



Standard Specification for 2-Ethoxyethyl Acetate (99 % Grade)^{1,2}

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1. Scope

1.1 This specification covers the properties of 99 % grade 2-ethoxyethyl acetate.

1.2 For specific hazard information and guidance, see the supplier's Material Safety Data Sheet for materials listed in this specification.

1.3 *The text of this standard references notes and footnotes that provide explanatory material. These notes and footnotes (excluding those in tables and figures) shall not be considered as requirements of the standard.*

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 (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 Products³
- D 3545 Test Method for Alcohol Content and Purity of Acetate Esters by Gas Chromatography³
- E 1 Specification for ASTM Thermometers⁴
- E 300 Practice for Sampling Industrial Chemicals⁵

2.2 U.S. Federal Specification:

- PPP-C-2020 Chemicals, Liquid, Dry, and Paste: Packaging of⁶

3. Properties

3.1 2-Ethoxyethyl acetate (99 % grade) shall conform to the following requirements:

Purity weight %, min	99.0
Alcohol (as 2-ethoxy ethanol) weight %, max	0.5
Apparent specific gravity, 20/20°C	0.973 to 0.976
25/25°C	0.969 to 0.972
Distillation range, °C (see Note 1)	
Initial boiling point, min	150
Dry point, max	160
Acidity as acetic acid, weight %, max	0.02, equivalent to 0.19 mg of KOH per gram of sample
Water, weight %, max	0.10
Color Pt-Co scale, max	15

NOTE 1—Optional as agreed upon between the buyer and the seller.

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 test methods:

- 5.1.1 *Purity and Alcohol Content*—Test Method D 3545.
- 5.1.2 *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 Specific Gravity section of Methods D 268.
- 5.1.3 *Distillation Range*—Test Method D 1078, using an ASTM Solvents Distillation Thermometer 102C having a range from 123 to 177°C and conforming to the requirements in Specification E 1.
- 5.1.4 *Acidity*—Test Method D 1613.
- 5.1.5 *Water*—Test Method D 1364.
- 5.1.6 *Color*—Test Method D 1209.

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.

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 D 01.35 on Solvents, Plasticizers, and Chemical Intermediates.

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² Also known as ethylene glycol monoethyl ether acetate (EGMEA).

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

⁴ *Annual Book of ASTM Standards*, Vol 14.03.

⁵ *Annual Book of ASTM Standards*, Vol 15.05.

⁶ Available from Standardization Documents Order Desk, Bldg. 4 Section D, 700 Robbins Ave., Philadelphia, PA 19111-5094.