

DC - DOT

Strepto Penicillin Injection Veterinary Use

Description

Strepto Penicillin Injection is a sterile dry powder formulation containing a combination of **Benzylpenicillin (Penicillin G) and Streptomycin Sulfate** designed for veterinary use. This combination provides broad-spectrum antibacterial activity, effective against many Gram-positive and Gram-negative bacteria commonly implicated in veterinary infections.

Administered parenterally after reconstitution with sterile water, this preparation is ideal for systemic infections requiring prompt antimicrobial intervention in livestock and other animals.

Specifications

- **Dosage Form:** Sterile lyophilized powder for injection
- **Appearance (Dry Powder):** White to pale yellow crystalline powder
- **Appearance (Reconstituted Solution):** Clear, colourless to pale yellow solution
- **pH (Reconstituted Solution):** Approximately 6.5 to 7.5
- **Sterility:** Complies with veterinary pharmacopoeia standards
- **Assay:** Meets labelled potency for both active ingredients
- **Container:** Mono carton tray packaging including vial(s) and sterile water ampoule(s)

Composition

Each vial contains:

- **Benzylpenicillin Potassium or Sodium equivalent** – amount to deliver 2.5 gm or 5 gm total penicillin activity
- **Streptomycin Sulphate** – equivalent to corresponding streptomycin content per veterinary standards
- **Excipients:** Pharmacopeial-grade stabilizers and bulking agents
- **Sterile Water for Injection:** Supplied in mono carton tray for reconstitution

Pharmacological Category

- **Therapeutic Class:** Antibiotic combination
- **Mechanism of Action:**
Benzylpenicillin inhibits bacterial cell wall synthesis causing cell lysis; Streptomycin interferes with protein synthesis by binding to the 30S ribosomal subunit, exerting bactericidal effect especially on aerobic Gram-negative bacteria. The combination provides synergistic broad-spectrum antibacterial coverage.

Indications (Veterinary Use)

Used to treat infections caused by susceptible bacteria, including:

- Respiratory tract infections
- Septicemia
- Foot rot and wound infections
- Mastitis
- Enteritis
- Other systemic and localized infections in cattle, sheep, goats, pigs, and other species

Dosage and Route of Administration

Route:

- Intramuscular (I.M.) injection

Dosage:

- 10,000 to 20,000 IU penicillin/kg body weight once or twice daily, or as prescribed
- Duration: 3–7 days depending on infection severity and clinical response

Preparation:

- Reconstitute the dry powder with the supplied sterile water immediately before use.

Dosage Form and Presentation

- Sterile dry powder for injection in vial(s)
- Packaged in mono cartoon tray containing vial(s) and ampoule(s) of sterile water
- Available vial sizes: 2.5 gm and 5 gm

Key Advantages

- Broad-spectrum antibacterial efficacy combining penicillin and streptomycin
- Synergistic action enhancing treatment outcomes
- Convenient mono carton packaging with sterile water for easy preparation
- Suitable for treatment of a wide range of veterinary infections

Adverse Effects

- Local irritation or pain at injection site
- Hypersensitivity reactions (rare) including anaphylaxis
- Possible ototoxicity and nephrotoxicity at high doses (streptomycin component)

Precautions and Contraindications

- Contraindicated in animals allergic to penicillin or aminoglycosides
- Avoid in animals with renal impairment or hearing disorders
- Administer cautiously in debilitated or dehydrated animals
- Strictly follow veterinary guidance and withdrawal periods

Withdrawal Period

- **Meat:** Minimum 21 days
- **Milk:** Minimum 3 days

Withdrawal times may vary with local regulations; always comply with applicable rules.

Storage and Handling

- Store below 25°C in a dry, dark place
- Protect from moisture and light
- Use immediately after reconstitution
- Dispose of unused product responsibly
- Handle with care to avoid human exposure

Schedule / Regulatory Classification

- Veterinary prescription-only medicine
- Regulated under Schedule H or equivalent
- Not for human use

HS Code / HSN Code

- **HS Code (International):** 3004.90 – Medicaments for veterinary use
- **HSN Code (India):** 3004.90.99 – Veterinary antibiotic combinations

Special Instructions

- Use aseptic technique during reconstitution and administration
- Complete full prescribed course to prevent resistance
- Do not mix with other drugs unless compatibility is confirmed
- Monitor for adverse reactions during treatment

Frequently Asked Questions (FAQs)

Q1: What bacteria does Strepto Penicillin treat?

A: It targets a wide range of Gram-positive and Gram-negative bacteria, including those causing respiratory and systemic infections.

Q2: Can this be used in all food-producing animals?

A: Yes, but withdrawal periods must be strictly observed.

Q3: How should the injection be prepared?

A: Reconstitute the powder with the sterile water supplied immediately before injection.

Q4: Are there risks of allergic reactions?

A: Yes, hypersensitivity to penicillin or streptomycin is possible; monitor animals carefully.

Q5: Can the reconstituted solution be stored?

A: No, use immediately after preparation.