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## OPERATING CONDITIONS and SPECIFICATIONS

### TSKgel® Octadecyl-NPR™ Products

<b>Part Numbers:</b>	0014005	4.6 mm ID x 3.5 cm L	<b>2.5 µm</b>
<b>Accessories:</b>	0003410	Pre-Column Filter with 0.5 micron SS Frit	
	0003411	Replacement 0.5 µ Frits, for 03410, pk 10	

This sheet contains the recommended operating conditions and the specifications for **TSKgel** Octadecyl-NPR column. Installation instructions and column care information are described in a separate Instruction Manual.

#### A. OPERATING CONDITIONS

1. Shipping Solvent: 70% Methanol - 30% Water (v/v)
2. Max. Flow Rate: 1.6 mL/min  
**NOTE:** When a buffer with high viscosity is used, the maximum flow rate may have to be reduced so as not to exceed the maximum pressure drop. When changing solvents, use a flow rate equal to 25% of the maximum flow rate.
3. Standard Flow Rate: 1.0 - 1.5 mL/min
4. Max. Pressure: 20 MPa
5. pH Range: 2 - 12      pH above 12 or below 2 can only be used for a short time
6. Salt Conc.: ≤ 0.5 M
7. Organic Conc.: 0 - 100%
8. Temperature: 0 - 60°C
9. Cleaning Solvents:
  - (1) Acetonitrile or Methanol, or
  - (2) Aqueous buffer in organic solvent
  - (3) 0.1 - 0.2 M NaOH, or
  - (4) 20 - 40% acetic acid aq., or
  - (5) 60% Acetonitrile/40% 0.2 M NaOH**NOTE:** Clean the column regularly by injecting up to one column volume cleaning solution in 100 - 250 µL increments.
10. Storage: Store the column in the shipping solvent when it will not be used the next day. For overnight storage flush the column with the mobile phase at 0.2 ml/min. Avoid air to enter the column!
11. Column Protection: No guard column is available for the **TSKgel** Octadecyl-NPR column. Be sure to use a filter after the injector with 0.5 micron pores to avoid frequent plugging of the one micron pore size NPR column frit. We also recommend a pre-injector membrane filter to prevent particles from pump seal wear to reach the column.  
**NOTE:** Use high quality reagents, water and solvents for preparing buffers. Fouling of the resin, leading to a loss in retention and/or efficiency occurs faster due to the small surface area of non-porous resin particles.

#### B. SPECIFICATIONS

The performance of **TSKgel** Octadecyl-NPR columns is tested under the conditions described in the Data Sheet. All columns have passed the following quality control specifications

Number of Theoretical Plates (N):	≥	1000
Asymmetry Factor (AF):		1.0 - 2.0

Note our technical hotline tel +49 6155 70437-36  
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