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

GB/T 30514-2014

**Glass capillary kinematic viscometers -- Specifications and
operating instructions**

玻璃毛细管运动黏度计 规格和操作说明

(English Translation)

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Table of Contents

Foreword

1 Scope

2 Normative references

3 Flag symbol, viscometer of the components

Foreword

This standard was drafted in accordance with GB/T 1.1-2009 given rules.

This standard uses redrafted law revision using ISO 3105:1994 "Sport glass capillary viscometer specifications and operating instructions." this standard and ISO 3105. compared to 1994 in the structure increased Chapters 8 and 9.

This standard and ISO 3105:1994 and the technical differences for the following reasons.

--- In Chapter 2 normative references added JJG155, SH/T 0173-1992 and SH/T 0526, in order to meet our sticky Meter application and verification of the actual needs;

--- 6.3 can be used to increase the viscosity of oil equivalent in line with China's relevant standards to meet our viscometer calibration and verification actual use;

--- Increase Chapter 8 viscometer calibration requirements, supplementary viscometer before the sale and use, adjustment shall be specified in this standard calibration or inspection Set, and the test procedures to be clear of common tasks capillary viscometer is used to ensure that the production and use of quality viscometer the amount of the standard requirements;

--- Increase in Chapter 9, marking and packaging of the logo should be explained viscometer, and gives packaging requirements, to regulate Viscometer logo and packaging;

--- Table A.8 in Appendix A, delete the ISO 3105:1994 in Table A.8 on the flat open Abramovich viscometer tube N, P and E of the tube the inner diameter of a predetermined size, because the diameter size does not meet the design principles and requirements casement Abramovich glass capillary viscometer;

--- In Appendix C about Cannon - Fenske Opaque viscometer Figure C.1, the increase in the viscosity meter tube L partial diagram with manifold Shown to facilitate viscometer operations.

This standard also made the following editorial changes.

--- Note the increase in the scope of Chapter 1, 0173-1992 clearly stipulated in China's

existing petrochemical industry standard SH/T's BMN-1 type, BMN-2 type and BMN-3 type viscometer, in line with GB/T 30515 transparent and opaque liquid petroleum products Dynamic viscosity measurement method standard precision requirements, to facilitate the practical application of petroleum products Determination of kinematic viscosity;

--- 6.2.5 between the gravity of the revised instructions concerning viscometer calibration constants inject clearly different laboratories gravity Ratio of acceleration range, for ease of use;

--- Note the increase in A.1.1, the description in line with SH/T 0173-1992 in BMN-1 and BMN-2 type type flat open Abramovich sticky requirements Meter, can better meet the accuracy requirements of GB/T 30515 transparent liquid petroleum products kinematic viscosity measurement method, in order to provide Design is more reasonable and reliable flat open Abramovich viscometer convenience of petroleum products kinematic viscosity measurement need to use;

--- In B.1 suspension viscometer types overview, increasing the ISO 3105:1994 the missing Ukrainian DIN Lord do not stick Meter;

--- Fig C.4 in ISO 3105:1994 marked L-18 is changed to N-18, with the operating instructions of the text corresponds;

--- To ISO 3105:1994 Some viscometer Size tables, including tables A.5, Table B.2, Table B.4 and Table C.1 individual ruler Inch digital errors were corrected.

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

This standard by the National Standardization Technical Committee of petroleum products lubricants oil and lubricants and fuels Technical Committee (SAC/TC 280/SC1) centralized.

This standard was drafted. China Research Institute of Petroleum Corp. petrochemical, Chinese Academy of Inspection and Quarantine.

1 Scope

This standard specifies the movement of a glass capillary viscometer specifications and instructions, but also provides the viscometer calibration method.

This standard applies to press GB/T 30515 steps used in petroleum products kinematic viscosity measured by a glass capillary viscometer.

Viscometer type specified in this standard is modified Ostwald (Ostwald) (Ostwald) viscometer (Appendix A), suspension type sticky Meter (Appendix B) and reverse flow viscometer (Appendix C). Other meet GB/T 30515 Determination of kinematic viscosity of the glass capillary precision requirements Viscometer tube may also be used.

NOTE: Proven, SH/T 0173-1992 in BMN-1 and BMN-2 type type flat open Kahveci (Pinkevitch) viscometer meets GB/T 30515 transparent Precision requirements of liquid petroleum products kinematic viscosity measured; SH/T 0173-1992 in BMN-3 type Cannon - Fenske (Cannon-Fenske) impervious Ming viscometer meets GB/T 30515 precision requirements opaque liquid petroleum products kinematic viscosity measured.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 27025 testing and calibration laboratories General requirements (GB/T 27025-2008, ISO/IEC 17025:2005, IDT) GB/T 30515 transparent and opaque liquid petroleum products - Determination of kinematic viscosity and dynamic viscosity calculation method (GB/T 30515-2014, ISO 3104:1994, MOD) JJG155 working capillary viscometer test procedures SH/T 0173-1992 glass capillary viscometer technical conditions SH/T 0526 Standard Oil Viscosity

3 Flag symbol, viscometer of the components

Each designated member of each of the Appendix of the viscometer using each letter marked as such in the text of the viscometer reference, these letters are also used codes. In the appendix of each viscometer figure most commonly used letter symbols as follows.

- A. Under the reservoir ball;
- B. horizontal suspension ball;
- C, J. Timing ball;
- D. storage on the ball;
- E, F, I. timing marking;
- G, H. sample loading marking;
- K. overflow pipe;