

PRODUCT IDENTIFICATION



Product Name: Acetic Acid Glacial Technical

CAS Number: 64-19-7

Molecular Formula: $C_2H_4O_2$

Molecular Weight: 60.05 g/mol

Grade: Technical Grade

Purity / Concentration: 100%

Synonyms: Ethanoic Acid, Vinegar Acid

PRODUCT OVERVIEW

Acetic Acid Glacial Technical is a high-purity, 99.7% concentrated liquid essential for various industrial and chemical manufacturing processes. It is characterized by its exceptionally low impurity profile, including heavy metals and chloride levels at or below 1 ppm, making it a reliable reagent for diverse applications.

Grade Significance: Technical Grade ensures that the product meets specific industrial purity standards, providing consistent performance for non-pharmaceutical manufacturing and chemical processing needs.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay (Titration)	%	99.7	99.2	100.2	Titration
Color (APHA/Hazen)	APHA	3	—	10	Spectrophotometry
Specific Gravity (20°C)	g/mL	1.051	1.048	1.053	Hydrometer @ 20°C
Non Volatile Residue	mg/100mL	≤ 2 mg/100mL	—	—	Evaporation
Non-Volatile Residue	%	0.0001	0	0.05	Residue on Ignition
Water Karl Fischer	%	0.05	—	0.15	Karl Fischer
Heavy Metals As Pb	ppm	≤ 1 ppm	—	—	ICP-MS (as Pb)
Iron (Fe)	ppm	ND	—	1	ICP-MS
Chloride Cl	ppm	≤ 1 ppm	—	—	ICP
Sulfate So4	ppm	≤ 1 ppm	—	—	ICP
Acid Value	mg KOH/g	≤ 0.1 mg KOH/g	—	—	Titration
Acidity	%	0.07	—	0.15	Titration
Aldehydes	%	ND	—	0.05	Per specification
Distillation Range Width	°C	0.6	—	1	ASTM D1078
Stability Available Oxygen	%	16.4	2	—	Stability Test
Sulfite So3	ppm	≤ 1 ppm	—	—	ICP

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

PHYSICAL & CHEMICAL PROPERTIES

Appearance	Clear, colorless liquid	Odor	Pungent, vinegar-like
Form	Liquid	Boiling Point	244 °F at 760 mmHg (NTP, 1992)
Melting / Freezing Point	61.9 °F (NTP, 1992)	Flash Point	104 °F (NTP, 1992)
Solubility	Highly water soluble	Molecular Formula	C ₂ H ₄ O ₂
Molecular Weight	60.05 g/mol	Vapor Pressure (20°C)	11 mmHg
Viscosity (25°C)	1.2 cP	Refractive Index (20°C)	1.371
Density (25°C)	1.049 g/mL		

APPLICATIONS

- 1. Water Treatment** — Used effectively to adjust and stabilize pH levels within industrial water treatment systems to maintain process efficiency.
- 2. Chemical Manufacturing** — Serves as a versatile solvent and reactive intermediate in the synthesis of complex organic compounds.
- 3. Food Industry** — Utilized as a high-quality preservative and flavoring agent in the production of various food products.
- 4. Laboratory Analysis** — Functions as a critical reagent for chemical testing and analytical procedures where consistent purity is required.

STORAGE & HANDLING

Due to its classification as a flammable liquid and its potential to cause severe burns, this acid must be stored in a cool, well-ventilated area away from ignition sources. Proper containment is critical to prevent hazardous exposure and ensure the integrity of the chemical remains stable for long-term use.

- Store in a cool, dry, well-ventilated area away from incompatible materials.
- Use containers made of HDPE or glass to avoid reactions.
- Keep away from strong oxidizers and bases to prevent hazardous reactions.
- Ensure proper PPE, including gloves and goggles, is worn when handling.
- Avoid exposure to light and heat to maintain product stability.

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 vapour
- 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.