

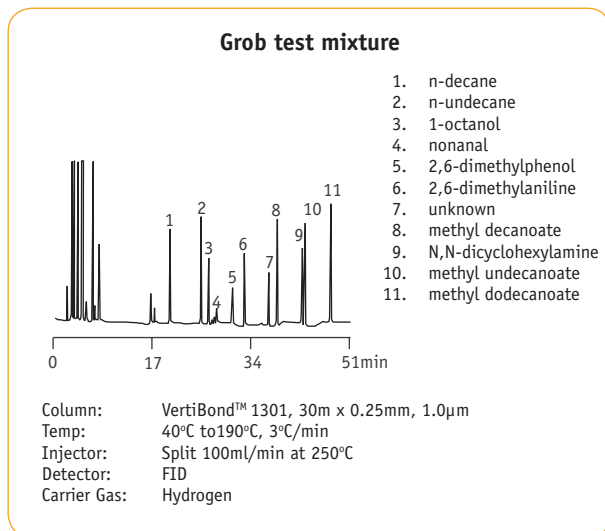
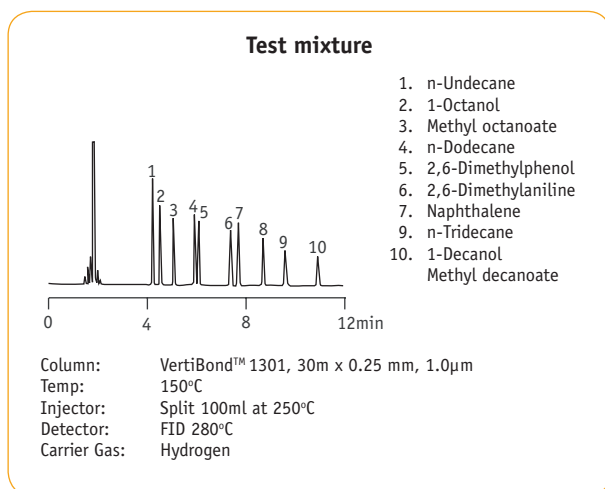
VertiBond™ 1301 Capillary Columns

- 6% Cyanopropylphenyl, 94% Dimethylpolysiloxane
- Intermediate polar stationary phase
- Equivalent to USP G43
- High temperature range
- High efficiency, high inertness columns

VertiBond™ 1301 column contains 6% Cyanopropylphenyl, 94% Dimethylpolysiloxane stationary phases. This intermediate polarity phase is specially developed to equivalent to USP G43 for analysis of residual solvents (OVI) in pharmaceutical products. VertiBond™ 1301 also ideals for acidic and basic compounds with a wide range of polarity like pesticides or herbicides.

VertiBond™ 1301 Specifications	
Phase:	6% Cyanopropylphenyl, 94% Dimethylpolysiloxane
Polarity:	Intermediate Polar
USP Designation:	G43
Ideal for:	Volatile Organics, Pharmaceutical Products, and EPA Method 612

VertiBond™ 1301 Specifications	
Restek	Rtx-1301
Agilent	HP-1301, DB-1301, DB-624
Supelco	SPB-1301, OVI-G43
Alltech	AT-1301
SGE	BPX-624
Varian	CP-1301



Ordering Information				
Length (m)	I.D. (mm)	Film (µm)	Temp. (°C)	Part No.
15	0.25	0.10	280/300	0411-2001
		0.25	280/300	0411-2051
		0.50	280/300	0411-2091
		1.00	280/300	0411-2111
		0.32	0.10	280/300
	0.53	0.25	280/300	0411-3051
		0.50	280/300	0411-3091
		1.00	280/300	0411-3111
		0.10	260/280	0411-5001
		0.25	260/280	0411-5051
30	0.25	0.50	260/280	0411-5091
		1.00	260/280	0411-5111
		1.50	260/280	0411-5151
		3.00	260/280	0411-5191
		0.10	280/300	0411-2003
	0.53	0.25	280/300	0411-2053
		0.50	280/300	0411-2093
		1.00	280/300	0411-2113
		0.10	280/300	0411-3003
		0.25	280/300	0411-3053
0.53	0.50	280/300	0411-3093	
	1.00	280/300	0411-3113	
	0.10	260/280	0411-5003	
	0.25	260/280	0411-5053	
	0.50	260/280	0411-5093	
0.53	1.00	260/280	0411-5113	
	1.50	260/280	0411-5153	
		3.00	260/280	0411-5193

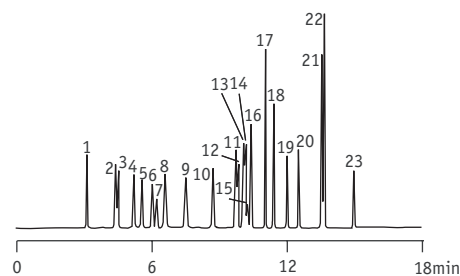
VertiBond™ 1301

Ordering Information

Length (m)	I.D. (mm)	Film (µm)	Temp. (°C)	Part No.
60	0.25	0.10	280/300	0411-2005
		0.25	280/300	0411-2055
		0.50	280/300	0411-2095
	0.32	1.00	280/300	0411-2115
		0.10	280/300	0411-3005
		0.25	280/300	0411-3055
	0.53	0.50	280/300	0411-3095
		1.00	280/300	0411-3115
		0.10	260/280	0411-5005
		0.25	260/280	0411-5055
		0.50	260/280	0411-5095
		1.00	260/280	0411-5115
		1.50	260/280	0411-5155
		3.00	260/280	0411-5195



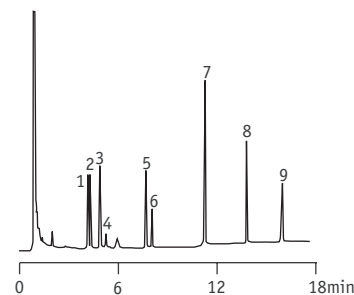
Organic Volatile Impurities



1. Methanol
2. Ethanol
3. Ether
4. Acetone
5. Isopropanol
6. Acetonitrile
7. Methylene chloride
8. *tert*-Butanol
9. Hexane
10. *n*-Propanol
11. Methyl ethyl ketone
12. Ethyl acetate
13. Tetrahydrofuran
14. *sec*-Butanol
15. Chloroform
16. Cyclohexane
17. Benzene
18. Heptane
19. Trichloroethylene
20. 1,4-Dioxane
21. Pyridine
22. Toluene
23. Dimethylformamide

Column: VertiBond™ 1301, 30 m x 0.53 mm, 3.0µm
 Temp: 35°C (hold 8 min) to 240°C at 20°C/min
 Injector: 0.5µL Split injection of residual solvents at 180°C/260°C (split ratio: 30:1)
 Detector: FID
 Carrier Gas: Helium 25cm/sec at 35°C

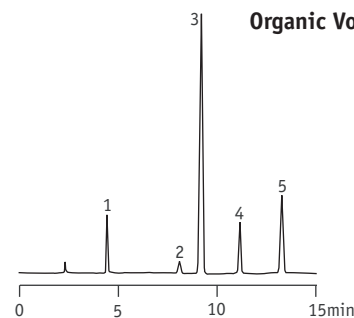
EPA Method 612: Chlorinated Hydrocarbons



1. 1,3-Dichlorobenzene
2. 1,4-Dichlorobenzene
3. 1,2-Dichlorobenzene
4. Hexachloroethane
5. 1,2,4-Trichlorobenzene
6. Hexachlorobutadiene
7. Hexachlorocyclopentadiene
8. 2-Chloronaphthalene
9. Hexachlorobenzene

Column: VertiBond™ 1301, 30m x 0.53mm, 3.0µm
 Temp: 90°C (4 min hold) to 190°C at 10°C/min
 Detector: FID
 Carrier Gas: Helium at 8.1mL/min

Organic Volatile



1. Methylene chloride
2. Chloroform
3. Benzene
4. Trichloroethylene
5. 1,4-Dioxane

Column: VertiBond™ 1301, 30m x 0.53mm, 3.0µm
 Temp: 40°C
 Injector: 1µL direct 140°C
 Detector: FID 260°C
 Carrier Gas: Helium 35cc/sec