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Standard Specification for Toluene for Toluene Diisocyanate (TDI) Feedstock¹

This standard is issued under the fixed designation D5606; 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.

ε¹Noτε—Editorial changes were made to Footnote A of table in 3.1 and a Summary of Changes was added in January 2006.

1. Scope*

- 1.1 This specification covers toluene for toluene diisocyanate (TDI) feedstock.
- 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 Consult OSHA regulations and suppliers' material safety data sheets for all materials used in this specification.
 - 1.4 The values stated in SI units are to be regarded as standard. The values given in parentheses are for information only.

2. Referenced Documents

2.1 ASTM Standards:²

D848 Test Method for Acid Wash Color of Industrial Aromatic Hydrocarbons

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

D2360 Test Method for Trace Impurities in Monocyclic Aromatic Hydrocarbons by Gas Chromatography

D3437 Practice for Sampling and Handling Liquid Cyclic Products

D5386 Test Method for Color of Liquids Using Tristimulus Colorimetry

D6526 Test Method for Analysis of Toluene by Capillary Column Gas Chromatography

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

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

2.2 Other Document:

OSHA Regulations, 29 CFRCFR, paragraphs paragraphs 1910.1000 and 1910.1200 ³

3. Properties

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3.1 Toluene for TDI feedstock shall conform to the following requirements: 8b7a-91ead1d5379a/astm-d5606-09

| Property | Specification | ASTM Test Method |
|--------------------------|-----------------------------|---------------------------|
| Purity, min, wt % | 99.9 ^A | D2360 or D6526 |
| Purity, min, wt % | 99.9 ^A | D2360 or D6526 or |
| | | D7504 |
| Acid wash color, max | pass with 2 | D848 |
| Benzene, max, mg/kg | 300^ | D2360 or D6526 |
| Benzene, max, mg/kg | 300 ^A | D2360 or D6526 or |
| | | D7504 |
| Nonaromatics, max, wt % | 0.1 ^A | D2360 or D6526 |
| Nonaromatics, max, wt % | 0.1 ^A | D2360 or D6526 or |
| | | D7504 |
| Ethylbenzene, max, mg/kg | 300 ^ | D2360 or D6526 |

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.

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.