

PRODUCT IDENTIFICATION



Product Name: Ethyl Acetate ACS

CAS Number: 141-78-6

Molecular Formula: C₄H₈O₂

Molecular Weight: 88.11 g/mol

Grade: ACS Grade

Purity / Concentration: Not Available

Synonyms: Ethyl Ethanoate, Acetic Ether

PRODUCT OVERVIEW

Ethyl Acetate ACS Grade is a high-purity, volatile solvent characterized by its 99.8% assay and extremely low impurity profile, including just 0.01% water content. This clear, colorless liquid is essential for critical laboratory and industrial applications where precision and chemical consistency are paramount.

Grade Significance: ACS Grade signifies that this chemical meets the rigorous standards set by the American Chemical Society, ensuring it is suitable for sensitive analytical and laboratory use where minimal impurity interference is required.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay (wt%)	%	99.8	99.5	—	GC-FID
Color (APHA)	APHA	5	—	10	ASTM D1209
Specific Gravity (20°C)	g/mL	0.9	0.898	0.901	USP <841>
Residue After Ignition	%	0.0005	—	0.0010	Gravimetric
Water Content	%	0.01	—	0.05	Karl Fischer Titration
Heavy Metals (as Pb)	ppm	0.1	—	1	ICP-MS
Iron (Fe)	ppm	0.05	—	0.2	ICP-MS
Chloride (Cl ⁻)	ppm	0.1	—	1	Ion Chromatography
Sulfate (SO ₄ ²⁻)	ppm	0.2	—	1	Ion Chromatography
Substances Darkened By Sulfuric Acid	—	Passes Test	—	—	Visual
Acidity As Acetic Acid	%	0.0010	—	0.0050	Titration

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

PHYSICAL & CHEMICAL PROPERTIES

Appearance	Colorless, volatile liquid with a characteristic ester-like odor	Odor	Sweet, fruity odor
Form	Liquid	Boiling Point	77°C (170.6°F)
Melting / Freezing Point	-84°C (-119.2°F)	Flash Point	-4°C (24.8°F)
Specific Gravity	0.902	Solubility	Soluble in water, alcohol, ether, and most organic solvents
Molecular Formula	C ₄ H ₈ O ₂	Molecular Weight	88.11 g/mol
Vapor Pressure (20°C)	97 mmHg	Viscosity (25°C)	0.45 cP
Refractive Index (20°C)	1.372	Density (25°C)	0.897 g/mL

APPLICATIONS

- Analytical Chemistry** — Functions as a high-performance mobile phase component in chromatography for the accurate separation and analysis of complex organic compounds.
- Pharmaceutical Manufacturing** — Used as a high-purity solvent for the extraction and purification of active pharmaceutical ingredients to ensure final product integrity.
- Coatings and Adhesives** — Acts as an effective solvent in paint and adhesive formulations, providing a controlled evaporation rate for superior surface finishes.
- Industrial Cleaning** — Employed as a precision cleaning agent to remove stubborn residues and contaminants from sensitive manufacturing equipment.

STORAGE & HANDLING

Due to its low flash point of -4°C, Ethyl Acetate is highly flammable and must be stored in a cool, well-ventilated area away from heat sources and ignition points. Maintaining proper storage conditions is critical to prevent the buildup of flammable vapors and to preserve the solvent's high purity and low moisture content.

- Store in a cool, well-ventilated area away from heat sources and open flames.
- Use containers made of HDPE or glass to prevent chemical reactions.
- Avoid contact with strong oxidizing agents and strong acids.
- Keep container tightly closed when not in use to minimize evaporation.
- Use appropriate personal protective equipment (PPE) including gloves and goggles when handling.

AVAILABLE PACKAGING

- 1 Quart
- 1 Gallon
- 5 Gallon
- 55 Gallon

SAFETY SUMMARY (CROSS-REFERENCE TO SDS)

Signal Word: **Danger**



Hazard Statements:

- H225: Highly Flammable liquid and vapor [Danger Flammable liquids]
- H319: Causes serious eye irritation [Warning Serious eye damage/eye irritation]
- H336: May cause drowsiness or dizziness [Warning Specific target organ toxicity, single exposure; Narcotic effects]

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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