

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

Purity / Concentration: 30%

Synonyms: Acetic Acid 30%, Industrial Vinegar

PRODUCT OVERVIEW

Alliance Chemical offers 30% Concentrated Industrial Strength Vinegar, a high-purity Technical grade acetic acid solution. With a precise 30.1% assay and low impurity levels, including non-detected heavy metals, this clear liquid is engineered for consistent performance in demanding industrial applications.

Grade Significance: Technical grade signifies that the product is manufactured to meet industrial performance standards, providing a balance of high purity and cost-effectiveness for non-pharmaceutical applications.

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	1.0139	1.0109	1.0169	Hydrometer @ 25°C
Residue On Evaporation	ppm	15	0	50	Evaporation
Water Karl Fischer	%	0.02	—	0.05	Karl Fischer
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
Distillation Range	—	0.18	—	0.3	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** — Utilized as an effective pH adjuster to neutralize alkalinity in various aqueous systems and wastewater processes.
- 2. Food Processing** — Functions as a reliable preservative and acidulant, helping to maintain shelf stability and microbial control in food products.
- 3. Chemical Manufacturing** — Serves as a versatile solvent and reagent in diverse chemical synthesis pathways and organic manufacturing.
- 4. Industrial Cleaning** — Employed in heavy-duty cleaning formulations for its superior ability to dissolve stubborn mineral deposits and scale.

STORAGE & HANDLING

Proper storage is critical because this product is a flammable liquid with a flash point of 39°C and can cause severe skin and eye burns. It must be kept in a cool, well-ventilated area away from heat sources and incompatible materials to prevent hazardous vapor buildup and accidental exposure.

- 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:

- 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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