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OPERATING CONDITIONS and SPECIFICATIONS

TSKgel® NH₂-100 Products

Part Numbers:	21967	2.0 mm ID x 5.0 cm L		3 µm
	21999	4.6 mm ID x 5.0 cm L	NH ₂ -100 DC	3 µm
	21968	2.0 mm ID x 15.0 cm L		3 µm
	21969	4.6 mm ID x 5.0 cm L		3 µm
	21970	4.6 mm ID x 15.0 cm L		3 µm
	21971	2.0 mm ID x 1.0 cm L	Guard Cartridge for 2.0 mm ID columns	
	19308		Guard Cartridge Holder, for 2.0 mm ID cartridges	
	21972	3.2 mm ID x 1.5 cm L	Guard Cartridge for 4.6 mm ID columns	
	19018		Guard Cartridge Holder, for 3.2 mm ID cartridges	

This sheet contains the recommended operating conditions and the specifications for TSK-GEL NH₂-100 columns and guard cartridge columns. Installation instructions and column care information are described in a separate Instruction Manual.

A. OPERATING CONDITIONS

1. Shipping Solvent: 85% Acetonitrile - 15% Water
2. Standard Flow Rate:

0.2 ml/min	2.0 mm ID
1.0 ml/min	4.6 mm ID
3. Max. Pressure:

150 kg/cm ² = 2200 psi	2.0 mm ID x 5.0 cm L
200 kg/cm ² = 2900 psi	2.0 mm ID x 15.0 cm L
50 kg/cm ² = 700 psi	4.6 mm ID x 5.0 cm L
150 kg/cm ² = 2200 psi	4.6 mm ID x 15.0 cm L
4. pH Range: 2.0 - 7.5
5. Salt Conc.: No limitation
6. Organic Conc.: No limitation
7. Temperature: 10 - 50°C.
8. Cleaning Solvents:

Sample property: Hydrophobic compounds
Water-soluble organic solvents, such as 70-95% Acetonitrile and methanol in aqueous buffer

Sample property: Hydrophilic compounds
Water-soluble organic solvents such 5-10% Acetonitrile and methanol in aqueous buffer
9. Storage:

If the column is used in routine daily operation, it is permissible to leave the mobile phase in the column overnight if the mobile phase is not corrosive. If halides are included in the mobile phase, it is better to replace the mobile phase with a suitable solvent even for one night.

If the column will not be used for several days, it should be stored as follows:

 1. Purge the system with the "packed solvent" shown in the INSPECTION DATA sheet at a flow rate one-half of the standard flow rate (purge the system with distilled or ion-exchanged water if you have used a buffer solution as a mobile phase which contains salt in considerably high concentrations).
 2. Remove the column from the system and keep the ends of the columns tightly capped with the end plugs supplied with the column.
 3. Store the column at a relatively constant temperature in its original shipping container. Take care not to allow the column to freeze during storage.

B. SPECIFICATIONS

The performance of TSK-GEL NH₂-100 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):	≥	4,000	2.0 mm ID x 5.0 cm L
	≥	15,000	2.0 mm ID x 15.0 cm L
	≥	6,000	4.6 mm ID x 5.0 cm L
	≥	18,000	4.6 mm ID x 15.0 cm L
Asymmetry Factor (AF):	0.90 – 1.35	2.0 mm ID x 5.0 cm L	
	0.90 – 1.35	2.0 mm ID x 15.0 cm L	
	0.90 – 1.30	4.6 mm ID x 5.0 cm L	
	0.90 – 1.30	4.6 mm ID x 15.0 cm L	