



Designation: D 3193 – 96 (Reapproved 2003)

## 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 Chloride in Liquid Aromatic 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>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.

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

<sup>5</sup> Available from U.S. Government Printing Office Superintendent of Documents, 732 N. Capitol St., NW, Mail Stop: SDE, Washington, DC 20401.