



Standard Specification for Methyl Isobutyl Carbinol¹

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1. Scope *

1.1 This specification covers methyl isobutyl carbinol² for use in paint, varnish, lacquer, and related products.

1.2 For specific hazard information and guidance, consult 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 Materials³

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 Products³

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 3329 Test Method for Purity of Methyl Isobutyl Ketone by Gas Chromatography³

D 4052 Test Method for Density and Relative Density of Liquids by Digital Density Meter⁴

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 Methyl isobutyl carbinol shall conform to the following requirements:

Apparent specific gravity	
20/20°C	0.806 to 0.809
25/25°C	0.803 to 0.806
Color, Pt-Co units, max	10
Water, wt %, max	0.1
Acidity (free acid as acetic acid), wt %, max	0.005
Nonvolatile matter, mg/100 mL, max	5
Purity, wt %, min	98.0

4. Test Methods

4.1 The material shall be sampled in accordance with Practice E 300 and the properties enumerated in this specification shall be determined in accordance with the following ASTM test methods.:

4.1.1 *Apparent Specific Gravity*—Determine the apparent specific gravity by any method that is accurate to the third decimal place, the temperature of both specimen and water being 20°C or 25°C. (See Guide D 268 and Test Method D 4052.)

4.1.2 *Color*—Test Method D 1209.

4.1.3 *Water*—Test Method D 1364.

4.1.4 *Acidity*—Test Method D 1613.

4.1.5 *Nonvolatile Matter*—Test Method D 1353.

4.1.6 *Purity*—Test Method D 3329.

NOTE 1—The following distillation properties are given for information only and are not part of the specification. The initial boiling point is 130.0 °C and the dry point is 133.0 °C at 760 mm Hg.

5. Packaging and Package Marking

5.1 Package size shall be agreed upon by the purchaser and the supplier.

5.2 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 D01 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 as 4-methyl-pentanol-2 and methyl amyl alcohol.

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 15.05.

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

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

6. Keywords

6.1 methyl isobutyl carbinol

SUMMARY OF CHANGES

Committee D01 has identified the location of selected changes to this standard since the last date of issue that may impact the use of this standard.

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| <p>(1) Revision of updated footnotes.</p> <p>(2) Deletion of the standard distillation test from the specification requirements for this material. The capillary column gas chromatographic analysis already specified, adequately charac-</p> | <p>terizes this material. For reference, the distillation parameters are shown in Note 1.</p> <p>(3) Revision of 5.2 to include appropriate commas.</p> |
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