

PRODUCT IDENTIFICATION



Product Name: 5% Diluted Acetic Acid Food Grade

CAS Number: 64-19-7

Molecular Formula: Not Available

Molecular Weight: 60.05 g/mol

Grade: Food Grade

Purity / Concentration: Not Available

Synonyms: Vinegar, Acetic Acid Solution

PRODUCT OVERVIEW

Our 5% Diluted Acetic Acid Food Grade is a clear, colorless liquid ideal for various food-related applications. This solution boasts a high purity, as evidenced by its low residue after ignition (0.0010 %) and minimal heavy metal content (0.05 ppm as Pb). It is primarily used as a preservative and flavor enhancer in the food industry.

Grade Significance: The 'Food Grade' designation signifies that this acetic acid meets stringent purity standards and is safe for use in food-related applications. It assures end-users that the product has been manufactured and handled in accordance with regulations designed to prevent contamination and ensure consumer safety.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay (wt%)	%	5.05	4.8	5.2	Titration with NaOH
Color (APHA)	APHA	5	—	10	ASTM D1209
Specific Gravity (20°C)	g/mL	1.003	—	—	USP <841>
Residue After Ignition	%	0.0010	—	0.01	FCC Method
Heavy Metals (as Pb)	ppm	0.05	—	1	ICP-MS
Chloride (Cl ⁻)	ppm	0.1	—	1	Ion Chromatography
Sulfate (SO ₄ ²⁻)	ppm	0.2	—	5	Ion Chromatography
Aldehydes As Hcho	ppm	0.1	—	5	Spectrophotometry
Formic Acid	ppm	1	—	10	HPLC

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)	Solubility	Completely soluble in water
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

1. **Food Preservation** — Acetic acid acts as an effective preservative in pickling and food storage. Its acidity inhibits the growth of spoilage microorganisms, extending the shelf life of products.
2. **Food Flavoring** — Commonly used in salad dressings, sauces, and marinades, acetic acid enhances flavor profiles by providing a tangy or sour taste.
3. **pH Adjustment** — Acetic acid is utilized to adjust the acidity of food products. This adjustment ensures stability, proper texture, and desired taste characteristics.
4. **Cleaning Solutions** — Due to its mild acidity, acetic acid is used in various cleaning solutions. It effectively removes mineral deposits and grime from surfaces.
5. **Beverage Production** — In some beverage applications, acetic acid is used in controlled amounts to contribute to the overall flavor profile and stability of the final product.
6. **Dairy Processing** — Acetic acid can be used in certain dairy processes, such as cheese making, to aid in curd formation and flavor development.

STORAGE & HANDLING

Proper storage is crucial for 5% Diluted Acetic Acid Food Grade to maintain its quality and prevent hazards. As a flammable liquid, it should be stored in a cool, well-ventilated area away from heat sources and ignition points to mitigate fire risks. Adhering to recommended storage conditions minimizes the risk of degradation and ensures the product remains safe and effective for its intended use.

- 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:

- 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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