

PRODUCT IDENTIFICATION



Product Name: 30% Vinegar - Concentrated Industrial Strength

CAS Number: 64-19-7

Molecular Formula: C₂H₄O₂

Molecular Weight: 60.05 g/mol

Grade: Laboratory Grade

Purity / Concentration: 30%

Synonyms: Acetic Acid 30%, Industrial Vinegar

PRODUCT OVERVIEW

Alliance Chemical's 30% Vinegar is a Laboratory Grade, concentrated acetic acid solution. This clear, colorless liquid boasts an assay of 30.1% and a low APHA color of 5, ensuring high purity. Primarily used to lower pH levels in water treatment and as a versatile solvent, this industrial vinegar is essential for various applications.

Grade Significance: Laboratory Grade indicates that this 30% Vinegar meets stringent quality standards suitable for laboratory use. This ensures minimal impurities and consistent performance in research, analysis, and other critical applications.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay (wt%)	%	30.1	29	31	Titration with NaOH
Color (APHA)	APHA	5	—	10	ASTM D1209
Specific Gravity (20°C)	g/mL	1.041	1.038	1.044	ASTM D4052
Residue After Ignition	%	0.0010	—	0.0050	USP <281>
Heavy Metals (as Pb)	ppm	ND	—	1	ICP-OES
Iron (Fe)	ppm	0.1	—	1	ICP-OES
Chloride (Cl ⁻)	ppm	1	—	5	ASTM D512
Sulfate (SO ₄ ²⁻)	ppm	2	—	10	ASTM D516

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	118°C (244°F)
Melting / Freezing Point	16°C (61°F)	Flash Point	39°C (102°F)
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** — 30% Vinegar is highly effective at lowering pH levels in water systems. This is crucial for optimizing chemical reactions, controlling scale formation, and ensuring compliance with environmental regulations.
2. **Food Preservation** — Due to its acidity, 30% Vinegar acts as a potent preservative in food products. It inhibits the growth of spoilage microorganisms, extending shelf life and maintaining product quality.
3. **Chemical Synthesis** — 30% Vinegar serves as a versatile solvent and reagent in various chemical synthesis processes. Its controlled acidity and purity make it ideal for reactions requiring specific pH conditions.
4. **Cleaning Formulations** — The ability of 30% Vinegar to dissolve mineral deposits makes it a valuable component in cleaning formulations. It effectively removes limescale, rust stains, and other mineral-based residues from surfaces.
5. **Textile Industry** — In the textile industry, 30% Vinegar can be used as a mordant to help dyes bind to fabrics. This ensures colorfastness and enhances the vibrancy of dyed materials.
6. **Agriculture** — 30% Vinegar can be used to control weeds and adjust soil pH in agricultural settings. Its natural acidity provides an environmentally friendly alternative to harsh chemical herbicides.

STORAGE & HANDLING

Proper storage of 30% Vinegar is crucial to maintain its quality and prevent hazards. As a flammable liquid, it should be stored in a cool, well-ventilated area away from heat, sparks, and open flames. Additionally, given its corrosive nature, it should be kept in tightly sealed containers to prevent leaks and potential skin or eye damage.

- 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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