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OPERATING CONDITIONS and SPECIFICATIONS

TSKgel® SuperOligoPW Products

Part Numbers:	22792	6.0 mm ID x 15.0 cm L	**TSKgel** SuperOligoPW	**3 µm**
	22796	4.0 mm ID x 3.5 cm L	Guard for **TSKgel** SuperOligoPW	**4 µm**

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

A. OPERATING CONDITIONS

1.	Shipping Solvent:	Water		
2.	Standard Flow Rate:	0.3 - 0.6	mL/min	
3.	Max. Flow Rate: **NOTE:**	0.6	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. When changing solvents, use a flow rate equal to 25% of the maximum flow rate.
4.	Max. Pressure:	50 kg/cm²	= 725 psi	
5.	pH Range:	2.0 – 12.0		
6.	Salt Conc.:	< 0.5 Molar		
7.	Temperature:	10 - 80°C	Reduce flow rate when operating below 10°C	
8.	Organic Conc.:		< 20% methanol, ethanol, acetonitrile, formic acid, dimethylsulfoxide, etc. It is possible to use up to 50% organic when the solvent change is made very gradually using a shallow gradient at low flow rate.	
9.	Mobile Phase		Although some non-ionic compounds can be analyzed in a distilled water mobile phase, it is generally recommended to perform the analysis with aqueous salt solutions or buffered solutions, while considering the presence of ionic impurities which may interact with the support. Representative mobile phases are: <u>Salts in aqueous solutions:</u> Sodium sulfate, sodium acetate, sodium dihydrogen phosphate, ammonium acetate, ammonium formate. <u>Buffers:</u> Phosphate, tris hydrochloric acid, tris acetate, citrate, acetate.	
10.	Cleaning Solvents:		Adsorbed materials may be removed from the column by injections of solvent with different properties from the operating mobile phase. 1. To remove ionic species, use high salt concentration buffer (less than 0.5M) 2. To remove adsorbed basic compounds, use pH 2 - 3 acetic acid buffer 3. To remove hydrophobic adsorption, use a buffer in acetonitrile or methanol	
11.	Storage:		For overnight storage flush mobile phase through the column at low flow rate. For longer term storage, purge the system with distilled water. Remove the column from the system and keep the ends of the column tightly capped with the end plugs supplied with the column. Under all circumstances, prevent air from entering the column!	
12.	Column Protection		The use of the corresponding **TSKgel** SuperOligoPW guard column is recommended to prolong the life of the **TSKgel** SuperOligoPW columns. Guard column life depends greatly on sample cleanliness. As a general rule, guard columns should be replaced when the peaks become excessively wide, or when the peaks show splitting.	

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B. SPECIFICATIONS

The performance of **TSKgel** SuperOligoPW 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):	≥	16,000	**TSKgel** SuperOligoPW
Asymmetry Factor (AF):		0.7 – 1.6	

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