

PRODUCT IDENTIFICATION



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

PRODUCT OVERVIEW

Alliance Chemical offers 75% Vinegar, a high-concentration acetic acid solution designed for industrial cleaning and pH adjustment. This Technical Grade product maintains a precise 75% assay and high purity, evidenced by an iron content of ≤ 1 ppm and minimal residue on evaporation.

Grade Significance: Technical Grade indicates that this product is formulated for industrial and commercial performance rather than human consumption, ensuring it meets the rigorous consistency required for manufacturing and maintenance applications.

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	1.0685	1.0665	1.0705	Hydrometer @ 20°C
Residue On Evaporation	ppm	1	0	50	Evaporation
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
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

1. **Agriculture and Landscaping** — Utilized as a fast-acting contact herbicide to effectively control weeds, moss, and algae on hardscapes and pathways.
2. **Industrial Maintenance** — Functions as a powerful descaling agent to remove stubborn mineral scale, rust, and hard-water deposits from processing equipment and storage tanks.
3. **Water Treatment** — Acts as an efficient, low-cost acid source for lowering pH levels in industrial wastewater treatment processes.
4. **Facility Management** — Provides a reliable solution for heavy-duty cleaning and deodorizing of industrial surfaces due to its potent acidic properties.

STORAGE & HANDLING

Proper storage is essential to prevent degradation and manage the inherent risks of this corrosive liquid. Because the solution causes severe skin burns and eye damage, it must be kept in a secure, well-ventilated area to protect personnel and maintain chemical integrity.

- 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:

- H314: Causes severe skin burns and eye damage

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.

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.