Designation: D 3734 – 01

Standard Specification for High-Flash Aromatic Naphthas[1]

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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 50°F (30°C). These solvents are used primarily by the coatings industry and are commonly referred to as high-flash aromatic naphthas.

1.2 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:*

D 56 Test Method for Flash Point by Tag Closed Tester[2]

D 86 Test Method for Distillation of Petroleum Products[2]

D 156 Test Method for Saybolt Color of Petroleum Products (Saybolt Chromometer Method)[2]

D 268 Guide for Sampling and Testing Volatile Solvents and Chemical Intermediates for Use in Paint and Related Coatings and Material[3]

D 611 Test Methods for Aniline Point and Mixed Aniline Point of Petroleum Products and Hydrocarbon Solvents[2]

D 849 Test Method for Copper Corrosion by Industrial Aromatic Hydrocarbons[3]

D 891 Test Methods for Specific Gravity, Apparent, of Liquid Industrial Chemicals[4]

D 1133 Test Method for Kauri-Butanol Value of Hydrocarbon Solvents[3]

D 1209 Test Method for Color of Clear Liquids (Platinum-Cobalt Scale)[3]

D 1296 Test Method for Odor of Volatile Solvents and Diluents[3]

D 1319 Test Method for Hydrocarbon Types in Liquid Petroleum Products by Fluorescent Indicator Absorption[2]

D 3278 Test Methods for Flash Point of Liquids by Setaflash Closed-Cup Apparatus[5]

D 4052 Test Method for Density and Relative Density of Liquids by Digital Density Meter[6]

E 300 Practice for Sampling Industrial Chemicals[4]

2.2 *U.S. Federal Specification:*

PPP-C-2020 Chemicals, Liquid, Dry, and Paste: Packaging of[7]

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 100°F (38°C).

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

NOTE 1—Aromatic 100 consists primarily of C_9 aromatic hydrocarbons.

NOTE 2—Aromatic 150 consists primarily of C_{10} 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.

5. Sampling

5.1 The material shall be sampled in accordance with Practice E 300.

6. Test Methods

6.1 The properties enumerated in this specification shall be determined in accordance with the following ASTM test methods (see Guide D 268):

6.1.1 *Aromatics*—Test Method D 1319.

6.1.2 *Color*—Test Method D 156 (Saybolt color) or Test Method D 1209 (platinum-cobalt scale). In case of dispute, the Saybolt color limit is controlling.

[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] *Annual Book of ASTM Standards*, Vol 05.01.

[3] *Annual Book of ASTM Standards*, Vol 06.04.

[4] *Annual Book of ASTM Standards*, Vol 15.05.

[5] *Annual Book of ASTM Standards*, Vol 06.01.

[6] *Annual Book of ASTM Standards*, Vol 05.02.

[7] Available from Standardization Documents Order Desk, Bldg. 4 Section D, 700 Robbins Ave., Philadelphia, PA 19111-5094.

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