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Designation: D 5482 – ~~99~~01

An American National Standard

Standard Test Method for Vapor Pressure of Petroleum Products (Mini Method—Atmospheric)[1]

This standard is issued under the fixed designation D 5482; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

1. Scope*

1.1 This test method covers a procedure for the determination of total vapor pressure of petroleum products using automatic vapor pressure instruments. The test method is suitable for testing samples with boiling points above 0°C (32°F) that exert a vapor pressure between 7 and 110 kPa (1.0 and 16 psi) at 37.8°C (100°F) at a vapor-to-liquid ratio of 4:1. The test method is applicable to gasolines containing oxygenates. No account is made of dissolved water in the sample.

NOTE 1—Because the external atmospheric pressure does not influence the resultant vapor pressure, this vapor pressure is an absolute pressure at 37.8°C (100°F) in kPa (psi). This vapor pressure differs from the true vapor pressure of the sample due to some small vaporization of the sample and dissolved air into the air of the confined space.

1.1.1 Some gasoline-oxygenate blends my show a haze when cooled to 0 to 1 °C. If a haze is observed in 8.5, it shall be indicated in the reporting of results. The precision and bias statements for hazy samples have not been determined (see Note ~~7).~~ 6).

1.2 This test method is a modification of Test Method D 5191 (Mini Method) in which the test chamber is at atmospheric pressure prior to sample injection.

1.3 This test method covers the use of automated vapor pressure instruments that perform measurements on liquid sample sizes in the range from 1 to 10 mL.

1.4 This test method is suitable for the determination of the dry vapor pressure equivalent (DVPE) of gasoline and gasoline-oxygenate blends by means of a correlation equation (see 13.2). The calculated DVPE is considered equivalent to the result obtained on the same material when tested by Test Method D 4953.

1.5 The values stated in acceptable SI units are regarded as standard. The values given in parentheses are provided for information only.

1.6 *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.* (For specific hazard statements, see ~~Note 3.)~~ 7.2 through 7.7.)

2. Referenced Documents

2.1 *ASTM Standards:*

[1] This test method is under the jurisdiction of ASTM Committee ~~D-2~~ D02 on Petroleum products and Lubricants and is the direct responsibility of Subcommittee D02.08.OD on RVP and V/L Ratio.

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***A Summary of Changes section appears at the end of this standard.**

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