

PRODUCT IDENTIFICATION



Product Name: Methyl Ethyl Ketone (MEK) ACS Grade

CAS Number: 78-93-3

Molecular Formula: C₄H₈O

Molecular Weight: 72.11 g/mol

Grade: ACS Grade

Purity / Concentration: Not Available

Synonyms: Butanone, MEK

PRODUCT OVERVIEW

Methyl Ethyl Ketone (MEK) ACS Grade is a high-purity, volatile solvent characterized by its 99% assay and exceptionally low residue levels of 6 ppm. This clear, mobile liquid is widely utilized in analytical chemistry and industrial manufacturing where precise solvency and minimal contamination are required.

Grade Significance: ACS Grade signifies that this product meets the rigorous purity standards set by the American Chemical Society, ensuring reliability and consistency for sensitive analytical applications.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay Gc Fid	%	99	99	100.0	GC-FID
Color (APHA)	APHA	5	—	10	ASTM D1209
Specific Gravity (20°C)	g/mL	0.805	0.804	0.807	Hydrometer @ 20°C
Residue On Evaporation	ppm	6	—	20	Evaporation
Water Karl Fischer	%	0.06	—	0.2	ASTM E203 / ISO 6296
Acidity As Acetic	ppm	9	—	30	Titration
Distillation Range	°C	79	79	80.5	ASTM D1078

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

PHYSICAL & CHEMICAL PROPERTIES

Appearance	Volatile clear liquid, colorless, mobile	Odor	Sweet, acetone-like odor
Form	Liquid	Boiling Point	175.3 °F at 760 mmHg (NTP, 1992)
Melting / Freezing Point	-123.3 °F (NTP, 1992)	Flash Point	26 °F (NTP, 1992)
Specific Gravity	0.805	Solubility	High water miscibility, excellent organic solvent
Molecular Formula	C ₄ H ₈ O	Molecular Weight	72.11 g/mol
Vapor Pressure (20°C)	150 mmHg	Viscosity (25°C)	0.43 cP
Refractive Index (20°C)	1.378	Density (25°C)	0.805 g/mL
Partition Coefficient (log P)	0.3	Decomposition Temp.	Not applicable

APPLICATIONS

1. **Analytical Chemistry** — Serves as a high-performance mobile phase component in reversed-phase chromatography for the accurate separation of organic compounds.
2. **Coatings and Paints** — Functions as a powerful solvent in the formulation of paints and varnishes, ensuring consistent application and effective film formation.
3. **Adhesives and Sealants** — Acts as a reliable thinner for adhesives, allowing for improved viscosity control and easier application in industrial bonding processes.
4. **Pharmaceuticals** — Used as a high-purity solvent in the extraction and purification processes required for the production of pharmaceutical compounds.

STORAGE & HANDLING

Due to its low flash point of 26 °F, MEK is highly flammable and must be stored in a cool, well-ventilated area away from heat sources or open flames. Proper containment prevents the accumulation of vapors, which can cause dizziness or respiratory irritation, and ensures compliance with critical fire safety standards.

- Store in a cool, well-ventilated area away from heat sources and open flames.
- Use containers made of HDPE or glass to prevent chemical reactions.
- Avoid contact with strong oxidizing agents and acids.
- Ensure proper PPE, including gloves and goggles, are worn when handling.
- Keep container tightly closed when not in use to minimize 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 vapour
- H319: Causes serious eye irritation
- H336: May cause drowsiness or dizziness
- EUH066: Repeated exposure may cause skin dryness or cracking

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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