



Designation: D3734 – 05

Standard Specification for High-Flash Aromatic Naphthas¹

This standard is issued under the fixed designation D3734; 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.

This standard has been approved for use by agencies of the Department of Defense.

1. Scope*

1.1 This specification covers two types of aromatic hydrocarbon solvents, normally petroleum distillates, having high flash points, moderately low volatility, and a distillation range of approximately 30°C (50°F). These solvents are used primarily by the coatings industry and are commonly referred to as high-flash aromatic naphthas.

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

1.3 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 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.

1.4 For specific hazard information and guidance, see the supplier’s Material Safety Data Sheet for materials listed in this specification.

2. Referenced Documents

2.1 ASTM Standards:²

- D56 Test Method for Flash Point by Tag Closed Cup Tester
- D86 Test Method for Distillation of Petroleum Products at Atmospheric Pressure
- D156 Test Method for Saybolt Color of Petroleum Products (Saybolt Chromometer Method)
- D268 Guide for Sampling and Testing Volatile Solvents and Chemical Intermediates for Use in Paint and Related Coatings and Material
- D611 Test Methods for Aniline Point and Mixed Aniline Point of Petroleum Products and Hydrocarbon Solvents

¹ This specification is under the jurisdiction of ASTM Committee D01 on Paint and Related Coatings, Materials, and Applications and is the direct responsibility of Subcommittee D01.35 on Solvents, Plasticizers, and Chemical Intermediates.

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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.

- D849 Test Method for Copper Strip Corrosion by Industrial Aromatic Hydrocarbons
- D891 Test Methods for Specific Gravity, Apparent, of Liquid Industrial Chemicals
- D1133 Test Method for Kauri-Butanol Value of Hydrocarbon Solvents
- D1209 Test Method for Color of Clear Liquids (Platinum-Cobalt Scale)
- D1296 Test Method for Odor of Volatile Solvents and Diluents
- D1319 Test Method for Hydrocarbon Types in Liquid Petroleum Products by Fluorescent Indicator Adsorption
- D3278 Test Methods for Flash Point of Liquids by Small Scale Closed-Cup Apparatus
- D4052 Test Method for Density and Relative Density of Liquids by Digital Density Meter
- E29 Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications
- E300 Practice for Sampling Industrial Chemicals

2.2 U.S. Federal Specification:

- PPP-C-2020 Chemicals, Liquid, Dry, and Paste: Packaging of³

3. Classification

3.1 High-flash aromatic naphthas shall be of the following types, as specified:

3.1.1 *Type I*—Aromatic 100 (**Note 1**), having a flash point not less than 38°C (100°F).

3.1.2 *Type II*—Aromatic 150 (**Note 2**), having a flash point not less than 61°C (142°F).

NOTE 1—Aromatic 100 consists primarily of C₉ aromatic hydrocarbons.

NOTE 2—Aromatic 150 consists primarily of C₁₀ aromatic hydrocarbons.

4. Properties

4.1 The physical and chemical properties of high-flash aromatic naphthas shall conform to the requirements specified in **Table 1**.

³ Available from Standardization Documents Order Desk, DODSSP, Bldg. 4, Section D, 700 Robbins Ave., Philadelphia, PA 19111-5098.

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