

### PRODUCT IDENTIFICATION



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

**CAS Number:** 107-87-9

**Molecular Formula:** C<sub>5</sub>H<sub>10</sub>O

**Molecular Weight:** 86.13 g/mol

**Grade:** Laboratory Grade

**Purity / Concentration:** Not Available

**Synonyms:** 2-Pentanone, Methyl propyl ketone

### PRODUCT OVERVIEW

Methyl n-Propyl Ketone (MPK), Laboratory Grade, from Alliance Chemical is a high-purity solvent characterized by its colorless appearance, sweet odor, and excellent solvency (Assay: 99.2%). This versatile chemical is primarily used in paints, coatings, and industrial cleaning applications. Its specific gravity is 0.808 g/mL at 20°C.

**Grade Significance:** Laboratory Grade MPK signifies that the product meets stringent quality control standards, ensuring high purity and minimal impurities. This is crucial for applications requiring consistent and reliable results, such as research, analysis, and critical manufacturing processes.

### CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay (wt%)	%	99.2	98	—	GC
Color (APHA)	APHA	5	—	10	ASTM D1209
Specific Gravity (20°C)	g/mL	0.808	0.806	0.809	USP <841>
Residue After Ignition	%	0.0005	—	0.0010	Gravimetric
Water Content	%	0.02	—	0.05	Karl Fischer
Acidity Meq Per G	meq/g	0.0002	—	0.0005	Titration

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

## PHYSICAL & CHEMICAL PROPERTIES

<b>Appearance</b>	Colorless, volatile liquid with a sweet, fruity odor	<b>Odor</b>	Sweet, ketone-like odor
<b>Form</b>	Liquid	<b>Boiling Point</b>	102°C (216°F)
<b>Melting / Freezing Point</b>	-79°C (-110°F)	<b>Flash Point</b>	0°C (32°F)
<b>Specific Gravity</b>	0.803	<b>Solubility</b>	Soluble in organic solvents, slightly soluble in water
<b>Molecular Formula</b>	C <sub>5</sub> H <sub>10</sub> O	<b>Molecular Weight</b>	86.13 g/mol
<b>Vapor Pressure (20°C)</b>	30 mmHg	<b>Viscosity (25°C)</b>	0.45 cP
<b>Refractive Index (20°C)</b>	1.394	<b>Density (25°C)</b>	0.805 g/mL
<b>Partition Coefficient (log<sub>P</sub>)</b>	0.5	<b>Decomposition Temp.</b>	Not readily decomposed under normal handling; significant decomposition above ~200-300°C

## APPLICATIONS

- 1. Paints and Coatings** — MPK serves as a solvent in the formulation of paints and coatings, enhancing their application properties and ensuring uniform coverage. Its solvency characteristics allow for effective dissolution of resins and pigments.
- 2. Industrial Cleaning** — MPK is an effective cleaning agent for industrial equipment and surfaces, efficiently removing oils, greases, and other contaminants. Its volatility allows for residue-free cleaning.
- 3. Pharmaceuticals** — As a chemical intermediate, MPK plays a crucial role in the synthesis of various organic compounds and pharmaceuticals. Its controlled reactivity facilitates the creation of complex molecules.
- 4. Extraction Processes** — MPK is utilized in the extraction of active pharmaceutical ingredients from plant materials, selectively isolating desired compounds. Its solvent properties ensure high yields and purity.
- 5. Laboratory Reagent** — Due to its high purity (99.2% assay), MPK is suitable for use as a solvent and reagent in laboratory settings. The low water content (0.02%) further enhances its suitability for moisture-sensitive reactions.

## STORAGE & HANDLING

MPK is a highly flammable liquid, so it must be stored in a cool, dry, well-ventilated area away from heat, sparks, and open flames. Proper storage minimizes the risk of fire and maintains product quality by preventing degradation from exposure to incompatible materials or environmental conditions.

- 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.*

---

Alliance Chemical | 204 South Edmond St, Taylor, Texas 76574 | 512-365-6838 | [www.alliancechemical.com](http://www.alliancechemical.com)

**Disclaimer:** The information contained herein is believed to be accurate and represents the best information currently available to us. However, Alliance Chemical makes no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.