

Application note # C-13061

Separation of PCBs using the Avantor® Hichrom HI-5 Column (EPA Method 8082)

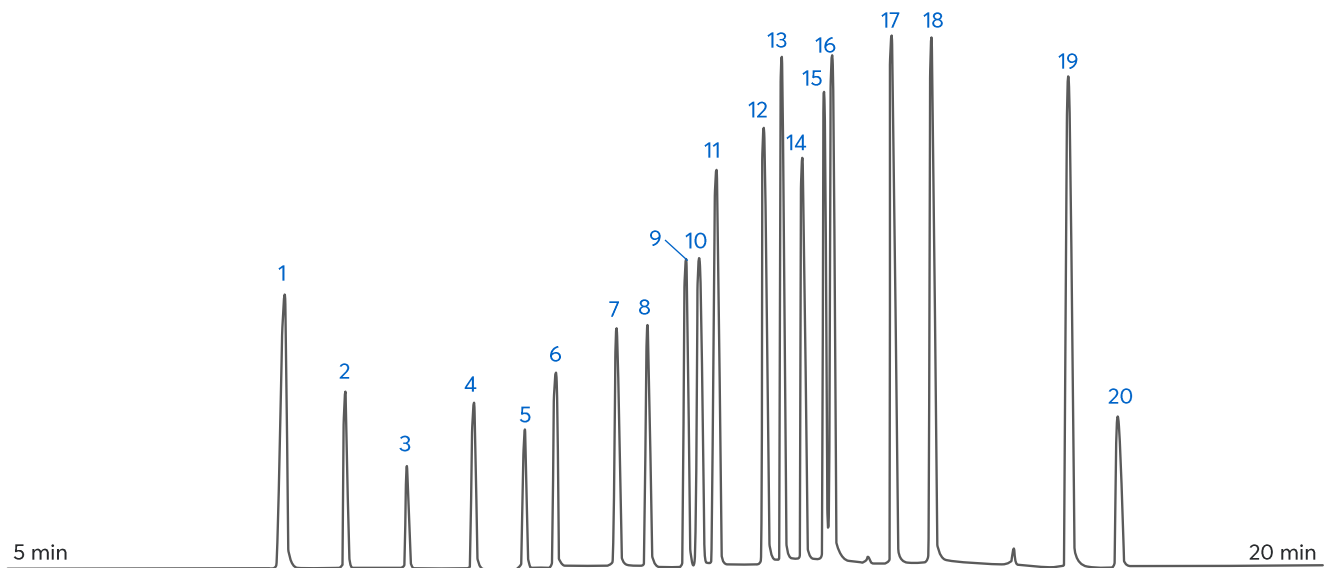


Figure 1: Separation of Polychlorinated Biphenyls (PCBs) using the Avantor® Hichrom HI-5 column (EPA Method 8082).

Method Details

CONDITIONS

Oven Program:	120 °C, 10 °C/min, 300 °C
Carrier Gas:	Helium, 1 mL/min
Injector:	PTV injector, 50 °C, 600 °C/min, 320 °C (2 min), 1 µL injection volume, 1:10 split ratio
Detector:	ECD, 320 °C, 25 Hz acquisition rate

Always check the latest and official method information from the EPA prior to analysis.

The HI-5 is a versatile general-purpose column with a low-polarity stationary phase with a 5% phenyl, 95% methyl polysiloxane composition. It is well suited to a variety of applications including pesticides, essential oils, PCBs, semi-volatiles, solvent impurities, phenols and many more.

PEAK IDENTIFICATION

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| 1. 2,4,5,6-tetrachloro-m-xylene | 11. 2,2',3,5,5',6-hexachlorobiphenyl |
| 2. 2,3-dichlorobiphenyl | 12. 2,2',4,4',5,5'-hexachlorobiphenyl |
| 3. 2,2',5'-trichlorobiphenyl | 13. 2,2',3,4,5,5'-hexachlorobiphenyl |
| 4. 2,4',5-trichlorobiphenyl | 14. 2,2',3,4,4',5'-hexachlorobiphenyl |
| 5. 2,2',5,5'-tetrachlorobiphenyl | 15. 2,2',3,4',5,5',6-heptachlorobiphenyl |
| 6. 2,2',3,5'-tetrachlorobiphenyl | 16. 2,2',3,4,4',5',6-heptachlorobiphenyl |
| 7. 2,3',4,4'-tetrachlorobiphenyl | 17. 2,2',3,4,4',5,5'-heptachlorobiphenyl |
| 8. 2,2',4,5,5'-pentachlorobiphenyl | 18. 2,2',3,3',4,4',5-heptachlorobiphenyl |
| 9. 2,2',3,4,5'-pentachlorobiphenyl | 19. 2,2',3,3',4,4',5,5',6-nonachlorobiphenyl |
| 10. 2,3,3',4',6-pentachlorobiphenyl | 20. Decachlorobiphenyl (I.S.) |

ORDERING TABLE

Product	Details	Dimensions	Part Number
Avantor® Hichrom HI-5	GC Column	0.25 mm, 0.25 µm, 30 m	HI02-25-025-30