

PRODUCT IDENTIFICATION



Product Name: Methyl n-Propyl Ketone (MPK) ACS

CAS Number: 107-87-9

Molecular Formula: C₅H₁₀O

Molecular Weight: 86.13 g/mol

Grade: ACS Grade

Purity / Concentration: Not Available

Synonyms: 2-Pentanone, Methyl propyl ketone

PRODUCT OVERVIEW

Methyl n-Propyl Ketone (MPK) ACS is a high-purity solvent characterized by its clear, mobile appearance and distinct fruity odor. Featuring a low residue profile of 6 ppm and minimal water content at 0.06%, this ACS-grade reagent is essential for sensitive analytical and synthetic applications.

Grade Significance: ACS Grade signifies that the product meets the stringent purity standards set by the American Chemical Society, ensuring it is suitable for demanding analytical and research applications where consistent, low-impurity results are critical.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay Gc Fid	%	94	93	95	GC-FID
Color (APHA)	APHA	5	—	10	ASTM D1209
Specific Gravity (20°C)	g/mL	0.8095	0.8075	0.8115	Hydrometer @ 20°C
Residue On Evaporation	ppm	6	—	20	Evaporation
Water Karl Fischer	%	0.06	—	0.2	ASTM E203 / ISO 6296
Acidity As Acetic	ppm	9	—	30	Titration

ND = Not Detected. Values are typical and may vary by lot.

PHYSICAL & CHEMICAL PROPERTIES

Appearance	Clear, mobile liquid with fruity ketone character	Odor	Characteristic ketone odor
Form	Liquid	Boiling Point	212 to 214 °F at 760 mmHg (NTP, 1992)
Melting / Freezing Point	-108 °F (NTP, 1992)	Flash Point	45 °F (NTP, 1992)
Specific Gravity	0.803	Solubility	Low water solubility, excellent organic solvent
Molecular Formula	C ₅ H ₁₀ O	Molecular Weight	86.13 g/mol
Vapor Pressure (20°C)	30 mmHg	Viscosity (25°C)	0.45 cP
Refractive Index (20°C)	1.392	Density (25°C)	0.805 g/mL

APPLICATIONS

1. **Analytical Chemistry** — Serves as a high-performance mobile phase component in reversed-phase HPLC for the precise separation of complex organic compounds.
2. **Pharmaceutical Manufacturing** — Utilized in the extraction and purification of active pharmaceutical ingredients from natural sources to ensure high yield and purity.
3. **Industrial Coatings** — Acts as a powerful solvent in the formulation of high-quality paints, coatings, and adhesives, providing excellent solvency and flow properties.
4. **Chemical Synthesis** — Functions as a versatile intermediate for the synthesis of various specialized organic compounds in laboratory and industrial settings.

STORAGE & HANDLING

Due to its flash point of 45 °F, MPK is classified as a highly flammable liquid that requires storage in a cool, well-ventilated area away from ignition sources. Proper containment prevents the accumulation of hazardous vapors and ensures the chemical maintains its integrity by preventing moisture absorption.

- Store in a cool, dry, well-ventilated area away from heat sources.
- Use containers made of HDPE or glass to prevent chemical reactions.
- Avoid contact with strong oxidizing agents and acids.
- Ensure proper personal protective equipment (PPE) is worn, including gloves and goggles.
- Keep away from direct sunlight and sources of ignition.

AVAILABLE PACKAGING

- 1 Quart
- 1 Gallon
- 5 Gallon
- 55 Gallon

SAFETY SUMMARY (CROSS-REFERENCE TO SDS)

Signal Word: **Danger**



Hazard Statements:

- H225: Highly flammable liquid and vapour
- H302: Harmful if swallowed
- H319: Causes serious eye irritation
- H335: May cause respiratory irritation

Emergency Contact: CHEMTEL - 800-255-3924 (24 Hours/Day, 7 Days/Week)

For complete safety information, refer to the Safety Data Sheet (SDS) for this product.

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