SULPHAVET-T

Sulphadiazine I.P. 10% w/w & Trimethoprim I.P. 2% w/w

Veterinary Oral Powder

🧴 Description

This veterinary oral powder formulation contains a synergistic antimicrobial combination of **Sulphadiazine I.P. 10% w/w** and **Trimethoprim I.P. 2% w/w**, designed for broad-spectrum antibacterial activity in livestock and poultry. Sulphadiazine, a sulphonamide, inhibits folic acid synthesis at an early step, while Trimethoprim, a diaminopyrimidine, inhibits a later step in the same pathway. When used together, they provide a potentiated bactericidal effect through sequential blockade of microbial folate synthesis.

📋 Specification

- **Appearance**: Fine, off-white to pale yellow free-flowing powder
- **Identification**: Conforms to I.P. specifications for both Sulphadiazine and Trimethoprim using UV spectrophotometry and HPLC
- **Assay**:
    - Sulphadiazine I.P.: 10% w/w
    - Trimethoprim I.P.: 2% w/w
- **Loss on Drying**: Not more than 5.0%
- **pH (1% w/v solution)**: Between 5.5 and 7.5
- **Microbial Limits**: Complies with veterinary pharmacopeial microbial standards
- **Heavy Metals**: Within permissible limits
- **Homogeneity**: Uniform dispersion of actives in each batch
- **Shelf Life**: Minimum 24 months under recommended storage conditions

💊 Indications

This formulation is indicated for the treatment and prevention of bacterial infections in poultry and livestock, especially:

- Respiratory tract infections (CRD, infectious coryza, bronchopneumonia)
- Gastrointestinal infections (colibacillosis, salmonellosis, enteritis)
- Urinary tract infections
- Septicaemia

💉 Dosage and Route of Administration

- **Route**: Oral, via drinking water or mixed with feed
- **General Dosage**:
  - **Poultry**: 1 gm per 1–2 litres of drinking water or 1 kg feed for 3–5 days
  - **Livestock (Cattle, Sheep, Goats, Pigs)**: 15–30 mg/kg body weight per day for 3–5 days
- Dosage may be adjusted by the veterinarian depending on severity and species

📦 Product Form

- Veterinary oral powder
- Available pack sizes: **100 gm**, **250 gm**, **500 gm**, **1 kg**
- Designed for easy dispersion in feed or drinking water

⚙️ Usage and Advantages

- Dual-mode antibacterial action via synergistic folic acid synthesis inhibition
- Bactericidal activity against a wide range of Gram-negative and Gram-positive bacteria
- Effective against respiratory, enteric, and systemic infections
- Resistance development is slower due to potentiated mechanism
- Rapid onset of action with excellent bioavailability
- Improves overall animal health and productivity
- Safe and effective when used as directed

⚠️ Adverse Effects

- Occasional gastrointestinal upset such as diarrhoea or reduced feed intake
- Rare hypersensitivity reactions including skin rash or respiratory signs
- Overdosage or prolonged use may cause crystalluria or nephrotoxicity
- Animals should be adequately hydrated during treatment
- Discontinue use immediately if signs of toxicity appear and consult a veterinarian

📅 Withdrawal Period

- **Meat**: Minimum 7 days after last administration
- **Milk**: Minimum 3 days withdrawal in lactating animals
- **Eggs**: Minimum 7 days if used in laying birds
- Always follow withdrawal periods to avoid antimicrobial residues in food products

❄️ Storage and Handling

- Store in a cool, dry, well-ventilated area below 30°C
- Protect from direct sunlight and moisture
- Keep the container tightly closed when not in use
- Wear protective gloves and mask during handling to avoid inhalation or skin contact
- Keep away from children and unauthorized personnel
- Dispose of unused material and containers in accordance with local regulations

🛃 HS and HSN Code

- **HS Code**: 2942.00 — Other antibiotics; sulphonamides
- **HSN Code** (India): 2942 — Sulphonamides and their derivatives for pharmaceutical use

📌 Precautions and Special Instructions

- Use only under veterinary supervision
- Not for use in animals with known hypersensitivity to sulphonamides or trimethoprim
- Avoid concurrent use with other nephrotoxic drugs
- Ensure adequate water intake during therapy
- Do not mix with acidic drugs or supplements in water/feed
- Follow complete treatment duration even if symptoms subside early
- Do not use in animals with renal or hepatic impairment unless advised by a veterinarian
- Ensure accurate dosage based on body weight or feed/water intake

🐾 Details of Human and Veterinary Application

- **Veterinary Use Only**
- Not for human use or consumption
- Both Sulphadiazine and Trimethoprim are regulated veterinary antimicrobials
- Avoid human exposure during handling; wear protective equipment
- In case of accidental ingestion or contact, seek medical attention immediately
- Strictly observe withdrawal periods to ensure no drug residues in milk, meat, or eggs

❓ Frequently Asked Questions (FAQs)

Q: What is Sulphadiazine (SDZ)?
A: Sulphadiazine (SDZ) is a sulphonamide antibiotic that inhibits bacterial folic acid synthesis and is effective against various bacterial infections.

Q: What is Trimethoprim (TMP)?
A: Trimethoprim (TMP) is an antibiotic that enhances the activity of sulphonamides by inhibiting dihydrofolate reductase in bacterial cells, leading to synergistic bactericidal action.

Q: What types of infections does this combination treat?
A: It treats respiratory, gastrointestinal, urinary, and systemic infections caused by susceptible bacteria in livestock and poultry.

Q: How is this product administered?
A: It is given orally, either by mixing with feed or dissolving in drinking water, according to veterinary dosage instructions.

Q: Is there a withdrawal period?
A: Yes. Meat: 7 days, Milk: 3 days, Eggs: 7 days. Always adhere to local regulatory guidelines.

Q: Can this product be used in all animal species?
A: It is suitable for poultry and major livestock animals but should only be used under veterinary supervision.

Q: What precautions should be taken during use?
A: Ensure hydration, avoid overdose, and observe for adverse reactions. Use PPE while handling the powder.

Q: How should the product be stored?
A: Store below 30°C in a cool, dry place, protected from sunlight and moisture.