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Standard Specification for ETHYL ACETATE (85 TO 88 % GRADE)[1]

This standard is issued under the fixed designation D 302; 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 ethyl acetate (85 to 88 % 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:*

D 268 Methods of Sampling and Testing Volatile Solvents and Chemical Intermediates for Use in Paint and Related Coatings and Materials[2]

D 891 Test Methods for Specific Gravity of Liquid Industrial Chemicals[3]

D 1078 Test Method for Distillation Range of Volatile Organic Liquids[2]

D 1209 Test Method for Color of Clear Liquids (Platinum-Cobalt Scale)[2]

D 1296 Test Method for Odor of Volatile Solvents and Diluents[2]

D 1353 Test Method for Nonvolatile Matter in Volatile Solvents for Use in Paint, Varnish, Lacquer and Related Products[2]

D 1364 Test Method for Water in Volatile Solvents (Fischer Reagent Titration Method)[2]

D 1476 Test Method for Heptane Miscibility of Lacquer Solvents[2]

D 1613 Test Method for Acidity in Volatile Solvents and Chemical Intermediates Used in Paint, Varnish, Lacquer and Related Products[2]

D 1617 Test Method for Ester Value of Solvents and Thinners[2]

E 1 Specification for ASTM Thermometers[4]

E 300 Practice for Sampling Industrial Chemicals[2]

2.2 *U.S. Federal Specification:*

PPP-C-2020 Federal Specification Packaging of Chemicals, Liquid, Dry, and Paste[5]

3. Properties

3.1 Ethyl acetate (85 to 88 % grade) shall conform to the following requirements:

Apparent specific gravity	
20/20°C	0.882 to 0.887
25/25°C	0.877 to 0.882
Color, Pt-Co scale, max	10
Distillation range, 760 mmHg:	
Below 71.0°C	none
Above 79.0°C	none
Nonvolatile matter, mg/100 mL max	5
Odor	nonresidual
Water, % 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
Ester value, wt %	85.0 to 88.0

[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.