 53 004 085 616) Melbourne Central, 360 Elizabeth Street, Melbourne, Victoria 3000, Australia Tel: +61 (03) 9268 4111 Fax: +61 (03) 9268 3321
<b>EMERGENCY TELEPHONE NUMBER</b>	1800 14 14 74
<b>OTHER PRODUCT INFORMATION</b>	Technical Help Line 1 300 139 700 (Local Call)
<b>Product code</b>	456565-AU07

## 2. Hazards identification

**Statement of hazardous/dangerous nature**      NON-HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS.

## 3. Composition/information on ingredients

Highly refined base oil and additives

**This product does not contain any hazardous ingredients at or above regulated thresholds.**

## 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>	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.
<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>	Note: High Pressure Applications Injections through the skin resulting from contact with the product at high pressure constitute a major medical emergency. Injuries may not appear serious at first but within a few hours tissue becomes swollen, discoloured and extremely painful with extensive subcutaneous necrosis. Surgical exploration should be undertaken without delay. Thorough and extensive debridement of the wound and underlying tissue is necessary to minimise tissue loss and prevent or limit permanent damage. Note that high pressure may force the product considerable distances along tissue planes.

## 5. Fire-fighting measures

<b>Extinguishing media</b>	
<b>Suitable</b>	In case of fire, use water fog, foam, dry chemical or carbon dioxide extinguisher or spray.
<b>Not suitable</b>	Do not use water jet.
<b>Hazardous decomposition products</b>	Decomposition products may include the following materials: carbon oxides
<b>Unusual fire/explosion Hazards</b>	This material is not explosive as defined by established regulatory criteria.

<b>Special fire-fighting procedures</b>	None identified.
<b>Protection of fire-fighters</b>	Fire-fighters should wear self-contained positive pressure breathing apparatus (SCBA) and full turnout gear.

## 6 . Accidental release measures

<b>Personal precautions</b>	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).
<b>Environmental precautions</b>	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
<b>Large spill</b>	Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see section 1 for emergency contact information and section 13 for waste disposal.
<b>Small spill</b>	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

## 7 . Handling and storage

<b>Handling</b>	Wash thoroughly after handling. Avoid strong oxidisers.
<b>Storage</b>	Keep container tightly closed. Keep container in a cool, well-ventilated area.
<b>Combustibility Classification</b>	Combustible liquid Class C2 (AS 1940).

## 8 . Exposure controls/personal protection

<b>Ingredient name</b>	<b>Occupational exposure limits</b>
Base oil - unspecified	<b>NOHSC (Australia).</b> TWA: 5 mg/m <sup>3</sup> 8 hour(s). Form: Oil mist, mineral
Whilst specific OELs for certain components are included in this SDS, it should be noted that other components of the preparation will be present in any mist, vapour or dust produced. For this reason, the specific OELs may not be applicable to the product and are provided for guidance purposes.	
<b>Biological Limit Values</b>	No biological limit allocated.
<b>Exposure controls</b>	
<b>Occupational exposure controls</b>	Provide exhaust ventilation or other engineering controls to keep the relevant airborne concentrations below their respective occupational exposure limits.
<b>Hygiene measures</b>	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.
<b>Personal protective equipment</b>	
<b>Respiratory protection</b>	Avoid breathing of vapours, mists or spray. Select and use respirators in accordance with AS/NZS 1715/1716. When mists or vapours exceed the exposure standards then the use of the following is recommended: Approved respirator with organic vapour and dust/mist (Type P1) filters. Filter capacity and respirator type depends on exposure level.
<b>Skin and body</b>	Avoid prolonged or repeated contact with skin. Wear protective clothing if prolonged or repeated contact is likely.
<b>Hand protection</b>	Wear protective gloves if prolonged or repeated contact is likely. Chemical resistant gloves. Recommended: Nitrile gloves. The correct choice of protective gloves depends upon the chemicals being handled, the conditions of work and use, and the condition of the gloves (even the best chemically resistant glove will break down after repeated chemical exposures). Most gloves provide only a short time of protection before they must be discarded and replaced. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. Gloves should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.
<b>Eye protection</b>	Safety glasses with side shields.

## 9 . Physical and chemical properties

Physical state	Liquid.
Colour	Amber.
Odour	Bland.
Flash point	220 °C (Closed cup) Pensky-Martens.
Vapour pressure	Not available.
Vapour density	Not available.
Viscosity	Kinematic: 46 mm <sup>2</sup> /s (46 cSt) at 40°C Kinematic: 8.1 mm <sup>2</sup> /s (8.1 cSt) at 100°C
pH	Not available.
Boiling point / range	Not available.
Melting point / range	Not available.
Pour Point	-36 °C
Relative density/Specific Gravity	0.878 [at 15°C]
Solubility	Insoluble in water.

## 10 . Stability and reactivity

Stability	The product is stable.
Conditions to Avoid	Avoid extreme temperatures, strong oxidizers, fire.
Incompatibility with various substances/Hazardous Reactions	No hazardous reactions identified.
Hazardous Decomposition Products	Decomposition products may include the following materials: carbon oxides

## 11 . Toxicological information

### Effects and symptoms

Eyes	Unlikely to cause more than transient stinging or redness if accidental eye contact occurs.
Skin	Unlikely to cause harm to the skin on brief or occasional contact but prolonged or repeated exposure may lead to dermatitis.

Note: High Pressure Applications

Injections through the skin resulting from contact with the product at high pressure constitute a major medical emergency.

See 'Medical Advice' under First-Aid Measures, Section 4 of this Safety Data Sheet.

Inhalation	At normal ambient temperatures this product will be unlikely to present an inhalation hazard because of its low volatility. Inhalation of oil mist or vapours at elevated temperatures may cause respiratory irritation. May be harmful by inhalation if exposure to vapour, mists or fumes resulting from thermal decomposition products occurs.
Ingestion	Unlikely to cause harm if accidentally swallowed in small doses, though larger quantities may cause nausea and diarrhoea.

### Chronic toxicity

Carcinogenic effects	No component of this product at levels greater than or equal to 0.1% is identified as a carcinogen by ACGIH, the International Agency for Research on Cancer (IARC), the European Commission (EC), or the National Occupational Health and Safety Commission (Australia).
Mutagenic effects	No known significant effects or critical hazards.

## 12 . Ecological information

Ecotoxicity	Not classified as environmentally hazardous in accordance with the 'Approved Criteria for Classifying Hazardous Substances' [NOHSC (1008)/2004 as amended and adapted].
Biodegradability	
Persistence/degradability	The biodegradability of this material has not been determined.

## 13 . Disposal considerations

### [Disposal Consideration / Waste information](#)

The generation of waste should be avoided or minimised wherever possible. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

### [Special Precautions for Landfill or Incineration](#)

No additional special precautions identified.

## 14 . Transport information

### [International transport regulations](#)

Not classified as dangerous for transport (ADG, IMDG, ICAO/IATA).

### [Special precautions for user](#)

No known special precautions required. See Section: "Handling and storage" for additional information.

## 15 . Regulatory information

### [Standard for the Uniform Scheduling of Drugs and Poisons](#)

Not regulated.

### [Control of Scheduled Carcinogenic Substances](#)

#### [Ingredient name](#)

No Listed Substance

#### [Schedule](#)

#### [Other regulations](#)

#### [Inventories](#)

**Europe inventory:** All components are listed or exempted.

**United States inventory (TSCA 8b):** All components are listed or exempted.

**Australia inventory (AICS):** All components are listed or exempted.

**Canada inventory:** All components are listed or exempted.

**China inventory (IECSC):** All components are listed or exempted.

**Japan inventory (ENCS):** All components are listed or exempted.

**Korea inventory (KECI):** All components are listed or exempted.

**Philippines inventory (PICCS):** All components are listed or exempted.

## 16 . Other information

### [Key to abbreviations](#)

AMP = Acceptable Maximum Peak  
ACGIH = American Conference of Governmental Industrial Hygienists, an agency that promulgates exposure standards.  
ADG = Australian Code for the Transport of Dangerous Goods by Road and Rail  
ADG Code = Australian Code for the Transport of Dangerous Goods by Road and Rail  
CAS Number = Chemical Abstracts Service Registry Number  
HAZCHEM Code = Emergency action code of numbers and letters which gives information to emergency services. Its use is required by the ADG Code for Dangerous Goods in bulk.  
ICAO = International Civil Aviation Organization.  
IATA = International Air Transport Association, the organization promulgating rules governing shipment of goods by air.  
IMDG = International Maritime Organization Rules, rules governing shipment of goods by water.  
IP 346 = A chemical screening assay for dermal toxicity. The European Commission has recommended that Method IP 346 be used as the basis for labelling certain lubricant oil base stocks for carcinogenicity. The EU Commission has stipulated that the classification as a carcinogen need not apply if it can be shown that the substance contains less than 3% DMSO extract as measured by IP 346. (See Note L, European Commission Directive 67/548/EEC as amended and adapted.) DMSO is a solvent.  
NOHSC = National Occupational Health & Safety Commission, Australia  
TWA = Time weighted average  
STEL = Short term exposure limit  
UN Number = United Nations Number, a four digit number assigned by the United Nations Committee of Experts on the Transport of Dangerous Goods.

### [History](#)

#### [Date of issue](#)

10/12/2007.

#### [Date of previous issue](#)

No Previous Validation.

#### [Prepared by](#)

Product Stewardship

### [Notice to reader](#)

**Product name** Energol SHF-HV 46

**Product code** 456565-AU07

Page: 4/5

**Version** 1

**Date of issue** 10 December 2007

**Format Australia**

**Language ENGLISH**

Build 3.5.2

**(Australia)**

All reasonably practicable steps have been taken to ensure this data sheet and the health, safety and environmental information contained in it is accurate as of the date specified below. No warranty or representation, express or implied is made as to the accuracy or completeness of the data and information in this data sheet.

The data and advice given apply when the product is sold for the stated application or applications. You should not use the product other than for the stated application or applications without seeking advice from us.

It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. The BP Group shall not be responsible for any damage or injury resulting from use, other than the stated product use of the material, from any failure to adhere to recommendations, or from any hazards inherent in the nature of the material. Purchasers of the product for supply to a third party for use at work, have a duty to take all necessary steps to ensure that any person handling or using the product is provided with the information in this sheet. Employers have a duty to tell employees and others who may be affected of any hazards described in this sheet and of any precautions that should be taken.

**Product name** Energol SHF-HV 46

**Product code** 456565-AU07

Page: 5/5

**Version** 1

**Date of issue** 10 December 2007

**Format Australia**

**Language ENGLISH**

Build 3.5.2

**(Australia)**