

PRODUCT IDENTIFICATION



Product Name: Denatured Alcohol 190 Proof 3C Technical Grade

CAS Number: 64-17-5

Molecular Formula: C_2H_6O

Molecular Weight: 46.07 g/mol

Grade: Technical Grade

Purity / Concentration: 95%

Synonyms: Ethyl Alcohol, Ethanol

PRODUCT OVERVIEW

Denatured Alcohol 190 Proof 3C Technical Grade is a high-purity solvent featuring a 95% concentration and a very low color profile of 5 APHA. This versatile ethanol formulation is designed for demanding industrial applications requiring consistent chemical performance and reliability.

Grade Significance: Technical Grade indicates that this product is manufactured for industrial use, offering the necessary purity for consistent results in non-food or non-medical applications where laboratory-grade costs are not required.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay Gc	%	95	94.5	95.5	GC
Color (APHA)	APHA	5	—	10	APHA
Specific Gravity (20°C)	g/mL	0.8145	0.8125	0.8165	Hydrometer @ 20°C
Non Volatile Residue	mg/100mL	0.15	0	5	Evaporation
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	0.792	Solubility	Miscible with water and many organic solvents
Molecular Formula	C_2H_6O	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 critical mobile phase component in reversed-phase high-performance liquid chromatography for the accurate separation of organic compounds.
2. **Pharmaceutical Manufacturing** — Used effectively for the extraction of active pharmaceutical ingredients from various plant-based raw materials.
3. **Industrial Maintenance** — Acts as a powerful cleaning and degreasing agent for industrial equipment and manufacturing surfaces where residue-free evaporation is required.
4. **Energy and Fuel** — Incorporated into specialized fuel formulations to improve overall combustion efficiency and performance.

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 heat sources. Proper containment is essential to mitigate fire risks and prevent the accumulation of flammable vapors in the workplace.

- Store in a cool, well-ventilated area away from heat sources and open flames.
- Use containers made of HDPE or glass to prevent chemical reactions.
- Keep away from strong oxidizers and acids to avoid hazardous reactions.
- Ensure proper personal protective equipment (PPE) is worn, including gloves and goggles.
- Avoid exposure to direct sunlight to prevent degradation of the denaturants used.

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

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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