## Meta.X5 TRIAZINE (proprietary phase)

**Silphenylene phase, selectivity similar to TRB-5, bonded and crosslinked phase.**

- New formulation for Meta.X5 stationary phase. Ideal for separation of Triazine herbicides from EPA 609 method.
- Low bleed and excelent inertness for the analysis of traces of herbicides by GC/MS.
- General purpose column for pesticides.

### Meta.X5 TRIAZINE

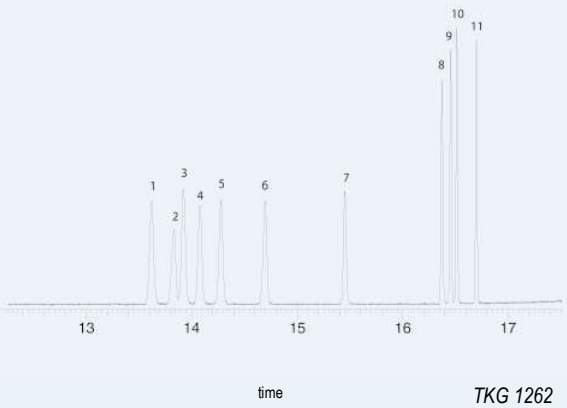
| Internal Diam.(mm) | Length (m) | Film Thickness (µm) | Temp limits (°C) | Part. N°. (P/N) |
|---|---|---|---|---|
| **0,30** | 30 | 0,25 | 325 to 350ºC | **TR-410232** |

Triazine Herbicides

Column: **Meta.X5 TRIAZINE**, 30m x 0.25mm x 0,25 µm, P/N TR-410232
Injection: split 1:25, 250 ºC
Carrier gas: He, ct flow 1.0 ml/min
Oven: 80 ºC (0.5 min) to 160 ºC (7 min) @ 30 ºC/min to 195ºC @ 7 ºC/min to 290 ºC (3 min) @ 45 ºC/min
Transfer Line: 290ºC
Ionization mode: EI
Scan range: 50-450 amu
Sample: Triazine herbicides EPA 619 2 ng/compound on column

Peak Name

1 Atraton
2 Simazine
3 Prometon
4 Atrazine
5 Propazine
6 Terbutylazine
7 Secbumeton
8 Simetryn
9 Ametryn
10 Prometryn
11 Terbutryn




TKG 1262

## Meta.XLB (proprietary phase)

**Silphenylene phase, bonded and crosslinked**

- Low polarity phase with Extreme Low Bleed.
- Directly replace for DB-XLB
- General purpose column with extended temperature range (30 to 340/360ºC)
- Ideal column for GC-MS analysis
- Unique selectivity for aromatic compounds (PCBs,PAHs,PBDEs)
- Excellent column for pesticides and herbicides

### Meta.XLB Equivalent Phase

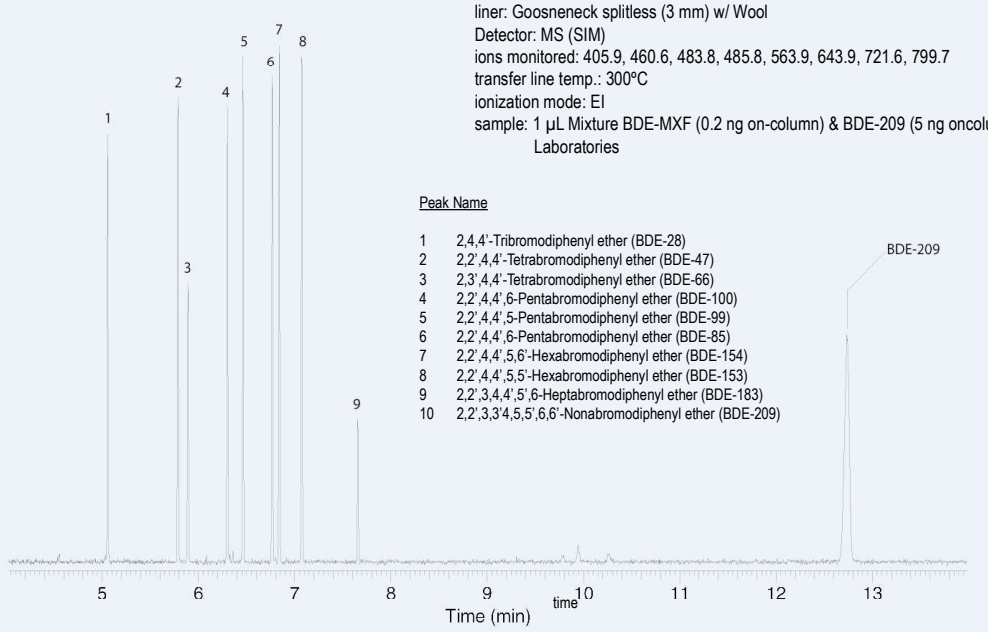
**Restek:** Rxi-XLB
**Agilent/JW:** DB-XLB, VF-XMS
**Supelco:** MDN 12
**Phenomenex:** ZB-XLB
**Macherey-Nagel:** OPTIMA XLB

### Meta.XLB

| Internal Diam.(mm) | Length (m) | Film Thickness (µm) | Temp limits (°C) | Part. N°. (P/N) |
|---|---|---|---|---|
| **0,10** | 10 | 0,10 | 30 to 340/360°C | **TR-330141** |
| **0,18** | 20 | 0,18 | 30 to 340/360°C | **TR-330984** |
| | 30 | 0,18 | 30 to 340/360°C | **TR-330934** |
| | 60 | 0,18 | 30 to 340/360°C | **TR-330964** |
| **0,25** | 15 | 0,10 | 30 to 340/360°C | **TR-330112** |
| | 15 | 0,25 | 30 to 340/360°C | **TR-330212** |
| | 15 | 1,00 | 30 to 340/360°C | **TR-331012** |
| | 30 | 0,10 | 30 to 340/360°C | **TR-330132** |
| | 30 | 0,25 | 30 to 340/360°C | **TR-330232** |
| | 30 | 0,50 | 30 to 340/360°C | **TR-330532** |
| | 30 | 1,00 | 30 to 340/360°C | **TR-331032** |
| | 60 | 0,25 | 30 to 340/360°C | **TR-330262** |
| **0,32** | 15 | 0,25 | 30 to 340/360°C | **TR-330213** |
| | 15 | 1,00 | 30 to 340/360°C | **TR-331013** |
| | 30 | 0,10 | 30 to 340/360°C | **TR-330133** |
| | 30 | 0,25 | 30 to 340/360°C | **TR-330233** |
| | 30 | 0,50 | 30 to 340/360°C | **TR-330533** |
| | 30 | 1,00 | 30 to 340/360°C | **TR-331033** |
| | 60 | 0,25 | 30 to 340/360°C | **TR-330263** |
| **0,53** | 15 | 1,50 | 30 to 320/340°C | **TR-331515** |
| | 30 | 1,50 | 30 to 320/340°C | **TR-331535** |

## Analysis of brominated flame retarrdants (Polybrominated Diphenyl Ethers, PBDEs)

column: **Meta.XLB**, 15 m x 0.18 mm x 0.072 um, P/N TR-332414
injection: 280ºC, splitless w/ surge: pulse 40 psi @ 0.30 min, 50ml/min @ 0.4 min
oven: 100ºC (0.5 min) to 320ºC (7 min) @ 30ºC/min
carrier gas: Helium, Ct flow 2 ml/min
liner: Goosneneck splitless (3 mm) w/ Wool
Detector: MS (SIM)
ions monitored: 405.9, 460.6, 483.8, 485.8, 563.9, 643.9, 721.6, 799.7
transfer line temp.: 300ºC
ionization mode: EI
sample: 1 µL Mixture BDE-MXF (0.2 ng on-column) & BDE-209 (5 ng oncolumn) from Wellington Laboratories




Peak Name

| | |
|---|---|
| 1 | 2,4,4'-Tribromodiphenyl ether (BDE-28) |
| 2 | 2,2',4,4'-Tetrabromodiphenyl ether (BDE-47) |
| 3 | 2,3',4,4'-Tetrabromodiphenyl ether (BDE-66) |
| 4 | 2,2',4,4',6-Pentabromodiphenyl ether (BDE-100) |
| 5 | 2,2',4,4',5-Pentabromodiphenyl ether (BDE-99) |
| 6 | 2,2',4,4',6-Pentabromodiphenyl ether (BDE-85) |
| 7 | 2,2',4,4',5,6'-Hexabromodiphenyl ether (BDE-154) |
| 8 | 2,2',4,4',5,5'-Hexabromodiphenyl ether (BDE-153) |
| 9 | 2,2',3,4,4',5',6-Heptabromodiphenyl ether (BDE-183) |
| 10 | 2,2',3,3'4,5,5',6,6'-Nonabromodiphenyl ether (BDE-209) |

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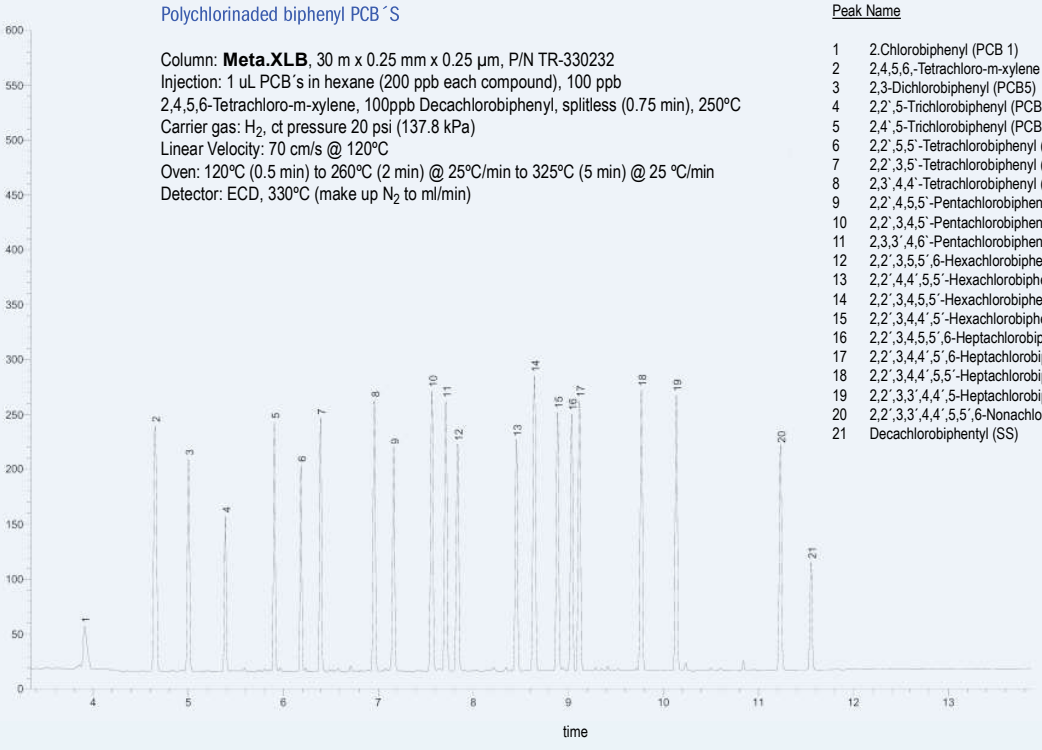
## Polychlorinaded biphenyl PCB´S

Column: **Meta.XLB**, 30 m x 0.25 mm x 0.25 µm, P/N TR-330232
Injection: 1 uL PCB´s in hexane (200 ppb each compound), 100 ppb 2,4,5,6-Tetrachloro-m-xylene, 100ppb Decachlorobiphenyl, splitless (0.75 min), 250ºC
Carrier gas: $H_2$, ct pressure 20 psi (137.8 kPa)
Linear Velocity: 70 cm/s @ 120ºC
Oven: 120ºC (0.5 min) to 260ºC (2 min) @ 25ºC/min to 325ºC (5 min) @ 25 ºC/min
Detector: ECD, 330ºC (make up $N_2$ to ml/min)




Peak Name

| | |
|---|---|
| 1 | 2.Chlorobiphenyl (PCB 1) |
| 2 | 2,4,5,6,-Tetrachloro-m-xylene (SS) |
| 3 | 2,3-Dichlorobiphenyl (PCB5) |
| 4 | 2,2`,5-Trichlorobiphenyl (PCB18) |
| 5 | 2,4`,5-Trichlorobiphenyl (PCB31) |
| 6 | 2,2`,5,5`-Tetrachlorobiphenyl (PCB52) |
| 7 | 2,2`,3,5`-Tetrachlorobiphenyl (PCB44) |
| 8 | 2,3`,4,4`-Tetrachlorobiphenyl (PCB66) |
| 9 | 2,2`,4,5,5`-Pentachlorobiphenyl (PCB101) |
| 10 | 2,2`,3,4,5`-Pentachlorobiphenyl (PCB87) |
| 11 | 2,3,3`,4,6`-Pentachlorobiphenyl (PCB110) |
| 12 | 2,2`,3,5,5`,6-Hexachlorobiphenyl (PCB151) |
| 13 | 2,2`,4,4`,5,5`-Hexachlorobiphenyl (PCB153) |
| 14 | 2,2`,3,4,5,5`-Hexachlorobiphenyl (PCB141) |
| 15 | 2,2`,3,4,4`,5`-Hexachlorobiphenyl (PCB136) |
| 16 | 2,2`,3,4,5,5`,6-Heptachlorobiphenyl (PCB187) |
| 17 | 2,2`,3,4,4`,5`,6-Heptachlorobiphenyl (PCB183) |
| 18 | 2,2`,3,4,4`,5,5`-Heptachlorobiphenyl (PCB180) |
| 19 | 2,2`,3,3`,4,4`,5-Heptachlorobiphenyl (PCB170) |
| 20 | 2,2`,3,3`,4,4`,5,5`,6-Nonachlorobiphenyl (PCB26) |
| 21 | Decachlorobiphentyl (SS) |

*TKG 1265*