

PRODUCT IDENTIFICATION



Product Name: 20% 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: 20%

Synonyms: Vinegar Concentrate, Acetic Acid Solution

PRODUCT OVERVIEW

Alliance Chemical offers 20% Diluted Acetic Acid in Food Grade, a versatile solution serving as a high-purity acidulant and preservative. With a precise assay of 20.1% and minimal impurities, this clear, colorless liquid is ideal for rigorous food production standards.

Grade Significance: Food Grade certification ensures the product meets strict purity standards and is manufactured in facilities that adhere to food safety regulations, guaranteeing it is safe for human consumption when used as directed.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay (Titration)	%	20	19.5	20.5	Titration
Color (APHA/Hazen)	APHA	3	—	10	Spectrophotometry
pH	—	2.1	2	2.2	pH Meter
Specific Gravity (20°C)	g/mL	1.026	1.024	1.028	Hydrometer @ 25°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	≤ 0.2 ppm	—	—	ICP
Sulfate So4	ppm	≤ 0.2 ppm	—	—	ICP
Mercury Hg	ppm	0.05	0	0.1	ICP-MS
Sulfite So3	ppm	0.18	—	0.2	ICP

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

PHYSICAL & CHEMICAL PROPERTIES

Appearance	Clear, colorless liquid	Odor	Pungent, vinegar-like
Boiling Point	100°C (212°F)	Flash Point	11°C (52°F)
Solubility	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)	1.2 cP	Refractive Index (20°C)	1.373
Density (25°C)	1.05 g/mL	Partition Coefficient (log P)	0.3
Decomposition Temp.	Not applicable		

APPLICATIONS

- Food Processing** — Used as a preservative to inhibit microbial growth and extend the shelf life of various food products.
- Culinary Production** — Commonly used to enhance flavor profiles in dressings, sauces, and marinades.
- Beverage Manufacturing** — Utilized to adjust acidity levels in food and beverage products to ensure optimal taste and stability.
- Commercial Sanitation** — Serves as an effective and natural cleaning agent for maintaining kitchen surfaces and food processing equipment.

STORAGE & HANDLING

Because this product has a flash point of 11°C, it is classified as a flammable liquid and must be stored in a cool, well-ventilated area away from ignition sources. Proper containment is essential to prevent the release of vapors and to avoid the severe skin and eye damage associated with direct contact.

- 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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