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## OPERATING CONDITIONS and SPECIFICATIONS

### TSKgel® NH<sub>2</sub>-100 Products

<b>Part Numbers:</b>	0021967	2.0 mm ID x 5.0 cm L		<b>3 µm</b>
	0021999	4.6 mm ID x 5.0 cm L	NH <sub>2</sub> -100 DC (direct connect)	<b>3 µm</b>
	0021968	2.0 mm ID x 15.0 cm L		<b>3 µm</b>
	0021969	4.6 mm ID x 5.0 cm L		<b>3 µm</b>
	0021970	4.6 mm ID x 15.0 cm L		<b>3 µm</b>
	0021971	2.0 mm ID x 1.0 cm L	Guard Cartridge for 2.0 mm ID columns	
	0019308		Guard Cartridge Holder, for 2.0 mm ID cartridges	
	0021972	3.2 mm ID x 1.5 cm L	Guard Cartridge for 4.6 mm ID columns	
	0019018		Guard Cartridge Holder, for 3.2 mm ID cartridges	

This sheet contains the recommended operating conditions and the specifications for **TSKgel** NH<sub>2</sub>-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:
 

15 MPa	2.0 mm ID x 5.0 cm L
20 MPa	2.0 mm ID x 15.0 cm L
5 MPa	4.6 mm ID x 5.0 cm L
15 MPa	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 **TSKgel** NH<sub>2</sub>-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	