



## Column Performance Test

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### 1. Inertness of 1532-3002 : phenol separation test report

We have some columns 1532-3002UI with good inertness. Phenols could be separated on such columns without tailing problem. If you want, we can supply you these Ultra Inert ones. The instrumentation condition for this separation is shown as follows

GC: Agilent 5890 w/ FID

Cat no: 1532-3002 30m x 0.32mm x 0.25um

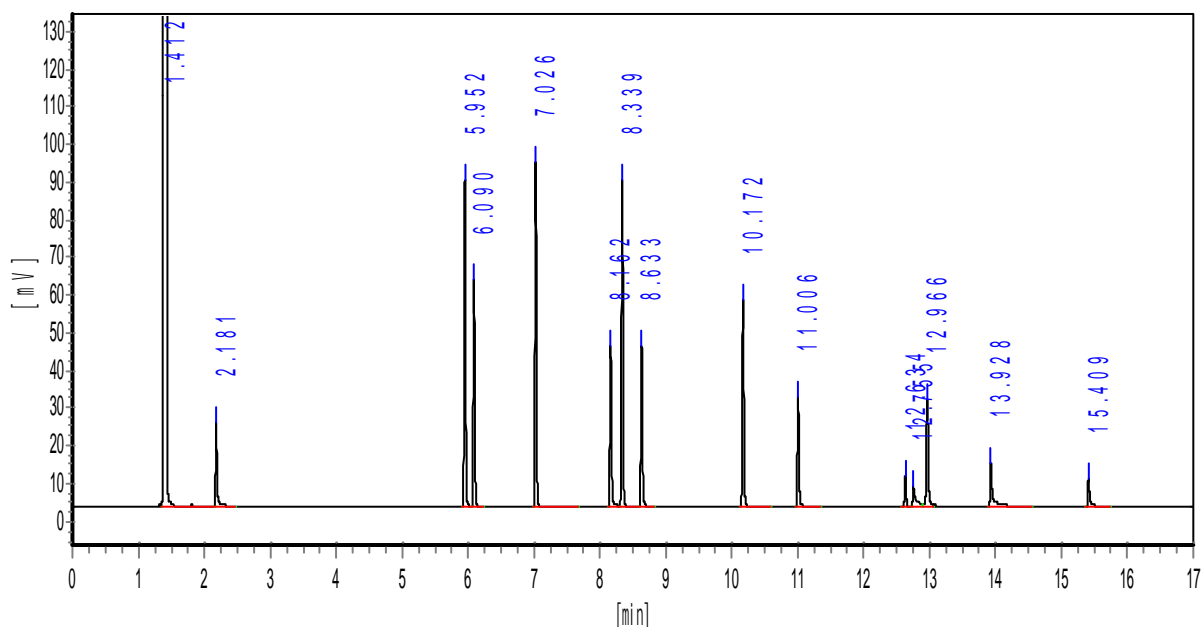
Oven: 40°C 1min 12 °C /min to 220°C 30 °C /min to 300°C 1min

Carrier: Hydrogen, column flow 1.2ml/min

Inlet: Split, 275 °C, split flow 60ml/min

Detector: FID 325 °C

Sample: Phenol Calibration Mix, EPA 528



Peak#	Compound	Retention Time	Resolution
1	Phenol (108-95-2)	5.952	
2	2-Chlorophenol (95-57-8)	6.09	3.68
3	2-Methylphenol (o-cresol) (95-48-7)	7.026	
4	2-Nitrophenol (88-75-5)	8.162	
5	2,4-Dimethylphenol (105-67-9)	8.339	4.62
6	2,4-Dichlorophenol (120-83-2)	8.633	
7	4-Chloro-3-methylphenol (59-50-7)	10.172	
8	2,4,6-Trichlorophenol (88-06-2)	11.006	
9	2,4-Dinitrophenol (51-28-5)	12.634	
10	4-Nitrophenol (100-02-7)	12.755	2.69
11	2,3,4,5-Tetrachlorophenol (4901-51-3), 2,000 µg/mL	12.966	4.29
12	4,6-Dinitro-2-methylphenol (Dinitro-o-cresol) (534-52-1)	13.928	
13	Pentachlorophenol (87-86-5)	15.409	

## 2. Inertness of GsBP-Inowax: Free fatty acid test report

We have some GsBP-Inowax glycols columns with good inertness. EG as well as free fatty acid separation could be achieved on such columns with improved peak shape. If you want, we can supply you these Ultra Inert ones for your special application. The instrumentation condition is shown as follows

GC: Agilent 5890 w/ FID

Cat no: 2632-3002 GsBP-Inowax glycols 30m x 0.32mm x 0.25µm

Oven: 80°C 1min 20°C/min to 120°C 6°C/min 205°C 2min

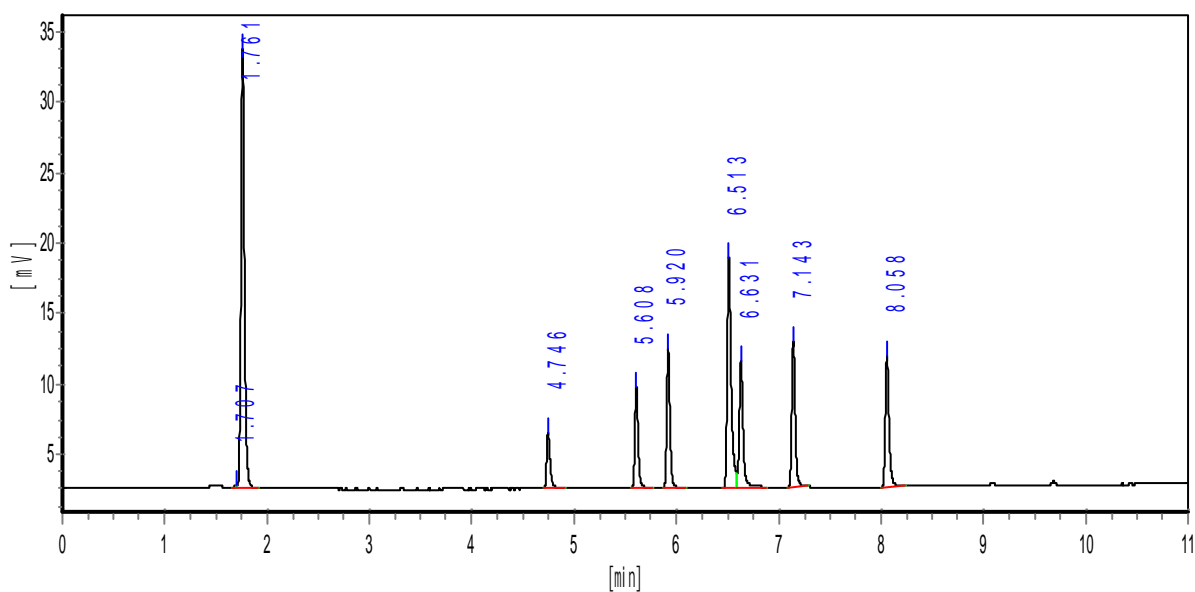
Carrier: Hydrogen, 8psi

Inlet: Split, 240 °C, split flow 50ml/min

Detector: FID 260 °C

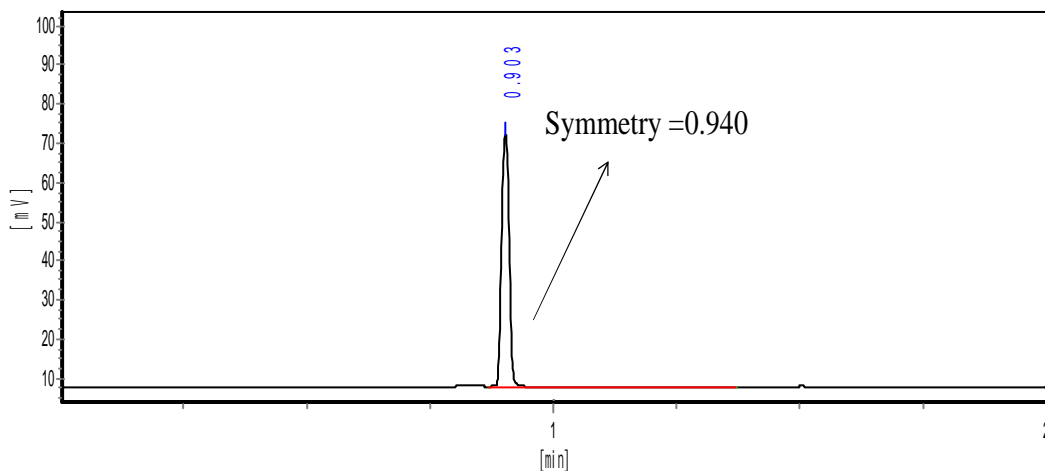
Samples: Free Fatty Acids Test Standard (Cat.#:35272)

Inject volume: 1ul



Peak#	Compound	Retention Time	Symmetry
1	Acetic acid	4.746	1.446
2	Propionic acid	5.608	1.324
3	Isobutyric acid	5.92	1.212
4	Butyric acid	6.513	1.447
5	Isovaleric acid	6.631	1.326
6	Valeric acid	7.143	1.209

EG separation on 2632-3002 GsBP-Inowax glycols with a symmetry of 0.94 is shown below,



#### Conclusion:

After correct installation and clean system, our columns could have good internes. Free fatty acid as well as phenol separation could be achieved with improved peak shapes.

THANKS for your interest in our products.

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25 Years' of Customer Application Experiences