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Standard Specification for *n*-BUTYL ACETATE (99.5 % GRADE)¹

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1. Scope

1.1 This specification covers the properties of 99.5 % grade *n*-butyl acetate.

1.2 This material may be suitable for use in urethane coatings, providing the water content is acceptable.

2. Applicable Documents

2.1 ASTM Standards:

- D 268 Methods of Sampling and Testing Volatile Solvents and Chemical Intermediates for Use in Paint, Varnish, Lacquer, and Related Products²
- 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 1296 Test Method for Odor of Volatile Solvents and Diluents²
- D 1353 Test Method for Nonvolatile Matter in Volatile Solvents for Use in Paint, Varnish, Lacquer, and Related Products²
- 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 3621 Test Method for Water in Acetate Esters²
- E 1 Specification for ASTM Thermometers³
- E 300 Practice for Sampling Industrial Chemicals²

2.2 Federal Standard:

PPP-C-2020 Specification for Packaging of Chemicals, Liquid, Dry, and Paste⁴

3. Properties

3.1 Normal butyl acetate (99.5 % grade) shall conform to the following requirements:

Purity, min, weight %	99.5
Alcohol (as <i>n</i> -butyl alcohol), max, weight %	0.5
Apparent specific gravity, 20/20°C	0.880 to 0.883
25/25°C	0.876 to 0.879
Distillation, 760 mm Hg: Below 124°C	none
Above 129°C	none
Acidity as acetic acid, max, weight %	0.01, equivalent to 0.09 mg of KOH per gram of sample
Water, max, weight %	not more than 0.10 wt %
Color, max, Pt-Co scale	not more than No. 10 on the platinum-cobalt scale
Nonvolatile matter, max, mg/100 mL	5
Odor	nonresidual

4. Precautions

4.1 *n*-butyl acetate is a flammable liquid. Its vapors form explosive mixtures with air. Repeated or prolonged contact may cause drying of the skin. Consult supplier's Material Safety Data Sheet for specific hazard information.

5. Sampling

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

¹ This specification is under the jurisdiction of ASTM Committee D-1 on Paint and Related Coatings and Materials 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 06.03.

³ Annual Book of ASTM Standards, Vols 03.04 and 05.03.

⁴ Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.