



1. Identification of the material and supplier

Product name	Energol THN 77
SDS no.	457231
Historic SDS no.	0000000967 457231-US10 457231-US06
Product use	Turbine Oil For specific application advice see appropriate Technical Data Sheet or consult our company representative.
Supplier	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
EMERGENCY TELEPHONE NUMBER	+61 29032 0460 (or 1800 14 14 74 within Australia)
OTHER PRODUCT INFORMATION	Technical Help Line 1 300 139 700 (Local Call)
Product code	457231-US06 US50

2. Hazards identification

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

3. Composition/information on ingredients

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

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

4. First-aid measures

Eye contact	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs.
Skin contact	Immediately wash exposed skin with soap and 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 potentially dangerous quantities of this material have been swallowed, call a physician immediately.
Advice to doctor	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 carbon dioxide extinguisher or spray.
Not suitable	Do not use water jet.
Hazardous decomposition products	Decomposition products may include the following materials: carbon dioxide carbon monoxide
Unusual fire/explosion hazards	This material is not explosive as defined by established regulatory criteria.
Special fire-fighting procedures	None identified.
Protection of fire-fighters	Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

6. Accidental release measures

Personal precautions	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. Put on appropriate personal protective equipment (see section 8).
Environmental precautions	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).
Large spill	Stop leak if without risk. Move containers from spill area. 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 material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor. Note: see section 1 for emergency contact information and section 13 for waste disposal.
Small spill	Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

7. Handling and storage

Handling	Avoid prolonged or repeated contact with skin. Wash thoroughly after handling.
Storage	Keep container tightly closed. Keep container in a cool, well-ventilated area.
Not suitable	Prolonged exposure to elevated temperature
Combustibility Classification	Combustible liquid Class C2 (AS 1940).

8. Exposure controls/personal protection

Ingredient name	Occupational exposure limits
Base oil - unspecified	NOHSC (Australia). TWA: 5 mg/m ³ 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.

Biological Limit Values No biological limit allocated.

Exposure controls

Occupational exposure controls Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapours below their respective occupational exposure limits.

All chemicals should be assessed for their risks to health and appropriate control measures put in place to prevent or adequately control exposure. A hierarchy of control measures exists (e.g. elimination, substitution, general ventilation, containment, systems of work, changing the process or activity) that must be considered before use of personal protective equipment. Personal protective equipment should conform to appropriate standards, be suitable for use, be kept in good condition and properly maintained.

Your supplier of personal protective equipment should be consulted for advice on selection and appropriate standards. For further information contact your national organisation for standards.

The final choice of protective equipment will depend upon a risk assessment. It is important to ensure that all items of personal protective equipment are compatible.

Hygiene measures 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.

Personal protective equipment

Respiratory protection 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.

Skin and body Avoid prolonged or repeated contact with skin. Wear protective clothing if prolonged or repeated contact is likely.

Hand protection 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.

Eye protection Safety glasses with side shields.

9 . Physical and chemical properties

Physical state	Liquid.
Colour	Amber. [Light]
Odour	Not available.
Flash point	>204 °C (Open cup) Cleveland.
Vapour pressure	Not available.
Vapour density	Not available.
Viscosity	Kinematic: 77 mm ² /s (77 cSt) at 40°C Kinematic: 9.3 mm ² /s (9.3 cSt) at 100°C
pH	Not available.
Boiling point / range	Not available.
Melting point / range	Not available.
Pour point	<-6 °C
Relative density/Specific gravity	Not available.
Density	880 kg/m ³ (0.88 g/cm ³) at 15°C
Solubility	insoluble in water.
Partition coefficient (LogKow)	>3

10 . Stability and reactivity

Stability	The product is stable.
Conditions to avoid	Avoid all possible sources of ignition (spark or flame).
Incompatibility with various substances/Hazardous Reactions	Reactive or incompatible with the following materials: oxidizing materials.
Hazardous decomposition products	Decomposition products may include the following materials: carbon dioxide carbon monoxide

11 . Toxicological information

Eyes	No significant health hazards identified.
Skin	Prolonged or repeated contact can defat the skin and lead to irritation and/or dermatitis.
Inhalation	No significant health hazards identified.
Ingestion	No significant health hazards identified.
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 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.
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.

13 . Disposal considerations

Disposal considerations / Waste information

The generation of waste should be avoided or minimised wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. 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 spilt 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

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Control of Scheduled Carcinogenic Substances

Ingredient name

Schedule

No Listed Substance

Other regulations

Europe inventory

At least one component is not listed in EINECS but all such components are listed in ELINCS. Please contact your supplier for information on the inventory status of this material.

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)

Not determined.

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

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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

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04/11/2009.

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Prepared by

Product Stewardship

Notice to reader

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.

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