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Designation: D 4076 - 86 (Reapproved 1990)

Standard Specification for o-Xylene 950¹

This standard is issued under the fixed designation D 4076; 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 (e) indicates an editorial change since the last revision or reapproval.

1. Scope

- 1.1 This specification covers a grade of o-xylene identified as "ortho-Xylene 950."
- 1.2 Consult latest OSHA regulations and supplier's Material Safety Data Sheets on handling materials listed in this specification.

2. Referenced Documents

- 2.1 ASTM Standards:
- D 847 Test Method for Acidity of Benzene, Toluene, Xylenes, Solvent Naphthas, and Similar Industrial Aromatic Hydrocarbons²
- D 850 Test Method for Distillation of Industrial Aromatic Hydrocarbons and Related Materials²
- D 1209 Test Method for Color of Clear Liquids (Platinum-Cobalt Scale)²
- D 1353 Test Method for Nonvolatile Matter in Volatile Solvents for Use in Paint, Varnish, Lacquer, and Related Products²
- D 1555 Method for Calculation of Volume and Weight of Industrial Aromatic Hydrocarbons²
- D 2935 Test Method for Apparent Density of Industrial Aromatic Hydrocarbons²
- D 3437 Practice for Sampling and Handling Liquid Cyclic Products²
- D 3505 Test Method for Density or Relative Density of Pure Liquid Chemicals²

- D 3797 Test Method for Analysis of o-Xylene by Gas Chromatography²
- D 3961 Test Method for Trace Quantities of Sulfur in Liquid Aromatic Hydrocarbons by Oxidative Microcoulometry²
- D 4052 Test Method for Density and Relative Density of Liquids by Digital Density Meter³
- 2.2 Other Document:
- OSHA Regulations, 29 CFR, paragraphs 1910.1000 and 1910.12004

3. Properties

3.1 o-Xylene 950 shall conform to the following requirements:

Property	Specification	ASTM Test Method
Purity, min, weight %	95.0	D 3797
C ₉ Aromatic hydrocarbons, max, weight %	1.5	D 3797
Nonvolatile matter, max, mg/100 mL	5	D 1353
Sulfur, max, mg/kg	5	D 3961
Acidity	none detected	D 847
Color, max, Pt/Co scale	20	D 1209
Total distillation range including the temperature 144.4°C at 760 mm Hg	not more than 2,0°C	D 850

NOTE—Relative density (specific gravity) in vacuum can be determined using Test Methods D 3505 and D 4052. Apparent density in air can be determined using Test Method D 2935. When converting weight to volume or vice versa, Test Method D 1555 shall be employed.

4. Sampling

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

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¹ 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, Xylene, Cyclohexane, and Their Derivatives.

Current edition approved May 30, 1986. Published November 1986. Originally published as D 4076 - 81. Last previous edition D 4076 - 81.

² Annual Book of ASTM Standards, Vol 06.03.

³ Annual Book of ASTM Standards, Vol 05.03.

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