SUMMARY OF PRODUCT CHARACTERISTICS

1. NAME OF THE VETERINARY MEDICINAL PRODUCT
COLIPRIM 2400 Pulvis

2. QUALITATIVE AND QUANTITATIVE COMPOSITION
Active substance:	Colistin (as sulphate)	2.400.000 IU
	(equivalent to colistin sulphate	120.0 mg)

For a full list of excipients, see section 6.1

3. PHARMACEUTICAL FORM
Powder for oral solution or administration in the feed.

4. CLINICAL PARTICULARS
4.1 Target species
Swine, chicken and turkey.

4.2 Indications for use, specifying the target species
For the treatment and metaphylaxis of swine, chicken and turkey of enteric infections caused by non-invasive *E. coli*, susceptible to colistin.

The presence of the disease in the herd should be established before metaphylactic treatment.

4.3 Contraindications
Do not use in horses, particularly in foals, since colistin, due to a shift in the gastrointestinal microflora balance could lead to the development of antimicrobial associated colitis (Colitis X), typically associated with Clostridium difficile, which may be fatal.

4.4 Special warnings for each target species
Colistin exerts concentration-dependent activity against Gram-negative bacteria. Following oral administration high concentrations are achieved in the gastrointestinal tract, i.e. the target site, due to the poor absorption of the substance. These factors indicate that a longer duration of treatment than the one indicated in section 4.9, leading to unnecessary exposure, is not recommended.

4.5 Special precautions for use
Special precautions for use in animals

Use of the product should be based on susceptibility testing and take into account official and local antimicrobial policies. Do not use colistin as a substitute for good management practices.
Colistin is a last resort drug in human medicine for treatment of infections caused by certain multi-drug resistant bacteria. In order to minimise any potential risk associated with widespread use of colistin, its use should be limited to treatment or treatment and metaphylaxis of diseases, and should not be used for prophylaxis.
Whenever possible, colistin should only be used based on susceptibility testing.
Use of the product deviating from the instructions given in the SPC may lead to treatment failures and increase the prevalence of bacteria resistant to colistin.

Special precautions to be taken by the person administering the veterinary medicinal product to animals

Avoid unnecessary exposure to the product. Wash hands after use.

4.6 Adverse reactions (frequency and seriousness)
None known.

4.7 Use during pregnancy, lactation or lay

The safety of the veterinary product has not been established in pregnant and lactating sows. Use only in accordance with risk/benefit assessment by the responsible veterinarian. The product can also be used in laying birds.

4.8 Interaction with other medicinal products and other forms of interaction

No major undesirable interactions of colistin sulphate as the active substance of the drug product with other medicaments are known.

4.9 Amounts to be administered and administration route

To be administered orally, in medicated drinking water or in the feed.

Dosage: 5 mg colistin sulphate per kg of body weight for pigs and 6 mg colistin sulphate per kg of body weight for chickens and turkeys.

In pigs, the product is administered in the drinking water at a concentration of 0.35-0.45 g/litre or mixed to the feed. In chickens and turkeys, the product is administered via the drinking water at a concentration of 0.25 to 0.4 g/litre (0.25-0.30 g/litre for birds between 0-4 weeks of age, and 0.30-0.40 g/litre for birds >4 weeks of age).

Treatment should be performed for 5-7 days. The medicated water should be the only source of water during the whole treatment period.

Duration of treatment should be limited to the minimum time necessary for the treatment of the disease.

4.10 Overdose (symptoms, emergency procedures, antidotes), if necessary

In the target animal tolerance studies, the product failed to induce any toxic effect even when administered at the threefold therapeutic dose for two times the recommended duration.

If suspected toxic reactions do occur due to extreme overdosage, the medication should be discontinued and appropriate symptomatic treatment should be unitiated if necessary.

4.11 Withdrawal period(s)

Meat and offal of pigs, chickens and turkeys: 2 days.

Eggs: not necessary.

5. PHARMACOLOGICAL PROPERTIES

Pharmacotherapeutic group: intestinal anti-infectives, antibiotics. ATCvet Code: QA07AA10.

5.1 Pharmacodynamic properties

Colistin is a polypeptide antibiotic being rapidly bactericidal in action. It is a cationic, surface-active agent that distrupts the structure of the cell membrane phospholipids and increases cell permeability by a detergent-like action. It is highly active against many species of Gram-negative organisms, such as *Escherichia coli*, *Salmonella* spp. and *Pseudomonas aeruginosa*, but not against Gram-positive bacteria.

Typical MIC_{90} values of colistin against susceptible bacteria (*E. coli, Salmonella spp., P. aeruginosa*) usually vary between 1 and 4 μg/ml.

Acquired resistance against colistin is rare, moreover, it may prevent the development of resistance against other antimicrobials (e.g., aminopenicillins, fluoroquinolones) even at subMIC concentrations.

Surveillance programs of resistance from different European countries indicate that the susceptibility of gram-negative organisms to colistin is 95% or higher.

Colistin exerts concentration-dependent activity against Gram-negative bacteria. Following oral administration high concentrations are achieved in the gastrointestinal tract, i.e. the target site, due to the poor absorption of the substance.

5.2 Pharmacokinetic particulars

The absorption of colistin form the gastro-intestinal tract is slow and limited, therefore it acts primarly against susceptible bacteria in the gastro-intestinal tract. In man and animals,

absorption of polymyxins from the gastrointestinal tract is slow and limited so that ordinary oral doses do not produce therapeutic plasma concentrations (1 μg/ml or more) if the drugs are used alone. In the case of a synergistic combination the therapeutic level to be achieved may be, however, much lower.

6. PHARMACEUTICAL PARTICULARS

6.1 List of excipients

Glucose monohydrate.

6.2 Incompatibilities

None.

6.3 Shelf life

Shelf-life of the veterinary medicinal product as packaged for sale: 2 years.
Shelf-life after first opening the immediate container: 3 months.
Shelf-life after reconstitution in drinking water: 24 hours.

6.4. Special precautions for storage

Do not store above 25°C. Keep the primary container tightly closed.

6.5 Nature and composition of immediate packaging

Plastic containers of 1 kg.
Multiwalled paper sack of 10 kg.
Not all pack sizes may be marketed.

6.6 Special precautions for the disposal of unused veterinary medicinal product or waste materials derived from the use of such products

Any unused veterinary medicinal product or waste materials derived from this veterinary medicinal product should be disposed of in accordance with local requirements.

7. MARKETING AUTHORISATION HOLDER

Lavet Pharmaceuticals Ltd.
1161 Budapest
Ottó u. 14.
Hungary

8. MARKETING AUTHORISATION NUMBER(S)

9. DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION

10. DATE OF REVISION OF THE TEXT

PROHIBITION OF SALE, SUPPLY AND/OR USE

Not applicable.

A. LABELLING

PARTICULARS TO APPEAR ON THE IMMEDIATE PACKAGE
1 g in polypropylene container with polyethylene inner bag.
10 kg in multiwalled, polyethylene layered paper bag.

1. NAME OF THE VETERINARY MEDICINAL PRODUCT

Coliprim 2400 Pulvis
Colistin sulphate

2. STATEMENT OF ACTIVE AND OTHER SUBSTANCES

Active substance:	Colistin (as sulphate)	2.400.000 IU/g
	(equivalent to colistin sulphate	120.0 mg)

Excipients: Glucose monohydrate

3. PHARMACEUTICAL FORM

Powder for oral solution or administration in the feed.

4. PACKAGE SIZE

1 kg
10 kg

5. TARGET SPECIES

Swine, chicken, turkey.

6. INDICATION(S)

For the treatment and metaphylaxis of swine, chicken and turkey of enteric infections caused by non-invasive *E. coli,* susceptible to colistin.

The presence of the disease in the herd should be established before metaphylactic treatment.

7. METHOD AND ROUTE(S) OF ADMINISTRATION

For oral administration in the drinking water or incorporated in the daily ration.
Average dose: 5-6 mg colistin sulphate per kg of body weight daily.
Read the package leaflet before use.

8. WITHDRAWAL PERIOD

Meat and offal of pigs, chickens and turkeys: 2 days

9. SPECIAL WARNING(S), IF NECESSARY

None.

10. EXPIRY DATE

EXP {month/year}
After first opening of container: 3 months.
After reconstitution in drinking water: 24 hours

11. SPECIAL STORAGE CONDITIONS

Do not store above 25^{o}C.
Keep the primary container tightly closed.

12. SPECIAL PRECAUTIONS FOR THE DISPOSAL OF UNUSED PRODUCTS OR WASTE MATERIALS, IF ANY

Any unused veterinary medicinal product or waste materials derived from this veterinary medicinal product should be disposed of in accordance with local requirements.

13. THE WORDS "FOR ANIMAL TREATMENT ONLY" AND CONDITIONS OR RESTRICTIONS REGARDING SUPPLY AND USE, if applicable

For animal treatment only - to be supplied only on veterinary prescription.

14. THE WORDS "KEEP OUT OF THE REACH AND SIGHT OF CHILDREN"

Keep out of reach and sight of children.

15. NAME AND ADDRESS OF THE MARKETING AUTHORISATION HOLDER

Lavet Pharmaceuticals Ltd.
1161 Budapest
Ottó u. 14.
Hungary

16. MARKETING AUTHORISATION NUMBER(S)

17. MANUFACTURER'S BATCH NUMBER

Batch: {number}

PACKAGE LEAFLET FOR:
Coliprim 2400 pulvis

1. NAME AND ADDRESS OF THE MARKETING AUTHORISATION HOLDER AND OF THE MANUFACTURING AUTHORISATION HOLDER RESPONSIBLE FOR BATCH RELEASE, IF DIFFERENT

Marketing authorization holder: Lavet Pharmaceuticals Ltd., 1161 Budapest, Ottó u. 14., Hungary
Manufacturer responsible for batch release: Lavet Pharmaceuticals Ltd., 2143 Kistarcsa, Batthyány u. 6., Hungary

2. NAME OF THE VETERINARY MEDICINAL PRODUCT

Coliprim 2400 Pulvis
Colistin sulphate

3. STATEMENT OF THE ACTIVE SUBSTANCE(S) AND OTHER INGREDIENT(S)

Active substance: Colistin (as sulphate) 2.400.000 IU/g
(equivalent to colistin sulphate 120.0 mg)
Excipients: Glucose monohydrate

4. INDICATION(S)

For the treatment and metaphylaxis of swine, chicken and turkey of enteric infections caused by non-invasive *E. coli*, susceptible to colistin.

The presence of the disease in the herd should be established before metaphylactic treatment.

5. CONTRAINDICATIONS

Do not use in horses, particularly in foals, since colistin, due to a shift in the gastrointestinal microflora balance could lead to the development of antimicrobial associated colitis (Colitis X), typically associated with *Clostridium difficile*, which may be fatal.

6. ADVERSE REACTIONS

None known.

7. TARGET SPECIES

Swine, chicken and turkey.

8. DOSAGE FOR EACH SPECIES, ROUTE(S) AND METHOD OF ADMINISTRATION

To be administered orally, in the drinking water or in the feed.
Dosage: 5 mg colistin sulphate per kg of body weight for pigs and 6 mg colistin sulphate per kg of body weight for chickens and turkeys.

9. ADVICE ON CORRECT ADMINISTRATION

To be administered orally, in medicated drinking water or in the feed.
Dosage: 5 mg colistin sulphate per kg of body weight for pigs and 6 mg colistin sulphate per kg of body weight for chickens and turkeys.
In pigs, the product is administered in the drinking water at a concentration of 0.35-0.45 g/litre or mixed to the feed. In chickens and turkeys, the product is administered via the drinking water at a concentration of 0.25 to 0.4 g/litre (0.25-0.30 g/litre for birds between 0-4 weeks of age, and 0.30-0.40 g/litre for birds >4 weeks of age).
Treatment should be performed for 5-7 days. The medicated water should be the only source of water during the whole treatment period.
Medicated water should be refreshed at 24-hour intervals.
To ensure thorough dispersion, the product should first be mixed with a suitable quantity of feed before incorporation into the final mix.

10. WITHDRAWAL PERIOD

Meat and offal of pigs, chickens and turkeys: 2 days

11. SPECIAL STORAGE PRECAUTIONS

Do not store above 25°C.
Keep primary container tightly closed.
Shelf-life of the product as packaged for sale: 2 years.
Shelf-life after first opening the immediate container: 3 months.
Shelf-life after reconstitution in drinking water: 24 hours.

12. SPECIAL WARNING(S)

Special warnings for use in animals:
During the target animal tolerance study, no adverse effect was observed even at the threefold therapeutic dose administered for 2 times the recommended duration.
If suspected toxic reactions do occur due to extreme overdose, the medication should be discontinued and appropriate symptomatic treatment should be initiated if necessary.
Do not use colistin as a substitute for good management practices.
Colistin is a last resort drug in human medicine for treatment of infections caused by certain multi-drug resistant bacteria. In order to minimise any potential risk associated with widespread use of colistin, its use should be limited to treatment or treatment and metaphylaxis of diseases, and should not be used for prophylaxis.
Whenever possible, colistin should only be used based on susceptibility testing.
Use of the product deviating from the instructions given in the SPC may lead to treatment failures and increase the prevalence of bacteria resistant to colistin.
Special precautions to be taken by the person administering the veterinary medicinal product to animals:
Avoid unnecessary exposure to the product. Wash hands after use.
Pregnancy, lactation, lay:
The safety of the veterinary product has not been established in pregnant and lactating sows. Use only in accordance with risk/benefit assessment by the responsible veterinarian. The product can also be used in laying birds.

13. SPECIAL PRECAUTIONS FOR THE DISPOSAL OF UNUSED PRODUCT OR WASTE MATERIALS, IF ANY

Any unused veterinary medicinal product or waste materials derived from this veterinary medicinal product should be disposed of in accordance with local requirements.

14. DATE ON WHICH THE PACKAGE LEAFLET WAS LAST APPROVED

15. OTHER INFORMATION

Pack sizes:
1 g in polypropylene container with polyethylene inner bag.
10 kg in multiwalled, polyethylene layered paper bag.
Not all pack sizes may be marketed.
For any information about this veterinary medicinal product, please contact the local representative of the marketing authorisation holder.