



Standard Test Method for Bromine Index of Aromatic Hydrocarbons by Coulometric Titration¹

This standard is issued under the fixed designation D1492; 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 the determination of the amount of bromine-reactive material in aromatic hydrocarbons. It is usually applied to materials having bromine indexes below 500.

NOTE 1—Other test methods for determining bromine-reactive material are Test Methods [D1159](#), [D1491](#), [D2710](#), and [D5776](#).

1.2 This test method has been found applicable to aromatic hydrocarbons containing no more than trace amounts of olefins and that are substantially free from material lighter than isobutane and have a distillation end point under 288°C.

1.3 The following applies to all specified limits in this test method: For purposes of determining conformance with this test method, an observed value or a calculated value shall be rounded off “to the nearest unit” in the last right-hand digit used in expressing the specification limit, in accordance with the rounding-off method of Practice [E29](#).

1.4 The values stated in SI units are to be regarded as standard. No other units of measurement are included in this standard.

1.5 *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 a specific hazard statement see Section [8](#).

2. Referenced Documents

2.1 ASTM Standards:²

[D891](#) Test Methods for Specific Gravity, Apparent, of Liquid Industrial Chemicals

¹ This test method is under the jurisdiction of ASTM Committee [D16](#) on Aromatic Hydrocarbons and Related Chemicals and is the direct responsibility of Subcommittee [D16.04](#) on Instrumental Analysis.

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

[D1159](#) Test Method for Bromine Numbers of Petroleum Distillates and Commercial Aliphatic Olefins by Electro-metric Titration

[D1193](#) Specification for Reagent Water

[D1491](#) Test Method for Test for Bromine Index of Aromatic Hydrocarbons by Potentiometric Titration (Withdrawn 1985)³

[D2710](#) Test Method for Bromine Index of Petroleum Hydrocarbons by Electrometric Titration

[D3437](#) Practice for Sampling and Handling Liquid Cyclic Products

[D3505](#) Test Method for Density or Relative Density of Pure Liquid Chemicals

[D4052](#) Test Method for Density, Relative Density, and API Gravity of Liquids by Digital Density Meter

[D5776](#) Test Method for Bromine Index of Aromatic Hydrocarbons by Electrometric Titration

[D6809](#) Guide for Quality Control and Quality Assurance Procedures for Aromatic Hydrocarbons and Related Materials

[E29](#) Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications

2.2 Other Document:

[OSHA Regulations](#), 29 CFR paragraphs 1910.1000 and 1910.1200⁴

3. Terminology

3.1 Definitions:

3.1.1 *bromine index (B), n*—the number of milligrams (mg) of bromine consumed by 100 g of sample under given conditions (mg-Br/100 g).

4. Summary of Test Method

4.1 The specimen is added to a solvent and titrated with electrolytically generated bromine at room temperature. The end point is determined by a dead-stop method. The time of titration is proportional to the bromine added to the specimen.

³ The last approved version of this historical standard is referenced on www.astm.org.

⁴ Available from U.S. Government Printing Office Superintendent of Documents, 732 N. Capitol St., NW, Mail Stop: SDE, Washington, DC 20401, <http://www.access.gpo.gov>.

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