TECHNICAL DATA SHEET

Amyl Acetate

Revised: 02/20/2026

PRODUCT IDENTIFICATION

Product Name: Amyl Acetate
CAS Number: 123-92-2
Molecular Formula: $C_7H_{14}O_2$
Molecular Weight: 130.18 g/mol
Grade: Laboratory Grade
Purity / Concentration: 100%
Synonyms: Pentyl Acetate, Amyl Ethanoate

PRODUCT OVERVIEW

Alliance Chemical's Laboratory Grade Amyl Acetate is a high-purity (99.6% assay) solvent characterized by its clear, colorless appearance and fruity banana odor. Primarily used as a solvent in paints, varnishes, and coatings, it offers consistent performance for laboratory and industrial applications. Its low Color (2 APHA) makes it suitable where color contamination is a concern.

Grade Significance: Laboratory Grade Amyl Acetate signifies a high level of purity and quality control, making it suitable for research, analysis, and other applications where consistent and reliable results are essential. This grade ensures minimal interference from impurities, providing confidence in experimental outcomes.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay (wt%)	%	99.6	99	100.5	Titration with standardized NaOH
Color (APHA)	APHA	2	—	5	APHA/Hazen visual comparison
Specific Gravity (20°C)	g/mL	0.874	0.871	0.877	Hydrometer or pycnometer at 20°C
Residue After Ignition	%	0.05	—	0.1	Gravimetric residue after evaporation/ignition
Water Content	%	0.1	—	0.5	Karl Fischer titration
Aluminum (Al)	ppm	0.2	—	1	ICP-OES
Arsenic (As)	ppm	0.0050	—	0.01	ICP-MS
Calcium (Ca)	ppm	0.5	—	2	ICP-OES
Chromium (Cr)	ppm	0.1	—	0.5	ICP-OES
Cobalt (Co)	ppm	0.1	—	0.5	ICP-OES
Copper (Cu)	ppm	0.05	—	0.2	ICP-OES
Heavy Metals (as Pb)	ppm	0.1	—	0.5	ICP-MS
Iron (Fe)	ppm	0.05	—	0.2	ICP-OES or ICP-MS
Lead (Pb)	ppm	0.1	—	0.5	ICP-MS
Magnesium (Mg)	ppm	1	—	5	ICP-OES
Manganese (Mn)	ppm	0.1	—	0.5	ICP-OES
Nickel (Ni)	ppm	0.1	—	0.5	ICP-OES
Potassium (K)	ppm	1	—	5	ICP-OES
Sodium (Na)	ppm	1	—	5	ICP-OES
Zinc (Zn)	ppm	0.2	—	1	ICP-OES
Ammonium (NH_4^+)	ppm	1	—	5	Ion Chromatography (IC)
Chloride (Cl^-)	ppm	1	—	2	Ion Chromatography (IC) or ICP-OES after appropriate digestion
Nitrate (NO_3^-)	ppm	2	—	5	Ion Chromatography (IC)
Phosphate (PO_4^{3-})	ppm	2	—	5	Ion Chromatography (IC)
Sulfate (SO_4^{2-})	ppm	4	—	10	Ion Chromatography (IC)
Substances Darkened by H_2SO_4	—	Passes test	—	—	Colorimetric overlay with sulfuric acid
Substances Reducing $KMnO_4$	—	Passes test	—	—	Potassium permanganate time test
Acidity (meq)	meq	0.05	—	0.2	Acidity by titration (standardized NaOH)
Aldehydes	ppm	2	—	10	DNPH colorimetric assay or GC

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

PHYSICAL & CHEMICAL PROPERTIES

Appearance	Clear, colorless liquid with fruity banana odor	**Odor**	Fruity, similar to banana
Form	Liquid	**Boiling Point**	142°C (288°F)
Melting / Freezing Point	-79°C (-110°F)	**Flash Point**	43°C (109°F)
Solubility	Low water solubility, high organic solvent comp...	**Molecular Formula**	$C_7H_{14}O_2$
Molecular Weight	130.18 g/mol	**Vapor Pressure (20°C)**	9.5 mmHg
Viscosity (25°C)	0.89 cP	**Refractive Index (20°C)**	1.397
Density (25°C)	0.874 g/mL	**Decomposition Temp.**	Not readily decomp. under 150°C; stable under ambient conditions

APPLICATIONS

1. **Paints, Varnishes, and Coatings** — Amyl Acetate serves as an effective solvent for resins and other components, contributing to the desired viscosity and application properties of paints, varnishes, and coatings. Its controlled evaporation rate aids in achieving smooth and even finishes.
2. **Food and Beverage** — Due to its fruity aroma, Amyl Acetate is utilized as a flavoring agent in various food products, particularly in confectionery and baked goods. It provides a distinct banana-like flavor profile.
3. **Pharmaceuticals** — Amyl Acetate functions as a solvent for extracting active pharmaceutical ingredients (APIs) from natural sources or reaction mixtures. Its selectivity and compatibility with various compounds make it suitable for pharmaceutical processing.
4. **Chemical Synthesis** — As a versatile solvent and reagent, Amyl Acetate acts as an intermediate in the synthesis of various organic compounds. It participates in esterification and other reactions, facilitating the production of diverse chemical products.
5. **Laboratory Analysis** — Amyl Acetate is used as a solvent in various analytical techniques, such as chromatography and spectroscopy, for sample preparation and analysis. Its high purity ensures accurate and reliable results.
6. **Fragrances** — Amyl Acetate is used as a fragrance component in perfumes and other scented products, contributing a fruity and sweet note to the overall aroma. Its volatility allows for a pleasant and lasting scent experience.

STORAGE & HANDLING

Proper storage of Amyl Acetate is crucial to maintain its purity and prevent degradation. As a flammable liquid, it should be stored in a cool, dry, and well-ventilated area away from heat, sparks, and open flames (H226). This minimizes the risk of fire and ensures the chemical remains stable for its intended use.

- Store in a cool, dry place away from heat sources and open flames.
- Use containers made of HDPE or glass to avoid chemical reactions.
- Ensure proper ventilation in storage areas to prevent vapor accumulation.
- Avoid contact with strong oxidizing agents and acids.
- Wear appropriate personal protective equipment (PPE) including gloves and goggles when handling.

AVAILABLE PACKAGING

- 1 Quart
- 1 Gallon
- 5 Gallon
- 15 Gallon
- 55 Gallon
- 275 Gallon
- 330 Gallon

SAFETY SUMMARY (CROSS-REFERENCE TO SDS)

Signal Word: Warning

Hazard Statements:

- H226: Flammable liquid and vapor [Warning Flammable liquids]

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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