

PRODUCT IDENTIFICATION



Product Name: Denatured Alcohol 200 Proof 3C

CAS Number: 64-17-5

Molecular Formula: C₂H₆O

Molecular Weight: 46.07 g/mol

Grade: Technical Grade

Purity / Concentration: 100%

Synonyms: Ethanol, Ethyl Alcohol

PRODUCT OVERVIEW

Denatured Alcohol 200 Proof 3C is a high-purity technical grade solvent characterized by its clear, colorless appearance and precise 0.812 g/mL specific gravity. This versatile ethanol formulation is essential for professional applications requiring consistent chemical performance and reliability.

Grade Significance: Technical grade indicates that the product is formulated for industrial and laboratory use where reliability and performance are key, though it is not intended for human consumption.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay (wt%)	%	95.8	92.5	—	Gas Chromatography (GC)
Color (APHA)	APHA	5	—	10	ASTM D1209
Specific Gravity (20°C)	g/mL	0.812	—	0.816	USP <841>
Residue After Ignition	%	0.0005	—	0.0020	USP <281>
Water Content	%	0.15	—	0.5	ASTM E203
Acidity As Acetic Acid	%	0.0010	—	0.0050	ASTM D1613
Appearance	—	Clear, colorless liquid	—	—	Visual
Methanol Pct	%	4.5	3.5	5.5	Gas Chromatography (GC)
Methyl Isobutyl Ketone Pct	%	0.5	0.3	0.7	Gas Chromatography (GC)

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	78°C (172.4°F)
Melting / Freezing Point	-114°C (-173.2°F)	Flash Point	13°C (55.4°F)
Specific Gravity	0.789	Solubility	Soluble in water and most organic solvents
Molecular Formula	C ₂ H ₆ O	Molecular Weight	46.07 g/mol
Vapor Pressure (20°C)	59 mmHg	Viscosity (25°C)	1.2 cP
Refractive Index (20°C)	1.361	Density (25°C)	0.789 g/mL

APPLICATIONS

1. **Pharmaceuticals** — Utilized as a primary solvent for the extraction of active pharmaceutical ingredients from complex plant materials.
2. **Manufacturing** — Highly effective for precision cleaning and degreasing of industrial surfaces to ensure optimal production quality.
3. **Laboratory Research** — Serves as a critical mobile phase component in high-performance liquid chromatography procedures.
4. **Chemical Synthesis** — Functions as a reliable reagent in a wide array of laboratory chemical reactions and analytical testing protocols.

STORAGE & HANDLING

Due to its highly flammable nature and a flash point of 13°C, this material must be stored in a cool, well-ventilated area away from ignition sources. Proper containment prevents the accumulation of hazardous vapors and ensures the integrity of the chemical composition over time.

- Store in a cool, well-ventilated area away from heat sources.
- Use containers made of HDPE or glass to prevent chemical reactions.
- Keep away from strong oxidizers and acids to avoid hazardous reactions.
- Ensure proper PPE is worn, including gloves and goggles, during handling.
- Avoid exposure to direct sunlight to prevent degradation.

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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