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

GB/T 254-2022

Replacing GB/T 254-2010

Semi-refined paraffin wax

半精炼石蜡

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for Standardization Work Part

1. Structure and Drafting Rules for Standardization Documents" drafting. This document replaces GB/T 254-2010 "Semi-refined Paraffin Wax". Compared with GB/T 254-2010, except for structural adjustments and editorial changes In addition, the main technical changes are as follows:

- a) The applicable products of this document have been changed (see Chapter 1, Chapter 1 of the.2010 edition);
- b) Added terms and definitions (see Chapter 3);
- c) Increased product classification (see Chapter 4);
- d) Added the technical requirements for No. 46 semi-refined paraffin wax, No. 48 semi-refined paraffin wax and No. 72 semi-refined paraffin wax (see Table 1);
- e) Changed the technical requirements, test methods and arbitration methods for color (see Table 1, Table 1 of the.2010 edition);
- f) Changed the technical requirements for photostability (see Table 1, Table 1 of the.2010 edition);
- g) The test method and arbitration method of kinematic viscosity have been changed (see Table 1, Table 1 of the.2010 edition);
- h) The test method for mechanical impurities and water has been changed (see footnote c of Table 1, footnote a of Table 1 of the.2010 edition);
- i) Sampling and batching have been changed (see Chapter 6, Chapter 5 of the.2010 edition). Certain contents of this document may relate to patents. The issuing agency of this document assumes no responsibility for identifying patents. This document is proposed and managed by the National Petroleum Products and Lubricants Standardization Technical

Committee (SAC/TC280). This document is drafted by: China Petroleum & Chemical Corporation Dalian Petrochemical Research Institute. The main drafters of this document. Han Bo, Wang Shiyu, Ling Fengxiang, Wang Shaojun, Zhang Yanling, Guo Shigang. The previous versions of the documents replaced by this document are as follows:

--- It was first published as GB 254-1964 "White Paraffin" in 1964, revised for the first time in 1975, and revised for the second time in 1977;

---The third revision in 1987 was GB 254-1987 "Semi-refined Paraffin Wax";

---The fourth revision in 1998 was GB/T 254-1998, and the fifth revision in 2010;

1 Scope

China's national product standard for semi-refined paraffin wax. It specifies the classification, the requirements, the test methods, the inspection rules and the marking, packaging, transport and storage of semi-refined paraffin wax. Paraffin wax is separated from the lubricating oil fractions of crude, and the refining grades differ in how much of the oil is left in it. Fully refined wax is deoiled and hydrotreated to remove the aromatics and the colour and is what goes into food contact, cosmetics and pharmaceuticals; semi-refined wax retains more oil and is not treated to the same degree, which makes it cheaper and confines it to the uses where that does not matter - candles, which are by far the largest, along with matches, crayons, packaging, board sizing, textile and rubber processing and a range of industrial applications. The oil content is therefore the defining property of the grade and the standard classifies on it, but the melting point matters just as much to the user. Wax is not a compound but a mixture of straight-chain hydrocarbons, and the chain length distribution sets the melting range: a candle wax that melts too low slumps in a warm room and gives a large pool, one that melts too high does not draw up the wick properly. So the grades are designated by melting point as well as by oil content. Around those sit the properties that determine appearance and behaviour: the colour and the light stability, since wax yellows; the needle penetration, which is the practical measure of hardness; the odour, which matters in a burning candle; the mechanical impurities and the water; and the light absorbance and easily carbonisable substances that indicate how much aromatic material remains. Issued on 30 December 2022 and in force since 1 April 2023, it replaces GB/T 254-2010.

This document specifies the product classification, technical requirements and test methods of semi-refined paraffin wax, sampling and batching, marking, packaging, transportation, storage and Delivery acceptance. This document is applicable to semi-refined paraffin wax obtained from oily wax as raw material through perspiration or solvent deoiling, white clay or hydrofining. The product is suitable for the manufacture of candles, crayons, packaging paper, general telecommunications materials and wood processing, light industry, chemical raw materials, etc.

2 Normative references

The contents of the following documents constitute the essential provisions of this document through normative references in the text. Among them, dated references For documents, only the version corresponding to the date is applicable to this document; for undated reference documents, the latest version (including all amendments) is applicable to this document.

GB/T 265 Petroleum Products Kinematic Viscosity Determination Method and Dynamic Viscosity Calculation Method

GB/T 2539 Determination of melting point of petroleum wax by cooling curve method

GB/T 3554 Determination of Oil Content in Petroleum Wax

GB/T 3555 Determination of Saybolt Color of Petroleum Products Saybolt Colorimeter Method

GB/T 4756 Petroleum liquid manual sampling method

GB/T 4985 Determination of Penetration of Petroleum Wax

GB/T 30515 Determination of Kinematic Viscosity and Calculation of Dynamic Viscosity of Transparent and Opaque Liquid Petroleum Products NB/SH/T 0164 Petroleum and related product packaging, storage and transportation and delivery acceptance rules NB/SH/T 0407 Petroleum wax water-soluble acid or alkali test method NB/SH/T 0905 Determination of the color of petroleum products by automatic tri-stimulus value method SH/T 0229 Sampling method for solid and semi-solid petroleum products SH/T 0404 Determination of paraffin light stability SH/T 0414 petroleum wax smell test method

3 Terms and Definitions

This document does not have terms and definitions that need to be defined.

4 Product categories

According to the melting point, semi-refined paraffin products are divided into No. 46, No. 48, No. 50, No. 52, No. 54, No. 56, No. 58, No. 60, No. 62, No. 64, 14 grades of No. 66, No. 68, No. 70 and No. 72.

5 Technical requirements and test methods

See Table 1 for semi-refined paraffin technical requirements and test methods.