



Standard Specification for Mineral Spirits (Petroleum Spirits) (Hydrocarbon Dry Cleaning Solvent)¹

This standard is issued under the fixed designation D235; 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 four types of hydrocarbon solvents, normally petroleum distillates, used primarily in the coatings and dry-cleaning industries. “Mineral spirits” is the most common name for these solvents. They are also called “Stoddard Solvents” when used for dry cleaning.

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

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

1.4 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.

1.5 The following hazard caveat pertains only to the test method portion, 6.1.10, of this specification. *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

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

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.

Atmospheric Pressure

- D130 Test Method for Corrosiveness to Copper from Petroleum Products by Copper Strip Test
 - 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
 - D1133 Test Method for Kauri-Butanol Value of Hydrocarbon Solvents
 - D1159 Test Method for Bromine Numbers of Petroleum Distillates and Commercial Aliphatic Olefins by Electrometric Titration
 - D1209 Test Method for Color of Clear Liquids (Platinum-Cobalt Scale)
 - D1296 Test Method for Odor of Volatile Solvents and Diluents
 - D2710 Test Method for Bromine Index of Petroleum Hydrocarbons by Electrometric Titration
 - D3227 Test Method for (Thiol Mercaptan) Sulfur in Gasoline, Kerosine, Aviation Turbine, and Distillate Fuels (Potentiometric Method)
 - D3257 Test Methods for Aromatics in Mineral Spirits by Gas Chromatography
 - D3278 Test Methods for Flash Point of Liquids by Small Scale Closed-Cup Apparatus
 - 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 Chemical, Liquid, Dry, and Paste: Packaging of³

3. Classification

3.1 Mineral spirits shall be of the following types as specified:

- 3.1.1 *Type I*—Full Range.

³ Available from Standardization Documents Order Desk, DODSSP, Bldg. 4, Section D, 700 Robbins Ave., Philadelphia, PA 19111-5098, http://www.dodssp.daps.mil.

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