



Diols

Analysis of monochloropropanediols (MCPD) in hydrolyzed vegetable proteins

Application Note

Food Testing & Agriculture

Authors

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Introduction

The selectivity of the medium polar Agilent CP-Sil 43 CB allows the separation of two isomers of MCPD in a complex matrix. Trace levels can be analyzed by the application of a sensitive and selective detector.



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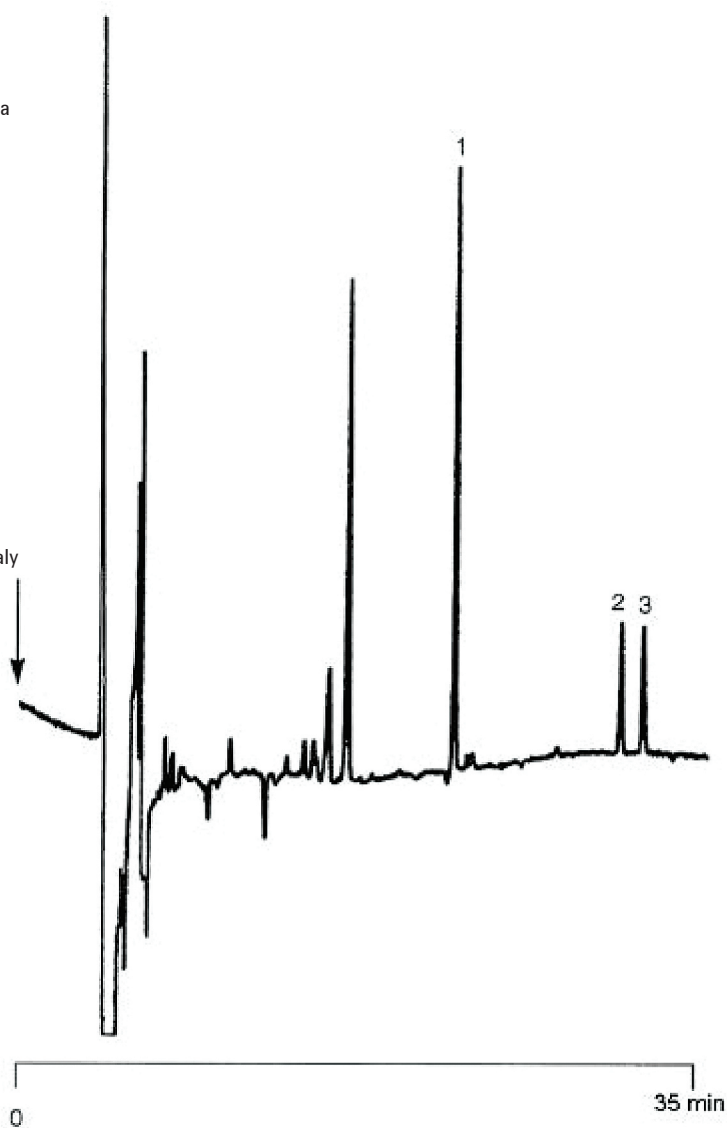
Conditions

Technique : GC-capillary
Column : Agilent CP-Sil 43 CB, 0.25 mm x 25 m fused Silica WCOT (df = 0.2 µm) (Part no. CP7715)
Temperature : 50 °C (0.5 min) → 90 °C, 1.5 °C/min; 90 °C → 200 °C, 30 °C/min
Carrier Gas : He, 100 kPa (1.0 bar, 14 psi)
Injector : PTV solvent sample, 0.2 min
T = 50 - 275 °C
Detector : ECD
T = 300 °C
Sample Size : 2 µL
Concentration Range : 5 - 100 ppb
Solvent Sample : hexane

Courtesy : E. Schiazza, STAR S.p.a., Agrate B.za, (Milan), Italy

Peak identification

1. dichlorobenzene 1,4- (I.S., 100 ppb)
2. propanediol, 2-chloro-1,2- (5 ppb)
3. propanediol, 3-chloro-1,2- (chlorohydrin, 5 ppb)



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This information is subject to change without notice.

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