

## Phenethicillin Potassium Tablets

**Dissolution** <6.10> Perform the test with 1 tablet of Phenethicillin Potassium Tablets at 50 revolutions per minute according to the Paddle method, using 900 mL of water as the dissolution medium. Start the test, withdraw not less than 20 mL of the medium at the specified minute after starting the test, and filter through a membrane filter with a pore size not exceeding 0.45  $\mu\text{m}$ . Discard the first 10 mL of the filtrate, pipet  $V'$  mL of the subsequent filtrate, add water to make exactly  $V'$  mL so that each mL contains about 220 units of phenethicillin potassium according to the labeled amount, and use this solution as the sample solution. Separately, weigh accurately an amount of Phenethicillin Potassium RS, equivalent to 22000 units, previously dried under reduced pressure not exceeding 0.67 kPa at 60°C for 3 hours, dissolve in water to make exactly 100 mL, and use this solution as the standard solution. Perform the test with the sample solution and standard solution as directed under Ultraviolet-visible Spectrophotometry <2.24>, and determine the absorbances,  $A_{T1}$  and  $A_{S1}$ , at 268 nm, and absorbances,  $A_{T2}$  and  $A_{S2}$ , at 275 nm, respectively.

The requirements are met if Phenethicillin Potassium Tablets conform to the dissolution requirements.

Dissolution rate (%) with respect to the labeled amount of phenethicillin potassium

$$= M_S \times \frac{A_{T1} - A_{T2}}{A_{S1} - A_{S2}} \times \frac{1}{C} \times \frac{V'}{V} \times 900$$

$M_S$ : Amount (unit) of Phenethicillin Potassium RS

$C$ : Labeled amount (unit) of phenethicillin potassium in 1 tablet

### Dissolution Requirements

Labeled amount	Specified minute	Dissolution rate
200,000 units	15 minutes	Not less than 80%