

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 (wt%)	%	75.3	74	76	Titration with NaOH
Color (APHA)	APHA	5	—	10	ASTM D1209
Specific Gravity (20°C)	g/mL	1.07	1.068	1.072	USP <841>
Residue After Ignition	%	0.0020	—	0.01	FCC Method
Heavy Metals (as Pb)	ppm	0.1	—	1	USP <231>
Chloride (Cl^-)	ppm	0.2	—	5	USP <221>
Sulfate (SO_4^{2-})	ppm	0.5	—	10	USP <221>
Appearance	—	Clear, colorless liquid	—	—	Visual

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	39°C (102.2°F)
Solubility	Fully miscible with water, alcohols	Molecular Formula	$C_2H_4O_2$
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

1. **Food Processing** — Utilized as a potent preservative to inhibit microbial growth in large-scale pickling and food storage operations.
2. **Culinary Manufacturing** — Acts as a foundational ingredient for enhancing flavor profiles in commercial dressings, marinades, and complex sauces.
3. **Food Science** — Provides a reliable method for adjusting pH levels in various food products to ensure stability and safety.
4. **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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