

New HPLC Confirmation Column for Explosives Analysis

Introducing the Pinnacle II™ Biphenyl Column

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- Excellent resolution of US EPA Method 8330 explosives.
- Significantly different selectivity, relative to C18 columns; better resolution than cyano columns.
- Allows quantitative as well as qualitative confirmation.

Testing of residual materials is important when monitoring the disposal of expired or deteriorated munitions. US EPA Method 8330 was developed for quantifying 14 commonly monitored explosives. The method calls for reversed phase HPLC with UV detection, using a primary column and a confirmation column. The primary column contains a C18 stationary phase and, typically, the confirmation column contains a cyano stationary phase. Resolution of the target explosives is poor on cyano stationary phases, however, and the analysis provides qualitative confirmation only.

Restek chemists have developed a superior alternative to cyano phases for explosives analysis. The Pinnacle II™ Biphenyl column provides excellent resolution of EPA Method 8330 explosives, as shown in Figure 1. Further, selectivity is markedly different from that of a C18 column (Figure 2), making the Pinnacle II™ Biphenyl column a true, ideal, confirmation column. Separations on either column are accomplished with a simple, isocratic water:methanol mobile phase.

Restek offers a complete set of analytical reference materials for Method 8330. Our calibration materials for explosives analysis by HPLC are available in two options: as 1000ppm solutions of individual analytes, or as two 7-component mixtures, described on page 7. The internal standard, 3,4-dinitrotoluene, and the surrogate standard, 1,2-dinitrobenzene, also are available as described on page 7.

For superior data from your confirmation analysis for explosives, we highly recommend a Pinnacle II™ Biphenyl HPLC column.

Pinnacle II™ Biphenyl

5µm Particles, 4.6mm ID
150mm cat. #
9209565

Ultra C18 Columns

5µm Particles, 4.6mm ID
250mm cat. #
9174575

For individual solutions of EPA Method 8330 analytes, please see our catalog, or visit our website.

Figure 1 Excellent resolution of US EPA Method 8330 explosives, using a Pinnacle II™ Biphenyl column.

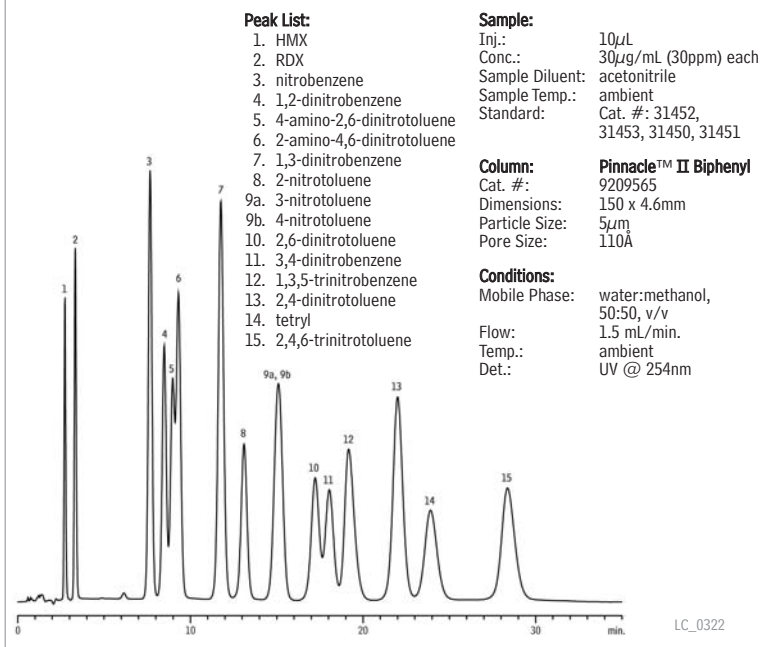


Figure 2 An Ultra C18 column is an outstanding primary column for explosives analysis.

