



Designation: **D7951–19** **D7951 – 20**

## Standard Specification for Disproportionation (TDP) Toluene<sup>1</sup>

This standard is issued under the fixed designation D7951; 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 reappraisal. A superscript epsilon ( $\epsilon$ ) indicates an editorial change since the last revision or reappraisal.

### 1. Scope

1.1 This specification covers Disproportionation (TDP) toluene.

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 measurement are included in this standard.

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

1.5 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.6 *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>

D848 Test Method for Acid Wash Color of Industrial Aromatic Hydrocarbons

D849 Test Method for Copper Strip Corrosion by Industrial Aromatic Hydrocarbons

D3437 Practice for Sampling and Handling Liquid Cyclic Products

D4052 Test Method for Density, Relative Density, and API Gravity of Liquids by Digital Density Meter

D5386 Test Method for Color of Liquids Using Tristimulus Colorimetry

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

D7184 Test Method for Ultra Low Nitrogen in Aromatic Hydrocarbons by Oxidative Combustion and Reduced Pressure Chemiluminescence Detection

D7360 Test Method for Analysis of Benzene by Gas Chromatography with External Calibration

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

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 Documents:*<sup>3</sup>

OSHA Regulations, 29 CFR paragraphs 1910.1000 and 1910.1200

<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 D16.01 on Benzene, Toluene, Xylenes, Cyclohexane and Their Derivatives.

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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.

<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.

### 3. Properties

3.1 Disproportionation toluene shall conform to the following requirements:

Property	Specification	ASTM Test Method <sup>A</sup>
Purity, min, mass %	95.0	D7504
Benzene, max, mass %	0.1	D7504
Impurities eluting after Orthoxylene, max, mass %	0.1	D7504
1,4-Dioxane, max, mg/kg	10	D7504
Nonaromatic hydrocarbons, max, mass %	2.5	D7504
Sulfur, max, mg/kg	1	D7183
Acid wash color, max	pass with 2	D848
Copper corrosion	pass (1A or 1B)	D849
Appearance, free of haze, particulates or suspended matter particles	pass	E2680
Color, Pt/Co scale, max	20	D5386 or D8005
Relative density, 15.56/15.56 °C	0.869 to 0.873	D4052
Total Nitrogen, max, mg/kg	1.0	D7184
Methylcyclohexane, max, mg/kg	100	D7504

<sup>A</sup> If more than one method is listed for a property the producer and user shall agree on the reference method.

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