

PRODUCT IDENTIFICATION



Product Name: 75% Vinegar
CAS Number: 64-19-7
Molecular Formula: $C_2H_4O_2$
Molecular Weight: 60.05 g/mol
Grade: Food Grade
Purity / Concentration: 75%
Synonyms: Acetic Acid Solution, Vinegar Concentrate

PRODUCT OVERVIEW

Alliance Chemical offers high-purity 75% Vinegar, a concentrated food-grade acetic acid solution designed for industrial and culinary precision. With a low APHA color rating of 5 and strictly controlled impurity levels, this product provides consistent performance for acidification and preservation needs.

Grade Significance: Food Grade certification ensures that the product meets stringent purity standards and contains no harmful contaminants, making it safe for direct use in food manufacturing processes.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay (Titration)	%	75	74.5	75.5	Titration
Color (APHA/Hazen)	APHA	3	—	10	Spectrophotometry
Specific Gravity (20°C)	g/mL	1.0377	1.0348	1.0407	Hydrometer @ 25°C
Residue On Evaporation	ppm	1	0	50	Evaporation
Water Karl Fischer	%	0.05	—	0.11	Karl Fischer
Iron (Fe)	ppm	≤ 1 ppm	—	—	ICP-MS
Chloride Cl	ppm	≤ 0.75 ppm	—	—	ICP
Sulfate So4	ppm	≤ 0.75 ppm	—	—	ICP
Acid Value	mg KOH/g	ND	0	0.04	Titration
Acidity	%	0.01	—	0.75	Titration
Aldehydes	%	≤ 0.04 %	—	—	Per specification
Distillation Range	—	0.45	—	0.75	Per specification
Free Acid	%	0.02	0	0.08	Titration
Sulfite So3	ppm	≤ 0.75 ppm	—	—	ICP

ND = Not Detected. Values are typical and may vary by lot.

PHYSICAL & CHEMICAL PROPERTIES

Appearance	Clear, viscous liquid with acidic transparency	Odor	Pungent, vinegar-like odor
Form	Liquid	Boiling Point	not characterized for the solution
Melting / Freezing Point	not characterized for the solution	Flash Point	Combustible only; closed cup >100 °C (INEOS/Columbus) — not flammable. (Prior 104 °F was the glacial value.)
Solubility	Fully miscible with water, alcohols	Molecular Formula	C ₂ H ₄ O ₂
Molecular Weight	60.05 g/mol	Vapor Pressure (20°C)	0.5 mmHg
Viscosity (25°C)	1.2 cP	Refractive Index (20°C)	1.373
Density (25°C)	1.05 g/mL		

APPLICATIONS

- Food Processing** — Utilized as a potent preservative to inhibit microbial growth in large-scale pickling and food storage operations.
- Culinary Manufacturing** — Acts as a foundational ingredient for enhancing flavor profiles in commercial dressings, marinades, and complex sauces.
- Food Science** — Provides a reliable method for adjusting pH levels in various food products to ensure stability and safety.
- Industrial Cleaning** — Leveraged for its acidic properties to effectively clean and deodorize food-grade processing equipment and surfaces.

STORAGE & HANDLING

Due to its flash point of 39°C, this solution is classified as a flammable liquid and must be stored in a cool, well-ventilated area away from ignition sources. Proper containment is critical, as the product is corrosive and can cause severe skin burns or eye damage if handled improperly.

- Store in a cool, dry place away from direct sunlight.
- Use containers made of HDPE or glass to prevent chemical reactions.
- Avoid contact with strong bases and oxidizing agents.
- Ensure proper ventilation when handling to minimize inhalation of vapors.
- Wear appropriate personal protective equipment (PPE) such as 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:

- H226: Flammable liquid and vapor [Warning Flammable liquids]
- H314: Causes severe skin burns and eye damage [Danger Skin corrosion/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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