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

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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 Materials³

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 Methods 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

¹ This specification is under the jurisdiction of ASTM Committee D-1 on Paint and Related Coatings, Materials, and Applications and is the direct responsibility of Subcommittee D01.35 on Solvents, Plasticizers, and Chemical Intermediates.

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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 *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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