

PRODUCT IDENTIFICATION



Product Name: Denatured Alcohol 200 Proof 3A

CAS Number: 64-17-5

Molecular Formula: C₂H₆O

Molecular Weight: 46.07 g/mol

Grade: Technical

Purity / Concentration: 100%

Synonyms: Ethyl Alcohol, Ethanol

PRODUCT OVERVIEW

Denatured Alcohol 200 Proof 3A is a high-purity technical grade solvent, featuring a clear, colorless appearance and a 95.3% assay concentration. Its low water content of 0.1% and excellent solvency make it a reliable choice for laboratory and industrial extraction processes.

Grade Significance: Technical grade indicates a product formulated for industrial and laboratory utility where consistent performance is required, though it is not intended for human consumption or food-grade applications.

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	0.7874	—	—	Hydrometer @ 25°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** — Used as a critical mobile phase component in reversed-phase chromatography for the precise separation of organic compounds.
2. **Pharmaceutical Manufacturing** — Serves as an efficient solvent for the extraction of active pharmaceutical ingredients from botanical raw materials.
3. **Laboratory Operations** — Provides effective cleaning and degreasing properties for glass laboratory equipment and sensitive instrumentation.
4. **Cosmetic Formulation** — Acts as a versatile solvent and carrier in the development and manufacturing of various personal care and cosmetic products.

STORAGE & HANDLING

Due to its flash point of 13°C, this chemical is classified as a highly flammable liquid that requires storage in a cool, well-ventilated, explosion-proof area. Proper containment is essential to prevent the accumulation of flammable vapors and to mitigate the risk of ignition in the workplace.

- 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 vapor [Danger Flammable liquids]

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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