



Institute for  
Interlaboratory Studies

# Certificate of Analysis

Reference Material JF-011097

## Jet Fuel A1

Reference Material JF-011097 consists of a 250 mL bottle with approximately 250 mL of regular Aviation Kerosene (type Jet Fuel A1). This RM is intended primarily as a quality control material for use in the determination of Aromatics, Density at 15°C, Freezing Point, Kinematic Viscosity at -20°C, MSEP, Naphthalenes, Smoke Point, Sulfur and ASTM D86 Distillation.

### Certified Property Values

The certified values are given in table 1 and have been derived from the results obtained from 2 independent international interlaboratory studies in which respectively 15 laboratories in 4 different countries and 63 laboratories in 27 different countries participated. The results of these interlaboratory studies are presented and discussed in the PT reports iis97J01 and iis97J02. A separate certification report about the RM evaluation can be ordered, see [www.iisnl.com](http://www.iisnl.com).

**Table 1. Certified values<sup>b</sup> for JF-011097.**

<u>Parameter</u>	<u>Certified value<sup>a</sup></u>
Aromatics, %V/V	23.6 ± 0.3
Density at 15°C, kg/L	0.80455 ± 0.00005
Freezing Point, °C	- 49.3 ± 0.3
Kinematic Viscosity at -20°C, mm <sup>2</sup> /s	3.554 ± 0.014
MSEP, %	98.1 ± 0.4
Naphthalenes, %V/V	2.99 ± 0.04
Smoke Point, °C	21.2 ± 0.5
Sulfur, % W/W	0.0157 ± 0.0010
IBP, °C	147.8 ± 1.0
50% recovered, °C	191.9 ± 0.4
FBP, °C	262.5 ± 0.8

a) The estimated uncertainty is given as 95% confidence limits, see the certification report.

b) The following values were also determined for this RM. These values are not certified, but for indication only. Distillation: 10% recovered, °C 165.8 ± 0.5 and 90% recovered, °C 239.9 ± 0.6; Mercaptans Sulfur, %W/W 0.00015 ± 0.0005; Specific Energy, MJ/kg 43.113 ± 0.005; Total Acidity, mg KOH/g 0.0019 ± 0.005

### **NOTICE AND WARNINGS TO USERS**

**Shelf life:** The preparation of this RM was finished at October 1, 1997. When stored properly and unopened, the expiring 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 this RM you are advised to contact iis ([nl.iis@sgs.com](mailto: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:** Kerosene is inflammable. The flash point of the material of this RM is +41°C; therefore, care should be exercised during handling and use. Use proper methods for disposal of waste.

Spijkensisse, The Netherlands  
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