

# Zebtron® GC Columns



## ZB-MultiResidue™ -1 and -2 ~exclusive~

- Proprietary phases specially designed for the separation of all types of pesticides, herbicides, and insecticides
- Provides baseline resolution and confirmation of all 20 chlorinated pesticides regulated under EPA Method 8081 in ≤ 10 min
- Low activity, decreased breakdown of sensitive pesticides such as DDT
- Provides robust column performance for high temperature bake outs
- MS Certified phases provide low bleed performance for pesticide confirmation by MS
- Temperature Limits: -60 to 320/340 °C (Isothermal/TPGC)

### Similar\* to:

- Rtx-CLPesticides
- Stx-CLPesticides
- Rtx-CLPesticides2
- Stx-CLPesticides2

\*not exact equivalent, selectivity might be different

If Zebtron columns do not provide you with equivalent or better separations as compared to any other GC column of the same phase and comparable dimensions, return the column with comparative data within 45 days for a FULL REFUND.

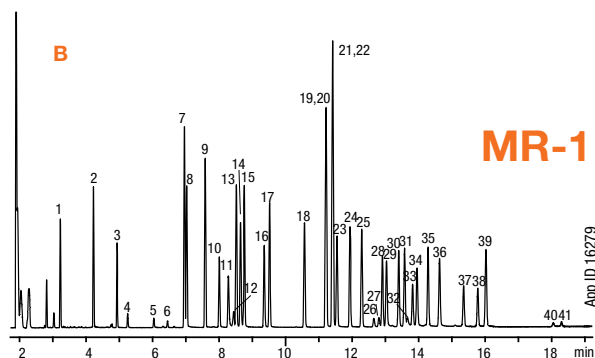
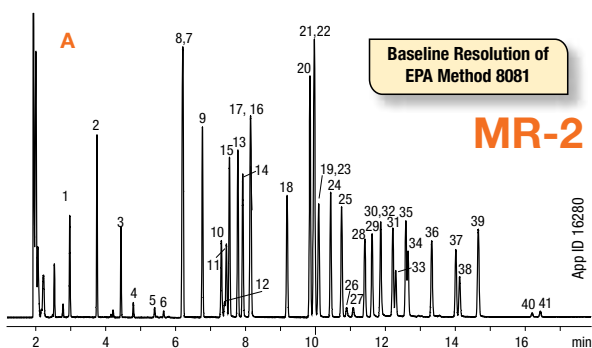
### Column Profile



### Applications

- Organochlorine Pesticides
- Insecticides
- Organophosphorous Pesticides
- Aroclors/PCBs
- Nitrogen Containing Pesticides
- Haloacetic Acids
- Herbicides
- Multi-pesticide Residue Methods

### EPA Methods 508 and 8081A



Column: A) Zebtron ZB-MultiResidue-2

B) Zebtron ZB-MultiResidue-1

Dimensions: A) 30 meter x 0.32 mm x 0.25 µm

B) 30 meter x 0.32 mm x 0.50 µm

Part No.: A) 7HM-G017-11

B) 7HM-G016-17

Injection: On-Column @ 123 °C, 1 µL

Carrier Gas: Helium @ 1.2 mL/min (constant flow)

Oven Program: 120 °C for 0.5 min to 210 °C @ 30 °C/min to

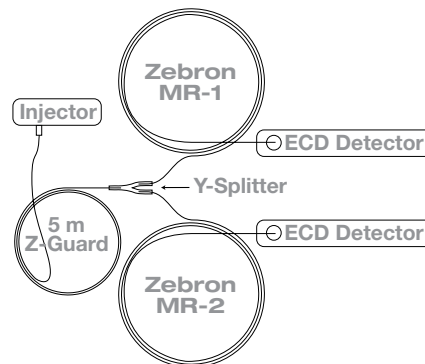
300 °C @ 6 °C/min for 2 min

Detector: ECD @ 340 °C

Sample: All analytes are 50 ppb in iso-octane

- |                              |                        |
|------------------------------|------------------------|
| 1. DBCP                      | 22. trans-Nonachlor    |
| 2. Hexachlorocyclopentadiene | 23. Endosulfan I       |
| 3. Etridiazole               | 24. DDE                |
| 4. Chloroneb                 | 25. Dieldrin           |
| 5. Propachlor                | 26. Chloropropylate    |
| 6. Diallate                  | 27. Chlorobenzilate    |
| 7. α-BHC                     | 28. Endrin             |
| 8. Hexachlorobenzene         | 29. Nitrofen           |
| 9. γ-BHC                     | 30. DDD                |
| 10. β-BHC                    | 31. Endosulfan II      |
| 11. Dichlone                 | 32. Kepone             |
| 12. Alachlor                 | 33. Trithion           |
| 13. δ-BHC                    | 34. Endrin aldehyde    |
| 14. Chlorothalonil           | 35. DDT                |
| 15. Heptachlor               | 36. Endosulfan sulfate |
| 16. DCPA (Dacthal)           | 37. Captafol           |
| 17. Aldrin                   | 38. Methoxychlor       |
| 18. Heptachlor epoxide       | 39. Endrin ketone      |
| 19. Captan                   | 40. Permethrin         |
| 20. trans-Chlordane (gamma)  | 41. Permethrin isomer  |
| 21. cis-Chlordane (alpha)    |                        |

### Well-suited for Dual Column Analysis



Contact Phenomenex or your local Phenomenex distributor for additional GC products and applications.

# Zebron® GC Columns



If Zebron columns do not provide you with equivalent or better separations as compared to any other GC column of the same phase and comparable dimensions, return the column with comparative data within 45 days for a FULL REFUND.

## ZB-MultiResidue™ -1 and -2 (cont'd)

### Ordering Information

#### Zebron ZB-MultiResidue™-1 GC Columns

ID(mm)	df(µm)	Temp. Limits °C	Part No.	Price
<b>20-Meter</b>				
0.18	0.18	-60 to 320/340	7FD-G016-08	
<b>30-Meter</b>				
0.25	0.25	-60 to 320/340	7HG-G016-11	
0.32	0.25	-60 to 320/340	7HM-G016-11	
0.32	0.50	-60 to 320/340	7HM-G016-17	
0.53	0.50	-60 to 320/340	7HK-G016-17	

### Ordering Information

#### Zebron ZB-MultiResidue™-2 GC Columns

ID(mm)	df(µm)	Temp. Limits °C	Part No.	Price
<b>30-Meter</b>				
0.25	0.20	-60 to 320/340	7HG-G017-10	
0.32	0.25	-60 to 320/340	7HM-G017-11	
0.53	0.50	-60 to 320/340	7HK-G017-17	

Note: If you need a 5 in. cage, simply add a (-B) after the part number, e.g., 7HG-G016-11-B or 7HG-G017-10-B. Some exceptions may apply. Agilent 6850 and some SRI and process GC systems use only 5 in. cages. See p. 91.

## ZB-MultiResidue™ Column Kits

### Ordering Information

<b>0.25 mm ID</b> (kit consists of products below)				
Description	Dimension	Part No.	Price:	
ZB-MultiResidue-1 Column	30 meter x 0.25 mm x 0.25 µm df	7HG-G016-11		
ZB-MultiResidue-2 Column	30 meter x 0.25 mm x 0.20 µm df	7HG-G017-10		
Z-Guard™	5 meter x 0.25 mm	7AG-G000-00-GZ0		
Universal Capillary Column Y-connector, Borosilicate		AGO-4717		
<b>0.32 mm ID</b> (kit consists of products below)				
Description	Dimension	Part No.	Price:	
ZB-MultiResidue-1 Column	30 meter x 0.32 mm x 0.50 µm df	7HM-G016-17		
ZB-MultiResidue-2 Column	30 meter x 0.32 mm x 0.25 µm df	7HM-G017-11		
Z-Guard	5 meter x 0.32 mm	7AM-G000-00-GZ0		
Universal Capillary Column Y-connector, Borosilicate		AGO-4717		
<b>0.53 mm ID</b> (kit consists of products below)				
Description	Dimension	Part No.	Price:	
ZB-MultiResidue-1 Column	30 meter x 0.53 mm x 0.50 µm df	7HK-G016-17		
ZB-MultiResidue-2 Column	30 meter x 0.53 mm x 0.50 µm df	7HK-G017-17		
Z-Guard	5 meter x 0.53 mm	7AK-G000-00-GZ0		
Universal Capillary Column Y-connector, Borosilicate		AGO-4717		



Contact Phenomenex or your local Phenomenex distributor for additional GC products and applications.



**Extend column lifetime. Add a Z-guard to your next Zebron GC order.**