

PRODUCT IDENTIFICATION



Product Name: 5% 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: 5%

Synonyms: Vinegar, Acetic Acid Solution

PRODUCT OVERVIEW

Alliance Chemical offers high-quality 5% Diluted Acetic Acid in a food-grade concentration, ensuring a clean, colorless, and consistent solution for your production needs. With a precise assay of 5% and stringent impurity controls, such as lead levels capped at 0.2 ppm, this product is ideal for food preservation and flavor enhancement.

Grade Significance: Food grade certification guarantees that the product meets strict purity standards and is manufactured in facilities that minimize the risk of contamination, ensuring it is safe for human consumption.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay (Titration)	%	5	4.7	5.3	Titration
Color (APHA/Hazen)	APHA	3	—	10	Spectrophotometry
pH	—	2.42	2.32	2.52	pH Meter
Specific Gravity (20°C)	g/mL	1.0067	1.0047	1.0087	Hydrometer @ 20°C
Residue On Evaporation	ppm	15	0	50	Evaporation
Arsenic Antimony As As	ppm	0.5	0	1	ICP-MS
Lead Pb	ppm	0.2	0	0.5	ICP-MS
Chloride Cl	ppm	≤ 0.05 ppm	—	—	ICP
Sulfate So4	ppm	≤ 0.05 ppm	—	—	ICP
Acidity	%	≤ 0.01 %	—	—	Titration
Mercury Hg	ppm	0.05	0	0.1	ICP-MS
Sulfite So3	ppm	≤ 0.05 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	100°C (212°F)
Flash Point	11°C (52°F)	Specific Gravity	~1.01
Solubility	Completely soluble 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)	1.0 cP	Refractive Index (20°C)	1.373
Density (25°C)	1.005 g/mL		

APPLICATIONS

- Food Processing** — This product acts as a reliable preservative in pickling and vegetable storage to effectively inhibit unwanted microbial growth.
- Culinary Production** — It is commonly integrated into salad dressings and marinades to provide a consistent acidic profile and enhance flavor depth.
- Food Chemistry** — Food manufacturers use this solution to precisely adjust the pH levels of products, ensuring both shelf stability and optimal taste profiles.
- Industrial Cleaning** — The mild acidity of this solution makes it an effective, food-safe component in cleaning formulations for production equipment.

STORAGE & HANDLING

Proper storage is critical because this chemical is classified as a danger due to its potential to cause severe skin burns and eye damage. It must be stored in a cool, well-ventilated area away from incompatible substances to maintain its purity and ensure a safe working environment for your team.

- 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 oxidizing agents and bases.
- Ensure proper ventilation when handling to minimize inhalation risks.
- 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.