



Wine, alcohols and esters

Application Note

Food Testing & Agriculture

Authors

Agilent Technologies, Inc.

Introduction

Gas chromatography using an Agilent CP-Sil 5 CB column separates 22 alcohols and esters in a wine distillate in 34 minutes.



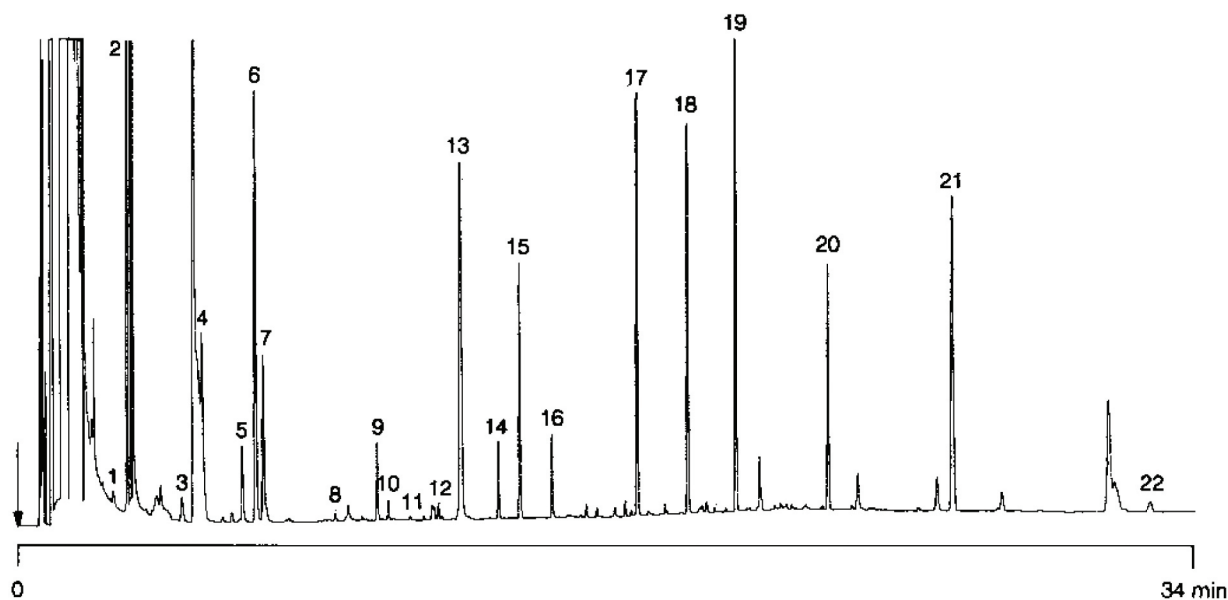
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Conditions

Technique : GC-capillary
Column : Agilent CP-Sil 5 CB, 0.32 mm x 50 m fused silica
WCOT CP-Sil 5 CB (1.2 µm) (Part no. CP7770)
Temperature : 60 °C (0 min) → 200 °C, 3 °C/min
Carrier Gas : H₂, 100 kPa (1 bar, 14.5 psi), 3.3 cm/s
Injector : Split, 10 mL/min
T = 250 °C
Detector : FID, 3 x 10⁻¹² Afs
T = 300 °C
Sample Size : 1 µL
Concentration Range : 0.1%

Peak identification

1. ethyl propionate
2. 3-methyl butanol
3. ethyl butanoate
4. furfural
5. ethyl-3-butanoate
6. hexanol + diethoxyisobutane
7. isoamyl acetate
8. benzaldehyde
9. ethyl hexanoate
10. hexyl acetate
11. 1, 1-diethoxyacetone
12. octanol
13. 2-phenyl ethanol
14. diethyl succinate
15. ethyl octanoate
16. phenethyl acetate
17. ethyl decanoate
18. ethyl undecanoate
19. ethyl dodecanoate
20. ethyl tetradecanoate
21. ethyl hexadecanoate
22. ethyl octadecanoate



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