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

GB/T 3554-2008

Replacing GB/T 3554-1983

Standard test method for oil content of petroleum waxes

石油蜡含油量测定法

(English Translation)

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Foreword

The revised standard used by the US Society for Testing and Materials standard ASTM D721-2006 "petroleum wax oil content determination." this standard redrafted according to ASTM D721-2006.

Taking into account China's national conditions, when using this standard ASTM D721-2006 has been modified. This standard ASTM D721-

2006 The main differences.

- The use of standard reference standard corresponding national standards;
- This standard eliminated the use of metal filters and filter associated with the metal content;
- This standard is canceled 3 "air pressure regulator";
- Standard Appendix A of this increase in the appropriate gauges and related formulas.

This standard replaces GB/T 3554-1983 "Determination of oil content of petroleum wax," This standard GB/T 3554-1983 the main differences.

- Added "meaning and purpose" chapter;
- Remove the thermometer specifications;
- Added Figure 2 thermostat cold bath Specifications;
- Deleted Table 1 butanone specifications;
- Increasing the "sample" chapter;
- Appendix A to add the appropriate gauges and related formulas.

Appendix A of this standard is a normative appendix.

This standard by the National Standardization Technical Committee on products and lubricant oil (SAC/TC280) proposed.

The standard by the China Research Institute of Petroleum Chemical Industry Co., Ltd. Fushun Petroleum.

This standard was drafted. China Petroleum & Chemical Corporation FRIPP.

1 Scope

1.1

standard specifies the method for measuring oil content of petroleum wax. This method is applicable to congealing point of above 30 °C, the oil content of less than 15% Petroleum wax. For some oil is greater than 5%, not completely soluble in butanone stratified petroleum waxes of the present method is not applicable.

1.2

This standard adopts the International System of Units SI units.

1.3

This standard may involve certain hazardous materials, equipment and operation, but the intention of doing all of the safety issues related to its use.

Therefore, before use, the user has the responsibility to establish appropriate safety and health practices and determine the applicability of the management system has developed.

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

GB/T 514 Petroleum products test glass liquid thermometer technical conditions

3 Method Summary

The sample was dissolved in methyl ethyl ketone solvent, and the solution was cooled to -32 °C when wax precipitation, the filtrate was removed by filtration tube. The filtrate solvent was evaporated, Weigh the residual oil, the oil content of a sample obtained by calculating the mass fraction.

4 Significance and Use

The oil content of petroleum wax has an impact on many of the properties of petroleum waxes, petroleum waxes such as strength, hardness, softness, friction coefficient, expansion Coefficient, scratch resistance, pollution characteristics, such as melting point, these effects depend on the final application of petroleum wax.

5 Instruments and equipment

5.1

filtering device. the maximum pore size of $10\mu\text{m} \sim 15\mu\text{m}$, 10mm diameter tubes sintered glass filter with air filter on tube Pressure inlet and nozzle, with a frosted glass cooling tube headers and 25mm x 170mm, the filter tube aperture Appendix A Party Measurement. Detailed specifications shown in Figure 1.

The cooling bath was 5.2. the plurality of apertures with a cooling bath was $30\text{mm} \pm 5\text{mm}$ hole thermal insulating cabinet composition, the bath can be added to a suitable cooling medium, such as coal, Oil, solid carbon dioxide (dry ice), ethanol and the like. Figure 2 specification.

5.3

dropper. Can Pipette $1.0\text{g} \pm 0.05\text{g}$ melted sample.

5.4

Pipette. $15\text{mL} \pm 0.06\text{mL}$.

5.5 Gas system equipment

5.5.1

Air compressor. stable enough to provide adequate pressure and air flow for the evaporator.

5.5.2

Air Pressure Regulator. under sufficient pressure to provide the right amount of air to the filter.

5.5.3

Drying tower. 500mL, built-in color gel and a little cotton.

5.5.4

Glass rotor flowmeter. flow rate of $1\text{L}/\text{min} \sim 10\text{L}/\text{min}$.