



Designation: D 4734 – 07

## Standard Specification for Refined Benzene-545<sup>1</sup>

This standard is issued under the fixed designation D 4734; 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 ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

### 1. Scope\*

1.1 This specification covers benzene-545.

1.2 The following applies to all specified limits in this standard: for purposes of determining conformance with this standard, 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 in Practice E 29.

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

1.4 Consult current OSHA regulations, supplier’s Material Safety Data Sheets, and local regulations for all materials used in this specification.

### 2. Referenced Documents

2.1 *ASTM Standards*:<sup>2</sup>

D 848 Test Method for Acid Wash Color of Industrial Aromatic Hydrocarbons

D 852 Test Method for Solidification Point of Benzene

D 1209 Test Method for Color of Clear Liquids (Platinum-Cobalt Scale)

D 1492 Test Method for Bromine Index of Aromatic Hydrocarbons by Coulometric Titration

D 1685 Test Method for Traces of Thiophene in Benzene by Spectrophotometry

D 3437 Practice for Sampling and Handling Liquid Cyclic Products

D 4492 Test Method for Analysis of Benzene by Gas Chromatography

D 4735 Test Method for Determination of Trace Thiophene in Refined Benzene by Gas Chromatography

D 5386 Test Method for Color of Liquids Using Tristimulus Colorimetry

D 5776 Test Method for Bromine Index of Aromatic Hydrocarbons by Electrometric Titration

D 6069 Test Method for Trace Nitrogen in Aromatic Hydrocarbons by Oxidative Combustion and Reduced Pressure Chemiluminescence Detection

D 6304 Test Method for Determination of Water in Petroleum Products, Lubricating Oils, and Additives by Coulometric Karl Fischer Titration

D 6875 Test Method for Solidification Point of Industrial Organic Chemicals by Thermistor

D 7011 Test Method for Determination of Trace Thiophene in Refined Benzene by Gas Chromatography and Sulfur Selective Detection

D 7183 Test Method for Determination of Total Sulfur in Aromatic Hydrocarbons and Related Chemicals by Ultraviolet Fluorescence

D 7184 Test Method for Ultra Low Nitrogen in Aromatic Hydrocarbons by Oxidative Combustion and Reduced Pressure Chemiluminescence Detection

E 29 Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications

E 1064 Test Method for Water in Organic Liquids by Coulometric Karl Fischer Titration

2.2 *Other Document*:

OSHA Regulations, 29 CFR paragraphs 1910.1000 and 1910.1200<sup>3</sup>

<sup>1</sup> This specification is under the jurisdiction of ASTM Committee D16 on Aromatic Hydrocarbons and Related Chemicals and is the direct responsibility of Subcommittee D16.01 on Benzene, Toluene, Xylenes, Cyclohexane and Their Derivatives.

Current edition approved June 1, 2007. Published July 2007. Originally approved in 1987. Last previous edition approved in 2006 as D 4734 – 06.

<sup>2</sup> For referenced ASTM standards, visit the ASTM website, [www.astm.org](http://www.astm.org), or contact ASTM Customer Service at [service@astm.org](mailto:service@astm.org). For *Annual Book of ASTM Standards* volume information, refer to the standard’s Document Summary page on the ASTM website.

<sup>3</sup> 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.