



Designation: D3193 – 19

# 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 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.

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

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

1.5 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

## 2. Referenced Documents

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

D3437 Practice for Sampling and Handling Liquid Cyclic Products

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

D5808 Test Method for Determining Chloride in Aromatic

<sup>1</sup> This specification is under the jurisdiction of ASTM Committee D16 on Aromatic, Industrial, Specialty and Related Chemicals and is the direct responsibility of Subcommittee D16.07 on Styrene, Ethylbenzene and C9 and C10 Aromatic Hydrocarbons.

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<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.

Hydrocarbons and Related Chemicals by Microcoulometry

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

D7359 Test Method for Total Fluorine, Chlorine and Sulfur in Aromatic Hydrocarbons and Their Mixtures by Oxidative Pyrohydrolytic Combustion followed by Ion Chromatography Detection (Combustion Ion Chromatography-CIC)

D7504 Test Method for Trace Impurities in Monocyclic Aromatic Hydrocarbons by Gas Chromatography and Effective Carbon Number

D7536 Test Method for Chlorine in Aromatics by Monochromatic Wavelength Dispersive X-ray Fluorescence Spectrometry

D8005 Test Method for Color of Clear Liquids (Platinum-Cobalt Scale)

E29 Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications

E2680 Test Method for Appearance of Clear, Transparent Liquids (Visual Inspection Procedure)

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 or D7504
Benzene, max, weight %	0.1	D5060 or D7504
Toluene, max, weight %	0.4	D5060 or D7504
Xylenes, max, weight %	0.4	D5060 or D7504
Cumene, max, weight %	0.03	D5060 or D7504
Diethylbenzene, max, weight %	0.003	D5060 or D7504
Chlorides, max, mg/kg	1	D5194, D5808, D7359, or D7536
Sulfur, max, mg/kg	1	D7183
Color, max, Pt-Co	10	D5386 or D8005

<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.