

PRODUCT IDENTIFICATION



Product Name: Methyl n-Propyl Ketone (MPK)

CAS Number: 107-87-9

Molecular Formula: C₅H₁₀O

Molecular Weight: 86.13 g/mol

Grade: Technical

Purity / Concentration: Not Available

Synonyms: 2-Pentanone, Methyl propyl ketone

PRODUCT OVERVIEW

Methyl n-Propyl Ketone (MPK) is a colorless, flammable liquid with a characteristic odor, primarily used as a solvent in various industrial applications. It is a ketone with a molecular formula of C₅H₁₀O, known for its effective solvency properties and moderate evaporation rate, making it suitable for a range of formulations.

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	0.808	0.804	0.8484	Hydrometer @ 25°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. **Industrial** — Used as a solvent in the formulation of paints and coatings due to its excellent solvency properties.
2. **Manufacturing** — Serves as a cleaning agent for industrial equipment and surfaces, effectively removing oils and greases.
3. **Chemical Manufacturing** — Acts as an intermediate in the synthesis of various organic compounds and pharmaceuticals.
4. **Pharmaceutical** — Utilized in the extraction of active pharmaceutical ingredients from plant materials.
5. **Construction** — Incorporated into adhesive formulations to enhance bonding properties.

STORAGE & HANDLING

- 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 (31.3%): Highly Flammable liquid and vapor [Danger Flammable liquids]
- H302 (92.7%): Harmful if swallowed [Warning Acute toxicity, oral]
- H319 (91.1%): Causes serious eye irritation [Warning Serious eye damage/eye irritation]
- H335 (74.6%): May cause respiratory irritation [Warning Specific target organ toxicity, single exposure; Respiratory tract 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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