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Technical Association of
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Standard Test Method for Odor of Petroleum Wax¹

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1. Scope

1.1 This test method covers a procedure for rating the odor intensity of waxes derived from petroleum.

1.2 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

2. Terminology

2.1 Definitions:

2.1.1 *odor* (of a wax)— numerical rating corresponding to the odor scale description that best fits the sample being tested.

3. Summary of Test Method

3.1 Odor test specimens are prepared from petroleum wax by placing approximately 10 g of thin shavings on odor-free paper or glassine. Individual test specimens are then evaluated for odor by each panel member and assigned the number corresponding to the odor scale description best fitting the intensity of the odor. As an alternative procedure, the wax shavings are placed in bottles, with each panel member making the odor evaluation between 15 and 60 min after the specimens are prepared. The average of the panel rating is reported as the odor rating of the sample.

4. Significance and Use

4.1 In some uses of petroleum wax, such as food packaging, odor intensity of the wax is an important property. For example, some description of limits on wax odor often appears in specifications for petroleum wax. The method given here provides a basis for agreement between laboratories on the

odor intensity of wax using a numerical scale rather than descriptive terms. While the method is primarily intended for rating odor intensity, results can be influenced by odor type.

5. Apparatus

5.1 *Scraper*—A knife, vegetable scraper, or other sharp instrument that can be cleaned easily. Mechanical devices that produce thin shavings from wax, such as vegetable shredders or chisel-shaped bits, may be used.

5.2 *Paper*—Odor-free paper or glassine for receiving the wax shavings.

5.3 *Bottles*, 8-oz (250-mL) wide-mouth, with caps (for alternative procedure only).

6. Test Panel

6.1 The odor test panel should consist of at least five people.

6.2 In selecting panel members for wax odor testing, the important factors to be considered are (1) agreement with the “true” rating, and (2) individual consistency. A method which may be used for checking these factors is given in the **Appendix X1**.

NOTE 1—Any members with respiratory infection should be omitted since sensitivity may be impaired.

7. Sample and Test Specimen

7.1 The sample shall consist of a block of wax at room temperature, from which at least 100 g of shavings may be obtained.

7.2 The test specimen for evaluation by each panel member shall consist of approximately 10 g of wax in thin shavings obtained from the sample.

8. Procedure

8.1 Scrape the surface of the sample to remove any foreign material and discard those scrapings. Using a clean scraper, prepare test specimens of approximately 10 g each of wax in thin shavings, placing them on odor-free paper or glassine. Obtain shavings that represent a cross section of the sample being tested. Prepare one test specimen for each panel member.

¹ This test method is under the jurisdiction of ASTM Committee D02 on Petroleum Products and Lubricants and is the direct responsibility of Subcommittee D02.10.0A on Physical/Chemical Properties.

This test method was adopted as a joint ASTM-IP Standard in 1965. In the IP, this method is under the jurisdiction of the Standardization Committee.

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