Designation: D 1007 – 00

Standard Specification for
sec-Butyl Alcohol[1, 2]

This standard is issued under the fixed designation D 1007; 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 *sec*-butyl alcohol for use in paint, varnish, lacquer, and related products.

1.2 For hazard information and guidance, see the supplier's Material Safety Data Sheet.

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 Materials[3]

D 1078 Test Method for Distillation Range of Volatile Organic Liquids[3]

D 1209 Test Method for Color of Clear Liquids (Platinum-Cobalt Scale)[3]

D 1353 Test Method for Nonvolatile Matter in Volatile Solvents for Use in Paint, Varnish, Lacquer, and Related Products[3]

D 1364 Test Method for Water in Volatile Solvents (Karl Fischer Reagent Titration Method)[3]

D 1613 Test Method for Acidity in Volatile Solvents and Chemical Intermediates Used in Paint, Varnish, Lacquer, and Related Products[3]

D 4052 Test Method for Density and Relative Density of Liquids by Digital Density Meter[4]

E 1 Specification for ASTM Thermometers[5]

E 300 Practice for Sampling Industrial Chemicals[6]

2.2 *U.S. Federal Specification:*

PPP-C-2020 Chemicals, Liquid, Dry, and Paste: Packaging of [7]

3. Properties

3.1 *sec-Butyl* alcohol shall conform to the following requirements:

Apparent specific gravity:	
20/20°C	0.807 to 0.809
25/25°C	0.804 to 0.806
Color, Pt-Co scale, max	10
Distillation range, 760 mmHg, °C as:	
Initial boiling point, min	98.0
Dry point, max	101.0
Nonvolatile matter, max, mg/100 mL	5
Water, max, weight %	0.5
Acidity, as acetic acid, max, weight %	0.002[A]

[A] Equivalent to 0.019 mg of KOH per gram of sample.

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 at 20 or 25°C by a convenient method that is accurate to the third decimal place. 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*—Test Method D 1353.

5.1.5 *Water*—Test Methods D 1364 .

5.1.6 *Acidity*—Test Method D 1613.

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 methyl ethyl carbinol;*sec*-butyl alcohol;2–hydroxybutane

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