

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 %, 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.

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.

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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.

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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