Fuel Quality Standards (Petrol) Determination 2019

made under section 21 of the

Fuel Quality Standards Act 2000

Compilation No. 1

Compilation date:	10 February 2021
Includes amendments up to:	*Fuel Quality Standards (Petrol) Amendment Determination 2021*

Prepared by the Department of Industry, Science, Energy and Resources

About this compilation

This compilation

This is a compilation of the *Fuel Quality Standards (Petrol) Determination 2019*that shows the text of the law as amended and in force on 10/02/2021 (the ***compilation date***).

The notes at the end of this compilation (the ***endnotes***) include information about amending laws and the amendment history of provisions of the compiled law.

Uncommenced amendments

The effect of uncommenced amendments is not shown in the text of the compiled law. Any uncommenced amendments affecting the law are accessible on the Legislation Register (www.legislation.gov.au). The details of amendments made up to, but not commenced at, the compilation date are underlined in the endnotes. For more information on any uncommenced amendments, see the series page on the Legislation Register for the compiled law.

Application, saving and transitional provisions for provisions and amendments

If the operation of a provision or amendment of the compiled law is affected by an application, saving or transitional provision that is not included in this compilation, details are included in the endnotes.

Modifications

If the compiled law is modified by another law, the compiled law operates as modified but the modification does not amend the text of the law. Accordingly, this compilation does not show the text of the compiled law as modified. For more information on any modifications, see the series page on the Legislation Register for the compiled law.

Self-repealing provisions

If a provision of the compiled law has been repealed in accordance with a provision of the law, details are included in the endnotes.

Contents

1 Name

This instrument is the *Fuel Quality Standards (Petrol) Determination 2019*.

3 Authority

This instrument is made under section 21 of the *Fuel Quality Standards Act 2000*.

4 Definitions

Note: A number of expressions used in this instrument are defined in section 4 of the Act, including the following:

(a) ***fuel***

(b) ***supply***

In this instrument:

Act means the *Fuel Quality Standards Act 2000*.

ASTM followed by an alphanumeric code means the testing method developed under that code by the standards development organisation called ASTM International.

CAS no., for a parameter, means the Chemical Abstracts Service Registry number for the parameter.

petrol does not include aviation gasoline (avgas) supplied for use in aircraft.

pool average for aromatic content, means the average amount of aromatics in all batches of petrol across all grades manufactured in Australia, or imported, by a supplier in each 12 months starting on 1 January.

mg/kg means milligrams per kilogram, and is equivalent to 'parts per million' or 'ppm' by mass.

% v/v means per cent volume by volume and is equivalent to 'volume %', 'vol %' and '% vol'.

% m/m means per cent mass by mass, and is equivalent to 'mass %', '% mass' and 'weight %'.

5 Fuel standard for petrol

(1) In relation to a parameter mentioned in an item of the following table, petrol must comply with the specification for that parameter mentioned in that item.

(2) For subsection (1), compliance with the specification for a parameter is determined by using the testing method for that parameter mentioned in that item of the table.

Item	Parameter	Specification	Testing Method
1	Aromatics	Between commencement and 31 December 2021: 45% v/v maximum with a 42% v/v maximum pool average across all grades On and from 1 January 2022: 45% v/v maximum with a 35% v/v maximum pool average across all grades	ASTM D1319
2	Benzene	1.0% v/v maximum	ASTM D5580
3	Copper corrosion—3 h at 50°C	Class 1	ASTM D130
4	Diisopropyl ether (DIPE, CAS no. 108-20-3)	1% v/v maximum	ASTM D4815
5	Distillation—final boiling point	210°C maximum	ASTM D86
6	Ethanol	10% v/v maximum	ASTM D4815
7	Ethyl tertiary butyl ether (ETBE, CAS no. 637-92-3)	1% v/v maximum	ASTM D4815
8	Existent gum—washed	5 mg/100 mL maximum	ASTM D381
9	Induction period—oxidation stability	360 minutes minimum	ASTM D525
10	Lead	5 mg/L maximum	ASTM D3237
11	Methyl tertiary butyl ether (MTBE, CAS no. 1634-04-4)	1% v/v maximum	ASTM D4815
12	Motor octane number (MON)	91 RON grade: 81.0 minimum 95 RON grade: 85.0 minimum	ASTM D2700
13	Olefins	18% v/v maximum	ASTM D1319
14	Oxygen	Petrol without ethanol: 2.7% m/m maximum Petrol with ethanol: 3.9% m/m maximum	ASTM D4815

Item	Parameter	Specification	Testing Method
15	Phosphorus	1.3 mg/L maximum	ASTM D3231
16	Research octane number (RON)	91 RON grade: 91.0 minimum 95 RON grade: 95.0 minimum	ASTM D2699
17	Sulfur	Between commencement and 30 June 2027: 91 RON grade: 150 mg/kg maximum 95 RON grade: 50 mg/kg maximum On and from 1 July 2027: All grades: 10 mg/kg maximum	ASTM D5453
18	Tertiary butyl alcohol (TBA, CAS no. 75-65-0)	0.5% v/v maximum	ASTM D4815

(3) Specifications set out in the table apply to all grades of petrol unless otherwise stated.

(4) Any ethanol component of petrol must comply with the fuel standard for ethanol in section 6.

(5) Compounds containing phosphorus must not be added to petrol.

6 Fuel standard for ethanol

(1) In relation to a parameter mentioned in an item of the following table, ethanol in petrol must comply with the specification for that parameter mentioned in that item.

(2) For subsection (1), compliance with the specification for a parameter is determined by using the testing method for that parameter mentioned in that item of the table.

Item	Parameter	Specification	Testing Method
1	Acidity—as acetic acid	0.006% m/m maximum	ASTM D7795
2	Appearance	Clear and bright and visibly free of suspended or precipitated contaminants	ASTM D4806

Item	Parameter	Specification	Testing Method
3	Copper	0.1 mg/kg maximum	EN 15837 (as modified in CEN/TS 15293)
4	Denaturant	1–1.5% v/v denaturant	ASTM D5501
5	Ethanol	95.6% v/v minimum	ASTM D5501
6	Inorganic chloride	10 mg/kg maximum	ASTM D7328
7	Methanol	0.5% v/v maximum	ASTM D5501
8	pHe	6.5–9.0	ASTM D6423
9	Solvent washed gum	5.0 mg/100 mL maximum	ASTM D381
10	Sulfate	4.0 mg/kg maximum	ASTM D7328
11	Sulfur	10 mg/kg maximum	ASTM D5453
12	Water	1.25% m/m maximum	ASTM E1064

(3) The denaturant component of ethanol must be petrol.

Endnotes

Endnote 1—About the endnotes

The endnotes provide information about this compilation and the compiled law.

The following endnotes are included in every compilation:

Endnote 1—About the endnotes
Endnote 2—Abbreviation key
Endnote 3—Legislation history
Endnote 4—Amendment history

Abbreviation key—Endnote 2
The abbreviation key sets out abbreviations that may be used in the endnotes.

Legislation history and amendment history—Endnotes 3 and 4
Amending laws are annotated in the legislation history and amendment history.

The legislation history in endnote 3 provides information about each law that has amended (or will amend) the compiled law. The information includes commencement details for amending laws and details of any application, saving or transitional provisions that are not included in this compilation.

The amendment history in endnote 4 provides information about amendments at the provision (generally section or equivalent) level. It also includes information about any provision of the compiled law that has been repealed in accordance with a provision of the law.

Misdescribed amendments
A misdescribed amendment is an amendment that does not accurately describe the amendment to be made. If, despite the misdescription, the amendment can be given effect as intended, the amendment is incorporated into the compiled law and the abbreviation "(md)" added to the details of the amendment included in the amendment history.

If a misdescribed amendment cannot be given effect as intended, the abbreviation "(md not incorp)" is added to the details of the amendment included in the amendment history.

Endnote 2—Abbreviation key

ad = added or inserted

am = amended

amdt = amendment

c = clause(s)

C[x] = Compilation No. x

Ch = Chapter(s)

def = definition(s)

Dict = Dictionary

disallowed = disallowed by Parliament

Div = Division(s)

exp = expires/expired or ceases/ceased to have effect

F = Federal Register of Legislation

gaz = gazette

LA = *Legislation Act 2003*

LIA = *Legislative Instruments Act 2003*

(md) = misdescribed amendment can be given effect

(md not incorp) = misdescribed amendment cannot be given effect

mod = modified/modification

No. = Number(s)

o = order(s)

Ord = Ordinance

orig = original

par = paragraph(s)/subparagraph(s) /sub-subparagraph(s)

pres = present

prev = previous

(prev…) = previously

Pt = Part(s)

r = regulation(s)/rule(s)

reloc = relocated

renum = renumbered

rep = repealed

rs = repealed and substituted

s = section(s)/subsection(s)

Sch = Schedule(s)

Sdiv = Subdivision(s)

SLI = Select Legislative Instrument

SR = Statutory Rules

Sub-Ch = Sub-Chapter(s)

SubPt = Subpart(s)

underlining = whole or part not commenced or to be commenced

Endnote 3—Legislation history

Name	Registration	Commencement	Application, saving and transitional provisions
Fuel Quality Standards (Petrol) Determination 2019	28 March 2019 (FL2019L00455)	1 October 2019	
Fuel Quality Standards (Petrol) Amendment Determination 2021	9 February 2021 (FL2021L00107)	10 February 2021	

Endnote 4—Amendment history

Provision affected	How affected
s 2	rep LA s 48D
s 5	am FL2021L00107
s 6	am FL2021L00107