



Designation: D1836 – 07

Standard Specification for Commercial Hexanes¹

This standard is issued under the fixed designation D1836; 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 the range of products commonly referred to as hexanes, which find uses in the preparation of adhesives, coatings, and printing inks, as raw materials in chemical synthesis operations, and as solvents in various kinds of extraction operations.

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 E29.

1.3 The values stated in SI units are to be regarded as standard. No other units of measurement are included in this standard.

1.4 *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.*

1.5 For specific hazard information and guidance consult supplier’s Material Safety Data Sheet.

2. Referenced Documents

2.1 ASTM Standards:²

- 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
- D1078 Test Method for Distillation Range of Volatile Organic Liquids

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 June 1, 2007. Published July 2007. Originally approved in 1961. Last previous edition approved in 2002 as D1836–02. DOI: 10.1520/D1836-07.

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.

- 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
 - D1353 Test Method for Nonvolatile Matter in Volatile Solvents for Use in Paint, Varnish, Lacquer, and Related Products
 - D2710 Test Method for Bromine Index of Petroleum Hydrocarbons by Electrometric Titration
 - D3120 Test Method for Trace Quantities of Sulfur in Light Liquid Petroleum Hydrocarbons by Oxidative Microcoulometry
 - D4367 Test Method for Benzene in Hydrocarbon Solvents by Gas Chromatography
 - D5386 Test Method for Color of Liquids Using Tristimulus Colorimetry
 - 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:³
- PPP-C-2020 Chemicals, Liquid, Dry, and Paste: Packaging of

3. Properties

3.1 Commercial hexanes shall conform to the following requirements:

Aniline point, min	57°C
Apparent specific gravity 15.6/15.6°C	0.660–0.686
Bromine index, max	100
Color Pt-Co max (Note 1)	not darker than + 28 on the Saybolt Scale or 10 on the Pt-Co Scale
Distillation range:	
Initial boiling point, min	63°C
Dry point, max	71°C
Kauri-butanol value, max	33
Nonvolatile matter, mg/100 mL, max	1
Odor	nonresidual
Sulfur, ppm, max	5
Benzene content, weight %, max	0.1

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