



Standard Specification for 2-Butoxyethanol^{1,2}

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This standard has been approved for use by agencies of the Department of Defense.

1. Scope

- 1.1 This specification covers 2-butoxyethanol.
- 1.2 For specific hazard information and guidance, see the supplier's Material Safety Data Sheet for materials 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 Material³
 - D 1078 Test Method for Distillation Range of Volatile Organic Liquids³
 - D 1209 Test Method for Color of Clear Liquids (Platinum-Cobalt Scale)³
 - D 1364 Test Method for Water in Volatile Solvents (Fischer Reagent Titration Method)³
 - D 1613 Test Method for Acidity in Volatile Solvents and Chemical Intermediates Used in Paint, Varnish, Lacquer, and Related Products³
 - D 4052 Test Method for Density and Relative Density of Liquids by Digital Density Meter⁴
 - E 1 Specification for ASTM Thermometers⁵
 - E 300 Practice for Sampling Industrial Chemicals⁶
- #### 2.2 U.S. Federal Standard:
- PPP-C-2020 Specification for Packaging of Chemicals, Liquid, Dry, and Paste⁷

3. Properties

- 3.1 2-Butoxyethanol shall conform to the following requirements:

Apparent specific gravity	
20/20°C	0.901 to 0.904
25/25°C	0.898 to 0.901
Color, Pt-Co scale, max	15
Distillation range, 760 mm Hg	
Initial boiling point, °C, min	168
Dry point, °C, max	173
Water, weight %, max	0.1
Acidity (free acid as acetic acid), weight %, max	0.01 equivalent to 0.093 mg KOH per gram of material

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 103C having a range from 148 to 202°C and conforming to the requirements in Specification E 1.

5.1.4 *Water*—Test Method D 1364.

5.1.5 *Acidity*—Test Method D 1613.

6. Packaging and Package Marking

- 6.1 Package size to 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 PPP-C-2020.

7. Keywords

- 7.1 ethylene glycol monobutyl ether; 2-butoxyethanol

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² This compound is also known under the name ethylene glycol monobutyl ether.

³ *Annual Book of ASTM Standards*, Vol 06.04.

⁴ *Annual Book of ASTM Standards*, Vol 05.02.

⁵ *Annual Book of ASTM Standards*, Vol 14.03.

⁶ Discontinued; see 2001 *Annual Book of ASTM Standards*, Vol 15.05.

⁷ Available from Standardization Documents Order Desk, Bldg. 4 Section D, 700 Robbins Ave., Philadelphia, PA 19111-5094.



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