



Phenols according to EPA 528

Application Note

Environmental

Authors

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Introduction

The Agilent FactorFour VF-Sms bonded phase is one of a new generation phases with very low bleed specifications. For trace analysis column bleed must be minimized; these columns are ideal for such applications. Also, inertness is very high, which is shown by running this application of free phenols. Accurate quantification of trace components as well as fast stabilization and reduced contamination of detection systems (such as ms) are obtained.



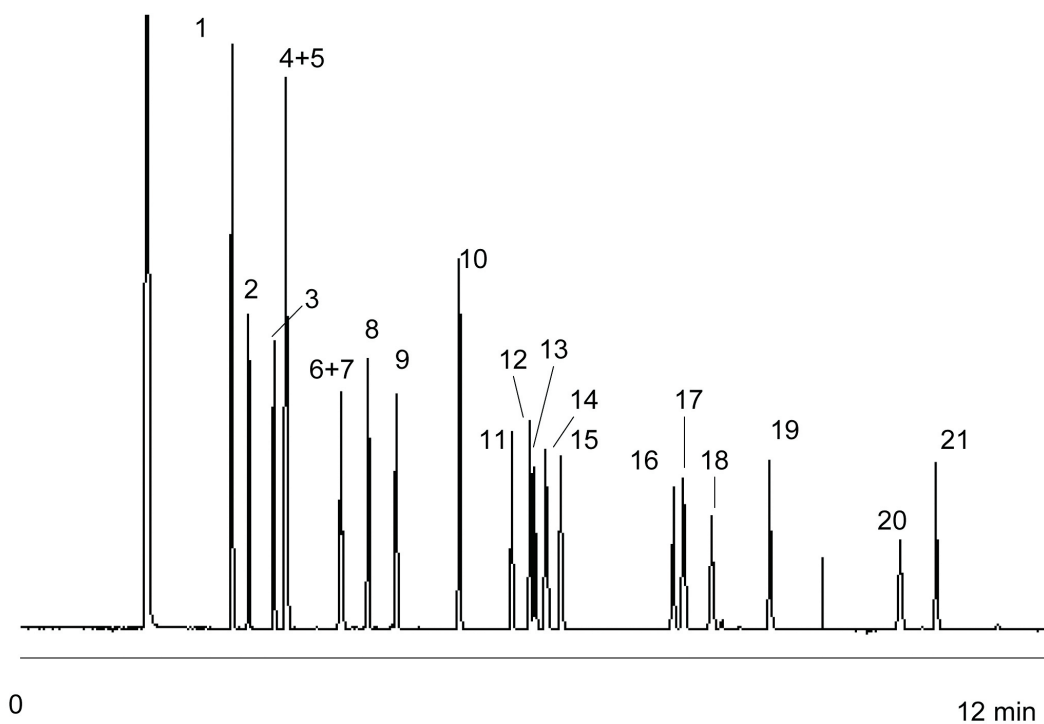
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Conditions

Technique : GC
Column : Agilent VF-5 ms, 0.25 mm x 30 m fused silica
(df = 0.25 µm) (Part no. CP8944)
Temperature : 100 °C, 10 °C/min → 230 °C
Carrier Gas : Hydrogen, 50 kPa
Injector : Split, 1:200, T = 275 °C
Detector : MS
Sample Size : 1.0 µL
Concentration Range : ca. 5-10 ng per component on the column

Peak identification

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



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This information is subject to change without notice.

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