Phenols

Analysis of phenols to EPA 8040

Application Note

Environmental

Authors

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Introduction

Gas chromatography with an Agilent CP-Sil 8 CB Low Bleed/MS column separates 21 phenols according to EPA 8040 in 24 minutes.

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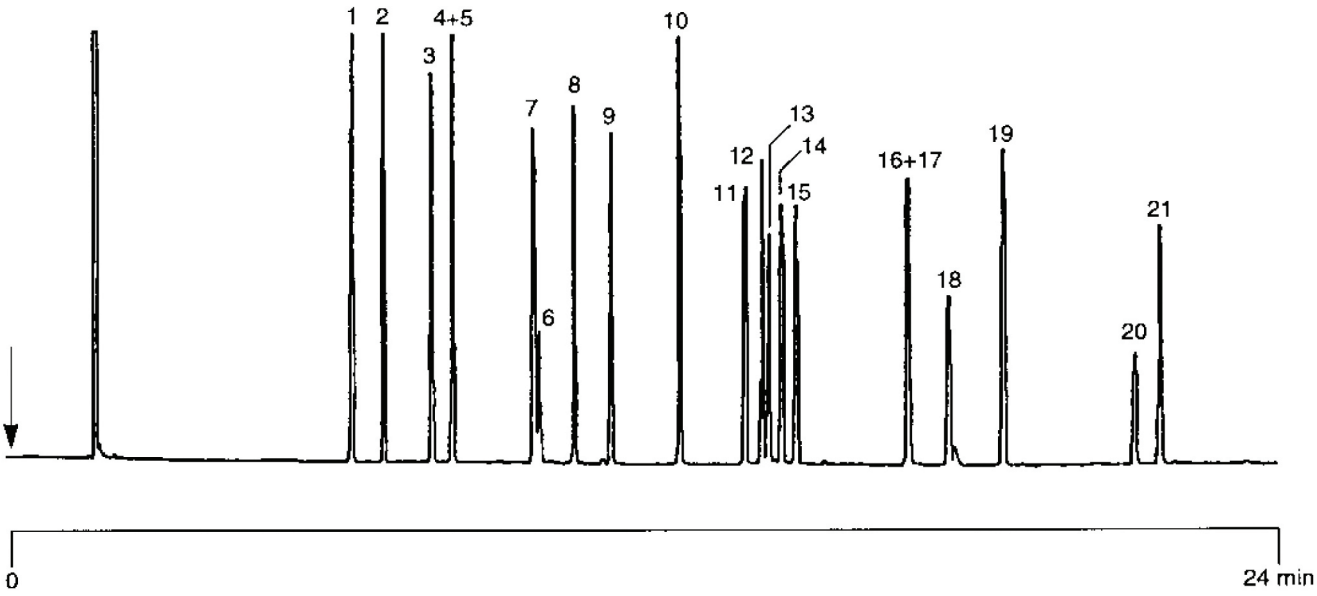
Conditions

Technique	: GC-capillary
Column	: Agilent CP-Sil 8 CB low bleed/MS, 0.25 mm x 30 m fused silica (df = 1.0 µm) (Part no. CP5862)
Temperature	: 80 °C → 200 °C, 8 °C/min
Carrier Gas	: H_2, 65 kPa (0.65 bar. 9 psi)
Injector	: Split, 100 mL/min T = 270 °C
Detector	: FID T = 335 °C

Peak identification

1. phenol
2. 2-chlorophenol
3. o-cresol
4. m-cresol
5. p-cresol
6. 2-nitrophenol
7. 2,4-dimethylphenol
8. 2,4-dichlorophenol
9. 2,6-dichlorophenol
10. 4-chloro-3-methylphenol
11. 2,3,5-trichlorophenol
12. 2,4,6-trichlorophenol
13. 2,4,5-trichlorophenol
14. 2,3,4-trichlorophenol
15. 2,3,6-trichlorophenol
16. 4-nitrophenol
17. 2,4-dinitrophenol
18. 2,3,5,6-tetrachlorophenol
19. 2-methyl-4,6-dinitrophenol
20. pentachlorophenol
21. 2-sec-butyl-4,6-dinitrophenol (Dinoseb)



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