Aromatics & Oxygenates in Gasoline Analysis

Rt[™]-TCEP (highly polar phase; 1,2,3-tris[2-cyanoethoxy]propane—not bonded)

- General purpose columns, ideal for aromatics and oxygenates in gasoline.
- Temperature range: 0°C to 135°C.

Most gasolines contain aliphatic hydrocarbons up to n-dodecane (C12). To improve identification of the aromatics and oxygenates, it is desirable to elute benzene after C11 and toluene after C12. The extremely polar Rt[™]-TCEP stationary phase provides a retention index for benzene greater than 1100 and permits the separation of alcohols and aromatics from the aliphatic constituents in gasoline.

Rt™-TCEP columns have the same high polarity as TCEP packed columns (precolumns in ASTM Method D4815 for the analysis of petroleum oxygenates), with the efficiency of a capillary column. The result is a column that can separate a wide variety of compounds with an elution pattern unattainable using other high polarity siloxanes.

The Rt™-TCEP column incorporates a nonbonded stationary phase coated on a surface specialized for enhanced polymer stability and extended column lifetime. Solvent rinsing should be avoided. Conditioning is necessary only if the column is to be used at temperatures near the maximum operating temperature.

Rt[™]-TCEP Columns (fused silica)

(1,2,3-tris[2-cyanoethoxy]propane)

ID	df (µm)	temp. limits	30-Meter	60-Meter	
0.25mm	0.40	0 to 135°C	10998	10999	



Brian Salisbury ASG Chemist 1+ year of service!

similar phases SPB-TCEP. CP-TCEP

Petroleum oxygenates on an Rt™-TCEP column. 1. methyl tert-butyl ether 2. n-undecane 3 tert-hutanol 4. methanol 5. isopropyl alcohol 6. ethanol 7. n-dodecane 8. n-tridecane 9. *n*-butanol 6 4 8 12 14 10 16 GC PC00195 Column: RtTM-TCEP, 60m, 0.25mm ID, 0.4µm (cat.# 10999) Inj.: Oven temp.: $1.0\mu L$ split injection, components @ 500ppm. 60°C (hold 5 min.) to 100°C @ 5°C/min. (hold 10 min.) Inj./det. temp.: 200°C Carrier gas: helium 30cm/sec. set @ 80°C Linear velocity: 6.4 x 10-11 AFS FID sensitivity: Split flow: 46mL/min.



