

PRODUCT IDENTIFICATION



Product Name: Methyl n-Amyl Ketone (MNAK) ACS Grade

CAS Number: 110-43-0

Molecular Formula: C₇H₁₄O

Molecular Weight: 114.19 g/mol

Grade: ACS Grade

Purity / Concentration: Not Available

Synonyms: 2-Heptanone, Methyl n-amyl ketone

PRODUCT OVERVIEW

Methyl n-Amyl Ketone (MNAK) ACS Grade, available from Alliance Chemical, is a high-purity solvent with an assay of 99.1%. This clear, colorless liquid is primarily used as a solvent in paints, coatings, and adhesive formulations, enhancing their application properties and drying times. MNAK ACS Grade's low water content (0.02%) ensures minimal interference in moisture-sensitive reactions.

Grade Significance: ACS Grade Methyl n-Amyl Ketone signifies that this chemical meets the stringent purity standards set by the American Chemical Society. This high level of purity is essential for applications requiring reliable and reproducible results, such as laboratory analysis and pharmaceutical manufacturing.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay (wt%)	%	99.1	98	—	GC-FID
Color (APHA)	APHA	5	—	10	ASTM D1209
Specific Gravity (20°C)	g/mL	0.813	0.812	0.814	USP <841>
Residue After Ignition	%	0.0005	—	0.0020	ACS Reagent Chemicals
Water Content	%	0.02	—	0.1	Karl Fischer Titration
Heavy Metals (as Pb)	ppm	0.05	—	1	ICP-MS
Iron (Fe)	ppm	0.05	—	0.5	ICP-MS
Chloride (Cl ⁻)	ppm	0.1	—	5	Ion Chromatography
Sulfate (SO ₄ ²⁻)	ppm	0.2	—	5	Ion Chromatography

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

PHYSICAL & CHEMICAL PROPERTIES

Appearance	Clear, colorless liquid	Odor	Characteristic ketone odor
Form	Liquid	Boiling Point	151°C (304°F)
Melting / Freezing Point	-35°C (-31°F)	Flash Point	49°C (120°F)
Specific Gravity	0.815	Solubility	Soluble in organic solvents, slightly soluble in water
Molecular Formula	C ₇ H ₁₄ O	Molecular Weight	114.19 g/mol
Vapor Pressure (20°C)	5.2 mmHg	Viscosity (25°C)	0.75 cP
Refractive Index (20°C)	1.426	Density (25°C)	0.805 g/mL
Partition Coefficient (log_P)	2.0-2.6 (estimated)	Decomposition Temp.	Not readily decomposed; stabilizers optional

APPLICATIONS

- 1. Paints and Coatings** — MNAK is utilized as a solvent in the formulation of paints and coatings, enhancing application properties such as flow and leveling. Its solvency characteristics contribute to improved film formation and overall coating quality.
- 2. Adhesives** — MNAK serves as a solvent in adhesive formulations, improving adhesion to various substrates and controlling drying times. Its compatibility with a range of adhesive polymers makes it a versatile choice.
- 3. Pharmaceuticals** — MNAK is used in the extraction of active pharmaceutical ingredients (APIs) due to its effective solvency for a variety of compounds. Its controlled purity ensures minimal contamination of the extracted API.
- 4. Chemical Synthesis** — MNAK acts as an intermediate in the synthesis of various organic compounds, contributing its ketone functionality to reaction pathways. Its consistent quality ensures reliable results in chemical transformations.
- 5. Laboratory Reagent** — MNAK ACS Grade meets stringent purity requirements, making it suitable for use as a reagent in analytical and research laboratories. The low levels of impurities like heavy metals (below detection limits) are particularly important in sensitive analyses.
- 6. Cleaning Formulations** — MNAK can be used as a component in cleaning formulations due to its solvency properties for various organic residues. Its ability to dissolve oils and greases makes it effective in certain cleaning applications.

STORAGE & HANDLING

Proper storage of Methyl n-Amyl Ketone (MNAK) is crucial to maintain its purity and prevent degradation. As a flammable liquid, MNAK should be stored in a cool, well-ventilated area away from heat, sparks, and open flames to mitigate fire hazards. Maintaining proper storage conditions ensures the integrity of the solvent and minimizes potential safety risks.

- Store in a cool, dry place away from heat sources and open flames.
- Use containers made of HDPE or glass to avoid chemical reactions.
- Ensure proper ventilation in storage areas to prevent vapor accumulation.
- Avoid contact with strong oxidizing agents and acids.
- Wear appropriate personal protective equipment (PPE) including gloves and goggles.

AVAILABLE PACKAGING

- 1 Quart
- 1 Gallon
- 5 Gallon
- 55 Gallon

SAFETY SUMMARY (CROSS-REFERENCE TO SDS)

Signal Word: **Warning**



Hazard Statements:

- H226: Flammable liquid and vapor [Warning Flammable liquids]
- H302: Harmful if swallowed [Warning Acute toxicity, oral]
- H332: Harmful if inhaled [Warning Acute toxicity, inhalation]

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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