

**Reprint
as at 1 December 2011**



**Engine Fuel Specifications
Regulations 2008**

(SR 2008/138)

Engine Fuel Specifications Regulations 2008: revoked, on 1 December 2011, by regulation 23 of the Engine Fuel Specifications Regulations 2011 (SR 2011/352).

Anand Satyanand, Governor-General

Order in Council

At Wellington this 26th day of May 2008

Present:

His Excellency the Governor-General in Council

Pursuant to section 35 of the Energy (Fuels, Levies, and References) Act 1989, His Excellency the Governor-General, acting on the advice and with the consent of the Executive Council, makes the following regulations.

Note

Changes authorised by section 17C of the Acts and Regulations Publication Act 1989 have been made in this reprint.

A general outline of these changes is set out in the notes at the end of this reprint, together with other explanatory material about this reprint.

These regulations are administered by the Ministry of Economic Development.

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Regulations

- 1 Title**
These regulations are the Engine Fuel Specifications Regulations 2008.
- 2 Commencement**
These regulations come into force on 1 July 2008.

Part 1 Preliminary

- 3 Outline**
 - (1) These regulations prescribe different specifications for certain types of engine fuel that is supplied, or available or intended for supply, depending on—
 - (a) the type of engine fuel; and
 - (b) whether the supply is by way of retail sale or not.
 - (2) These regulations also contain general provisions relating to matters such as labelling, sampling, and offences.
 - (3) This regulation is only a guide to the general scheme and effect of these regulations.
- 4 Application of regulations**
These regulations apply to all petrol, diesel, biodiesel, and ethanol, and blends of these, that are supplied, or available or intended for supply, for use in an internal combustion engine, other than—
 - (a) as an aviation fuel; or

- (b) for motor car racing or motorcycle racing; or
- (c) for powerboat racing; or
- (d) as a fuel for jet boats.

5 Interpretation

- (1) In these regulations, unless the context otherwise requires,—
- additive** means a substance added to fuel in trace or small quantities in order to bring about specific benefits
- Auckland and Northland** means the area contained within the Auckland Regional Council and Northland Regional Council boundaries
- autumn** means, in Schedule 1, 1 April to 31 May (inclusive)
- biodiesel** means fatty acid methyl esters, whether or not containing additives, intended for use as a fuel in compression-ignition internal combustion engines, at 100% concentration or as a blending component with diesel
- biofuel** means any gaseous or liquid fuel produced from biomass that can be used as a fuel for engines
- diesel**—
- (a) means a refined petroleum distillate having a viscosity and distillation range that is intermediate between those of kerosene and light lubricating oil, whether or not it contains additives, and that is intended for use as fuel in compression-ignition internal combustion engines; and
 - (b) includes diesel containing up to 5% biodiesel by volume
- engine fuel** means any gaseous or liquid fuel that can be used as a fuel for engines, and includes biofuel, diesel, petrol, synthetic fuel, and blends of these
- ethanol** means ethyl alcohol or the chemical component C_2H_5OH , whether or not it contains additives, intended for blending with petrol for use as a fuel in spark-ignition internal combustion engines
- marine use** means the use or intended use of diesel on a boat or ship
- other oxygenates** means oxygenates other than ethanol
- oxygenates** means alcohols and ethers added to fuel

petrol—

- (a) means a refined petroleum distillate, normally boiling within the limits of 15°C to 220°C, whether or not it contains additives, that is intended for use as a fuel in spark-ignition internal combustion engines; and
- (b) includes petrol containing up to 10% ethanol by volume

petroleum has the same meaning as it has in section 2(1) of the Crown Minerals Act 1991

polycyclic aromatic hydrocarbon means the total aromatic hydrocarbon content of the engine fuel less the mono-aromatic content, both as determined by the regulatory test method

pool average is determined in accordance with regulation 19

premium grade petrol means petrol supplied as having a research octane number of 95.0 or higher

regular grade petrol means petrol supplied as having a research octane number of at least 91.0 but less than 95.0

retail sale means a sale to an end user who has no written supply agreement or written contract with the supplier in respect of the sale; and **non-retail sale** has an opposite meaning

Secretary has the same meaning as it has in section 12 of the Energy (Fuels, Levies, and References) Act 1989

spring means, in Schedule 1, 1 September to 30 November (inclusive)

summer means,—

- (a) in Schedule 1, 1 December to 31 March (inclusive); and
- (b) in Schedule 2, 15 October to 14 April (inclusive)

winter means,—

- (a) in Schedule 1, 1 June to 31 August (inclusive); and
- (b) in Schedule 2, 15 April to 14 October (inclusive).

- (2) In these regulations, a reference to a test method with an acronym listed in the left-hand column in the following table means a standard, or a test method related to an organisation, that is listed in the right-hand column of that table:

Test method	Standard or organisation
ASTM	ASTM International, which replaced the American Society for Testing and Materials

Test method	Standard or organisation
BS	British Standard
EN	European Standard
IP	Energy Institute, which replaced the Institute of Petroleum, London
ISO	International Organization for Standardization

- (3) In these regulations, the letter **D** and a series of numerals, or a series of numerals immediately following a test method referred to in subclause (2), means the latest version of the document identified by that serial number.
- (4) If a test method prescribed in these regulations provides for alternative methods, each of the alternative methods has equal standing, and any of those methods may be used.

Part 2

Retail sales

6 Application of Part

This Part applies to all engine fuel referred to in regulation 4 that is supplied, or available or intended for supply, by way of retail sale.

7 Requirements relating to petrol sold by retail sale

Petrol must—

- (a) be fit for common purposes; and
- (b) have properties that conform to the limits specified in Schedule 1 when tested by the methods specified in that schedule.

8 Ethanol component of petrol/ethanol blends sold by retail sale

The ethanol component of any blend of petrol and ethanol must—

- (a) contain denaturant, which must be unleaded petrol with the following characteristics:
 - (i) end point as required by Schedule 1; and

- (ii) sulphur as required by Schedule 1; and
- (iii) appearance as required by Schedule 4; and
- (b) contain a corrosion inhibitor; and
- (c) have properties that conform to the limits specified in Schedule 4 when tested by the methods specified in that schedule.

9 Requirements relating to diesel sold by retail sale

Diesel must—

- (a) be fit for common purposes; and
- (b) have properties that conform to the limits specified in Schedule 2 when tested by the methods specified in that schedule.

10 Biodiesel component of diesel/biodiesel blends sold by retail sale

The biodiesel component of any blend of diesel and biodiesel must have properties that conform to the limits specified in Schedule 3 when tested by the methods specified in that schedule except that—

- (a) the maximum viscosity at 40°C is 6.0 mm² per second; and
- (b) the minimum cetane number is 47; and
- (c) the minimum oxidation stability is 10.0 hours.

11 Engine fuel sold by retail sale that is advertised with superior or additional properties

Engine fuel that is advertised as having properties that are superior or in addition to the regulated limits must conform to those advertised properties when tested by the test methods specified in the schedules or, in the case of an additional property, by a suitable and recognised international method.

Part 3

Non-retail sales

12 Application of Part

This Part applies to all engine fuel referred to in regulation 4 that is supplied, or available or intended for supply, by way of non-retail sale.

13 Requirements relating to petrol sold by non-retail sale

Petrol must have properties in respect of vapour pressure, sulphur, lead, benzene, total aromatic compounds, other oxygenates, olefins, manganese, and phosphorus that conform to the limits specified in Schedule 1 when tested by the methods specified in that schedule.

14 Requirements relating to petrol/ethanol blends sold by non-retail sale

- (1) The petrol component of any blend of petrol and ethanol must conform with the requirements in regulation 13.
- (2) The ethanol component of any blend of petrol and ethanol must—
 - (a) contain denaturant, which must be unleaded petrol with the following characteristics:
 - (i) end point as required by Schedule 1; and
 - (ii) sulphur as required by Schedule 1; and
 - (iii) appearance as required by Schedule 4; and
 - (b) contain a corrosion inhibitor; and
 - (c) have properties that conform to the limits specified in Schedule 4 when tested by the methods specified in that schedule.

15 Requirements relating to diesel sold by non-retail sale

Diesel must have properties in respect of sulphur and polycyclic aromatic hydrocarbon compounds that conform to the limits specified in Schedule 2 when tested by the methods specified in that schedule.

- 16 Requirements relating to biodiesel sold by non-retail sale**
Biodiesel must have properties that conform to the limits specified in Schedule 3 when tested by the methods specified in that schedule.
- 17 Requirements relating to diesel/biodiesel blends sold by non-retail sale**
- (1) The diesel component of any blend of diesel and biodiesel must conform with the requirements in regulation 15.
 - (2) The biodiesel component of any blend of diesel and biodiesel must have properties that conform to the limits specified in Schedule 3 when tested by the methods specified in that schedule except that—
 - (a) the maximum viscosity at 40°C is 6.0 mm² per second; and
 - (b) the minimum cetane number is 47.
 - (3) Any blend of diesel and biodiesel must—
 - (a) have properties in respect of cetane number, total contamination, colour, sulphur, lubricity, viscosity, and flash point that conform to the limits specified in Schedule 2 from the relevant date set out in that schedule when tested by the methods specified in that schedule; and
 - (b) have an acid value maximum of $0.1 + X\%/250$ mg KOH/g when measured by ASTM D664 (where **X** is the percentage by volume of biodiesel in the blend); and
 - (c) have a water content maximum of $200 + 3X\%$ mg/kg when measured by IP 438 (where **X** is the percentage by volume of biodiesel in the blend).

Part 4

General provisions

- 18 Labelling requirements relating to retail containers and engine fuel pumps**
- (1) Subclauses (2) to (4) apply to a dispensing pump or container used for delivering engine fuel by way of retail sale either into the consuming vehicle or into a container for subsequent use in an engine.

- (2) For petrol, the seller of the petrol must ensure that the dispensing pump or container is clearly marked with the grade designation, such as regular or premium, and with the minimum research octane number.
- (3) If petrol contains ethanol greater than 1% by volume, the seller of the petrol must ensure that the dispensing pump or container is clearly marked to display—
 - (a) the maximum percentage by volume of ethanol; and
 - (b) the words “May not be suitable for all vehicles/engines. Check with the manufacturer before use.”
- (4) For diesel, the dispensing pump or container must be clearly marked as “diesel”.
- (5) In this regulation, **clearly marked** means having a label that is able to be easily seen by the person dispensing the engine fuel.

19 Calculating pool average

- (1) In Schedule 1, if a pool average is specified, it must be determined as set out in this regulation.
- (2) Pool averages must be calculated separately by each producer of engine fuel in New Zealand and by each engine fuel importer for imported product.
- (3) Monthly pool averages must be calculated based on—
 - (a) batch fuel quality, as indicated on the certificate of quality, and quantity and date of completion of loading, as indicated on the bill of lading, for engine fuel produced in New Zealand; and
 - (b) batch fuel quality, as indicated on the certificate of quality, and supplied quantity and date of completion of discharge into the first port storage at a New Zealand port, as indicated on the bill of lading or other appropriate documentation, for imported engine fuel.
- (4) Each producer of engine fuel in New Zealand and each engine fuel importer must keep, for a period of not less than 3 years, records of the following with regard to properties that are regulated by pool averaging:
 - (a) the relevant fuel quality, for each individual batch; and

- (b) the quantity of each individual batch, on a mass or volume basis as appropriate; and
 - (c) the date of the batch, as defined in subclause (3)(a) and (b); and
 - (d) the monthly average, as calculated in subclause (6)(a) and (b); and
 - (e) the monthly journal entry, as calculated in subclause (6)(c).
- (5) Each producer of engine fuel and each engine fuel importer must supply access in New Zealand to the records required to be kept under subclause (4) when requested, in writing, to do so by the responsible Minister of the Crown.
- (6) For total aromatic compounds in petrol, for each calendar month during the period that this regulation is in effect, each producer of engine fuel in New Zealand and each engine fuel importer must separately calculate the average percentage of total aromatic compounds for each relevant grade of petrol produced or imported in that month as follows:
- (a) for each batch of regular grade petrol and each batch of premium grade petrol respectively produced or imported in the month, the average total aromatic compounds content of the batch (in litres per litre) is multiplied by the volume of the batch (in litres) to obtain the volume of total aromatic compounds (in litres) contained in the batch; and
 - (b) the volume of total aromatic compounds calculated from all petrol batches of the relevant grade produced or imported in a month is added together and the total divided by the total volume of all the month's batches to produce the monthly average total aromatic compounds content (in litres per litre) as follows:

$$\text{monthly average} = \frac{\sum_{i=1}^n (A_i \times V_i)}{\sum_{i=1}^n V_i}$$

where—

A_i is the average total aromatic compounds content for batch i in litres

V_i is the volume of batch i in litres

- (c) n is the total number of batches in the month; and the monthly average total aromatic compounds content is subtracted from the pool average maximum expressed in litres per litre, and the difference multiplied by the total volume of all the month's batches of the relevant grade to produce the monthly journal entry as follows:

$$\text{monthly journal entry} = \frac{(\text{pool average maximum} - \text{monthly average})}{n} \times \sum_{i=1}^n (V_i)$$

where—

V_i is the volume of batch i in litres

n is the total number of batches in the month.

- (7) If the monthly journal entry is negative, it is considered a debit. If the monthly journal entry is positive, it is considered a credit.
- (8) Debits must be offset with an equal number of credits within 5 months following the end of the month in which the debits were accumulated.
- (9) Credits may be used within 5 months following the end of the month in which the credits were accumulated to offset future debits. Credits expire and may not be used after this time period.

20 Sampling of engine fuel

- (1) The procedure for obtaining a representative sample of engine fuel for testing by the test methods set out in these regulations is set out in BS EN 228:2004 and BS EN 590:2004.
- (2) In the event of a dispute as to the appropriate value, nature, or rating of any of the properties listed in the schedules or referred to in these regulations, the relevant procedures specified in ISO 4259:2006 must be used to interpret the laboratory results.

- (3) Any of the following persons may, in writing, request the Secretary to agree to the use of an alternative test method to any of those specified in the schedules:
 - (a) an engine fuel importer; or
 - (b) a wholesale supplier or retailer of engine fuel; or
 - (c) a producer of engine fuel.
- (4) The Secretary may agree to such a request if satisfied that the alternative test method is at least as good as the test method specified in the schedules.
- (5) Any of the following persons must, if a person authorised in writing by the Secretary so requests, supply the authorised person with a certificate describing the properties and value of any such engine fuel (including, if asked, the properties and value of any blend of fuel or any blending component in a blended fuel or any additive) within 5 working days of receiving the request:
 - (a) an engine fuel importer; or
 - (b) a wholesale supplier or retailer of engine fuel; or
 - (c) a producer of engine fuel.

21 Accreditation

A person authorised by the Secretary to take samples or to conduct testing of engine fuel for compliance with these regulations must, unless the person is an employee of the Ministry of Economic Development, be ISO 9001:2000 certified for engine fuel sampling or testing, or be accredited by International Accreditation New Zealand or by an overseas accreditation agency recognised under New Zealand's mutual recognition arrangements.

22 Offences

A person commits an offence and is liable on summary conviction to a fine not exceeding \$10,000 who—

- (a) supplies, or makes available for supply, any engine fuel other than in accordance with regulations 7 to 19; or
- (b) fails to comply with a request made under regulation 20(5).

23 Revocation

The Petroleum Products Specifications Regulations 2002 (SR 2002/210) are consequentially revoked.

Schedule 1 Requirements for petrol

rr 7, 8, 13, 14, 19(1)

Property	Limits	Test method
Research octane number (RON)	Regular grade fuel: 91.0 minimum Premium grade fuel: 95.0 minimum	ASTM D2699
Motor octane number (MON)	Regular grade fuel: 82.0 minimum Premium grade fuel: 85.0 minimum	ASTM D2700
Colour	Not to be mistaken for water	Visual
Percentage volume evaporated at 70°C (E70) ¹	22 minimum 48 maximum	ASTM D86
Percentage volume evaporated at 100°C (E100)	45 minimum 70 maximum	ASTM D86
Percentage volume evaporated at 150°C (E150)	75 minimum	ASTM D86
End point (°C)	210 maximum	ASTM D86
Residue (% volume)	2 maximum	ASTM D86
Flexible volatility index ² [VP (kPa) + (0.7 × E70)]	115.0 maximum	ASTM D86 and ASTM D5191

¹ For regular and premium grade petrol blended with more than 1% and not more than 10% volume ethanol, the E70 maximum is increased by 1% per 1% volume ethanol in the blend.

² For regular and premium grade petrol blended with more than 1% and not more than 10% volume ethanol, the flexible volatility index maximum allowed is: 115.0 summer; 120.0 autumn and spring; 130.0 winter. Petrol that complies with the previous season's quality, and that is stored in a filling station tank to which fewer than 3 deliveries of petrol have been made since 6 weeks before the beginning of the season, is regarded as complying with this specification.

Property	Limits	Test method
Vapour Pressure ³ (VP) (kPa)	Maxima: Auckland and Northland: 65 kPa summer; 80 kPa autumn and spring; 90 kPa winter; rest of North Island: 70 kPa summer; 80 kPa autumn and spring; 90 kPa winter; South Island: 75 kPa summer; 85 kPa autumn and spring; 95 kPa winter Minimum: 45 kPa all year	ASTM D5191
Copper strip corrosion (3 hours at 50°C)	Class 1 maximum	ASTM D130
Sulphur ⁴ (mg/kg)	50 maximum	IP 497 or ASTM D5453
Existent gum (solvent washed) (mg/100 ml)	5 maximum	ASTM D381
Oxidation stability induction period (minutes)	360 minimum	ASTM D525
Lead (mg/l)	5 maximum	IP 224
Benzene (% volume)	1 maximum	ASTM D5580
Total aromatic compounds (including benzene) (% volume)	42 maximum pool average and 45 maximum cap	ASTM D5580
Ethanol (% volume) ⁵	10 maximum	ASTM D4815
Other oxygenates (% volume)	1 maximum	ASTM D4815
Olefins (% volume)	18 maximum	ASTM D1319

³ For regular and premium grade petrol blended with more than 1% and not more than 10% volume ethanol, the maximum vapour pressure allowed is: Auckland and Northland: 72 kPa summer; 87 kPa autumn and spring; 90 kPa winter; rest of North Island: 77 kPa summer; 87 kPa autumn and spring; 90 kPa winter; South Island: 82 kPa summer; 92 kPa autumn and spring; 95 kPa winter. Petrol that complies with the previous season's quality, and that is stored in a filling station tank to which fewer than 3 deliveries of petrol have been made since 6 weeks before the beginning of the season, is regarded as complying with this specification.

⁴ Eventually, the requirement will be for "sulphur-free" petrol of 10 ppm maximum sulphur content.

⁵ Regulation 8(c) provides that ethanol must comply with Schedule 4: Requirements for denatured ethanol for blending.

⁶ To be reviewed by 2010 (indicative time frame).

Property	Limits	Test method
Manganese ⁶ (mg/ℓ)	2.0 maximum	ASTM D3831
Phosphorus (mg/ℓ)	1.3 maximum	ASTM D3231

Schedule 2 Requirements for diesel

rr 9, 15, 17(3)

Property	Limits	Test method
Fatty acid methyl esters (% volume) ⁷	5 maximum	EN 14078
Density at 15°C (kg/m ³)	820 minimum 850 maximum	ASTM D1298
Distillation—95% volume recovered at (°C) (T95)	360 maximum	ASTM D86
Cetane	51 minimum cetane index, or 51 minimum cetane number and 47 minimum cetane index ⁸	Cetane number: ASTM D613 or ASTM D6890 Cetane index: ASTM D976
Water content (mg/kg)	200 maximum	IP 438
Total contamination (mg/kg)	24 maximum	IP 440
Colour (ASTM colour)	3.0 maximum	ASTM D1500
Cloud point (°C) and cold filter plugging point (°C) ⁹	Summer maxima: Auckland and Northland: +6 cloud point; rest of New Zealand: +4 cloud point. Winter maxima: +2 cloud point and -6	Cloud point: ASTM D5773 cold filter plugging point: IP 309

⁷ Regulation 10 provides that the fatty acid methyl esters (biodiesel) must comply with Schedule 3: Requirements for biodiesel.

⁸ The cetane index is not applicable for diesel blended with biodiesel.

Property	Limits	Test method
	cold filter plugging point	
Sulphur ¹⁰ (mg/kg)	50 maximum 10 maximum on and from 1 January 2009	IP 497 or ASTM D5453
Polycyclic aromatic hydrocarbons (% mass)	11 maximum	IP 391
Filter blocking tendency	2.5 maximum; fuel must be of acceptable filterability so that it is fit for common purposes	IP 387 or ASTM D2068
Lubricity—HFRR wear scar diameter at 60°C (µm)	460 maximum	IP 450
Viscosity at 40°C per second	2.0 minimum 4.5 maximum	ASTM D445
Oxidation stability (g/m ³)	25 maximum	ASTM D2274
Carbon residue (on 10% distillation residue) (% mass)	0.2 maximum	ASTM D4530
Copper strip corrosion (3 hours at 50°C)	Class 1 maximum	ASTM D130
Ash (% mass)	0.01 maximum	ASTM D482
Flash point (°C)	61 minimum	ASTM D93

Schedule 3 Requirements for biodiesel

rr 10, 16, 17(2)

Property	Limits	Test method
Methyl ester content (% mass)	96.5 minimum	EN 14103

⁹ These are maximum criteria; cold flow properties of a fuel must be fit for common purposes in the region and the season in which it is sold. Diesel that complies with the previous season's quality, and that is stored in a filling station tank to which fewer than 3 deliveries of diesel have been made since 6 weeks before the beginning of the season, is regarded as complying with this specification. Sales for marine use may be summer grade at any time of the year.

¹⁰ The limit for sulphur does not apply to sale for marine use.

Property	Limits	Test method
Density at 15°C (kg/m ³)	860 minimum 900 maximum	ASTM D1298
Viscosity at 40°C mm ² per second	2.0 minimum 5.0 maximum ¹¹	ASTM D445
Flash point (°C)	100 minimum	ASTM D93
Sulphur (mg/kg)	10 maximum	IP 497 or ASTM D5453
Carbon residue (on 100% distillation residue) (% mass)	0.05 maximum	ASTM D4530
<i>or</i>		
Carbon residue (on 10% distillation residue) ¹² (% mass)	0.30 maximum	ISO 10370
Cetane number	51 minimum ¹³	ASTM D613 or ASTM D6890
Sulphated ash content (% mass)	0.020 maximum	ASTM D874
Water (mg/kg)	500 maximum	IP 438
Total contamination (mg/kg)	24 maximum	IP 440
Copper strip corrosion (3 hours at 50°C)	Class 1 maximum	ASTM D130
Oxidation stability, 110°C (hours)	6.0 minimum ¹⁴	EN 14112
Acid value (mg KOH/g)	0.50 maximum	ASTM D664
Iodine value (g iodine/100 g)	140 maximum	EN 14111
Linolenic acid methyl ester (% mass)	12.0 maximum	EN 14103

¹¹ Regulations 10(a) and 17(2)(a) provide that, in the case of the biodiesel component of any blend of diesel and biodiesel, the maximum viscosity at 40°C is 6.0 mm² per second.

¹² ASTM D1160 must be used to obtain the 10% distillation residue.

¹³ Regulations 10(b) and 17(2)(b) provide that, in the case of the biodiesel component of any blend of diesel and biodiesel, the minimum cetane number is 47.

¹⁴ Regulation 10(c) provides that, in the case of the biodiesel component of any blend of diesel and biodiesel sold by retail sale, the minimum oxidation stability is 10.0 hours.

Property	Limits	Test method
Polyunsaturated (≥ 4 double bonds) methyl esters ¹⁵ (% mass)	1 maximum	—
Methanol (% mass)	0.20 maximum	EN 14110
Monoglycerides (% mass)	0.80 maximum	ASTM D6584
Diglycerides (% mass)	0.20 maximum	ASTM D6584
Triglycerides (% mass)	0.20 maximum	ASTM D6584
Free glycerol (% mass)	0.020 maximum	ASTM D6584
Total glycerol (% mass)	0.25 maximum	ASTM D6584
Group I metals (Na+K) (mg/kg)	5.0 maximum	EN 14108 and EN 14109
Group II metals (Ca+Mg) (mg/kg)	5.0 maximum	EN 14538
Phosphorus (mg/kg)	10.0 maximum	ASTM D4951

Schedule 4
Requirements for denatured ethanol for blending

rr 8, 14

Property	Limits	Test method
Ethanol (% volume)	95.6 minimum	ASTM D5501
Methanol (% volume)	0.5 maximum	ASTM D5501
Denaturant ¹⁶ (% volume)	1 minimum 1.5 maximum	ASTM D5501
Water (% volume)	1.0 maximum	ASTM E203
Existant gum (solvent washed) (mg/100 ml)	5 maximum	ASTM D381
Inorganic chloride (mg/l)	32 maximum	ASTM D512-81 (1985), Method C (as modified in ASTM D4806)
Copper (mg/kg)	0.1 maximum	ASTM D1688A (as modified in ASTM D4806)
Sulphate (mg/kg)	4 maximum	ASTM D7318, ASTM D7319, and ASTM D7328

¹⁵ Suitable test method to be developed.

¹⁶ The denaturant contained in ethanol must comply with regulation 8(a) in the case of retail sales and 14(2)(a) in the case of non-retail sales.

Property	Limits	Test method
Sulphur (mg/kg)	30 maximum	IP 497 or ASTM D5453
Acidity (as acetic acid CH ₃ COOH) (% mass)	0.007 maximum	ASTM D1613
pHe	6.5 minimum 9.0 maximum	ASTM D6423
Appearance	Clear and bright	ASTM D4806

Martin Bell,
for Clerk of the Executive Council.

Explanatory note

This note is not part of the regulations, but is intended to indicate their general effect.

These regulations, which come into force on 1 July 2008, replace the Petroleum Products Specifications Regulations 2002. The main changes from those regulations are that these new regulations include—

- specifications for biodiesel, ethanol, and diesel/biodiesel blends for use in internal combustion engines; and
- revised labelling requirements for retail petrol/ethanol blends.

These regulations do not include specifications for other types of engine fuels. Regulation 3 of the Gas Regulations 1993 sets standards for natural gas and liquefied petroleum gas.

Issued under the authority of the Acts and Regulations Publication Act 1989.
Date of notification in *Gazette*: 29 May 2008.

Contents

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 - 4 Changes made under section 17C of the Acts and Regulations Publication Act 1989
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Notes

1 *General*

This is a reprint of the Engine Fuel Specifications Regulations 2008. The reprint incorporates all the amendments to the regulations as at 1 December 2011, as specified in the list of amendments at the end of these notes.

Relevant provisions of any amending enactments that contain transitional, savings, or application provisions that cannot be compiled in the reprint are also included, after the principal enactment, in chronological order. For more information, see <http://www.pco.parliament.govt.nz/reprints/>.

2 *Status of reprints*

Under section 16D of the Acts and Regulations Publication Act 1989, reprints are presumed to correctly state, as at the date of the reprint, the law enacted by the principal enactment and by the amendments to that enactment. This presumption applies even though editorial changes authorised by section 17C of the Acts and Regulations Publication Act 1989 have been made in the reprint.

This presumption may be rebutted by producing the official volumes of statutes or statutory regulations in which the principal enactment and its amendments are contained.

3 *How reprints are prepared*

A number of editorial conventions are followed in the preparation of reprints. For example, the enacting words are not included in Acts, and provisions that are repealed or revoked

are omitted. For a detailed list of the editorial conventions, see <http://www.pco.parliament.govt.nz/editorial-conventions/> or Part 8 of the *Tables of New Zealand Acts and Ordinances and Statutory Regulations and Deemed Regulations in Force*.

4 *Changes made under section 17C of the Acts and Regulations Publication Act 1989*

Section 17C of the Acts and Regulations Publication Act 1989 authorises the making of editorial changes in a reprint as set out in sections 17D and 17E of that Act so that, to the extent permitted, the format and style of the reprinted enactment is consistent with current legislative drafting practice. Changes that would alter the effect of the legislation are not permitted. A new format of legislation was introduced on 1 January 2000. Changes to legislative drafting style have also been made since 1997, and are ongoing. To the extent permitted by section 17C of the Acts and Regulations Publication Act 1989, all legislation reprinted after 1 January 2000 is in the new format for legislation and reflects current drafting practice at the time of the reprint.

In outline, the editorial changes made in reprints under the authority of section 17C of the Acts and Regulations Publication Act 1989 are set out below, and they have been applied, where relevant, in the preparation of this reprint:

- omission of unnecessary referential words (such as “of this section” and “of this Act”)
- typeface and type size (Times Roman, generally in 11.5 point)
- layout of provisions, including:
 - indentation
 - position of section headings (eg, the number and heading now appear above the section)
- format of definitions (eg, the defined term now appears in bold type, without quotation marks)
- format of dates (eg, a date formerly expressed as “the 1st day of January 1999” is now expressed as “1 January 1999”)

- position of the date of assent (it now appears on the front page of each Act)
- punctuation (eg, colons are not used after definitions)
- Parts numbered with roman numerals are replaced with arabic numerals, and all cross-references are changed accordingly
- case and appearance of letters and words, including:
 - format of headings (eg, headings where each word formerly appeared with an initial capital letter followed by small capital letters are amended so that the heading appears in bold, with only the first word (and any proper nouns) appearing with an initial capital letter)
 - small capital letters in section and subsection references are now capital letters
- schedules are renumbered (eg, Schedule 1 replaces First Schedule), and all cross-references are changed accordingly
- running heads (the information that appears at the top of each page)
- format of two-column schedules of consequential amendments, and schedules of repeals (eg, they are rearranged into alphabetical order, rather than chronological).

5 *List of amendments incorporated in this reprint
(most recent first)*

Engine Fuel Specifications Regulations 2011 (SR 2011/352): regulation 23
