



ASTM D3606 Standards

For use with Gas Chromatography

Conostan ASTM D3606 standards are engineered for laboratories and refineries that need defensible, audit-ready results for benzene and toluene in finished motor and aviation gasolines by gas chromatography (GC). As benzene is a regulated carcinogen and aromatic content directly affects emissions and fuel quality; refiners, blenders, and testing laboratories are legally required to verify these compounds against permitted limits. Therefore, the standards they rely on must be beyond question.

Running ASTM D3606 reliably demands more than a calibration standard. Labs must confirm system performance, validate peak resolution, manage internal standards, and keep the GC operating cleanly between samples. **AnalytiChem** supplies every standard you need across the complete D3606 workflow – 19 products spanning calibration, quality control, internal standards, and system suitability – all under the trusted Conostan brand, from a single source.

Calibrate – Kits for Calibration

Seven-point calibration curve kits in 2 mL format with standardized Benzene and Toluene levels. Choose from internal-standard-included options for speed, or no-IS kits for laboratories that manage their own internal standard addition. Ethanol levels from 0 % to 10 % and a choice of 2-Butanol, MEK, or MIBK internal standards ensure the correct kit is matched to every blend type and procedure variant.

Standard Compositions

	Std. 1	Std. 2	Std. 3	Std. 4	Std. 5	Std. 6	Std. 7
Benzene	5%	2.50%	1.25%	0.65%	0.33%	0.12%	0.07%
Toluene	20%	15%	10%	5%	2.50%	1%	0.50%
Ethanol	Varies by kit – see ordering table						
Internal Standard	Varies by kit – see ordering table						

Ordering table

Part Code	Ethanol	Internal Standard	Application
AC18.23391.7002	–	2-Butanol	Procedure B, without ethanol
AC18.23393.7002	6%	2-Butanol	Standard Procedure B blends
AC18.23392.7002	10%	2-Butanol	Standard Procedure B blends
AC18.23394.7002	10%	MEK	Procedure B, 2-Butanol present in blend
AC18.23398.7002	–	MEK	Procedure B, 2-Butanol present without ethanol
AC18.23400.7002	–	4% MIBK	Procedure A
AC18.23395.7002	10%	User-added	Procedure A or B
AC18.23397.7002	7.77%	User-added	Procedure A or B
AC18.23396.7002	5.77%	User-added	Procedure A or B
AC18.23399.7002	None	User-added	Procedure A or B

All kits supplied as 7 standards per pack, 2 mL ampoules.



Verify – Check Standards

Independent benzene and toluene check standards to confirm calibration accuracy and demonstrate ongoing quality control for regulatory audits. Supplied in 2 mL ampoules, 10 per pack.

Ordering Table

Part Code	Check Standard	Ethanol	Internal Standard	Application
AC18.23367.1002	Check Standard 1	–	4% 2-Butanol	Benzene & toluene accuracy verification – Procedure B
AC18.23390.1002	Check Standard 2	–	4% MIBK	Benzene & toluene accuracy verification – Procedure A
AC18.23368.1002	Check Standard 3	10%	4% 2-Butanol	Verification for ethanol-containing blends – Procedure B

Supplied as 10 × 2 mL ampoules per pack.

Standardize – Neat Internal Standards

High-purity neat internal standards for laboratories that add their own. Supplied as 10 × 2 mL ampoules, these pair directly with the no-IS calibration kits, giving full control over internal standard concentration.

Ordering Table

Part Code	Product	Form	Internal Standard	Application
AC18.23370.1002	2-Butanol Internal Standard	Neat	2-Butanol	User addition to Procedure B workflows
AC18.23369.1002	MIBK Internal Standard	Neat	MIBK	User addition to Procedure A workflows

Supplied as 10 × 2 mL ampoules per pack.

Maintain & Validate – System Suitability Solutions

Solutions to validate peak resolution and maintain GC column performance between sample runs – the difference between a passing method and a failed audit.

Ordering Table

Part Code	Product	Pack	Composition	Application
AC18.23379.5001	Composite Mixture	5 × 1 mL	Benzene/ toluene composite	Resolution validation (system suitability)
AC18.23381.5001	Backflush Solution	5 × 1 mL	Nonane + 5% isooctane	GC column backflush / system maintenance

Supplied as 5 × 1 mL ampoules per pack.

