

PRODUCT IDENTIFICATION



Product Name: Methyl Isobutyl Ketone (MIBK) Technical Grade

CAS Number: 108-10-1

Molecular Formula: C₆H₁₂O

Molecular Weight: 100.16 g/mol

Grade: Technical Grade

Purity / Concentration: Not Available

Synonyms: 4-Methyl-2-pentanone, MIBK

PRODUCT OVERVIEW

Methyl Isobutyl Ketone (MIBK) Technical Grade is a versatile, high-purity solvent characterized by its 99.5% assay and low moisture content of 0.03%. This clear, colorless liquid is essential for industrial applications requiring excellent solvency, such as in the formulation of high-performance paints and coatings.

Grade Significance: Technical Grade signifies that this product is manufactured to meet consistent industrial performance standards, offering a reliable balance of purity and cost-effectiveness for non-laboratory applications.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay Gc Fid	%	99.95	99	—	GC-FID
Color (APHA)	APHA	5	—	15	ASTM D1209
Specific Gravity (20°C)	g/mL	0.802	0.7619	0.807	Hydrometer @ 25°C
Residue On Evaporation	ppm	10	0	50	Evaporation
Water Karl Fischer	%	0.02	—	0.3	ASTM E203 / ISO 6296
Acidity As Acetic	ppm	6	0	20	Titration
Distillation Range	°C	116.0	114.0	117.0	ASTM D1078

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

PHYSICAL & CHEMICAL PROPERTIES

Appearance	Clear, colorless liquid	Odor	Sweet, ketone-like odor
Form	Liquid	Boiling Point	243 to 244 °F at 760 mmHg (NTP, 1992)
Melting / Freezing Point	-120.5 °F (NTP, 1992)	Flash Point	73 °F (NTP, 1992)
Specific Gravity	0.798	Solubility	Soluble in water, alcohol, ether, and most organic solvents
Molecular Formula	C ₆ H ₁₂ O	Molecular Weight	100.16 g/mol
Vapor Pressure (20°C)	30 mmHg	Viscosity (25°C)	0.54 cP
Refractive Index (20°C)	1.426	Density (25°C)	0.805 g/mL
Partition Coefficient (log P)	0.7	Decomposition Temp.	>= 320

APPLICATIONS

1. **Paints and Coatings** — MIBK serves as a powerful solvent that effectively dissolves resins and polymers to ensure smooth application and consistent finish quality.
2. **Pharmaceuticals** — It is utilized as a critical extraction agent during the purification and synthesis of various active pharmaceutical ingredients.
3. **Adhesives and Sealants** — The solvent properties of MIBK allow for the precise formulation of industrial-grade adhesives, ensuring optimal viscosity and bonding strength.
4. **Chemical Manufacturing** — MIBK acts as a key intermediate in the synthesis of complex chemical compounds and specialty materials.
5. **Industrial Cleaning** — Its ability to dissolve oils and residues makes it an effective cleaning agent for heavy-duty industrial equipment and specialized surfaces.

STORAGE & HANDLING

Due to its high flammability and low flash point of 14°C, MIBK must be stored in a cool, well-ventilated area away from all ignition sources. Proper containment prevents the accumulation of hazardous vapors and minimizes the risk of fire or respiratory exposure.

- Store in a cool, well-ventilated area away from heat sources and open flames.
- Use containers made of compatible materials such as HDPE or glass.
- Avoid contact with strong oxidizing agents and acids.
- Ensure proper PPE including gloves and goggles when handling.
- Keep container tightly closed when not in use to prevent evaporation.

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]
- H332: Harmful if inhaled [Warning Acute toxicity, inhalation]
- H336: May cause drowsiness or dizziness [Warning Specific target organ toxicity, single exposure; Narcotic effects]
- H351: Suspected of causing cancer [Warning Carcinogenicity]

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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