



Designation: D2917 – 07

Standard Specification for Methyl Isoamyl Ketone¹

This standard is issued under the fixed designation D2917; 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.

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

1. Scope*

1.1 This specification covers methyl isoamyl ketone (98 % grade) for use in paint, varnish, lacquer, and related products.

1.2 The following applies to all specified limits in this standard: for purposes of determining conformance with this standard, an observed value or a calculated value shall be rounded off “to the nearest unit” in the last right-hand digit used in expressing the specification limit, in accordance with the rounding-off method of Practice E29.

1.3 The values stated in SI units are to be regarded as standard. No other units of measurement are included in this standard.

1.4 For specific hazard information and guidance, see the supplier’s Material Safety Data Sheet.

2. Referenced Documents

2.1 ASTM Standards:²

- D268 Guide for Sampling and Testing Volatile Solvents and Chemical Intermediates for Use in Paint and Related Coatings and Material
- D1078 Test Method for Distillation Range of Volatile Organic Liquids
- D1209 Test Method for Color of Clear Liquids (Platinum-Cobalt Scale)
- D1364 Test Method for Water in Volatile Solvents (Karl Fischer Reagent Titration Method)
- D1476 Test Method for Heptane Miscibility of Lacquer Solvents
- D1613 Test Method for Acidity in Volatile Solvents and Chemical Intermediates Used in Paint, Varnish, Lacquer, and Related Products

- D3893 Test Method for Purity of Methyl Amyl Ketone and Methyl Isoamyl Ketone by Gas Chromatography
 - D4052 Test Method for Density, Relative Density, and API Gravity of Liquids by Digital Density Meter
 - D5386 Test Method for Color of Liquids Using Tristimulus Colorimetry
 - E29 Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications
 - E300 Practice for Sampling Industrial Chemicals
- 2.2 U.S. Federal Specification:
PPP-C-2020 Chemicals, Liquid, Dry, and Paste: Packaging of³

3. Properties

3.1 Methyl isoamyl ketone shall conform to the following requirements:

| | |
|---------------------------------------|--|
| Apparent specific gravity: 20/20°C | 0.812 to 0.815 or 0.809 to 0.812 |
| 25/25°C | 15 |
| Color, Pt-Co scale, max (Note 1) | 15 |
| Distillation, °C | |
| Initial boiling point, min | 140 |
| Dry point, max | 148 |
| Water, wt %, max | 0.1 |
| Acidity as acetic acid, wt %, max | 0.02 |
| Purity, wt %, min | 98 |

NOTE 1—Instrumental Pt-Co color determined by Test Method D5386 has been shown to have no statistically significant difference from Pt-Co color determined by Test Method D1209. However, it is not known whether methyl isoamyl ketone was part of the sample set included in the interlaboratory study.

4. Sampling

4.1 The material shall be sampled in accordance with Practice E300.

5. Test Methods

5.1 The properties enumerated in this specification shall be determined in accordance with the following ASTM test methods:

³ Available from Standardization Documents Order Desk, DODSSP, Bldg. 4, Section D, 700 Robbins Ave., Philadelphia, PA 19111-5098, <http://www.dodssp.daps.mil>.

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