



## 1 . Identification of the material and supplier

<b>Product name</b>	<b>Castrol Aviator S 100</b>
<b>SDS #</b>	357342
<b>Historic SDS#:</b>	0000001545
<b>Product use</b>	Lubrication of aircraft piston engines - to be used in accordance with engine manufacturers' guidelines. 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 638 556
<b>OTHER PRODUCT INFORMATION</b>	+61 (3) 9268 4101
<b>Product code</b>	457342-US10

## 2 . Hazards identification

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

## 3 . Composition/information on ingredients

Highly refined mineral 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

<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.

## 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>Hazards from combustion products</b>	These products are carbon oxides (CO, CO <sub>2</sub> ) (carbon monoxide, carbon dioxide).
<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.

## 6 . Accidental release measures

<b>Emergency Procedures</b>	Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment (See Section: "Exposure controls/personal protection"). Follow all fire fighting procedures (See Section: "Fire-fighting measures").
<b>Methods and materials for containment and clean-up</b>	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. Avoid contact of spilt material with soil and prevent runoff entering surface waterways. See Section 13 for Waste Disposal Information.
<b>Personal protection in case of a large spill</b>	Splash goggles. Full suit. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

## 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>Not Suitable</b>	Prolonged exposure to elevated temperature
<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>Control Measures</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 system</b>	None required; however, use of adequate ventilation is good industrial practice. Avoid breathing of vapors, mists or spray. Select and use respirators in accordance with AS/NZS 1715/1716. When mists or vapors exceed the exposure standards then the use of the following is recommended: Approved respirator with organic vapor and dust/mist (Type P1) filters. Filter capacity and respirator type depends on exposure level.
<b>Skin and body</b>	None required; however, use of protective clothing is good industrial practice.
<b>Hands</b>	None required; however, use of gloves is good industrial practice. Chemical resistant gloves.
<b>Eyes</b>	Safety glasses with side shields.

## 9 . Physical and chemical properties

<b>Physical state</b>	Liquid.
<b>Colour</b>	Amber. Clear.
<b>Odour</b>	Mild
<b>Flash point</b>	290 °C (Open cup) Cleveland.
<b>Pour Point</b>	-27 °C
<b>Viscosity Index</b>	97
<b>Boiling point / range</b>	>200 °C
<b>Melting point / range</b>	Not available.
<b>Density</b>	<1000 kg/m <sup>3</sup> (<1 g/cm <sup>3</sup> ) at 20°C
<b>Vapour density</b>	Not available.
<b>Vapour pressure</b>	Not available.
<b>Solubility</b>	Insoluble in water.
<b>LogK<sub>ow</sub></b>	The product is more soluble in octanol; log(octanol/water) >3

<b>pH</b>	Not available.
<b>Relative density</b>	Not available.
<b>Viscosity</b>	Kinematic: 232 mm <sup>2</sup> /s (232 cSt) at 40°C Kinematic: 19.7 mm <sup>2</sup> /s (19.7 cSt) at 100°C

## 10 . Stability and reactivity

<b>Stability</b>	The product is stable.
<b>Conditions to Avoid</b>	Keep away from heat, sparks and flame. Keep away from sources of ignition.
<b>Incompatibility with various substances/Hazardous Reactions</b>	Reactive with oxidising agents.
<b>Hazardous polymerization</b>	Will not occur.
<b>Hazardous Decomposition Products</b>	These products are carbon oxides (CO, CO <sub>2</sub> ) (carbon monoxide, carbon dioxide).

## 11 . Toxicological information

<b>Acute toxicity</b>	<p>Unlikely to cause more than transient stinging or redness if accidental eye contact occurs.</p> <p>Unlikely to cause harm to the skin on brief or occasional contact but prolonged or repeated exposure may lead to dermatitis.</p> <p>Unlikely to cause harm if accidentally swallowed in small doses, though larger quantities may cause nausea and diarrhoea.</p> <p>At normal ambient temperatures this product will be unlikely to present an inhalation hazard because of its low volatility.</p> <p><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. Studies have shown that used motor oil causes skin tumors after a long latency period (over one year) in a low percentage of mice (below 10%;) when applied to the skin twice a week for their lifetimes. The material was not washed off between applications. A skin cancer risk may exist for people from prolonged or repeated contact with used motor oil in the absence of good personal hygiene.</p> <p>In case of contact, wash exposed skin thoroughly with soap and water or use waterless hand cleaners to remove used motor oils from skin. Do not use gasoline, thinners, or solvents. Wear protective clothing and impervious gloves when working with used motor oils. Remove oil-soaked clothing, including shoes, and thoroughly clean and dry before reuse.</p>
<b>Chronic toxicity</b>	
<b>Carcinogenic effects</b>	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).

## 12 . Ecological information

<b>Ecotoxicity</b>	Not classified as environmentally hazardous in accordance with the 'Approved Criteria for Classifying Hazardous Substances' [NOHSC (1008)/2004 as amended and adapted].
<b>Persistence/degradability</b>	The biodegradability of this material has not been determined.
<b>Mobility</b>	Spillages may penetrate the soil causing ground water contamination.
<b>Bioaccumulative potential</b>	This product is not expected to bioaccumulate through food chains in the environment.
<b>Other ecological information</b>	Spills may form a film on water surfaces causing physical damage to organisms. Oxygen transfer could also be impaired.

## 13 . Disposal considerations

<b>Disposal Consideration / Waste information</b>	Where possible, arrange for product to be recycled. Dispose of via an authorised person/ licensed waste disposal contractor in accordance with local regulations.
<b>Special Precautions for Landfill or Incineration</b>	No additional special precautions identified.

## 14 . Transport information

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

#### Ingredient name

No Listed Substance

[Schedule](#)

### Control of Scheduled Carcinogenic Substances

#### Ingredient name

No Listed Substance

[Schedule](#)

### **Other Classification Information**

#### **Other regulations**

##### **Inventories**

AUSTRALIAN INVENTORY (AICS): In compliance.

CANADA INVENTORY (DSL): In compliance.

CHINA INVENTORY (IECS): In compliance.

EC INVENTORY (EINECS/ELINCS): In compliance.

JAPAN INVENTORY (ENCS): In compliance.

KOREA INVENTORY (ECL): In compliance.

PHILIPPINE INVENTORY (PICCS): In compliance.

US INVENTORY (TSCA): In compliance.

## 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**

23/05/2006.

#### **Date of previous issue**

07/05/2006.

#### **Prepared by**

Product Stewardship

### **Notice to reader**

**Product name** Castrol Aviator S 100

**Product code** 457342-US10

Page: 4/5

**Version** 2

**Date of issue** 23 May 2006

**Format** Australia

**Language** ENGLISH

Build 2.4.0

(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** Castrol Aviator S 100

**Product code** 457342-US10

Page: 5/5

**Version** 2

**Date of issue** 23 May 2006

**Format** Australia

**Language** ENGLISH

Build 2.4.0

**(Australia)**