

PRODUCT IDENTIFICATION



Product Name: Denatured Alcohol 190 Proof 3A

CAS Number: 64-17-5

Molecular Formula: C₂H₆O

Molecular Weight: 46.07 g/mol

Grade: Technical

Purity / Concentration: 95%

Synonyms: Ethyl Alcohol, Ethanol

PRODUCT OVERVIEW

Denatured Alcohol 190 Proof 3A is a high-purity technical grade solvent, featuring an assay of 96.1% and a controlled water content of 0.2%. This clear, colorless liquid is widely utilized as a versatile solvent for cleaning, extraction, and laboratory processes.

Grade Significance: Technical grade indicates that the product is manufactured to meet industrial performance standards, offering a reliable balance of purity and cost-effectiveness for non-consumable applications.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay (wt%)	%	96.1	92.5	—	ASTM E70
Color (APHA)	APHA	5	—	10	ASTM D1209
Specific Gravity (20°C)	g/mL	0.812	—	0.815	ASTM D4052
Water Content	%	0.2	—	1	ASTM E203
Acidity As Acetic Acid	%	0.0010	—	0.0050	ASTM D1613
Appearance	Visual	Pass	—	—	Visual
Methanol Wt Pct	%	4	3.5	5	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	0.792	Solubility	Miscible with water and 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** — Used as a primary solvent for the extraction of active pharmaceutical ingredients from various plant materials.
2. **Analytical Chemistry** — Serves as an essential mobile phase component in reversed-phase chromatography for the precise separation of organic compounds.
3. **Industrial Manufacturing** — Acts as an effective cleaning and degreasing agent for maintaining surfaces and equipment in high-demand manufacturing environments.
4. **Cosmetics** — Functions as a reliable solvent in the formulation of a wide range of cosmetic and personal care products.

STORAGE & HANDLING

Due to its flash point of 13°C, this material is highly flammable and must be stored in a cool, well-ventilated area away from heat sources or open flames. Proper containment prevents the accumulation of hazardous vapors and ensures compliance with fire safety protocols.

- Store in a cool, dry place away from heat sources and open flames.
- Use containers made of HDPE or glass to prevent chemical reactions.
- Avoid contact with strong oxidizers and acids.
- Ensure proper ventilation when handling to minimize inhalation risks.
- Wear appropriate personal protective equipment (PPE) including gloves and goggles.

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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