

Fuel Quality Standards (Automotive Diesel) Determination 2019

I, Melissa Price, Minister for the Environment, make the following determination.

Dated 18 March 2019

Melissa Price

Minister for the Environment

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1 Name

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

2 Commencement

This instrument commences on 1 October 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.

***biodiesel*** has the same meaning as in the *Fuel Quality Standards (Biodiesel) Determination 2019*.

***diesel*** means all fuel supplied or represented as automotive diesel, including renewable diesel and synthetic diesel and any combination of these.

***EN*** followed by a numeric code means the testing method developed under that code by the European Committee for Standardization.

***IP*** followed by a numeric code means the testing method developed under that code by the chartered professional body called the Energy Institute.

***renewable diesel*** means liquid fuel that is manufactured by chemically altering and hydrotreating (or equivalent) vegetable oils, animal fats, organic waste and other biomass, but also includes non-organic waste that cannot be reasonably recycled. It is not directly made from any fossil fuel.

***synthetic diesel*** means paraffinic diesel manufactured by chemically altering any feedstock.

***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 diesel

(1) In relation to a parameter mentioned in an item of the following table, diesel 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 | Ash | 0.01% m/m maximum | ASTM D482 |
| 2 | Biodiesel | 5.0% v/v maximum | EN 14078 |
| 3 | Carbon residue—10% distillation residue | 0.2% m/m maximum | ASTM D4530 |
| 4 | Cetane index | 46 minimum | ASTM D4737 Procedure A |
| 5 | Conductivity at ambient temperature | Diesel held by a terminal or refinery for sale or distribution:  50 pS/m minimum at ambient temperature | ASTM D2624 |
| 6 | Copper corrosion—3 h at 50°C | Class 1 | ASTM D130 |
| 7 | Density at 15°C | 820–850 kg/m3 | ASTM D1298 |
| 8 | Derived cetane number | Diesel containing biodiesel:  51 minimum | ASTM D6890 |
| 9 | Distillation—T95 | 360°C maximum | ASTM D86 |
| 10 | Flash point | 61.5°C minimum | ASTM D93 |
| 11 | Filter blocking tendency | 2.0 maximum | IP 387 |
| 12 | Kinematic viscosity | 2.0–4.5 mm2/s at 40°C | ASTM D445 |
| 13 | Lubricity | 460 µm maximum | IP 450 |
| 14 | Oxidation stability | 2.5 mg/100 mL maximum | ASTM D2274 |
| 15 | Polycyclic aromatic hydrocarbons (PAH) | 11% m/m maximum | IP 391 |
| 16 | Sulfur | 10 mg/kg maximum | ASTM D5453 |
| 17 | Water and sediment | 0.05% v/v maximum | ASTM D2709 |
| 18 | Water | Diesel containing biodiesel:  200 mg/kg maximum | ASTM D6304 |

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

(4) Any biodiesel component of diesel must meet the requirements of the fuel quality standard for biodiesel set out in the *Fuel Quality Standards (Biodiesel) Determination 2019*.