



Designation: D3193 – 09

## Standard Specification for Ethylbenzene<sup>1</sup>

This standard is issued under the fixed designation D3193; 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 ethylbenzene.

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

1.3 The following applies to all specified limits in this specification for purposes of determining conformance with this specification, 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.

### 2. Referenced Documents

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

D1209 Test Method for Color of Clear Liquids (Platinum-Cobalt Scale)

D3437 Practice for Sampling and Handling Liquid Cyclic Products

D4176 Test Method for Free Water and Particulate Contamination in Distillate Fuels (Visual Inspection Procedures)

D5060 Test Method for Determining Impurities in High-Purity Ethylbenzene by Gas Chromatography

D5194 Test Method for Trace Chloride in Liquid Aromatic Hydrocarbons

D5386 Test Method for Color of Liquids Using Tristimulus Colorimetry

<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 D16.07 on Styrene, Ethylbenzene and C9 and C10 Aromatic Hydrocarbons.

Current edition approved Jan. 15, 2009. Published February 2009. Originally approved in 1991. Last previous edition approved in 2003 as D3193 – 96 (2003). DOI: 10.1520/D3193-09.

<sup>2</sup> 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.

D5808 Test Method for Determining Chloride in Aromatic Hydrocarbons and Related Chemicals by Microcoulometry

D7183 Test Method for Determination of Total Sulfur in Aromatic Hydrocarbons and Related Chemicals by Ultra-violet Fluorescence

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 1910.1200<sup>3</sup>

### 3. Properties

3.1 Ethylbenzene shall conform to the following requirements:

Property	Specification	ASTM Test Method
Purity, min, weight %	99.00	D5060
Benzene, max, weight %	0.1	D5060
Toluene, max, weight %	0.4	D5060
Xylenes, max, weight %	0.4	D5060
Cumene, max, weight %	0.03	D5060
Diethylbenzene, max, weight %	0.003	D5060
Chlorides, max, mg/kg	1	D5194 or D5808
Sulfur, max, mg/kg	1	D7183
Color, max, Pt-Co	10	D1209 or D5386
Appearance	A	D4176

<sup>A</sup> Clear liquid, free of sediment and haze when observed at 18.3 to 25.6°C (65 to 78°F).

### 4. Sampling

4.1 The material shall be sampled in accordance with Practice D3437.

### 5. Keywords

5.1 ethylbenzene; purity

<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