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Standard Specification for Nitration Grade Xylene¹

This standard is issued under the fixed designation D843; 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.

^{ε1} NOTE—This standard was brought up to date with the editorial guidelines in February 2011.

1. Scope*

1.1 This specification covers nitration grade xylene.

1.2 The following applies to all specified limits in this standard: for purposes of determining conformance with this standard, an observed value or a calculated value shall be round off “to the nearest unit” in the last right-hand digit used in expressing the specification limit, in accordance with the round-off method of Practice E29.

1.3 The values stated in SI units are to be regarded as standard. The values given in parentheses are for information only.

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

2. Referenced Documents

2.1 *ASTM Standards*:²

D848 Test Method for Acid Wash Color of Industrial Aromatic Hydrocarbons

D849 Test Method for Copper Strip Corrosion by Industrial Aromatic Hydrocarbons

D850 Test Method for Distillation of Industrial Aromatic Hydrocarbons and Related Materials

D1209 Test Method for Color of Clear Liquids (Platinum-Cobalt Scale)

D3437 Practice for Sampling and Handling Liquid Cyclic Products

D5386 Test Method for Color of Liquids Using Tristimulus Colorimetry

D6563 Test Method for Benzene, Toluene, Xylene (BTX) Concentrates Analysis by Gas Chromatography

E29 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 Nitration grade xylene shall conform to the following requirements:

| Property | Specification | ASTM Test Method ^A |
|---|------------------------------|-------------------------------|
| Nonaromatic hydrocarbons, max, volume % | 4.0 | D6563 |
| Acid wash color, max | pass with 6 | D848 |
| Copper corrosion Appearance | pass (1A or 1B) ^B | D849 |
| Color, Pt/Co scale, max | 20 | D1209 or D5386 |
| Distillation range at 101.3 kPa (760 mm Hg pressure), max, °C | 5 | D850 |
| Initial distillation temperature, min, °C | 137 | D850 |
| Dry point, max, °C | 143 | D850 |

^A If more than one method is listed, the producer and user should agree on the referee method.

^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 D3437.

5. Keywords

5.1 xylene

³ 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>.

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.

*A Summary of Changes section appears at the end of this standard