



Institute for
Interlaboratory Studies

Certificate of Analysis

Reference Material GO-131108

Ultra Low Sulfur Diesel B7

Reference Material GO-131108 consists of a 100 mL bottle with approximately 95 mL of ultra low Sulfur automotive Biodiesel B7 (containing 5.2% FAME). This RM is intended primarily as a quality control material for use in the determination of Cloud Point, CFPP, Density at 15°C, Flash Point, Kinematic Viscosity at 40°C, Poly Aromatics by IP391, Pour Point, Total Sulfur, Water and ASTM D86 Distillation.

Certified Property Values

The certified values are given in table 1 and have been derived from the results obtained from an international interlaboratory study in which 169 laboratories in 58 different countries participated. The results of this interlaboratory study are presented and discussed in the PT report iis14G01EN. A separate certification report about the RM evaluation can be ordered, see www.iisnl.com.

Table 1. Certified values^c for GO-131108

Parameter	Certified value ^a	Parameter	Certified 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 at 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 at 40°C, mm ² /s	2.918 ± 0.002	FBP (automated), °C	362.8 ± 0.4
Poly Aromatics (IP391), %M/M	1.84 ± 0.08	Volume at 250°C (automated), %V/V	29.63 ± 0.16
Pour Point (manual), °C	- 12.57 ± 0.40	Volume at 350°C (automated), %V/V	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, see the certification report.

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	TAN (indicator), mg KOH/g	0.026 ± 0.002
FAME, %V/V	5.25 ± 0.05	TAN (potentiometric), mg KOH/g	0.022 ± 0.004
Lubricity, µm	272 ± 11	10% rec. (automated), °C	209.2 ± 0.3
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		

NOTICE AND WARNINGS TO USERS

Shelf life: The preparation of this RM was finished at November 8, 2013. When stored properly and unopened, the expiry date of this RM is **December 2023**. The validity of the RM bottles in stock is regularly verified by analytical testing by an ISO/IEC17025 accredited laboratory. If there is any doubt about the validity of the RM you are advised to contact iis (nl.iis@sgs.com).

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: The contents must be mixed to ensure homogeneity before opening a bottle and taking a sample for analysis. Once the bottle has been opened, the material is susceptible to contamination (e.g. laboratory dust or vapors) 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.

Spijkenisse, The Netherlands
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