



Standard Specification for Ethylbenzene¹

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 (ϵ) 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)²

D 3437 Practice for Sampling and Handling Liquid Cyclic Products²

D 3961 Test Method for Trace Quantities of Sulfur in Liquid Aromatic Hydrocarbons by Oxidative Microcoulometry²

D 4045 Test Method for Sulfur in Petroleum Products by Hydrogenolysis and Rateometric Colorimetry³

D 5060 Test Method for Determining Impurities in High-Purity Ethylbenzene by Gas Chromatography²

D 5194 Test Method for Trace Chloride in Liquid Aromatic Hydrocarbons²

D 5386 Test Method for Color of Liquids Using Tristimulus Colorimetry²

D 5808 Test Method for Determining Organic Chloride in Aromatic Hydrocarbons and Related Chemicals by Microcoulometry²

E 29 Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications⁴

2.2 *Other Document*:

OSHA Regulations, 29 CFR, paragraphs 1910.1000 and 1910.1200⁵

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

¹ 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. 10, 2003. Published March 2003. Originally approved in 1991. Last previous edition approved in 1996 as D 3193 – 96.

² *Annual Book of ASTM Standards*, Vol 06.04.


³ *Annual Book of ASTM Standards*, Vol 05.02.

⁴ *Annual Book of ASTM Standards*, Vol 14.02.

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

ASTM International takes no position respecting the validity of any patent rights asserted in connection with any item mentioned in this standard. Users of this standard are expressly advised that determination of the validity of any such patent rights, and the risk of infringement of such rights, are entirely their own responsibility.

This standard is subject to revision at any time by the responsible technical committee and must be reviewed every five years and if not revised, either reapproved or withdrawn. Your comments are invited either for revision of this standard or for additional standards and should be addressed to ASTM International Headquarters. Your comments will receive careful consideration at a meeting of the responsible technical committee, which you may attend. If you feel that your comments have not received a fair hearing you should make your views known to the ASTM Committee on Standards, at the address shown below.

 **D 3193 – 96 (2003)**

This standard is copyrighted by ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA 19428-2959, United States. Individual reprints (single or multiple copies) of this standard may be obtained by contacting ASTM at the above address or at 610-832-9585 (phone), 610-832-9555 (fax), or service@astm.org (e-mail); or through the ASTM website (www.astm.org).