



Standard Specification for *n*-Propyl Acetate (96 % Grade)¹

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1. Scope*

- 1.1 This specification covers *n*-propyl acetate (96 % grade).
- 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 E 29.
- 1.4 For specific hazard information and guidance, see the supplier’s Material Safety Data Sheet for material listed in this specification.

2. Referenced Documents

2.1 ASTM Standards:²

- D 268 Guide for Sampling and Testing Volatile Solvents and Chemical Intermediates for Use in Paint and Related Coatings and Material
- D 1078 Test Method for Distillation Range of Volatile Organic Liquids
- D 1209 Test Method for Color of Clear Liquids (Platinum-Cobalt Scale)
- D 1353 Test Method for Nonvolatile Matter in Volatile Solvents for Use in Paint, Varnish, Lacquer, and Related Products
- D 1364 Test Method for Water in Volatile Solvents (Karl Fischer Reagent Titration Method)
- D 1476 Test Method for Heptane Miscibility of Lacquer Solvents
- D 1613 Test Method for Acidity in Volatile Solvents and Chemical Intermediates Used in Paint, Varnish, Lacquer, and Related Products

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.

- D 3545 Test Method for Alcohol Content and Purity of Acetate Esters by Gas Chromatography
- D 4052 Test Method for Density and Relative Density of Liquids by Digital Density Meter
- E 1 Specification for ASTM Thermometers
- E 29 Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications
- E 300 Practice for Sampling Industrial Chemicals
- 2.2 *U.S. Federal Specification:*
PPP-C-2020 Chemicals, Liquid, Dry, and Paste: Packaging of³

3. Properties

3.1 *n*-Propyl acetate shall conform to the following requirements:

Apparent specific gravity: 20/20°C	0.885 to 0.890 or
25/25°C	0.880 to 0.885
Color Pt-Co units, max	15 platinum-cobalt scale
Distillation, °C at 760 mmHg	
Initial boiling point, min	96
Dry point, max	103
Nonvolatile matter, mg/100 ml, max	5
Water, wt %, max ⁴	0.1
Acidity (free acid as acetic acid), wt %, max	0.01
Purity, wt %, min	96.0

4. Sampling

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

5. Test Methods

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

5.1.1 *Apparent Specific Gravity*—Determine the apparent specific gravity by any convenient method that is accurate to the third decimal place, the temperature of both specimen and water being 20 or 25°C. See Guide D 268 or Test Method D 4052.

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

⁴ In some cases, Test Method D 1476 may serve as a useful alternative method to determine the presence of water. Because it is a qualitative test, its use would require agreement between user and supplier.

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

5.1.2 *Color*—Test Method D 1209.

5.1.3 *Distillation Range*—Test Method D 1078, using an ASTM Solvents Distillation Thermometer 40C having a range from 72 to 126°C and conforming to the requirements in Specification E 1.

5.1.4 *Nonvolatile Matter*—Test Method D 1353.

5.1.5 *Water*—Test Methods D 1364 and D 1476.

5.1.6 *Acidity*—Test Method D 1613.

5.1.7 *Purity*—Test Method D 3545.

6. Packaging and Package Marking

6.1 Package size shall be agreed upon between the purchaser and the supplier.

6.2 Packaging shall conform to applicable carrier rules and regulations or when specified shall conform to Fed. Spec. PPP-C-2020.

7. Keywords

7.1 ester; propyl acetate; solvent

SUMMARY OF CHANGES

Committee D01.35 has identified the location of selected changes to this standard since the last issue (D 3130 - 95 (2000)) that may impact the use of this standard.

- (1) Added reference to Practice E 29 in Scope section.
- (2) Added Practice E 29 to list of Referenced Documents.

- (3) Changed specs limits for apparent specific gravity in 3.1.
- (4) Reworded Footnote 7.

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