

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 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:
- D 268 Guide for Sampling and Testing Volatile Solvents and Chemical Intermediates for Use in Paint and Related Coatings and Material²
- D 1078 Test Method for Distillation Range of Volatile Organic Liquids²
- D 1209 Test Method for Color of Clear Liquids (Platinum-Cobalt Scale)²
- D 1353 Test Method for Nonvolatile Matter in Volatile Solvents for Use in Paint, Varnish, Lacquer, and Related Products²
- D 1364 Test Method for Water in Volatile Solvents (Karl Fischer Reagent Titration Method)²
- D 1476 Test Method for Heptane Miscibility of Lacquer Solvents²
- D 1613 Test Method for Acidity in Volatile Solvents and Chemical Intermediates Used in Paint, Varnish, Lacquer, and Related Products²
- D 3545 Test Method for Alcohol Content and Purity of Acetate Esters by Gas Chromatography²
- D 4052 Test Method for Density and Relative Density of Liquids by Digital Density Meter³
- E 1 Specification for ASTM Thermometers⁴
- E 300 Practice for Sampling Industrial Chemicals⁵
- 2.2 U.S. Federal Specification:

PPP-C-2020 Chemicals, Liquid, Dry, and Paste: Packaging of⁶

3. Properties

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

Apparent specific gravity:	
20/20°C	0.885 to 0.890
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 ⁷	0.1
Acidity (free acid as acetic acid), wt %,	0.01
max	
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.
 - 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—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.

¹ This specification is under the jurisdiction of ASTM Committee D-1 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 06.04.

³ Annual Book of ASTM Standards, Vol 05.02.

⁴ Annual Book of ASTM Standards, Vol 14.03.

⁵ Annual Book of ASTM Standards, Vol 15.05.

⁶ Available from Standardization Documents Order Desk, Bldg. 4 Section D, 700 Robbins Ave., Philadelphia, PA 19111-5094.

⁷ This quantitative water limit ensures that the material is miscible without turbidity with 19 volumes of 99 % heptane at 20°C.

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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

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