Designation: D 3735 – 02

Standard Specification for VM&P Naphthas[1]

This standard is issued under the fixed designation D 3735; 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.

1. Scope *

1.1 This specification covers four types of moderately volatile hydrocarbon solvents, mainly aliphatic in composition and normally petroleum distillates. These solvents are used primarily by the coatings industry and are commonly referred to as VM&P naphthas.

1.2 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 E 29.

1.3 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 Cup Tester[2]

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

D 130 Test Method for Detection of Copper Corrosion from Petroleum Products by the Copper Strip Tarnish Test[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 Materials[3]

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

D 1159 Test Method for Bromine Number of Petroleum Distillates and Commercial Aliphatic Olefins by Electrometric Titration[2]

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 Adsorption[2]

D 3257 Test Methods for Aromatics in Mineral Spirits by Gas Chromatography[3]

D 3278 Test Methods for Flash Point of Liquids by Small Scale Closed-Cup Apparatus[4]

D 4052 Test Method for Density and Relative Density of Liquids by Digital Density Meter[5]

E 29 Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications[6]

E 300 Practice for Sampling Industrial Chemicals[7]

2.2 *U.S. Federal Specification:*

PPP-C-2020 Chemicals, Liquid, Dry, and Paste: Packaging of[8]

3. Classification

3.1 VM&P naphthas shall be of the following types, as specified:

3.1.1 *Type I*—Regular.

3.1.2 *Type II*—High flash.

3.1.3 *Type III*—Odorless.

3.1.4 *Type IV*—Low aromatics.

4. Properties

4.1 The physical and chemical properties of VM&P 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 Method

6.1 The properties enumerated in this specification shall be determined in accordance with the following ASTM test methods:

[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.

Current edition approved Dec. 10, 2002. Published February 2003. Originally approved in 1978. Last previous edition approved in 2001 as D 3735 – 96 (2001)$^{\epsilon 1}$.

[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 06.01.

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

[6] *Annual Book of ASTM Standards*, Vol 14.02.

[7] Discontinued; see *2001 Annual Book of ASTM Standards*, Vol 15.05.

[8] 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.