



## Standard Specification for Toluene for Toluene Diisocyanate (TDI) Feedstock<sup>1</sup>

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### 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 E 29.

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 the standard.

### 2. Referenced Documents

#### 2.1 ASTM Standards:

D 848 Test Method for Acid Wash Color of Industrial Aromatic Hydrocarbons<sup>2</sup>

D 1209 Test Method for Color of Clear Liquids (Platinum-Cobalt Scale)<sup>2</sup>

D 2360 Test Method for Trace Impurities in Monocyclic Aromatic Hydrocarbons by Gas Chromatography<sup>2</sup>

D 3437 Practice for Sampling and Handling Cyclic Products<sup>2</sup>

<sup>1</sup> This specification is under the jurisdiction of ASTM Committee D-16 on Aromatic Hydrocarbons and Related Chemicals and is the direct responsibility of Subcommittee D16.0A on Benzene, Toluene, Xylenes, Cyclohexane, and Their Derivatives.

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<sup>2</sup> *Annual Book of ASTM Standards*, Vol 06.04.

D 5386 Test Method for Color Using Tristimulus Colorimetry<sup>2</sup>

E 29 Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications<sup>3</sup>

#### 2.2 Other Document:

OSHA Regulations, 29 CFR, paragraphs 1910.1000 and 1910.1200<sup>4</sup>

### 3. Properties

3.1 Toluene for TDI feedstock shall conform to the following requirements:

Property	Specification	ASTM Test Method
Purity, min, wt%	99.9	D 2360
Acid wash color, max	pass with 2	D 848
Benzene, max, mg/kg	300	D 2360
Nonaromatics, max, wt %	0.1	D 2360
Ethylbenzene, max, mg/kg	300	D 2360
Xylenes, max, mg/kg	500	D 2360
Appearance	<sup>A</sup>	...
Color, max, Pt-Co scale	10	D 1209 or D5386

<sup>A</sup>Clear liquid free of sediment and haze when observed at 18.3 to 25.6°C (65 to 78°F).

### 4. Sampling

4.1 Sample the material in accordance with Practice D 3437.

### 5. Keywords

5.1 impurities in toluene; toluene; toluene diisocyanate feedstock

<sup>3</sup> *Annual Book of ASTM Standards*, Vol 14.02.

<sup>4</sup> Available from Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

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