



Glycols

Purity analysis of propylene glycol to DAB 1996 and USP 23

Application Note

BioPharma

Authors

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Introduction

The high polarity and selectivity of the Agilent CP-Wax 57 CB column provide the necessary separation and excellent peak shape for very polar propylene glycols.



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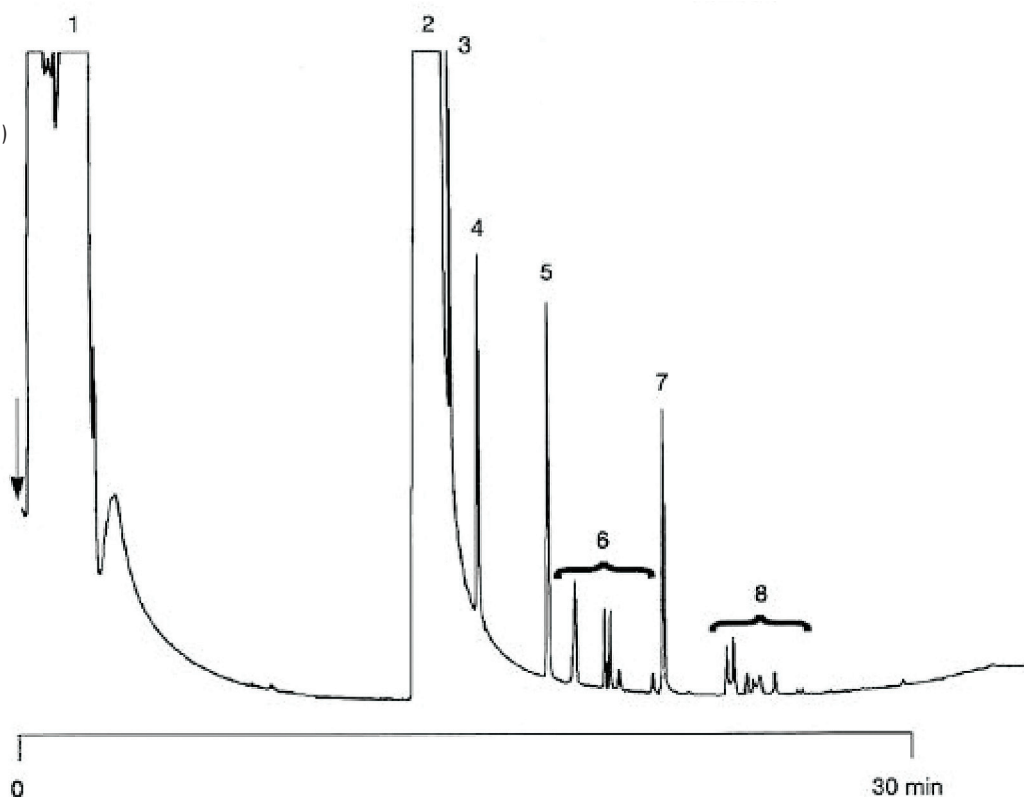
Conditions

Technique : GC-capillary
Column : Agilent CP-Wax 57 CB, 0.53 mm x 25 m, fused silica
WCOT CP-Wax 57 CB (df = 0.5 µm) (custom-made)
Temperature : 50 °C (2 min) → 200 °C, 5 °C/min; 200 °C (6 min)
Carrier Gas : H₂, 26 kPa (0.26 bar, 3.7 psi)
Injector : Direct pressure pulse injection 100 kPa (15 psi), 0.5
min
T = 250 °C
Detector : FID
T = 250 °C
Sample Size : 0.5 µL
Concentration Range : max. 0.01 - 0.1% in propylene glycol
Solvent Sample : methanol

Courtesy : D. Korczewski,
Dow Deutschland inc.,
Staade, Germany
Dr. F. Milek,
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Peak identification

1. methanol (sample solvent)
2. propylene glycol (1,2-propanediol)
3. ethylene glycol
4. 1,2-butanediol
5. 1,3-propanediol
6. dipropylene glycol
7. diethylene glycol
8. tripropylene glycol



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This information is subject to change without notice.

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