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Standard Specification for Xylenes for *p*-Xylene Feedstock¹

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1. Scope

1.1 This specification covers xylenes for *p*-xylene feedstock. These xylenes typically are extracted from reformat.

1.2 The following applies to all specified limits in this specification: for purposes of determining conformance with this specification, an observed value or 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.

1.3 Consult current OSHA regulations, suppliers’ Material Safety Data Sheets (MSDS), and local regulations for all materials used in this specification.

2. Referenced Documents

2.1 *ASTM Standards*:²

- D 850 Test Method for Distillation of Industrial Aromatic Hydrocarbons and Related Materials
- D 1209 Test Method for Color of Clear Liquids (Platinum-Cobalt Scale)
- D 3437 Practice for Sampling and Handling Liquid Cyclic Products
- D 5194 Test Method for Trace Chloride in Liquid Aromatic Hydrocarbons
- D 5386 Test Method for Color of Liquids Using Tristimulus Colorimetry
- D 5453 Test Method for Determination of Total Sulfur in Light Hydrocarbons, Spark Ignition Engine Fuel, Diesel Engine Fuel, and Engine Oil by Ultraviolet Fluorescence
- D 5808 Test Method for Determining Organic Chloride in Aromatic Hydrocarbons and Related Chemicals by Microcoulometry
- D 6069 Test Method for Trace Nitrogen in Aromatic Hydrocarbons by Oxidative Combustion and Reduced Pres-

sure Chemiluminescence Detection

D 6563 Test Method for Benzene, Toluene, Xylene (BTX) Concentrates Analysis by Gas Chromatography

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

2.2 *Other Document*:

OSHA Regulations, 29 CFR, paragraphs 1910.1000 and 1910.1200³

3. Properties

3.1 Xylenes for *p*-xylene feedstock shall conform to the following requirements:

Property	Specification	ASTM Test Method
<i>p</i> -xylene, ^A min, weight %	18	D 6563
Ethylbenzene, ^A max, weight %	20	D 6563
Toluene, max, weight %	0.5	D 6563
C9 and higher boiling aromatic hydrocarbons, max, weight %	1.0	D 6563
Nonaromatic hydrocarbons, max, weight %	0.3	D 6563
Nitrogen, max, mg/kg	1.0	D 6069
Sulfur, max, mg/kg	1.0	D 5453
Appearance	^B	...
Chloride	if needed	D 5194 or D 5808
Color, max, Pt/Co scale	20	D 1209 or D 5386
Distillation range, at 101.3 kPa (760 mm Hg) pressure, max, °C	5	D 850
Initial distillation temperature, min, °C	137	...
Dry point, max, °C	143	...

^A The *p*-xylene and ethylbenzene specifications represent the distribution of these components within the C₈ aromatics and not in the total sample.

^B Clear liquid free of sediment and haze when observed at 18.3 to 25.6°C (65 to 78°F).

4. Sampling

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

5. Keywords

5.1 feedstock; *p*-xylene; xylenes

³ Available from Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

¹ This specification is under the jurisdiction of ASTM Committee D16 on Aromatic Hydrocarbons and Related Chemicals and is the direct responsibility of Subcommittee D16.01 on Benzene, Toluene, Xylenes, Cyclohexane, and Their Derivatives.

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² 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.