

PRODUCT IDENTIFICATION



Product Name: Tert Butyl Acetate (TBA)

CAS Number: 540-88-5

Molecular Formula: C₆H₁₂O₂

Molecular Weight: 116.16 g/mol

Grade: Technical

Purity / Concentration: 100%

Synonyms: Tert-Butyl Acetate, TBA

PRODUCT OVERVIEW

Tert-Butyl Acetate (TBA) is a high-purity, technical-grade solvent characterized by its clear, mobile liquid form and exceptional solvency. With a 99.8% assay and extremely low moisture content of 0.02%, this product offers consistent performance for industrial applications requiring precise chemical stability.

Grade Significance: Technical grade indicates that this product is manufactured to meet rigorous industrial standards, providing a reliable and cost-effective solution for large-scale manufacturing and processing applications.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Purity Gc	%	99.75	99.5	100.0	GC/Titration
Color (APHA)	APHA	3.5	0	10	APHA
Specific Gravity (20°C)	g/mL	0.86 – 0.875 g/mL	—	—	Hydrometer @ 25°C
Non-Volatile Residue	%	≤ 0.002 %	—	—	Residue on Ignition
Water Karl Fischer	%	0.015	—	0.1	Karl Fischer
Acidity As Acetic	%	0.02	0	0.1	Titration per ACS/USP

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

PHYSICAL & CHEMICAL PROPERTIES

Appearance	Clear, mobile liquid	Odor	Sweet, fruity odor
Form	Liquid	Boiling Point	208 °F at 760 mmHg (USCG, 1999)
Melting / Freezing Point	-5°C	Flash Point	72 °F (NIOSH, 2024)
Specific Gravity	0.862	Solubility	Low water solubility, excellent organic solvent
Molecular Formula	C ₆ H ₁₂ O ₂	Molecular Weight	116.16 g/mol
Vapor Pressure (20°C)	30 mmHg	Viscosity (25°C)	0.56 cP
Refractive Index (20°C)	1.394	Density (25°C)	0.874 g/mL

APPLICATIONS

1. **Paints and Coatings** — TBA acts as a high-performance solvent that helps achieve optimal film formation and leveling in various coating formulations.
2. **Adhesives** — It serves as an effective carrier solvent in adhesive production, ensuring consistent bonding properties and drying times across materials.
3. **Printing Inks** — TBA is utilized to adjust ink viscosity, providing the necessary flow characteristics for high-quality printing applications.
4. **Chemical Processing** — The solvent is frequently employed in extraction processes to isolate specific compounds from complex mixtures with high efficiency.

STORAGE & HANDLING

Due to its low flash point of 11°C, Tert-Butyl Acetate is classified as a highly flammable liquid that requires storage in a cool, well-ventilated area away from ignition sources. Maintaining proper containment prevents the accumulation of hazardous vapors and ensures the integrity of the chemical by preventing contamination from moisture or air.

- Store in a cool, well-ventilated area away from heat sources.
- Use containers made of HDPE or glass to prevent chemical reactions.
- Avoid contact with strong oxidizing agents and acids.
- Ensure proper personal protective equipment (PPE) is worn, including gloves and goggles.
- Keep away from direct sunlight to prevent degradation.

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]

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.

Alliance Chemical | 204 South Edmond St, Taylor, Texas 76574 | 512-365-6838 | www.alliancechemical.com

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.