

For internal use only

Gas Chromatography Method List



Your local *gas generation* partner

The list below shows methods which have been rewritten to use Hydrogen or Nitrogen carrier gas for GC as an alternative to Helium. This list is correct as of the date at the foot, however, these methods are being rewritten regularly so if you cannot find your customer method below please contact pmsupport@peakscientific.com. Please note that customers using methods which need helium can also use Precision gas generators for detector or make-up gas.

ASTM Methods

ASTM Method	Method Title	He	H2	N2
D2549	Standard Test Method for Separation of Representative Aromatics and Nonaromatics Fractions of High-Boiling Oils by Elution Chromatography	✓		
D2287	Standard Test Method for Boiling Range Distribution of Petroleum Fractions by Gas Chromatography ^{1, 2}	✓	✓	✓
D4815	Standard Test Method for Determination of MTBE, ETBE, TAME, DIPE, tertiary-Amyl Alcohol and C1 to C4 Alcohols in Gasoline by Gas Chromatography	✓	✗	✓
D6352	Standard Test Method for Boiling Range Distribution of Petroleum Distillates in Boiling Range from 174 °C to 700 °C by Gas Chromatography	✓	✗	✗
D6729	Standard Test Method for Determination of Individual Components in Spark Ignition Engine Fuels by 100 Metre Capillary High Resolution Gas Chromatography	✓	✓	
D7096	Standard Test Method for Determination of the Boiling Range Distribution of Gasoline by Wide-Bore Capillary Gas Chromatography	✓		
D7213	Standard Test Method for Boiling Range Distribution of Petroleum Distillates in the Boiling Range from 100 °C to 615 °C by Gas Chromatography	✓	✓	✓
D7398	Standard Test Method for Boiling Range Distribution of Fatty Acid Methyl Esters (FAME) in the Boiling Range from 100 to 615 °C by Gas Chromatography	✓		
D7500	Standard Test Method for Determination of Boiling Range Distribution of Distillates and Lubricating Base Oils—in Boiling Range from 100 °C to 735 °C by Gas Chromatography	✓	✗	✗
D7798	Standard Test Method for Boiling Range Distribution of Petroleum Distillates with Final Boiling Points up to 538 °C by Ultra Fast Gas Chromatography (UF GC)	✓		
D7807	Standard Test Method for Determination of Boiling Range Distribution of Hydrocarbon and Sulfur Components of Petroleum Distillates by Gas Chromatography and Chemiluminescence Detection	✓		
D5501	Standard Test Method for Determination of Ethanol and Methanol Content in Fuels Containing Greater than 20% Ethanol by Gas Chromatography	✓	✓	

ASTM Methods (Continued)

ASTM Method	Method Title	He	H2	N2
D6751 (=EN14214)	Standard Specification for Biodiesel Fuel Blend Stock (B100) for Middle Distillate Fuels	✓		
D6584 (=EN14105)	Standard Test Method for Determination of Total Monoglycerides, Total Diglycerides, Total Triglycerides, and Free and Total Glycerin in B-100 Biodiesel Methyl Esters by Gas Chromatography	✓		
D6159	Standard Test Method for Determination of Hydrocarbon Impurities in Ethylene by Gas Chromatography	✓		
D2712	Hydrocarbon Traces in Propylene Concentrates	✓	✓	
D4059	Standard Test Method for Analysis of Polychlorinated Biphenyls in Insulating Liquids by Gas Chromatography	✓	✓	
D2163	Standard Test Method for Determination of Hydrocarbons in Liquefied Petroleum (LP) Gases and Propane/Propene Mixtures by Gas Chromatography	✓	✓	
D7169	Standard Test Method for Boiling Point Distribution of Samples with Residues Such as Crude Oils and Atmospheric and Vacuum Residues by High Temperature Gas Chromatography	✓	✓	
D6730	Standard Test Method for Determination of Individual Components in Spark Ignition Engine Fuels by 100-Metre Capillary (with Precolumn) High-Resolution Gas Chromatography	✓	✓	
D5504	Standard Test Method for Determination of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatography and Chemiluminescence	✓	✓	
D4492	Standard Test Method for Analysis of Benzene by Gas Chromatography	✓	✓	
D5580	Standard Test Method for Determination of Benzene, Toluene, Ethylbenzene, p/m-Xylene, o-Xylene, C9 and Heavier Aromatics, and Total Aromatics in Finished Gasoline by Gas Chromatography	✓		✓
D6417	Standard Test Method for Estimation of Engine Oil Volatility by Capillary Gas Chromatography ¹	✓	✓	✓

*A  indicates methods for which H2 and N2 have not been officially verified, but we are aware of customers using H2 or N2 for the method successfully.

USP Methods

USP Method	Method Title	He	H2	N2
467	Residual Solvents analysis	✓		✓

EPA Methods

Epa Method	Title	Instrument	Carrier Gas	Makeup	Reaction
8260C	Volatile Organic Compounds By Gas Chromatography/Mass Spectrometry (GC/MS)	GC-MSD	H2		
8270C/8270D	Semivolatile Organic Compounds By Gas Chromatography/Mass Spectrometry (GC/MS)	GC-MSD	H2		

EPA Methods (Continued)

Epa Method	Title	Instrument	Carrier Gas	Makeup	Reaction
8260C	Volatile Organic Compounds By Gas Chromatography/Mass Spectrometry (GC/MS)	GC-MSD	H2		
8270C/8270D	Semivolatile Organic Compounds By Gas Chromatography/Mass Spectrometry (GC/MS)	GC-MSD	H2		
8095	Explosives By Gas Chromatography	GC-ECD	H2	N2	
502.2	Volatile Organic Compounds In Water By Purge And Trap Capillary Column Gas Chromatography With Photoionization And Electrolytic Conductivity Detectors In Series	GC-PID/ECD	He		H2
504	1,2-Dibromoethane (EDB), 1,2-Dibromo-3-Chloro-Propane (DBCP), And 1,2,3-Trichloropropane (123TCP) In Water By Microextraction And Gas Chromatography	GC-PID/ECD	He		H2
524.3	Volatile Organic Compounds In Finished Drinking Water	GC-MSD	H2 Or N2		
525.2	Determination of Organic Compounds in Drinking Water by Liquid-Solid Extraction and Capillary Column Gas Chromatography/Mass Spectrometry	GC-MSD	H2		

H2 carrier gas and N2 detector gas suitable for **RGA** analysis