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

GB/T 6986-2014

**Standard test method for cloud point of petroleum products
(English Translation)**

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Foreword

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

This Standard replaces GB/T 6986-1986 Standard Test Method for Cloud Point of Petroleum. Compared with GB/T 6986-1986, the main technical changes are as follows.

-- The title is changed into Standard Test Method for Cloud Point of Petroleum Products;

-- Applicable scope is widened; add biodiesel and biodiesel fuel blend (see Chapter 1);

-- Add 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, however, the precision is not applicable (see Chapter 1);

-- Add automatic method (see Chapter 1, 8, 9.2 and 10);

-- Add the explanation that the manual method means the arbitration method (see Chapter 1);

-- Add "normative references" (see Chapter 2), "terms and definitions" (see Chapter

3); "method application" (see Chapter 5), and "report" (see Chapter 11);

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

-- Add 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;

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

-- Cooling bath temperature control is slightly changed;

-- 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.

-- Add 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);

-- Change the reference standards into current national standards and industry standards in China in the "normative references" (see Chapter 2);

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

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

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

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

-- Add the specifications and requirements for reagent, material and cleaning

solvent (see 7.2 and 8.2);

-- Add 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 was proposed by National Technical Committee of Petroleum Products and Lubricant Standardization (SAC/TC 280).

This Standard shall be 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 organizations of this Standard. SINOPEC Maoming Company.

The participating drafting organizations of this Standard. SINOPEC Lubricant Maoming Company, Lanzhou Lubricant Research & Development Center of PetroChina Co Ltd., SINOPEC Zhenhai Refinery & Chemical Company, SINOPEC Lubricant Shanghai Company, MaoMing Entry-Exit Inspection and Quarantine of the PRC, and SINOPEC Lubricant Beijing Research & Development Center.

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Previous version replaced by this Standard is as follows.

-- GB/T 6986-1986.

Standard Test Method for Cloud Point of
Petroleum Products

Warning. This Standard involves certain dangerous materials, operations and equipment, however, it does not put forward suggestions on all safety problems involved. 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 specifies two test methods, namely, manual and automatic methods, for cloud point of petroleum products, biodiesel and biodiesel fuel blend. The manual method

is deemed as the arbitration method.

This Standard only applies to testing cloud point of petroleum products, biodiesel and biodiesel fuel blend of which the cloud point is less than 49°C when it is transparent 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, however, the precision is not applicable.

2 Normative references

The 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 (3) - 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 for the competence of reference material producers (GB/T 15000.7-2012, ISO Guide 34.2009, IDT)

GB 17602 Commercial hexanes

JB/T 8622 Technical specification and reference table for industrial platinum thermal resistance (JB/T 8622-1997, neq IEC 751.1983)