

PRODUCT IDENTIFICATION



Product Name: Acetone ACS Grade
CAS Number: 67-64-1
Molecular Formula: C₃H₆O
Molecular Weight: 58.08 g/mol
Grade: ACS Grade
Purity / Concentration: 99.5%
Synonyms: 2-Propanone, Dimethyl ketone

PRODUCT OVERVIEW

Alliance Chemical offers high-purity Acetone ACS Grade, a clear and colorless solvent with a minimum assay of 99.5%. This high-performance reagent features minimal impurities, such as non-volatile residue at levels below detection limits, making it an essential choice for precise laboratory and industrial applications.

Grade Significance: ACS Grade signifies that the product meets the rigorous specifications set by the American Chemical Society, ensuring it is suitable for use in demanding laboratory and analytical environments.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay Gc Fid	%	100.0	99.5	100.5	GC-FID
Color (APHA)	APHA	3	—	10	ASTM D1209
Specific Gravity (20°C)	g/mL	0.7918	0.788	0.792	Hydrometer @ 20°C
Non Volatile Residue	mg/100mL	ND	—	1	ASTM D1353
Non-Volatile Residue	%	ND	0	0.05	Residue on Ignition
Residue On Evaporation	ppm	3	—	10	Evaporation
Water Karl Fischer	%	0.16	—	0.5	ASTM E203 / ISO 6296
Iron (Fe)	ppm	ND	0	—	ICP-OES
Sulfate So4	ppm	1	0	—	Ion Chromatography
Acidity As Acetic	ppm	10	0	20	Titration
Alkalinity	—	0.0003	—	0.0010	Per specification
Deg Content	%	ND	0	0.05	GC
Distillation Range Width	°C	≤ 0.8 °C	—	—	ASTM D1078
Methanol	%	0.015	—	0.05	Per specification
Stability Available Oxygen	%	≥ 110 %	—	—	Stability Test

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

PHYSICAL & CHEMICAL PROPERTIES

Appearance	Clear, colorless liquid	Odor	Sweet, characteristic odor
Form	Liquid	Boiling Point	133 °F at 760 mmHg (NTP, 1992)
Melting / Freezing Point	-137 °F (NTP, 1992)	Flash Point	0 °F (NTP, 1992)
Specific Gravity	0.791	Solubility	Soluble in water, alcohols, ether, and many other organic solvents
Molecular Formula	C ₃ H ₆ O	Molecular Weight	58.08 g/mol
Vapor Pressure (20°C)	180 mmHg	Viscosity (25°C)	0.32 cP
Refractive Index (20°C)	1.359	Density (25°C)	0.784 g/mL

APPLICATIONS

1. **Analytical Chemistry** — Used as a mobile phase component in reversed-phase high-performance liquid chromatography for the reliable separation of organic compounds.
2. **Spectroscopy** — Serves as a baseline solvent in UV-Vis spectroscopy, valued for its low UV cutoff wavelength that ensures accurate readings.
3. **Manufacturing** — Utilized for industrial cleaning and degreasing of metal parts and surfaces to ensure optimal preparation for downstream processes.
4. **Pharmaceuticals** — Employed in liquid-liquid extraction processes to effectively isolate critical pharmaceutical intermediates.

STORAGE & HANDLING

Due to its extremely low flash point of 0 °F, this acetone must be stored in a cool, well-ventilated area away from all ignition sources to prevent fire hazards. Proper containment is critical to mitigate the risks associated with its highly flammable nature and to maintain chemical stability.

- Store in a cool, well-ventilated area away from heat sources.
- Use containers made of HDPE or glass to prevent chemical reactions.
- Avoid contact with strong oxidizing agents and acids.
- Ensure proper PPE is worn, including gloves and goggles, when handling.
- Keep away from open flames and sources of ignition due to flammability.

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
- 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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