

PRODUCT IDENTIFICATION



Product Name: Denatured Alcohol 200 Proof 3A Technical Grade

CAS Number: 64-17-5

Molecular Formula: C₂H₆O

Molecular Weight: 46.07 g/mol

Grade: Technical Grade

Purity / Concentration: 100%

Synonyms: Ethyl Alcohol, Ethanol

PRODUCT OVERVIEW

Denatured Alcohol 200 Proof 3A Technical Grade is a high-purity solvent featuring an assay of 100.0% and minimal moisture content of 0.0381%. This clear, colorless liquid is an essential component for high-performance laboratory and industrial applications requiring precise chemical consistency.

Grade Significance: Technical Grade signifies that this product is manufactured to meet rigorous industrial standards for consistency and purity, making it ideal for processes where chemical reliability is required but pharmaceutical-grade certification is not necessary.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay Gc	%	100.0	99.5	100.5	GC
Color (APHA)	APHA	≤ 10 APHA	—	—	APHA
Specific Gravity (20°C)	g/mL	0.7893	0.7873	0.7913	Hydrometer @ 20°C
Non Volatile Residue	mg/100mL	0.15	0	5	Evaporation
Water Karl Fischer	%	0.0381	—	0.1	Karl Fischer
Iron (Fe)	ppm	0.01	0	—	ICP-MS
Acidity As Acetic	ppm	20	0	30	Titration

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

PHYSICAL & CHEMICAL PROPERTIES

Appearance	Clear, colorless liquid	Odor	Characteristic alcoholic odor
Form	Liquid	Boiling Point	173.3 °F at 760 mmHg (NTP, 1992)
Melting / Freezing Point	-173.4 °F (NTP, 1992)	Flash Point	55 °F (NTP, 1992)
Specific Gravity	0.789	Solubility	Miscible with water and many organic solvents
Molecular Formula	C ₂ H ₆ O	Molecular Weight	46.07 g/mol
Vapor Pressure (20°C)	59 mmHg	Viscosity (25°C)	0.89 cP
Refractive Index (20°C)	1.361	Density (25°C)	0.789 g/mL

APPLICATIONS

1. **Analytical Chemistry** — Functions as a reliable mobile phase component in reversed-phase chromatography for the accurate separation of organic compounds.
2. **Pharmaceutical Manufacturing** — Utilized as a high-efficiency solvent for the extraction of active pharmaceutical ingredients from various plant materials.
3. **Laboratory Operations** — Provides superior cleaning power for laboratory glassware and precision equipment, ensuring surfaces are free of residues.
4. **Cosmetic Formulation** — Acts as a primary solvent in the development and formulation of various cosmetic and personal care products.

STORAGE & HANDLING

Due to its flash point of 55 °F, this product must be stored in a cool, well-ventilated area away from heat, sparks, and open flames to prevent ignition. Proper containment is critical to mitigate the risk of fire and to prevent the inhalation or contact hazards associated with this flammable liquid.

- 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 oxidizers and acids.
- Ensure proper PPE is worn, including gloves and safety goggles.
- Keep away from open flames and sparks 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
- 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.

Alliance Chemical | 204 South Edmond St, Taylor, Texas 76574 | 512-365-6838 | www.alliancechemical.com

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