

### PRODUCT IDENTIFICATION



**Product Name:** Methyl Ethyl Ketone (MEK)

**CAS Number:** 78-93-3

**Molecular Formula:** C<sub>4</sub>H<sub>8</sub>O

**Molecular Weight:** 72.11 g/mol

**Grade:** Technical

**Purity / Concentration:** 100%

**Synonyms:** Butanone, 2-Butanone

### PRODUCT OVERVIEW

Methyl Ethyl Ketone (MEK), also known as 2-Butanone, is a high-purity technical grade solvent characterized by its excellent solvency power and rapid evaporation rate. With an assay of 99.7% and a low moisture content of 0.03%, this clear, volatile liquid is an essential component for diverse industrial applications requiring precision and consistency.

**Grade Significance:** Technical grade indicates that this product is manufactured to meet rigorous industrial standards, ensuring the reliability and chemical consistency required for large-scale production and processing tasks.

### CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay (wt%)	%	99.7	99.5	—	GC
Color (APHA)	APHA	5	—	10	ASTM D1209
Specific Gravity (20°C)	g/mL	0.805	0.804	0.807	ASTM D4052
Water Content	%	0.03	—	0.05	ASTM D1364
Acidity As Acetic Acid	%	0.0010	—	0.0030	ASTM D1613
Nonvolatile Matter	ppm	5	—	10	ASTM D1353

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

### PHYSICAL & CHEMICAL PROPERTIES

<b>Appearance</b>	Clear volatile liquid, pale colorless	<b>Odor</b>	Sweet, acetone-like odor
<b>Form</b>	Liquid	<b>Boiling Point</b>	79.6°C (175.3°F)
<b>Melting / Freezing Point</b>	-86°C (-122.8°F)	<b>Flash Point</b>	-4°C (24.8°F)
<b>Specific Gravity</b>	0.805	<b>Solubility</b>	Miscible with water, alcohols
<b>Molecular Formula</b>	C <sub>4</sub> H <sub>8</sub> O	<b>Molecular Weight</b>	72.11 g/mol
<b>Vapor Pressure (20°C)</b>	80 mmHg	<b>Viscosity (25°C)</b>	0.43 cP
<b>Refractive Index (20°C)</b>	1.378	<b>Density (25°C)</b>	0.805 g/mL

## APPLICATIONS

1. **Coatings and Adhesives** — MEK acts as a high-performance solvent in the formulation of paints and coatings, effectively dissolving a wide range of polymers to ensure optimal application consistency.
2. **Pharmaceutical Manufacturing** — It is frequently utilized in liquid-liquid extraction processes, serving as a reliable medium for isolating high-purity pharmaceutical intermediates.
3. **Analytical Chemistry** — The product is commonly used as a mobile phase component in reversed-phase high-performance liquid chromatography (HPLC) to facilitate the accurate separation of complex organic compounds.
4. **Industrial Maintenance** — Due to its powerful degreasing properties, MEK is highly effective for cleaning metal parts and industrial equipment, ensuring surfaces are free of contaminants.

## STORAGE & HANDLING

Proper storage is critical because MEK is a highly flammable liquid with a flash point of  $-4^{\circ}\text{C}$ , meaning it can easily ignite if exposed to sparks or open flames. Containers must be kept tightly sealed in a cool, well-ventilated area to prevent the buildup of flammable vapors and to maintain the integrity of the chemical purity.

- Store in a cool, well-ventilated area away from heat sources.
- Use containers made of HDPE or glass to prevent chemical reactions.
- Keep away from strong oxidizing agents and acids.
- Ensure proper PPE including gloves and goggles are used during handling.
- Avoid exposure to light and moisture to maintain product integrity.

## 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 vapor [Danger Flammable liquids]
- H319: Causes serious eye irritation [Warning Serious eye damage/eye irritation]
- H336: May cause drowsiness or dizziness [Warning Specific target organ toxicity, single exposure; Narcotic effects]

**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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