# TSK-GEL<sup>®</sup> ODS-80Tm Products

#### Part Numbers:

16651, 4.6mm ID x 7.5cm, 5 $\mu$ m 08148, 4.6mm ID x 15cm, 5 $\mu$ m 08149, 4.6mm ID x 25cm, 5 $\mu$ m 14001, 7.8mm ID x 30cm, 10 $\mu$ m 14002, 21.5mm ID x 30cm, 10 $\mu$ m

19004, 1.5cm x 3.2mm ID Guard Cartridge 19018, Cartridge Holder for p/N 19004

14098, 21.5mm ID x 7.5cm Guard,  $10 \mu m$ 

This sheet contains the recommended operating conditions and the specifications for TSK-GEL ODS-80Tm columns. Installation instructions and column care information are described in the enclosed Instruction Manual.

## A. OPERATING CONDITIONS

| 1.  | Shipping Solvent:   | 70% Methanol - 30% Water   |  |
|-----|---------------------|--|--|
| 2.  | Max. Flow Rate:     | 1.2 mL/min (4.6mmID)<br>3.0 mL/min (7.8mm ID)<br>12.0 mL/min (21.5mm ID)   |  |
|     |                     | 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.   |  |
| 3.  | Standard Flow Rate: | 0.8 - 1.0 mL/min (4.6mmID)<br>1.0-2.0 mL/min (7.8mm ID)<br>4.0-6.0 mL/min (21.5mm ID)  |  |
| 4.  | Max. Pressure:      | 10.0 MPa (7.5cm column)<br>20.0 MPa (15cm column)<br>30.0 MPa (25cm column)<br>7.5 MPa (7.8mm ID)<br>6.0 MPa (21.5mm ID)   |  |
| 5.  | pH Range:           | 2.0 - 7.5  |  |
| 6.  | Organic Conc.:      | 0 - 100%   |  |
| 7.  | Temperature:        | 0 - 45°C. Reduce flow rate when operating below 10°C.  |  |
| 8.  | Cleaning Solvents:  | <ol> <li>Acetonitrile or Methanol, or</li> <li>gradient from 10% to 100% acetonitrile in 0.05% trifluoroacetic acid</li> </ol>   |  |
| 9.  | Storage:            | Store the column in acetonitrile or methanol when it will not be used the next day. For overnight storage flush the column with the mobile phase at 0.2 mL/min.  |  |
| 10. | Column Protection:  | The use of guard columns is recommended to prolong the life of the analytical column. Guard column life depends greatly on sample cleanliness. As a general rule, guard columns should be replaced after every 30 - 40 sample injections or when the peaks become excessively wide or when the peaks show splitting. |  |

## B. SPECIFICATIONS

The performance of TSK-GEL ODS-80Tm columns is tested under the conditions described in the Data Sheet. All columns have passed the following quality control specifications:

| 1. | Number of Theoretical Plates (N): | ≥ 4,500 (7.5cm column)<br>≥ 11,000 (15cm column)<br>> 18,000 (25cm column)<br>≥ 6,000 (7.8 mm ID, 21.5 mm ID) |
|----|-----------------------------------|---|
| 2. | Asymmetry Factor (AF):            | 0.7 - 1.8 (4.6 mm ID & 6.0 mm ID)<br>0.7 - 1.9 (7.8 mm ID & 21.5 mm ID)                                       |

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