

# TSK-GEL® Octadecyl-NPR Products

<b>Column:</b>	14005, 4.6mm ID 3.5cm, 2.5µm
<b>Accessories:</b>	03410, Pre-Column Filter with 0.5µm SS Frit 03411, Replacement 0.5µm Frits, for 03410, pk 10 14594, Pre-Injector Membrane Filter Holder, SS 03409, 13mm Nylon Membrane Filter, 0.45µm, for 14594, pk 100

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

## A. OPERATING CONDITIONS

- Shipping Solvent: 70% Methanol - 30% Water (v/v)
- Max. Flow Rate: 1.6 mL/min  
  
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.
- Standard Flow Rate: 1.0 - 1.5 mL/min
- Max. Pressure: 200 kg/cm<sup>2</sup> = 3000 psi
- pH Range: 2 - 12 (pH above 12 or below 2 can only be used for a short time)
- Salt Conc.: ≤ 0.5 Molar
- Organic Conc.: 0 - 100%
- Temperature: 0 - 60°C
- Cleaning Solvents: (1) Acetonitrile or Methanol, or  
(2) Aqueous buffer in organic solvent  
(3) 0.1 - 0.2M NaOH, or  
(4) 20 - 40% acetic acid aq., or  
(5) 60% Acetonitrile/40% 0.2M NaOH

**NOTE:** Clean the column regularly by injecting up to one column volume cleaning solution in 100 - 250 µl increments.

- 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!
- Column Protection: No guard column is available for the TSK-GEL 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 TSK-GEL 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): ≥ 1,000
- Asymmetry Factor (AF): 1.0 - 2.0

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