

PRODUCT IDENTIFICATION



Product Name: Denatured Alcohol 190 Proof 3A Technical Grade

CAS Number: 64-17-5

Molecular Formula: C₂H₆O

Molecular Weight: 46.07 g/mol

Grade: Technical Grade

Purity / Concentration: 95%

Synonyms: Ethyl Alcohol, Ethanol

PRODUCT OVERVIEW

Denatured Alcohol 190 Proof 3A Technical Grade is a versatile solvent featuring a 95% concentration and high-purity profile with minimal residues, such as 1 mg/100mL non-volatile residue. This clear, colorless liquid is engineered for consistent performance in industrial, laboratory, and manufacturing applications.

Grade Significance: Technical Grade indicates that this product is manufactured for industrial and laboratory use where performance and consistency are critical, 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	%	95.5	94.5	95.5	GC
Color (APHA)	APHA	6	0	10	APHA
Specific Gravity (20°C)	g/mL	0.8145	0.8125	0.8165	Hydrometer @ 20°C
Non Volatile Residue	mg/100mL	1	0	5	Evaporation
Iron (Fe)	ppm	1	0	—	ICP-MS
Acidity As Acetic	ppm	21	0	30	Titration

Values based on 2 batches tested. ND = Not Detected.

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	0.792	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. **Analytical Chemistry** — Functions as a reliable mobile phase component in reversed-phase chromatography to assist in the precise separation of organic compounds.
2. **Pharmaceutical Manufacturing** — Utilized effectively in the extraction of active pharmaceutical ingredients from various plant materials.
3. **Industrial Cleaning** — Provides powerful degreasing capabilities for maintaining equipment and surface cleanliness in demanding manufacturing environments.
4. **Cosmetics Formulation** — Acts as an essential solvent in the formulation of diverse cosmetic products, ensuring proper consistency and active ingredient distribution.

STORAGE & HANDLING

Due to its flash point of 55 °F, this solvent is highly flammable and must be stored in a cool, well-ventilated area away from ignition sources to prevent fire hazards. Proper containment is essential to prevent vapor accumulation and accidental exposure, which can cause organ damage.

- 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 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

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.