About company

About Us

Biowet Puławy Ltd. is Polish modern veterinary medicine production plant. Our operations protect health of both animals and people. We supply latest generation effective and safe medicine for veterinary services, farming and breeding sectors. Currently we offer more than 50 preparations, including vaccines, diagnostic preparations, antibiotics, calcium preparations, sulphonamides, antiparasitic preparations, mineral and vitamin supplements and a number of other specialized groups of medicines for multiple species of animals.

Good traditions

For 95 years preparations produced in Puławy have significantly contributed to controlling and keeping in check such dangerous diseases as rinder pest (viral cattle disease), tuberculosis, brucellosis, Newcastle disease, varroosis of honey bees. The 90s were a turning point for the existence of Biowet. An Act of Law titled “Resolution on privatization of the plant in the form of employee-owned company” has been signed. Following completion of the privatization process, in 1997, all employees became shareholders and at the same time also owners of the plant. From the perspective it is clear that company’s privatization proved highly successful, as one of the few.

Innovation and prospection

Biowet operations are based on scientific research performed by specialized personnel. We work with the best scientific centres in Poland. The plant uses assistance from specialists in all disciplines of veterinary medicine, in Poland and abroad, from medical schools, institutes, universities and technical universities. Biowet has been working with National Veterinary Institute - National Research Institute in Puławy for many years, in the area of scientific research and national control of immunological products, exercised by NVI under so-called „initial batch control”.

Investing in quality and safety

Company’s objective is producing safe and effective medicinal products of adequate quality, in line with applicable requirements of pharmaceutical legislation. Products are being improved by implementing new technologies and research methods.

The company has Department of Injection Preparations, which is among the most modern facilities in Poland. Production area is a complex of clean rooms with a system of locks, supplied with filtered air via air-conditioning and ventilation system, ensuring suitable pressure gradient between rooms. Aseptic phases of the process are held in class A/B clean rooms. The Department is fitted out with process installations (injection water, purified water, purified steam, CIP, SIP installations) as well as state-of-the-art process equipment in Good Manufacturing Practice (GMP) standard. Well organized production processes and applied technologies meet the European GMP requirements.

In 2008 a new Department of Biology was opened, dealing with production of immunological products – vaccines and in-vitro diagnostics preparations. The building comprises of clean equipped rooms with a system of man locks and material locks, including air-conditioning and ventilation system providing intake of filtered air as well as pressure barrier. Production compliant with GMP standards is ensured by modern equipment and auxiliary systems (purified water, injection water, purified steam, nitrogen, compressed air). The Department has modules for
production of microbial and mycological antigens, module for work with microbes BH-III and medium preparation room. Works on microbes and aseptic operations are carried out under class A/B laminar exhaust. Modern production technologies comply with GMP standards and the implemented pharmaceutical Quality Assurance System guarantee that good, effective and safe medicinal products are released.


Achievements

Achievements of Puławy-based Biowet have been noted and awarded by business and social circles in Poland.

Awards granted to the company:

- „Złota Złotówka” [Golden Zloty] for good financial results,
- „Lew Wśród Pracodawców” [Lion Among Employers],
- „Ambasador Województwa Lubelskiego” [The Ambassador of Lubelskie Province]
- „Gazela Biznesu 2002r” [Business Gazelle 2002],
- the reward by Federation of Engineering Associations (NOT) and a number of awards by Ministry of Agriculture. In 2004 three employees received scientific award by Ministry of Agriculture and Rural Development.

Awards and distinctions for products manufactured by Biowet Puławy Sp.z o.o.:

- Bovitrichovac II - GOLD MEDAL awarded at 3rd „Cattle Farm" Conference/Exhibition in Łomża (2010);
- Rehydrate - GOLD MEDAL awarded at 2nd „Cattle Farm" Conference/Exhibition in Łomża (2009);
- Streptovac - GOLD MEDAL awarded at 11th International Fair of Pigs and Poultry in Poznań (2008);
- Streptovac - NOVELTY Mark awarded at 10th International Fair of Pigs and Poultry in Poznań (2008);
- Thiamphenicol 25% - GOLD MEDAL awarded at 6th „Cattle Farm" International Fair in Poznań (2006);
- Mlek-test - GOLD MEDAL awarded at 4th „Cattle Farm" International Fair in Poznań (2004);

Quality recognized around the world

The most critical test of company’s operations is the assessment by its customers. High quality of medicinal products GMP certificates of compliance with Community Directives, granted by competent body, allow expanding our customer base by foreign customers – Biowet cooperates with partners from Lithuania, Ukraine, Belarus, Russia, Hungary, Moldavia, Uzbekistan, Malta, Croatia and Spain.
<table>
<thead>
<tr>
<th>Page</th>
<th>Product Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Alopecvac®</td>
</tr>
<tr>
<td>2.</td>
<td>Apiwarol®</td>
</tr>
<tr>
<td>3.</td>
<td>Aptovac®</td>
</tr>
<tr>
<td>4.</td>
<td>Bioartrhex</td>
</tr>
<tr>
<td>5.</td>
<td>Bioartrhex HA</td>
</tr>
<tr>
<td>6.</td>
<td>Biohepanex</td>
</tr>
<tr>
<td>7.</td>
<td>Biohepanex forte</td>
</tr>
<tr>
<td>8.</td>
<td>Bioimmunex canis</td>
</tr>
<tr>
<td>9.</td>
<td>Bioimmunex felis</td>
</tr>
<tr>
<td>10.</td>
<td>Biowar 500</td>
</tr>
<tr>
<td>11.</td>
<td>Boviketozin®</td>
</tr>
<tr>
<td>12.</td>
<td>Bovitrichovac®</td>
</tr>
<tr>
<td>13.</td>
<td>Brucella Abortus Antigen</td>
</tr>
<tr>
<td>15.</td>
<td>Calcigluc®</td>
</tr>
<tr>
<td>16.</td>
<td>Calem® plus</td>
</tr>
<tr>
<td>17.</td>
<td>Calmagluc®</td>
</tr>
<tr>
<td>18.</td>
<td>Canifos®</td>
</tr>
<tr>
<td>19.</td>
<td>Canifos® betaglukan</td>
</tr>
<tr>
<td>20.</td>
<td>Canifos® junior</td>
</tr>
<tr>
<td>21.</td>
<td>Coffenal</td>
</tr>
<tr>
<td>22.</td>
<td>Deodent®</td>
</tr>
<tr>
<td>23.</td>
<td>Depogeston®</td>
</tr>
<tr>
<td>24.</td>
<td>Elisol</td>
</tr>
<tr>
<td>25.</td>
<td>Enflocyna®</td>
</tr>
<tr>
<td>26.</td>
<td>Enflocyna® Sol</td>
</tr>
<tr>
<td>27.</td>
<td>Felisvac® Mc</td>
</tr>
<tr>
<td>28.</td>
<td>Gentamycyna Biowet Puławy</td>
</tr>
<tr>
<td>29.</td>
<td>Injectio Glucosi 40%</td>
</tr>
<tr>
<td>30.</td>
<td>Injectio Pyralgini</td>
</tr>
<tr>
<td>31.</td>
<td>Insectin®</td>
</tr>
<tr>
<td>32.</td>
<td>Ketamina 10%</td>
</tr>
<tr>
<td>33.</td>
<td>Mastiprewent®</td>
</tr>
<tr>
<td>34.</td>
<td>Miek-test®</td>
</tr>
<tr>
<td>35.</td>
<td>Morbital®</td>
</tr>
<tr>
<td>36.</td>
<td>Mycosalmovir®</td>
</tr>
<tr>
<td>37.</td>
<td>Oticlar®</td>
</tr>
<tr>
<td>38.</td>
<td>Oxytocinum Biowet Puławy</td>
</tr>
<tr>
<td>39.</td>
<td>Oxyvet</td>
</tr>
<tr>
<td>40.</td>
<td>PM-VAC®</td>
</tr>
<tr>
<td>41.</td>
<td>Polisulfalent®</td>
</tr>
<tr>
<td>42.</td>
<td>Polisulfamid®</td>
</tr>
<tr>
<td>43.</td>
<td>Rehydrat®</td>
</tr>
<tr>
<td>44.</td>
<td>Salmovir®</td>
</tr>
<tr>
<td>45.</td>
<td>Sedazin®</td>
</tr>
<tr>
<td>46.</td>
<td>Streptovac®</td>
</tr>
<tr>
<td>47.</td>
<td>Suiferrin 100%</td>
</tr>
<tr>
<td>48.</td>
<td>Suiferrovit®</td>
</tr>
<tr>
<td>49.</td>
<td>Syntarpen prolongatum</td>
</tr>
<tr>
<td>50.</td>
<td>Testoket</td>
</tr>
<tr>
<td>51.</td>
<td>Tiamfenikol Biowet Puławy</td>
</tr>
<tr>
<td>52.</td>
<td>Vitaminum B, Biowet Puławy</td>
</tr>
<tr>
<td>53.</td>
<td>Vitaminum C Biowet Puławy</td>
</tr>
</tbody>
</table>
**Pharmacological list of products**

<table>
<thead>
<tr>
<th>Category</th>
<th>Products</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ANALEPTICA</strong></td>
<td>Coffenal (Caffeine)</td>
</tr>
<tr>
<td><strong>ANALGETICA ET ANTIPYRETICA</strong></td>
<td>Injectio Pyralgini (Metamizolum Sodium)</td>
</tr>
<tr>
<td><strong>ANTHELMINTICA ET ANTIPARASITICA</strong></td>
<td>Apiwarol® (Amitraz)</td>
</tr>
<tr>
<td></td>
<td>Biowar 500 (Amitraz)</td>
</tr>
<tr>
<td></td>
<td>Insectin® (Permethrin)</td>
</tr>
<tr>
<td><strong>ANTIALLERGICA</strong></td>
<td>Calcigluc®</td>
</tr>
<tr>
<td></td>
<td>Calem® plus</td>
</tr>
<tr>
<td></td>
<td>Calmigluc®</td>
</tr>
<tr>
<td></td>
<td>Tiamfenikol Biowet Puławy (Tiamfenikol)</td>
</tr>
<tr>
<td><strong>ANTIANAEMICA ET HAEMOPOETICA</strong></td>
<td>Suiferovit</td>
</tr>
<tr>
<td></td>
<td>Suiferrin 100</td>
</tr>
<tr>
<td><strong>ANTIBIOTICA</strong></td>
<td>Enflocyna® (Enrofloxacin)</td>
</tr>
<tr>
<td></td>
<td>Gentamycyna Biowet Puławy (Gentamicin)</td>
</tr>
<tr>
<td></td>
<td>Oxyvet (Oxytetracyclinum hydrochloricum)</td>
</tr>
<tr>
<td></td>
<td>Syntarpen prolongatum (Cloxacillium benzathinicum)</td>
</tr>
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<td><strong>ANTIRHEUMATICA</strong></td>
<td>Inj. Glucosi 40%</td>
</tr>
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<td><strong>CALCIA</strong></td>
<td>Coffenal (Caffeine)</td>
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<tr>
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<td>Calcii Borogluconas 25% Inj.</td>
</tr>
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<td><strong>CARDIACA ET CIRCULATORIA</strong></td>
<td>Calemplus®</td>
</tr>
<tr>
<td></td>
<td>Calmigluc®</td>
</tr>
<tr>
<td><strong>DERMATICA</strong></td>
<td>Oticlar</td>
</tr>
<tr>
<td></td>
<td>Mastiprewent</td>
</tr>
<tr>
<td></td>
<td>Bioarthrex</td>
</tr>
<tr>
<td></td>
<td>Bioarthrex HA</td>
</tr>
<tr>
<td></td>
<td>Biohepanex</td>
</tr>
<tr>
<td><strong>DIAGNOSTICA</strong></td>
<td>Biohepanex forte</td>
</tr>
<tr>
<td></td>
<td>Bioimmunex canis</td>
</tr>
<tr>
<td></td>
<td>Bioimmunex felis</td>
</tr>
<tr>
<td><strong>HORMONOTHERAPEUTICA</strong></td>
<td>Oxytocinum Biowet Puławy</td>
</tr>
<tr>
<td><strong>MINERALO-VITAMINICA ET NOSOTROPHICA</strong></td>
<td>Depogeston®</td>
</tr>
<tr>
<td></td>
<td>Depogeston®</td>
</tr>
<tr>
<td><strong>PREPARATIONS FOR EUTHANASIA</strong></td>
<td>Ketamina 10% (Ketaminum hydrochloricum)</td>
</tr>
<tr>
<td></td>
<td>Sedazin® (Xylazinum)</td>
</tr>
<tr>
<td><strong>SULFONAMIDA</strong></td>
<td>Polisulfalent®</td>
</tr>
<tr>
<td></td>
<td>Polisulfamid®</td>
</tr>
<tr>
<td><strong>SEDATIVA ET HYPNOTICA</strong></td>
<td>Ketamina 10% (Ketaminum hydrochloricum)</td>
</tr>
<tr>
<td></td>
<td>Sedazin® (Xylazinum)</td>
</tr>
<tr>
<td><strong>SERA VACCINA</strong></td>
<td>Alopevac®</td>
</tr>
<tr>
<td></td>
<td>Aptovac</td>
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<tr>
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<td>Bovitrichovac®</td>
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<td></td>
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<tr>
<td></td>
<td>Streptovac</td>
</tr>
<tr>
<td></td>
<td>Suiferrovit®</td>
</tr>
<tr>
<td><strong>UTEIRA</strong></td>
<td>Oxytocinum Biowet Puławy</td>
</tr>
<tr>
<td><strong>VITAMINA</strong></td>
<td>Vitaminum B, Biowet Puławy</td>
</tr>
<tr>
<td></td>
<td>Vitaminum C, Biowet Puławy</td>
</tr>
<tr>
<td><strong>MULTIELECTROLYTICA</strong></td>
<td>Rehydrat®</td>
</tr>
<tr>
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<td>Elisol</td>
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</tbody>
</table>
Vaccine against skin mycosis in farm foxes

**Qualitative and quantitative composition of active substances**
1 ml of the vaccine contains:
- Antigens of *Trychophyton verrucosum* 43 strain no less than 20% of the vaccine volume
- Antigens of *Trychophyton mentagrophytes var. granulosum* 58 strain no less than 5% of the vaccine volume

**Therapeutic indications**
The vaccine is intended for active immunisation of foxes in order to reduce the death rate, clinical symptoms and pathological changes induced by *Trychophyton verrucosum* and *Trychophyton mentagrophytes var. granulosum*.

**Contraindications**
None.

**Adverse effects**
Rare cases of mild oedema in the injection site disappearing within several days. In animals which are in the latent period of the disease, vaccination may reveal hidden fungal infections. However, the changes subside quickly, especially after the administration of the second dose of the vaccine.

A proper veterinary surgeon, the Marketing Authorisation Holder or the Office for Registration of Medicinal Products, Medical Devices and Biocidal Products should be notified of any occurrence of adverse effects after administration of the product or observation of any alarming symptoms not listed in the leaflet (including symptoms in people as a result of contact with the drug). The notice form has to be downloaded from the website [http://www.urpl.gov.pl](http://www.urpl.gov.pl) (The Department of Veterinary Medicinal Products).

**Posology and route of administration**
Administer the preparation intramuscularly twice at an interval of 10-14 days into the thigh muscles, each time into a different limb. Use the vaccine in healthy foxes (free from other diseases) aged over four weeks.

The following doses are used as prophylaxis and treatment:
- foxes aged up to eight weeks 1 ml – 1.5 ml/animal
- foxes aged over eight weeks 2 ml – 3 ml/animal

**Recommendations for proper administration**
None.

**Withdrawal period**
Not applicable.

**Special precautions for storage and transport**
- Keep out of the sight and reach of children.
- Store in a refrigerator (2-8°C). Do not freeze.
- Use the contents of the opened direct package immediately.
- Do not use after the expiry date given on the label.

**Special warnings and precautions**
- After accidental self-injection, immediately seek medical help and show the information leaflet or the package to the physician.
- Do not use in pregnancy.
- There is no available information concerning safety and efficiency of simultaneous use of this vaccine in combination with other vaccines. Therefore, simultaneous use of other vaccines with this product is not recommended.
- On administration of a double dose, no occurrence of other side effects than the ones given in the point concerning adverse effects was observed.
- Do not combine with other medicinal products.

**Shelf-life:**
- 6 months

**Packing:**
- 100 ml

**Other information**
- Exclusively for animals
- Prescription-only-medicine (POM)
- For use under the supervision of a veterinary surgeon
Apiwarol Fumigation tablets for honey bees

Tablets for diagnosis and control of varroosis in bees

**Composition of active ingredients**
Amitraze 12,5 mg/tablet

**Treatment recommendation**
Diagnosis and control of varroosis in bees.

**Contraindications**
Do not fumigate bees in temperature below +10°C.

**Side effects**
- In case of faulty application, brood may die out.
- Fumigation may result in raised activity in bees.

In case of side effects after application of the product which were not mentioned in this brochure (including symptoms in humans as a result of contact with the medicine), a veterinary doctor must be notified, responsible entity or Chief Registration Bureau for Therapeutic Products, Medicinal Products and Biokillers. Registration form is available at [http://www.urpl.gov.pl](http://www.urpl.gov.pl) (Department of Veterinary Medicinal Products).

**Dosage and way of administration**
One tablet contains one curing dose which is sufficient for one-time fumigation of a bee colony.

**Recommendations for correct application**

Apiwarol has effect only on *Varroa destructor* acarid externally on bees. It does not destroy the mites and its developmental forms on encrusted brood. The best results in varroosis treatment are obtained if fumigation is applied twice in the spring, and two or three times in the autumn at intervals of 4-6 days, when there is the smallest amount of encrusted brood in the beehive. In the honey-production period, the fight of varroosis should be done by way of cutting out the encrusted drone brood. Fumigation should be performed in the evening, after bees have completed their flight. One tablet contains one curing dose which is sufficient for one-time fumigation of the bee colony. Hold a tablet with tongs and set in, if the flame appears, blow it off. Place the smouldering tablet on a narrow strip (3-4cm) of dense wire netting, or specially bent wire feeder, which enables air access to the tablet. Introduce the smouldering tablet on the netting into the beehive through entrance and place on the bottom board beneath the frames. Close the entrance for 20 minutes. Next, open the entrance and check if the tablet burnt completely. If not, the procedure must be repeated. While diagnosing varroosis, one must adhere to the procedure as above, first, placing a sheet of paper covered with vegetable fat at the bottom board in the beehive. In an hour after fumigation, the sheet of paper must be removed and checked for presence of the mites.

**Withdrawal period**
Do not apply during the period of production of honey for human consumption. On account of possible permeation of amitraze to honey, autumn treatment should be performed after removal of honey supply from the colony under treatment.

**Special storage and transport precautions**
Store out of sight and reach of children.
Store in temperature below 25°C. Store in a tightly closed container to protect against light and humidity. Do not use after the use-by date as stated on the label.

**Special warnings**
The effect of amitraze on human organism has not been fully researched yet. In order to avoid breathing in the smoke, the treatment operation must be performed in a face mask.

In case of alarming symptoms after contact with the medicine, such as vomiting, heart rate disorder or nervous system disorders, it is necessary to immediately consult a medical doctor and produce product information brochure or its packaging.

Persons known to be hyper-sensitive to any of the Apiwarol components should avoid contact with the product.

Do not eat, drink or smoke in the process of product application. Wash hands after the procedure.

Administration (fumigation) of more tablets than recommended may cause increased activity of bees.

**Shelf-life:**
12 months

**Packing:**
25 tablets

**Other information**
Exclusively for animals
Prescription-only-medicine (POM)
For use under the supervision of a veterinary surgeon
Aptovac Emulsion for injections in swine

Inactivated vaccine for immunising swine against respiratory infections caused by *Actinobacillus pleuropneumoniae* and *Pasteurella multocida* in form of emulsion for intramuscular injections

**Composition of active ingredients**
Each dose (2 ml) contains:
- Inactivated antigen: *Pasteurella multocida* not less than 1 ELISA unit*
- Inactivated antigen: *Actinobacillus pleuropneumoniae* serotype 2 not less than 1 ELISA unit*
- Inactivated antigen: *Actinobacillus pleuropneumoniae* serotype 6 not less than 1 ELISA unit*

**Adjuvants:**
- Aluminium hydroxide gel 0.1 ml
- Emulsigen (mineral oil) 0.2 ml

* 1 ELISA unit – an antigen quantity sufficient to obtain seroconversion equal to or higher than 1.8 in vaccinated mice.

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**Indications**
For passive immunisation of piglets by active immunisation of sows and for active immunisation of piglets and fattening pigs, in order to reduce mortality, clinical symptoms and pathological lesions caused by *Actinobacillus pleuropneumoniae* serotype 2 or 6 and *Pasteurella multocida*.

Post-vaccination immunity is induced within 2 weeks of injection.

Degree of immunity is to a large extent determined by proper nutrition and zoohygienic conditions.

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**Contraindications**
Ill animals should not be vaccinated.

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**Adverse reactions**
A rarely reported adverse reaction is increased internal body temperature by up to 2°C within a few hours from administering the product. The temperature returns to normal without treatment. In the injection site an inflammatory reaction can occur, which subsides spontaneously.

**Dosage and routes of administration**
The product is administered to piglets in the dose of 2 ml as an intramuscular injection in the cervical area.

The vaccination program at piggeries where infections with *Actinobacillus pleuropneumoniae* and *Pasteurella multocida* have been reported in piglets of up to 10 weeks of age.

**Sows:**
- First vaccination – 6-8 weeks prior to parturition
- Second vaccination – 3-4 weeks prior to parturition
- Re-vaccination – 3-4 weeks prior to every subsequent parturition

The vaccination program in sites where mixed infections with *Actinobacillus pleuropneumoniae* and *Pasteurella multocida* have been diagnosed in piglets and fattening pigs:

**Piglets:**
Older piglets after weaning or after purchase should be immunised twice with a 3-week interval.

**Advice on correct administration**
Before the vaccination procedure the product should be transferred to room temperature and the content of the bottle should be mixed thoroughly directly before injection.

The vaccination program should be planned in such a way that the whole content of a vaccine is used within 1 day.

**Withdrawal period:** Zero days.

**Special storage and transport precautions**
Keep out of the reach and sight of children.
Store in a refrigerator (2°C – 8°C). Do not freeze. Protect from light.
Use immediately after first opening of the immediate packaging.
Do not use after the expiry date stated on the label.

**Special warnings**
To the user:
This product contains mineral oil. Accidental injection can cause significant pain and swelling, especially in the case of injection into a joint or a finger, and in rare cases can lead to loss of the finger, unless medical assistance is immediately provided. In case of accidental injection, even if the amount of the product injected was small, seek medical advice immediately and show the package leaflet to the physician. If the pain lasts longer than 12 hours after medical aid has been provided, medical attention should be sought again.

To the physician:
This product contains mineral oil. Even if a very small amount of the product was injected, it can cause significant pain and swelling, which may result in ischaemic necrosis, and even loss of the digit. Professional and PROMPT surgical aid is necessary, which may include early incision and irrigation of the site of infection, especially with regard to a fingertip or a tendon.

Can be used during pregnancy.

Do not mix with any other medicinal products.

**Shell-life:** 12 months

**Packing:** Glass bottles containing 100 ml

**Other information**
Exclusively for animals
Prescription-only-medicine (POM)
For use under the supervision of a veterinary surgeon
Bioarthrex Supplementary feed for dogs

Tablets for dogs with chondroitin sulphate and glucosamine stimulating regeneration of articular cartilage
Net weight: 187.5 g (± 5%) [75 x 2.5 g tablets (± 5%)]

Ingredients:
- Glucosamine hydrochloride, chondroitin sulfate, dicalcium phosphate, wheat/potato starch, processed animal protein, brewer yeast, pork gelatine, magnesium stearate.

Analytical composition:
- total protein 14.28%, crude fat below 1.02%, crude fibre below 1%, crude ash 27.49%

Characteristics and indications
Bioarthrex is a supplementary feed whose ingredients protect the joints and skeleton of dogs. It is especially recommended for all breeds with an elevated risk of developing diseases associated with the motor system and elderly animals. Bioarthrex contains ingredients that facilitate the regeneration of joint cartilages responsible for the proper functioning of joints and motor fitness of the dog. Chondroitin and glucosamine are essential components of the intercellular substance of chondral tissue. They participate in the regeneration of joint cartilage, prevent microdamages of joints which occur during intensive motion and as a result also prevent generation of inflammatory conditions harmful to health. Extract of Harpagophytum procumbens has an anti-inflammatory action. Vitamin C and manganese are essential for collagen synthesis which is a component of the intercellular substance.

Dosage
Tablets should be administered directly into the mouth or with feed

<table>
<thead>
<tr>
<th>Animal body mass (kg)</th>
<th>Dosage in the first 4-6 weeks (number of tablets / day)</th>
<th>Follow-up dosage (number of tablets / day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;30 kg</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>30 - 60 kg</td>
<td>3</td>
<td>1.5</td>
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<tr>
<td>&gt; 60 kg</td>
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<td>2</td>
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</tbody>
</table>

Attention: This feed mix contains protein derived from animal tissue the use of which in ruminant feeding is prohibited.

Composition. 1 tablet 2.5g contains:
- Glucosamine hydrochloride - 500 mg,
- Chondroitin sulphate - 400 mg,
- Extract of Devil’s Claw (Harpagophytum procumbens) - 150 mg,
- L-carnitine - 12.5 mg,
- Ascorbic acid - 12.5 mg,
- Dicalcium phosphate feed grade - 746 mg,
- Brewer’s yeast - 70 mg,
- Meat and bone meal - 150 mg,
- Magnesium stearate - 50 mg,
- Manganese (manganese sulphate) - 1 mg (filler; starch, gelatine)

Packing
- 75 tablets

Shelf-life
- 18 months

Storage conditions
- Store in a cool, dry place

For animals only
Bioarthrex HA

Supplementary feed for dogs

Tablets for dogs with chondroitin sulfate, glucosamine hydrochloride and sodium hyaluronate supporting joint cartilage regeneration

Net weight: 187.5 g (± 5%) [75 x 2.5 g tablets (± 5%)]

**Ingredients:**
- Glucosamine hydrochloride, chondroitin sulfate, dicalcium phosphate, wheat/potato starch, processed animal protein, brewer yeast, pork gelatine, magnesium stearate.

**Additives per 1 kg:**
- Harpagophytum procumbens (extract) 120 000 mg/kg
- L-carnitine 5 040 mg/kg
- Ascorbic acid 5 360 mg/kg
- Manganese sulphate 400 mg/kg

**Analytical composition:**
- total protein 13.95 %, crude fat below 1%, crude fibre below 1%, crude ash 20.44%

**Characteristics and indications**
Bioarthrex HA is a supplementary feed whose ingredients protect the joints and skeleton of dogs. It is especially recommended for all breeds with an elevated risk of developing diseases associated with the motor system and elderly animals. Bioarthrex HA contains ingredients enabling regeneration of joint cartilage which determines proper functioning of joints and dog’s mobility. Chondroitin and glucosamine are essential components of the intercellular substance of chondral tissue. They participate in the regeneration of joint cartilage, prevent microdamages of joints which occur during intensive motion and as a result also prevent generation of inflammatory conditions harmful to health. Sodium hyaluronate ensures essential joint moisture. It acts as a shock absorber reducing friction between the moving bones. Extract of Harpagophytum procumbens has an anti-inflammatory action. Ascorbic acid and manganese are essential for collagen synthesis which is a component of the intercellular substance.

**Dosage**
Tablets should be administered directly into the mouth or with feed

<table>
<thead>
<tr>
<th>Animal body mass (kg)</th>
<th>Dosage in the first 4-6 weeks (number of tablets / day)</th>
<th>Follow-up dosage (number of tablets / day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;30 kg</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>30 - 60 kg</td>
<td>3</td>
<td>1.5</td>
</tr>
<tr>
<td>&gt; 60 kg</td>
<td>4</td>
<td>2</td>
</tr>
</tbody>
</table>

**Attention:** This feed mix contains protein derived from animal tissue the use of which in ruminant feeding is prohibited.

**Storage conditions**
Store in a cool, dry place

**Additional information:**
1 tablet (2.5 g) contains:
- glucosamine hydrochloride – 500 mg,
- chondroitin sulfate – 400 mg,
- Harpagophytum procumbens (extract) – 300 mg,
- sodium hyaluronate – 15 mg,
- L-carnitine – 12.6 mg

**Packing**
75 tablets

**Shelf-life**
12 months

**For animals only**

www.biowet.pl

NEW
Biohepanex Feed supplement for dogs and cats

Capsules for dogs and cats for liver support

Capsule composition
- Soy lecithin containing phosphatidylcholine 40 mg
- Ornithine in the form of L-ornithine L-aspartate 40 mg
- Excipients and capsule up to 303 mg

Posology
1 capsule per 4 kg b.w.
Biohepanex should be used in accordance with recommendations of a veterinary surgeon.
The contents of a capsule can be mixed with fodder

Properties
- Phospholipids contained in soy lecithin have a protective effect on liver cells through support of their regeneration. They participate in digestion of fats and absorption of vitamins A, D, E and K. They reduce the process of liver fibrosis and prevent fatty degeneration and cirrhosis of the liver.
- Ornithine supports liver functions thus accelerating detoxification of the body.

Indications
- Biohepanex is recommended for dogs and cats:
  - in hepatic insufficiency and functional disorders of the liver;
  - in digestion impairment;
  - as support in diseases of bile ducts;

Packing
40 capsules.

Storage conditions
Store in a dry cool place.

Shelf-life
18 months

For animals only

Biohepanex forte Feed supplement for dogs

Capsules for dogs for liver support

Capsule composition
- Soy lecithin containing phosphatidylcholine 150 mg
- Ornithine in the form of L-ornithine L-aspartate 150 mg
- Excipients and capsule up to 594 mg

Posology
1 capsule per 15 kg b.w.
Biohepanex should be used in accordance with recommendations of a veterinary surgeon.
The contents of a capsule can be mixed with fodder

Properties
- Phospholipids contained in soy lecithin have a protective effect on liver cells through support of their regeneration. They participate in digestion of fats and absorption of vitamins A, D, E and K. They reduce the process of liver fibrosis and prevent fatty degeneration and cirrhosis of the liver.
- Ornithine supports liver functions thus accelerating detoxification of the body.

Indications
- Biohepanex is recommended for dogs:
  - in hepatic insufficiency and functional disorders of the liver;
  - in digestion impairment;
  - as support in diseases of bile ducts;

Packing
45 capsules.

Storage conditions
Store in a dry cool place.

Shelf-life
18 months

For animals only
Capsules for dogs supporting their immunity

Capsule composition
- β-1,3/1,6-D-glucane - 20 mg
- Excipients and capsule - up to 318 mg

Posology
- 1 capsule per 20kg b.w.
- The contents of a capsule can be mixed with fodder. In the case of a larger number of capsules, it is recommended that the dose is divided into 2-3 times.

Properties
- β-1,3/1,6-D-glucane is a natural completely purified polysaccharide, isolated from the cellular walls of yeast *Saccharomyces cerevisiae*.
- Betaglucane strongly stimulates the immune system through activation of macrophages, lymphocytes and neutrophils.
- Macrophages play a basic role in anti-infectious immunity, in removal of abnormal or dead cells as well as foreign bodies from the body.
- Betaglucane reinforces the effect of other preparations used in treatment (antibiotics, antifungal and antiparasitic agents), accelerates tissue regeneration, has anticancer properties and is an antioxidant - it neutralises free radicals.

Indications
- Bioimmunex canis is recommended for dogs:
  - as prophylaxis in order to reinforce natural immunity;
  - as support in treatment of infectious diseases, neoplasms, and in convalescence;
  - in stressful situations (exhibitions, journeys, change of environment).

Packing
- 40 capsules.

Storage conditions
- Store in a dry cool place.

Shelf life
- 2 years

For animals only

Capsules for cats supporting immunity

Capsule composition
- β-1,3/1,6-D-glucane - 10 mg
- Excipients and capsule - up to 318 mg
  (wheat starch, cellulose, magnesium stearate, silicon dioxide, gelatin).

Posology
- 1 capsule per cat.
- The contents of a capsule can be mixed with fodder.

Properties
- β-1,3/1,6-D-glucane is a natural completely purified polysaccharide, isolated from the cellular walls of yeast *Saccharomyces cerevisiae*.
- Betaglucane strongly stimulates the immune system through activation of macrophages, lymphocytes and neutrophils.
- Macrophages play a basic role in anti-infectious immunity, in removal of abnormal or dead cells as well as foreign bodies from the body.
- Betaglucane reinforces the effect of other preparations used in treatment (antibiotics, antifungal and antiparasitic agents), accelerates tissue regeneration, has anticancer properties and is an antioxidant - it neutralises free radicals.

Indications
- Bioimmunex felis is recommended for cats:
  - as prophylaxis in order to reinforce natural immunity;
  - as support in treatment of infectious diseases, neoplasms, and in convalescence;
  - in stressful situations (exhibitions, journeys, change of environment).

Packing
- 40 capsules.

Storage conditions
- Store in a dry cool place.

Shelf life
- 2 years

For animals only

Bioimmunex canis Feed supplement for dogs

Bioimmunex felis Feed supplement for cats

www.biowet.pl
Amitraz 500 mg/strip
Against varroosis of bees.

Do not use during production of honey for consumption.

If you notice any adverse reactions after applying this product or any alarming reactions not mentioned in the leaflet, please inform your veterinary surgeon, the marketing authorisation holder or The Office for Registration of Medicinal Products, Medical Devices and Biocidal Products. A notification form can be downloaded from the website [http://www.urpl.gov.pl](http://www.urpl.gov.pl) (Unit for Veterinary Medicinal Products).

Product to be hang in a hive in a dose of 2 strips/1 hive.

- Place the strips between frames where the bees exhibit the greatest mobility.
- Hang the strips in such a way as to provide bees with free access from both sides, keeping the necessary distance.
- Leave the strips inside the hive for 6 weeks, then remove. If bee movement inside the hive takes place away from the strips, change stripe location, so that they are suspended inside the bee colony, and leave them for another 2 weeks before removing.
- Maximum period after which strips must be removed is 8 weeks.
- Do not re-use the strips.
- Apply the treatment in all hives at the same time.
- Recommended treatment time: after the last honey harvest (end of summer/autumn) and in the spring before the honey flow.
- Observe the recommended treatment time and doses.
- Do not apply during production of honey intended for human consumption.

Zero days.

Store at below 25°C. Store in tightly closed packaging to protect against light and humidity.

- Protect against contact with food.
- Do not eat, drink or smoke during application.
- After the application wash your hands with warm soapy water.
- During use keep away from skin and eyes.
- Wear protective gloves while tempering with the strips.
- Amitraz toxicity increases in the presence of copper salts, whereas its effectiveness is reduced by piperonyl butoxide. Avoid using these substances simultaneously with amitraz. During administration of doses 5 times larger than recommended doses for the period of 6 weeks, no adverse effects have been observed.

Any unused veterinary medicinal product or waste material should be disposed of in accordance with applicable regulations.

Amitraz is toxic to fish; make sure the preparation does not penetrate water bodies or courses.

12 months

A cardboard box with 10 strips closed in a PET/Aluminium/PE bag.

Exclusively for animals

Prescription-only-medicine (POM)

For use under the supervision of a veterinary surgeon
Boviketozin® Liquid preparation for preventing purposes and for supporting main treatment of ketosis in high producing dairy cows and sheep.

**Ingredients**
Propylene glycol 99.7% (997ml/l)

**Dietetic feed additives**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propylene glycol</td>
<td>997ml/l</td>
</tr>
<tr>
<td>Potassium iodide (trace element 3b E2 iodine)</td>
<td>0.2%</td>
</tr>
<tr>
<td>[Iodine (I)] 1345mg/l</td>
<td></td>
</tr>
<tr>
<td>[Potassium (K)] 415mg/l</td>
<td></td>
</tr>
<tr>
<td>Cobalt (II) sulphate x 7 H2O (trace element 3b E3 cobalt)</td>
<td>0.1%</td>
</tr>
<tr>
<td>[Cobalt (Co)] 999mg/l</td>
<td></td>
</tr>
</tbody>
</table>

**Properties and action**

Boviketozin is used to supplement feeding regimen of high producing dairy cows and sheep with easily digestible carbohydrates. It is especially recommended during the peak of lactation, when animals show increased demand for carbohydrates essential for production of milk components. Shortage of carbohydrates in the feed, with its simultaneously increased consumption for lactation purposes, may lead to metabolism disturbance consisting in production of ketone bodies. Boviketozin improves digestibility of structural fibre, reduces ketosis incidence, improves feed uptake by animals, regulates disturbed lactation and stabilizes fat and protein content in milk.

**Intended use**

Boviketozin is administered to:
- Cows – in the final 6 weeks before delivery and from 3 to 6 weeks after delivery, in a dose of 250 ml, once a day.
- Sheep – 60-100 ml once a day during first 3 weeks after delivery.

Boviketozin is administered after blending with water or feed. In case of appetite disorders and reluctance to take the feed up, non-diluted compound feed may be administered directly into a muzzle. It is recommended to seek veterinarian’s advice before product use.

**Storage conditions**
Store in a dry and dark place at the temperature 25°C, in the original, tightly closed packaging.

**Shelf-life**
24 months.

**Packing**
Bottles 1000 ml
Bovitrichovac suspension for injection

Statement of the active substance and other ingredients
1 ml of the vaccine contains:
Inactivated strain *Trichophyton verrucosum* 43, min. concentration 20%

Indications
Active immunisation of cattle to reduce mortality rate and clinical symptoms of dermatomycosis induced by infection with the strain *Trichophyton verrucosum*.
Therapeutic use in animals with dermatological symptoms of trichophytosis to accelerate the process of healing.
Immunity appears in 3-4 weeks after the second injection. Immunisation period after a 2-time administration lasts 9-12 months.

Contraindications
None.

Adverse reactions
Slight limited swelling may occur at the injection site, which remits spontaneously within a few days. Should any adverse effects or any reactions not mentioned in the leaflet occur (including reactions in humans due to contact with the preparation), please contact your veterinarian or inform marketing authorization holder.

Target species
Cattle.

Dosage for each species, route(s) and method of administration
The vaccine should be administered twice at an interval of 10-14 days. Administer intramuscularly to the muscle of the pelvic limb according the following scheme:

**Prophylaxis**
- from 1 week to 4 months of age: 5 ml
- from 4 to 8 months of age: 5 ml to 6 ml
- over 8 months of age: 6 ml to 7 ml

**Treatment**
- from 1 week to 4 months of age: 7.5 ml
- from 4 to 8 months of age: 7.5 ml to 9 ml
- over 8 months of age: 9 ml to 10.5 ml

Product may be used in animals during pregnancy or lactation period.

Advice on correct administration
None.

Withdrawal period
Zero days.

Special storage precautions
Keep out of reach and sight of children.
Store in a refrigerator (2-8°C). Do not freeze.
Once opened, use within 14 days.
Do not use after the expiry date stated on the label.

Special warning
In case of accidental self-injection, seek medical advice immediately and show the package leaflet or the label to your physician.
No information is available on the safety and efficacy of a concurrent use of this vaccine with any other medicinal veterinary product. For this reason, it is recommended to decide on the use of this vaccine, before or after having administered another medicinal veterinary product, individually for each case.
After administering a double dose, no other undesirable effects occur than those specified in the section concerning adverse reactions.
Do not mix with other veterinary medicinal product because no tests were performed on the product compatibility with other veterinary medicinal products.

Special precautions for the disposal of unused product or waste materials
Medicines should not be disposed of via wastewater or household waste.
Ask your veterinary surgeon how to dispose of medicines that are no longer required. These measures should help protect the environment.

Shelf-life
6 months.

Packing
250 ml.

For animals only

Other information
For any information concerning this veterinary medicinal product, please contact the marketing authorization holder.
Exclusively for animals
Prescription-only-medicine (POM)
For use under the supervision of a veterinary surgeon
Brucella Abortus Antigen

Acid-plate agglutination test (APAT) belongs to a group of assays described as buffered tests using brucella antigen. Rose Bengal test (RBT) constitutes its equivalent.

**Composition**
Standardised suspension of cells (*Brucella abortus*, race S-99) dyed with Bengal rouge with the addition of 0.5% phenol.

**Properties**
Agglutination of the antigen takes place in the serum tested in the presence of anti-Brucella antibodies.

**Indications for use**
Tests are carried out further to instruction No. 55 of the Veterinary Department of the Ministry of Agriculture and Food Economy dated February 2nd, 1984 and when brucellosis is suspected.

**Dosage and application**
The antigen is standardised further to the State Standard of anti-*Brucella abortus* Serum - the Agglutination Reaction (KSSaBa-OA) and does not require dilution. When using the antigen for acidic agglutination plate reaction, follow the instructions of the Głównego lekarza Weterynarii Nr GiW z VII. 420/lub-5/2003 z dnia 25 czerwca 2003 r.

**Storage conditions**
At a temperature of +2°C to +8°C in a dark and dry place.

**Shelf-life**
24 months.

**Warning**
Do not freeze.

**Packing**
Bottles containing 20 ml.

**For animals only**
Calcii Borogluconas 25% Inj. Solution for injections for horses, cattle, swine and dogs.

Composition of active ingredients
Calcium gluconate 216.6 mg/ml

Indications
Calcium deficiencies and their consequences in cattle, horses, swine and dogs (rickets, osteomalacia, osteodystrophy).
Treatment of calcium metabolism disorders leading to hypocalcaemia (post-partum paralysis in cows, lactation tetany in bitches, post-partum hypocalcaemia in sows) and conditions accompanied by excessive neuromuscular excitability (hypomagnesemic tetany, transport tetany and other) or by pariesis of the motor system of various origins (downer syndrome).
Inflammations and allergic conditions, especially the acute ones and ones with urticaria, as well as swellings and reduced blood coagulability (as supporting drug).

Contraindications
Renal insufficiency, hepatic insufficiency, hyperparathyroidism and hypercalcaemia.
Do not administer with digitals glycosides and large doses of vitamin D₃.

Adverse reactions
When used in accordance with recommendations, the preparation is well tolerated and no complications are observed after multiple applications either. Sporadically, in the case of large doses in animals in generally poor condition, hypercalcaemia may occur during intravenous infusions: initially brachycardia appears, then the contraction intensifies and its frequency increases, resulting in tachycardia and additional contractions. Acute hypoxia of the cardiac muscle appears, followed by muscle twitching, anxiety, sweating, reduced arterial blood pressure leading to a collapse. In order to correctly recognise the symptoms of the overdose, cardiac activity should be monitored during the infusion.
If the drug is improperly administered and if it leaks out, local inflammatory reactions may appear.
In the case of intramuscular injections, in dogs also subcutaneous, animals may exhibit slight or moderate anxiety.
Should any adverse effects or any reactions not mentioned in the leaflet occur (including reactions in humans due to the contact with the preparation), please contact your veterinarian or inform the marketing authorisation holder or the Office for Registration of Medicinal Products, Medical Devices and Biocides.
The application form ought to be downloaded from the website: http://www.urpl.gov.pl (Department of Medicinal Veterinary Products).

Dosage and routes of administration
The preparation is used intravenously and intramuscularly. In dogs it can also be given subcutaneously.
Using intravenously, the preparation should be warmed up to body temperature and injected slowly.
25-50 ml/min.
In intramuscular and subcutaneous injections, administer the preparation in several locations: 20-40 ml in each location in large animals and 2-3 ml in each location in small animals.
The dose amount should depend on the nature of the disease and on the general condition:
0.8 ml/kg b.w in the case of acute hypocalcaemia
0.4 ml/kg b.w in the case of morphological skeletal diseases, acute or aseptic inflammations
0.2 ml/kg b.w in the case of inflammations, poisoning, or haemorrhagic diathesis.

Withdrawal period
Horses, cattle, swine – 0 days.
Dogs – not applicable.

Special storage and transport precautions
Store at a temperature below 25°C, protect from light, and do not freeze.
Use within 28 days after the first opening of the direct container.
Do not use after the expiry date which is stated on the label.

Special warnings
Keep out of the reach and sight of children.
No contraindications for pregnancy or lactation.
Do not administer with cardiac glycosides or preparations containing carbonate, phosphate, sulphate ions or tetracycline antibiotics.
Large calcium doses administered simultaneously with cardiac glycosides (of strophanthidin- and digoxin-derivatives) intensify their effects and may lead to cardiacarrhythmia.
Thiazide diuretics increase calcium resorption and create a risk of hypercalcaemia.
Large doses of calcium in combination with vitamin D may weaken the effects of other calcium channel blockers.
When used in accordance with recommendations, the preparation is well tolerated and no complications were observed also after multiple applications. Sporadically, in the case of large doses in animals in generally poor condition, hypercalcaemia may occur during intravenous infusions: Initially brachycardia appears, then the contraction intensifies and its frequency increases, resulting in tachycardia and additional contractions. Acute hypoxia of the cardiac muscle appears, followed by muscle twitching, anxiety, perspiring, reduced arterial blood pressure leading to a collapse. In order to correctly recognise the symptoms of overdose, cardiac activity should be monitored during the infusion.
Overdose leads to hypercalcaemia and the increased excretion of calcium in the urine. The symptoms of hypercalcaemia may include: nausea, vomiting, thirst, increased thirst, dehydration and constipation. Long-term overdose leading to hypercalcaemia may cause calcination of the blood vessels and internal organs. Calcium supplementation in amounts larger than 2000 mg/day, which is the threshold value, for several months may cause poisoning.

In the case of overdose, the treatment must be discontinued immediately and fluids should be supplemented. In the case of long-term overdose, oral and intravenous hydration with NaCl should be applied. At the same time (or after the hydration), loop diuretics (e.g. furosemide) should be administered in order to increase calcium excretion.

In order to avoid administering too large doses, the animal’s body weight should be determined as accurately as possible.

In the case of an accidental self-injection, seek medical help and give the leaflet or the packaging to the doctor.

**Shelf-life:**
24 months.

**Packing**
Bottles of 250 ml

**Other information**
Exclusively for animals
Prescription-only-medicine (POM)
For use under the supervision of a veterinary surgeon
Qualitative and quantitative composition of active substances

- Magnesium gluconate 60 mg/ml
- Calcium gluconate 60 mg/ml
- Magnesium chloride hexahydrate 30 mg/ml
- Calcium chloride hexahydrate 27 mg/ml

Therapeutic indications

Cattle: post-calving paralysis in cows, calcium and magnesium disorders such as downer cow syndrome, hypocalcaemias and subclinical hypomagnesaemias, acute hypomagnesaemic tetanies.

Horses: laminitis, urticaria.

Swine: post-farrowing hypocalcaemia in sows, rickets.

Contraindications

- Do not use in hyperparathyroidism and heavy renal insufficiency.
- Do not use in hypermagnesaemia, or impaired cardiac conductivity.
- Do not use in the case of previous treatment with cardiac glycosides.

Adverse effects

Calcigluc used in accordance with indications is well tolerated. No complications are observed also after multiple administrations. Unusually, in the case of high doses and in animals with bad general condition, it may cause hypercalcaemia in intravenous infusions: bradycardia occurs at first, then the strength of the contraction is bigger and the heart rate increases with following tachycardia and extra systoles. Acute myocardial hypoxaemia occurs, then muscle tremor, anxiety, sweating, decreased arterial blood pressure leading to a collapse.

In order to identify overdose symptoms as early as possible, the cardiac action should be monitored during an infusion.

A proper veterinary surgeon, the Marketing Authorisation Holder or the Office for Registration of Medicinal Products, Medical Devices and Biocidal Products should be notified of any occurrence of adverse effects after administration of the product or observation of any alarming symptoms not listed in the leaflet (including symptoms in people as a result of contact with the drug). The notice form has to be downloaded from the website [http://www.urpl.gov.pl](http://www.urpl.gov.pl) (The Department of Veterinary Medicinal Products).

Posology and routes of administration

Route of administration: intravenously.

Doses for each animal species are as follows:

- horses, cattle - 0.5 - 1.0 ml / kg b.w.
- sheep, swine - 2.0 - 5.0 ml / kg b.w.

Inject slowly 25 – 50 ml/min.

Recommendations for proper administration

Before administration, warm Calcigluc to the body temperature and inject slowly.

Withdrawal period

Horses, cattle, swine – zero days

Special precautions for storage and transport

Keep out of the sight and reach of children.

Store at a temperature below +25°C. Protect from light. Do not freeze.

Do not use after the expiry date given on the label.

Durability after the first opening of the direct package – 28 days

In order to avoid overdosing the bodyweight of an animal has to be determined with the highest possible accuracy.

In the case of accidental self-injection, immediately seek medical help and show the information leaflet or the package to the physician.

No contraindications for use of the product in pregnancy and lactation.

Cardiac glycosides intensify the cardiotoxic effect of calcium ions.

Beta-adrenomimetics and methylxanthines intensify the effect of calcium ions on the heart.

Simultaneous oral administration of tetracyclines increases binding of calcium ions with proteins.

Calcium salts administered orally reduce absorption of tetracyclines and flour compounds (a three-hour interval is necessary between administration of these drugs and calcium compounds). Vitamin D, parathormone and acidic pH of food increase absorption of calcium whereas calcitonin, glycocorticosteroids, excessive amounts of lipids, alkaline reaction of food, phytates (e.g. in cereals), oxalates (e.g. in spinach, rhubarb) and phosphates (milk and dairy products) reduce absorption of calcium.

High doses of calcium administered in combination with cardiac glycosides (strophanthin derivatives and digoxins) intensify their effect and may lead to cardiac arrhythmias.

Thiazide diuretics increase resorption of calcium and risk the occurrence of hypercalcaemia.

High doses of calcium in combination with vitamin D may weaken the effect of verapamil and other calcium channel blockers.

Overdose leads to hypercalcaemia and hypermagnesaemia and to increased excretion of calcium and magnesium in urine. Symptoms of hypercalcaemia and/or hypermagnesaemia may include: nausea, vomiting, thirst, increased thirst, polyuria,
dehydration and constipation. Long-lasting overdose leading to hypercalcaemia and/or hypermagnesaemia may cause calcification of blood vessels and internal organs. Supplementation of calcium in amounts larger than 2,000 mg/day for several months constitutes a threshold and may be a cause of poisonings. In the case of overdose, the treatment should be discontinued immediately and the fluids should be supplemented. In the case of long-lasting overdose, oral and intravenous hydration using NaCl solutions should be used. Simultaneously (or after hydration), loop diuretics (e.g. furosemide) are administered to increase excretion of calcium and prevent an increase in the volume of fluids. Thiazide diuretics must not be administered.

Unused veterinary medicinal product or its waste should be neutralised in accordance with appropriate regulations.

**Shelf-life**
24 months.

**Packing**
250 ml

**Other information**
Exclusively for animals
Prescription-only-medicine (POM)
For use under the supervision of a veterinary surgeon
Calem® plus Dietary compound feed for dairy cows.

Composition

- Vegetable oil: 28%
- Calcium chloride: 25%
- Magnesium citrate: 1.14%
- Glucose: 0.65%

Technological additive (emulsifying agent)
- Polyoxyethylene sorbitan mono-oleate (E 433): 5.62 ml/l
- Water content: 46%

Analytical composition

<table>
<thead>
<tr>
<th></th>
<th>in 1 l (1000 ml)</th>
<th>in a container (445 ml)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium content</td>
<td>112 g</td>
<td>50 g</td>
</tr>
<tr>
<td>Magnesium content</td>
<td>2.26 g</td>
<td>1 g</td>
</tr>
</tbody>
</table>

Properties and indications:

Calem plus is used in a period of increased demand for calcium during the perinatal period. The feedstuff corrects calcium deficiency caused primarily by a sudden loss of body fluids at the beginning of lactation.

Administration

- Before use, the content of the bottle should be thoroughly mixed by vigorous shaking. Use from the first signs of parturition to 2 days after its completion.
- Calem plus should be used in the amount of:
  - 1 bottle - 12 hours before parturition
  - 1 bottle - 6 - 12 hours after parturition
  - 1 bottle - 24 hours after parturition
- Before use, it is advisable to consult an expert in nutrition. During administration caution should be exercised to prevent aspiration of the animal.

Storage conditions:

- Store in a dry and dark place at temperatures up to 25°C, in the original, sealed packaging.

Shelf life
- 1 year

Quantity
- 445 ml
**Composition of active ingredients**

- Calcium gluconate: 60 mg/ml
- Calcium hypophosphate: 22 mg/ml
- Magnesium chloride hexahydrate: 30 mg/ml
- Glucose monohydrate: 100 mg/ml

**Indications**

Solution for injections intended for use in horses, cattle, swine and dogs with calcium and magnesium deficiency. The product is used in the treatment of clinical and subclinical hypocalcaemia, hypomagnesaemia and hypoglycaemia, e.g., postpartum paralysis in cows. Calmagluc is also applied in the treatment of various allergies, especially urtica and subacute and chronic calcium and magnesium disorders, such as downer syndrome, and mostly subclinical hypomagnesaemia.

The preparation is also used in diseases resulting from the disorders of calcium and phosphate metabolism, such as rickets, osteomalacia, and fibrous osteodystrophy. Moreover, it is administered in various diseases accompanied by increased neuromuscular hyperactivity, e.g., hypomagnesaemic tetany in cattle, tetanus, equine rhabdomyolysis syndrome and in inflammations and poisoning with symptoms of increased vessel permeability, e.g. brain and lung oedema, porcine oedema disease, horse founder (as a supporting drug).

**Contraindications**

- Hyperparathyroidism and renal insufficiency.
- Hypercalcaemia, acidosis.
- Hypomagnesaemia, Myasthenia gravis in dogs, reduced cardiac conduction velocity.
- Previous treatment with cardiac glycosides, beta-adrenomimetics and caffeine.

**Adverse reactions**

The margin of safety for calcium glucuronate, magnesium chloride, calcium hypophosphate and glucose is high and potential toxic activity requires doses that exceed many times the therapeutic doses. Unusually, in the case of large doses given to animals in generally poor condition, hypercalcaemia may occur during intravenous infusions: initially bradycardia appears, then the contraction intensifies and its frequency increases, resulting in tachycardia and additional contractions. Acute hypoxia of the cardiac muscle occurs, followed by muscle twitching, anxiety, perspiration, and reduced arterial blood pressure leading to collapse. In order to correctly recognise the symptoms of overdose, cardiac activity ought to be monitored during the infusion.

A proper veterinary doctor, the responsible firm or the Office for Registration of Medicinal Products, Medical Devices and Biocides should be notified of any adverse reactions occurring after the administration of the product or after any alarming symptoms not listed in the leaflet (including symptoms in people as a result of contact with the drug) have been observed. The application form ought to be downloaded from the website: http://www.urpl.gov.pl (Department of Medicinal Veterinary Products).

**Dosage and routes of administration**

The preparation is used intravenously and intramuscularly. In horses and dogs only intravenously. When used intravenously, the preparation should be warmed up to body temperature and injected slowly (25-50 ml/min in large animals, 15-30 ml/min in small animals). For instance: the volume of 500 ml of the drug in large animals ought to be administered for a period not shorter than 5-10 minutes.

Depending on the type of disease, the drug ought to be administered to cattle, horses, swine and dogs as follows:

- Chronic and subacute, primary as well as secondary conversions of basic macroelements and morphological diseases resulting from the disorders of calcium and phosphate metabolism, such as rickets, osteomalacia, fibrous osteodystrophy – the drug is to be used at doses of 0.5 ml/kg b.w. intravenously or intramuscularly, once daily for 3-7 days.
- Acute disorders accompanied by advanced degree of hypocalcaemia and hypomagnesaemia, such as postpartum paralysis and hypomagnesemic tetany, the drug is to be administered at doses of 1.0-1.5 ml/kg b.w. intravenously and intramuscularly, once, twice or in special cases three times, with 12-hour intervals.
- Diseases not directly connected with calcium and magnesium metabolism disorders, when the preparation is administered as a supporting drug in inflammations, allergic and toxic conditions (urticaria, laminitis, oedemas, neuromuscular hyperactivity) – use the preparation in doses of 0.3-0.5 ml/kg b.w. every other day for 6-14 days.

**Advice on correct administration**

When used intravenously, the preparation should be warmed up to body temperature an injected slowly 25-50 ml in large animals, 15-30 ml in small animals. For instance: the volume of 500 ml of the drug in large animals ought to be administered for a period not shorter than 5-10 minutes.

**Withdrawal period**

- Dogs – not applicable.
- Cattle, horses, swine – zero days.

**Special storage and transport precautions**

Keep out of the reach and sight of children. Store below 25°C. Protect from light. Do not freeze. Durability period after the first opening of the direct package - 28 days.
**Calmagluc** Injection solution for cattle, horses, swine and dogs

**Special warnings**

Exercise caution using in animals in generally bad condition, in which too large doses of the medicine may lead to the hypoxia of cardiac muscle and a decrease of arterial pressure leading to collapse. In cases of accidental self-injection, seek medical help and give the information leaflet or packaging to a doctor. The preparation can be used during pregnancy and lactation.

Cardiac glycosides intensify cardiotoxic effects of calcium ions. Beta-adrenomimetics and methylxanthines strengthen the impact of calcium ions on the heart. Simultaneous oral administration of tetracyclines intensifies the process of binding calcium ions to proteins. Moreover, it is not advisable to combine Calmagluc with thiazide diuretics, glucocorticosteroids, ion exchange resins, oxalic and phytic acid, purgative agents, e.g. paraffin oil. Due to the content of magnesium ions, Calmagluc can be antagonistic to other calcium preparations. Magnesium decreases the absorption of theophylline, tetracycline, iron preparations, compounds of fluorour and oral antithrombotic drugs, derivatives of warfarin from the gastrointestinal tract. Diuretic drugs, cisplatin, cycloserine, mineralcorticosteroids intensify the excretion of magnesium with urine. Aminoglucosides, muscle relaxants and colistin used simultaneously with magnesium preparations can cause muscular paralysis. As a result of urine alkalisation, there is a decreased renal excretion of chinidine, which causes a risk of its overdose. Overdose leads to hypercalcaemia, hypermagnesaemia and the increased excretion of calcium and magnesium in the urine. The symptoms of hypercalcaemia and/or hypermagnesaemia may include: nausea, vomiting, thirst, increased thirst, polyuria, dehydration and constipation. Long-term overdose leading to hypercalcaemia and/or hypermagnesaemia may cause calcification of the blood vessels and internal organs. In the case of an overdose, treatment must be discontinued immediately and fluids should be supplemented. In the case of long term overdose, oral and intravenous hydration with NaCl should be applied. At the same time (or after hydration), loop diuretics (e.g. furosemide) are administered in order to increase calcium excretion and prevent increased fluid volume. Thiazide diuretics should not be administered.

**Shelf-life**

2 years

**Packing**

250 ml.

**To be supplied only by a veterinary prescription**

**Other information**

Exclusively for animals

Prescription-only-medicine (POM)

For use under the supervision of a veterinary surgeon
Supplementary food for dogs

Composition:
Dicalcium phosphate, wheat/potato starch, processed animal protein, barm, pork gelatin, magnesium stearate.

Analytical composition:
total protein 5.73%, crude fat less than 1%, crude fibre less than 1%, crude ash 73.25%

Properties and indications:
The product contains macrominerals and trace minerals creating a harmonious composition that regulates growth and development. They provide components essential for the normal structure and bone strength.
Canifos is recommended for all dogs, especially when their food does not contain enough vitamins and minerals.

Method of administration:
Small dogs: one tablet twice a day
Medium-sized dogs: one and a half tablet twice a day
Large dogs: two tablets twice a day

Storage conditions:
Store in a cool, dry place.

NOTE: This feeding stuff contains protein derived from animal tissues, the use of which is prohibited in ruminant feed.

Additional information:
Nutritional value of a tablet
Calcium - 630 mg
Phosphorus - 400 mg
Magnesium - 1.2 mg
Sodium - 0.9 mg
Potassium - 1.4 mg
Iron - 36 μg
Zinc - 275 μg
Manganese - 23 μg
Copper - 18 μg
Protein - 200 mg
Fat - 40 mg
Natural vitamins - mainly B vitamins

Canifos does not contain preservatives.

Shelf life
18 months

For animals only

Veterinary Identification Number 06148301
Canifos® betaglukan Food supplement for dogs

To enhance the immunological system

Ingredients
Meat-bone meal, brewing yeast, calcium phosphate, Beta-1,3-D-glucan, filler.

Nutritional value of one tablet

<table>
<thead>
<tr>
<th>Element</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium</td>
<td>520 mg</td>
</tr>
<tr>
<td>Iron</td>
<td>2.2 mg</td>
</tr>
<tr>
<td>Phosphorus</td>
<td>358 mg</td>
</tr>
<tr>
<td>Zinc</td>
<td>238 μg</td>
</tr>
<tr>
<td>Magnesium</td>
<td>2.4 mg</td>
</tr>
<tr>
<td>Manganese</td>
<td>25 μg</td>
</tr>
<tr>
<td>Beta-glucan</td>
<td>20 mg</td>
</tr>
<tr>
<td>Copper</td>
<td>24 μg</td>
</tr>
<tr>
<td>Sodium</td>
<td>3.8 mg</td>
</tr>
<tr>
<td>Potassium</td>
<td>3.6 mg</td>
</tr>
<tr>
<td>Protein</td>
<td>230 mg</td>
</tr>
<tr>
<td>Fat</td>
<td>104 mg</td>
</tr>
</tbody>
</table>

Natural vitamins are mainly of group B.

Properties and indications

The mineral macro-elements present in the preparation, supplemented with trace elements, make a harmonious composition regulating the growth and development of the organism. They provide those components required for creating proper bone structure and strength.

It is indicated to administer Canifos beta-glukan to dogs where their food does not contain a sufficient amount of minerals and vitamins. Canifos beta-glukan also contains natural polysaccharide, isolated from the cellular walls of yeast Saccharomyces cerevisiae and Beta-1,3-D-glucan stimulating the natural protection systems of the organism.

Dosage

Small dogs – 2 full tablets daily
Medium dogs – 2 x 1.5 tablets daily
Large dogs – 2 x 2 tablets daily

Storage
Store in a cool and dry place.

Shelf-life
18 months.

Packing
75 tablets.

For animals only
Canifos® junior Food supplement for growing dogs

Tablets for young, growing dogs containing appropriately balanced calcium and phosphorus as well as the macro and micro-elements.

**Ingredients**
- Meat-bone meal, brewing yeast, calcium phosphate, calcium lactate, Beta-1,3-D-glucan, filler.

**Nutritional value of one tablet**

<table>
<thead>
<tr>
<th>Nutrient</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium</td>
<td>375 mg</td>
</tr>
<tr>
<td>Iron</td>
<td>1.7 mg</td>
</tr>
<tr>
<td>Phosphorus</td>
<td>126 mg</td>
</tr>
<tr>
<td>Zinc</td>
<td>100 μg</td>
</tr>
<tr>
<td>Magnesium</td>
<td>7.8 mg</td>
</tr>
<tr>
<td>Manganese</td>
<td>25 μg</td>
</tr>
<tr>
<td>Beta-glucan</td>
<td>20 mg</td>
</tr>
<tr>
<td>Copper</td>
<td>11 μg</td>
</tr>
<tr>
<td>Sodium</td>
<td>3.5 mg</td>
</tr>
<tr>
<td>Potassium</td>
<td>3.4 mg</td>
</tr>
<tr>
<td>Protein</td>
<td>237 mg</td>
</tr>
<tr>
<td>Fat</td>
<td>104 mg</td>
</tr>
</tbody>
</table>

Natural vitamins are mainly of group B.

**Properties and indications**

Canifos junior is intended for young, growing dogs. It supplies appropriately balanced calcium and phosphorus as well as the macro and micro-elements necessary for the proper growth of the bones. Canifos junior also contains natural polysaccharide, isolated from the cellulosic walls of yeast *Saccharomyces cerevisiae* and Beta-1,3-D-glucan stimulating the natural protection systems of the organism.

**Dosage**
- Daily dosage: 1 tablet per 5 kg of body weight.

**Storage**
- Store in a cool and dry place.

**Shelf-life**
- 18 months.

**Packing**
- 75 tablets.

**For animals only**

www.biowet.pl
**Composition of active ingredients**

Caffeine 80 mg/ml

**Indications**

Cardiac function disorders and circulatory insufficiency, in infectious diseases in conditions which are not life-threatening.

**Contraindications**

Acute cardiac insufficiency, cardiac muscle hypoxia

**Adverse effects**

Caffeine injected subcutaneously may cause the occurrence of local reactions due to its irritating effect. After the intravenous administration of caffeine, anxiety, motor agitation and an accelerated heart rate as well as arrhythmia may be observed in the animals. Accelerated respiration is also observed. The intravenous administration of caffeine causes typical clinical effects of a stressing factor in the group of piglets genetically sensitive to stress causes, which is manifested by anxiety, motor agitation, emission of sounds, an accelerated heart rate and increased respiratory rate as well as increased activity of creatinine phosphokinase (45 minutes after the administration of caffeine). Disturbances in the function of the alimentary tract may also occur as a result of an increase in the secretion in digestive glands. Animals with diagnosed epilepsy are at risk of convulsions after the intravenous administration of caffeine. Should any adverse effects or any reactions not mentioned in the leaflet occur (including reactions in humans due to contact with the preparation), please contact your veterinarian or inform the marketing authorisation holder or the Office for Registration of Medicinal Products, Medical Devices and Biocides. The application form can be downloaded from the website: http://www.urpl.gov.pl (Department of Medicinal Veterinary Products).

**Dosage and routes of administration**

The preparation is administered subcutaneously, intramuscularly and intravenously in a dose of 5-10 mg/kg b.w.

**Doses of the drug:**

- Horses, cattle: 5-20 ml
- Swine, sheep, goats: 1.5-7.5 ml
- Dogs: 0.25-0.75 ml
- Cats: 0.05-0.5 ml

**Withdrawal period**

Horse, cattle, swine, sheep, goat: 0 days

Dog, cat: not applicable

**Special storage and transport precautions**

Keep out of the reach and sight of children.

Store below 25°C. Protect from light. Do not freeze.

Do not use after the expiry date which is stated on the label.

28 days – durability test after the first opening of the direct package

**Special warnings**

To avoid overdosing the body weight of the animal must be determined with the most possible accuracy. Avoid direct contact with the product. In case of accidental self-injection, seek medical advice immediately and show the package leaflet or the label to the physician.

Caffeine may be dangerous to a human’s life if digested in a dose of 5-10 g, however a severe intoxication was observed in humans after the digestion of 1.0 g (15 mg/kg b.w.) of caffeine.

The safety of the veterinary medicinal product used during the pregnancy and lactation period in target species was not determined.

Caffeine intensifies the effects of digitalis-based drugs and beta-adrenomimetic drugs.

During the simultaneous use of methylxanthines, including caffeine, and β-adrenomimetics (adrenalin, isoprenaline, orcyprenaline) the intensification of the effect of both drug groups on the heart occurs, which is manifested by the occurrence of cardiac arrhythmia and the induction of coronary pains. A synergism of the positive inotropic effect of caffeine and cardiac glycosides was also observed.

The occurrence of tachycardia or tachycardia and arrhythmia is possible. A decrease in the arterial pressure, anxiety and, under toxic doses, convulsion can develop. Moreover, muscle stiffness and tremor can occur; the diuresis can be intensified, and in carnivorous animals vomiting can occur. The use of sodium pentobarbital is recommended for caffeine overdoses.

**Packing**

Bottles of 50 ml.

**Shelf-life**

24 months

**Other information**

Exclusively for animals

Prescription-only-medicine (POM)

For use under the supervision of a veterinary surgeon
**Deodent®**

Liquid against unpleasant odour from dogs and cats mouth.

**Composition**
- citric acid
- sodium fluoride
- cetyl-pyridine chloride
- saccharine
- aromatic agent
- distilled water

**Properties**
The preparation cleans and cares teeth and neutralises unpleasant odours from the mouth. Fluoride, present in the preparation, prevents the development of caries and strengthens the enamel. The citric acid dissolves mineral sediment. The cetyl-pyridine chloride is an antibacterial and antymycotic agent. The aromatic medium and the saccharine improves the taste and smell of the preparation.

**Indications**
- Removal of unpleasant odours from the mouth.
- Cleaning and maintenance of the teeth.

**Contraindications**
None.

**Undesirable effects**
Not observed.

**Interactions**
None.

**Application and dosage**
Sprinkle the teeth and gums with the preparation at room temperature. 1 ÷ 3 depressions of the atomiser, administered to each side of the mouth, are sufficient. Where an animal is oversensitive to sprinkling, wet a piece of cotton-wool with the preparation depressing the atomiser 3 ÷ 5 times and then lubricate the preparation over the teeth. Use the preparation regularly after meals.

**Storage conditions**
Store at a temperature below 25°C. Protect from light. Do not freeze.

**Warning**
Keep out of the reach of children.

**Shelf-life**
18 months.

**Packing**
50 ml bottles with atomisers.

**For animals only**
Composition of active ingredients
Medroxyprogesterone acetate - 50 mg/ml

Indications
Prevention of being in heat in female dogs and female cats
Treatment of metrorrhagia and nymphomania in female cats
Prevention of phantom pregnancies in female dogs

Contraindications
Do not use:
- in prooestrus, oestrus and metoestrus,
- during pregnancy,
- if mammary neoplasms have been diagnosed,
- in immature and growing animals,
- in animals with diabetes,
- in inflammations of the reproductive system,
- in female greyhounds.

Adverse reactions
One of the side effects may be temporary changes in the temperament of animals, increased appetite and the occurrence of lactation during treatment.
The use of the drug may be accompanied by growth of the endometrium.
Skin and hair discoloration will rarely occur on the injection site.
A proper veterinary doctor, the responsible firm or the Office for Registration of Medicinal Products, Medical Devices and Biocides should be notified of any adverse reactions occurring after the administration of the product or after any alarming symptoms not listed in the leaflet (including symptoms in people as a result of contact with the drug) have been observed. The application form can be downloaded from the website: http://www.urpl.gov.pl (Department of Medicinal Veterinary Products).

Posology and routes of administration
Depogeston is administered subcutaneously or intramuscularly.
The first administration of the drug should not take place earlier than two months after labour and later than one month before being in heat is expected. Administer further doses of the preparation every five months to female dogs and every three or four months to female cats.

Female dogs: 50 - 100 mg of medroxyprogesterone acetate/animals subcutaneously or intramuscularly:
- small animals (up to 10 kg b.w.) - 1.0 ml of the product animal;
- medium-sized animals (10-25 kg b.w.) and large animals (25-45 kg b.w.) - 1.5 - 2.0 ml of the product/animal;
Female cats: 50 mg of medroxyprogesterone acetate/animal subcutaneously (1.0 ml/animal).

Indication for proper administration
Shake before use.

Withdrawal period
Not applicable

Storage and conditions
Store at a temperature below 25°C. Do not freeze.

Special warnings
The first administration of the drug should not take place earlier than two months after labour and later than one month before being in heat is expected.
A long-term administration is conductive to the occurrence of uterine and mammar diseases. The inhibition of the functions of the adrenal glands and the occurrence of diabetes are also possible.
Do not use during pregnancy. Administration during lactation inhibits the secretion of the mammary gland through the inhibition of the secretion of pituitary gonadotropins. Long-term administration of the medicinal product may induce the occurrence of pyometra in female dogs and growth of the endometrium.
An overdose may cause temporary changes in the temperament of animals, increased appetite and the occurrence of lactation.
As no conformity tests were performed for this veterinary medicinal product, it must not be combined with other medicinal products.
In the case of accidental self-injection, immediately call for medical help and provide the doctor with the leaflet or package.

Shelf-life
3 years.

Packaging
Paper carton, which contains one vial of 5 ml

Other information
Exclusively for animals
Prescription-only-medicine (POM)
For use under the supervision of a veterinarian surgeon
Elisol Electrolytic preparation for pigeons.

The preparation is a multi-electrolytic solution which stabilises any disturbance of the water-electrolytic conditions resulting from dehydration after effort (flight) and in stress situations such as transportation, exhibitions, etc.

**Composition**
- Sodium - 2050 mg/l
- Potassium - 6600 mg/l
- Calcium - 100 mg/l
- Magnesium - 6 mg/l
- Iron - 240 mg/l
- Copper - 20 mg/l
- Zinc - 85 mg/l
- Manganese - 40 mg/l
- Iodine - 35 mg/l
- Cobalt - 10 mg/l
- Distilled water to 97%

**Indications**
Cachexy; dehydration; for strengthening pigeons’ organisms before and after flight.

**Application and doses**
The preparation should be added to drinking water.
- Always clean containers with water before application and use only clean, distilled water for diluting the preparation.
- Dilute 10 ml of the preparation to 1 litre of water which makes a dose for 20 pigeons.
- For larger flocks, increase the dosage accordingly applying the same rate of dilution.
- Apply the preparation twice a week.
- Flying pigeons should be given ELISOL before a flight and after completion of the competition.

**Storage conditions**
Store at a temperature from +2°C to +8°C. Protect from light.
- Once opened, use within 28 days.

**Shelf-life**
18 months

**Packing**
Bottles of 100 ml.

**For animals only**
The content of the active substance and other substances

**Active substance:**
- Enrofloxacin – 100 mg/ml

**Excipient:**
- Benzyl alcohol (E-1519) – 15.7 mg/ml

**Therapeutic indications**

**Cattle**
- Treating respiratory tract infections caused by *Pasteurella multocida*, *Mannheimia haemolytica* and *Mycoplasma* spp. susceptible to enrofloxacin.
- Treating gastrointestinal tract infections caused by strains of *Escherichia coli* susceptible to enrofloxacin.
- Treating septicemia evoked by strains of *Escherichia coli* susceptible to enrofloxacin.
- Treating acute mycoplasmatic arthritis caused by strains of *Mycoplasma bovis* susceptible to enrofloxacin in cattle aged less than 2 years.

**Swine**
- Treating respiratory tract infections caused by strains of *Pasteurella multocida*, *Mycoplasma* spp. and *Actinobacillus pleuropneumoniae* susceptible to enrofloxacin.
- Treating urinary tract infections caused by strains of *Escherichia coli* susceptible to enrofloxacin.
- Treating Postpartum Dysgalactia Syndrome – PDS (Metritis Mastitis Agalactia, MMA) caused by strains of *Escherichia coli* and *Klebsiella* spp. susceptible to enrofloxacin.
- Treating gastrointestinal tract infections caused by strains of *Escherichia coli* susceptible to enrofloxacin.
- Treating septicemia evoked by strains of *Escherichia coli* susceptible to enrofloxacin.

**Contraindications**
- Do not use as a preventive measure.
- Do not use in case of diagnosed bacterial resistance/cross-resistance to fluoroquinolones or quinolones.
- Do not use in case of hypersensitivity to the active substance or any excipient.
- Do not use in growing horses due to risk of joint cartilage damage.

**Adverse effects**
They occur very seldom. After long-lasting use of high doses, developmental changes in articular cartilages in growing animals and temporary functional disorders of the alimentary tract and the nervous system may occur.

A proper veterinary surgeon, the Marketing Authorisation Holder or the Office for Registration of Medicinal Products, Medical Devices and Biocidal Products should be notified of any occurrence of adverse effects after administration of the product or observation of any alarming symptoms not listed in the leaflet (including symptoms in people as a result of contact with the drug). The notice form has to be downloaded from the website [http://www.urpl.gov.pl](http://www.urpl.gov.pl) (The Department of Veterinary Medicinal Products).

**Posology per species, route and method of administration**

For subcutaneous or intramuscular use

Subsequent product doses should be administered at different sites.

**Cattle**
- 5 mg of enrofloxacin per kg of body weight, which corresponds to 1 ml per 20 kg of body weight, administered subcutaneously once a day, for 3-5 days.
- Acute mycoplasmatic arthritis caused by *Mycoplasma bovis* susceptible to enrofloxacin in calves aged less than 2 years: 5 mg of enrofloxacin per kg of body weight, which corresponds to 1 ml per 20 kg of body weight, administered subcutaneously once a day, for 5 days. In case of subcutaneous administration, do not administer more than 5 ml of the product per site.

**Swine**
- 2.5 mg of enrofloxacin per kg of body weight, which corresponds to 0.5 ml per 20 kg of body weight, administered once a day, intramuscularly, for 3 days.
- Gastrointestinal infection or septicemia caused by *Escherichia coli*: 5 mg of enrofloxacin per kg of body weight, which corresponds to 1 ml per 20 kg of body weight, administered once a day, intramuscularly, for 3 days.
- Inject in the neck, near the base of the ear.
- Do not administer more than 3 ml per site.

**Indications for proper use**
In order to ensure proper posology, determine body weight as precisely as possible, to avoid dose underestimation.

**Withdrawal period**

- **Cattle:**
  - Edible tissues: 12 days.
  - Milk: 4 days.
- **Swine:** Edible tissues: 13 days.

**Special precautions for storage**
Keep out of the sight and reach of children.

Store at a temperature below 25°C. Do not freeze. Store in the original package in order to protect from light.

Do not use after the expiry date given on the label. The expiry date refers to the last day of that month.
Special warnings

Special precautions for use in animals:
- Degenerative changes in joint cartilage were observed in calves treated with 30 mg of enrofloxacin per kg of body weight administered orally over 14 days.
- Principles of prudent use:
  - If possible, the use of fluoroquinolones should be based on results of antibiotic sensitivity test.
  - Fluoroquinolones should be used in treating only those diseases in which observed response to administration of other classes of antibacterial drugs is not satisfactory or the response to treatment is expected to be insufficient.

Using the product contrary to provisions of the Summary of Product Characteristics may lead to increased prevalence of microbial resistance to fluoroquinolones and decreased effectiveness of treatment using fluoroquinolones due to emergence of a potential cross-resistance.

Special precautions to be taken by the person administering the veterinary medicinal product to animals:
- In case of accidental self-injection, immediately seek doctor’s advice and present the doctor with the information leaflet or package. In case of contact with skin, mucous membranes – immediately flush affected sites with water.
- Individuals with diagnosed hypersensitivity to enrofloxacin should avoid contact with the veterinary medicinal product.
- Pregnancy:
  - Do not use the product in pregnant animals.
- Lactation:
  - Do not use the product in lactating animals.
- Interactions with other medicinal products and other forms of interaction:
  - Do not use concomitantly with macrolide, tetracycline antibiotics and theophylline.

Enrofloxacin has low toxicity after single administration and low acute toxicity. LD₅₀ is about 4000-5000 mg/kg of body weight after oral administration in rats and mice, whereas in rabbits which are more susceptible – 500-800 mg/kg of body weight.

After single administration of a particularly high dose, toxic effects may emerge manifested in lethargy, convulsions, tonic seizures, ataxia and dyspnoea.

Use of enrofloxacin doses exceeding 5 mg/kg of body weight may cause changes in vision, retinal degeneration and blindness.

In the absence of compatibility studies, this veterinary medicinal product must not be mixed with any other veterinary medicinal products.

Special precautions for the disposal of unused veterinary medicinal product or waste from residues:
- Do not dump medicinal products to drains or waste bins. Ask a veterinary doctor about disposal procedures for unused products. They will lead to enhanced environmental protection.

Shelf-life
- 2 years.

Available packages
- Glass bottle containing 100 ml of the preparation, packed individually in a cardboard box.

Other information
- Exclusively for animals
- Prescription-only-medicine (POM)
- For use under the supervision of a veterinary surgeon
Enflocyna Sol® Oral solution for cattle, swine, dogs, hens, turkeys and pigeons.

Qualitative and quantitative composition of active substances
Enrofloxacin - 50 mg/ml

Therapeutic indications
Enflocyna Sol is effective in the treatment of general and local diseases induced by sensitive microorganisms, especially in bacterial infections of the respiratory system and the urogenital system as well as in bacterial skin diseases, wound infections and secondary infections in viral diseases.

It has a wide spectrum of action embracing gram-positive bacteria (especially Staphylococcus spp., Streptococcus spp.), gram-negative bacteria (E. coli, Salmonella spp., Pasteurella spp., Klebsiella spp., Pseudomonas spp.) and mycoplasmas.

Efficiency of enrofloxacin was particularly confirmed in the treatment of the following diseases in target species:

- Bacteria: Mycoplasmosis induced by M. gallisepticum, M. synoviae, M. meleagris, M. iowae
- Bacteria: Infectious rhinitis of birds
- Bacteria: Salmonellosis
- Bacteria: Pasteurellosis
- Bacteria: Staphylococcosis
- Bacteria: Erysipelothrix rhusiopathiae in turkeys
- Bacteria: Campylobacteriosis

Viral infections in the course of viral diseases

- Viruses: Cattle: infections of the respiratory tract and the urinary system, diarrhoeas
- Viruses: Swine: diarrhoeas, enterotoxaemias induced by E.coli and Salmonella spp., infections of the respiratory tract and the urinary system, MMA syndrome
- Viruses: Dogs: infections of the respiratory tract and the urinary system, diarrhoeas
- Viruses: Pigeons: salmonellosis, mycoplasmosis, general and local infections induced by microorganisms sensitive to enrofloxacin

Contraindications
Do not use in lactating cows whose milk is intended for human consumption.
Do not use in hens laying eggs for consumption.
Do not use in pregnant animals and in lactation.
Do not use in the case of diagnosed resistance to quinolones.
Do not use in dogs of small breeds aged up to eight months and in dogs of big breeds aged up to one year and in dogs of very big breeds aged even up to 1.5 years.

Adverse effects
They occur very seldom. After long-lasting use of high doses, developmental changes in articular cartilages in growing animals and temporary functional disorders of the alimentary tract and the nervous system may occur.

A proper veterinary surgeon, the Marketing Authorisation Holder or the Office for Registration of Medicinal Products, Medical Devices and Biocidal Products should be notified of any occurrence of adverse effects after administration of the product or observation of any alarming symptoms not listed in the leaflet (including symptoms in people as a result of contact with the drug). The notice form has to be downloaded from the website http://www.urpl.gov.pl (The Department of Veterinary Medicinal Products).

Posology and routes of administration
Enflocyna Sol is administered to animals after previous dissolution in drinking water, milk or milk substitutes.

The bodyweight of an animal has to be determined accurately when determining the dose.

The general posology for Enflocyna Sol is as follows:

- **Hens and turkeys**
  - 0.20 ml/kg which corresponds to 100 ml/100 litres of drinking water, for three days, in salmonellosis - 5 days
- **Cattle**
  - 0.05-0.10 ml/kg b.w. for 3-5 days
- **Swine**
  - 0.05-0.10 ml/kg b.w. for 3-5 days
- **Dogs**
  - 0.05-0.10 ml/kg b.w. for 3-5 days
- **Pigeons**
  - 1.0-4.0 ml/litre of drinking water
    - salmonellosis: 4 ml/litre of water daily for 3 days
    - or 2 ml/litre for 7-10 days
    - mycoplasmosis, infectious rhinitis in pigeons: 2 ml/litre of water for 4-7 days
    - other bacterial infections: 1 ml/litre of water daily for 3-4 days

Recommendations for proper administration
The prepared solution of Enflocyna Sol should be used within 24 hours.
Withdrawal period

- Dogs - not applicable.
- Edible tissues of cattle and swine – 10 days.
- Edible tissues of hens and turkeys – 12 days.
- Do not use in hens laying eggs for consumption.
- Do not use in pigeons for consumption.
- Do not use in lactating cows whose milk is intended for human consumption.

Special precautions for storage and transport

Store at a temperature below +25 °C. Protect from light. Do not freeze.
The shelf life for the veterinary medicinal product packed for sale – two years.
Durability after the first opening of the direct package – 28 days.
Durability after dilution with drinking water, milk or milk substitutes:
- 24 hours.
Keep out of the sight and reach of children.

Special warnings and precautions

The drug can only be used in bacterial infections induced by microorganisms whose sensitivity was confirmed by an antibiogram and in the case of resistance to other chemotherapeutics.
The drug cannot be used for treatment of infections with smaller intensity (significance).
The drug should not be used in the case of diagnosed resistance to quinolones (cross-resistance).
In the case of contact of the product with the skin, mucous membranes - rinse the sites with water immediately.
Store in a place secured against access by third parties.
Do not use in pregnancy and lactation.
Do not use in hens laying eggs for consumption.
Do not use in combination with macrolide antibiotics, tetracyclines and theophylline and in pigeons with coccidiostats. Magnesium and aluminium compounds may reduce absorption of enrofloxacin from the alimentary tract.
Unused veterinary medicinal product or its waste should be neutralised in accordance with appropriate regulations.

Shelf-life
2 years

Packing

PET bottle containing 50 ml of the product, in a cardboard box.

Other information

Exclusively for animals
Prescription-only-medicine (POM)
For use under the supervision of a veterinary surgeon
Qualitative and quantitative composition of active substances

1 ml of the vaccine contains:
- Microsporum canis No. 30 strain at a concentration of 4-6 x 10⁷ CFU
- Adjuvant: Aluminium hydroxide 0.7 mg (Al⁺³)

Therapeutic indications

The vaccine is intended for active immunisation of cats in order to reduce the death rate, clinical symptoms and pathological changes induced by Microsporum canis. After the vaccine is used, immunity occurs six weeks after the administration of the first dose of the product. The duration of immunity (after two administrations of the vaccine) is from 9 to 12 months.

Contraindications

None.

Adverse effects

Rare cases of mild limited oedema in the injection site spontaneously disappearing within 2-3 days.

Target animal species

Cat.

Posology and route of administration

Route of administration: intramuscularly.

Scheme of vaccinations for healthy cats:
- The first dose of the vaccine: 1 ml/animal
- The second dose has to be administered 10-14 days later. Each dose of the vaccine has to be divided and administered into both hind legs above the hock joints.

Scheme of vaccination for sick cats with extensive and severe changes:
- Administer the aforementioned doses three times at intervals of 10-14 days. Each dose of the vaccine has to be divided and administered into both hind legs above the hock joints.

Recommendations for proper administration

Warm the packages with the vaccine after they are taken out of the refrigerator to a room temperature and shake thoroughly before vaccination.

Withdrawal period

Not applicable.

Special precautions for storage and transport

Keep out of the sight and reach of children.
- Store in a refrigerator (2-8°C). Do not freeze. Protect from light.
- Use the contents of the opened package immediately.
- Do not use after the expiry date given on the label.

Special warnings and precautions

- After accidental self-injection, immediately seek medical help and show the information leaflet or the package to the physician.
- Do not use three weeks before labour and two weeks after labour.
- There is no available information concerning safety and efficiency of simultaneous use of this vaccine in combination with other vaccines. Therefore, simultaneous use of other vaccines with this product is not recommended.
- On administration of a double dose, no occurrence of other side effects than the ones given in the point concerning adverse effects was observed.
- Do not combine with other medicinal products.

Shelf-life

9 months.

Packing

2 ml

Other information

Exclusively for animals
- Prescription-only-medicine (POM)
- For use under the supervision of a veterinary surgeon

Microsporum canis

7

3+
Gentamycyna Biowet Puławy
Solution for injection for dogs and cats

Qualitative and quantitative composition of active substance
Gentamicyn (in the form of gentamicin sulphate)  50 mg/ml

Therapeutic indications
Treatment of diseases induced by bacteria sensitive to gentamicin, especially respiratory infections, urogenital infections, skin inflammations, arthral diseases, otitis, infections of the alimentary tract.
Gentamicin is active against: Pasteurella multocida, Pseudomonas aeruginosa, Klebsiella sp., Escherichia coli, Salmonella sp., Staphylococcus sp. Campylobacter sp., Mycoplasma sp., Proteus sp.

Contraindications
Pregnancy. Renal insufficiency. Allergy to aminoglycoside antibiotics.

Adverse effects
Long-lasting administration or use of high doses of gentamicin may lead to damage to kidneys or the organ of hearing. Intracanal administration may induce inflammation of the nerve roots of the medulla, fever and chronic pleocytosis.
A proper veterinary surgeon, the Marketing Authorisation Holder or the Office for Registration of Medicinal Products, Medical Devices and Biocidal Products should be notified of any occurrence of adverse effects after administration of the product or observation of any alarming symptoms not listed in the leaflet (including symptoms in people as a result of contact with the drug). The notice form has to be downloaded from the website http://www.urpl.gov.pl (The Department of Veterinary Medicinal Products).

Posology and routes of administration
Gentamicin is administered subcutaneously and intramuscularly in a dose of 0.8 ml/10 kg b.w. (which corresponds to 4 mg/kg b.w.)
- on the first day of treatment the drug is administered every 12 hours
- next days – once daily every 24 hours.
This antibiotic is generally administered within 4-5 days. In justified cases longer, e.g. in urinary infections 7-10 days. Alkalisation of urine increases the activity of the antibiotic.

Recommendations for proper administration
None.

Waiting period
Not applicable.

Special precautions for storage and transport
Keep out of the sight and reach of children. Store at a temperature below 25°C. Do not freeze. Use within 28 days after the first opening of the package. Do not use after the expiry date given on the label.

Special warnings and precautions
Young animals, in which the process of renal elimination of gentamicin is slower than in adult animals, are more susceptible to the toxic effect of the drug.
Use half the recommended doses in animals aged up to two weeks.
If the condition of an animal requires longer administration of the drug, it is recommended to monitoring the condition of the kidneys (concentrations of urea and creatinine in the blood serum).
The drug should not be used in highly dehydrated animals. The product may have a sensitising effect on the skin causing contact dermatitis. During administration of the drug, protective clothing should be worn and special caution should be exercised. On accidental contact with the drug, the solution should be washed from the skin or the mucous membranes immediately. In the case of a self-injection, a hypersensitivity reaction may occur. After accidental self-injection, immediately seek medical help and show the information leaflet or the package to the physician. Do not use throughout pregnancy.

Due to the nephrotoxic effect, use carefully in lactation only when the benefit for the mother exceeds the potential risk for the newborn animals. Gentamicin displays cross-resistance with other amino glycosides. It has a synergic effect with β-lactam antibiotics (especially ampicillin and benzyl penicillin) on enterococci, staphylococci and streptococci. It also has a synergic effect with vancomycin and rifampicin on streptococci and staphylococci. Cephalosporins and some diuretics intensify nephrotoxicity and ototoxicity of the drug. Therefore, the drug cannot be administered in combination with cephalotin, cephaloridine, etacrynic acid, mannitol and furosemide. Its simultaneous use with vancomycin intensifies nephrotoxicity of both drugs. A combination with cispłatín reduces excretion of gentamicin thus posing a risk of nephrotoxicity and hypomagnesaemia. The preparation should not be mixed with solutions of penicillins with a wide spectrum because it may lead to inactivation of amino glycoside. The simultaneous use with amphotericin B, cyclosporin, cispłatín, methoxylfurane, acyclovir and non-steroid anti-inflammatory drugs may result in renal damage. Gentamicin administered in general anaesthesia in combination with cyclopropane may cause apnoea. After gentamicin overdose, functional disorders of the kidneys, neuromuscular block, impaired hearing may occur - the administration of the drug should be discontinued.
Do not use with other antibiotics, strong diuretics and potentially nephro- and ototoxic drugs.
Do not use in combination with anaesthetics or myorelaxants.

Unused veterinary medicinal product or its waste should be neutralised in accordance with appropriate regulations.

Shelf-life
2 years

Packing
Orange glass bottles vol. 50 ml, packed individually in a cardboard box.

Other information
Exclusively for animals
Prescription-only-medicine (POM)
For use under the supervision of a veterinary surgeon
Injectio Glucosi 40% Injectable solution for cattle, horses, sheep, goats, pigs, dogs and cats.

Composition of active ingredients

- Solution 40%
- Glucose 0.40 g
- Water for injection to 1 ml

Properties

Glucose as a monosaccharide is an essential source of energy for all organism cells. It is consumed by nerve cells, heart muscle, striped muscles, liver, red blood cells, and other tissues. Glucose is quickly metabolised in the organism.

- Metabolism of glucose is done mainly by glycolisis and the pentoses cycle which enables direct oxidation and decarboxylation.
- Glucose decreases the fat metabolism requirement, it prevents ketosis and acidosis.
- Parenterally administered, it strengthens contractions of the heart muscle, especially when it is weak, dilates the coronary vessels, increases circulated blood volume.
- Hypertonic solutions act as a diuretic; they are used in parenteral nutrition, for energy deficiency supplementation, and decrease intracranial pressure.

Indications

The preparation should be used in tissue swelling and as an energy source for the heart.

Contraindications

- Hyperglycaemia, overhydration, ketosis, and hypotonic dehydration.

Undesirable effects

With proper use, are not known.

Drug interactions

Do not mix with barbiturates, sulphonamides, erythromycin, hydrocortisone, and vitamin B₃ in the same solution.

Application and dosage

Best administered intravenously.

- Equivalent to anhydrous glucose:
  - Cattle, horses: 100.00 to 125.00
  - Sheep, goats, pigs: 12.50 to 25.00
  - Dogs, cats: 1.25 to 7.50

Withdrawal period

Not obligatory.

Storage conditions

Store at a temperature below +25°C.

Shelf-life

24 months. Once opened, use entire contents.

Warnings

The solution should be warmed to body temperature before intravenous use. Slow intravenous injection recommended. Once opened, the pack should not be stored or re-used.

Packing

Bottles of 250 ml.

Other information

- Exclusively for animals
- Prescription-only-medicine (POM)
- For use under the supervision of a veterinary surgeon

www.biowet.pl
Injectio Pyralgini Solution for injections for horses, cattle, swine and dogs.

Composition of active ingredients
Metamizole sodium - 500 mg/ml

Indications
INJECTIO PYRALGINI is indicated for use in cases where the analgesic, spasmolytic, antipyretic and/or anti-inflammatory effect of metamizole is required.
- Pain relief for colic of various aetiology and other spastic conditions of the alimentary tract in horses and cattle.
- Equine rhabdomyolysis syndrome (*mioglobinuria paralytica equorum*)
- Oesophageal obstruction with a foreign body
- Conditions with pyrexia, e.g. acute mastitis, MMA syndrome in swine, swine influenza.
- Acute and chronic inflammation of joints, rheumatoid diseases of the motor system, nerve inflammation, neuralgia, inflammation of tendons and tendon sheaths.

Contraindications
Do not use in cats.
Do not use subcutaneously.
Do not use in animals with haematopoietic system disorders.

Adverse effects
Not observed.
Should any adverse effects or any reactions not mentioned in the leaflet occur (including reactions in humans due to contact with the preparation), please contact your veterinary surgeon or inform the marketing authorisation holder or the Office for Registration of Medicinal Products, Medical Devices and Biocides. The application form can be downloaded from the website: http://www.urpl.gov.pl (Department of Medicinal Veterinary Products).

Dosage and routes of administration
It is recommended to administer the drug through the intravenous or intramuscular route. In horses, whose tissues are considered as edible for humans, the product may be administered using the intravenous route only. Practically, the drug may be administered through both routes. If necessary, the administration can be repeated.

The following dosage is recommended:
- Horses: 20-50 mg/kg b.w.
- Cattle: 20-40 mg/kg b.w.
- Swine: 15-50 mg/kg b.w.
- Dog: 20-50 mg/kg b.w.

Advice on correct administration
For the correct administration of the preparation, follow the instructions given in this leaflet.

Withdrawal period
Edible tissues: 12 days – after intravenous administration
20 days – after intramuscular administration
Milk: 4 days.

Special storage and transport precautions
Keep out of the reach and sight of children.
Store in the original packaging in order to protect from light.
Store below 25°C.
Once opened, use within 28 days.
Do not use after the expiry date.

Special warnings
In horses, whose tissues are considered as edible for humans, the product may be administered using the intravenous route only.
Can be used in animals during pregnancy or lactation.
Phenobarbital, other barbiturates and glutethimide, may accelerate the elimination of metamizole.
Concomitant administration of chlorpromazine may lead to the development of enhanced hypothermia.

Shelf-life
2 years.

Packing
Bottles of 50 or 100 ml.

Other information
Exclusively for animals
Prescription-only-medicine (POM)
For use under the supervision of a veterinary surgeon
**Insectin®**

10 mg/g, powder for treating dog and pigeon skin

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**The content of the active substance and other substances**

Permethrin (25:75 cis:trans isomer ratio) 10 mg/g

**Therapeutic indications**

Insectin is designed to combat ectoparasites: fleas and ticks in dogs, and lice and pigeon ticks.

**Contraindications**

- Do not use in puppies aged less than 12 weeks.
- Do not use in lactating female dogs.
- Do not use in pigeons aged less than 1 month.
- Do not use in cats. The product may produce serious undesirable effects, including death; therefore prevent cat contact with the product. If dogs and cats are kept together, isolate cats for 72 hours since the end of treatment. Make sure that cats do not lick the coat of a dog undergoing treatment. Should that occur, immediately seek advice of a veterinary doctor.
- Do not use in case of hypersensitivity to the active substance or any excipient.

**Undesirable effects**

Dogs rarely experience undesirable side effects such as excessive drooling, vomiting, diarrhoea, moderate muscular tremor and hyperactivity transforming into depression.

Birds are mildly susceptible to permethrin. Undesirable effects related to stimulation of the nervous system appear extremely rarely.

A proper veterinary surgeon, the Marketing Authorisation Holder or the Office for Registration of Medicinal Products, Medical Devices and Biocidal Products should be notified of any occurrence of adverse effects after administration of the product or observation of any alarming symptoms not listed in the leaflet (including symptoms in people as a result of contact with the drug). The notice form has to be downloaded from the website http://www.urpl.gov.pl (The Department of Veterinary Medicinal Products).

**Posology per species, route and method of administration**

**Small dog:** 5–10 g

**Medium-sized dog:** 10–15 g

**Big dog:** 15-20 g

**Pigeon:** 1–2 g

10 applications – drops from an inverted container mean application of 2.5-3.0 g of the product on skin.

**Indications for proper use**

- Apply the product externally to the skin.
- Sprinkle the entire animal body with the powder, setting the hair or feathers apart to reach the skin. Avoid sprinkling eye, ear, nose and muzzle area with the powder. Leave the product for a few hours, next brush out the coat.
- Exchange animal bedding after each treatment procedure. Repeat the procedure after 2-3 weeks.

**Withdrawal period**

Dog – not applicable.

Do not use in pigeons intended for human consumption.

**Special precautions for storage**

- Keep out of the sight and reach of children. Store at a temperature below 25°C.
- Keep away from human food and animal feeds.
- Do not use after the expiry date given on the label. The expiry date refers to the last day of that month.

**Special warnings**

- Special warnings for all target species:
  - For external use only.
  - Do not rub the product into animal skin.
  - For the most effective flea elimination, it is recommended to use a proper insecticide in dog’s place of stay (bedding, kennel disinfection, etc.). In addition, combating fleas in all animals kept together at the same time is recommended.

- Special precautions for use in animals:
  - Do not allow animals to lick the product off.
  - During the procedure, protect eyes of the animals.

- Special precautions to be taken by the person administering the veterinary medicinal product to animals:
  - The procedure should be performed outside the accommodation. Avoid excessive dusting and inhalation of the product. During procedures, use generally accepted precautions for handling insecticides; in particular, the use of protective gloves and masks is recommended.
  - Avoid contact with eyes. After the procedure, wash hands thoroughly. In case of accidental contact with the skin or mucous membranes, immediately flush the affected site with pure water. Protect children from contact with the product and with animals undergoing treatment. Do not allow animals treated with the product to play with humans, especially children, until the product is removed from body surfaces.
  - Individuals with a diagnosed hypersensitivity to permethrin should avoid contact with the veterinary medicinal product.

- Other precautions:
  - Do not allow dogs undergoing treatment to immerse in water bodies for at least 3 weeks of product administration.
  - Pregnancy and lactation:
Insectin® 10 mg/g, powder for treating dog and pigeon skin

Do not use the product in pregnant and lactating animals.

Egg laying:
Do not use the product during egg laying period.

Interactions with other medicinal products and other forms of interaction:
Unknown.

Overdose (symptoms, emergency procedures, antidotes), if necessary:
In case of overdose, intensive symptomatic treatment should be applied, as no specific antidote has been developed.
Administration of tranquilizers, anticonvulsants (diazepam, pentobarbital, propofol) and muscle relaxants is recommended.
Replenish the liquids by administration of crystalloids (sodium chloride physiological solution or electrolyte solution).
It is also recommended to bathe the poisoned animal in tepid water with addition of soft detergents, in order to wash any permethrin residues off the skin.
Pharmaceutical incompatibilities:
In the absence of compatibility studies, this veterinary medicinal product must not be mixed with any other veterinary medicinal products.

Special precautions for the disposal of unused veterinary medicinal product or waste from residues.
This veterinary medicinal product is highly toxic for bees, fish, crustaceans.
Do not dump medicinal products to drains or waste bins.
Ask a veterinary doctor about disposal procedures for unused products. They will lead to enhanced environmental protection.

Other information
To get all details about his veterinary medicinal product, contact the Marketing Authorization Holder.

Shelf-life
2 years.

Available packages
Packs of 50 g.

Exclusively for animals
Ketamina 10% Solution for injection for dogs and cats

**Aqueous 10% injectable solution of ketamine for anaesthesia in dogs and cats.**

**Qualitative and quantitative composition of active substances**

Ketamine - 100 mg/ml
(in the form of ketamine hydroxide - 115.33 mg/ml)

**Therapeutic indications**

Short-lasting general anaesthesia to facilitate minor surgical procedure requiring analgesia such as: removal of tartar, removal of foreign bodies from the oral cavity and the oesophagus, incision of abscesses, dressing replacement, x-ray examinations, clinical examination of aggressive and excitable animals.

Full anaesthesia in combination with other anaesthetics for induction of surgical anaesthesia, e.g. for operations on fractures, reposition of a dislocation, castration, amputation, caesarean section, laparotomy.

**Contraindications**

Do not use in animals with circulatory deficiency, hypertension, liver and kidney damage.

Do not use in animals with diagnosed epilepsy, intraocular hypertension, in animals with open injuries of the eyeball, with head injuries.

Do not use in the case of hypersensitivity to the active substance or any other component.

Do not use in animals in the last period of pregnancy, excluding indications for caesarean section.

**Adverse effects**

After the administration of the preparation the following effects may occur in animals: increased blood pressure, accelerated heartbeat, including depression of the respiratory system and cardiac arrest. Ketamine induces increases salivation, muscle tremor, increased muscular tension, convulsions, spastic movements and tonic muscular contractions, nystagmus and pupil dilatation, pulmonary oedema.

Vocalisation may occur during recovery over anaesthesia especially when ketamine is used as a single anaesthetic.

Ketamine used as a single anaesthetic in dogs causes vomiting whereas in cats, in which eyes remain open during anaesthesia, corneal drying may occur.

A proper veterinary surgeon, the Marketing Authorisation Holder or the Office for Registration of Medicinal Products, Medical Devices and Biocidal Products should be notified of any occurrence of adverse effects after administration of the product or observation of any alarming symptoms not listed in the leaflet (including symptoms in people as a result of contact with the drug). The notice form has to be downloaded from the website [http://www.urpl.gov.pl](http://www.urpl.gov.pl) (The Department of Veterinary Medicinal Products).

**Target animal species**

Dog, cat.

**Dosage and route of administration**

The preparation is administered intramuscularly or intravenously. In the case of intravenous administration, warm the preparation to the body temperature and inject slowly.

Before administration of ketamine, administer atropine in the dose of 0.05 mg/kg b.w. intramuscularly or subcutaneously as premedication.

**Dosage in dogs:**
- 2-5 mg of ketamine/kg b.w. intravenously
- 5-15 mg of ketamine/kg b.w. intramuscularly

**Dosage in cats:**
- 5-15 mg of ketamine/kg b.w. intramuscularly

Administration of ketamine in combination with other anaesthetics and agents used for premedication before general anaesthesia:

**Cats**
 administer atropine intramuscularly in a dose of 0.05 mg/kg b.w., then ketamine in a dose of 5-15 mg/kg b.w. in combination with xylazine or diazepam.

**Dogs**
 administer atropine intramuscularly in a dose of 0.05 mg/kg b.w. and then an antipsychotic agent (diazepam, medetomidine or xylazine) and after 5-10 minutes administer 3 mg of ketamine/kg b.w. intravenously or 10 mg of ketamine/kg b.w. intramuscularly.

**Recommendations for proper administration**

Animals must not be fed for 12 hours before the use of the product.

Operations on the abdominal cavity require the use of an additional analgesic agent as ketamine does not relieve visceral pain.

The product alone must not be used in procedures concerning the rhinopharynx, the larynx, the trachea and the bronchi as well as in endoscopy.

The duration of anaesthesia increases as the dose increases with no effect on the depth of anaesthesia.

**Withdrawal period**

Not applicable

**Special precautions for storage and transport**

Keep out of the sight and reach of children
Store at a temperature below 25°C. Protect from light. Do not freeze.
Use within 28 days after the first opening of the package
Do not use after the expiry date given on the label

**Special warnings and precautions**

During a procedure, take action to protect the cornea from drying. If the product has to be used in animals which lost plenty of blood, the doses should be reduced. Caution must be exercised. Special caution should be...
taken when administering the product to animals with damaged cardiac muscle. Older animals are more prone to the occurrence of a stress disorder. Provide peace and quiet during the recovery of animals from anaesthesia. In anaesthesia, cardiac and pulmonary functions should be monitored. After accidental self-injection, immediately seek medical help and show the information leaflet or the package to the physician. In the case of contact of the product with the skin, mucous membranes - rinse the sites with water immediately. Do not use in lactation and in animals in pregnancy, excluding caesarean section. Xylazine, detomidine, medetomidine, acepromazine prevent the occurrence of convulsion that may accompany ketamine anaesthesia. The effect of ketamine is intensified by other agents reducing the activity of the CNS. Antipsychotic agents, barbiturates, diazepam may extend the period of recovery from anaesthesia. Chloramphenicol may lengthen the anaesthetic effect of ketamine. Neuromuscular blockers, e.g. succinylcholine and tubocurarine, may cause intensified or lengthened respiratory depression. Thiopental prevents ketamine stimulation of brain metabolism and dilation of cerebral blood vessels. Atropine removes the effect of excessive salivation after administration of ketamine. Ketamine should not be used in combination with barbiturates due to their chemical incompatibility. The effect of administration of high doses of ketamine is numbness with concomitant loss of balance and coordination. Vomiting and convulsions may occur in the case of high doses. A double or triple increase in the dose of ketamine leads to deeper sleep that lasts longer and sometimes to respiratory depression. Respiratory paralysis occurs after administration of an eightfold dose and circulatory arrest occurs after a twelvefold anaesthetic dose. A cause of death in acute toxicological tests is central depression and respiratory arrest. In order to avoid adverse effects, premedication using atropine should be performed; muscle relaxants such as xylazine and diazepam are especially recommended. In cats, the use of yohimbine in a dose of 0.25 mg/kg b.w. i.v. in combination with 4-amidopyridine in a dose of 0.6 mg/kg b.w. i.v. partially antagonises the effect of ketamine. In an overdose, mechanical reanimation methods should be considered – resuscitation and heart massage should be performed. Unused veterinary medicinal product or its waste should be neutralised in accordance with appropriate regulations. **Shelf-life** 2 years **Packing** 10 ml **Other information** Exclusively for animals Prescription-only-medicine (POM) For exclusive use by a veterinary surgeon. Possession and sales of the product are set out in regulations concerning preparation containing intoxicants or psychotropic substances.
**Preparation for the care of udders in cows and goats.**

**Composition**

100 g of preparation contains:
- Eucalyptus oil 3.22 g
- Camphor 0.14 g
- Menthol 0.50 g
- Yellow soft paraffin 48.07 g
- Eucerin 48.07 g

**Properties and mode of action**

The care agent, contains in its composition various substances which have a beneficial effect on the skin of the udder and teats including substances of plant origin. The main ingredient of plant origin is eucalyptus oil exhibiting a strong antiseptic and anti-inflammatory effect. Camphor acts as a slight antiseptic and cafercient agent, develops congestion of hypodermic tissues and stimulates the process of granulation tissue growth. Menthol cools and decreases sensitivity in pain receptors acting as an analgesic. The ointment easy distributes and absorbs itself giving a very good coating to the udder and teat skin by a thin layer which protect against the harmful actions of various environmental conditions.

**Indication**

Preparation recommended for the care of the udders in cows and goats. External use only. Cover each time after milking and rub in the udders and teats. Regular use of the preparation assures the right suppleness and protects against inflammation and dryness and chapping of the udder and teat skin. Because of its properties it can be used for inflammation caused by insect bites, eczema, abrasions etc.

**Contraindications**

Protect mucous membranes against direct contact with the preparation.

**Pharmaceutical form** - ointment.

**Shelf-life**

24 months.

**Packing**

Plastic containers of 250 g, 500 g.

**Storage conditions**

Store at temperature below 25°C.

**For animals only**
Preparation for the detection of an increased somatic cells count and for the evaluation of acidity in raw milk.

**Realization**

1. After disposal of the first streams of milk, milk (about 2 ml) should be squirted onto the paddle containing four circular dish-like structures. It is possible to pour off the excess by inclining the paddle at an angle of about 50°. Add the milk-test in the same volume and mix well both components by swirling the paddle. After about 20 sec. of mixing, estimate the degree of gelatinization and possible colour change according to the table below.

2. The milk-test also permits the milk acidity to be estimated and evaluated (pH of milk) where stored in tank. For this purpose, the milk and preparation should be mixed in equal volumes using a paddle. The colour of the mixture should be compared according to the attached colour scale. A mixture of the preparation and milk of the proper acidity will become greyish-violet. Any possible acidification of the milk gives a greyish-green to yellow colour (depending on acidity degree).

**Storage conditions**

Store at temperature below 25°C.

**Shelf-life**

18 months

**Packing**

Bottles of 500 ml

<table>
<thead>
<tr>
<th>RESULT</th>
<th>MIXTURE APPEARANCE</th>
<th>CELLS COUNT IN ML</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative*</td>
<td>Liquid or flocks and strips vanishing during mixing.</td>
<td>To 400 000</td>
</tr>
<tr>
<td></td>
<td>Grey-violet colour</td>
<td></td>
</tr>
<tr>
<td>Positive*</td>
<td>Jelly-like flocks and strips not vanishing during mixing.</td>
<td>To 1 000 000</td>
</tr>
<tr>
<td></td>
<td>Grey-violet or violet colour.</td>
<td></td>
</tr>
<tr>
<td>Strongly positive</td>
<td>Mixture becomes a jelly-like mass.</td>
<td>Over 1 000 000</td>
</tr>
<tr>
<td></td>
<td>Violet or dark violet colour.</td>
<td></td>
</tr>
</tbody>
</table>

* A homogenous liquid mixture during the entire mixing period indicates that the somatic cell count does not exceed 200 000 in 1 ml.

An increased number of somatic cells (positive result) is usually an indication of mammary gland inflammation.

A physiological increased number of somatic cells in milk indicates oestrus in the colostric period and during the dry period.
Morbital Solution for injection for dogs and cats

Qualitative and quantitative composition of active substances

- Sodium pentobarbitone: 133.3 mg/ml
- Pentobarbitone: 26.7 mg/ml

Therapeutic indications
Euthanasia

Contrindications
Do not administer intrapulmonarily, intrapleurally and intramuscularly. Do not use for anaesthesiology.

Adverse effects
During the use of the preparation, temporary excitement and breathlessness symptoms may occur.
A proper veterinary surgeon, the Marketing Authorisation Holder or the Office for Registration of Medicinal Products, Medical Devices and Biocidal Products should be notified of any occurrence of adverse effects after administration of the product or observation of any alarming symptoms not listed in the leaflet (including symptoms in people as a result of contact with the drug). The notice form has to be downloaded from the website http://www.urpl.gov.pl (The Department of Veterinary Medicinal Products).

Posology and routes of administration
Routes of administration: intravenously, intraperitoneally, intracardially.
The doses of Morbital depending on the route of administration are as follows:
- Intravenous administration: 0.3-0.6 ml/kg b.w.
- Intraperitoneal administration: 1-2 ml/kg b.w.
- Intracardial administration (only after premedication): 0.3-0.6 ml/kg b.w.
The recommended route of administration is the intravenous administration.
Intraperitoneal administration is acceptable if intravenous administration is impossible or dangerous.
Intracardial administration is acceptable only after previous anaesthesia.

In order to achieve the best effect, the recommended route of administration with the smallest and shortest pain is intravenous administration. Intraperitoneal administration is acceptable if intravenous administration is impossible or dangerous. Using this route, animals may slowly become sedated and anaesthetised. Therefore, peace and quiet should be provided for them.
In timid, aggressive or wild animals, premedication is recommended. Intracardial administration may only be used in exceptional cases in animals in full sedation which are unconscious or anaesthetised.
The preparation should be injected evenly, quickly administering optimal doses. Administration of an incomplete dose may induce symptoms of prolonged sleep with possible awakening.
The bodyweight of an animal has to be determined as accurately as possible before the procedure. Lower doses per 1 kg are effective in adult dogs as well as sick and starving dogs.
In each case, make sure whether the death of the animal has taken place since deep anaesthesia may simulate symptoms of death.

Withdrawal period
Not applicable

Special precautions for storage and transport
Keep out of the sight and reach of children. Store at a temperature below 25°C.
Do not use after the expiry date given on the label. 28 days shelf life after the first opening of the direct package.

Special warnings and precautions
After accidental administration of the product to animals not intended for euthanasia, immediately begin actions supporting respiration, administer oxygen and analeptics. Consumption of animals subjected to Morbital euthanasia may cause deep narcosis or death of an animal which ate the euthanized animal.
During the use of the product, a proper method of administration should be provided. If the product gets into the airways, immediately go into fresh air. In the case of the contact of the product with the skin, wash the site with water and soap and change clothes if they have been stained with the product. In the case of the contact of the product with eyes, immediately wash eyes with plenty of water. On swallowing of the product, subcutaneous or intramuscular administration, its rapid absorption occurs. After swallowing of the product or parenteral administration, you should always immediately seek medical help and show the leaflet or the package to a physician. A person exposed to the effect of the product should not drive due to the possibility of sedation, breathlessness and changes in arterial blood pressure and should remain under the supervision of another person. If the product is used in pregnant females, the death of the mother causes the death of the foetus. Barbiturates intensify the inhibitory effect on neurotransmission in the neuromuscular junction induced by d-tubocurarines and hexamethonium. Moreover, pentobarbitone and streptomycin induce additive reactions causing dilatation of vessels, mainly renal vessels. Intravenous administration of a calcium solution removes the vasodilating effect allowing the use of sodium pentobarbitone in animals treated with streptomycin. Interactions with some amino glycosides were also demonstrated.

Unused veterinary medicinal product or its waste should be neutralised in accordance with appropriate regulations.

Shelf-life
2 years

Packing
100 ml

Other information
Exclusively for animals. Prescription-only-medicine (POM). For exclusive use by a veterinary surgeon. Possession and sales of the product are set out in regulations concerning preparation containing intoxicants or psychotropic substances.
Mycosalmodvir Emulsion for injections in pigeons

Inactivated vaccine against salmonellosis, paramyxovirosis and mycoplasmosis in pigeons

Composition of active ingredients
Each dose of the vaccine (0.2 ml) contains:
- inactivated PMV-1 (LaSota strain), no less than 1 Elisa unit
- inactivated Mycoplasma gallisepticum cells, no less than one Elisa unit
- inactivated Salmonella cells (serotypes: S. typhi, S. paratyphi A, S. paratyphi C, S. typhimurium var. Copenhagen, S. anatum, S. senftenberg), no less than 1 Elisa unit for each serotype
- 1 Elisa unit – the quantity of antigen to obtain seroconversion equal or higher than 1.8 in a vaccinated pigeon

Adjuvant: Montanide ISA 763A VG 0.14ml

Active immunisation of pigeons to decrease the mortality rate and clinical symptoms of salmonellosis, mycoplasmosis and paramyxovirosis of pigeons.

The postvaccinal immunity occurs approx. 21 days after the re-vaccination and lasts for approx. 12 months.

Indications
Active immunisation of pigeons to decrease the mortality rate and clinical symptoms of salmonellosis, mycoplasmosis and paramyxovirosis of pigeons.

Contraindications
Do not immunise weak, infested and sick birds. Do not use in the moulting period of pigeons.

Adverse effects
Rarely reported adverse reactions include a transitional lack of appetite and apathy, occurring within several hours from administration, as well as a transitional local reaction in the form of insignificant nodules. Should any adverse effects or any reactions not mentioned in the leaflet occur (including reactions in humans due to contact with the preparation), please contact your veterinarian or inform the marketing authorisation holder or the Office for Registration of Medicinal Products, Medical Devices and Biocides. The application form can be downloaded from the website: http://www.urpl.gov.pl (Department of Medicinal Veterinary Products).

Dosage and routes of administration
The vaccine is used in pigeons from the age of 3 - 4 weeks. The basic vaccination of young pigeons not immunised against salmonellosis, paramyxovirosis and mycoplasmosis includes two injections, with a four-week interval. The vaccination should be planned in such a way that the second administration of the vaccine does not take place later than three weeks before migration. The vaccination of adult pigeons, which were immunised with the vaccine Mycosalmovir several times, should be conducted annually 2-3 weeks before mating and exhibitions. The dose for one pigeon is 0.2 ml of the oil emulsion, which should be injected subcutaneously in the middle of the neck. Use sterile needles and syringes for vaccinations.

Advice on correct administration
Warm the packages with the vaccine to room temperature after taking them from a refrigerator and mix the contents thoroughly before starting the procedure. During the vaccination procedure, mix the content of the package regularly. Conduct the procedures at an ambient temperature not lower than 0°C. Once opened, the product cannot be stored and used again.

Withdrawal period
Zero days.

Special storage and transport precautions
Keep out of the reach and sight of children.
Store in a refrigerator (2-8°C). Do not freeze! Protect from light. Once opened, use immediately. Do not use after the expiry date which is stated on the label.

Special warnings
For the user:
The product contains mineral oil. Accidental injection may result in pain and swelling, especially in the case of injection into the joint of a finger. Without immediate doctor’s attention, such a situation may end in the amputation of the finger. Therefore, in the case of an accidental injection of even a slight quantity of the product, contact your doctor immediately and show the informational leaflet. If the pain lasts longer than 12 hours after medical attention, consult your doctor once again.

For the medical practitioner:
The product contains mineral oil. Even if a slight amount of the product has been injected accidentally, it may lead to great pain and swelling, and, as a consequence, ischemic necrosis and the necessity of amputation. Professional and QUICK surgical intervention is absolutely necessary. Such an operation may involve an incision and irrigation of the injection site, especially when it is the finger bulb or tendon.

No information is available on the safety and efficacy from the concurrent use of this vaccine with any other. It is therefore recommended that no other vaccines should be administered within 14 days before and after the administration of this product.

After the administration of a double dose, no other undesirable effects occurred than those specified in the section concerning adverse reactions.

Do not mix with any other veterinary medicinal product.

Shelf-life: 18 months. The contents of a package must be used within one day.

Packing: 50 doses, 100 doses

Other information
Exclusively for animals
Prescription-only-medicine (POM)
For use under the supervision of a veterinary surgeon
Oticlar® Preparation for ear-care in dogs and cats.

**Composition of active substance**
- Xylene 5 g
- Glycerin 2 g
- Menthol 1 g
- Thymol 2 g
- Propylene glycol to 100 ml

**Properties and mode of action**
Xylene, through its ceruminolytic action, assures the excellent solubility of earwax. Glycerin and propylene glycol, because of their softening and soothing properties, facilitate the penetration of active substances and assure excellent tolerance of solution. Glycerin has strong dissolving properties. Menthol and thymol combine antiseptic and deodorant properties. Menthol is also a mild anaesthetic. The combination of these properties makes OTICLAR an excellent preparation in ear care for dogs and cats.

**Indications**
OTICLAR can be used for ear care in dogs and cats once or twice a week. In ear diseases it is usually administered for the initial cleaning of the auditory canal, prior to the use of a proper therapeutic drug, since too large an amount of ear wax can decrease the efficacy of essential treatments.

**Administration**
External use for ears. Place a few ml of the solution into the auditory canal and clean. Repeat the operation until the ear is cleaned. If there is an abundant production of wax, the administration can be repeated once a day for two or three following days without the risk of complication. In dogs (especially the floppy-eared breeds) suffering from chronic otitis externa, daily administration of the drug speeds recovery.

**Contraindications**
Do not use in otitis interna.

**Warning!**
In cases of otitis externa, after initially cleaning the ear with the preparation, it is necessary to continue for thorough treatment.

**Storage conditions**
Store at temperature 25°C.

**Shelf-life**
2 years.

**Packing**
Phials of 50 ml.
Aqueous solution of synthetic oxytocin for injection

Composition of active ingredients
Oxitocin - 10 IU/ml

Indications
- Stimulation of contractions of the uterine muscles for the purpose of labour identification.
- Supporting the process of uterine involution after the delivery.
- Increase of the contractility of the uterine muscles after the delivery to prevent the occurrence of bleeding and retention of placenta.
- Induction of milk let down in case of post-delivery agalactiae.

Contraindications
The absolute contraindications for the use of oxitocin in injections is labour with a closed cervix, lack of full opening of the cervix, improper positioning of the foetus (foetuses) and presence of tetanic contractions of the pregnant uterus.

Do not use oxitocin in animals with hypoglycaemia and hypokalaemia. Prior the administration of oxitocin the above-mentioned metabolic disorders must be controlled.

Adverse effects
The effect of high doses of oxitocin depends on the functional status of the uterus and foetal position. Excessive uterine contractions or tetanic contraction of the uterine muscle, caused by oxitocin, can over-intensify the labour and lead to uterine interruption, foetal damage and death of unborn foetuses. The prolonged administration of oxitocin in a large volume of infusion fluid lean of electrolytes may cause over-hydration in the female. The early symptoms of over-hydration are sadness and depression in female. Later, coma, convulsions and death of the female can occur: Over-hydration induced by the administration of oxitocin requires the administration of diuretic agents. Disregarding the suggested time intervals between subsequent doses of oxitocin (at least 30 minutes) may lead to extensive uterine contractions. There is also the risk of the development of allergic reaction in females of all species of home mammals if the natural oxitocin (instead of synthetic oxitocin) is administered. Should any adverse effects or any reactions not mentioned in the leaflet occur (including reactions in humans due to contact with the preparation), please contact your veterinarian or inform the marketing authorisation holder or the Office for Registration of Medicinal Products, Medical Devices and Biocides. The application form can be downloaded from the website: http://www.urpl.gov.pl (Department of Medicinal Veterinary Products).

Dosage and routes of administration
Oxitocin is administered intramuscularly, subcutaneously or intravenously.
A single intramuscular or subcutaneous injection is:
- for cattle and horses: 3-5 ml (equal to 30-50 IU),
- for swine, sheep: 2-3 ml (equal to 20-30 IU),
- for dogs: 0.5-1.5 ml (equal to 5-15 IU),
- for cats: 0.3-0.5 ml (equal to 3-5 IU).

The intravenous doses should be lower by 50%.
When administered intravenously, the product must be warmed to the body temperature of the animal and injected slowly. If necessary, the preparation may be reinjected, but not earlier than after 30 minutes.

Advice on correct administration
When administered intravenously, the product must be warmed to the body temperature of the animal and injected slowly.

Withdrawal period
Cattle, horses, swine, sheep – 0 days. Dogs, cat – not applicable.

Special storage and transport precautions
Store at 2-8˚C. Do not freeze. Protect from light.

Special warnings
The inadvertent injection does not pose any dangers to the person administering the drug (except pregnant women). If you are a pregnant woman and if an accidental self-injection was made, seek for medical help and show the leaflet or the packaging to the physician.

Oxytocin is used for the purpose of intensification of uterine contractions during labour and during the lactation period to empty the udder of milk of inflammatory secretion.

Due to the risk of abortion, the use in the last phase of pregnancy is contraindicated.

Because of the interaction between insulin and glucagon, the glucose level grows. A long lasting uterine contraction with foetal hypoxia, uterine interruption and tachycardia can occur.
The effect of oxitocin is silenced by beta-adrenomimetics (e.g. clenbuterol, bethameten) and progesterone.

The injections of oxitocin show the pharmacological incompatibility with the following drugs: warfarin sodium, fibrinolysine, epinephrine bitartrate and prochlorperazine edisylate.

Shelf-life 2 years.
Packing Bottles of 50, 100 ml.
Other information
Exclusively for animals
Prescription-only-medicine (POM)
For use under the supervision of a veterinary surgeon
Composition of active substance
Oxytetracycline hydrochloride 0.05 g
Vehicle to 1.0 ml

Pharmacological properties
Oxytetracycline-hydrochloride is antibiotic which belongs to the tetracyclines group with broad-spectrum bacteriostatic activities. The action of this drug involves the inhibition of protein synthesis by blocking ribosomes in the bacterial cell. Oxytetracycline is a well lipid-soluble compound, and therefore easily penetrates biological membranes reaching therapeutic concentration inside cells and body fluids. This antibiotic poor penetrates of an intact blood-brain barrier. The plasma half-life after intravenous administration is 13 hours for horses (a dose of 10 mg/kg body weight - BW), 4 hours for pigs (a dose of 20 mg/kg BW). Oxytetracycline is excreted primarily in the urine in an active form; a limited number is excreted with the bile into the intestine, then in-portal circulation occurs. Tetracyclines enter the placenta and reach a high concentration in milk. The spectrum of activity of the tetracyclines includes a wide range of both aerobic and anaerobic Gram-positive, Gram-negative bacteria, Mycoplasma, Rickettsia, Chlamydia and some protozoa.

Indications
Primary and secondary infection caused by microorganisms sensitive to oxytetracycline. Horses bronchitis, bronchopneumonia, upper respiratory tract infections, and glanders. Cattle, sheep enzootic bronchopneumonia of calves, chlamydiosis, heartwater, anaplasmosis, actinomycosis, actinobacillosis, nocardiosis. Pigs intramuscular and intravenous injections during listeriosis, at the first phase of enzootic pneumonia, erysipelas.

Dosage
Horses 1ml/10 kg BW (5 mg/kg BW) intravenously every 12 ÷ 24 hrs. to 5 days.
Cattle, sheep, pigs 1 ÷ 2 ml/10 kg BW (5 ÷ 10 mg/kg BW) intravenously or intramuscularly every 24 hrs. for 3 ÷ 5 days.

Preparation for slow intravenous administration. Where an acute infectious state occurs, half volumes assigned for the animal should be administered intravenously, the second one intramuscularly.

Contraindications
Hypersensitivity to the active preparation ingredient, renal and hepatic failure. Do not administer to gravid animals.

Undesirable effects
Severe diarrhoea can occur in horses receiving tetracyclines especially if they are severely stressed; a rapid, intravenous injection can produce sudden collapse. For animals with hypersensitivity, allergic reaction or anaphylactic shock sometimes may occur. Through overdose of the preparation, hepatocellular damage or renal lesions are possible. Swelling, yellow discoloration at the intramuscular injection site and surrounding tissues may occur. Superinfection by non-sensitive strains, mycotic superinfection, blastomycosis.

Interaction
Do not combine tetracyclines with bactericidal antibiotics, for example penicillins or with hepatotoxic and nephrotoxic drugs, because of the possibility of the intensification of harmful activity.

Withdrawal period
Edible tissues cattle, sheep, pigs - 21 days. Do not use for cows and sheep during lactation or horses for slaughter.

Storage conditions
Store at a temperature below 25°C in the site protected against light.

Shelf-life
3 years. The shelf life after the first opening of the primary packaging is 28 days.

Packing
Phials of orange glass contain 50 and 100 ml solution.

Other information
Exclusively for animals Prescription-only-medicine (POM) For use under the supervision of a veterinary surgeon Produced by Biowet Pulawy Ltd. for Biofaktor Ltd.
PM-VAC  Emulsion for injections in pigeons

Vaccine against paramyxoviral pigeon disease

Composition of active ingredients

Each dose of the vaccine (0.2 ml) contains:
- inactivated PMV-1 (LaSota strain), no less than 1 Elisa unit
- White paraffin oil – 109 mg

1 Elisa unit – the quantity of antigen to obtain seroconversion equal or higher than 1.8 in a vaccinated pigeon

Adjuvant:

The vaccine is indicated for active immunisation of pigeons to prevent mortality, clinical symptoms and/or pathological changes caused by paramyxovirus.

Contraindications

Vaccinations should not be performed on pigeons during the moulting period and in wormed pigeons.

Do not use in pigeons treated with immunosuppressants.

Adverse effects

Rarely reported adverse reactions include a transitional lack of appetite and apathy, occurring within several hours from administration, as well as a transitional local reaction in the form of insignificant nodules.

Hypersensitivity reactions may occur. In such cases appropriate treatment should be administered in the form of adrenaline and antihistaminic drugs.

Should any adverse effects or any reactions not mentioned in the leaflet occur (including reactions in humans due to contact with the preparation), please contact your veterinarian or inform the marketing authorisation holder or the Office for Registration of Medicinal Products, Medical Devices and Biocides. The application form can be downloaded from the website: http://www.urpl.gov.pl (Department of Medicinal Veterinary Products).

Dosage and routes of administration

The vaccine should be administered in the form of a single subcutaneous injection.

A single dose is 0.2 ml of oil emulsion.

The vaccine is used in young pigeons older than 3 weeks, but should not be administered later than 2 weeks before migration of the young and exhibitions.

Older pigeons should be immunised once a year. The best period for vaccination is 2-3 weeks before mating.

Conduct the procedures at an ambient temperature not lower than 0°C.

Annual revaccination is recommended.

Withdrawal period

Zero days.

Special storage and transport precautions

Keep out of the reach and sight of children.

Store in a refrigerator (2-8°C). Do not freeze! Protect from light.

Once opened, use immediately.

Do not use after the expiry date which is stated on the label.

Special warnings

For the user:

The product contains mineral oil. Accidental injection may result in pain and swelling, especially in the case of injection into the joint of a finger. Without immediate doctor’s attention, such a situation may end in the amputation of the finger. Therefore, in the case of an accidental injection of even a slight quantity of the product, contact your doctor immediately and show the informational leaflet. If the pain lasts longer than 12 hours after medical attention, consult your doctor once again.

For the medical practitioner:

The product contains mineral oil. Even if a slight amount of the product has been injected accidentally, it may lead to great pain and swelling, and, as a consequence, to ischemic necrosis and the necessity of amputation. Professional and QUICK surgical intervention is absolutely necessary. Such an operation may involve an incision and irrigation of the injection site, especially when it is the finger bulb or tendon.

Interaction with other products has not been reported. No other vaccines are recommended 7 days before and after vaccination.

After the administration of a double dose, no other undesirable effects occurred than those specified in the section concerning adverse reactions. Do not mix with any other veterinary medicinal product.

Shelf-life

18 months.

Packing

Bottles of glass containing 100 doses of the vaccine, packaged in cardboard boxes one per box.

Other information

Exclusively for animals

Prescription-only-medicine (POM)

For use under the supervision of a veterinary surgeon
Polisulfalent® Solution for injections for horses, cattle, pigs, sheep and dogs, for use in bacterial infections.

**Composition of active substance**

- Sulphamethoxine sodium - 77 mg/ml
- Sulphadimidine sodium - 30 mg/ml
- Sulfatiazole sodium pentahydrate - 18 mg/ml

**Indications**

**Horses:**
- Infections of the urogenital tract and soft tissues caused by microbes sensitive to Polisulfalent, primary and secondary bacterial infections of the respiratory tract, bacterial infections of the gastrointestinal tract, excluding cases with symptoms of diarrhoea, vomiting and dehydration, bacterial infections of the reproductive tract.

**Cattle:**
- Udder inflammations caused by Staphylococcus-based infections, enzootic pneumonia of calves, diphtheroid caused by sensitive *Pseudobacterium necrophorum* strains, colibacteriosis in calves, primary and secondary microbial diseases of the respiratory tract, bacterial infections of the reproductive tract.

**Pigs:**
- E. coli-based diseases of the gastrointestinal tract, primary and secondary bacterial infections of the respiratory tract, bacterial infections of the reproductive tract.

**Dogs:**
- Infections of the urogenital tract and soft tissues caused by microbes sensitive to Polisulfalent, intestinal inflammations caused by Salmonella-based infections, primary and secondary microbial diseases of the respiratory tract, bacterial infections of the reproductive tract.

**Contraindications**

- Do not use in case of animal hypersensitivity to active ingredients or any excipient.
- Do not use the product in animals with renal and hepatic failure, haematopoietic system disorders, in dehydrated animals or in case of limited water uptake by animals.
- Do not use in pregnant females and very young animals.

**Undesirable effects**

- Administration of the product may cause urination problems, cloudy urine, haematuria and in animals hypersensitive to sulphonamides, haematuria and apathy. The product administered intramuscularly or subcutaneously may cause topical oedema reactions.
- Side effects of sulphonamide use may include hypersensitivity reactions or direct toxic effect. Hypersensitivity reactions may be manifested in urticaria, anaphylaxis, fever, arthritis, haemolytic anaemia, agranulocytosis, as well as skin lesions. Sometimes haematuria and renal tabule obstruction may occur. In general, highly soluble long-acting sulphonamides do not cause crystalluria.
- Instant intravenous infusion evokes toxic effect manifested in clinical symptoms, such as muscle weakness, ataxia, blindness and collapse. Gastrointestinal disorders may appear at times, resulting from bacteriostatic effect of sulphonamides on microflora of the gastrointestinal tract. In particular, this refers to ruminants in which as a result of bacteriostasis of the microflora of proventriculus, disturbed synthesis of vitamin B may also be observed.
- Long-term administration of sulphonamides may also lead to bone marrow damage, and consequently, to aplastic anemia, granulocytopenia and thrombocytopenia. Long-term therapy with large drug doses may lead to the development of hepatitis, icterus, nerve inflammation, spinal cord and peripheral nerve degeneration, stomatitis and keratitis. In dogs, thymus hyperplasia or hypothyroidism may occur as a result of drug administration.
- At times, sulphonamides may have a photosensibilizing effect.
- In case of emergence of any adverse effects after administration of this product or upon observation of any alarming symptoms not listed in the product leaflet (including symptoms in humans as a result contacting the product), seek advice of a competent veterinarian, marketing authorization holder or the Office for Registration of Medicinal Products, Medical Devices and Biocidal Products. Report form should be downloaded from the website: http://www.urpl.gov.pl (Department of Veterinary Medicinal Products).

**Application and dosage**

- Polisulfalent may be administered intravenously, intramuscularly, intraperitoneally or, should a need arise, also subcutaneously. Initial dose for all animal species is: 0.4-1.0 ml of Polisulfalent/kg b.w., i.e. 45-112 mg of sulphonamides/kg b.w. It is best to administer the initial dose intravenously, which allows to obtain high drug concentration levels in the blood. Length of effective Polisulfalent therapy confirmed using an antibiogram is 5-7 days. In the following days, 2/3 – 1/2 of the initial dose is administered.

**Indications for proper administration**

- Administration of an insufficient dose or too short therapy lead to development of microbial resistance to sulphonamides. For that reason, purposefulness of sulphonamide use must be confirmed by antibiogram results. During treatment, animals should be given profuse amounts of water or provided with unlimited access to water, in order to prevent crystalluria development. Polisulfalent administered intramuscularly or subcutaneously should be injected in a number of different sites, and in case of intravenous administration, the product should be warmed up to body temperature. Intravenous injection should be made slowly.
Polisulfalent® Solution for injections for horses, cattle, pigs, sheep and dogs, for use in bacterial infections.

Withdrawal period
- Cattle, sheep: Edible tissues – 10 days
- Milk – 5 days
- Pigs: Edible tissues – 10 days
Do not use in horses whose tissues are intended for human consumption.

Special precautions to be taken for storage and transport
- Keep out of reach and sight of children.
- Store +2 to +8°C. Protect from light. Do not freeze.
- Do not use after the expiration date.
- The shelf life after the first opening of the primary packaging is 28 days.

Shelf-life
3 years.

Packing
- Bottles of 250ml

Other information
- Exclusively for animals
- Prescription-only- medicine (POM)

Sulphonamides are less effective in purulent secretion and necrotic tissues. During treatment, animals should be carefully observed for symptoms related to problems with urination, cloudy urine or haematuria. In animals hypersensitive to sulphonamides, haematuria or apathy may be observed. In such a case, drug administration should be stopped. Dogs are particularly sensitive to sulphonamides, especially large dog breeds in which after drug administration, hypersensitivity reactions may occur. In case of accidental self-injection, immediately seek doctor’s advice and present him/her with the information leaflet or packaging. Do not use the product during pregnancy. The product may be used during lactation. Do not use the product with Hexamethylenetetramine and topical anaesthetics belonging to esters of para-aminobenzoic acid.

Do not use together with acetylsalicylic acid. Sulphonamides may displace drugs strongly bound to proteins, such as methotrexate, warfarin, phenylbutazone, thiazide diuretics, esters of salicylic acid, probenecid. For this reason, concentrations of these agents should be controlled. Parallel use of bone marrow suppression drugs increases severity of leucopenia and thrombocytopenia. Simultaneous use with hepatotoxic drugs intensifies their ill effects on the liver. Due to the fact that bacteriostatic effect of sulphonamides may interfere with bactericidal action of penicillin, it is not recommended to use them simultaneously. Overdose leads to emergence of symptoms related to the nervous system, e.g. motor ataxia, considerable dejection and in case of acute poisoning – coma. Overdose may lead to circulatory failure. In cattle, acute poisoning may evoke shock symptoms, characterized by tremor, myatonia and vision disorders.

Long-term administration of sulphonamides may also lead to bone marrow damage, and consequently, to aplastic anemia, granulocytopenia and thrombocytopenia. Long-term therapy with large drug doses may lead to development of hepatitis, icterus, nerve inflammation, spinal cord and peripheral nerve degeneration, stomatitis and keratitis.

In dogs, thymus hyperplasia or hypothyroidism may occur as a result of long-term drug administration. In case of overdose, symptomatic treatment should be applied. As no conformity studies of this medicinal veterinary product have been conducted, it is forbidden to combine it with other medicinal products.

The drugs must not be removed into the sewage system or thrown away with litter. Ask a veterinary doctor about the methods of disposal of useless drugs. It is crucial for environmental protection.
Qualitative and quantitative composition of active ingredients

- Sulphadimidine sodium - 50mg/ml
- Sulphacetamide sodium - 40 mg/ml
- Sulfatiazole sodium - 30 mg/ml

Properties

Microbes sensitive to sulphonamides contained in Polisulfamid:
- Gram-positive bacteria: sensitive Staphylococcus and Streptococcus strains, Bacillus anthracis, Clostridium tetani, Clostridium perfringens, Nocardia spp.

Dogs:
- Primary and secondary respiratory tract infections, including laryngitis, bronchitis and pneumonia caused by microbes sensitive to Polisulfamid. Infections of soft tissues. Bowel inflammation evoked by Salmonella-based infections.

Pigs:
- Bacterial infections of the respiratory tract, including atrophic rhinitis of swine. E. coli-based gastrointestinal tract infections. Urogenital system infections: urinary bladder and urinary tract inflammations, MMA syndrome, postpartum infections.

Horses:
- Respiratory system infections caused by Streptococcus equi. Gastrointestinal tract infections, urogenital system and soft tissue infections caused by microbes sensitive to Polisulfamid.

Cattle (calves):
- Bacterial inflammations of the respiratory system, bovine respiratory disease, enzootic pneumonia of calves. Colibacteriosis of calves, diphtheroid caused by sensitive Fusobacterium necrophorum strains, mastitis evoked by Staphylococcus-based infections.

Sheep:
- Bacterial inflammations of the respiratory system and bowels.

Contraindications

- Do not use in case of animal hypersensitivity to active ingredients or any excipient.
- Do not use the product in animals with renal and hepatic failure, haematopoietic system disorders, in dehydrated animals or in case of limited water uptake by animals.
- Do not use in pregnant females and very young animals.

Undesirable effects

- Administration of the product may cause urination problems, cloudy urine, haematuria and in animals hypersensitive to sulphonamides, haematuria and apathy. The product administered intramuscularly or subcutaneously may cause topical oedema reactions.
- Side effects of sulphonamide use may include hypersensitivity reactions or direct toxic effect. Hypersensitivity reactions may be manifested in urticaria, anaphylaxis, fever, arthritis, haemolytic anemia, agranulocytosis, as well as skin lesions. Sometimes hematuria and renal tubule obstruction may occur. Instant intravenous infusion evokes toxic effect manifested in clinical symptoms, such as muscle weakness, ataxia, blindness and collapse. Gastrointestinal disorders may appear at times, resulting from bacteriostatic effect of sulphonamides on microflora of the gastrointestinal tract. In particular, this refers to ruminants in which as a result of bacteriostasis of the microflora of proventriculus, disturbed synthesis of vitamin B may also be observed.
- Long-term administration of sulphonamides may also lead to bone marrow damage, and consequently, to aplastic anemia, granulocytopenia and thrombocytopenia. Long-term therapy with large drug doses may lead to the development of hepatitis, icterus, nerve inflammation, spinal cord and peripheral nerve degeneration, stomatitis and keratitis. In dogs, thymus hyperplasia or hypothyroïdism may occurs a result of drug administration.
- At times, sulphonamides may have a photosensibilizing effect.
- In case of emergence of any adverse effects after administration of this product or upon observation of any alarming symptoms not listed in the product leaflet (including symptoms in humans as a result contacting the product), seek advice of a competent veterinarian, marketing authorization holder or the Office for Registration of Medicinal Products, Medical Devices and Biocidal Products. Report form should be downloaded from the website: http://www.urpl.gov.pl (Department of Veterinary Medicinal Products).

Application and dosage

Polisulfalent may be administered intravenously, intramuscularly, intraperitoneally or, should a need arise, also subcutaneously. Initial dose for all animal species is: 0.4-1.0 ml of Polisulfulent/kg b.w., i.e. 48-120 mg of sulphonamides/kg b.w. It is best to administer the initial dose intravenously, which allows to obtain high drug concentration levels in the blood. Length of effective Polisulfulent therapy confirmed using an antibiogram is 5-7 days. In the following days, 2/3 – 1/2 of the initial dose is administered.

Indications for proper administration

Administration of an insufficient dose or too short therapy lead to development of microbial resistance to sulphonamides. For that reason, purposefulness of
Polisulfamid® Injectable solution for horses, cattle, swine, sheep and dogs.

Sulphonamide use must be confirmed by antibiogram results. During treatment, animals should be given profuse amounts of water or provided with unlimited access to water, in order to prevent crystalluria development.

Polisulfalent administered intramuscularly or subcutaneously should be injected in a number of different sites, and in case of intravenous administration, the product should be warmed up to body temperature. Intravenous injection should be made slowly.

Withdrawal period
- Cattle, sheep:
  - Edible tissues: 10 days
  - Milk: 5 days
- Pigs:
  - Edible tissues: 10 days

Do not use in horses whose tissues are intended for human consumption.

Special precautions to be taken for storage and transport
- Keep out of reach and sight of children.
- Store +2 to +8°C. Protect from light. Do not freeze.
- Do not use after the expiration date.
- The shelf life after the first opening of the primary packaging is 28 days.

Special warnings and precautions
Sulphonamides are less effective in purulent secretion and necrotic tissues. During treatment, animals should be carefully observed for symptoms related to problems with urination, cloudy urine or haematuria. In animals hypersensitive to sulphonamides, haematuria or apathy may be observed. In such a case, drug administration should be stopped. Dogs are particularly sensitive to sulphonamides, especially large dog breeds in which after drug administration, hypersensitivity reactions may occur. In case of accidental self-injection, immediately seek doctor’s advice and present him/her with the information leaflet or packaging. Do not use the product during pregnancy. The product may be used during lactation. Do not use the product with Hexamethylenetetramine and topical anaesthetics belonging to esters of para-aminobenzoic acid.

Do not use together with acetylsalicylic acid. Sulphonamides may displace drugs strongly bound to proteins, such as methotrexate, warfarin, phenylbutazone, thiazide diuretics, esters of salicylic acid, probenecid. For this reason, concentrations of these agents should be controlled. Parallel use of bone marrow suppression drugs increases severity of leucopenia and thrombocytopenia. Simultaneous use with hepatoxic drugs intensifies their ill effects on the liver. Due to the fact that bacteriostatic effect of sulphonamides may interfere with bactericidal action of penicillin, it is not recommended to use them simultaneously. Overdose leads to emergence of symptoms related to the nervous system, e.g. motor ataxia, considerable dejection and in case of acute poisoning – coma. Overdose may lead to circulatory failure. In cattle, acute poisoning may evoke shock symptoms, characterized by tremor, myatonia and vision disorders.

Long-term administration of sulphonamides may also lead to bone marrow damage, and consequently, to aplastic anemia, granulocytopenia and thrombocytopenia. Long-term therapy with large drug doses may lead to development of hepatitis, icterus, nerve inflammation, spinal cord and peripheral nerve degeneration, stomatitis and keratitis.

In dogs, thymus hyperplasia or hypothyrodoism may occur as a result of long-term drug administration. In case of overdose, symptomatic treatment should be applied. As no conformity studies of this medicinal veterinary product have been conducted, it is forbidden to combine it with other medicinal products.

Special precautions concerning neutralising the not used medicinal veterinary product or wastes originating from this product
- The drugs must not be removed into the sewage system or thrown away with litter. Ask a veterinary doctor about the methods of disposal of useless drugs. It is crucial for environmental protection.

Shelf-life
- 3 years.

Packing
- Bottles of 250ml

Other information
- Exclusively for animals
- Prescription-only- medicine (POM)
**Rehydrat®**

Dietetic compound feed

### Preparation containing electrolytes, for calves, piglets, lambs, goatlings and foals

**Ingredients**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Per 100 g of Rehydrat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glucose</td>
<td>74.31 g/100g (source of carbohydrates)</td>
</tr>
<tr>
<td>Sodium chloride</td>
<td>11.87 g/100g</td>
</tr>
<tr>
<td>Sodium bicarbonate</td>
<td>8.48 g/100g</td>
</tr>
<tr>
<td>Potassium chloride</td>
<td>5.09 g/100g (26 700mg of potassium [K] / kg)</td>
</tr>
<tr>
<td>Total chloride content</td>
<td>9.62 g/100g (96 200mg/kg)</td>
</tr>
<tr>
<td>Zinc sulphate heptahydrate (trace element 3b E6 Zinc)</td>
<td>0.25 g/100g (570mg of zinc [Zn] / kg)</td>
</tr>
</tbody>
</table>

**Analytical composition:**

**Per 100 g of Rehydrat**

Sodium 7.0 g

**Indications**

In case of threat of, during or after past digestive disorders (diarrhoea).

**Administration**

Dissolve content of a 280g sachet of compound feed in 10l of water. Apply 0.5 – 1 litre of prepared solution per 10kg of body weight per 24 hours. The dose is recommended to be administered in 2-5 portions over 24 hours. Apply the product for 1-7 days, or 1-3 days if this is the only animal feeding method.

**It is recommended to seek veterinarian's advice before product use.**

**Storage**

Store in a dry and dark place at the temperature 25°C in the original, tightly closed packaging.

**Packaging**

280g

**Shelf life**

1 year.

**For animal use only.**

www.biowet.pl
Salmovir Emulsion for injection for pigeons.

**Inactivated vaccine against salmonellosis and paramyxovirosis in pigeons**

**Qualitative and quantitative composition of active substances**
1 dose of the vaccine (0.2 ml) contains:
- inactivated PMV-1 (La Sota strain) no less than 1 ELISA unit
- inactivated *Salmonella* cells (serotypes: *S. typhi*, *S. paratyphi A*, *S. paratyphi C*, *S. typhimurium var. Copenhagen*, *S. anatum*, *S. senftenberg*) no less than 1 ELISA unit for each serotype
- 1 ELISA unit – the amount of antigen sufficient to achieve seroconversion equal to or higher than 1.8 in the vaccinated pigeon

**Adjuvant:** Montanide ISA 763 A VG 0.14 ml

**Therapeutic indications**
Active immunisation of pigeons in order to reduce the death rate and clinical symptoms of salmonellosis and paramyxovirosis in pigeons. Post-vaccination immunity occurs after approx. 21 days after re-vaccination and remains for approx. 12 months.

**Contraindications**
Do not use in weak, infested and sick birds. Do not use in shedding in pigeons.

**Adverse effects**
Rarely reported adverse effects are temporary lack of appetite and apathy, a local reaction in the form of a small tuber occurring within several hours after administration of the preparation. A proper veterinary surgeon, the Marketing Authorisation Holder or the Office for Registration of Medicinal Products, Medical Devices and Biocidal Products should be notified of any occurrence of adverse effects after administration of the product or observation of any alarming symptoms not listed in the leaflet (including symptoms in people as a result of contact with the drug). The notice form has to be downloaded from the website [http://www.urpl.gov.pl](http://www.urpl.gov.pl) (The Department of Veterinary Medicinal Products).

**Posology and route of administration**
The vaccine is used in pigeons aged from 3-4 weeks. The basic vaccination of young pigeons and pigeons non-immunised against salmonellosis and paramyxovirosis includes two injections at a four-week interval. Vaccination should be planned in such a way that the second administration of the vaccine is not later than three weeks before flights. Vaccination of adult pigeons multiply immunised with the vaccine Salmovir should be performed once annually 2-3 weeks before mating or exhibitions. The dose for one pigeon is 0.2 ml of oil emulsion which should be injected subcutaneously in the middle of the neck. Use sterile needles and syringes for vaccinations.

**Recommendations for proper administration**
Warm the packages with the vaccine after they are taken out of the refrigerator at room temperature and mix thoroughly before vaccination.
During the vaccination, mix the contents of the package regularly. Perform vaccinations at an ambient temperature of no less than 0°C. A package once opened cannot be stored or re-used.

**Withdrawal period**
Zero days.

**Special precautions for storage and transport**
Keep out of the sight and reach of children. Store in a refrigerator (2-8°C). Do not freeze. Protect from light. Use the contents of the opened direct package immediately. Do not use after the expiry date given on the label.

**Special warnings and precautions**
For the user:
The product contains mineral oil. An accidental injection may cause significant pain and oedema, especially if injected into a joint or a finger. In rare case, it may lead to the loss of the finger if immediate medical aid is not obtained. In the case of an accidental injection of the present product, you should immediately seek medical help even if a small amount of the product has been injected and always take information leaflet with you. If the pain persists longer than for 12 hours after medical help has been sought, consult a physician once again. For the physician:
The present product contains mineral oil. Even if a very small amount of the product has been injected, it may cause significant pain or oedema and, in consequence, ischemic infarction and even the loss of the finger. Professional and IMMEDIATE surgical help is necessary as it may include early incision and irrigation of the injection site, especially if it concerns the digital pulp or the tendon.
There is no available information concerning safety and efficiency of simultaneous use of this vaccine in combination with other vaccines. Therefore, the use of other vaccines is not recommended within 14 days before and after the vaccination using this product.
On administration of a double dose, no occurrence of other side effects than the ones given in the point concerning adverse effects was observed.
Do not combine with other medicinal products.
Unused veterinary medicinal product or its waste should be neutralised in accordance with appropriate regulations.

**Packing:** 20 doses, 50 doses, 100 doses.

**Shelf-life:** 18 months

**Other information**
Exclusively for animals
Prescription-only-medicine (POM)
For use under the supervision of a veterinary surgeon
Sedazin® Sedative, analgesic and muscle relaxant 2% solution of xylazine for cattle, horses, dogs and cats

**Qualitative and quantitative composition of active ingredient**
Xylazine (in hydrochloride form)  20 mg/ml

**Indications**
Sedazin is intended for use in cattle, horses, dogs and cats to sedate, relieve pain sensation, muscle relaxation and as an agent for premedication. Xylazine administration facilitates examination of excitable animals, drug administration and it enables performance of short-term surgical procedures.

**Contraindications**
Do not use in case of ventricular arrhythmia, hypotension and shock.
Do not use in respiratory tract diseases.
Do not use during advanced pregnancy (threat of miscarriage), except for the delivery.
Do not use in case of diabetes (xylazine lowers insulin level).
Do not use in case of obstruction of gastrointestinal tract in dogs and cats.

**Undesirable effects**
Breath attenuation accompanied by acidosis, brachycardia, hypotension, frequent urination. Ataxia in large animals, profuse perspiration in horses. In ruminants, masseter muscle atonia and oedema, salivation and diarrhoea may occur.

In cats, less frequently in dogs, vomiting occurs within 3-5 minutes after administration. In cats and dogs, diarrhoea sometimes occurs.

In case of emergence of any adverse effects after administration of this product or upon observation of any alarming symptoms not listed in the product leaflet (including symptoms in humans as a result contacting the product), seek advice of a competent veterinarian, marketing authorization holder or the Office for Registration of Medicinal Products, Medical Devices and Biocidal Products. Report form should be downloaded from the website: http://www.urpl.gov.pl (Department of Veterinary Medicinal Products).

**Posology and method of administration**
Routes of administration: intramuscularly, intravenously and subcutaneously.

| Cattle | intramuscularly 0.25–1.5 ml/100 kg b.w. (i.e. 5-30 mg of xylazine/100 kg b.w.)
|        | intravenously 0.08 – 0.5 ml/100 kg b.w. (i.e. 1.6-10 mg of xylazine/100 kg b.w.)
| Horses | intramuscularly 7.5–15 ml/100 kg b.w. (i.e. 150-300 mg of xylazine/100 kg b.w.)
|        | intravenously 3-5 ml/100 kg b.w. (i.e. 60-100 mg of xylazine/100 kg b.w.)
| Dogs   | intramuscularly, subcutaneously, or intravenously 0.15 ml/kg b.w. (i.e. 3 mg of xylazine / kg b.w.)
| Cats   | intramuscularly or subcutaneously 0.15 ml/kg b.w. (i.e. 3 mg / kg b.w.)

During intravenous administration, the product should be warmed up to body temperature and injected slowly.

In order to establish proper dosage regimen, animal body weight should be determined to a possibly most precise extent.

Due to disturbed cardiac performance, the product should be administered with atropine.

Xylazine starts to act within 5-10 minutes after intramuscular administration, and within 3-5 minutes after intravenous administration. Analgesic effect is maintained for 10-15 minutes, and sedating effect for 0.5-4 hours, depending on animal species. After intravenous administration, effects are maintained for a longer period of time.

**Contraindications for proper administration**
Not applicable

**Withdrawal period**
Cattle and horses: edible tissues – 0 days, milk – 0 days.
Dogs and cats – not applicable.

**Special precautions to be taken for storage and transport**
Keep out of reach and sight of children.
Store +2 to +8°C. Protect from light. Do not freeze.
Do not use after the expiration date.

The shelf life after the first opening of the primary packaging is 28 days.

**Special warnings and precautions**

**Special precautions related to animal use**

**Horses:**
- xylazine disturbs peristaltic bowel movement, therefore it should be used in horses solely in colic conditions not responsive to analgesic drugs; its use should be avoided in horses with debilitated motor activity of the caecum.
- use cautiously in horses susceptible to laminitis,
- animals with respiratory tract dysfunctions or respiratory tract diseases, may develop life-threatening dyspnoea,
- possibly smallest recommended doses should be applied.
Cats and dogs:
- xylazine blocks proper motor bowel activity, which facilitates accumulation of gas in animal gastrointestinal tract, therefore it is not recommended to use xylazine before X-ray of the stomach and initial sections of bowels, as accumulated gas disables proper interpretation of test results.
- brachycephalic dog breeds with symptoms of respiratory tract dysfunctions or respiratory tract diseases, may develop life-threatening dyspnoea.

Cattle:
- as a result of xylazine action, motor activity of proventriculus is inhibited, which may lead to flatulence; for this reason, it is recommended not to give food or water to animals a few hours before xylazine administration.
- administration of too large doses should be avoided. Dosage regimen should consider individual drug sensitivity of treated animals. Remain highly cautious during administration in convulsive states, acute renal and hepatic failure, and in dehydrated animals.

Instructions for physicians
Xylazine is an alpha-2 agonist of adrenergic receptors; its absorption may evoke clinical symptoms depending on a dose, such as: drug-induced sedation, respiratory centre depression, bradycardia, hypotension, xerostomia and hypoglicemia. Cases of ventricular arrythmia have been reported as well.

Exclusively for animals
Prescription-only medicine (POM)
For exclusive use by a veterinary surgeon.
Package
Cardboard carton contains single vials of 20 ml. Cardboard carton contains single vials of 50 ml.
Streptovac is an inactivated vaccine against swine streptococcal disease.

Composition of the active ingredients
Passive immunization of piglets through active immunization of pregnant sows, and active immunization of piglets, in order to reduce mortality rates, clinical symptoms and/or pathogenic changes caused by *Streptococcus suis*.
Immunity is developed within 2 weeks of vaccination. Degree of immunity is to a large extent determined by proper animal feeding and hygienic conditions.

Contraindications
Do not use in sick animals.

Undesirable effects
Within a few hours of applying the preparation, internal body temperature may rise by 2°C. Temperature gets back to normal when no treatment is provided. Inflammatory reaction may occur at the injection site.
A proper veterinary doctor, the responsible firm or the Office for Registration of Medicinal Products, Medical Derices and Biocides should be notified of any adverse reactions occurring after the administration of the product or after any alarming symptoms not listed in the leaflet (including symptoms in people as a result of contact with the drug) have been observed. The application form can be downloaded from the website: [http://www.urpl.gov.pl](http://www.urpl.gov.pl) (Department of Medicinal Veterinary Products).

Posology and method of administration
The drug is administered in an interval of 2-3 weeks at the dose of 2 ml. The drug is administered to piglets in pre-weaning period and 2-3 weeks later, at the dose 2 ml, intramuscularly at the neck region. Pregnant sows are to be immunised 5 and 2 weeks prior to parturition.

Indications for proper administration
Before the immunisation leave the drug at the room temperature and mix the content of the vial thoroughly just before the injection. Use only sterile needles and syringes for vaccination (half-automatic, self-repeating syringes are especially recommended). During the vaccination mix the content of the packaging periodically. Immunisation should be planned the way the whole product is used within one day.

Withdrawal period
Pigs may not be slaughtered 21 days after immunisation.

Special precautions to be taken for storage and transport
Store at +2°C to +8°C. Protect from light. Do not freeze. Keep out of reach and sight of children. Do not use after the expiration date. After first opening of immediate packaging, the product may be stored for 1 day.

Special warnings and precautions
In case of accidental self-injection, immediately seek doctor’s advice and present him/her with the information leaflet or packaging.
Safety of this veterinary medicinal product used during pregnancy and lactation has not been determined.
No available information concerning safety and efficacy of the vaccine used simultaneously with other veterinary medicinal products. Decisions concerning the use of this vaccine prior to or after administration of another veterinary medicinal product should be taken on a case-by-case basis.
As no conformity studies have been conducted, this veterinary medicinal product should not be combined with other veterinary medicinal products.

Special precautions to be taken for disposing of unused veterinary medicinal product or wastes deriving from this product
Do not dispose of the drug into sanitation system or the dustbin. Ask the veterinary doctor how to ensure a safe disposal of useless drugs. That will help protect better the environment.

Other information
Not all the sizes of packaging may be accessible. For further information about the present medicinal veterinary product please contact the local responsible subject.

Packing
Glass bottles containing 100 ml of the vaccine, in single packages placed inside a cardboard box.

Shelf-life
1 year

Exclusively for animals
Prescription-only medicine (POM)
Suiferrin 100

Iron dextran preparation for injection for swine and cattle

Qualitative and quantitative composition of active substance
Iron (III) in a complex with dextran 100 mg/ml

Therapeutic indications
Prophylactic and therapeutic use in anaemia that is a consequence of iron shortage. Suiferrin 100 supplements iron in the body, stimulates the haematopoietic system to synthesise haemoglobin and increases the amount of erythrocytes.

Contraindications
Hepatic function disorders and renal insufficiency.
Hypersensitivity to iron dextran.
Anaemias not related to iron shortage.

Adverse effects
Iron dextran rarely causes symptoms of anaphylactic shock in weaners and in extreme cases - deaths. The causes may be genetic factors, lack of vitamin E or selenium.
Irritation, oedema and brown decolouration of the neighbouring tissues may occur in the injection site.
In high shortages of vitamin E and/or selenium in the diet of sows, hypersensitivity to iron demonstrated by nausea, vomiting and a sudden death approx. an hour after the administration of products containing iron compounds may occur in piglets.
A proper veterinary surgeon, the Marketing Authorisation Holder or the Office for Registration of Medicinal Products, Medical Devices and Biocidal Products should be notified of any occurrence of adverse effects after administration of the product or observation of any alarming symptoms not listed in the leaflet (including symptoms in people as a result of contact with the drug). The notice form has to be downloaded from the website http://www.urpl.gov.pl (The Department of Veterinary Medicinal Products).

Posology and routes of administration
Use subcutaneously or intramuscularly.

Piglets, weaners: 2 ml/animal.
Calves: 4-8 ml/animal.

Recommendations for proper administration
None.

Withdrawal period
Edible tissues - zero days.

Special precautions for storage and transport
Keep out of the sight and reach of children. Do not store at a temperature exceeding 25°C. Store in the original package in order to protect from light. Do not freeze.
Use the product within 28 days after the first opening of the direct package.
Do not use after the expiry date given on the label.

Special warnings and precautions
Iron dextran may induce an anaphylactic shock in weaners. The causes may be genetic factors, lack of vitamin E or selenium.
If shortage of vitamin E and/or selenium is suspected, compounds containing iron should not be administered.
No contraindications for use in pregnancy and lactation.
The product should not be administered along with oral iron preparations.
In high shortages of vitamin E and/or selenium in the diet of sows, hypersensitivity to iron demonstrated by nausea, vomiting and a sudden death approx. an hour after the administration of products containing iron compounds may occur in piglets.
Chloramphenicol, having a toxic effect on haematopoiesis, may delay the body’s response to administration of iron salts.
Administration of the preparation in combination with tetracyclines and chelate compounds is not recommended because iron salts may form with them poorly soluble complexes inhibiting absorption.
After oral administration, disorders from the alimentary tract, vomiting blood and diarrhoea as well as disorders of the cardiac function leading to a collapse may occur. A hypovolemic shock and renal insufficiency manifested with oliguria or anuria may also occur.
Intravenous administration may lead to acute iron poisoning mainly demonstrated by an anaphylactic shock. Sudden deaths of animals without any preceding symptoms may occur or symptoms from the nervous system may appear: balance disorders, progressive depression leading to a coma.
Symptoms of chronic iron poisoning result from hepatic function disorders caused by accumulation of iron in hepatocytes and Kupffer cells and from a long-lasting effect of free iron ions. Unused veterinary medicinal product or its waste should be neutralised in accordance with appropriate regulations.

Shelf-life
3 years

Packing
Colourless glass bottle containing 100 ml or 250 ml of the medicinal product, packed individually in a cardboard box.

Other information
Exclusively for animals. Prescription-only-medicine (POM)
For use under the supervision of a veterinary surgeon
**Suiferrovit®**

Inactivated pig serum enriched with iron dextran, microelements and vitamins from the B group for injection.

### Composition

<table>
<thead>
<tr>
<th>Component</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iron III in the complex with dextran (particle mass 4000)</td>
<td>7.0000 mg</td>
</tr>
<tr>
<td>Copper chloride II</td>
<td>0.0270 mg</td>
</tr>
<tr>
<td>Cobalt chloride II</td>
<td>0.0026 mg</td>
</tr>
<tr>
<td>Vitamin B1</td>
<td>0.0300 mg</td>
</tr>
<tr>
<td>Vitamin B2</td>
<td>0.0114 mg</td>
</tr>
<tr>
<td>Vitamin B6</td>
<td>0.0028 mg</td>
</tr>
<tr>
<td>Vitamin PP</td>
<td>0.4284 mg</td>
</tr>
<tr>
<td>Calcium pantothenate</td>
<td>0.0160 mg</td>
</tr>
<tr>
<td>Mertiolate</td>
<td>0.1000 mg</td>
</tr>
<tr>
<td>Phenol</td>
<td>3.0000 mg</td>
</tr>
<tr>
<td>Pig serum to</td>
<td>1.00 ml</td>
</tr>
</tbody>
</table>

### Properties

Preparation for anemia treatment in pigs. The serum present in the preparation protects animals against conditions of hypo- and gammaglobulinemia, and increases the passive immunity of the organism.

Iron (Fe III) contained in the preparation, supplements any deficiency of this element, stimulates the haematopoietic system to synthesize haemoglobin and increases the amount of erythrocytes.

Copper and cobalt together with the group B vitamins enhance the blood’s generation processes and act synergically with the iron - dextran complex.

### Indications

Anemia in piglets, disturbances in the development process and metabolism, hypo- and agammaglobulinemia and weaning diseases.

### Contraindications

Not observed.

### Undesirable effects

When given to piglets from underfed sows having a considerable deficiency of vitamin E and selenium, the preparation can cause a self-intoxication reaction related to hypersensitivity to the iron administered parenterally.

### Interactions

Not observed.

### Application and dosage

**In prophylaxis:**
- piglets a few hours after delivery 5 ml subcutaneously with the same dose repeated after 7 ÷ 10 days
- older piglets and pigs 10 ÷ 20 ml subcutaneously or intramuscularly with the same dose repeated after 7 ÷ 10 days

**Do not administer more than 10 ml of the preparation in one spot.**

### Withdrawal period

Edible tissue - 48 hours.

Tissue at the site of injection is not suitable for consumption for 5 days.

### Storage conditions

Store at a temperature of from +4°C to +8°C.

Opened bottles should be used within 24 hours.

### Shelf-life

2 years.

### Warning

Do not freeze.

### Packing

Bottles of 100 ml and 250 ml.

### Other information

Exclusively for animals

Prescription-only-medicine (POM)

For use under the supervision of a veterinary surgeon.
Syntarpen prolongatum

Intramammary suspension for the treatment and prophylaxis of mastitis during dry period.

**Composition of active substance**
- Per 1 tubo-syringe
  - Cloxacillinum benzathinicum 600 mg/10 g

**Properties and action**
Cloxacillin (SYNTARPEN) is an antibiotic from a group of semisynthetic, isoxazolylic penicillins. It has potent antibacterial properties against most Gram-positive and some Gram-negative bacterial strains causing mastitis. Haemolytic, coagulase positive staphylococci resistant to natural penicillins, are especially sensitive to this antibiotic. *Str. agalactiae, Str. uberis, Str. dysgalactiae* and *Corynobacterium pyogenes* are also very sensitive to this drug.

**Indications**
This preparation is applied for the treatment (subclinical forms) and prophylaxis of mastitis during dry period.

**Contraindications**
Syntarpen should not be applied to hypersensitive animals or sensitized to penicillins; the drug should not be also applied against bacteria resistant to cloxacillin.

**Application and dosage**
The preparation should be applied 35 days before parturition, at the very latest. After the last milking before drying a cow, teats and their region should be exactly cleaned and the content of whole tubo-syringe should be introduced into each of the four quarters of the udder. During winter the preparation should be warmed up to body temperature. After finishing the application of the drug each teat should be dipped in disinfecting solution (dipping).

**Interactions**
SYNTARPEN prolongatum 600 preparation should not be applied together with tetracyclines, linocosamides and thiamphene-nicol. Action of the preparation is increased by nonsteroid antiinflammatory drugs (e.g. acetylsalicylic acid, phenylbutazone and the like).

**Undesirable effects**
In some cases, sensitization reaction to penicillins may occur after treatment.

**Withdrawal period**
- Milk and tissues 40 days (milk not less than 5 days after parturition).

**Storage conditions**
- Store at temperature below 25°C.

**Shelf-life**
- 24 months.

**Packaging**
- Cardboard container with 10 tubo-syringes of 10 g.

**Other information**
- Exclusively for animals
- Prescription-only-medicine (POM)
- For use under the supervision of a veterinary surgeon
Ingredients
Sodium intraprusside, ammonium sulfate, anhydrous sodium carbonate.

Properties
Sodium nitroprusside contained in the test reacts with ketone bodies present in milk or urine, producing pink to violet colour (depending on ketone bodies content).

Method of use
Testoket is a ready-to-use, disposable test to be used in field conditions. Insert 3-4 ml of tested liquid (urine, milk) into a test tube with the reagent, seal with a stopper and shake. Evaluate change in colour within 2 minutes.

Urine testing:
- in healthy cows, reagent and urine colours remain unchanged,
- in cows with subclinical ketosis, reagent and urine change their colour into pink,
- in cows with clinical ketosis, reagent and urine change their colour into violet.

Milk testing:
- in healthy cows and in cows with subclinical ketosis, reagent and milk colours remain unchanged,
- appearance of pink to violet colour confirms clinical ketosis.

Content per packaging
10 x 1g

STORAGE CONDITIONS.
Store at a temperature below 25°C. Protect from light.

Shelf-life
18 months

Warnings
Do not freeze.
Keep out of reach and sight of children.

User precautions
Toxic effect after consumption and inhaling. Avoid skin and eye contamination. Do the test wearing protective gloves. In case of skin or eye contact, immediately flush the affected site with profuse amount of water.
In case of accidental consumption, provide large amounts of water to drink, induce vomiting.
Immediately seek doctor’s advice and present the doctor with packaging.
Neutralize the unused test material or any residues thereof, in accordance with binding safety regulations.

For veterinary use
For individual use by animal owners.
Exclusively for animals
Injectable solution for cattle
Solution for injection for cattle, prescribed to break bacterial infections

**Composition of active ingredients**
- Tiamfenikol 250 mg/ml

**Indications**
Primary and secondary infections caused by pathogens sensitive to the antibiotic. Tiamfenikol 25% acts against gram-positive and gram-negative bacteria and is highly effective against anaerobic bacteria. The spectrum of Tiamfenikol 25% involves: Enterococcus fecalis, Pasteurella spp., Brucella spp., Actinomyces spp., Bacillus anthracis, Corynebacterium spp., Erysipelothrix rhusiopatiae, Listeria monocytogenes, Staphylococcus spp., Streptococcus spp., Actinobacillus spp., Bordetella bronchiseptica, Escherichia coli, Klebsiella spp., Proteus spp., Salmonella spp., Haemophilus spp., Moraxella spp. The drug is recommended for treating infections of the respiratory and digestive systems, severe metritis as well as for healing the wounds in cattle.

**Contraindications**
- Individual hypersensitivity to tiamfenikol.

**Undesirable effects**
In some rare cases a long-term therapy at high doses may cause rash and a fall in haemoglobin level and the number of erythrocytes. At the injection site a light transient pain reaction may occur. The prolonged use may induce fungal infections. Should any undesirable effects occur after administering this product or any suspected symptoms not mentioned in the leaflet be observed (including the symptoms occurring in human beings due to the contact with the drug), please inform the suitable veterinary doctor, the responsible subject or the Office for registration of Medicinal Products, Pedical Devices and Biocides Products. Application form is to be found at [http://www.urpl.gov.pl](http://www.urpl.gov.pl) (Departement of Medicinal Veterinary Products).

**Dosage and routes of administration**
The drug is to be injected intramuscularly at the following doses:
- cattle 12.5-25mg of tiamfenikol/kg b.m.
- that is 1-2ml of product / 20kg b.m. every 12 hours
The treating should be stopped 48 hours after the symptoms of the disease disappear.

**Indications for proper use**
None

**Withdrawal period**
- Edible tissues 8 days
- Milk 48 hours

**Special precautions for storage and transport conditions**
- Keep out of reach and sight of children.
- Store under 25°C. Protect from light. Do not freeze.
- Do not use after the expiration date mentioned on the label.
- Shelf life after the first opening of the primary packaging: 28 days.

**Special precautions to be taken**
Tiamfenikol 25% may turn out to be less effective in the therapy of urogenital infections, peritonitis with advanced renal and liver failure. Special safety precautions should be taken when using the medicine in animals with advanced renal failure, high level of urea in serum as well as in those with infectious and degenerative liver changes. When there are no such changes in kidneys and liver the toxic action of Tiamfenikol 25% does not manifest itself.
In case of self-injection address a doctor and show the present information leaflet or the packaging. If contact occurs with skin, mucosae rinse them immediately with water.
- Do not use the medicine during pregnancy or lactation.
- The product has synergistic action with oxytetracycline and macrolides.
- Do not combine with beta-lactams.
- Studies on toxicity were conducted on rats for which the deadly dose is 10g/kg b.m. in case of oral administration. For ruminants the dose has not been defined yet.
- No toxic effects occur in cattle if higher doses than recommended (up to 60 mg/kg b.m.) are used.

**Packing**
- 100 ml

**Shelf-life**
- 2 years

**Other information**
- Exclusively for animals
- Prescription-only-medicine (POM)
- For use under the supervision of a veterinary surgeon

[Tiamfenikol 25%](http://www.biowet.pl)
Composition of active ingredients

- Thiamine hydrochloride      25 mg
- Solvent to     1 ml

Properties

Vitamin B₁ has the essential value for carbohydrate metabolism in animal's organism. It is a component of cocarboxylase coenzyme. It increases activity of acetylcholine, increase the secretion of gonadotropins. Thiamine deficiency status leads to impairment secretory action of digestive glands, neuritis of peripheral nerves with paralysis, neuralgia and dysesthesia. Deficiencies may cause a heart failure, hepatic failure, and skeletal muscle insufficiency.

Indications

- hypovitaminosis and avitaminosis of B₁,
- avitaminosis of B1 in carnivores feeding with diet enriched in fish meat,
- administration in animals with artificial feeding by glucose infusions and in increased metabolism status (fever, pregnancy, lactation).

Neonatal weakness of calves, foals, piglets and lambs. Dogs - inflammation and paralysis of the peripheral nerves, degenerative arthritis, nervous distemper; muscle weakness and digestive disturbances that leads to deficiency of vitamins from B group. Chickens, turkeys - ataxia, spasms, paralysis, muscular atrophy, polyneuritis.

Contraindications

Not known.

Undesirable effects

Not found.

Drug Interactions

Amprolium administration (especially in turkeys) may cause thiamine deficiency. Also sulphite in drinking water may cause thiamine destruction.

Application and dosage

Preparation should be administered subcutaneously or intramuscularly.
- Cattle, sheep, horses 0.5 ml/10 kg BW
- Chickens, turkeys and dogs 0.1 ml/1 kg BW

Application and dosage

Not obligatory.

Storage conditions

Preparation should be stored in dark place at temperature below +25°C. Protect from light!

Shelf-life

24 months.

Warnings

Because of the risk of anaphylactic reaction (shock) the intravenous route should not be used!

Packing

Phials of 50 ml.

Other information

Exclusively for animals
Prescription-only-medicine (POM)
For use under the supervision of a veterinary surgeon
100 mg/ml, solution for intravenous and intramuscular injections for horses, cattle, sheep, swine, dogs, cats and foxes

Composition of active ingredients
Ascorbic acid - 100 mg/ml

Indications
Deficits of vitamin C in the body, adjunctively during antibiotic therapy, digestion disorders, during pregnancy and exposure to stress, weakness and wasting. Adjunctively in urinary system infections.

Contraindications
Oxalate calculosis.

Adverse effects
Vitamin C is usually well tolerated. In individuals with predispositions for the formation of kidney stones, the parenteral administration of the ascorbic acid may lead to the development of renal calculosis. High doses of the ascorbic acid cause the acidification of urine and thus the excretion of weak acids and bases are compromised. The acid reaction may lead to the crystallisation of urates, oxalates and citrates with resulting formation of stones in the urinary tract. High doses may also cause diarrhoea. In diabetic animals and in conditions of over-absorption of iron from the alimentary tract, high doses of ascorbates should be also avoided.

Parenteral administration of high doses of the ascorbic acid leads to the obtaining of false positive laboratory results confirming the presence of glucose in the blood. Should any adverse effects or any reactions not mentioned in the leaflet occur (including reactions in humans due to contact with the preparation), please contact your veterinarian or inform the marketing authorisation holder or the Office for Registration of Medicinal Products, Medical Devices and Biocides.

Dosage and routes of administration
The drug is used in intravenous or intramuscular injections in daily doses:
Cattle, horses - 0.05-0.1 ml/kg b.w.
Swine, sheep - 0.08-0.16 ml/kg b.w.
Dogs, foxes, cats - 0.1-0.2 ml/kg b.w.

Administer the preparation for 5-7 days (it is recommended to administer 1/2 of the dose twice a day).

Advice on correct administration
When using intravenously, heat the preparation up to the body temperature of the animal and inject slowly.

Withdrawal period
Dogs, cats, foxes – not applicable.
Horses, cattle, swine, sheep – 0 days

Special storage and transport precautions
Do not store above +25 °C. Protect from light. Do not freeze.

Accidental self-injection by the person administering the drug to the animal does not pose any hazards. The intravenous administration may cause local irritations (especially in horses). Severe pain during the injection may be observed.

Ascorbic acid enhances the effect of coumarin anticoagulants. It increases the absorption of iron. Flavone glycosides enhance and intensify the effect of vitamin C.

By increasing the acid reaction of urine, ascorbic acid reduces the antibacterial effect of aminoglycosides and macrolides. The concomitant administration of vitamin C with an iron-binding drug – deferoxamine, used in haemochromatosis and post-transfusion haemosiderosis, may lead to the occurrence of excessive amounts of the iron ions, mostly in the cardiac muscle, which cause dysrhythmia and conduction disturbances. Special care must be taken in old individuals. Thus, if concomitant administration of both drugs is necessary, ascorbic acid should be administered two hours after deferoxamine.

The administration of high doses of the ascorbic acid reduces the absorption of anticoagulants from the alimentary tract.

High doses of the ascorbic acid lead to the inactivation of vitamin B12.

Intravenous injection of ascorbic acid reduces the half-life of salicylaldehyde.

The concomitant administration of oxitocin and ascorbic acid reduces the ability of migration of ascorbic acid through the placenta to de foetus.

Ascorbic acid shows a chemical incompatibility with sodium bicarbonate, sodium salicylate sodium nitrate, theobromine, urothropine (metenamine), chlorpromazine hydrochloride, and methylprednisolone sodium succinate.

Do not mix the solution of ascorbic acid with other drugs indicated for injection.

Shelf-life: 24 months.

Packing: Amber glass bottles of 100 ml.

Other information
Exclusively for animals
Prescription-only-medicine (POM)
For use under the supervision of a veterinary surgeon