



# Fuel Standard (Petrol) Determination 2001

as amended

made under section 21 of the

*Fuel Quality Standards Act 2000*

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This compilation was prepared on 5 September 2006  
taking into account amendments up to *Fuel Standard (Petrol) Amendment  
Determination 2005 (No. 1)*

The text of any of those amendments not in force on that date is appended in the  
Notes section

Prepared by the Office of Legislative Drafting and Publishing,  
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**1 Name of Determination** [see Note 1]

This Determination is the *Fuel Standard (Petrol) Determination 2001*.

**2 Commencement**

This Determination commences on 1 January 2002.

**2A Definitions**

In this Determination:

*ASTM International* means the standards development organisation of that name.

*CAS no.*, for a substance, means the Chemicals Abstracts Service Registry number for the substance.

*LRP* means lead replacement grade of petrol.

*petrol* does not include avgas supplied for use in aircraft.

*pool average*, for olefin or aromatic content of a grade of petrol, means the average amount of olefins or aromatics in all batches of petrol of that grade manufactured in Australia or imported by a supplier in each 6 months starting on 1 January 2002.

*PULP* means premium unleaded grade of petrol.

*ULP* means unleaded grade of petrol.

**3 Fuel standard for petrol**

- (1) Petrol that contains a substance mentioned in the following table must not contain more than the amount mentioned for the substance and the grade of petrol from the date mentioned for the substance.

Item	Substance	Grade	Amount	Date
1	Sulfur	ULP, LRP	500 mg/kg	1 January 2002
2	Sulfur	PULP	150 mg/kg	1 January 2002
3	Sulfur	ULP, LRP	150 mg/kg	1 January 2005
3A	Sulfur	PULP	50 mg/kg	1 January 2008
4	Benzene	All grades	1% volume by volume	1 January 2006
5	Lead	All grades	0.005 g/L	1 January 2002
6	Oxygen	(a) All grades of petrol not containing ethanol	2.7% mass by mass (maximum)	1 January 2002
		(b) All grades of petrol containing ethanol	3.5% mass by mass (maximum)	1 July 2003

## Section 4

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Item	Substance	Grade	Amount	Date
6A	Ethanol	All grades	10% volume by volume (maximum)	1 July 2003
7	Phosphorus	ULP, PULP	0.0013 g/L	1 January 2002
8	DIPE (Di-isopropyl ether, CAS no. 108-20-3)	All grades	1% volume by volume	1 January 2002
9	MTBE (Methyl tert-butyl ether, CAS no. 1634-04-4)	All grades	1% volume by volume	1 January 2004
10	TBA (Tertiary butyl alcohol, CAS no. 75-65-0)	All grades	0.5% volume by volume	1 January 2002

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- (2) From 1 January 2005, petrol must have a maximum final boiling point of 210°C.
- (3) Petrol must have a minimum research octane number as follows:
  - (a) for ULP — of 91.0;
  - (b) for PULP — of 95.0;
  - (c) for LRP — of 96.0.
- (4) The olefin content of petrol must be not more than:
  - (a) from 1 January 2004:
    - (i) 20% volume by volume; and
    - (ii) 18% volume by volume pool average over 6 months; and
  - (b) from 1 January 2005 — 18% by volume.
- (5) The aromatic content of petrol must be not more than:
  - (a) from 1 January 2002:
    - (i) 48% volume by volume; and
    - (ii) 45% volume by volume pool average over 6 months; and
  - (b) from 1 January 2005:
    - (i) 45% volume by volume; and
    - (ii) 42% volume by volume pool average over 6 months.

## 4 Testing methods

- (1) Compliance with the standard set out in section 3 for a substance or property is determined by application of the testing method for the substance or property in the following table:

Item	Substance or parameter	Testing method
1	Aromatics	ASTM D1319
2	Lead	ASTM D3237
3	Olefins	ASTM D1319
4	Oxygen	ASTM D4815
5	MTBE (Methyl tertiary-butyl ether)	ASTM D4815
6	DIPE (Di-isopropyl ether)	ASTM D4815
7	TBA (Tertiary butyl alcohol)	ASTM D4815
8	Sulfur	ASTM D5453
9	Phosphorus	ASTM D3231
10	Research octane number	ASTM D2699

- (2) In the table in subsection (1), *ASTM* followed by an alphanumeric code means the testing method developed by ASTM International under that alphanumeric code.

## 5 Operability standards for petrol

- (1) To allow the more effective operation of engines, petrol of a grade mentioned in an item of the following table must, in relation to the parameter mentioned in that item, comply with the specification for that parameter mentioned in that item.
- (2) For subsection (1), a parameter of petrol of a grade mentioned in an item of the table complies with the specification for that item only if that is the result after the petrol has been tested, in relation to that parameter, using the ASTM International method of testing, as in force on 16 October 2002, mentioned in that item.

Item	Grade of petrol	Parameter	Specification	Referee test method
1	PULP	MON	85.0 minimum	ASTM D2700
2	ULP	MON	81.0 minimum	ASTM D2700
3	LRP	MON	82.0 minimum	ASTM D2700
4	All grades	Copper corrosion (3 hrs @ 50°C)	Class 1 maximum	ASTM D130
5	All grades	Existent gum (washed)	50 mg/l maximum	ASTM D381
6	All grades	Induction period	360 minutes minimum	ASTM D525

**Table of Instruments****Notes to the *Fuel Standard (Petrol) Determination 2001*****Note 1**

The *Fuel Standard (Petrol) Determination 2001* (in force under section 21 of the *Fuel Quality Standards Act 2000*) as shown in this compilation is amended as indicated in the Tables below.

Under the *Legislative Instruments Act 2003*, which came into force on 1 January 2005, it is a requirement for all non-exempt legislative instruments to be registered on the Federal Register of Legislative Instruments.

**Table of Instruments**

<b>Title</b>	<b>Date of notification in Gazette or FRLI registration</b>	<b>Date of commencement</b>	<b>Application, saving or transitional provisions</b>
<i>Fuel Standard (Petrol) Determination 2001</i>	22 Aug 2001 (see <i>Gazette</i> 2001, No. GN33)	1 Jan 2002	
<i>Fuel Standard (Petrol) Amendment Determination 2001 (No. 1)</i>	3 Oct 2001 (see <i>Gazette</i> 2001, No. GN39)	1 Jan 2002	—
<i>Fuel Standard (Petrol) Amendment Determination 2002 (No. 1)</i>	24 Oct 2002 (see <i>Gazette</i> 2002, No. S396)	Ss. 1–3 and Schedule 1: 24 Oct 2002 Schedule 2: 16 Oct 2002	—
<i>Fuel Standard (Petrol) Amendment Determination 2003 (No. 1)</i>	7 May 2003 (see <i>Gazette</i> 2003, No. GN18)	1 July 2003	—
<i>Fuel Quality Standards Amendment Determination 2004 (No. 1)</i>	11 Aug 2004 (see <i>Gazette</i> 2004, No. GN32)	11 Aug 2004	—
<i>Fuel Standard (Petrol) Amendment Determination 2005 (No. 1)</i>	15 June 2005 (see F2005L01418)	16 June 2005	—

**Table of Amendments****Table of Amendments**

ad. = added or inserted    am. = amended    rep. = repealed    rs. = repealed and substituted

<b>Provision affected</b>	<b>How affected</b>
S. 2A .....	ad. 2002 No. 1 am. 2005 No. 1
S. 3.....	am. 2001 No. 1; 2002 No. 1; 2003 No. 1; 2004 No. 1
S. 4.....	ad. 2001 No. 1 am. 2002 No. 1 rs. 2005 No. 1
S. 5.....	ad. 2002 No. 1 am. 2005 No. 1