1. NAME OF THE VETERINARY MEDICINAL PRODUCT

Cephacare flavour 1000 mg tablets for dogs

2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Each tablet contains:

Active substance:

Cefalexin (as cefalexin monohydrate) 1000 mg

Excipients:

Qualitative composition of excipients and other constituents	
Lactose monohydrate	
Potato starch	
Magnesium stearate	
Beef flavour	

Beige speckled oblong tablet, with one side flat and other side spherical with break marks on both sides.

3. CLINICAL INFORMATION

3.1 Target species

Dogs.

3.2 Indications for use for each target species

Treatment of infections of the respiratory tract, gastrointestinal tract, urogenital tract, the skin and localised infections in soft tissue.

3.3 Contraindications

Do not use in cases of hypersensitivity to the active substance, to other cephalosporins, to other substances of the β -lactam group or to any of the excipients.

Do not use in known cases of resistance to cephalosporins or penicillins.

Do not use in rabbits, gerbils, guinea pigs and hamsters.

3.4 Special warnings

Cross-resistance has been shown between cephalosporins and penicillins. Use of cefalexin should be carefully considered when susceptibility testing has shown resistance to penicillins because its effectiveness may be reduced.

3.5 Special precautions for use

Special precautions for safe use in target species:

Use of the veterinary medicinal product should be based on identification and susceptibility testing of the target pathogen(s) isolated from the animal. If this is not possible, therapy should be based on

epidemiological information and knowledge of susceptibility of the target pathogens at local/regional level.

Use of the veterinary medicinal product should be in accordance with official, national and regional antimicrobial policies.

An antibiotic with a lower risk of antimicrobial resistance selection (lower AMEG category) should be used for first line treatment where susceptibility testing suggests the likely efficacy of this approach.

Use of the veterinary medicinal product deviating from the instructions given in the SPC may increase the prevalence of bacteria resistant to cefalexin and may decrease the effectiveness of treatment with other beta-lactam antibiotics, due to the potential for cross-resistance.

As with other antibiotics which are excreted mainly by the kidneys, unnecessary accumulation may occur in the body when renal function is impaired. In cases of known renal insufficiency, the dose should be reduced, antimicrobials known to be nephrotoxic should not be administered concurrently and the product should be used only according to the benefit-risk assessment by the responsible veterinarian.

The tablets are flavoured. In order to avoid any accidental ingestion, store tablets out of reach of the animals.

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

Penicillins and cephalosporins may cause hypersensitivity (allergy) following injection, inhalation, ingestion or skin contact. Hypersensitivity to penicillin may lead to cross-reactions to cephalosporin and vice versa. Allergic reactions to these substances may occasionally be serious.

People with known hypersensitivity to cefalexin should avoid contact with the veterinary medicinal product.

Handle this veterinary medicinal product with great care to avoid exposure, taking all recommended precautions. If you develop symptoms following exposure such as skin rash, you should seek medical advice immediately and show the package leaflet or the label to the physician. Swelling of the face, lips or eyes or difficulty breathing are more serious symptoms and require urgent medical attention.

To avoid accidental ingestion, particularly by a child, unused part-tablets should be returned to the open blister space and inserted back into the outer packaging. In case of accidental ingestion, seek medical advice immediately and show the package leaflet or the label to the physician.

Wash hands after use.

Special precautions for the protection of the environment:

Not applicable.

3.6 Adverse events

Dogs:

Rare (1 to 10 animals / 10,000 animals treated):	Hypersensitivity*
Undetermined frequency (cannot be estimated from the available data):	Diarrhoea**, vomiting**

^{*}When observed, the treatment should be discontinued and occurring symptoms should be treated symptomatically.

Reporting adverse events is important. It allows continuous safety monitoring of a veterinary medicinal product. Reports should be sent, preferably via a veterinarian, to either the marketing authorisation

^{**}When observed, treatment should be stopped and the advice of the attending veterinarian should be sought.

holder or its local representative or the national competent authority via the national reporting system. See the package leaflet for respective contact details.

3.7 Use during pregnancy, lactation or lay

Pregnancy and lactation:

The safety of the veterinary medicinal product has not been established during pregnancy or lactation. Use only according to the benefit-risk assessment by the responsible veterinarian.

3.8 Interaction with other medicinal products and other forms of interaction

The bactericidal activity of cephalosporins is reduced by concomitant administration of bacteriostatic acting compounds (macrolides, sulphonamides and tetracyclines).

Nephrotoxicity can be increased when 1st generation cephalosporins are combined with polypeptide antibiotics, aminoglycosides and some diuretics (furosemide).

Concomitant use with such active substances should be avoided.

3.9 Administration routes and dosage

Oral use.

A dose of 15 mg/kg twice daily is recommended, to be doubled where appropriate.

The veterinary medicinal product has a break mark on both sides. To enable more accurate dosing, half tablets may be used as necessary.

Treatment for five days is recommended. Any increase in dose or duration of use should be according to the benefit-risk assessment by the responsible veterinarian (e.g. in cases of chronic pyoderma).

Tablets may be added to food if necessary.

To ensure a correct dosage, body weight should be determined as accurately as possible.

The use of cefalexin tablets of lower strengths is advised for dogs with lower body weights.

3.10 Symptoms of overdose (and where applicable, emergency procedures and antidotes)

The administration of cefalexin has been shown to produce no serious side effects when administered at overdose.

3.11 Special restrictions for use and special conditions for use, including restrictions on the use of antimicrobial and antiparasitic veterinary medicinal products in order to limit the risk of development of resistance

To be completed in accordance with national requirements after the conclusion of the DCP.

3.12 Withdrawal periods

Not applicable.

4. PHARMACOLOGICAL INFORMATION

4.1 ATCvet code: OJ01DB01.

4.2 Pharmacodynamics

Cefalexin is a semi-synthetic bactericidal antibiotic belonging to the cephalosporin group.

This bactericidal activity is mediated by drug binding to bacterial enzymes known as penicillin binding proteins (PBPs). Such enzymes are located on the inner membrane of the cell wall and their transpeptidase activity is required for the terminal stages of assembling this essential structure of the bacterial cell. Inactivation of PBPs interferes with the cross-linkage of peptidoglycan chains necessary for bacterial cell wall strength and rigidity. The bactericidal effect of cefalexin is mainly time dependent.

Cefalexin is active against a wide range of Gram-positive and Gram-negative bacteria. The following micro-organisms have been shown to be sensitive to cefalexin *in vitro: Staphylococcus* spp (including penicillin-resistant strains), *Streptococcus* spp, *Corynebacterium* spp, *Pasteurella multocida*, *Escherichia coli*, *Micrococcus* spp, *Moraxella* spp.

Cefalexin is resistant to the action of staphylococcal penicillinase and is therefore active against the strains of *Staphylococcus aureus* that are insensitive to penicillin (or related antibiotics such as ampicillin or amoxycillin) because of production of penicillinase.

Cefalexin is also active against the majority of ampicillin-resistant *E.coli*.

Resistance to cefalexin can be due to one of the following mechanisms of resistance. Firstly, the production of cephalosporinases, that inactivate the antibiotic by hydrolysis of the β -lactam ring, is the most prevalent mechanism among Gram-negative bacteria. This resistance is transmitted by plasmid or chromosomally. Secondly, a decreased affinity of the PBPs (penicillin-binding proteins) for beta-lactam drugs is frequently involved for beta-lactam resistant Gram-positive bacteria. Lastly, efflux pumps, extruding the antibiotic from the bacterial cell, and structural changes in porins, reducing passive diffusion of the drug through the cell wall, may contribute to improve the resistant phenotype of a bacterium.

Well-known cross-resistance (involving the same resistance mechanism) exists between antibiotics belonging to the beta-lactam group due to structural similarities. It occurs with beta-lactamases enzymes, structural changes in porins or variations in efflux pumps. Co-resistance (different resistance mechanisms involved) has been described in *E. coli* due to a plasmid harbouring various resistance genes.

Pseudomonas aeruginosa is known for resistance to cefalexin.

4.3 Pharmacokinetics

Following oral administration, cefalexin is rapidly and almost completely absorbed. Peak plasma concentrations in the dog (C_{max} = 17.49 $\mu g/ml$) are achieved within approximately 1.5 hours (T_{max} = 1.55). Cefalexin is excreted in the urine in high concentrations and has an elimination half life ($T_{1/2}$) of approximately 2.5–3 hours.

5. PHARMACEUTICAL PARTICULARS

5.1 Major incompatibilities

Not applicable.

5.2 Shelf life

Shelf life of the veterinary medicinal product as packaged for sale: 3 years. Return any ½ tablet to the blister and use within 48 hours.

5.3. Special precautions for storage

Do not store above 25 °C.

Store in a dry place.

Keep the blister in the outer carton.

5.4 Nature and composition of immediate packaging

The veterinary medicinal product is supplied in PVC/PE/PVDC/Aluminum foil blister packs each containing 10 tablets, in cardboard boxes containing 20, 100 or 250 tablets.

Not all pack sizes may be marketed.

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

Medicines should not be disposed of via wastewater or household waste.

Use take-back schemes for the disposal of any unused veterinary medicinal product or waste materials derived thereof in accordance with local requirements and with any national collection systems applicable to the veterinary medicinal product concerned.

6. NAME OF THE MARKETING AUTHORISATION HOLDER

Ecuphar NV

7. MARKETING AUTHORISATION NUMBER(S)

To be completed in accordance with national requirements and after conclusion of the DCP.

8. DATE OF FIRST AUTHORISATION

To be completed in accordance with national requirements and after conclusion of the DCP.

Date of first authorisation: {DD/MM/YYYY}

9. DATE OF THE LAST REVISION OF THE SUMMARY OF THE PRODUCT CHARACTERISTICS

 $\{MM/YYYY\}$

10. CLASSIFICATION OF VETERINARY MEDICINAL PRODUCTS

Veterinary medicinal product subject to prescription.

Detailed information on this veterinary medicinal product is available in the Union Product Database (https://medicines.health.europa.eu/veterinary).

ANNEX III LABELLING AND PACKAGE LEAFLET

A. LABELLING

PARTICULARS TO APPEAR ON THE OUTER PACKAGE		
Carton		
1. NAME OF THE VETERINARY MEDICINAL PRODUCT		
Cephacare flavour 1000 mg tablets for dogs		
2. STATEMENT OF ACTIVE SUBSTANCES		
Each tablet contains 1000 mg cefalexin as cefalexin monohydrate.		
3. PACKAGE SIZE		
20 tablets		
100 tablets 250 tablets		
250 tablets		
4. TARGET SPECIES		
Dogs.		
Dogs.		
5. INDICATIONS		
6. ROUTES OF ADMINISTRATION		
Oral use.		
7. WITHDRAWAL PERIODS		
0 EVDIDV DATE		
8. EXPIRY DATE		
Exp. {mm/yyyy} Return any ½ tablet to the blister and use within 48 hours.		
9. SPECIAL STORAGE PRECAUTIONS		
Do not store above 25 °C.		
Keep the blister in the outer carton.		
Store in a dry place.		

Read the package leaflet before use.

10.

THE WORDS "READ THE PACKAGE LEAFLET BEFORE USE"

11. THE WORDS "FOR ANIMAL TREATMENT ONLY"

For animal treatment only.

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

Keep out of the sight and reach of children.

13. NAME OF THE MARKETING AUTHORISATION HOLDER



14. MARKETING AUTHORISATION NUMBERS

To be completed in accordance with national requirements and after conclusion of the DCP.

15. BATCH NUMBER

Lot {number}

Dilster	
1. NAME OF THE VETERINARY MEDICINAL PRODUCT	
Cephacare flavour 1000 mg tablets for dogs	
2. QUANTITATIVE PARTICULARS OF THE ACTIVE SUBSTANCES	
Each tablet contains 1000 mg cefalexin.	
3. BATCH NUMBER	
Lot {number}	
4. EXPIRY DATE	
Exp. {mm/yyyy}	

MINIMUM PARTICULARS TO APPEAR ON SMALL IMMEDIATE PACKAGING UNITS

B. PACKAGE LEAFLET

PACKAGE LEAFLET

1. Name of the veterinary medicinal product

Cephacare flavour 1000 mg tablets for dogs

2. Composition

Each tablet contains:

Active substance:

Cefalexin (as cefalexin monohydrate) 1000 mg

Beige speckled oblong tablet, with one side flat and other side spherical with break marks on both sides. The tablets can be divided into halves.

3. Target species

Dogs.

4. Indications for use

Treatment of infections of the respiratory tract, gastrointestinal tract, urogenital tract, the skin and localised infections in soft tissue.

5. Contraindications

Do not use in cases of hypersensitivity to the active substance, to other cephalosporins, to other substances of the β -lactam group or to any of the excipients.

Do not use in known cases of resistance to cephalosporins or penicillins.

Do not use in rabbits, gerbils, guinea pigs and hamsters.

6. Special warnings

Special warnings:

Cross-resistance has been shown between cephalosporins and penicillins. Use of cefalexin should be carefully considered when susceptibility testing has shown resistance to penicillins because its effectiveness may be reduced.

Special precautions for safe use in target species:

Use of the veterinary medicinal product should be based on identification and susceptibility testing of the target pathogen(s) isolated from the animal. If this is not possible, therapy should be based on epidemiological information and knowledge of susceptibility of the target pathogens at local/regional level.

Use of the veterinary medicinal product should be in accordance with official, national and regional antimicrobial policies.

An antibiotic with a lower risk of antimicrobial resistance selection (lower AMEG category) should be used for first line treatment where susceptibility testing suggests the likely efficacy of this approach.

Use of the veterinary medicinal product deviating from the instructions given in the package leaflet may increase the prevalence of bacteria resistant to cefalexin and may decrease the effectiveness of treatment with other beta-lactam antibiotics, due to the potential for cross-resistance.

As with other antibiotics which are excreted mainly by the kidneys, unnecessary accumulation may occur in the body when renal function is impaired. In cases of known renal insufficiency, the dose should be reduced, antimicrobials known to be nephrotoxic should not be administered concurrently and the veterinary medicinal product should be used only according to the benefit-risk assessment by the responsible veterinarian.

The tablets are flavoured. In order to avoid any accidental ingestion, store tablets out of reach of the animals.

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

Penicillins and cephalosporins may cause hypersensitivity (allergy) following injection, inhalation, ingestion or skin contact. Hypersensitivity to penicillin may lead to cross-reactions to cephalosporins and vice versa. Allergic reactions to these substances may occasionally be serious.

- People with known hypersensitivity to cefalexin should avoid contact with the veterinary medicinal product.
- Handle this veterinary medicinal product with great care to avoid exposure, taking all recommended precautions.
- If you develop symptoms following exposure such as skin rash you should seek medical advice immediately and show the package leaflet or the label to the physician. Swelling of the face, lips or eyes or difficulty breathing are more serious symptoms and require urgent medical attention.
- To avoid accidental ingestion, particularly by a child, unused part-tablets should be returned to the open blister space and inserted back into the outer packaging.
- In case of accidental ingestion, seek medical advice immediately and show the package leaflet or the label to the physician.
- Wash hands after use.

Pregnancy and lactation:

The safety of the veterinary medicinal product has not been established during pregnancy or lactation. Use only according to the benefit-risk assessment by the responsible veterinarian.

<u>Interaction</u> with other medicinal products and other forms of interaction:

The bactericidal activity of cephalosporins is reduced by concomitant administration of bacteriostatic acting compounds (macrolides, sulphonamides and tetracyclines).

Nephrotoxicity can be increased when 1st generation cephalosporins are combined with polypeptide antibiotics, aminoglycosides and some diuretics (furosemide).

Concomitant use with such active substances should be avoided.

Overdose:

The administration of cefalexin has been shown to produce no serious side-effects when administered at overdose.

7. Adverse events

Dogs:

Rare (1 to 10 animals / 10,000 animals treated):	Hypersensitivity*
Undetermined frequency (cannot be estimated from the available data):	Diarrhoea**, vomiting**

^{*}When observed, the treatment should be discontinued and occurring symptoms should be treated symptomatically.

Reporting adverse events is important. It allows continuous safety monitoring of a product. If you notice any side effects, even those not already listed in this package leaflet, or you think that the medicine has not worked, please contact, in the first instance, your veterinarian. You can also report any adverse events to the marketing authorisation holder or the local representative of the marketing authorisation holder using the contact details at the end of this leaflet, or via your national reporting system: To be completed in accordance with national requirements and after conclusion of the DCP.

8. Dosage for each species, routes and method of administration

Oral use.

A dose of 15 mg/kg twice daily is recommended, to be doubled where appropriate.

9. Advice on correct administration

The veterinary medicinal product has break marks on both sides. To enable more accurate dosing, half tablets may be used as necessary.

Treatment for five days is recommended. Any increase in dose or duration of use should be according to the benefit-risk assessment by the responsible veterinarian (e.g. in cases of chronic pyoderma).

Tablets may be added to food if necessary.

To ensure a correct dosage, body weight should be determined as accurately as possible.

The use of cefalexin tablets of lower strengths is advised for dogs with lower body weights.

10. Withdrawal periods

Not applicable.

11. Special storage precautions

Keep out of the sight and reach of children.

Return any $\frac{1}{2}$ tablet to the blister and use within 48 hours.

Keep the blister in the outer carton. Do not store above 25 °C.

Store in a dry place.

^{**}When observed, treatment should be stopped and the advice of the attending veterinarian should be sought.

Do not use this veterinary medicinal product after the expiry date which is stated on the blister and carton after Exp. The expiry date refers to the last day of that month.

12. Special precautions for disposal

Medicines should not be disposed of via wastewater or household waste.

Use take-back schemes for the disposal of any unused veterinary medicinal product or waste materials derived thereof in accordance with local requirements and with any applicable national collection systems. These measures should help to protect the environment.

Ask your veterinary surgeon or pharmacist how to dispose of medicines no longer required.

13. Classification of veterinary medicinal products

Veterinary medicinal product subject to prescription.

14. Marketing authorisation numbers and pack sizes

The veterinary medicinal product is supplied in packs of 20, 100 or 250 tablets.

Not all pack sizes may be marketed.

15. Date on which the package leaflet was last revised

{MM/YYYY}

Detailed information on this veterinary medicinal product is available in the Union Product Database (https://medicines.health.europa.eu/veterinary).

16. Contact details

Marketing authorisation holder:

Ecuphar NV Legeweg 157-i 8020 Oostkamp Belgium

Manufacturer responsible for batch release:

Lelypharma B.V. Zuiveringweg 42 8243 PZ Lelystad The Netherlands

Local representatives and contact details to report suspected adverse events:

To be completed in accordance with national requirements and after conclusion of the DCP.

For any information about this veterinary medicinal product, please contact the local representative of the marketing authorisation holder.

17. Other information