

PRODUCT IDENTIFICATION



Product Name: 75% Diluted Acetic Acid Food Grade

CAS Number: 64-19-7

Molecular Formula: $C_2H_4O_2$

Molecular Weight: 60.05 g/mol

Grade: Food Grade

Purity / Concentration: 75%

Synonyms: Vinegar Concentrate, Acetic Acid Solution

PRODUCT OVERVIEW

Alliance Chemical offers high-purity 75% Diluted Acetic Acid, a premium food-grade solution essential for professional culinary manufacturing. With a strictly controlled impurity profile, including iron levels at or below 1 ppm and minimal heavy metal content, this reagent ensures consistent performance in flavor enhancement and microbial preservation.

Grade Significance: Food Grade designation guarantees that this acetic acid meets rigorous purity standards and safety regulations, ensuring it is free from harmful contaminants unsuitable for human consumption.

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
Arsenic Antimony As As	ppm	0.5	0	1	ICP-MS
Iron (Fe)	ppm	≤ 1 ppm	—	—	ICP-MS
Lead Pb	ppm	0.2	0	0.5	ICP-MS
Chloride Cl	ppm	≤ 0.75 ppm	—	—	ICP
Sulfate So4	ppm	≤ 0.75 ppm	—	—	ICP
Acid Value	mg KOH/g	0.01	0	0.04	Titration
Acidity	%	0.04	—	0.75	Titration
Aldehydes	%	≤ 0.04 %	—	—	Per specification
Mercury Hg	ppm	0.05	0	0.1	ICP-MS
Sulfite So3	ppm	0.68	—	0.75	ICP

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

PHYSICAL & CHEMICAL PROPERTIES

Appearance	Clear, colorless liquid	Odor	Pungent, vinegar-like odor
Boiling Point	118-120°C	Flash Point	11°C (52°F)
Specific Gravity	~1.06	Solubility	Miscible in water
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)	1.371	Density (25°C)	1.05 g/mL

APPLICATIONS

1. **Food Preservation** — Acts as a potent antimicrobial agent to extend the shelf life of various food products by inhibiting the growth of spoilage-causing bacteria.
2. **Condiment Manufacturing** — Used as a core ingredient in dressings, marinades, and sauces to provide the necessary tartness and acidic profile for balanced flavor.
3. **Commercial Pickling** — Serves as an essential component in pickling brines, ensuring the correct pH levels for both flavor development and safe, long-term preservation.
4. **Food Processing** — Utilized by food scientists and production managers to precisely adjust the acidity levels of bulk food batches to meet strict recipe standards.

STORAGE & HANDLING

Due to its combustible nature and potential to cause severe skin and eye burns, this acid must be stored in a cool, well-ventilated area away from incompatible materials. Proper containment prevents the release of hazardous vapors and ensures the integrity of the chemical, protecting both your facility and your personnel.

- Store in a cool, dry place away from direct sunlight.
- Use materials compatible with acetic acid, such as HDPE or glass containers.
- Avoid contact with strong oxidizing agents and bases.
- Ensure proper ventilation in storage areas to prevent vapor accumulation.
- Wear appropriate personal protective equipment (PPE) when handling.

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:

- H227: Combustible liquid
- H312: Harmful in contact with skin
- H314: Causes severe skin burns and eye damage
- H402: Harmful to aquatic life

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.