



Designation: D 3193 – 96

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

This standard is issued under the fixed designation D 3193; 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 E 29.

### 2. Referenced Documents

- 2.1 *ASTM Standards*:
  - D 1209 Test Method for Color of Clear Liquids (Platinum-Cobalt Scale)<sup>2</sup>
  - D 3437 Practice for Sampling and Handling Liquid Cyclic Products<sup>2</sup>
  - D 3961 Test Method for Trace Quantities of Sulfur in Liquid Aromatic Hydrocarbons by Oxidative Microcoulometry<sup>2</sup>
  - D 4045 Test Method for Sulfur in Petroleum Products by Hydrogenolysis and Rateometric Colorimetry<sup>3</sup>
  - D 5060 Test Method for Determining Impurities in High-Purity Ethylbenzene by Gas Chromatography<sup>2</sup>
  - D 5194 Test Method for Trace Chlorides in Liquid Aromatic Hydrocarbons<sup>2</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 D16.07 on Styrene, Ethylbenzene, and C<sub>9</sub> and C<sub>10</sub> Aromatic Hydrocarbons.

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<sup>2</sup> *Annual Book of ASTM Standards*, Vol 06.04.

<sup>3</sup> *Annual Book of ASTM Standards*, Vol 05.02.

- matic Hydrocarbons<sup>2</sup>
  - D 5386 Test Method for Color of Liquids Using Tristimulus Colorimetry<sup>2</sup>
  - D 5808 Test Method for Determining Organic Chloride in Aromatic Hydrocarbons and Related Chemicals by Microcoulometry<sup>2</sup>
  - E 29 Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications<sup>4</sup>
- 2.2 *Other Document*:  
*OSHA Regulations*, 29 CFR, paragraphs 1910.1000 and 1910.1200<sup>5</sup>

### 3. Properties

3.1 Ethylbenzene shall conform to the following requirements:

Property	Specification	ASTM Test Method
Purity, min, weight %	99.00	D 5060
Benzene, max, weight %	0.1	D 5060
Toluene, max, weight %	0.4	D 5060
Xylenes, max, weight %	0.4	D 5060
Cumene, max, weight %	0.03	D 5060
Diethylbenzene, max, weight %	0.003	D 5060
Chlorides, max, mg/kg	3	D 5194 or D 5808
Sulfur, max, mg/kg	1	D 3961 or D 4045
Color, max, Pt-Co	10	D 1209 or D 5386

### 4. Sampling

4.1 The material shall be sampled in accordance with Practice D 3437.

### 5. Keywords

5.1 ethylbenzene; purity

<sup>4</sup> *Annual Book of ASTM Standards*, Vol 14.02.

<sup>5</sup> Available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

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