

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 a 100% assay and exceptionally low impurity levels, such as 0.0381% water content. This clear, colorless liquid is an essential tool for precision laboratory and industrial applications requiring reliable solvent performance.

Grade Significance: Technical Grade indicates that this product is manufactured for industrial and laboratory use where performance and consistency are prioritized, providing a cost-effective solution without the regulatory overhead of food or medical grades.

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 critical mobile phase component in reversed-phase chromatography to facilitate the precise separation of organic compounds.
2. **Pharmaceutical Manufacturing** — Used effectively for the extraction of active pharmaceutical ingredients from various plant materials.
3. **Laboratory Services** — Provides superior cleaning capabilities for glassware and sensitive equipment, ensuring surfaces are free from contaminants.
4. **Cosmetic Formulation** — Serves as a reliable solvent in the development and production of various cosmetic and personal care formulations.

STORAGE & HANDLING

Due to its flash point of 55 °F, this product is classified as a highly flammable liquid that requires storage in a cool, well-ventilated area away from ignition sources. Proper containment prevents the buildup of flammable vapors and ensures compliance with safety protocols to mitigate fire risks.

- 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
- H371: May cause 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

Disclaimer: The information contained herein is believed to be accurate and represents the best information currently available to us. However, Alliance Chemical makes no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.