

- Ideal for GC/MS application
- Exceptionally low column bleed even at 350°C
- Alternative confirmation column for EPA & Pharmaceutical methods
- Stable to 360°C/370°C
- Excellent chromatographic inertness

Replacement for: OV-17, SP-2250, DB-17MS, DB-17ht, Rtx-50, SPB-50, HP-50+ and HP-17

OPERATING TEMPERATURES

Minimum Temp:	0°C
Maximum Cycling Temp:	370°C
Maximum Continuous Temp:	360°C

APPLICATION AREAS

Various EPA methods, ie. 604, 608, 8060, 8081; triazines/herbicides, drug screening, steroids and a variety of pharmaceutical applications.

Figure 1: Horse Racing Drug Standard

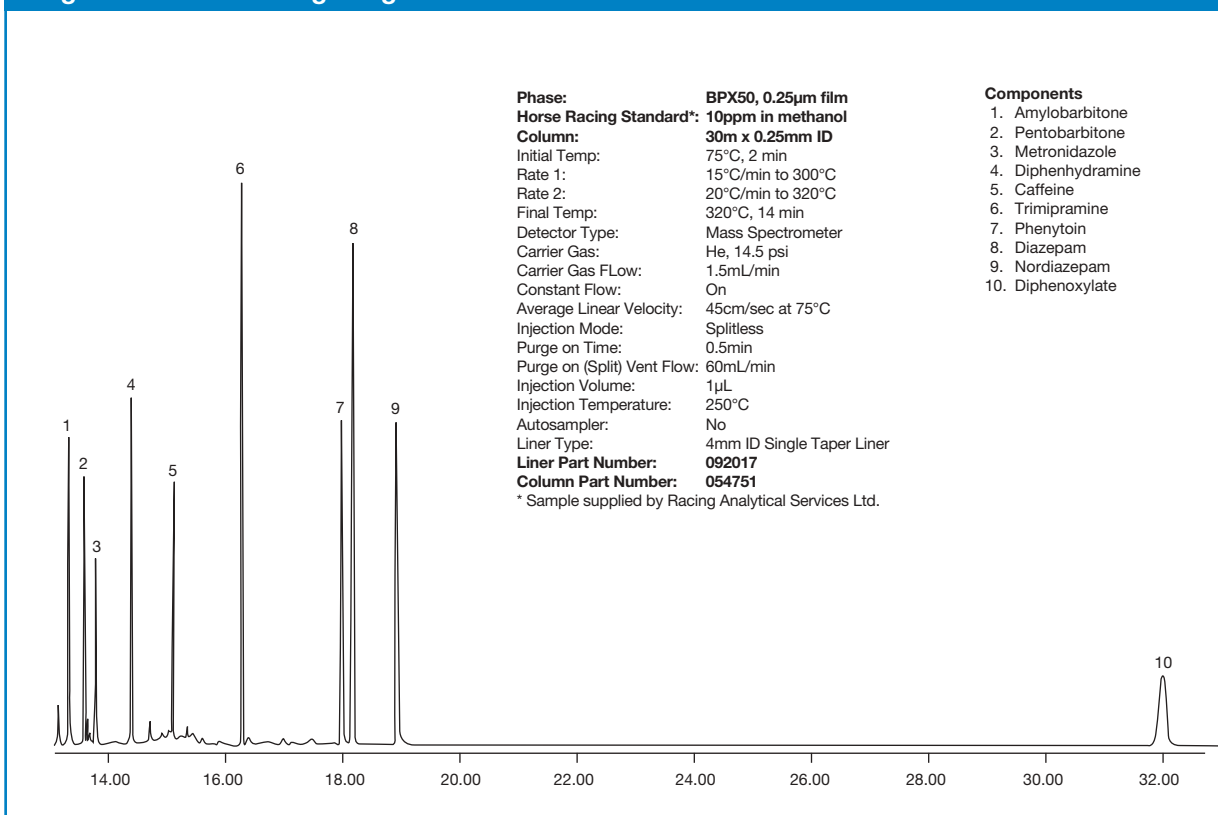
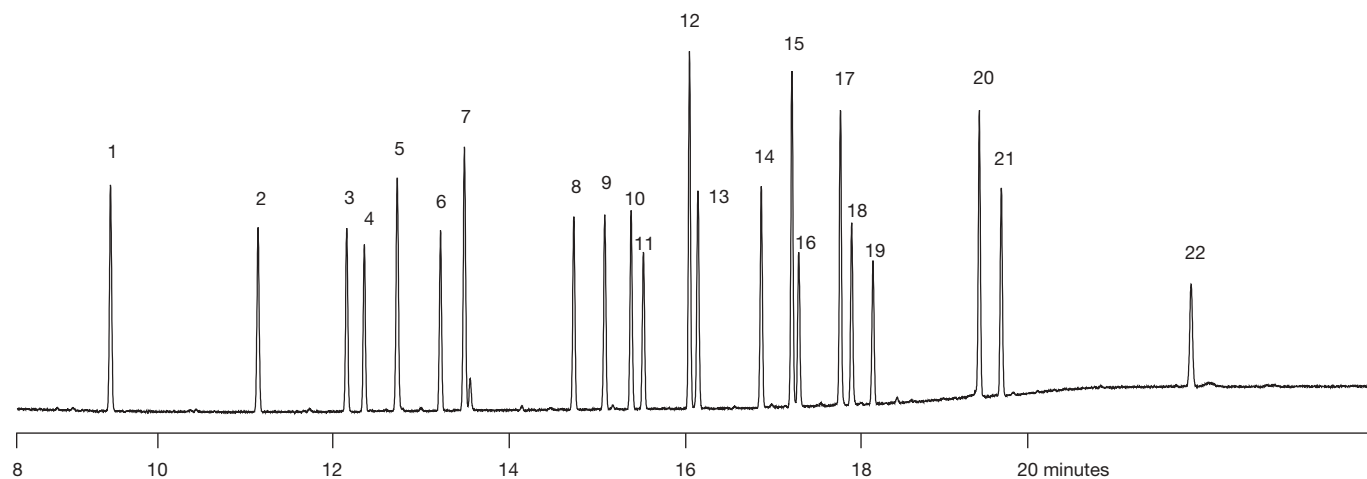


Figure 2. EPA Method 8081 Organochlorine Pesticides



Selectivity

The BPX50 (50% phenyl polysilphenylene-siloxane) column is the ultimate medium polarity column. It offers the lowest bleed levels possible whilst providing excellent chromatographic inertness.

Offering operating temperatures and column bleed levels more typical of the high performance MS grade non-polar 5% phenylpolysiloxane columns, BPX50 is the ideal choice for the confirmation of EPA and pharmaceutical applications. The BPX50 can also be utilised as the primary analytical column for many applications.

Historically, low column bleed and high operating temperatures have been a fundamental problem with 50% phenyl columns, often limiting their use in GC/MS application. BPX50 has overcome these limitations, allowing EPA methods 604, 608, 8060, 8081, triazines/herbicides, drug screening, steroids and a variety of pharmaceutical applications to be routinely analysed.

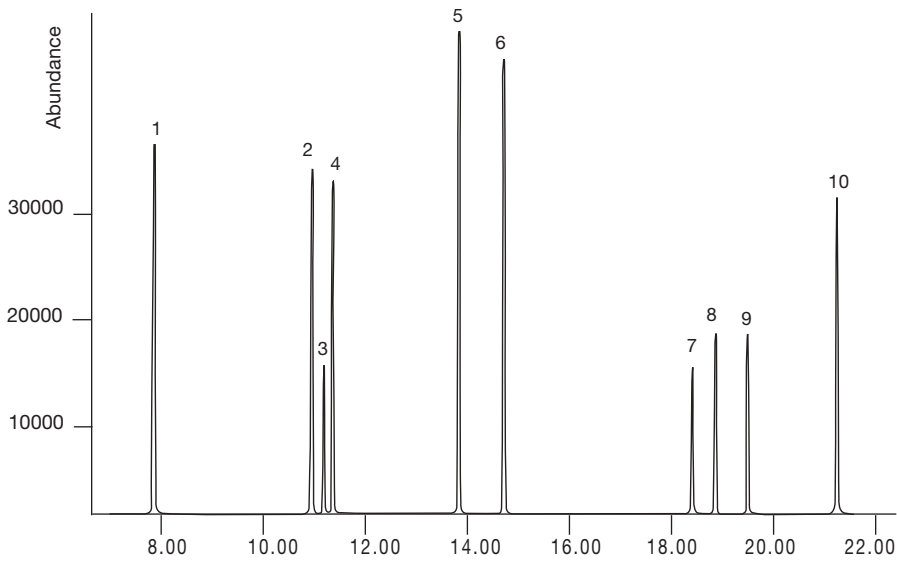
CONDITIONS:

Phase:	BPX50, 0.25 µm
Column:	30m x 0.25mm ID
Injector Temp:	240°C
Injection Volume:	1µL
Autosampler Syringe:	5µL Fixed Needle (p/n 001810)
Septa:	Auto-Sep T' (p/n 041882)
Injection Type:	Splitless
Purge On Time:	0.5min
Purge On (Spilt) Vent:	60mL/min
Liner Type:	Single taper (p/n 092017)
Carrier Gas:	Helium
Constant Flow:	On
Pressure:	14.1psi
Column Flow:	1.3mL/min
Linear Velocity:	30cm/sec @ 40°C
Initial Temp:	40°C for 1min
Rate 1:	30°C/min to 190°C for 3min
Rate 2:	10°C/min to 300°C for 5min
Run Time:	25min
Detector Type:	FID @ 310°C
Column Part No:	054751

COMPONENTS:

1. 2,4,5,6-Tetrachloro - meta-xylene (Internal Standard)
2. alpha - BHC
3. gamma - BHC
4. beta - BHC
5. delta - BHC
6. Heptachlor
7. Aldrin
8. Heptachlorepoxy
9. gamma - Chlordane
10. alpha - Chlordane
11. Endosulfan A
12. p, p' - DDE
13. Dieldrin
14. Endrin
15. p, p' - DDD
16. Endosulfan B
17. Endrin Aldehyde
18. p, p' - DDT
19. Endosulfan Sulfate
20. Methoxychlor
21. Endrin Ketone
22. Decachlorobiphenyl (Internal Standard)

Figure 3. Analysis of EPA Phenols - 5ng/component



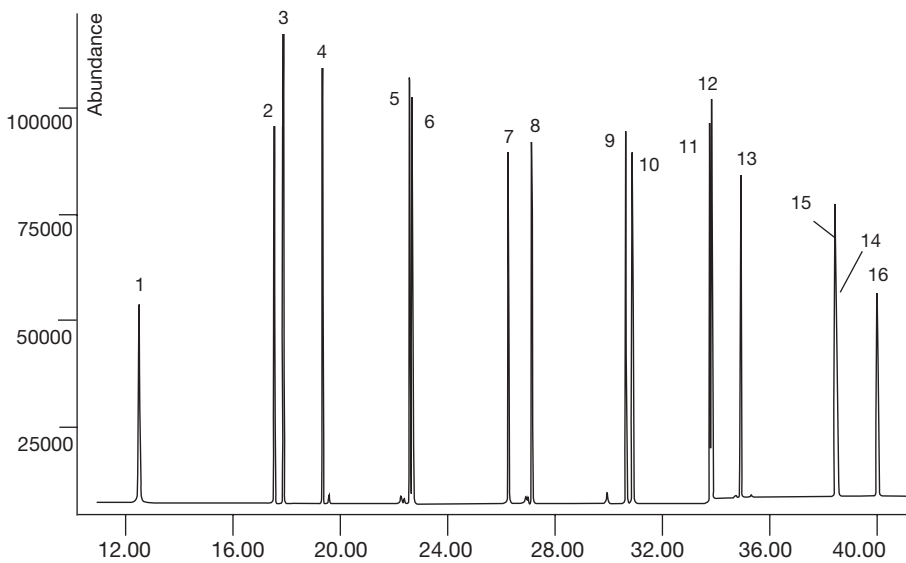
Inertness

Components

- 1 2-Chlorophenol
- 2 2,4-Dimethylphenol
- 3 2-Nitrophenol
- 4 2,4-Dichlorophenol
- 5 4-Chloro-3-methylphenol
- 6 2,4,6 - Trichlorophenol
- 7 2,4-Dinitrophenol
- 8 4-Nitrophenol
- 9 2-Methyl-4,6-dinitrophenol
- 10 Pentachlorophenol

Phase: **BPX50, 0.25µm**
Column: 30m x 0.25mm ID
Initial: 50°C, 1 min
Rate: 8°C/ min
Final Temp: 250°C, 5 min
Inject. Mode: Split, 40:1
Detector: HP5973 MSD
Part No: **054751**

Figure 4. 16 EPA Polynuclear Aromatic Hydrocarbons



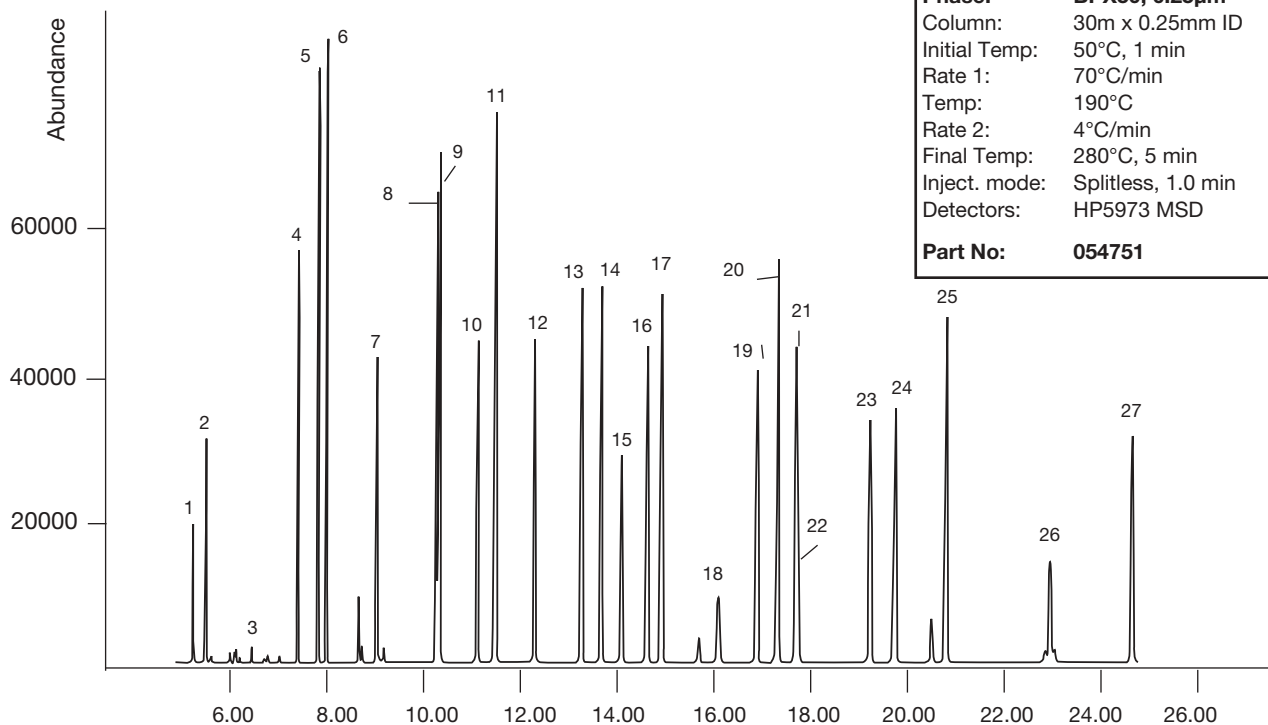
Thermal stability

Components

- 1 Naphthalene
- 2 Acenaphthylene
- 3 Acenaphthene
- 4 Fluorene
- 5 Phenanthrene
- 6 Anthracene
- 7 Pyrene
- 8 Fluoranthene
- 9 Benzo (a) anthracence
- 10 Chrysene
- 11 Benzo (b) Fluoranthene
- 12 Benzo (k) Fluoranthene
- 13 Benzo (a) pyrene
- 14 Indeno (1,2,3-cd) pyrene
- 15 Dibenzo (a,h) anthracene
- 16 Benzo (g,h,i) perylene

Phase: **BPX50,0.25µm**
Column: 30m x 0.25mm ID
Initial Temp: 50°C, 1 min
Rate: 8°C/min
Final Temp: 300°C, 10 min
Inject. mode: split, 40:1
Detector: HP 5973 MSD
Part No: **054751**

Figure 5. Analyses of some commonly used Herbicides & Pesticides



Compound Range

Components

1	Methyldymron decomp. I	8	Propyzamide	18	Methyldymron
2	Methyldymron decomp. II	9	Diazinon	19	Butamifos
3	Trichlorfon (DEP)	10	Simazine (CAT)	20	Flutolanil
4	Etridiazole	11	Terbucarb (MBPMC)	21	Napropamide
5	Benfluralin	12	Chlorothalonil (TPN)	22	Captan
6	Chloroneb	13	Tolclofos - methyl	23	Isoxathion
7	Pencycuron	14	Chlorpyrifos	24	Isoprothiolane
		15	Fenitrothion (MEP)	25	Mepronil
		16	Pendimethalin	26	Iprodione
		17	Isophenphos	27	Pyridaphenthion

BPX50 CAPILLARY COLUMNS ORDERING INFORMATION

ID (mm)	Film	15 metre	30 metre
0.25	0.25µm	054750	054751
0.32	0.25µm	054760	054761
0.53	0.50µm	054770	054771



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