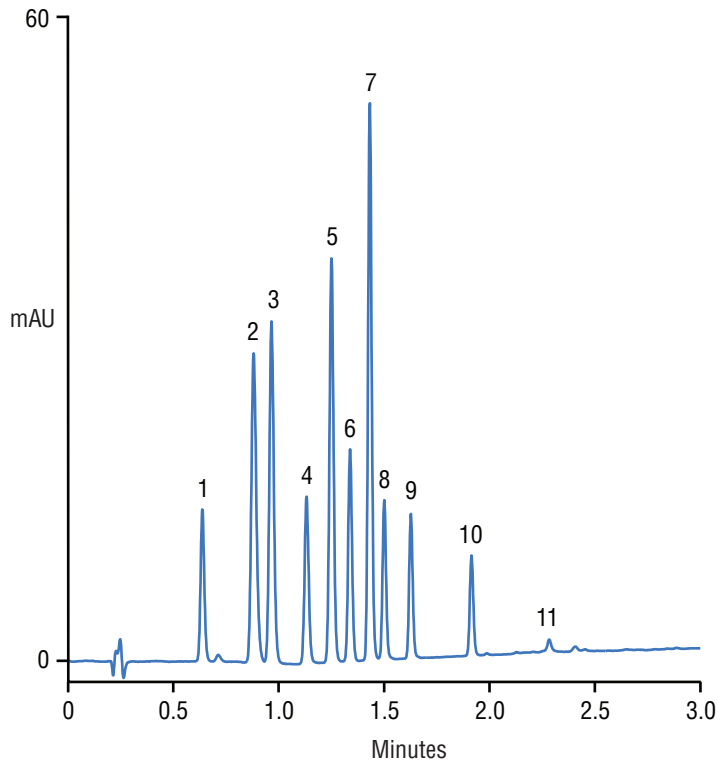


EPA 604 Phenols Separated Using a Thermo Scientific™ Acclaim™ RSLC PolarAdvantage (PA) Column



Column: Thermo Scientific™ Acclaim™ RSLC PA,
2.2 µm
Dimensions: 3.0 × 50 mm
System: Thermo Scientific™ Dionex™ UltiMate™
3000 RSLC
Mobile Phases: A: 10 mM formic acid + 10 mM ammonium
formate, pH 3.75 ± 0.05
B: Acetonitrile
Gradient Time (min): -1.5 0.0 0.3 2.6 3.0
%A 70 70 70 10 10
%B 30 30 30 90 90
Flow Rate: 1.25 mL/min
Temperature: 30 °C
Injection Volume: 0.5 µL
Detection: UV at 280 nm, 10 Hz, 0.5 s resp. time
Sample: Calibration mix, 50 µg/mL in water
Peaks:

1. Phenol
2. 2,4-Dinitrophenol
3. 4-Nitrophenol
4. 2-Chlorophenol
5. 2-Nitrophenol
6. 2,4-Dimethylphenol
7. 4,6-Dinitro-2-methylphenol
8. 4-Chloro-3-methylphenol
9. 2,4-Dichlorophenol
10. 2,4,6-Trichlorophenol
11. Pentachlorophenol

27652

Phenols are often found in municipal and industrial wastewater. They are traditionally analyzed by GC methods such as US EPA Method 604 and Method 625, but HPLC can be used to separate and detect a variety of these important compounds. With fast, high-resolution columns such as the Acclaim RSLC PA 2.2 µm 3.0 × 50 mm, the analysis cycle is complete in under 5 min.