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Standard Specification for *n*-BUTYL ACETATE (90 TO 92 % GRADE)¹

This standard is issued under the fixed designation D 303; 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 *n*-butyl acetate (90 to 92 % grade).

1.2 *This standard may involve hazardous materials, operations, and equipment. This standard does not purport to address all of the safety problems associated with its use. It is the responsibility of whoever uses this standard to consult and establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.* For specific precautionary statements, see Section 4.

2. Applicable Documents

2.1 ASTM Standards:

D268 Methods of Sampling and Testing Volatile Solvents and Chemical Intermediates for Use in Paint, and Related Coatings and Materials²

D891 Test Methods for Specific Gravity of Industrial Chemicals³

D1078 Test Method for Distillation Range of Volatile Organic Liquids²

D1209 Test Method for Color of Clear Liquids (Platinum-Cobalt Scale)²

D1296 Test Method for Odor of Volatile Solvents and Diluents²

D1353 Test Method for Nonvolatile Matter in Volatile Solvents for Use in Paint, Varnish, Lacquer and Related Products²

D1364 Test Method for Water in Volatile Solvents (Fischer Reagent Titration Method)²

D1476 Test Method for Heptane Miscibility of Lacquer Solvents²

D1613 Test Method for Acidity in Volatile Solvents and Chemical Intermediates Used in Paint, Varnish, Lacquer and Related Products²

D1617 Test Method for Ester Value of Solvents and Thinners²

E 1 Specification for ASTM Thermometers⁴

E 300 Practice for Sampling Industrial Chemicals²

2.2 U.S. Federal Specification:

PPP-C-2020 Federal Specification Packaging of Chemicals, Liquid, Dry, and Paste⁵

3. Properties

3.1 *n*-Butyl acetate (90 to 92 % grade) shall conform to the following requirements:

Apparent specific gravity:	
20/20°C	0.874 to 0.876
25/25°C	0.870 to 0.872
Color Pt-Co scale, max	10
Distillation range, 760 mmHg:	
Below 118.0°C	none
Above 128.0°C	none
Nonvolatile matter, mg/100 mL max	5
Odor	nonredissol
Water, wt %, max	0.2 This quantitative water limit ensures that the material is miscible without turbidity with 19 volumes of 99 % heptane at 20°C.
Acidity as acetic acid, wt % max	0.01, equivalent to 0.093 mg of KOH per gram of sample 90.0 to 92.0
Ester value, wt %	90-92

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, Vol 15.05.

⁴ Annual Book of ASTM Standards, Vol 14.01.

⁵ Available from Naval Publications and Forms Center, 5801 Tabor Ave., Philadelphia, PA 19120.