Pi-DATA VET

MEDICINE MANUAL

Golden Standard

Pi FARMA®
Pharmaceutical innovation by hasvet pharma


syva
FDNİLAC
vilsan
pharmaceuticals
40th years
Verano
Cargill
hasvet
pharma
40th year
PiFARMA
Pharmaceutical innovation
hasvet
pharmaceutical warehouse
SİMURG
Virbac

Dear colleagues,

Hasvet, which continues to make strong strides in the field of medical equipment, software, surgical instruments and industrial products in the Animal Health sector, transmited this success to the Veterinary pharmaceutical sector in February 2021 and incorporated PI FARMA into its ecosystem. Our vision is to create a living ecosystem by taking a patient-oriented approach, to obtain a strong single light by making each structure of this system shine separately and to illuminate every part of veterinary medicine.

We are grounded on quality production with the aim of becoming a global pharmaceutical manufacturer and exporter by increasing our R&D competence for the future of the pharmaceutical industry. In addition to the GMP (Good Manufacturing Practices) and ISO 9001 certificates that we have, all arrangements have been made with the smallest detail in mind to ensure its continuity.

In addition, as a ring of the ecosystem, we give importance to science and education in order to contribute to the professional development of each of our colleagues, to be there for the diagnosis and treatment of each patient, and to make the lives of our healthy friends comfortable.

As Pi FARMA, we will continue to work with all our strength by putting the patient in our focus and to take firm steps forward towards becoming a leading brand in the world animal health sector.

A structure designed with the ecosystem rings,

The golden ratio in the structure,

The perfect harmony provided by the ratio,

The endless spiral shaped by harmony,

Where innovative ideas and ideas from the spiral converge.

"Pi Farma" Pharmaceutical Innovation...

We look forward to the dreams of the future that we have built together with the strength we give each other, and we express our sincere thanks to all our colleagues who have been by our side.

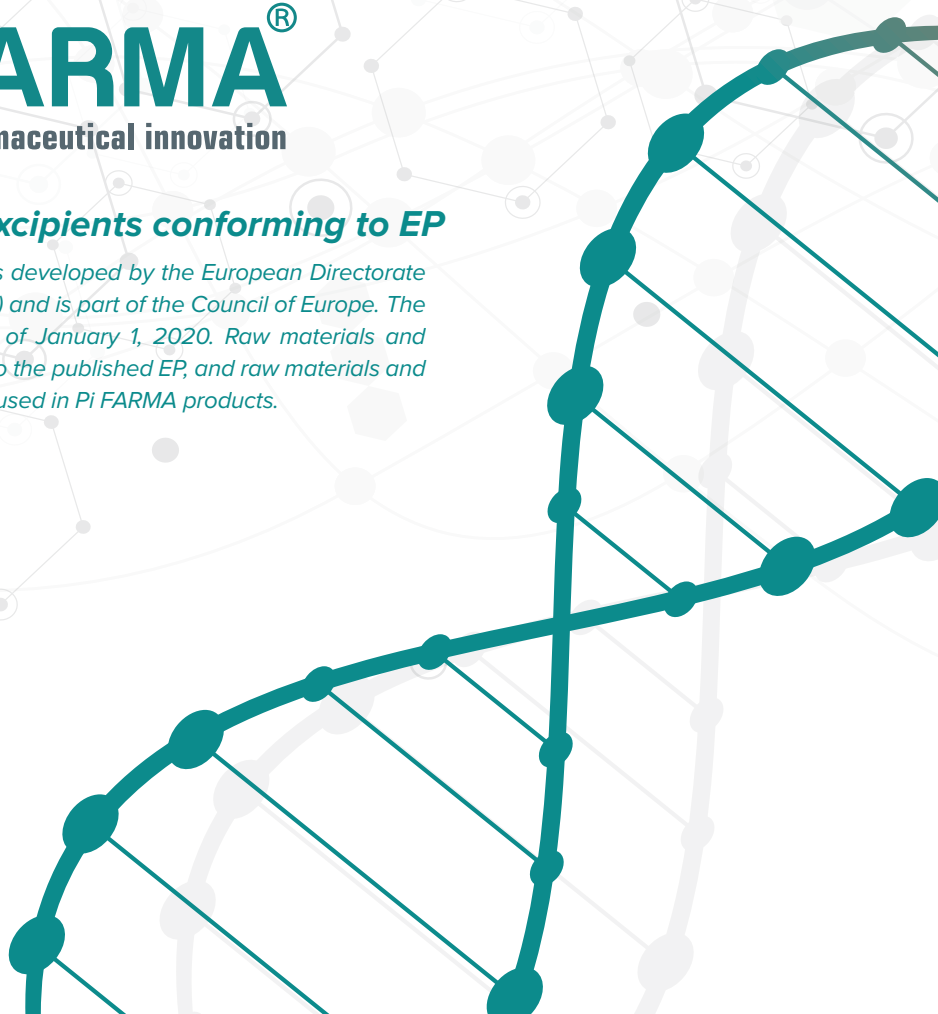
Best Regards

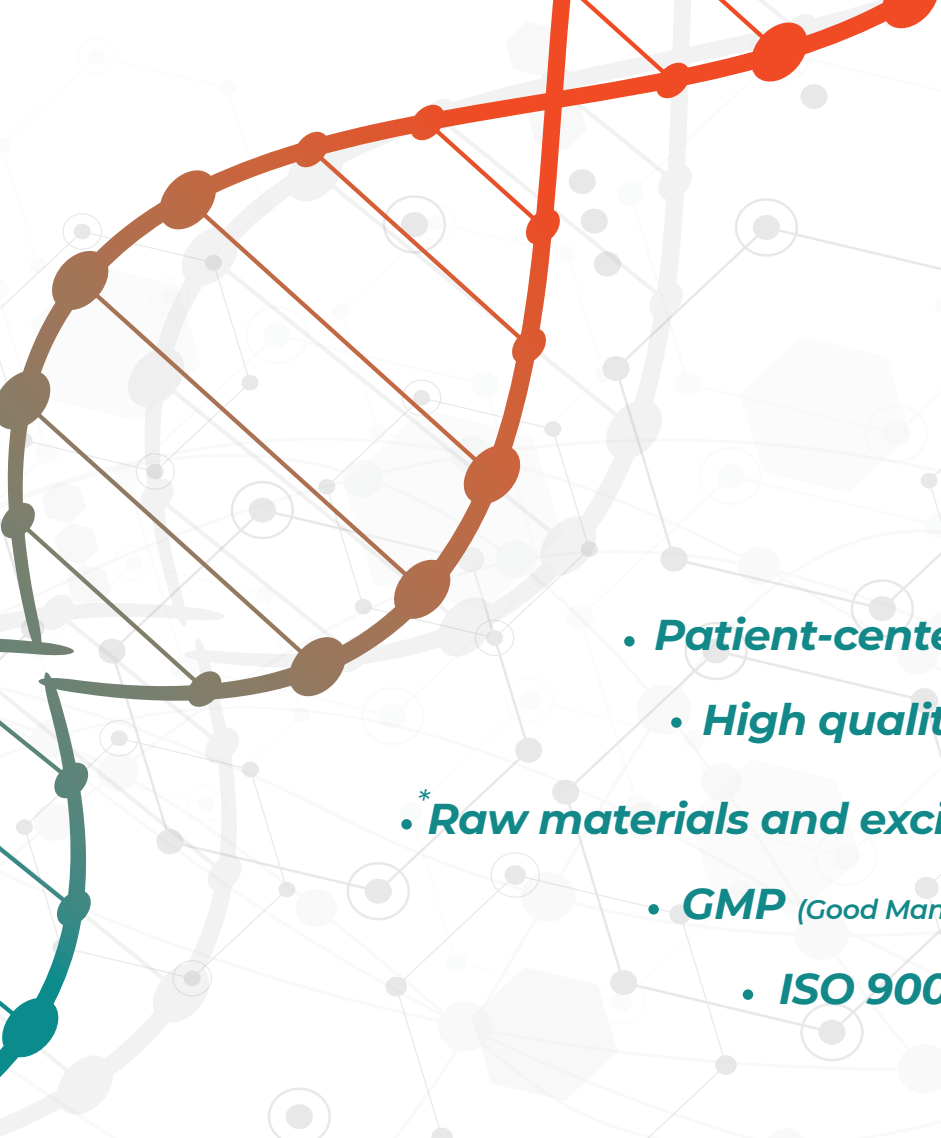
Pi FARMA®
Pharmaceutical innovation

Pi FARMA®
Pharmaceutical innovation

*Raw materials and excipients conforming to EP

The European Pharmacopoeia was developed by the European Directorate for the Quality of Medicines (EDQM) and is part of the Council of Europe. The 10th Edition entered into force as of January 1, 2020. Raw materials and excipients are qualified according to the published EP, and raw materials and excipients conforming to EP 10 are used in Pi FARMA products.





- ***Patient-centered approach***
- ***High quality standards***
- ***Raw materials and excipients conforming to EP**
- ***GMP*** *(Good Manufacturing Practices)*
- ***ISO 9001 certificate***

PRODUCTION

Hasvet Pharma is the umbrella brand that brings together all veterinary pharmaceutical operations under a single structure. Operating through an integrated production, distribution, and marketing model, Hasvet Pharma conducts veterinary pharmaceutical manufacturing and distribution across three specialized facilities focused on different product groups, with a high annual production capacity of up to 59 million packs.

All manufacturing processes are carried out in compliance with GMP (Good Manufacturing Practices) standards, supported by an integrated quality management system covering quality control, traceability, and product safety. Hasvet Pharma adopts a production approach fully aligned with licensing and regulatory requirements, prioritizing a sustainable and reliable supply of veterinary pharmaceuticals. Its broad product portfolio includes preventive and therapeutic veterinary pharmaceutical solutions for different animal species and areas of use.

hasvet® pharma

Pİ FARMA Manufacturing Facility

Pİ FARMA, established on a 7,200 m^2 site with a 3,800 m^2 enclosed production area, is one of Türkiye's leading manufacturing facilities, with its GMP-certified infrastructure and modern technology. The facility has an annual production capacity of approximately 7 million boxes.

Production Lines:

1 Non-Beta Lactam Sterile Injectable Production Line
1 Complementary Feed Production Line
1 Ectoparasiticide Production Line

VİLSAN Manufacturing Facility

VİLSAN, established on a 13,500 m^2 site with a 10,700 m^2 enclosed production area, is one of Türkiye's major manufacturing plants, equipped with GMP-certified modern production lines and advanced technology. The facility has an annual production capacity of approximately 30 million boxes and exports to more than 20 countries.

Production Lines:

2 Non-Beta Lactam Sterile Injectable Production Lines
1 Beta Lactam Sterile Injectable Production Line
1 Oral Liquid Production Line
1 Tablet Production Line
1 Non-Beta Lactam Powder Production Line
1 Beta Lactam Intramammary Production Line
1 Beta Lactam Powder Production Line
1 Ectoparasiticide Production Line

FDN İLAÇ Manufacturing Facility

FDN İlaç, established on a 4,923 m^2 site with a 6,082 m^2 enclosed production area, is among the leading facilities in the sector, with its GMP-certified advanced production lines and modern technology. The facility has an annual production capacity of approximately 22 million boxes.

Production Lines:

2 Non-Beta Lactam Sterile Injectable Production Lines
1 Beta Lactam / Hormone Sterile Injectable Production Line

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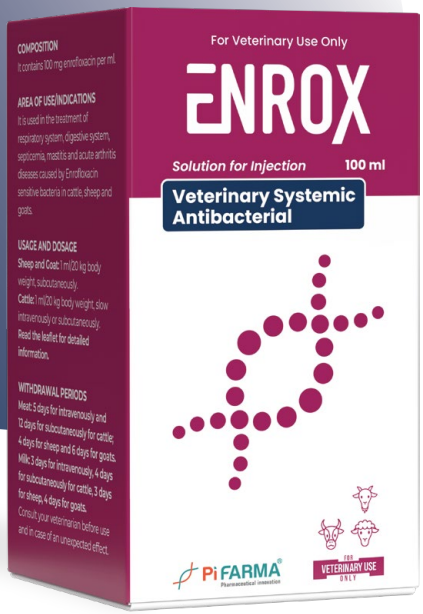
ANTIBACTERIALS



Commercial Presentation
Form: 50-100-250 ml

ENROX

Solution for Injection | Veterinary Systemic Antibacterial

COMPOSITION

Enrox Solution for Injection, each ml of contains 100 mg Enrofloxacin.

PHARMACOLOGICAL PROPERTIES

Pharmacodynamic Properties

Two essential enzymes involved in DNA replication and transcription have been identified as molecular targets of fluoroquinolones; DNA-gyrase and topoisomerase. Inhibition of the target occurs by non-covalent binding of fluoroquinolones to these enzymes. Replication forks and translation complexes can't go beyond the enzyme-DNA-fluoroquinolone complex, and inhibition of DNA and mRNA triggers rapid concentration-dependent death of pathogenic bacteria. The activity of enrofloxacin is bactericidal and this effect is dose dependent.

Pharmacokinetic Properties

Enrofloxacin is rapidly absorbed after parenteral administration. Its bioavailability is high (approximately 100% in calves).

AREA OF USE/INDICATIONS

Cattle

For the treatment of Enrofloxacin susceptible respiratory system infections, acute severe mastitis, digestive system infections, septicemia, Mycoplasma-associated acute arthritis.

Sheep

For the treatment of Enrofloxacin susceptible digestive system infections, septicemia and mastitis.

Goat

For the treatment of Enrofloxacin susceptible respiratory system infections, digestive system infections, septicemia and mastitis.

USAGE AND DOSAGE

Cattle

It is administered by slow intravenously or subcutaneously at a dose of 1 ml/20 kg body weight once a day for 3-5 days.

Sheep – Goat

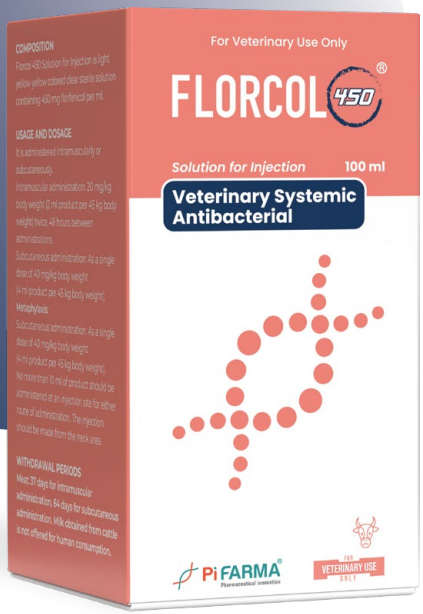
It is administered subcutaneously at a dose of 1 ml/20 kg body weight once a day for 3 days.

WITHDRAWAL PERIODS

Meat: 5 days for intravenously and 12 days for subcutaneously for cattle; 4 days for sheep and 6 days for goats.

Milk: 3 days for intravenously, 4 days for subcutaneously for cattle, 3 days for sheep, 4 days for goats.

Read the leaflet before use.



Commercial Presentation
Form: 100-250 ml

FLORCOL 450®

Solution for Injection | Veterinary Systemic Antibacterial

COMPOSITION

Florcol 450 Solution for Injection, each ml of contains 450 mg Florfenicol.

PHARMACOLOGICAL PROPERTIES

Pharmacodynamic Properties

Florfenicol is a broad-spectrum synthetic antibiotic effective against most Gram-positive and Gram-negative bacteria isolated from domestic animals. Florfenicol has a bacteriostatic effect by inhibiting protein synthesis at the ribosomal level.

Pharmacokinetics Properties

When administered subcutaneously in cattle at a dose of 40 mg/kg subcutaneously, the effective plasma levels of florfenicol MIC_{90} of 0.5 µg/ml and 1.0 µg/ml are maintained for 90.7 and 33.8 hours, respectively. The C_{max} value of 1.8 µg/ml is achieved 7 hours after administration.

When administered subcutaneously at a dose of 20 mg/kg by intramuscular route in cattle, the effective plasma levels of florfenicol MIC_{90} of 0.5 µg/ml and 1.0 µg/ml are maintained for 48.7 and 30.3 hours, respectively. The C_{max} value of 3.0 µg/ml is achieved 6 hours after administration.

AREA OF USE/INDICATIONS

Cattle:

Treatment and metaphylaxis of respiratory tract infections caused by florfenicol-susceptible strains of *Mannheimia haemolytica*, *Pasteurella multocida* and *Histophilus somni*.

USAGE AND DOSAGE

Treatment:

It is administered intramuscularly or subcutaneously.

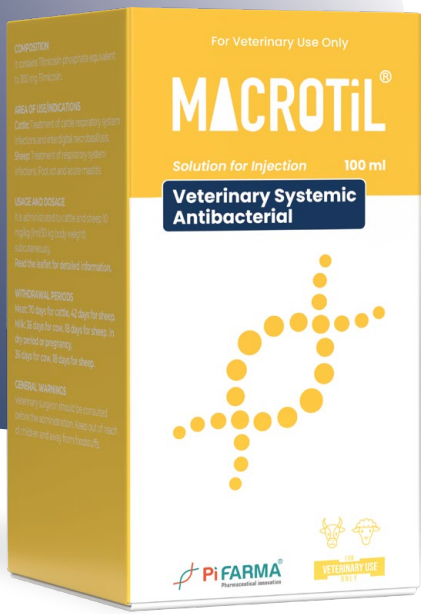
Intramuscular administration: 2 ml/45 kg body weight, twice, 48 hours between administrations.

Subcutaneous administration: As a single dose at a dose of 4 ml/45 kg body weight.

WITHDRAWAL PERIODS

Meat: 37 days for intramuscular administration, 64 days for subcutaneous administration. Milk obtained from cattle is not offered for human consumption.

Read the leaflet before use.



Commercial Presentation
Form: 100-250 ml

MACROTiL®

Solution for Injection | Veterinary Systemic Antibacterial

COMPOSITION

Macrotil Solution for Injection, each ml of contains 300 mg Tilmicosin.

PHARMACOLOGICAL PROPERTIES

Pharmacodynamic Properties

Tilmicosin is a semi-synthetic macrolide antibiotic. It is thought to show an effect by affecting protein synthesis. It has bacteriostatic effect but shows bactericidal effect in high concentration. Effective against some Gram-negative bacteria and Mycoplasma, primarily Gram-positive bacteria. It is especially effective against the following bacteria of bovine and sheep origin: *Mannheimia, Pasteurella, Actinomyces (Corynebacterium), Fusobacterium, Dichelobacter, Staphylococcus* and *Mycoplasma*.

Pharmacokinetic Properties

The kinetic parameters of the application with the recommended dose and route are as follows;

	Dose	T_{max}	C_{max}
Cattle:			
Neonatal calf	10 mg/kg	1 hour	1.55 µg/ml
Beef cattle	10 mg/kg	1 hour	0.97 µg/ml
Sheep:			
40 kg	10 mg/kg	8 hours	0.44 µg/ml
28-50 kg	10 mg/kg	8 hours	1.18 µg/ml

After subcutaneous administration, tilmicosin is distributed throughout the body, but reaches a high concentration, especially in the lung.

AREA OF USE/INDICATIONS

Cattle: treatment of cattle respiratory system infections caused by *Mannheimia haemolytica* and *Pasteurella multocida*, treatment of interdigital necrobasillosis.

Sheep: treatment of respiratory system infections caused by *Mannheimia haemolytica* and *Pasteurella multocida*, treatment of Foot rot caused by *Dichelobacter nodosus* and *Fusobacterium necrophorum* and treatment of acute mastitis caused by *Staphylococcus aureus* and *Mycoplasma agalactia*.

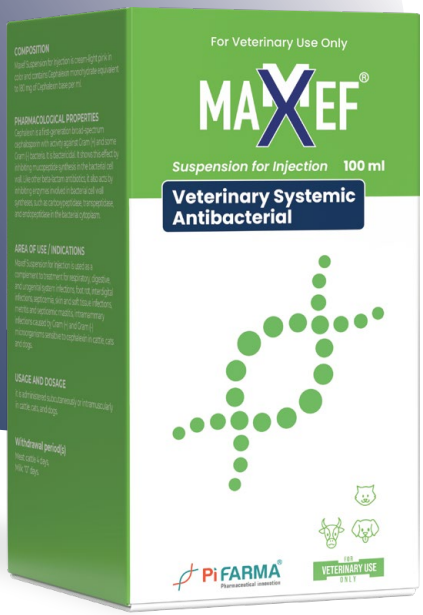
USAGE AND DOSAGE

For subcutaneous use only. It is administered at a dose of 1 ml per 30 kg of body weight.

WITHDRAWAL PERIOD

Meat: 70 days for cattle, 42 days for sheep.
Milk: 36 days for cow, 18 days for sheep.

Read the leaflet before use.



Commercial Presentation
Form: 100 ml

MAXEF®

Suspension for Injection | Veterinary Systemic Antibacterial

COMPOSITION

Maxef Suspension for Injection, each ml of contains 180 mg Cephalexin.

PHARMACOLOGICAL PROPERTIES

Cephalexin is a first-generation broad-spectrum cephalosporin that is active against Gram (+) and some Gram (-) bacteria. It is bactericidal. It shows this effect by inhibiting mucopeptide synthesis in the bacterial cell wall.
Following intramuscular administration, it is rapidly absorbed from the injection site and reaches a maximum plasma concentration of 9.8 mg/ml within 1 hour. A two-hour inhibitory concentration is sufficient for the bactericidal effect of cephalexin to be seen. Its concentration in plasma drops rapidly and falls below minimum limits after 12 hours. This rapid concentration decrease prevents the antibiotic from accumulating in the blood-breast barrier and leaving residues in milk.

AREA OF USE/INDICATIONS

It is used for the treatment of respiratory, digestive and urogenital system infections, foot rot, interdigital infections, septicemia, skin and soft tissue infections caused by Gram (+) and Gram (-) microorganisms sensitive to cephalexin, as a complementary treatment to intramammary treatment in metritis and septicemic mastitis in cattle, cats and dogs.

USAGE AND DOSAGE

It is applied subcutaneously or intramuscularly in cattle, cats and dogs.
Pharmacological dose;
For cattle: 7 mg/kg body weight/day,
For cats and dogs: 10 mg/kg body weight/day.
Practical dose;
For cattle: 1 ml/25 kg body weight
For cat and dog: 0.25 ml/4.5 kg body weight. Administer once a day and continue for 5 days.

WITHDRAWAL PERIODS

Meat: 4 days
Milk: 0 days

Read the leaflet before use.

Otrizol

Oral/Intrauterine Tablet | Veterinary Systemic / Intrauterine Antibacterial

Commercial Presentation
Form: 10 tablet

COMPOSITION

Otrizol Oral/ Intrauterine Tablet, each tablet of contains 1000 mg Sulfamethoxazole and 200 mg Trimethoprim.

PHARMACOLOGICAL PROPERTIES

Sulfamethoxazole inhibits the dihydrofolic acid synthase enzyme responsible for dihydrofolic acid synthesis in susceptible bacteria, while trimethoprim inhibits the dihydrofolate reductase enzyme responsible for tetrahydrofolic acid synthesis. Thus, since folic acid metabolism is affected at two different points, a strong in vitro synergistic antibacterial effect occurs. Although the active ingredients alone generally exhibit bacteriostatic effects, the effect of Otrizol Tablet, which is a combination of sulfamethoxazole + trimethoprim, is bactericidal. The main bacteria susceptible to the combination are:
Gram-positive aerobes: *Staph. aureus, Streptococcus spp., Actinomyces spp., Corynebacterium* spp., *Listeria monocytogenes*, *Erysipelothrix rhusiopathie*,
Gram-negative aerobes: *Actinobacillus* spp., *Bordetella* spp., *Enterobacteriaceae* (*E. coli*, *Klebsiella* spp., *Proteus* spp., *Salmonella* spp., *Yersinia* spp.), *Haemophilus* spp., *Pasteurella* spp.,
Anaerobes: *Actinomyces* spp., *Bacteroides* spp., *Fusobacterium* spp., some *Clostridium* spp., *Chlamydia* spp.,
Some *Mycobacterium* spp. and some *Nocardia* spp. are moderately susceptible. *Rickettsia* spp., *Leptospira* spp., *Pseudomonas aeruginosa*, and *Mycoplasma* spp. are considered resistant.
Otrizol Tablet is rapidly absorbed from the gastrointestinal tract and exhibits good distribution in body tissues and fluids. It reaches peak plasma concentration within 1 to 4 hours.

AREA OF USE/INDICATIONS

Otrizol Tablet is indicated for respiratory, digestive, and urogenital system infections and septicemias caused by susceptible bacteria in calves whose rumen activity has not been started, lambs and kids, dogs, and in meat chickens and turkeys, for the treatment of respiratory, digestive, and urogenital system infections and septicemias caused by susceptible bacteria, for the treatment of secondary infections caused by susceptible bacteria accompanying viral infections, and for uterine infections caused by susceptible bacteria in cows and mares.

USAGE AND DOSAGE

Intrauterine Administration;
The tablets are placed in the uterus, observing hygiene rules.

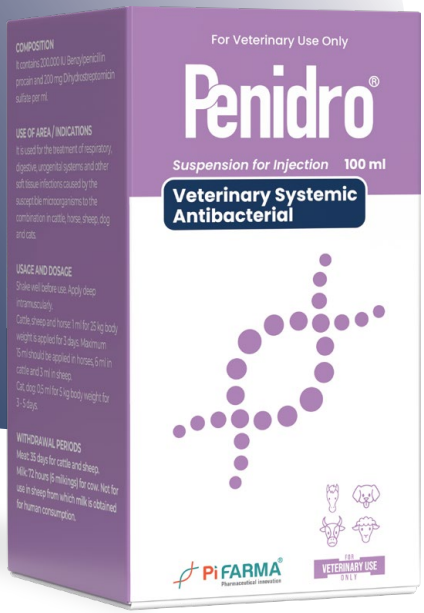
Species	*Dose*
Cow, Mare	2-4 tablets/day

Oral Administration; Calves, lambs, and kids are given 1 tablet per 40 kg of body weight orally per day. This amount should be given in one or two divided doses. Dogs are given 1/4 tablet per 10 kg. Treatment is continued for 3-5 days.
The daily dose for broiler chickens and turkeys is 15–30 mg per kg of body weight. Accordingly, 1–2 tablets per 80 kg body weight are dissolved in sufficient water and added to the daily drinking water. The solution should be prepared fresh and homogeneously each day, and treatment is continued for 3–5 days.

WITHDRAWAL PERIODS

Meat: 14 days for calves, lamb and kid after oral administration for sheep and cow after intrauterine administration. 10 days for chicken and turkey.
Milk: 10 days for sheep and cow.
Egg: It is not used in and turkey producing egg for human consumption.

Read the leaflet before use.



Commercial Presentation
Form: 100-250 ml

Penidro®

Suspension for Injection | Veterinary Systemic Antibacterial

COMPOSITION

Penidro Suspension for Injection, each ml of contains 200.000 IU Benzylpenicilin procain and 200 mg Dihydrostreptomicin.

PHARMACOLOGICAL PROPERTIES

Pharmacodynamic Properties

Penicillin G is a beta-lactam antibiotic and, like other penicillins, contains thiazolidine and beta-lactam rings. Beta-lactams act by inhibiting the development of the bacterial cell wall in susceptible Gram-positive bacteria by inhibiting the synthesis of peptidoglycan at the final stage. Inhibits the enzyme transpeptidase. It shows bactericidal effect and causes lysis of developing cells.

Dihydrostreptomycin is an aminoglycoside antibiotic effective against Gram negative bacteria. It acts by binding to receptors on the 30S subunit of bacterial ribosomes. Aminoglycosides act synergistically with betalactams.

AREA OF USE/INDICATIONS

It is used for the treatment of respiratory, digestive, urogenital systems and other soft tissue infections caused by the susceptible microorganisms to the combination in cattle, horse, sheep, dog and cats;

Arcanobacterium pyogenes, Erysipelothrix rhusiopathiae, Klebsiella pneumoniae, Listeria spp, *Mannheimia haemolytica, Pasteurella multocida, Staphylococcus* spp (does not produce penicillinase), *Streptococcus* spp, *Salmonella* spp.

USAGE AND DOSAGE

Apply deep intramuscularly.

Cattle, sheep and horse: practically 1 ml for 25 kg body weight is applied for 3 days.

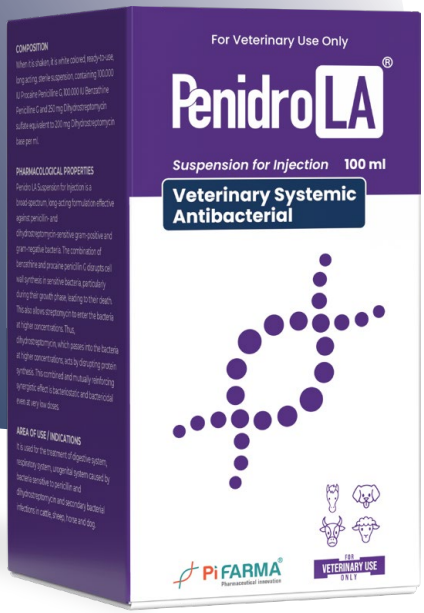
Cat, dog: practically 0,5 ml for 5 kg body weight for 3–5 days.

WITHDRAWAL PERIODS

Meat: 35 days for cattle and sheep.

Milk: 72 hours (6 milkings) for cow. Not for use in sheep from which milk is obtained for human consumption.

Read the leaflet before use.



Commercial Presentation
Form: 100-250 ml

PenidroLA®

Suspension for Injection | Veterinary Systemic Antibacterial

COMPOSITION

Penidro LA Suspension for Injection, each ml of contains 100.000 IU Procaine Peniciline G, 100.000 IU Benzathine Peniciline G and 200 mg Dihydrostreptomicin.

PHARMACOLOGICAL PROPERTIES

Penidro LA Suspension for Injection is a broad-spectrum, long-acting formulation effective against penicillin- and dihydrostreptomycin-sensitive Gram-positive and Gram-negative bacteria. The combination of benzathine and procaine penicillin G disrupts cell wall synthesis in sensitive bacteria, particularly during their growth phase, leading to their death. This also allows streptomycin to enter the bacteria at higher concentrations. Thus, dihydrostreptomycin, which passes into the bacteria at higher concentrations, acts by disrupting protein synthesis. This combined and mutually reinforcing synergistic effect is bacteriostatic and bactericidal even at very low doses.

AREA OF USE/INDICATIONS

It is used for the treatment of digestive system, respiratory system, urogenital system caused by bacteria sensitive to penicillin and dihydrostreptomycin and secondary bacterial infections in cattle, sheep, horse and dog.

USAGE AND DOSAGE

Practical Dose:
1 ml/20 kg bw is administered intramuscularly for all species.

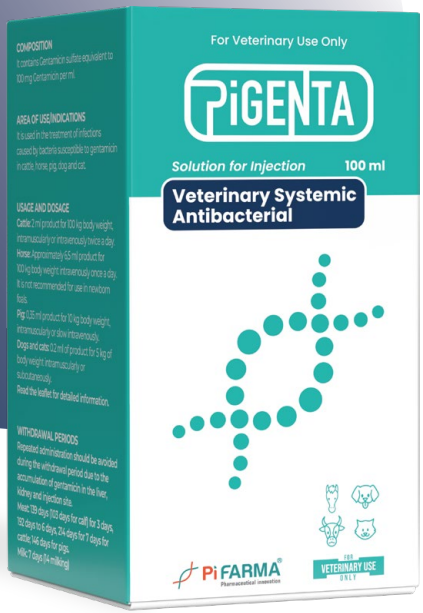
Species	Body weight (kg)	Dose (ml)
Cattle - Horse	400	20
Cow - Heifer	200	10
Calve - Foal	100	5
Sheep	40	2
Dog	10	0,5

In general, single dose is enough, in severe cases, the administration can be repeated every 48 hours if necessary.

WITHDRAWAL PERIODS

Meat: 60 days for cattle and sheep.
Milk: 15 days (30 milkings) for cow and sheep.
Because of the long withdrawal period for drug residues in milk, it is not recommended to administer this drug to sheep and cows from which milk is obtained for human consumption.

Read the leaflet before use.



Commercial Presentation
Form: 50-100-250 ml

PiGENTA

Solution for Injection | Veterinary Systemic Antibacterial

COMPOSITION

Pigenta Solution for Injection, each ml of contains 100 mg Gentamicin.

PHARMACOLOGICAL PROPERTIES

Gentamicin sulfate acts directly on the bacterial ribosome, where it inhibits protein synthesis and reduces the relevance of translation of the genetic code.

AREA OF USE/INDICATIONS

It is used in the treatment of infections caused by bacteria susceptible to gentamicin as described below:
Cattle: Gastrointestinal system infections, urogenital system infections, septicemias
Dog, Cat: Respiratory tract infections, gastrointestinal system infections, urogenital system infections, ear infections (acute and chronic bacterial otitis externa), septicemias
Horse: In the treatment of lower respiratory tract infections caused by Gram-negative aerobic bacteria susceptible to gentamicin.

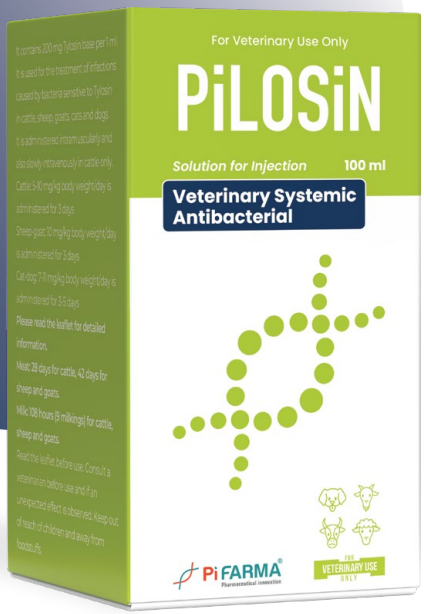
USAGE AND DOSAGE

In cattle, it can be administered intravenously or intramuscularly at a dose of 2 ml product per 100 kg body weight twice a day for 3-7 days.
In horses, it can be administered intravenously at a dose of approximately 6,5 ml product per 100 kg body weight once a day for 3-5 days. It is not recommended for use in newborn foals.
In dogs and cats, it is administered intramuscularly or subcutaneously, at a dose of 0.2 ml of product per 5 kg of body weight, twice on the first day, once a day for 3-5 days.

WITHDRAWAL PERIODS

Repeated administration should be avoided during the withdrawal period due to the accumulation of gentamicin in the liver, kidney and injection site.
Meat: 139 days (103 days for calf) for 3 days, 192 days to 6 days, 214 days for 7 days for cattle, 146 days for pigs.
Milk: 7 days (14 milking)

Read the leaflet before use.



Commercial Presentation
Form: 100-250 ml

PiLOSiN

Solution for Injection | Veterinary Systemic Antibacterial

COMPOSITION

Pilosin Solution for Injection each ml of contains 200 mg Tylosin.

PHARMACOLOGICAL PROPERTIES

Pharmacodynamic Properties

Tylosin is a macrolide antibiotic with 7.1 pKa. It is structurally similar to erythromycin. It is produced by Streptomyces fradiae. Its solubility in water is low. Similar to other macrolides, it acts by binding to the ribosome 50S fraction in bacteria and, as a result, inhibiting protein synthesis. It is mainly bacteriostatic.

Pharmacokinetics Properties

Following intramuscular administration, tylosin concentration reaches its maximum level 3-4 hours after administration.

6 hours after administration, the maximum concentration in bovine milk increases 3-6 times compared to blood. 6-24 hours after intramuscular administration, its concentration in bovine lung reaches 7-8 times the serum concentration.

In cattle, the mean residence time of uterine secretion was measured 6-7 times more than serum when administered intravenously at a dose of 10 mg/kg. This results in a concentration above the MIC_{90} value required for *Arcanobacterium pyogenes*, which is often isolated from bovine metritis.

AREA OF USE/INDICATIONS

<u>Cattle (Adult)</u>

Treatment of metritis, respiratory system infections caused by Gram-positive bacteria, mastitis caused by *Streptococcus spp.* and *Staphylococcus spp.*, and interdigital necrobacillosis caused by *Fusobacterium necrophorum*.

<u>Calves</u>

Necrobacillosis (*Fusobacterium necrophorum*) and respiratory system infections,

<u>Sheep-Goat</u>

Metritis, respiratory system infections caused by Gram-positive bacteria,
Mastitis caused by Gram-positive bacteria or *Mycoplasma spp*.

<u>Dog</u>

Respiratory tract infections and otitis media caused by susceptible bacteria.

<u>Cat</u>

Respiratory tract infections caused by susceptible bacteria.

USAGE AND DOSAGE

It is administered intramuscularly and also by slow intravenous route only in cattle.

Cattle: It is administered at a dose of 2.5-5 ml per 100 kg body weight per day for 3 days.

Sheep-goat: It is administered at a dose of 2.5 ml per 50 kg body weight per day for 3 days.

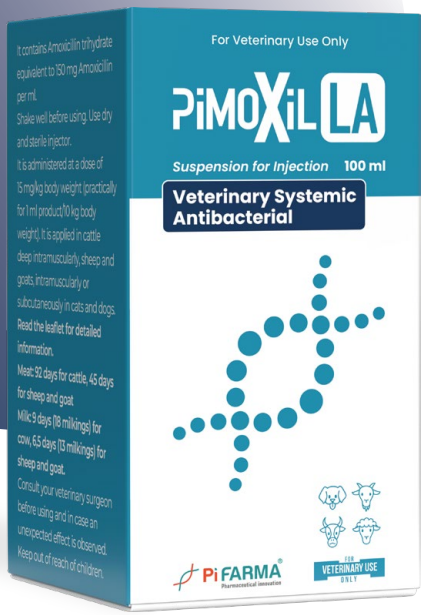
Cat-dog: It is administered at a dose of 0.35-0.55 ml for 10 kg body weight per day for 3-5 days.

WITHDRAWAL PERIODS

Meat: 28 days for cattle, 42 days for sheep and goats.

Milk: 108 hours (9 milkings) for cattle, sheep and goats.

Read the leaflet before use.



Commercial Presentation
Form: 100-250 ml

PiMOXiL LA

Suspension for Injection | Veterinary Systemic Antibacterial

COMPOSITION

Pimoxil LA Suspension for Injection each ml of contains 150 mg Amoxicilin.

PHARMACOLOGICAL PROPERTIES

Pharmacodynamic Properties

Amoxicillin contains beta-lactam and thiazolidine ring, which are found in all penicillins. It inhibits bacterial cell wall synthesis by inhibiting peptidoglycan synthesis at the final stage. It has a bactericidal effect on the developing microorganisms. Its effect is especially on Gram-positive bacteria, but it is also bactericidal against some Gram-negative bacteria such as *Pasteurella multocida* and *Mannheimia haemolytica*.

Pharmacokinetics Properties

Absorption is good and bioavailability is between 60-100% when administered intramuscularly or subcutaneously at a dose of 15 mg/kg. Depending on the species, it reaches its plasma peak level of 1.5 and 4.5 µg/mL 1.5-3 hours after administration. Pharmacokinetic parameters are stable after the second administration 48 hours apart. Plasma concentration are above MIC_{90} for more than 32 hours after the first administration and up to 36 hours at the second administration.

AREA OF USE/INDICATIONS

It is used for the treatment of respiratory, digestive, urogenital systems and skin and soft tissue infections caused by Gram positive and Gram negative bacteria susceptible to amoxicillin.

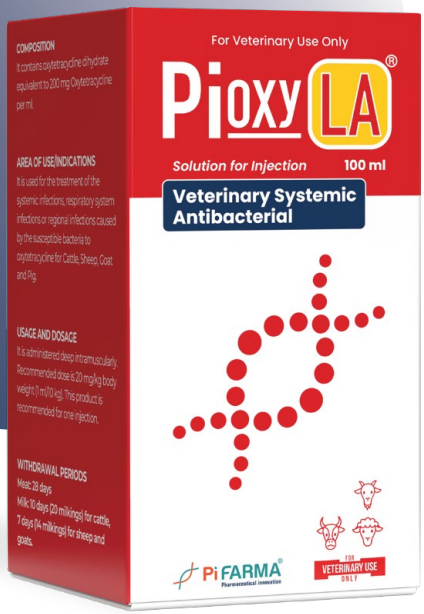
USAGE AND DOSAGE

It is administered at a dose of practically for 1 ml product/10 kg body weight in the target species. The injection should be repeated after 48 hours.
It is applied in cattle deep intramuscularly, sheep and goats, intramuscularly or subcutaneously in cats and dogs.

WITHDRAWAL PERIODS

Meat: 92 days for cattle, 45 days for sheep and goat.
Milk: 9 days (18 milkings) for cow, 6,5 days (13 milkings) for sheep and goat.

Read the leaflet before use.



Commercial Presentation
Form: 50-100-250 ml

Pioxy LA®

Solution for Injection | Veterinary Systemic Antibacterial

COMPOSITION

Pioxy LA Solution for Injection each ml of contains 200 mg Oxytetracycline.

PHARMACOLOGICAL PROPERTIES

Pharmacodynamic Properties

Oxytetracycline has bacteriostatic effect and inhibits bacterial protein synthesis by binding to the 30S subunit of bacterial ribosomes.

Pharmacokinetics Properties

Absorption: Oxytetracycline is rapidly absorbed from the injection site and reaches peak plasma levels in 2-6 hours. The therapeutic plasma level lasts for 48-72 hours.

Distribution: Oxytetracycline is distributed all to the body, reaching the highest concentration in the liver, kidney, spleen and lung. It is also stored where ossification is active. It also crosses the placenta into the fetal circulation.

AREA OF USE/INDICATIONS

It is used for the treatment of the systemic infections, respiratory system infections or regional infections caused by the susceptible bacteria to oxytetracycline.

Cattle: Treatment of respiratory system infections caused by *Mannheimia haemolytica* and *Pasteurella multocida,* umbilical infections and septic artrit caused by *Trueperella pyogenes, Escherichia coli* and *Staphylococcus aureus*, clinical mastitis caused by *Trueperella pyogenes, Escherichia coli, Staphylococcus aureus, Streptococcus agalactiae* and *Streptococcus uberis*, metrit caused by *Escherichia coli.*

Sheep-Goat: Metaphylaxis and treatment of respiratory system infections caused by *Mannheimia haemolytica* and *Pasteurella multocida*, umbilical infections and septic artrit caused by *Trueperella pyogenes* and *Escherichia coli*, clinical matitis caused by *Trueperella pyogenes, Escherichia coli, Staphylococcus aureus*, Erysipelas caused by *Erysipelothrix rhusiopathiae*, enzootic abortus caused by *Chlamydophila abortus*.

USAGE AND DOSAGE

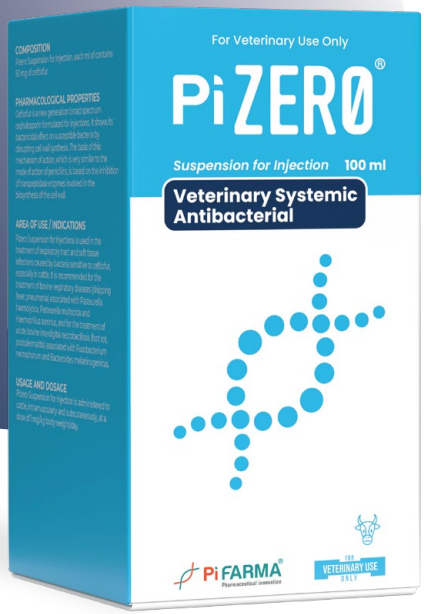
It is administered deep intramuscularly. The recommended dose is 1 ml per 10 kg of body weight. This product is recommended for one injection.

WITHDRAWAL PERIODS

Meat: 28 days

Milk: 10 days (20 milkings) for cattle, 7 days (14 milkings) for sheep and goats.

Read the leaflet before use.



Commercial Presentation
Form: 100-250 ml

PiZERO®

Suspension for Injection | Veterinary Systemic Antibacterial

COMPOSITION

Pizero Suspension for Injection, each ml of contains 50 mg Ceftiofur.

PHARMACOLOGICAL PROPERTIES

Pharmacodynamic Properties

Ceftiofur is a 3. Generation cephalosporin, effective against most Gram positive and Gram negative bacteria. Ceftiofur, acts by inhibiting bacterial cell wall synthesis. Betalactams act by interfering with bacterial cell wall synthesis. Cell wall synthesis is dependent on enzymes called penicillin binding proteins.

Pharmacokinetics Properties

After administration, ceftiofur is rapidly metabolized to its main metabolite, desfuroilceftiofur.

This metabolite has antimicrobial activity equivalent to ceftiofur. It binds alternately to plasma proteins. At a single dose of 1 mg/kg subcutaneous administration in cattle, the maximum plasma level (2.85 ± 1.11 µg/mL) was reached two hours after administration. In healthy cattle, the Cmax level in the enrometrium was measured as 2.25 ± 0.79 µg/mL after 5 ± 2 hours in a single application. Half life in cattle is 11.5 ± 2.57 hours. The bioavailability of ceftiofur is complete after subcutaneous administration.

AREA OF USE/INDICATIONS

Susceptible to ceftiofur in cattle;

- Treatment of respiratory system infections caused by *Mannheimia haemolytica* (old name is *Pasteurella haemolytica*), *Pasteurella multocida* and *Histophilus somni* (old name is *Haemophilus somnus*),
- Treatment of acute interdigital necrobacillosis (panarisium, foot root) caused by *Fusobacterium necrophorum* and *Bacteroides melaninogenicus* (*Porphyromonas asaccharolytica*),
- Treatment of acute post-partum (puerperal) metritis caused by *Escherichia coli, Arcanobacterium pyogenes* and *Fusobacterium necrophorum* within 10 days of birth where treatment with other antibiotics has failed.

USAGE AND DOSAGE

Respiratory system infections: 1 ml product for 50 kg body weight, subcutaneously, for 3-5 days.

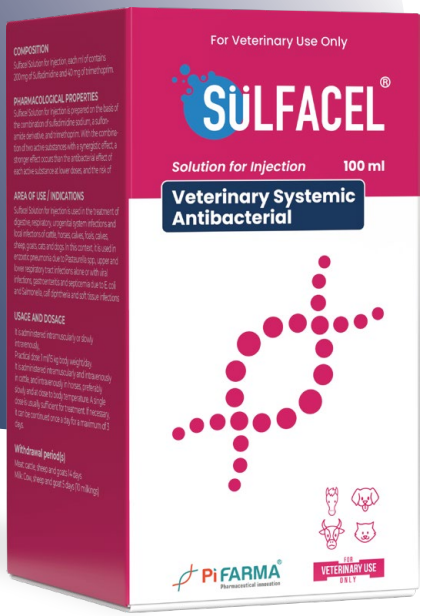
Acute interdigital necrobacillosis: 1 ml product for 50 kg body weight, subcutaneously, for 3 days.

Acute post-partum metritis (within 10 days after birth): 1 ml product for 50 kg body weight, subcutaneously, for 5 days.

WITHDRAWAL PERIODS

Meat: 8 days
Milk: 0 day

Read the leaflet before use.



Commercial Presentation
Form: 50-100 ml

SÜLFACEL®

Solution for Injection | Veterinary Systemic Antibacterial

COMPOSITION
Sulfacel Solution for Injection, each ml of contains 200 mg Sulfadimidine and 40 mg Trimethoprim.

PHARMACOLOGICAL PROPERTIES
Pharmacodynamic Properties
Sulfadimidin and trimetoprim is an effective combination containing 5 units sulfadimidin + 1 unit trimetoprim. Sulfadimidine, a sulfonamide group antibacterial, and trimethoprim, a diaminopyrimidine group antibacterial, have a bacteriostatic effect when used alone and a synergistic bactericidal effect when used in combination. The mechanism of action of the combination is based on the sequential qualified blockade of two components involved in the synthesis of folic acid in bacteria. The spectrum of activity of the Sulfadimidine/Trimethoprim combination is same with the spectrum of activity of sulfonamides, i.e. it is effective against most Gram-positive and Gram-negative bacteria (*E.coli, Shigella spp., Klebsiella spp., Proteus vulgaris, Pasteurella spp., Staphylococci, Actinomyces spp.* etc.).
Pharmacokinetics Properties
Following parenteral administration in cattle and horses, sulfadimidine sodium and trimethoprim are rapidly absorbed. Maximum blood plasma levels are reached within 1-6 hours. The elimination half-life is approximately 3-16 hours (sulfadimidine) to 0.5-3 hours (up to 4 hours) (trimethoprim). Sulfadimidine and trimethoprim are distributed to all tissues; however, the volume of distribution of trimethoprim to tissues is higher than the volume of distribution of sulfadimidine to tissues.

AREA OF USE/INDICATIONS
Used for the treatment of respiratory system, digestive system, urogenital system and soft tissue infections caused by the susceptible bacteria to sulfadimidin-trimetoprim combination in horse, cattle, cat and dogs.

USAGE AND DOSAGE
It should be administered slow and close to body temperature intravenously in horse, intramuscularly or slow intravenously in cattle, intramucularly, slow intravenously or subcutaneously in cat and dogs
Practical dose is 1 ml/10–15 kg body weight for cattle and horse, 0,2 ml/3 kg body weight for dog and cat.

Target Species	Body weight (kg)	For every 15 kg 1 ml = 16 mg/kg body weight	For every 10 kg 1ml = 24 mg/kg body weight	Administration route
Horse	450	30 ml	45 ml	Intravenously
Foal	50	3,3 ml	5 ml	Intravenously
Cattle	450	30 ml	45 ml	Intramuscularly, Intravenously
Young cattle	150	10 ml	15 ml	Intramuscularly, Intravenously
Calf	50	3,3 ml	5 ml	Intramuscularly, Intravenously
Dog	5	0,3 ml	-	Intramuscularly, Intravenously, Subcutaneously
Cat	1,5	0,1 ml	-	Intramuscularly, Intravenously, Subcutaneously

WITHDRAWAL PERIODS
Meat: 12 days
Milk: 5 days (10 milkings)

Read the leaflet before use.

PARASITICIDES

Alfazol

Oral Tablet | Veterinary Anthelmintic

Commercial Presentation
Form: 10 tablet

COMPOSITION

Each tablet of contains 1200 mg Albendazole.

PHARMACOLOGICAL PROPERTIES

Pharmacodynamic Properties

Albendazole inhibits the polymerization of microtubules by binding to tubulin, a structural protein in susceptible parasites. Intestinal cells of nematodes are particularly affected by this, leading to the loss of their ability to absorb, thus not being able to feed, and the death of the parasite by disrupting the cell integrity.

AREA OF USE/INDICATIONS

Albendazole is a broad spectrum anthelmintic effective against gastrointestinal roundworms, lungworms, tapeworms and adult liver flukes in cattle. It also has an ovicidal effect on flukes and roundworms, thus reducing meadow/pasture contamination.

USAGE AND DOSAGE

It is administered orally.

Cattle:

It is administered at a dose of 7.5 mg albendazole/kg body weight for roundworm, lungworm, tapeworm, liver fluke and roundworm eggs.

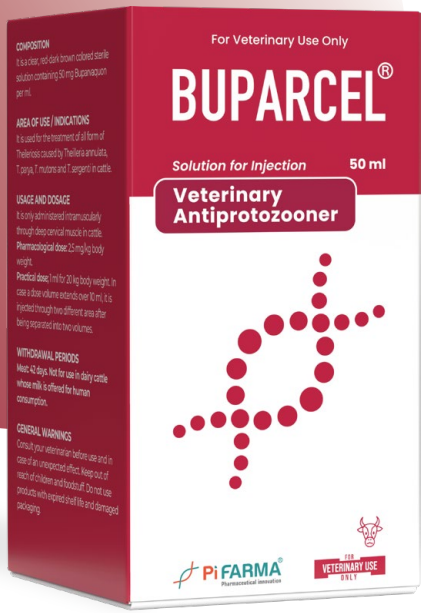
It is administered at a dose of 10 mg albendazole/kg body weight for adult liver flukes.

Indication	Pharmacological Dose	Practical Dose
Roundworm (adult and egg), lungworm, tapeworm, liver fluke	7.5 mg albendazole/kg body weight	160 kg body weight/ 1 tablet
Liver fluke (adult)	10 mg albendazole/ kg body weight	120 kg body weight/ 1 tablet

WITHDRAWAL PERIODS

Meat: 14 days
Milk: 72 hours (6 milkings)

Read the leaflet before use.



Commercial Presentation
Form: 50 ml

BUPARCEL®

Solution for Injection | Veterinary Antiprotozooner

COMPOSITION

Buparcel Solution for Injection, each ml of contains 50 mg Buparvaquone.

PHARMACOLOGICAL PROPERTIES

Buparvaquone is antiprotozooner belong to second generation of hydroxynaphthoquinone group.
Buparcel Solution for Injection; The tertiary-butyl bond in its composition provides a long plasma half-life and the cyclohexyl ring in the 4-position allows it to be metabolized slowly. Buparvaquon is effective on schizont and proplasm in cattle. Its effectiveness is parasite-specific. It does not develop adverse effects on host lymphocytes. When Buparvacuone is administered intramuscularly at a dose of 2.5 mg/kg, the maximum plasma concentration is 1.102 µg/kg, the time to peak plasma concentration is 3.27 hours, the excretion half-life is 26.44 hours and the volume of distribution is 35.381/kg. It is generally excreted with gaita after entero-hepatic circulation.

AREA OF USE/INDICATIONS

It is used for the treatment of all form of Theileriosis caused by *Theilleria annulata*, *T. parva, T. mutans* and *T. sergenti* in cattle.

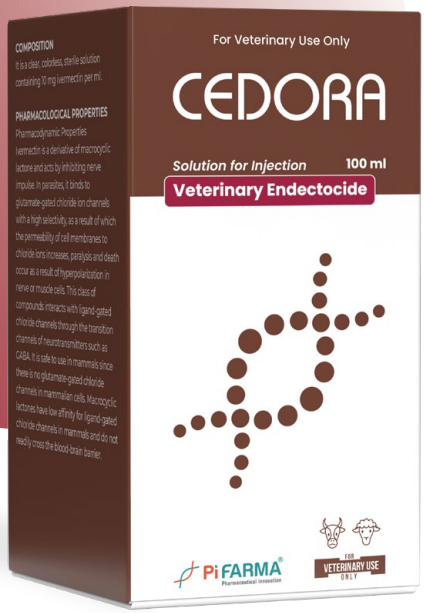
USAGE AND DOSAGE

It is only administered intramuscularly through deep cervical muscle in cattle.
Pharmacological dose: 2,5 mg/kg body weight.
Practical dose: 1 ml for 20 kg body weight. In case a dose volume extends over 10 ml, it is injected through two different area after being separated into two volumes.
A single dose is sufficient for treatment generally. Considering serious cases, a second dose administration may be needed after 48-72 hours.

WITHDRAWAL PERIODS

Meat: 42 days
Not for use in dairy cattle whose milk is offered for human consumption.

Read the leaflet before use.



Commercial Presentation
Form: 100 ml

CEDORA

Solution for Injection | Veterinary Endectocide

COMPOSITION

It is a clear, colorless, sterile solution containing 10 mg Ivermectin per ml.

PHARMACOLOGICAL PROPERTIES

Pharmacodynamic Properties

Ivermectin is a derivative of macrocyclic lactone and acts by inhibiting nerve impulse. In parasites, it binds to glutamate-gated chloride ion channels with a high selectivity, as a result of which the permeability of cell membranes to chloride ions increases, paralysis and death occur as a result of hyperpolarization in nerve or muscle cells.

Pharmacokinetic Properties

It reaches peak plasma level (C_{max}: 51 ng/ml) in 43 hours following administration in cattle, and its half-life is 129 hours (AUC: 7398 ng h/ml).

It reaches peak plasma level (C_{max}: 14 ng/ml) in 202 hours following administration in sheep, and its half-life is 380 hours (AUC: 4686 ng h/ml).

AREA OF USE/INDICATIONS

Cattle:

Gastrointestinal nematods, Lungworm nematods (adult and 4. stage larvae), Subcutaneous nematod, Eye nematod, Warble fly (larval stage), Mange, Lice, Ticks

Sheep:

Gastrointestinal nematods, Lungworm nematods, Mite, Nose nematods, Lite

USAGE AND DOSAGE

It is administered as a single dose, except for *Psoroptes ovis* treatment.

Cattle:

Dosage: 1 ml/50 kg body weight

Sheep:

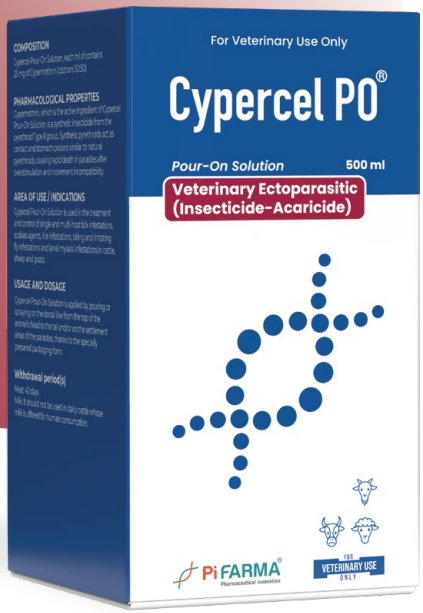
Dosage: 0,5 ml/25 kg body weight

Two doses are administered with an interval of 7 days for the treatment of *Psoroptes ovis*.

WITHDRAWAL PERIODS

Meat: 49 days for cattle, 42 days for sheep. Do not use in cattle and sheep producing milk for human consumption. It is not used within 60 days before birth in pregnant cows and sheep whose milk will be offered for human consumption.

Read the leaflet before use.



Commercial Presentation
Form: 500 ml

Cypercel PO®

Pour-On Solution | Veterinary Ectoparasitic (Insecticide-Acaricide)

COMPOSITION
Cypercel Pour-On Solution, each ml of contains 25 mg Cypermethrin (cis:trans 50:50).

PHARMACOLOGICAL PROPERTIES
Cypermethrin: is a synthetic insecticide belonging to the pyrethroid Type II group. Synthetic pyrethroids act as contact and stomach poisons, similar to natural pyrethroids, causing excessive stimulation and movement disorders in parasites, leading to their rapid death.

AREA OF USE/INDICATIONS
It is used for the treatment of and control of single and multiple tick infestations, mange agents, lice infestations, biting and irritating fly infestations, and fly infestations causing larval myiasis in cattle, sheep, and goats.

USAGE AND DOSAGE
It is applied by pouring or spraying along the dorsal line from the top of the animal's head to the tail and/or on areas where parasites are likely to settle.
The pharmacological dose is 2-2.5 mg/kg body weight.

Practical Dose Table:

Cattle:

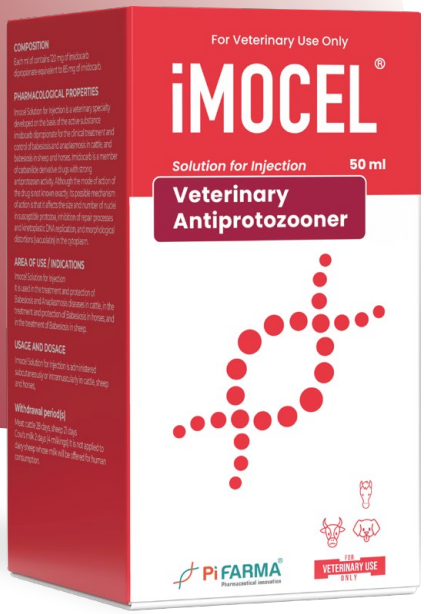
Body weight	Cypercel PO
100 kg body weight	10 ml
100-200 kg body weight	20 ml
More than 300 kg body weight	30 ml

Sheep and goat:
Considering the inevitable loss of medication due to the longer wool of sheep and goats, a dose of 5 mg cypermethrin/kg body weight is used.

Body weight	Cypercel PO
5 kg body weight	1 ml
25 kg body weight	5 ml
50 kg body weight	10 ml

WITHDRAWAL PERIODS
Meat: 14 days for cattle, sheep and goat.
Milk: 15 days (30 milkings) for cow, 10 days (20 milkings) for sheep and goat. Because of the long withdrawal period for drug residues in milk, it is not recommended for use in cows, sheep, and goats from which milk is obtained for human consumption.

Read the leaflet before use.



Commercial Presentation
Form: 50 ml

iMOCEL®

Solution for Injection | Veterinary Antiprotozooner

COMPOSITION

Imocel Solution for Injection, each ml of contains 85 mg Imidocarb.

PHARMACOLOGICAL PROPERTIES

Pharmacodynamic Properties

Imidocarb is an antiprotozoan used in the treatment of Babesiosis, belonging to the group of carbanilides. In parasites, it affects the morphology of the cytoplasm and the number and size of the nucleus. The antiprotozoan effect is formed by acting on the glycolysis of parathyzine. It acts as an inhibitor of Type II topoisomerase after penetration into the parasite by urine-based protein carriers. This effect blocks the replication of DNA and inhibits the parasite's synthesis of polyamines.

Pharmacokinetics Properties

Plasma reaches its peak level 1 hour after administration (1.3 mg equivalent/kg). The peak level in milk is reached 24 hours after administration (0.37 mg equivalent/kg) and is reduced to half after 24 hours.

AREA OF USE/INDICATIONS

Cattle: Treatment and prevention of Babesiosis (*Babesia argentina, B. bigemina, B. bovis and B. divergens*) and *Anaplasmosis marginale*.
Dog: Treatment and prevention of Babesiosis (*Babesia canis, B. gibsoni and B. vogelli*)
Horse: Treatment and prevention of Babesiosis (*B. equi and B. caballi*)

USAGE AND DOSAGE

Cattle:
Babesiosis: It is administered by deep intramuscular (hip or neck area) or subcutaneous route.
Prevention: 2.5 ml per 100 kg of body weight.
Treatment: 1 ml per 100 kg of body weight. A single injection is administered.
Anaplasmosis: *Bovine anaplasmosis*: 2.5 ml per 100 kg of body weight
Dog:
Babesiosis: It is administered intramuscularly or subcutaneously.
Treatment: 0.25 ml per 10 kg of body weight (A single injection is administered.).
Horse:
It is administered intramuscularly. For *B. caballi*, a single dose of 2 ml per 100 kg of body weight is normally sufficient. However, for *B. equi*, two applications may be required at 24-72 hours intervals, depending on the clinical condition of the disease.

WITHDRAWAL PERIODS

Meat: 213 days
Milk: 21 days (42 milkings)

Read the leaflet before use.

LORFEN

Oral Tablet | Veterinary Anthelmintic

Commercial Presentation
Form: 50 tablet

COMPOSITION

Each tablet contains 375 mg Levamisole HCl and 600 mg Triclabendasole.

PHARMACOLOGICAL PROPERTIES

Pharmacodynamic Properties

Lorfen Oral Tablet contains Levamisole HCl, an anthelmintic drug that is an imidazole derivative and the L-isomer of tetramisole. It is effective against lung and gastrointestinal roundworms, ascarids, and tapeworms in cattle. Levamisole HCl inhibits the cholinesterase enzyme in parasites, causing acetylcholine accumulation and, as a result, making muscarinic and nicotinic effects more pronounced, thereby paralyzing the parasite.

Pharmacokinetics Properties

Triclabendasole, contained in Lorfen Oral Tablet, is a benzimidazole derivative with fasciolacidal activity, effective against the larval and adult forms of *Fasciola hepatica* and *Fasciola gigantica* (liver flukes) that cause fascioliasis in cattle. It acts by inhibiting the activity of fumarate reductase in parasites.

AREA OF USE/INDICATIONS

Cattle;

Gastrointestinal pinworms: *Haemonchus sp., Oestertagia sp., Trichostrongylus sp., Cooperia sp., Nematodirus sp., Bunostomum sp., Chabertia sp. and Oesophagostomun sp.*
Lung pinworms: *Dictyocaulus spp.* (especially *D. filaria*)
Liver flukes: *F. hepatica, F. gigantica* adult and juvenile stages.

USAGE AND DOSAGE

Lorfen is administered 1 tablet for 50 kg body weight for cattle, orally.

Practical Dose Table;

Body weight (kg)	Tablet to be administered	Body weight (kg)	Tablet to be administered
50 kg	1 tablet	250 kg	5 tablet
100 kg	2 tablet	300 kg	6 tablet
150 kg	3 tablet	400 kg	8 tablet
200 kg	4 tablet	500 kg	10 tablet

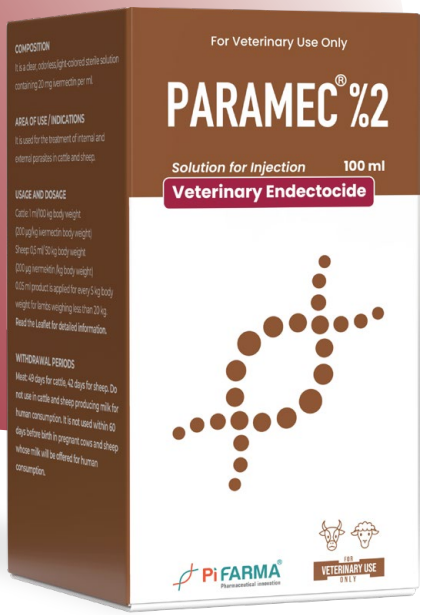
Use during pregnancy and lactation:

Although Triclabendazole and Levamisole are safe for use during pregnancy at the recommended doses, they should not be used during the last 3 months of pregnancy.

WITHDRAWAL PERIODS

Meat: 56 days,
Milk: It is not used during lactation and the last three months of pregnancy in dairy cattle producing milk for human consumption.

Read the leaflet before use.



Commercial Presentation Form:
50-100-250 ml

PARAMEC®%2

Solution for Injection | Veterinary Endectocide

COMPOSITION

It is a clear, odorless, light-colored sterile solution containing 20 mg Ivermectin per ml.

PHARMACOLOGICAL PROPERTIES

Pharmacodynamic Properties

Ivermectin is a derivative of macrocyclic lactone and acts by inhibiting nerve impulse. In parasites, it binds to glutamate-gated chloride ion channels with a high selectivity, as a result of which the permeability of cell membranes to chloride ions increases, paralysis and death occur as a result of hyperpolarization in nerve or muscle cells.

Pharmacokinetic Properties

It reaches peak plasma level (Cmax: 51 ng/ml) in 43 hours following administration in cattle, and its half-life is 129 hours (AUC: 7398 ng h/ml).

It reaches peak plasma level (Cmax: 14 ng/ml) in 202 hours following administration in sheep, and its half-life is 380 hours (AUC: 4686 ng h/ml).

AREA OF USE/INDICATIONS

Cattle:

- Gastrointestinal nematods
- Lungworm nematods (adult and 4. stage larvae)
- Subcutaneous nematod
- Eye nematod
- Warble fly (larval stage)
- Mange
- Lice
- Ticks

Sheep:

- Gastrointestinal nematods
- Lungworm nematods
- Mite
- Nose nematods
- Lite

USAGE AND DOSAGE

Cattle

Dosage: 1 ml/100 kg body weight subcutaneously

Sheep

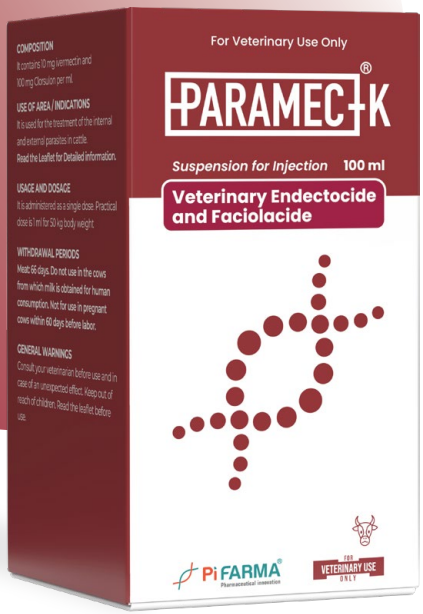
Dosage: 0,5 ml/50 kg body weight subcutaneously

Two doses are administered with an interval of 7 days for the treatment of Psoroptes ovis.

WITHDRAWAL PERIODS

Meat: 49 days for cattle, 42 days for sheep. Do not use in cattle and sheep producing milk for human consumption. It is not used within 60 days before birth in pregnant cows and sheep whose milk will be offered for human consumption.

Read the leaflet before use.



Commercial Presentation
Form: 50-100 ml

PARAMEC®K

Solution for Injection | Veterinary Endectocide and Faciolacide

COMPOSITION

It is a clear, light yellow colored, sterile solution containing 10 mg Ivermectin and 100 mg Clorsulon per ml.

PHARMACOLOGICAL PROPERTIES

Pharmacodynamic Properties

Ivermectin is a derivative of macrocyclic lactone and acts by inhibiting nerve conduction. In parasites, glutamate binds with high selectivity to gated chloride ion channels, hence permeability of cell membranes to chloride ions increases, hyperpolarization of nerve or muscle cells, paralysis and eventually death.
Clorsulon is a sulfonamide. It enters the bloodstream rapidly. In adult F. hepatica, it acts lethally by inhibiting enzymes involved in the glycolytic pathway, the main source of energy.

Pharmacokinetics Properties

After subcutaneous administration at the therapeutic dose, ivermectin reaches peak plasma concentration (C_{max}: 65.80 ng/ml) after 1-2 days and chlorsulone ($C_{max:}$ 2.58 µg/ml) after approximately 8 hours. Half-lives are approximately 3.79 days for ivermectin and 3.58 days for clorsulon.

AREA OF USE/INDICATIONS

It is used for the treatment of the following internal and external parasites in cattle.
- Gastrointestinal nematodes
- Lung nematodes (Adult and 4. level larva)
- Subcutaneous nematodes
- Eye nematode
- Nocra factors (larval stage)
- Scabies
- Lice
- Tick
- Liver trematode

USAGE AND DOSAGE

It is administered as a single dose.
Dosage: 1 ml for 50 kg body weight subcutaneously

WITHDRAWAL PERIODS

Meat: 66 days. Do not use in the cows from which milk is obtained for human consumption. Not for use in pregnant cows within 60 days before labor.

Read the leaflet before use.

Commercial Presentation
Form: 50 tablet

ŞERiTAB®

Oral Tablet | Veterinary Anthelmintic

COMPOSITION

Şeritab Oral Tablet, each tablet of contains 300 mg Praziquantel.

PHARMACOLOGICAL PROPERTIES

Şeritab Oral Tablet contains praziquantel, an isoquinoleine derivative antihelminthic. Praziquantel is a broad-spectrum cestocidal antihelminthic specific to tapeworms. Praziquantel disrupts the tapeworm's membrane permeability, blocking glucose uptake and depleting its energy reserves, leading to the parasite's death. Within a few seconds of contact with praziquantel, intense spasms and contractions occur in the segments of the tapeworm, disrupting the function of the hooks embedded in the intestine, and the scolex leaves the mucosa and becomes paralyzed.

AREA OF USE/INDICATIONS

It is used for the treatment of Taeniasis in sheep, horse and dog.
Sheep; *Moniezia expansa, M. benedeni, Thysaniezia ovilla, Avitellina centripunctata, Stilesia globipunctata* and *S. hepatica* (bile duct strip),
Horse; intestinal segments *Anaplocephala sp. and Anaplocephaloides mamillana,*
Dog; It exhibits potent anthelmintic activity against cestodes of the species *Echinococcus granulosus, E. multilocularis, Diphylidium caninum, Taenia ovis, Taenia psiformis, T. hydatigena, Multiceps multiceps, Mesocestoides sp.* and T. reniformis.
Since Şeritab Oral Tablet is effective against adult tapeworms, juveniles, and scolex, it is suitable for total tapeworm eradication. Şeritab Oral Tablet is used to eliminate clinical signs of chronic *Coenurus cerebralis* in sheep.

USAGE AND DOSAGE

Practical Dose Table;

Species	Tablet number
Goat (20 kg)	1
Sheep (50 kg)	2,5
Horse (according to body weight)	2-3
Dog (less than 15 kg)	0,5
Dog (between 15-30 kg)	1

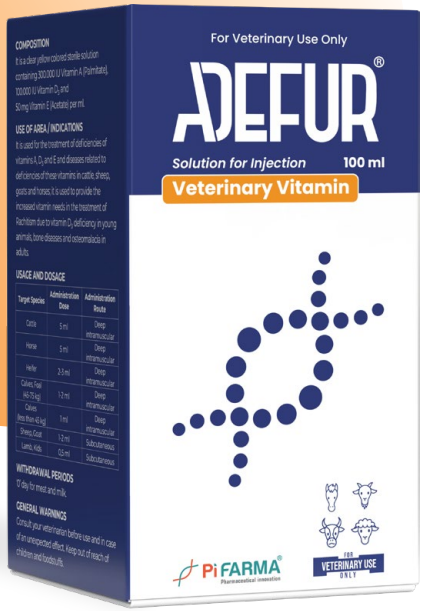
WITHDRAWAL PERIODS

Meat: “0” (zero) day. Milk cannot be used for dairy sheep offered for human consumption.

Read the leaflet before use.

VITAMINS

PiFARMA®
Pharmaceutical innovation



Commercial Presentation
Form: 50-100-250 ml

ADEFUR®

Solution for Injection | Veterinary Vitamin

COMPOSITION

Adefur Solution for Injection each ml of contains 300.000 IU Vitamin A (Palmitate), 100.000 IU Vitamin D_3 and 50 mg Vitamin E (Acetate).

PHARMACOLOGICAL PROPERTIES

Adefur Solution for Injection is a balanced formulation containing A, D_3 and E vitamins. After intramuscular injection, it shows a high level of bioavailability through prolonged absorption. It reaches the highest level in the blood in a short time. It is also stored in the liver to maintain its protective and therapeutic effect. The biological interaction of the vitamins in the product enhances the effectiveness of vitamin A in particular.

AREA OF USE/INDICATIONS

It is used for the treatment of deficiencies of vitamins A, D_3 and E and diseases related to deficiencies of these vitamins in cattle, sheep, goats and horses; it is used to provide the increased vitamin needs in the treatment of Rachitism due to vitamin D_3 deficiency in young animals, bone diseases and osteomalacia in adults.

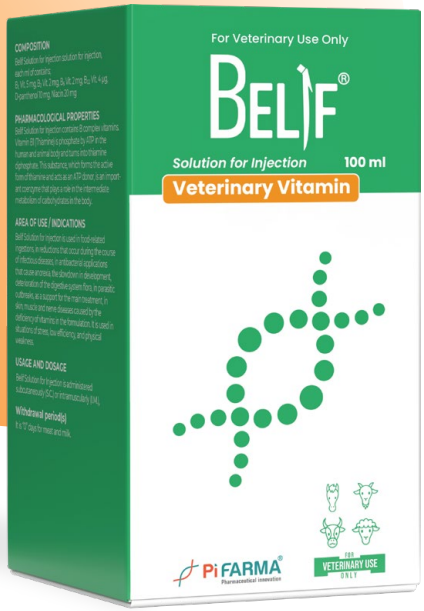
USAGE AND DOSAGE

Target Species	Administration Dose	Administration Route
Cattle	5 ml	Deep intramuscular
Horse	5 ml	Deep intramuscular
Heifer	2-3 ml	Deep intramuscular
Calves, Foal (45-75 kg)	1-2 ml	Deep intramuscular
Calves (less than 45 kg)	1 ml	Deep intramuscular
Sheep, Goat	1-2 ml	Subcutaneous
Lamb, Kids	0,5 ml	Subcutaneous

WITHDRAWAL PERIODS

'0' day for meat and milk.

Read the leaflet before use.



Commercial Presentation
Form: 100-250 ml

BELIF®

Solution for Injection | Veterinary Vitamin

COMPOSITION

Belif Solution for Injection each ml of contains 5 mg Vit. B_1, 2 mg Vit. B_2, 2 mg Vit. B_6, 4 µg Vit. B_{12}, 10 mg D-panthenol and 20 mg Niacin.

PHARMACOLOGICAL PROPERTIES

Belif Solution for Injection contains B complex vitamins. Rapidly and completely absorbed from the application sites after intramuscular (I.M.) administration. They are transported to the liver bound to plasma proteins. They are metabolized mainly in the liver. Vitamins passing through the same organ are distributed throughout the body.

AREA OF USE/INDICATIONS

It is used in food-induced indigestion, indigestion during the course of infectious diseases, anorexia, slow growth, antibacterial applications that cause disruption of the flora of the digestive system, parasitic outbreaks, as a supplement to the main treatment, in skin, muscle and nerve diseases caused by deficiency of vitamins in the formulation, in various stress situations, low efficiency and physical weakness.

USAGE AND DOSAGE

It is administered subcutaneously or intramuscularly.

Practicle Dose Table

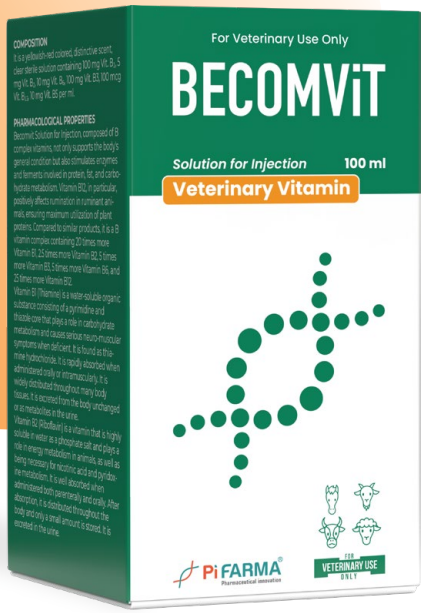
Target Species	Administration Dose (ml)
Cattle, Buffalo and Horse	15-30 ml
Calf, Heifer	10-15 ml
Calve, Foal	5-10 ml
Sheep, Goat	5-10 ml
Lamb, Kid	3-5 ml

In order to achieve the predicted effects in the target animal species and to fully resolve clinical signs, the drug is continued for as long as necessary, repeating the selected one-time treatment doses 1-2 times a day.

WITHDRAWAL PERIODS

'0' days for meat and milk.

Read the leaflet before use.



Commercial Presentation
Form: 100 ml

BECOMVİT

Solution for Injection | Veterinary Vitamin

COMPOSITION

Becomvit Solution for Injection, each ml of contains 100 mg Vit. B_1, 5 mg Vit. B_2, 10 mg Vit. B_6, 100 mg Vit. B_3, 100 mcg Vit. B_{12}, 10 mg Vit. B_5.

PHARMACOLOGICAL PROPERTIES

Becomvit Solution for Injection, composed of B complex vitamins, not only supports the body's general condition but also stimulates enzymes and ferments involved in protein, fat, and carbohydrate metabolism. Vitamin B_{12}, in particular, positively affects rumination in ruminant animals, ensuring maximum utilization of plant proteins. Compared to similar products, it is a B vitamin complex containing 20 times more Vitamin B_1, 2.5 times more Vitamin B_2, 5 times more Vitamin B_3, 5 times more Vitamin B_6, and 25 times more Vitamin B_{12}.

AREA OF USE/INDICATIONS

Becomvit Solution for Injection is used for the treatment and prevention of B vitamin deficiencies in cattle, sheep, goats, horses, cats, and dogs; in this sense, it is used to support primary treatments aimed at increasing body resistance in cases of nervous disorders and stress.

USAGE AND DOSAGE

It is administered subcutaneously or intramuscularly. Application is done once or twice a week for as long as the treatment requires.

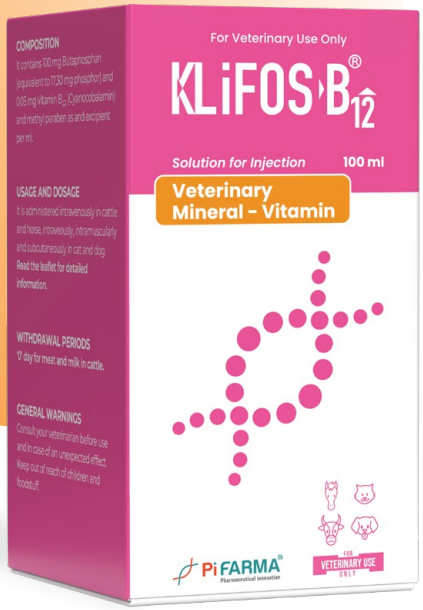
Practicle Dose Table

Target Species	Administration Dose (ml)
Cattle, Buffalo and Horse	15-30 ml
Calf, Heifer	10-15 ml
Calve, Foal	5-10 ml
Sheep, Goat	5-10 ml
Lamb, Kid	3-5 ml
Dog	1-5 ml
Cat, Rabbit	1 ml

WITHDRAWAL PERIODS

'0' days for meat and milk.

Read the leaflet before use.



Commercial Presentation
Form: 100-250 ml

KLiFOS B12

Solution for Injection | Veterinary Mineral-Vitamin

COMPOSITION

Klifos-B_{12} Solution for Injection, each ml of contains, 100 mg Butaphosphan and 0,05 mg Vitamin B_{12}.

PHARMACOLOGICAL PROPERTIES

Pharmacodynamic Properties

Butaphosphan is an organic source phosphorus for metabolism. Among other functions, phosphorus is important for energy metabolism and has stimulating properties. It is also a component of bone tissue. It is an essential element for the process of neoglycogenesis as it is used in the phosphorylation of most intermediates.

Cyanocobalamine is a co-enzyme used in the sythesis of glycose from propionate. Also, it acts as a cofactor for enzymes important in the synthesis of fatty acids and is important for maintaining normal hematopoiesis, protecting the liver and muscle tissue, healthy skin, brain and metabolism. It is also involved in the formation of red blood cells and the synthesis of methionine. It is a water-soluble B group vitamin synthesized by the flora of the digestive tract (reticulo-rumen and large intestine) in animals.

AREA OF USE/INDICATIONS

Target species

Cattle, horse, cat, dog

Klifos-B_{12} is used as a supplement in disorders of muscular, metabolic or reproductive system disorders in cattle, horse, cat, dog where the use of phosphorus and cyanocobalamin is necessary.

It is used to aid recovery of rumination activities after surgical treatment of abomasum displacement associated with secondary ketosis in cattle. It should be used in addition to magnesium and calcium in prenatal metabolic disorders, tetany and paresis (milk fever).

USAGE AND DOSAGE

Cattle;

It is used intravenously.

Treatment for defficiency of phosphor and/or Vitamin B_{12};

In cattle, a dose of 2-5 ml per 100 kg of body weight is administered.

In calves, a dose of 10-25 ml per 100 kg body weight is administered.

To aid recovery of rumination activities after surgical treatment of abomasal displacement associated with secondary ketosis;

5 ml per 100 kg body weight, three days and one injection per day. The first administration should be done on the day of operation.

Horse;

Intravenously,

2-5 ml/100 kg body weight are administered in horses.

0,35-0,6 ml per 10 kg body weight in foals.

Cat and Dog;

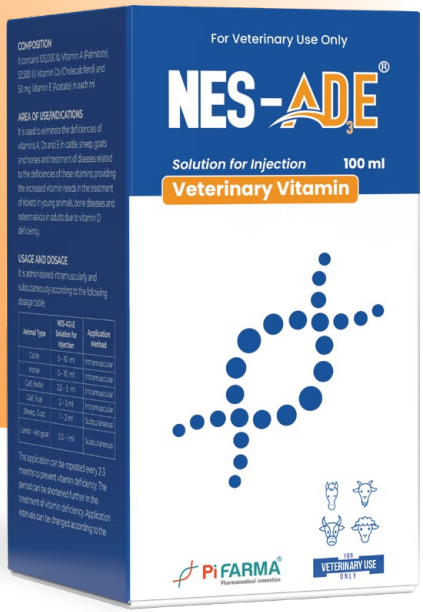
Intravenously, intramuscularly, subcutaneously.

0,25-2,5 ml/10 kg body weight are administered in dogs. 0,5-5 ml/5 kg body weight are administered in cats.

WITHDRAWAL PERIODS

'0' day for meat and milk in cattle.

Read the leaflet before use.



Commercial Presentation
Form: 50-100-250 ml

NES-AD$_3$E®

Solution for Injection | Veterinary Vitamin

COMPOSITION

NES-AD$_3$E Solution for Injection, each ml of contains, 105,000 IU Vitamin A (Palmitate), 52,500 IU Vitamin D$_3$ (Cholecalciferol) and 50 mg Vitamin E (Acetate).

PHARMACOLOGICAL PROPERTIES

NES-AD$_3$E Solution for Injection is a formulation containing vitamins A, D$_3$ and E. It shows high bioavailability by being absorbed for a long time after intramuscular injection. It reaches the highest level in the blood in a short time. It also continues its protective and therapeutic effect by being stored in the liver.

AREA OF USE/INDICATIONS

It is used to eliminate the deficiencies of vitamins A, D3 and E in cattle, sheep, goats and horses and treatment of diseases related to the deficiencies of these vitamins; providing the increased vitamin needs in the treatment of rickets in young animals, bone diseases and osteomalacia in adults due to vitamin D deficiency.

USAGE AND DOSAGE

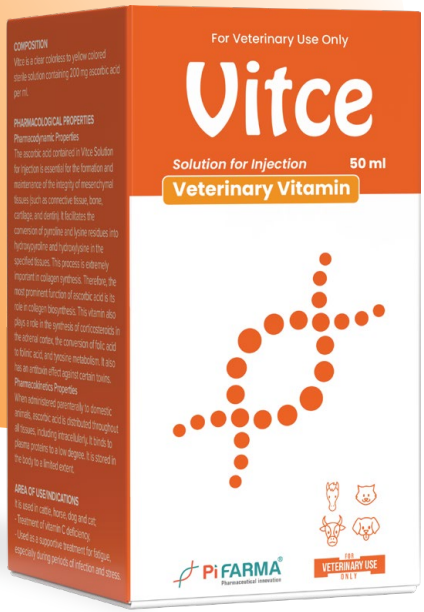
It is administered intramuscularly and subcutaneously according to the following dosage table;

Animal Type	NES-AD$_3$E Solution for Injection	Application Method
Cattle	5-10 ml	Intramuscular
Horse	5-10 ml	Intramuscular
Calf, Heifer	2,5-5 ml	Intramuscular
Calf, Foal	2-3 ml	Intramuscular
Sheep, Goat	1-2 ml	Subcutaneous
Lamb – Kid Goat	0,5-1 ml	Subcutaneous

WITHDRAWAL PERIODS

Meat: "0" days
Milk: "0" days

Read the leaflet before use.



Commercial Presentation
Form: 50 ml

Vitce

Solution for Injection | Veterinary Vitamin

COMPOSITION

Vitce is a clear colorless to yellow colored sterile solution containing 200 mg Ascorbic acid per ml.

PHARMACOLOGICAL PROPERTIES

Pharmacodynamic Properties

The ascorbic acid contained in Vitce Solution for Injection is essential for the formation and maintenance of the integrity of mesenchymal tissues (such as connective tissue, bone, cartilage, and dentin). It facilitates the conversion of pyrroline and lysine residues into hydroxypyroline and hydroxylysine in the specified tissues. This process is extremely important in collagen synthesis. Therefore, the most prominent function of ascorbic acid is its role in collagen biosynthesis. This vitamin also plays a role in the synthesis of corticosteroids in the adrenal cortex, the conversion of folic acid to folinic acid, and tyrosine metabolism. It also has an antitoxin effect against certain toxins.

Pharmacokinetics Properties

When administered parenterally to domestic animals, ascorbic acid is distributed throughout all tissues, including intracellularly. It binds to plasma proteins to a low degree. It is stored in the body to a limited extent.

AREA OF USE/INDICATIONS

It is used in cattle, horse, dog and cat;
- Treatment of vitamin C deficiency,
- Used as a supportive treatment for fatigue, especially during periods of infection and stress.

USAGE AND DOSAGE

Vitce is administered to animals intramuscularly or intravenously.
The dosages given below are general recommendations. The required dosage may be adjusted by the veterinarian depending on factors such as the condition of the animals and their feeding patterns. The product cap can be punctured up to 30 times.

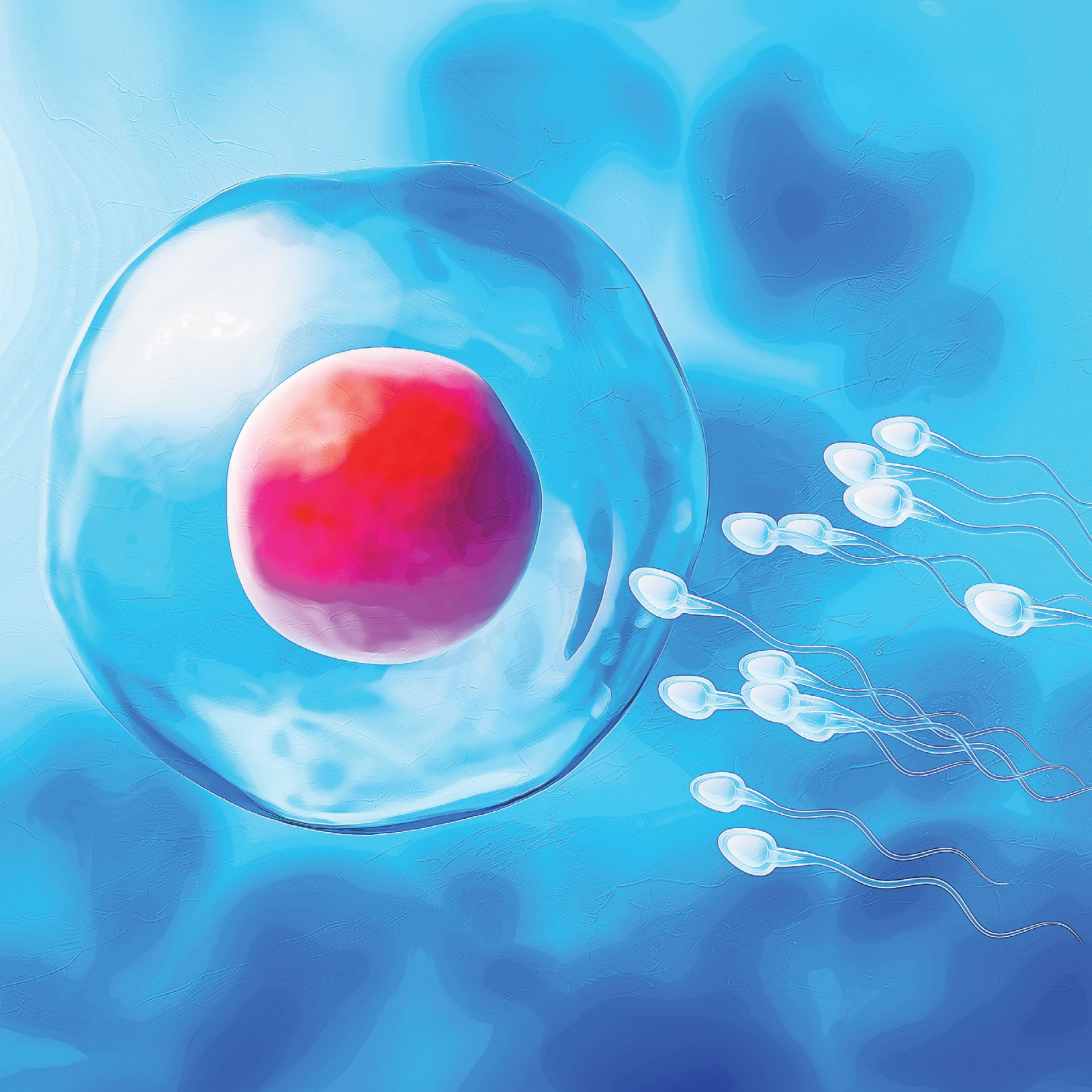
Species	Pharmacological Dose	Practical Dose	Administration Route	Administration Frequency
Cattle	4-6 mg/kg	7-12 ml/day	Intramuscular, intravenous	Twice in a week during 3-6 weeks
Horse	5-10 mg/kg	10-20 ml/day	Intramuscular, intravenous	Until the desired effect is achieved
Dog	25-500 mg/kg	0,3-2,5 ml/day	Intramuscular, intravenous	Until the desired effect is achieved
Cat	25-75 mg/kg	0,3-0,6 ml/day	Intramuscular, intravenous	Until the desired effect is achieved

WITHDRAWAL PERIODS

'0' day for meat and milk.

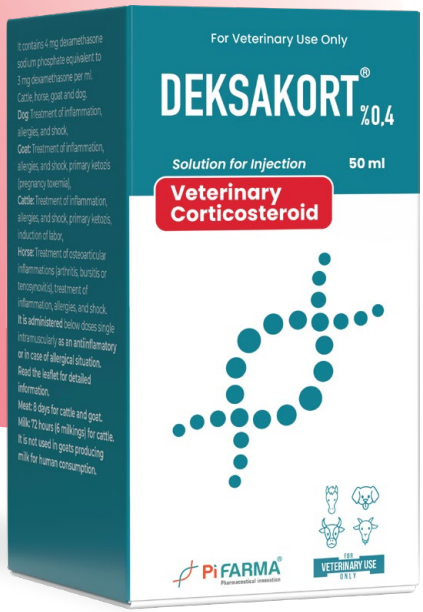
Read the leaflet before use.

HORMONES



DEKSAKORT®%0,4

Solution for Injection | Veterinary Corticosteroid



Commercial Presentation
Form: 50 ml

COMPOSITION

Deksakort 0,4% Solution for Injection, each ml of contains 4 mg Dexamethasone sodium phosphate.

PHARMACOLOGICAL PROPERTIES

Pharmacodynamic Properties

Dexamethasone is a fluoro-metic derivative of prednisolone with immunosuppressive, antiallergic and anti-inflammatory effects. It stimulates gluconeogenesis, as a result of which blood sugar level rises. While the effect of mineralocorticoids is minimal, the relative potency expressed by the anti-inflammatory effect of Dexamethasone is about 25 times higher than that of hydrocortisone.

Pharmacokinetic Properties

The product has a fast onset effect and the effect is short-lived (approximately 48 hours). The ester form is rapidly absorbed and metabolized to dexamethasone by hydrolysis by administration other than intravenous route. It reaches to the maximum plasma concentration 20 minutes after the administration in cattle, horses and dogs. The bioavailability for intramuscular administration is almost 100%.

AREA OF USE/INDICATIONS

Dog: Treatment of inflammation, allergies, and shock,
Goat: Treatment of inflammation, allergies, and shock, primary ketozis (pregnancy toxemia),
Cattle: Treatment of inflammation, allergies, and shock, primary ketozis, induction of labor,
Horse: Treatment of osteoarticular inflammations (arthritis, bursitis or tenosynovitis), treatment of inflammation, allergies, and shock.

USAGE AND DOSAGE

It is administered below doses single intramuscularly **as an anti-inflammatory or in case of allergical situation.**

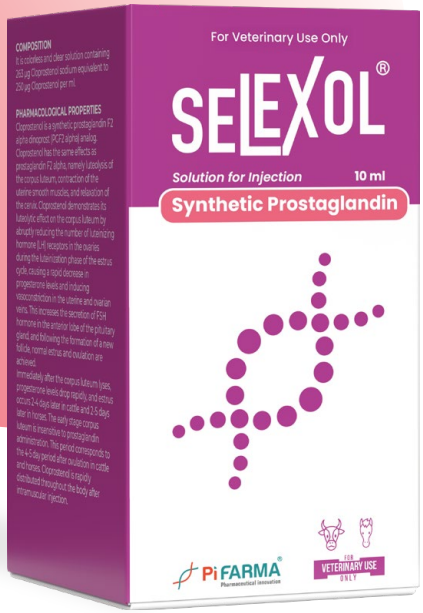
Species	Route	Pharmacological Dose	Practical Dose
Horse, Cattle	Intramuscularly, Intravenously, Subcutaneously	0.06 mg/kg dexamethasone	1,5 ml product for 100 kg body weight
Goat	Intramuscularly, Intravenously, Subcutaneously	0.06 mg/kg dexamethasone	0,5 ml product for 33 kg body weight
Dog	Intramuscularly, Subcutaneously	0.1 mg/kg dexamethasone	0,5 ml product for 20 kg body weight

For the treatment of primary ketosis in cattle; 0,02-0,04 mg/kg Dexamethasone (1-2 ml product/200 kg bw) is administered single dose intramuscularly.
Initiation of birth in cattle; A single dose of 5 ml is administered intramuscularly from the 260th day of pregnancy.
For the treatment of arthritis, bursitis or tenosynovitis in horses; 0.5-2.5 ml is applied intra-articular.

WITHDRAWAL PERIODS

Meat: 8 days for cattle and goat.
Milk: 72 hours (6 milkings) for cattle. It is not used in goats producing milk for human consumption.

Read the leaflet before use.



Commercial Presentation
Form: 10 ml

SELEXOL®

Solution for Injection | Synthetic Prostaglandin

COMPOSITION
Selexol Solution for Injection, each ml of conatins 250 µg Cloprostenol.

PHARMACOLOGICAL PROPERTIES
Cloprostenol is a synthetic prostaglandin F2 alpha dinoprost (PGF2 alpha) analog. Cloprostenol has the same effects as prostaglandin F2 alpha, namely luteolysis of the corpus luteum, contraction of the uterine smooth muscles, and relaxation of the cervix. Cloprostenol demonstrates its luteolytic effect on the corpus luteum by abruptly reducing the number of luteinizing hormone (LH) receptors in the ovaries during the luteinization phase of the estrus cycle, causing a rapid decrease in progesterone levels and inducing vasoconstriction in the uterine and ovarian veins. This increases the secretion of FSH hormone in the anterior lobe of the pituitary gland, and following the formation of a new follicle, normal estrus and ovulation are achieved.

AREA OF USE/INDICATIONS
Cattle;
1. In cattle with a normal cycle experiencing hidden or undetectable estrus
2. For synchronization of the estrus cycle
3. Routine use to improve reproductive function in the early postpartum period
4. For termination of unwanted pregnancies (e.g., incorrect mating)
5. Termination of abnormal pregnancies (e.g., expulsion of a mummified fetus)
6. Application to induce normal birth
7. Application in secondary retention, pyometra, and chronic metritis
8. Treatment of luteal cysts

Mares;
1. In cases of silent and undetectable estrus (quiet heat)
2. In cases of prolonged diestrus
3. In cases of resorption following early fetal death
4. In cases of pseudopregnancy
5. In cases of lactation-related anestrous
6. For abortion before the 45th day of pregnancy
7. For inducing estrus at the appropriate breeding time
8. For synchronization of the estrus cycle

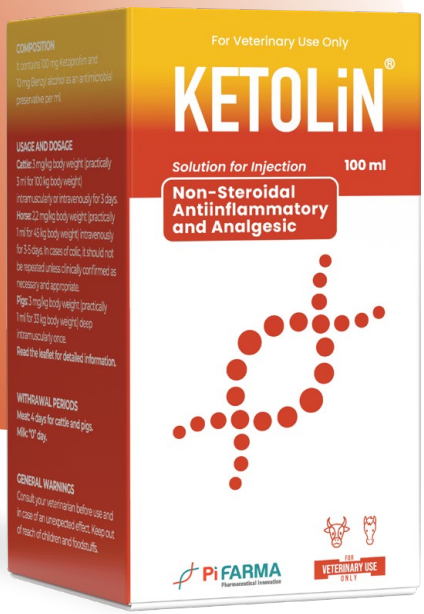
USAGE AND DOSAGE
Practical Dose:
Cattle: 2 ml is administered single or repeated intramuscular dose.
Horse: 0,5-1 ml up to 400 kg, 1-2 ml more than 400 kg.

WITHDRAWAL PERIODS
Meat: 1 day
Milk: “0” (zero) day

Read the leaflet before use.

ANTI-INFLAMMATORY

PiFARMA®
Pharmaceutical innovation



Commercial Presentation
Form: 50-100-250 ml

KETOLiN®

Solution for Injection | Non-Steroidal Anti-Inflammatory and Analgesic

COMPOSITION

Ketolin Solution for Injection, each ml of contains 100 mg Ketoprofen.

PHARMACOLOGICAL PROPERTIES

Pharmacodynamic Properties

Ketoprofen is a non-steroidal anti-inflammatory drug. It also has antipyretic and analgesic effects addition to its anti-inflammatory effect. Not all modes of action are fully known. The pharmacologic mechanism of action of ketoprofen is based on partial inhibition of prostaglandin and leukotrin synthesis by acting on cyclo-oxygenase and lipoxygenase. Ketoprofen also suppresses bradykinin formation and platelet aggregati-on, stabilizes the cell membranes of lysosomes, which in turn inhibits the release of lysosomal enzymes that mediate tissue destruction.

AREA OF USE/INDICATIONS

Cattle, It is used for the supportive teatment of labor-related labor paralysis, to relieve pain and fever in bacterial respiratory tract infections with appropriate etiological treatment, to promote healing in acute clinical mastitis, including acute endotoxic mastitis caused by Gram-negative bacteria with appropriate etiological treatment, to relieve breast edema due to labour, in osteoarticular and musculoskeletal system pain, to facilitate postpartum ambulation.

Horse, It is used for the diseases affecting the osteoarticular and musculoskeletal system related to acute pain and inflammation: Lameness of traumatic origin, Arthritis, Osteitis, Knee swelling, Tendonitis, Bursitis, Naviculitis, Laminitis, Myositis.

It is also used in the symptomatic treatment of postoperative inflammation, colic and fever.

USAGE AND DOSAGE

Cattle:

3 ml for 100 kg body weight intramuscularly or intravenously for 3 days.

Horse:

1 ml for 45 kg body weight intravenously for 3-5 days. In cases of colic, it should not be repeated unless clinically confirmed as necessary and appropriate.

It should be administered 10-30 minutes before the intervention to reduce post-operative pain.

WITHDRAWAL PERIODS

Meat: 4 days

Milk: “0” day

Read the leaflet before use.

Commercial Presentation
Form: 20-50-100 ml

Maxicam

Solution for Injection | Non-Steroidal, Anti-Inflammatory, Antirheumatismal

COMPOSITION

Maxicam is a clear, light yellow colored, odorless, sterile solution containing 5 mg meloxicam and 150 mg of ethanol as a preservative per ml.

PHARMACOLOGICAL PROPERTIES

Pharmacodynamic properties

Meloxicam is a Non-Steroidal Anti-Inflammatory Drug (NSAID) of the oxicam class which acts by inhibition of prostaglandin synthesis, thereby exerting anti-inflammatory, anti-exudative, analgesic and antipyretic effects. Meloxicam also has anti-endotoxic properties in calves.

Pharmacokinetic Properties

More than 98% of meloxicam is bound to plasma proteins. Meloxicam is eliminated with a half-life of 26 hours after subcutaneous injection in young cattle.

AREA OF USE/INDICATIONS

Cattle

- Alleviation of clinical signs in acute respiratory system infections in combination with antibiotic therapy, Reduction of diarrhea symptoms in calves older than one week and young cattle not in lactation, in combination with oral rehydration therapy, Alleviation of postoperative pain in calves following dehorning operations,

Dogs

- Alleviation of inflammation and pain in both acute and chronic musculoskeletal disorders. Reduction of postoperative pain and inflammation following orthopedic and soft tissue surgery.

Cats

- Reduction of pain following ovariohysterectomy and minor soft tissue surgery.

USAGE AND DOSAGE

10 ml/100 kg body weight is administered as a single subcutaneous or intravenous injection.
Reduction of postoperative pain: A single intramuscular injection of meloxicam 0.4 ml/5 kg body weight prior to surgery.

Dogs:

Musculoskeletal disorders:
0.4 ml/10 kg body weight is administered subcutaneously.
Postoperative pain reduction:
0.4 ml/10 kg body weight is administered single intravenous or subcutaneous injection prior to surgery.

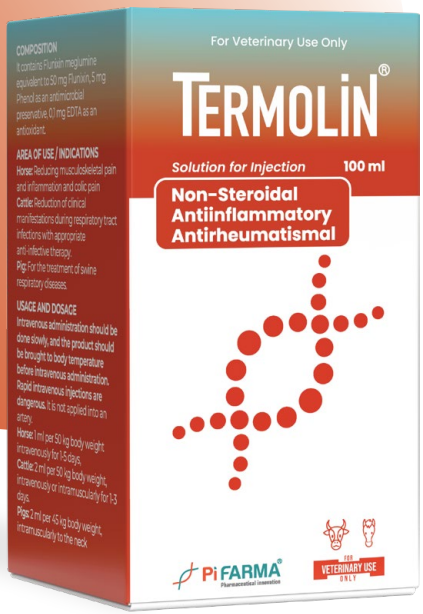
Cat:

Postoperative pain reduction:
Before surgery, for example during anesthesia induction, 0.06 ml/kg body weight is administered single subcutaneous injection.

WITHDRAWAL PERIODS

Meat: 15 days
Milk: 5 days (10 milkings)

Read the leaflet before use.



Commercial Presentation
Form: 50-100-250 ml

TERMOLİN®

Solution for Injection | Non-Steroidal, Anti-Inflammatory, Antirheumatismal

COMPOSITION

Termolin Solution for Injection, each ml of contains 50 mg Flunixin.

PHARMACOLOGICAL PROPERTIES

Pharmacodynamic properties

Flunixin meglumine is a reversible non-selective inhibitor of the cyclooxygenase enzyme, which causes the conversion of arahidonic acid to cyclic endoperoxides, which are then converted to prostaglandins, prostacyclins, and thromboxanes.

Flunixin acts as a non-selective reversible inhibitor of the enzyme COX (cyclooxygenase), which converts arachidonic acid to unstable cyclic endoperoxides, which are converted to prostaglandins, prostacyclins, and thromboxanes.

Some of these prostanoids, such as prostaglandin, are involved in the pathophysiology of inflammation, fever, and pain. Inhibition of the synthesis of these compounds is the reason for the therapeutic effect of flunixine.

AREA OF USE/INDICATIONS

Horse: Reducing musculoskeletal pain and inflammation and colic pain.
Cattle: Reduction of clinical manifestations during respiratory tract infections with appropriate anti-infective therapy.

USAGE AND DOSAGE

Intravenous administration should be done slowly, and the product should be brought to body temperature before intravenous administration. Rapid intravenous injections are dangerous.

Horse:

In order to alleviate pain and inflammation in musculoskeletal disorders; It is administered intravenously at a dose of 1 ml per 50 kg body weight for 1-5 days.

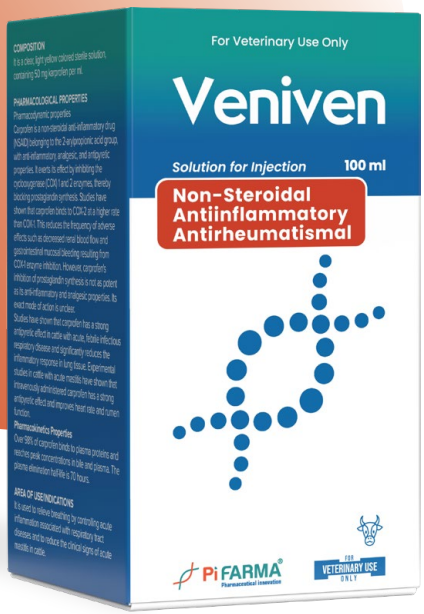
Cattle:

2 ml per 50 kg body weight administered intravenously or intramuscularly for 1-3 days.

WITHDRAWAL PERIODS

Meat: 31 days for intramuscular, 10 days for intravenous administration to cattle, 22 days for pigs.
Milk: 36 hours (3 milkings) for intramuscular, 24 hours (2 milkings) for intravenous administration.

Read the leaflet before use.



Commercial Presentation
Form: 50-100 ml

Veniven

Solution For Injection | Non-Steroidal, Anti-Inflammatory, Antirheumatismal

COMPOSITION

It is a clear, light yellow colored sterile solution, containing 50 mg Karprofen per ml.

PHARMACOLOGICAL PROPERTIES

Pharmacodynamic properties

Carprofen is a non-steroidal anti-inflammatory drug (NSAID) belonging to the 2-arylpropionic acid group, with anti-inflammatory, analgesic, and antipyretic properties. It exerts its effect by inhibiting the cyclooxygenase (COX) 1 and 2 enzymes, thereby blocking prostaglandin synthesis. Studies have shown that carprofen binds to COX-2 at a higher rate than COX-1. This reduces the frequency of adverse effects such as decreased renal blood flow and gastrointestinal mucosal bleeding resulting from COX-1 enzyme inhibition. However, carprofen's inhibition of prostaglandin synthesis is not as potent as its anti-inflammatory and analgesic properties. Its exact mode of action is unclear.

Studies have shown that carprofen has a strong antipyretic effect in cattle with acute, febrile infectious respiratory disease and significantly reduces the inflammatory response in lung tissue. Experimental studies in cattle with acute mastitis have shown that intravenously administered carprofen has a strong antipyretic effect and improves heart rate and rumen function.

Pharmacokinetics Properties

Over 98% of carprofen binds to plasma proteins and reaches peak concentrations in bile and plasma. The plasma elimination half-life is 70 hours.

AREA OF USE/INDICATIONS

It is used to relieve breathing by controlling acute inflammation associated with respiratory tract diseases and to reduce the clinical signs of acute mastitis in cattle.

USAGE AND DOSAGE

1 ml/35 kg body weight subcutaneously or intravenously in cattle

Practical Dose:

Target Species	Body weight	Veniven Sol. For Inj.	Administration Route
Cattle	140 kg	4 ml	Subcutaneously/Intravenously

Use during pregnancy and lactation

Since there are no studies on its use in pregnant and lactating animals, it should not be used in animals during this period.

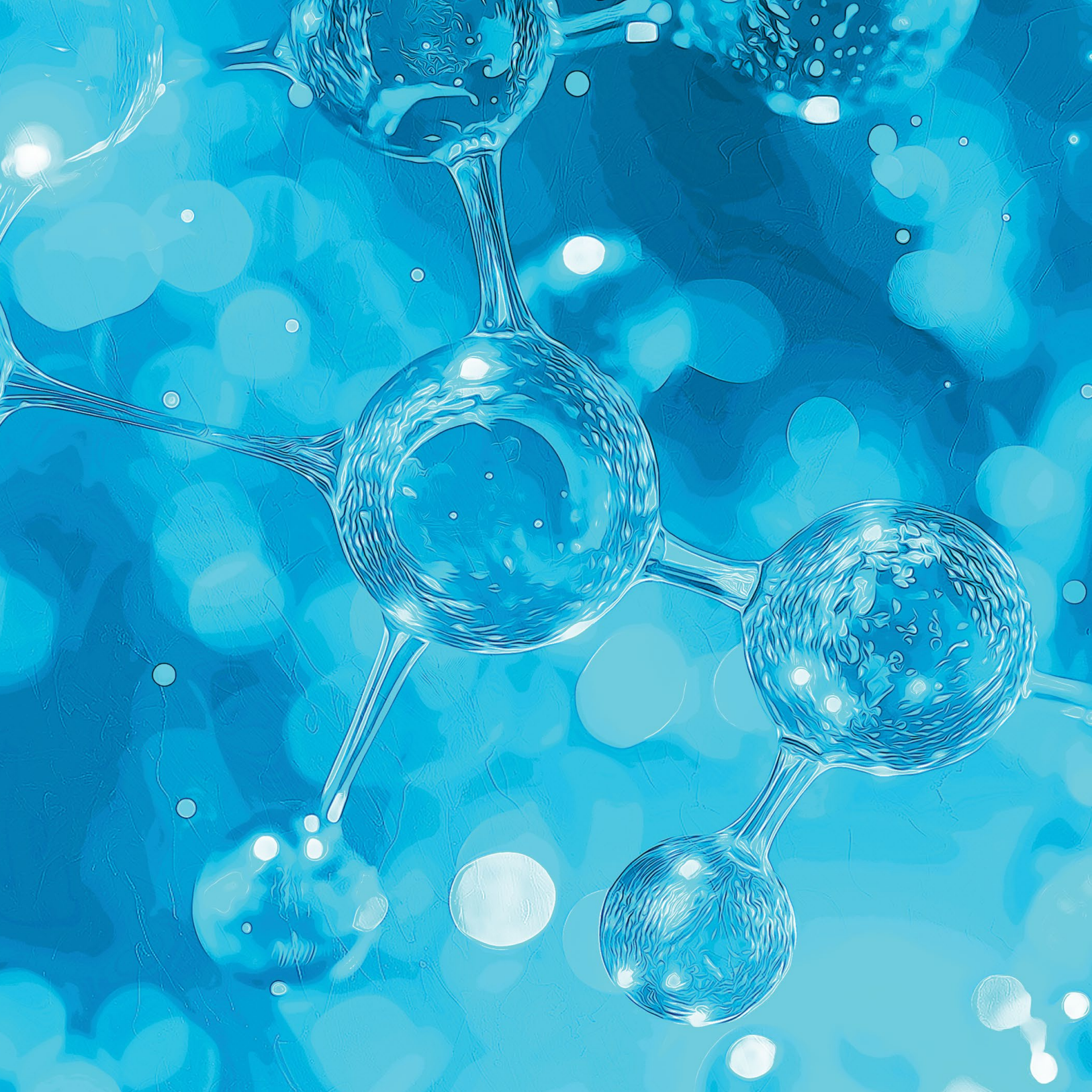
WITHDRAWAL PERIODS

Meat: 21 days for cattle.
Milk: 0 days

Read the leaflet before use.

COMPLEMENTARY FEED & PREMIX

Pi FARMA®
Pharmaceutical innovation



Commercial Presentation
Form: 50 tablet

PiKLAS®

Oral Tablet | Feed Additive for Cattle and Sheep

COMPOSITION

The feed supplementary contains magnesium stearate, lactose, maize starch and dicalcium phosphate.

Raw protein	%0	Sodium	%0,18
Raw cellulose	%0,4	Calcium	%4,7
Raw oil	%1,3	Phosphorus	%3,9
Raw ash	%26,4		

Identification Number	Active Ingredient	Ingredient Name	Active Ingredient Content per 1 g tb.
Vitamins			
3a700	Vitamin E	α-tocopherol acetate	12,0 mg
Trace Elements			
3b405	Copper	Copper Sulphate Pentahydrate	4,0 mg
3b605	Zinc	Zinc Sulphate Monohydrate	9,5 mg
3b305	Cobalt	Cobalt Sulphate Heptahydrate	4,6 mg
3b503	Manganese	Manganese Sulphate Monohydrate	3,9 mg
3b801	Selenium	Sodium Selenite	1,2 mg

USAGE AND DOSAGE

It is recommended for use to meet the vitamin and mineral requirements of cattle and sheep.
Lamb and Kid: 1-2 tablet
Sheep-Goat: 2 tablet
Calf-Heifer: 2 tablet
Calf: 3 tablet
Cattle: 3-4 tablet

WARNINGS

When the copper level in sheep feed exceeds 10 mg/kg, it can cause poisoning in some breeds of sheep.
In cattle, once rumination has begun, if the copper level in the feed is below 20 mg/kg, pasture grasses with high molybdenum and sulphur content can cause copper deficiency in cattle.

This is not a medicine, it is a feed additive.
It is not for therapeutic use.

PYTON® TONIC

Oral Solution | Mineral Amino Acid Premix

Commercial Presentation
Form: 1-20 Liter

COMPOSITION

Identification Number	Active Ingredient	Ingredient Name	Per Liter	
Trace Elements				
3b102	Iron	Ferric Chloride	750	mg/lt
3b501	Manganese	Manganese Chloride	800	mg/lt
3b305	Cobalt	Cobalt Chloride	7.5	mg/lt
3b602	Zinc	Zinc Chloride	800	mg/lt
3b405	Copper	Copper Chloride	125	mg/lt
Minerals				
11.1.6	Calcium	Calcium Chloride	10.000	mg/lt
11.4.1	Sodium	Sodium Chloride	500	mg/lt
11.2.6	Magnesium	Magnesium Chloride	500	mg/lt
11.5.1	Potassium	Potassium Chloride	500	mg/lt
3b801	Selenium	Sodium Selenite	7.5	mg/lt
Preservatives				
1a338	Phosphoric Acid	Phosphoric Acid 85%	31.638	mg/lt
Amino Acids				
3c301	Methionine	DL-Methionine	9000	mg/lt
3c322	Lysine	L-Lysine Hydrochloride	5000	mg/lt
Carriers				
	Deionised Water		943.219	mg/lt

Pyton Tonic Oral Solution is used to meet the amino acid and mineral requirements of beef cattle, calves, sheep, goats, lambs, kids and poultry.

USAGE AND DOSAGE

PYTON TONIC Oral Solution is administered by adding the specified amounts to drinking water.

Animal Species	Dosage
Beef Cattle	40 ml/100 kg body weight/1 lt water
Calves	30 ml/50 kg body weight/1 lt water
Sheep and Goats	20 ml/0.5 lt water
Lambs and Kids	10 ml/0.5 lt water
Chickens and Turkeys	25-5 lt/ton water
Chicks and Pullets	1-2 lt/ton water

WARNINGS

In sheep, copper levels in feed above 10 mg/kg may cause poisoning in some breeds.
In cattle, after rumination begins, if the copper level in the feed is below 20 mg/kg, pasture/meadow grasses with high molybdenum and sulphur content may cause copper deficiency in cattle.
As it is an acidic product, it should not be used directly.

This is not a medicine, it is a feed additive.
It is not for therapeutic use.

RUMENTOR®

Oral Powder | Premix for Cattle, Sheep and Goats

Commercial Presentation
Form: 24x100 g

COMPOSITION

It contains sodium bicarbonate, calcium propionate, magnesium oxide, inactive yeast culture, Saccharomyces cerevisiae/4b1711 ($7.5x10^{11}$ CFU/kg) and Aspergillus oryzae/4a1607i (50,000 mg/kg).

Raw Protein	18,8%	Raw Oil	0,6%
Raw Cellulose	0,5%	Raw ash	34,8%

Identification Number	Active Ingredient	Ingredient Name	In Each Bag	Units
Vitamins / Provitamins				
3a820	Vitamin B_1	Thiamine Hydrochloride	40	mg
3a315	Vitamin B_3	Niacinamide	500	mg
3a831	Vitamin B_6	Pyridoxine Hydrochloride	50	mg
3a316	Vitamin B_9	Folic Acid	4	mg
3a835	Vitamin B_{12}	Cyanocobalamin	10	mg
Trace Elements				
3b506	Manganese	Manganese Glycine Chelate	89	mg
3b607	Zinc	Glycine Zinc Chelate (Solid)	30	mg
3b108	Iron	Glycine Iron Chelate	110	mg
3b305	Cobalt	Cobalt Sulphate Heptahydrate	1,5	mg
Amino Acids				
3c301	Methionine	DL-Methionine	1000	mg
3c322	Lysine	L-Lysine Monohydrochloride	500	mg

USAGE AND DOSAGE

It is recommended that Rumentor is mixed with feed to be used for the target animal species or administered with water or similar liquids.

Beef and dairy cattle:
(less than 200 kg) Half a packet is administered morning and evening for 3-4 days.
(more than 200 kg) 1 packet is administered morning and evening for 3-4 days.

Sheep and goats:
For sheep and goats, administer a quarter packet once daily for 3-4 days.

WARNINGS

Do not use in animals with incomplete rumen development.
Do not use in animals without a swallowing reflex.

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It is not for therapeutic use.

GENERAL INFO

Normal Rectal Temperature Ranges

Species	(°C)	Species	(°C)
Cat	38,1–39,2	Sheep	38,3–39,9
Dog	37,9–39,9	Goat	38,5–39,7
Horse (Mare)	37,3–38,2	Beef cow	36,7–39,1
Horse (Stallion)	37,2–38,1	Dairy cow	38,0–39,3
Chicken (daylight)	40,6–43,0	Pig	38,7–39,8

Resting Respiratory Rates

Species	Breaths /min (range)
Cat	16–40
Dog	18–34
Horse	10–14
Sheep	16–34
Goat	12–15
Dairy Cow	26-50
Pig	32–58

Resting Heart Rates

Species	bpm (range)	Species	bpm (range)	Species	bpm (range)	Species	bpm (range)
Dairy Cow	48–84	Cat	120–140	Chicken (adult)	250–300	Rat	250–400
Ox	36–60	Dog	70–120	Hamster	300–600	Rabbit	180–350
Sheep	70–80	Horse	28–40	Mouse	450–750	Elephant	25–35
Goat	70–80	Chick	350–450	Guinea Pig	200–300	Pig	70–120

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SOURCE

Resting Respiratory Rates*

Reece WO, Respiration in Mammals, in Dukes' Physiology of Domestic Animals, 12th ed., Reece WO, Ed. Copyright 2004 by Cornell University.

Normal Rectal Temperature Ranges*

Robertshaw D. Temperature Regulation and Thermal Environment, in Dukes' Physiology of Domestic Animals, 12th ed., Reece WO, Ed. Copyright 2004 by Cornell University.

Resting Heart Rates*

Detweiler DK and Erickson HH, Regulation of the Heart, in Dukes' Physiology of Domestic Animals, 12th ed., Reece WO, Ed. Copyright 2004 by Cornell University.

APPROXIMATE GESTATION PERIODS

Domestic Animals	Days
Cat	65
Dog	62–64[b]
Cattle[a]	
Angus	281
Ayrshire	279
Brahman	292
Brown Swiss	290
Charolais	289
Guernsey	283
Hereford	285
Holstein	279

Domestic Animals	Days
Jersey	279
Limousin	289
Shorthorn	282
Simmental	289
Donkey	365
Goat	150
Horse[c]	335–342
Llama, Alpaca[c]	335–365
Pig	114
Rabbit	31
Sheep	150

Farmed Fur Animals	Days
Chinchilla	111
Ferret	42
Fox	52
Mink	
European	41
American	40–75

[a] *Individuals may range ±7–10 days from these averages.*
[b] *Gestation period is 58–72 days from breeding at unknown stage of estrus; from day of ovulation (which can be determined by progesterone or LH monitoring), gestation period is 62–64 days.*
[c] *Individuals may range 20 days from these averages.*
[d] *180+ days due to delayed implantation*

Wild Animals	Days	Wild Animals	Days	Wild Animals	Days	Wild Animals	Days
Bear (Black)	210	Gorilla	270	Wolf	63	Rhinoceros (African)	480
Bison	280	Hare	36	Opossum	12	Seal	330
Camel	365-400	Hippopotamus	240	Otter	270–300[d]	Skunk	63
Chimpanzee	236	Leopard	95	Panther	90	Squirrel (Gray)	40
Coyote	63	Lion	108	Porcupine	210	Tiger	103
Elephant	660	Monkey (Macaque)	180	Raccoon	63	Walrus	450
Giraffe	425	Muskrat	29	Reindeer	225	Whale	450

SOURCE
*Approximate Gestation Periods**
The Merck Veterinary Manual, Eleventh Edition (June, 2016)

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"Pi Farma" Pharmaceutical Innovation...
A structure designed with the ecosystem rings,
The golden ratio in the structure,
The perfect harmony provided by the ratio,
The endless spiral shaped by harmony,
Where innovative ideas and ideas from the spiral converge.

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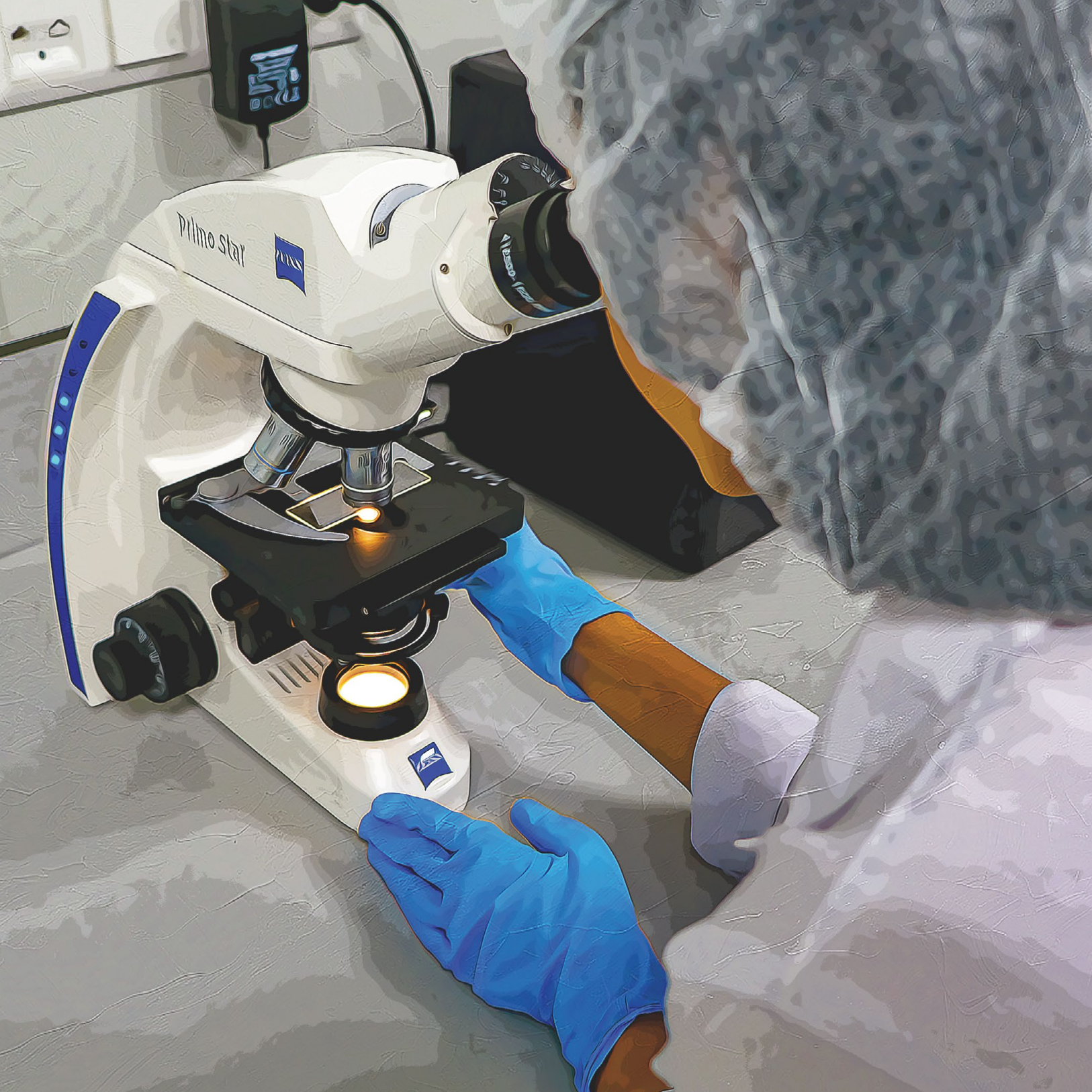
Pharmaceutical innovation


Primo Star

Note:

Note:

Golden Standard

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Malıköy, Başkent OSB, 26. Cad.
No:34/A Sincan/ANKARA

0312 255 98 60 - 65
Fax: 0312 255 98 78

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