

PRODUCT IDENTIFICATION



Product Name: Methyl n-Propyl Ketone (MPK) Technical Grade

CAS Number: 107-87-9

Molecular Formula: $C_5H_{10}O$

Molecular Weight: 86.13 g/mol

Grade: Technical Grade

Purity / Concentration: Not Available

Synonyms: 2-Pentanone, Methyl propyl ketone

PRODUCT OVERVIEW

Methyl n-Propyl Ketone (MPK) is a highly efficient, volatile solvent characterized by its clear appearance and distinct, fruity odor. This technical grade product offers exceptional purity, featuring a 100.0% GC assay and a low moisture content of 0.01%, making it an ideal choice for high-performance industrial solvent applications.

Grade Significance: Technical Grade indicates that the product meets high-purity standards suitable for industrial manufacturing and processing, providing reliable performance while remaining cost-effective for large-scale operations.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay Gc Fid	%	100.0	99.5	100.5	GC-FID
Color (APHA)	APHA	5	—	15	ASTM D1209
Specific Gravity (20°C)	g/mL	0.8095	0.8075	0.8115	Hydrometer @ 20°C
Water Karl Fischer	%	0.01	—	0.05	ASTM E203 / ISO 6296
Acidity As Acetic	%	0.0060	0	0.02	Titration per ACS/USP
Aldehydes	%	0.14	—	0.5	Per specification
Deg Content	%	0.06	—	0.2	GC
Free Acid	%	ND	—	0.02	Titration

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

PHYSICAL & CHEMICAL PROPERTIES

Appearance	Colorless, volatile liquid with a sweet, fruity odor	Odor	Sweet, ketone-like 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	Soluble in organic solvents, slightly soluble in water
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)	1.394	Density (25°C)	0.805 g/mL
Partition Coefficient (log P)	0.5	Decomposition Temp.	Not readily decomposed under normal handling; significant decomposition above ~200-300°C

APPLICATIONS

- 1. Paints and Coatings** — MPK serves as a high-performance solvent that facilitates excellent flow and leveling properties in specialized paint formulations.
- 2. Industrial Cleaning** — Its strong solvency power makes it highly effective at removing stubborn oils, greases, and residues from heavy-duty industrial equipment.
- 3. Chemical Synthesis** — This compound acts as a critical intermediate in the synthesis of various organic chemicals and complex pharmaceutical products.
- 4. Pharmaceutical Manufacturing** — MPK is utilized for the precise extraction of active pharmaceutical ingredients from botanical sources due to its controlled volatility.

STORAGE & HANDLING

Because MPK is a highly flammable liquid with a flash point of 45 °F, it must be stored in a cool, well-ventilated area away from heat, sparks, and open flames. Proper containment is essential to prevent the accumulation of vapors, which poses a significant fire risk and potential inhalation hazard.

- Store in a cool, well-ventilated area away from heat sources and open flames.
- Use materials compatible with ketones, such as HDPE or glass containers.
- Avoid contact with strong oxidizing agents and acids.
- Ensure proper personal protective equipment (PPE) is worn, including gloves and goggles.
- Keep containers tightly closed when not in use to prevent evaporation and contamination.

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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