

PRODUCT IDENTIFICATION



Product Name: Methanol Technical Grade

CAS Number: 67-56-1

Molecular Formula: CH₄O

Molecular Weight: 32.042 g/mol

Grade: Technical Grade

Purity / Concentration: 100%

Synonyms: Methyl Alcohol, Carbinol

PRODUCT OVERVIEW

Methanol Technical Grade is a high-purity solvent featuring a 99.97% assay and extremely low moisture content at 0.01%. This clear, colorless liquid is essential for industrial processes requiring reliable chemical consistency and precise solvent performance.

Grade Significance: Technical Grade indicates that this product is manufactured to meet consistent industrial standards for purity and performance, providing a cost-effective solution for non-pharmaceutical applications.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay Gc	%	99.97	99.5	100.0	GC
Color (APHA)	APHA	3	—	5	APHA
Residue On Evaporation	ppm	10	0	50	Evaporation
Water Karl Fischer	%	0.01	—	0.1	Karl Fischer
Chlorides As Cl	ppm	0.5	0	25	ICP
Acidity As Acetic	ppm	10	0	30	Titration
Aldehydes As Acetaldehyde	ppm	0.0020	0	10	Spectrophotometry

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

PHYSICAL & CHEMICAL PROPERTIES

Appearance	Clear, colorless liquid with a characteristic alcoholic odor	Odor	Slightly sweet odor
Form	Liquid	Boiling Point	148.3 °F at 760 mmHg (NTP, 1992)
Melting / Freezing Point	-144 °F (NTP, 1992)	Flash Point	52 °F (NTP, 1992)
Specific Gravity	0.791	Solubility	Miscible with water, alcohols, and most organic solvents
Molecular Formula	CH ₄ O	Molecular Weight	32.042 g/mol
Vapor Pressure (20°C)	97 mmHg	Viscosity (25°C)	0.54 cP
Refractive Index (20°C)	1.3288	Density (25°C)	0.791 g/mL
Partition Coefficient (log P)	-0.7 (approx.)	Decomposition Temp.	Not readily decomposed; decomposition at very high temperatures

APPLICATIONS

1. **Analytical Chemistry** — Used as a mobile phase component in reversed-phase HPLC to ensure accurate separation of complex organic compounds.
2. **Spectroscopy** — Serves as a high-clarity baseline solvent in UV-Vis spectroscopy due to its exceptionally low UV cutoff wavelength.
3. **Automotive** — Utilized as a high-performance fuel additive to optimize combustion efficiency in specialized engine applications.
4. **Chemical Manufacturing** — Functions as a versatile solvent for various synthesis reactions, facilitating the efficient dissolution of raw materials.

STORAGE & HANDLING

Due to its low flash point of 52 °F, methanol must be stored in a cool, well-ventilated area away from ignition sources to prevent fire hazards. Proper containment is critical as the substance is toxic if swallowed or absorbed through the skin, requiring strictly controlled access.

- 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 is worn, including gloves and goggles, when handling.
- Avoid exposure to light and moisture to maintain product integrity.

AVAILABLE PACKAGING

- 1 Quart
- 1 Gallon
- 5 Gallon
- 15 Gallon
- 55 Gallon
- 275 Gallon
- 330 Gallon

SAFETY SUMMARY (CROSS-REFERENCE TO SDS)

Signal Word: **Danger**



Hazard Statements:

- H225: Highly flammable liquid and vapour
- H301: Toxic if swallowed
- H311: Toxic in contact with skin
- H331: Toxic if inhaled
- H370: Causes damage to organs

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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