Chromatography Solutions

Application note # C-13079

Fast Separation of Fragrance Allergens using the Avantor® Hichrom HI-SE54 Phase

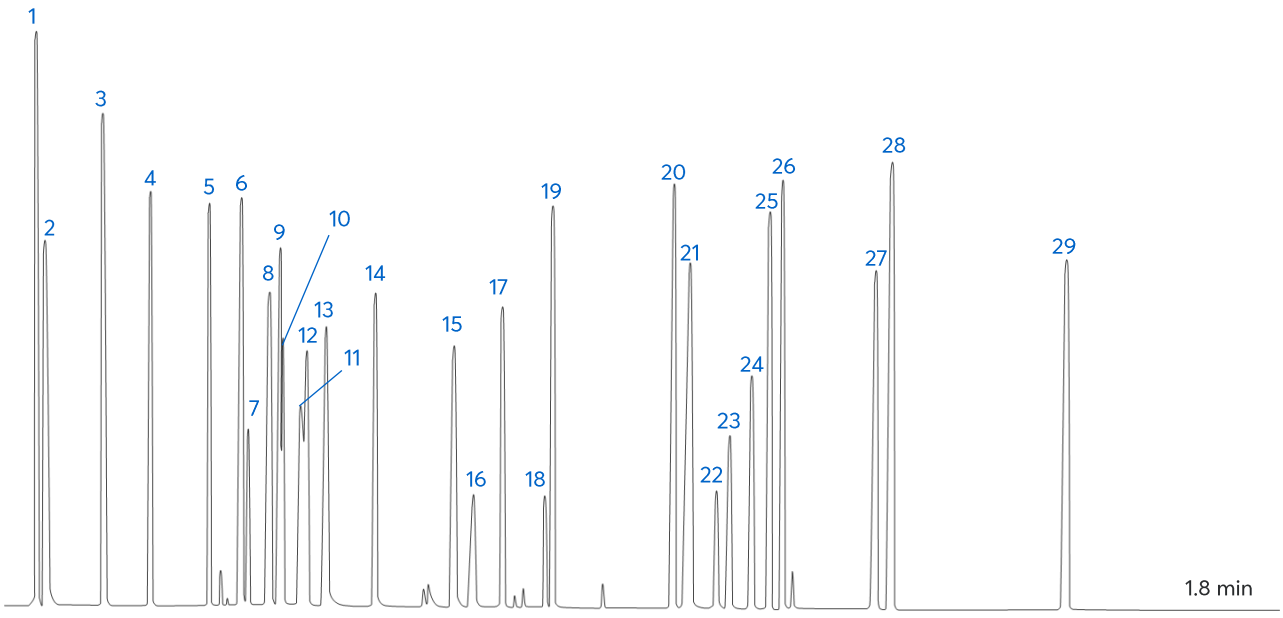

Figure 1: Fast GC separation of fragrance allergens using the Avantor® Hichrom HI-SE54 phase.

Method Details

CONDITIONS

Oven Program:	50 °C (0.1 min), 50 °C/min, 250 °C (5 min)
Carrier Gas:	Hydrogen, 0.5 mL/min
Injector:	Split 230 °C, 0.5 µL, 1:300 split ratio
Detector:	FID, 250 °C
Sample Dilution:	1% in Cyclohexane

The HI-SE54 is a low-polarity GC phase with a 5% phenyl, 1% vinyl, 94% methyl polysiloxane composition. It is well suited for the analysis of solvent impurities, PCBs, hydrocarbons, essential oils, semi-volatiles, allergens and pesticides.

PEAK IDENTIFICATION

1. Benzyl alcohol
2. Limonene
3. Linalool
4. Veratrol
5. Methyl 2-octanoate
6. Citronellol
7. Citral 1
8. Geraniol
9. Cinnamic aldehyde
10. Citral 2
11. Anise alcohol
12. Hydroxycitronellal
13. Cinnamic alcohol
14. Eugenol
15. Coumarin
16. Isoeugenol
17. Alpha-isomethyl ionone
18. Alpha-methyl ionone
19. Lilial
20. Unidentified
21. Lyral 1 and Lyral 2
22. Farnesol 1
23. Farnesol 2
24. Farnesol 3
25. Amyl cinnamal
26. Hexyl cinnamal and Benzyl salicylate
27. 1-Phenyl-decanone
28. Unidentified
29. Benzyl cinnamate

ORDERING TABLE

Product	Details	Dimensions	Part Number
Avantor® Hichrom HI-SE54	FAST GC Column	0.10 mm, 0.10 µm, 5 m	HI05-10-010-5

Acknowledgement: Prof. C.Bicchi, C.Brunelli et al. Universita di Torino, Dipartimento di Scienza e Tecnologia del Farmaco, Via Pietro Giuria, 9, Torino, Italy.

Avantor®