



Certificate of Analysis

Reference Material GO-131108

Ultra Low Sulphur Diesel B7

Institute for
Interlaboratory Studies

Reference Material GO-131108 consists of a 100 ml bottle, containing approximately 95 ml of ultra low sulphur automotive biodiesel B7 (containing 5.2% FAME). This RM is intended primarily as a quality control material for use in the determination of Poly-Aromatics by IP 391, Cloud Point, CFPP, Density, Pour Point, Sulfur, Flash Point, Kinematic Viscosity @40°C, D86 distillation and Water.

Certified Property Values

The certified reference values given in table 1 have been derived from the results obtained from an international interlaboratory study in which 169 laboratories participated. The results of this interlaboratory study are presented in the iis-report iis14G01EN. This report is available free of charges through the iis website <http://www.iisnl.com>. Also a certification report is available.

Table 1. Reference values^a for GO-131108

Parameter	Reference value ^a	Parameter	Reference value ^a
Cloud point, °C	- 3.15 ± 0.16	IBP (automated), °C	167.2 ± 0.5
CFPP, °C	- 13.58 ± 0.26	50% rec. (automated), °C	279.2 ± 0.2
Density @ 15°C, kg/m ³	834.25 ± 0.02	90% rec. (automated), °C	337.4 ± 0.3
Flash point, °C	62.6 ± 0.2	95% rec. (automated), °C	352.7 ± 0.5
Kin. viscosity @40°C, mm ² /s	2.918 ± 0.002	FBP (automated), °C	362.8 ± 0.4
Poly-aromatics, %M/M	1.84 ± 0.08	Volume @250°C (automated), °C	29.63 ± 0.16
Pour point (manual), °C	- 12.57 ± 0.40	Volume @350°C (automated), °C	94.31 ± 0.12
Pour point (automated ^b), °C	- 11.91 ± 0.47		
Total Sulfur, mg/kg	7.26 ± 0.12		
Water, mg/kg	52.1 ± 1.7		

a) The estimated uncertainty is given as 95% confidence limits

b) Automated Pour Point for testing interval of 3°C

c) The following values were also determined for this RM. These values are not certified, but for indication only:

Cetane Index cfr ISO4264	54.862 ± 0.054
FAME, %V/V	5.25 ± 0.05
Lubricity, µm	272 ± 11
Nitrogen, mg/kg	5.9 ± 0.3
Mono-aromatics, %M/M	18.19 ± 0.28
Di-aromatics, %M/M	1.62 ± 0.07
Tri+-aromatics, %M/M	0.22 ± 0.05
TAN (indicator), mgKOH/g	0.026 ± 0.002
TAN (potentiometric), mgKOH/g	0.022 ± 0.004
10% rec. (automated), °C	209.2 ± 0.3

NOTICE AND WARNINGS TO USERS

Shelf life: The preparation of this RM was finished May 12, 2014. When stored properly and unopened, the expiry date of this RM is **March 2016**. The validity of the RM bottles in stock is checked annually. In case of any doubt about the validity of the RM you are advised to contact iis.

Storage: Bottles should be stored in a dark and cool place, preferably at a temperature between 0 °C and + 10 °C.

Suggested procedure for use of the RM as quality control sample:

Before opening a bottle and taking a sample for analysis, the contents must be mixed to ensure homogeneity. Once the bottle has been opened, the material is susceptible to contamination (e.g. laboratory dust or vapours) or losses. Certified values are not applicable to bottles stored after opening, even if resealed.

Safety handling instructions: Gasoil is inflammable. Although the flash point of the material of this RM >58 °C, care should be exercised during handling and use. Use proper methods for disposal of waste.

Spijkennis, The Netherlands
Approved: May, 2014 (Revision 1)

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