



Fuel Standard (Biodiesel) Determination 2003

I, DAVID ALISTAIR KEMP, Minister for the Environment and Heritage, make this Determination under section 21 of the *Fuel Quality Standards Act 2000*.

Dated 18 September 2003

DAVID KEMP
Minister for the Environment and Heritage

1 Name of Determination

This Determination is the *Fuel Standard (Biodiesel) Determination 2003*.

2 Commencement

This Determination commences on gazettal.

3 Definitions

In this Determination:

ASTM International means the standards development organisation of that name.

biodiesel means a diesel fuel obtained by esterification of oil derived from plants or animals.

European Committee for Standardisation (CEN) means the standards development organisation of that name.

4 Fuel standards for biodiesel

- (1) Biodiesel that contains a substance mentioned in the following table must not contain more than the amount mentioned for the substance from the date mentioned for the substance.

Item	Substance	Amount	Date
1	Sulfur	50 mg/kg	18 September 2003
2	Sulfur	10 mg/kg	1 February 2006
3	Sulfated ash	0.020% mass	18 September 2003
4	Carbon residue — 10% distillation residue; or	0.30% mass	18 September 2003
	Carbon residue — 100% distillation sample	0.050% mass	18 September 2003
5	Water and sediment	0.050% vol	18 September 2003
6	Phosphorus	10 mg/kg	18 September 2003
7	Free glycerol	0.020% mass	18 September 2004
8	Total glycerol	0.250% mass	18 September 2004
9	Metals — Group I (Na, K)	5 mg/kg	18 September 2004
10	Metals — Group II (Ca, Mg)	5 mg/kg	18 September 2004
11	Alcohol	0.20% (m/m)	18 September 2004

- (2) A property of biodiesel mentioned in the following table must meet the specification mentioned for the property from the date mentioned for the property.

Item	Property	Specification	Date
1	Density at 15°C	860 to 890 kg/m ³	18 September 2003
2	Distillation T90	360°C (max)	18 September 2003
3	Viscosity	3.5 to 5.0 mm ² /s @ 40°C	18 September 2003
4	Flashpoint	120.0°C (min)	18 September 2003
5	Copper strip corrosion (3hrs @ 50°C)	No. 3 (max)	18 September 2003
6	Ester content	96.5% (m/m) (min)	18 September 2003
7	Acid value	0.80 mg KOH/g (max)	18 September 2003
8	Total contamination	24 mg/kg (max)	18 September 2004
9	Cetane number	51.0 (min)	18 September 2004
10	Oxidation stability	6 hours @ 110°C (min)	18 September 2004

5 Testing methods

- (1) Compliance with the standard set out in section 4 for the substance or property is determined by the testing method for the substance or property in the following table:

Item	Substance or property	Testing method
1	Acid value	ASTM D664
2	Alcohol	prEN 14110
3	Carbon residue — 10% distillation residue	EN ISO 10370
4	Carbon residue — 100% distillation sample	ASTM D4530
5	Cetane number	EN ISO 5165 or ASTM D613
6	Contamination (total)	EN 12662 or ASTM D5452
7	Copper strip corrosion	ASTM D130
8	Density	ASTM D1298 or EN ISO 3675
9	Distillation T90	ASTM D1160
10	Ester content	prEN 14103
11	Flashpoint	ASTM D93
12	Glycerol (free)	ASTM D6584
13	Glycerol (total)	ASTM D6584
14	Metals — Group I (Na, K)	prEN 14108 and prEN 14109
15	Metals — Group II (Ca, Mg)	prEN 14538
16	Oxidation stability	prEN 14112 or ASTM D2274 (as relevant to biodiesel)
17	Phosphorus	ASTM D4951
18	Sulfur	ASTM D5453
19	Sulfated ash	ASTM D874
20	Viscosity	ASTM D445
21	Water and sediment	ASTM D2709

- (2) For subsection (1):
- ASTM followed by an alphanumeric code means the testing method developed by ASTM International under the alphanumeric code; and
 - prEN, EN and EN ISO followed by a number means the testing method developed by the European Committee for Standardisation (CEN) under the code and number.