



AEROSPACE MATERIAL SPECIFICATION

AMS7297™

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Methyl Propyl Ketone

RATIONALE

This standard is a new issue that provides requirements for Methyl Propyl Ketone (MPK).

1. SCOPE

1.1 Form

This specification establishes the physical and chemical characteristics for two grades of Methyl Propyl Ketone (MPK) solvent. MPK is also known as 2-Pentanone and Pentan-2-one.

1.2 Application

MPK is typically used for cleaning prior to painting, bonding, and welding or as a formulary solvent in coatings, but usage is not limited to such applications.

1.3 Classification

The materials covered by this specification shall be classified as follows:

Grade 1 - 90.00 to 99.49% MPK by weight
Grade 2 - minimum 99.50% MPK by weight

1.4 Safety - Hazardous Materials

While the materials, methods, applications, and processes described or referenced in this specification may involve the use of hazardous materials, this specification does not address the hazards that may be involved in such use. It is the sole responsibility of the user to ensure familiarity with the safe and proper use of any hazardous materials and to take necessary precautionary measures to ensure the health and safety of all personnel involved.

2. APPLICABLE DOCUMENTS

The issue of the following documents in effect on the date of the purchase order forms a part of this specification to the extent specified herein. The supplier may work to a subsequent revision of a document unless a specific document issue is specified. When the referenced document has been cancelled and no superseding document has been specified, the last published issue of that document shall apply.

2.1 SAE Publications

Available from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001, Tel: 1-877-606-7323 (U.S. and Canada only) or 1-724-776-4970 (outside U.S. and Canada), www.sae.org.

AS9100 Quality Management Systems - Requirements for Aviation, Space, and Defense Organizations

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Documents

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2.2 ASTM Publications

Available from ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959, Tel: 610-832-9585, www.astm.org.

ASTM D1209 Standard Test Method for Color of Clear Liquids (Platinum-Cobalt Scale)

ASTM D1353 Standard Test Method for Nonvolatile Matter in Volatile Solvents for Use in Paint, Varnish, Lacquer, and Related Products

ASTM D1613 Standard Test Method for Acidity in Volatile Solvents and Chemical Intermediates Used in Paint, Varnish, Lacquer, and Related Products

ASTM D4052 Standard Test Method for Density, Relative Density, and API Gravity of Liquids by Digital Density Meter

ASTM E300 Standard Practice for Sampling Industrial Chemicals

ASTM E1064 Standard Test Method for Water in Organic Liquids by Coulometric Karl Fischer Titration

2.3 ANSI Publications

Copies of these documents are available online at <https://webstore.ansi.org>.

ANSI Z400.1/Z129.1 Hazardous Workplace Chemicals - Hazard Evaluation and Safety Data Sheet and Precautionary Labeling Preparation

2.4 ISO Publications

Copies of these documents are available online at www.iso.org/store.

ISO 9001 Quality Management Systems - Requirements

3. TECHNICAL REQUIREMENTS

3.1 Properties

MPK shall conform to the requirements in Table 1 as determined in accordance with specified test methods.

Table 1 - Properties

Property	Requirement		Test Method
	Grade 1	Grade 2	
Methyl Propyl Ketone, weight percent	90.00 to 99.49	99.50, min	Gas Chromatography Test Method (see 4.6)
Methyl Isobutyl Ketone, weight percent, max	10.0	0.5	
Other Ketones, weight percent, max	0.2		
Total Alcohol, weight percent, max	0.3		
Specific Gravity at 20/20 C	0.806 to 0.809		ASTM D4052
Acidity, as Acetic Acid, weight percent, max	0.01		ASTM D1613
Water Content, weight percent, max	0.05		ASTM E1064
Color, PT-Co scale, max	15		ASTM D1209
Nonvolatile Matter, mg/100 ml of solvent, max	5		ASTM D1353