



Solvents

Analysis of residual solvents to USP 467

Application Note

BioPharma

Authors

Agilent Technologies, Inc.

Introduction

Solvents are well separated on porous-polymer-coated columns. The high retention allows analysis temperatures above ambient. The Agilent PoraBOND U porous polymer is a bonded porous polymer, which is prepared in-situ. This results in a very stable and inert column that can be operated at high column flow rates and valve switching. The highly pure PoraBOND U porous polymer has a stability up to approx. 300 °C with very low bleed.



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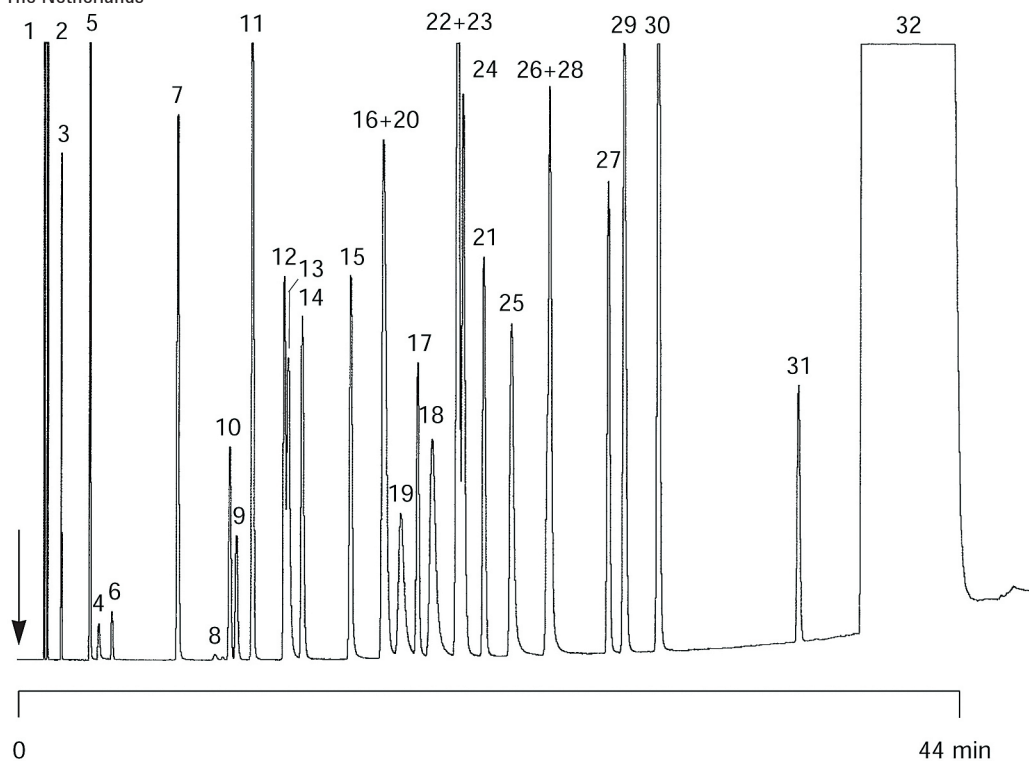
Conditions

Technique : GC-capillary
Column : Agilent PoraBOND U, 0.32 mm x 25 m fused silica
PLOT (df = 7 µm) (Part no. CP7381)
Temperature : 100 °C (1 min) → 225 °C, 3 °C/min
Carrier Gas : He, 70 kPa (0.7 bar, 10 psi)
Injector : Split, T = 250 °C
Detector : FID, T = 250 °C
Sample Size : 1 µL
Concentration Range : 0.05%
Solvent Sample : DMSO

Courtesy : C. Duvekot, Agilent application laboratory,
Middelburg, The Netherlands

Peak identification

1. methane
2. ethane
3. propane
4. iso-butane
5. methanol
6. butane
7. ethanol
8. isopentane
9. pentane
10. dichloromethane
11. diethylether
12. acetonitrile
13. isopropanol
14. acetone
15. propanol
16. tetrahydrofuran
17. hexane
18. cyclohexane
19. methyl-isobutyl ketone
20. trichloromethane
21. 2-butanone
22. ethylacetate
23. benzene
24. trichloroethylene
25. isobutanol
26. 1,4-dioxane
27. heptane
28. butanol-1
29. pyridine
30. toluene
31. n,n-dimethylformamide
32. dimethylsulfoxide



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This information is subject to change without notice.

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