

## Technical Information

### Penicillin Streptomycin Powder

With 5000 units Penicillin and 5mg Streptomycin per ml in 0.9% normal Saline when reconstituted with sterile tissue culture grade water to indicated volume

#### Product Code: A01004

**Application:-** Penicillin and streptomycin are broad spectrum bacteriostatic and bacteriocidal agent effective against gram positive bacteria and gram negative bacteria. Penicillin acts by inhibiting cell wall synthesis. Streptomycin blocks the initiation complex of protein synthesis by binding to the 30S subunit of bacterial 70S ribosome, thus interfering with the protein synthesis.

A01004 is a powdered antibiotic mixture formulated to contain 5000 units penicillin and 5mg streptomycin per ml when reconstituted with sterile tissue culture grade water to indicated level.

#### Methodology

1. Aseptically add 10ml sterile tissue culture grade water to one amber coloured bottle containing A01004 powder.
  2. Cap the bottle tightly and shake well to dissolve the powder.
  3. Aseptically transfer this solution to one of the empty sterile bottle provided along with the product.
  4. Again add 10ml sterile tissue culture grade water to the same amber coloured bottle of A01004 to remove any traces of undissolved powder.
  5. Add this solution to the bottle in which 10ml antibiotic solution was previously added (refer step 3).
  6. Make up the volume to 50ml or 100ml (depending on pack size) by adding sterile tissue culture grade water up to the mark indicated on the bottle.
- Recommended use concentration is 20ml/L. Sensitive cell lines may react differently to this product. Hence it is recommended to determine optimum usage dose empirically for individual cell line.

#### Quality control

##### Appearance

White homogeneous powder.

##### pH

4.00 -7.00

##### Osmolality

305.00 -345.00

##### Sterility

No bacterial or fungal growth is observed after 14 days of incubation, as per USP specification.

##### Penicillin Concentration

5000 U/ml

##### Streptomycin Concentration

5 mg/ml.

##### Cultural Response

1. No toxicity to cells.
2. Antibiotic sensitivity test

##### Endotoxin Content

NMT 0.5EU/ml

### Storage and Shelf Life

Store the powder at 2-8°C. Reconstituted solution should be stored at -20°C.  
Solution is stable for 3 days at 37°C and for approximately 2 to 3 weeks at 2 - 8°C.  
Shelf life of the product is 24 months.  
Use before expiry date given on the product label.

### Disclaimer :

- User must ensure suitability of the product(s) in their application prior to use.
- The product conforms solely to the technical information provided in this booklet and to the best of knowledge research and development work carried at **CDH** is true and accurate.
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