

PRODUCT IDENTIFICATION



Product Name: 30% Vinegar - Concentrated Industrial Strength

CAS Number: 64-19-7

Molecular Formula: $C_2H_4O_2$

Molecular Weight: 60.05 g/mol

Grade: Technical Grade

Purity / Concentration: 30%

Synonyms: Acetic Acid 30%, Industrial Vinegar

PRODUCT OVERVIEW

Alliance Chemical offers high-quality 30% Industrial Strength Vinegar, a technical grade acetic acid solution characterized by its precise 30% assay and low impurity profile. This clear, colorless liquid is engineered for consistent performance in industrial applications requiring effective pH regulation and mineral dissolution.

Grade Significance: Technical Grade indicates that this product is manufactured to meet specific industrial performance standards, ensuring the reliability needed for manufacturing and processing applications where high-purity laboratory standards are not required.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay (Titration)	%	30	29.5	30.5	Titration
Color (APHA/Hazen)	APHA	3	—	10	Spectrophotometry
Specific Gravity (20°C)	g/mL	1.039	1.037	1.041	Hydrometer @ 20°C
Residue On Evaporation	ppm	15	0	50	Evaporation
Chloride Cl	ppm	≤ 0.3 ppm	—	—	ICP
Sulfate So4	ppm	≤ 0.6 ppm	—	—	ICP
Acid Value	mg KOH/g	≤ 0.02 mg KOH/g	—	—	Titration
Acidity	%	0.01	—	0.3	Titration
Aldehydes	%	≤ 0.02 %	—	—	Per specification
Free Acid	%	0.01	0	0.05	Titration
Sulfite So3	ppm	≤ 0.3 ppm	—	—	ICP

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

PHYSICAL & CHEMICAL PROPERTIES

Appearance	Clear colorless liquid	Odor	Pungent, vinegar-like odor
Form	Liquid	Boiling Point	Not characterized for the 30% solution
Melting / Freezing Point	Not characterized for the 30% solution	Flash Point	104 °F (NTP, 1992)
Specific Gravity	1.039	Solubility	Fully water soluble
Molecular Formula	C ₂ H ₄ O ₂	Molecular Weight	60.05 g/mol
Vapor Pressure (20°C)	15 mmHg	Viscosity (25°C)	1.2 cP
Refractive Index (20°C)	1.373	Density (25°C)	1.01 g/mL

APPLICATIONS

- 1. Water Treatment** — This product is utilized to effectively lower pH levels in industrial water systems to maintain chemical balance and prevent scaling.
- 2. Food Processing** — It acts as a reliable preservative in food products, utilizing its controlled acidity to inhibit microbial growth and ensure product stability.
- 3. Chemical Synthesis** — The product serves as a vital solvent in various chemical synthesis processes, facilitating reactions that require a stable acidic medium.
- 4. Industrial Cleaning** — It is a key ingredient in heavy-duty cleaning formulations, highly effective at dissolving stubborn mineral deposits and lime scale from industrial equipment.

STORAGE & HANDLING

Proper storage is critical because this 30% acetic acid solution is classified as hazardous and can cause severe skin burns and eye damage. Containers must be kept in a cool, well-ventilated area away from incompatible substances to prevent dangerous reactions and ensure the long-term integrity of the chemical.

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

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.

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