

UKAS accredited reference material producer No. 4589 accredited to ISO 17034

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## CERTIFICATE OF CALIBRATION

ISSUED BY PARAGON SCIENTIFIC LIMITED

Date of Issue: Certificate No. **3850**

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Approved Signatory

Name Mr. P. Whitehurst  
Technical Director

Signature



### ISO 17034 Cloud Point Certified Reference Material

Part Number: **CRMU-CPGO** Lot No: **1202107** Expiry Date:

Nature: **Diesel**  
Certified Value: **-6.4 °C**  
Expanded Uncertainties, 95% Level of Confidence: \* **+/- 0.8 °C**  
Test Method Employed: **IP 219**  
Alternative Test Methods: **ASTM D2500, ISO 23015**

#### **Certification Procedure**

The standard has been tested and certified in accordance with ISO 17034 and ISO Guide 35 by method specific inter-laboratory study involving a statistically significant number of laboratories with ISO 17025 accreditation for the relevant test method.

#### **Recommended Use**

This product is intended to confirm the accuracy of an instrument and / or procedure for an analytical method. Samples should be prepared and thermally conditioned in accordance with the relevant standard before use. The shelf life of this product is guaranteed until the expiry date, provided the bottle is unopened and stored at +5 °C to +30 °C. The guarantee is void if the bottle seal is broken. No minimum volume is required to guarantee homogeneity.

#### **Characterisation Procedures**

#### **Inter-laboratory Studies**

The certified values and tolerances quoted for cloud point are derived from inter-laboratory studies involving a statistically significant number of laboratories. The competence of the laboratories involved in the studies was assured by only using laboratories accredited to ISO 17025 for the tests concerned by the appropriate national body.

#### **\*Uncertainties**

The uncertainty quoted for each test is calculated at a level of confidence of approximately 95%. The uncertainty is associated with the certified data and is not to be used as an acceptability range when using this reference material.

When using this reference material to evaluate test procedures and / or instrument performance, the results obtained should be compared to the certified value with reference to the test reproducibility or other calculated protocols relevant to the test method employed.

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