

<< Develosil Column >>

TEST REPORT

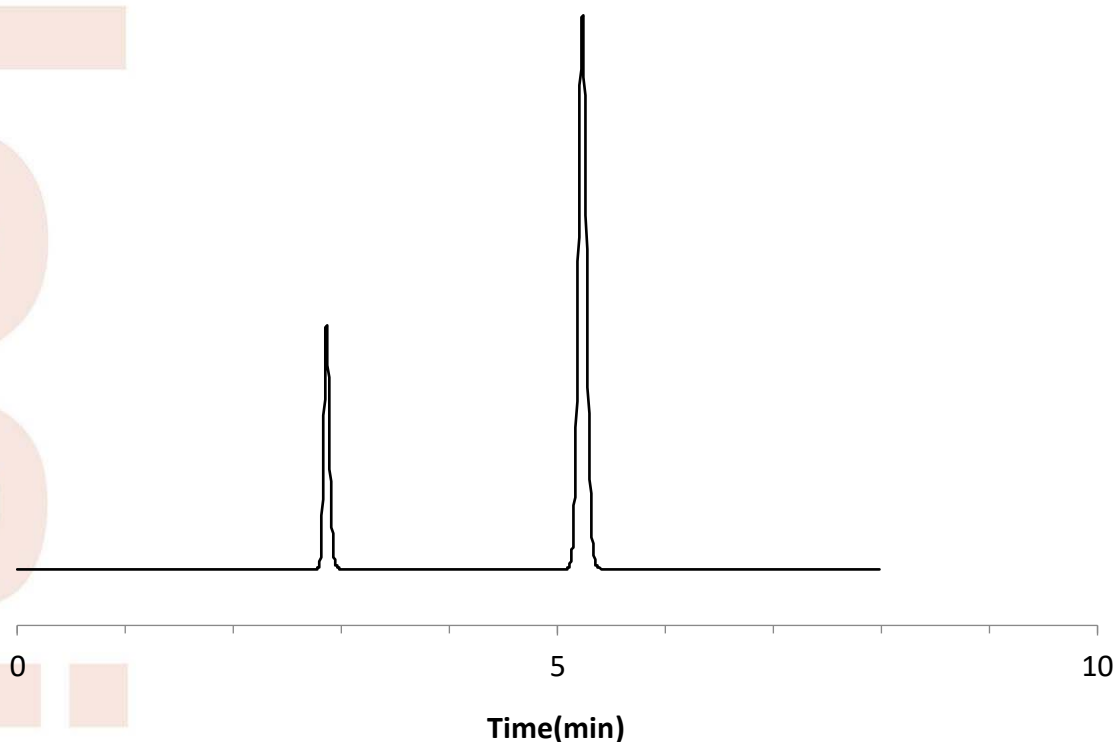
| | | | | |
|------------------|----------------|-------------------|-----------|--------|
| Packings | Develosil | TMS-UG, 5 μ m | Batch No. | 190318 |
| Column size | Inner diameter | 4.6 mm | Length | 250 mm |
| End fitting type | NW | | | |
| Mfg. No. | 25012173C-HP | | | |

Operating conditions

| | | |
|--------------|---|--------------------------|
| Mobile phase | : | Acetonitrile:water=70:30 |
| Flow rate | : | 1.0 mL/min |
| Column temp. | : | 30 $^{\circ}$ C |
| Pressure | : | 5.0 MPa |
| Detection | : | UV 254 nm |

Sample (Order of elution)

| | |
|---|-------------|
| 1 | Uracil |
| 2 | Naphthalene |



| | | |
|---------------------------|---------------------------|---------------------------------------|
| Theoretical plate | (Last peak) | $5.54 \times (t_R/W_{0.5})^2 = 21137$ |
| Asymmetry factor | (10% Height of Last peak) | = 1.01 |
| Mobile phase at shipment: | Acetonitrile:water=70:30 | |

Certificate of Analysis

Develosil TMS-UG, 5um

Batch # 190318

Analytical Results for Develosil TMS-UG, 5um

| Analysis of Unbonded Silica Gel | Result |
|--|-------------|
| Median Particle Size [μm] | 5.13 |
| Surface Area [m^2/g] | 306 |
| Pore Volume [ml/g] | 1.14 |
| Median Pore Diameter [nm] | 12.7 |

※Median Particle Size was measured using Coulter Multisizer III, and Surface Area, Pore Volume and Median Pore Diameter were measured using Coulter SA3100.

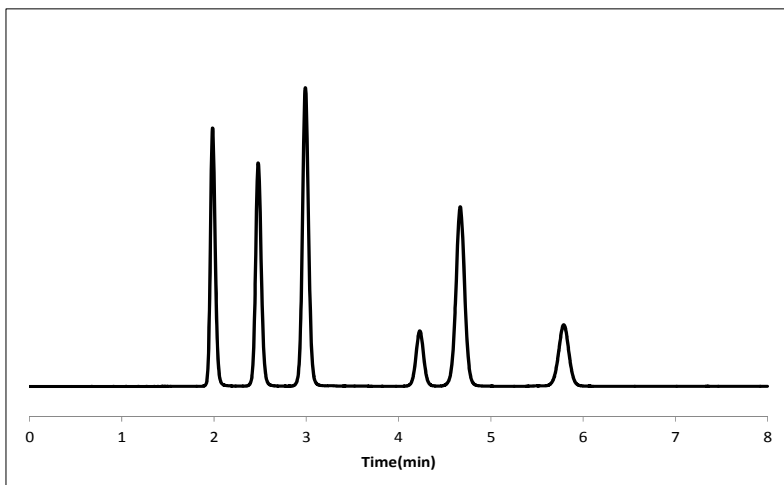
Analysis of Develosil TMS-UG, 5um

| | |
|------------------|-------------|
| Total carbon [%] | 4.36 |
|------------------|-------------|

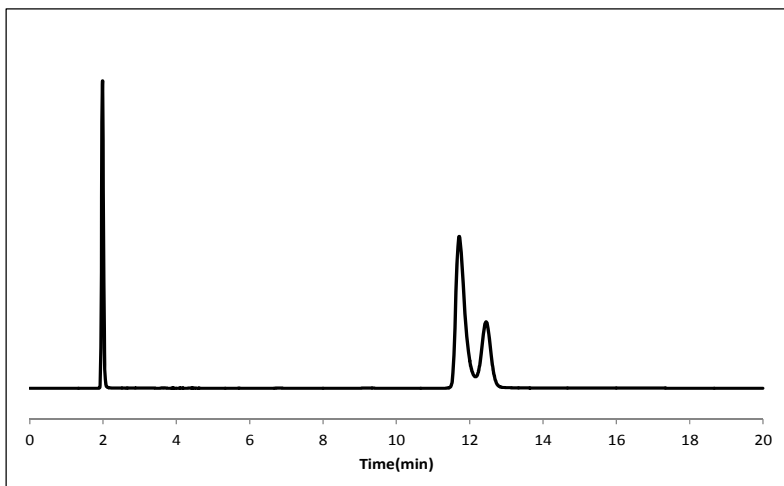
Chromatographic Results for Develosil TMS-UG, 5um

Separation Factor

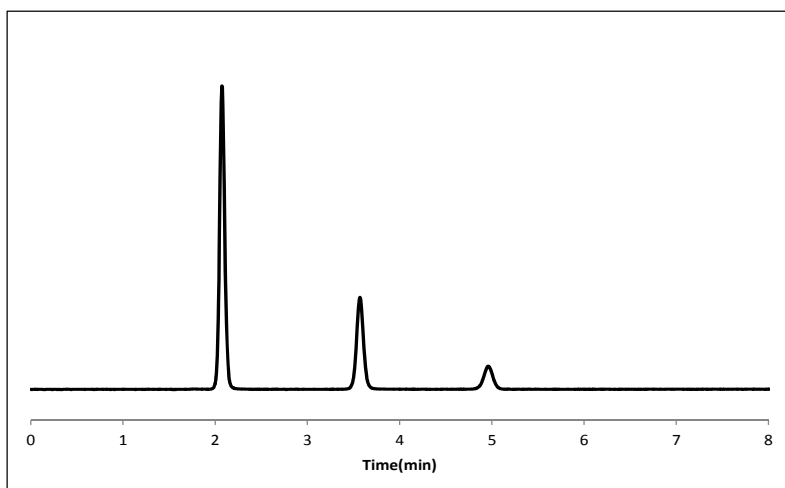
| | |
|--|-------------|
| α (Caffeine/Phenol) | 0.50 |
| α (Toluene/Benzene) | 1.69 |
| α (Methyl benzoate/Toluene) | 0.71 |
| α (Triphenylene/ <i>o</i> -Terphenyl) | 0.93 |
| α (Pyridine/Phenol) | 0.52 |
| α (Oxine-Copper/Caffeine) | 0.12 |



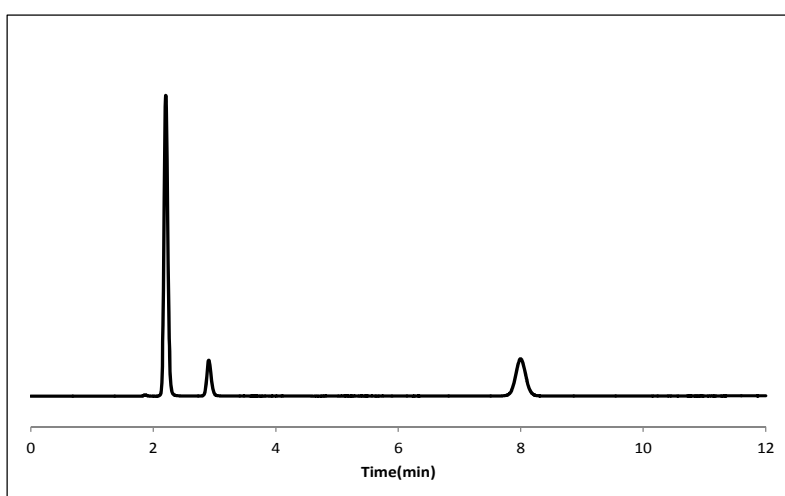
Column size :150x4.6mm I.D.
 Mobile Phase :CH₃OH/Water(50/50)
 Flow rate :1.0ml/min
 Detection :UV 254nm
 Temperature :40°C
 Sample 1:Uracil
 2:Caffeine
 3:Phenol
 4:Benzene
 5:Methyl benzoate
 6:Toluene



Column size :150x4.6mm I.D.
 Mobile Phase :CH₃OH/Water(60/40)
 Flow rate :1.0ml/min
 Detection :UV 254nm
 Temperature :40°C
 Sample 1:Uracil
 2:Triphenylene
 3:*o*-Terphenyl



Column size :150x4.6mm I.D.
Mobile Phase :CH₃OH/Buffer(30/70)
Flow rate :1.0ml/min
Detection :UV 254nm
Temperature :40°C
Sample 1:Uracil
2:Pyridine
3:Phenol
Buffer: 25mM Ammonium Phosphate (pH7.0)



Column size :150x4.6mm I.D.
Mobile Phase :CH₃OH/Buffer(20/80)
Flow rate :1.0ml/min
Detection :UV 254nm
Temperature :40°C
Sample 1:Uracil
2:Oxine-Copper
3:Caffeine
Buffer: 25mM Ammonium Phosphate (pH2.0)