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**NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC
OF CHINA**

中华人民共和国国家标准

GB/T 6986-2014

Replacing GB/T 6986-1986

**Standard test method for cloud point of
petroleum products**

石油产品油点测定法

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China**

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Foreword

This Standard is drafted in accordance with the rules specified in GB/T 1.1 – 2009.

This Standard replaces the GB/T 6986 – 1986 *Standard Test Method for Cloud Point of Petroleum*, compared with GB/T 6986 – 1986, main technical changes are as follows:

- The title is changed into *Standard Test Method for Cloud Point of Petroleum Products*;
- Applicable scope is widened, adding biodiesel and biodiesel fuel blend (see Chapter 1);
- Adding requirements for sample chroma, that is, the chroma shall be no more than 3.5; samples with chroma exceeding 3.5 can also be tested according to this Standard, but the precision is not suitable (see Chapter 1);
- Adding automatic method (see Chapter 1, 8, 9.2 and 10);
- Adding the explanation that the manual method means the arbitration method (see Chapter 1);
- Adding “normative references” (see Chapter 2), “terms and definitions” (see Chapter 3); “method application” (see Chapter 5) and “report” (see Chapter 11);
- Adding the explanation that the humidity shall not be more than 75% during the testing process (see 6.3);
- Adding GB-36, GB-37 and GB-38 temperature gauges that conform to the requirements of GB/T 514 (see 7.1.1);
- Requirements for test tube’s inner diameter and the volume at the scale mark are different;
- Description of casing tube is different;
- Adding the treatment process of sodium sulfate dehydrating agent (see 7.2.1) and requirements and processing procedures of filter paper (see 7.2.2);
- A few differences in cooling bath temperature control;
- There are some changes in transition temperature of samples in cooling bath;
- There are some changes in precision.

This Standard is redrafted by referring to ASTM D2500-11 *Standard Test Method for Cloud Point of Petroleum Products*. Main technical differences between this Standard and ASTM D2500-11 are as follows:

- Adding automatic method which is in accordance with ASTM D5771-12 *Standard Test*

Method for Cloud Point of Petroleum Products (Optical detection classification cooling method) (see Chapter 1, 8, 9.2 and 10);

-- Changing the reference standards into current national standards and industry standards in China in the “normative references” (see Chapter 2);

-- Adding corresponding terms and definitions (see Chapter 3.3, 3.5 and 3.6);

-- Adding the explanation that the humidity shall not be more than 75% during the testing process (see Chapter 6.3);

-- Adding GB-36, GB-37 and GB-38 temperature gauges that conform to the requirements of China’s GB/T 514 (see 7.1.1);

-- Adding requirements for the volume at the test tube’s scale mark (see 7.1.2);

-- Adding the specifications and requirements for reagent, materials and cleaning solvent (see 7.2 and 8.2);

-- Adding the treatment process of sodium sulfate dehydrating agent (see 7.2.1) and requirements and processing procedures of filter paper (see 7.2.2).

This Standard is proposed by National Technical Committee of Petroleum Products and Lubricant Standardization (SAC/TC 280).

This Standard is under the jurisdiction of Petroleum Fuel and Lubricant Branch of National Technical Committee of Petroleum Products and Lubricant Standardization (SAC/TC 280/SC 1).

Drafting units of this Standard: SINOPEC Maoming Company

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Previous versions that this standard replaces are as follows:

-- GB/T 6986 – 1986.

Standard Test Method for Cloud Point of Petroleum Products

Warning: This Standard mentions some dangerous materials, operations and equipment, but is not subject to putting forward suggestions on all safety problems involved, and therefore, proper safety and protection measures shall be established before the users apply this Standard in practice, and the applicability of relevant rules and regulations shall be determined.

1 Scope

This Standard stipulates two test methods, namely manual and automatic methods, for cloud point of petroleum products, biodiesel and biodiesel fuel blend, and manual method means arbitration method.

This Standard only applies to testing cloud point of petroleum products, biodiesel and biodiesel fuel blend that is transparent with cloud point less than 49°C at the thickness of 40 mm.

Note: Chroma of samples tested in accordance with this Standard shall be ≤ 3.5 (according to GB/T 6540), samples with chroma exceeding 3.5 can also be tested according to this Standard, but the precision is not suitable.

2 Normative references

Following documents are indispensable for application of this document. For the dated documents so quoted, only dated versions apply to this document. For the undated documents so quoted, the latest versions (including all modification sheets) apply to this document.

GB/T 514 - 2005 Specification for liquid-in-glass thermometers for testing of petroleum products

GB 1922 - 2006 Petroleum solvents for paints and cleaning

GB/T 4756 Petroleum liquids--Manual sampling (GB/T 4756 - 1998, eqv ISO 3170:1988)

GB/T 6540 Petroleum products; Determination of colour

GB/T 15000. 3 Directives for the work of reference materials - Reference materials - General and statistical principles for certification (GB/T 15000.3 - 2008,ISO Guide 35: 2006, IDT)

GB/T 15000. 7 Directives for the work of reference materials (7) - General requirements



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