

ANNEX I
SUMMARY OF PRODUCT CHARACTERISTICS

1. NAME OF THE VETERINARY MEDICINAL PRODUCT

Firodyl 250 mg chewable tablets for dogs
Firodyl vet 250 mg chewable tablets for dogs (DK/FI/NO/SE)

2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Each tablet contains:

Active substance:

Firocoxib 250 mg

Excipients:

<u>Qualitative composition of excipients and other constituents</u>
Hydroxypropylcellulose
Croscarmellose sodium
Microcrystalline Cellulose
Silica, colloidal anhydrous
Lactose monohydrate
Magnesium stearate
Yeast
Chicken flavour

Round clover shaped tablet, Beige to light brown. Double scored on one side.
The tablets can be divided into equal quarters.

3. CLINICAL INFORMATION

3.1 Target species

Dogs

3.2 Indications for use for each target species

For the relief of pain and inflammation associated with osteoarthritis in dogs.
For the relief of post-operative pain and inflammation associated with soft-tissue, orthopaedic and dental surgery in dogs.

3.3 Contraindications

Do not use in pregnant or lactating bitches.
Do not use in animals less than 10 weeks of age or less than 3 kg body weight.
Do not use in animals suffering from gastrointestinal bleeding, blood dyscrasia or haemorrhagic disorders.
Do not use concomitantly with corticosteroids or other non-steroidal anti-inflammatory drugs (NSAIDs).
Do not use in cases of hypersensitivity to the active substance or to any of the excipients.

3.4 Special warnings

None.

3.5 Special precautions for use

Special precautions for safe use in the target species

As the tablets are flavoured, they should be stored in a safe place out of the reach of animals.

The recommended dose, as indicated in the dosing table, should not be exceeded.

Use in very young animals, or animals with suspected or confirmed impairment of renal, cardiac or hepatic function may involve additional risk. If such use cannot be avoided, those dogs require careful veterinary monitoring.

Avoid use in any dehydrated, hypovolaemic or hypotensive animals, as there is a potential risk of increased renal toxicity. Concurrent administration of potentially nephrotoxic drugs should be avoided. Use this veterinary medicinal product under strict veterinary monitoring where there is a risk of gastrointestinal bleeding, or if the animal previously displayed intolerance to NSAIDs. Renal and/or hepatic disorders have been reported in very rare cases in dogs administered the recommended treatment dose. It is possible that a proportion of such cases had sub-clinical renal or hepatic disease prior to the commencement of therapy. Therefore, appropriate laboratory testing to establish baseline renal or hepatic biochemistry parameters is recommended prior to and periodically during administration.

The treatment should be discontinued if any of these signs are observed: repeated diarrhoea, vomiting, faecal occult blood, sudden weight loss, anorexia, lethargy, degradation of renal or hepatic biochemistry parameters.

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

This veterinary medicinal product may be harmful following accidental ingestion.

In order to prevent children from accessing the veterinary medicinal product, tablets should be administered and stored out of sight and reach of children. Halved or quartered tablets should be returned to the open blister pocket and inserted into the outer carton.

Laboratory studies in rats and rabbits have shown evidence that firocoxib has the potential to effect reproduction and to induce malformations in foetuses. Pregnant women or women who are intending to become pregnant should administer the veterinary medicinal product with caution.

Wash hands after use of the veterinary medicinal product.

In the event of accidental ingestion of one or more tablets, seek medical advice immediately and show the package leaflet or the label to the doctor.

Special precautions for the protection of the environment

Not applicable.

3.6 Adverse events

Dogs:

Uncommon (1 to 10 animals / 1000 animals treated):	Vomiting ^{1,2} , Diarrhoea ^{1,5}
Rare (1 to 10 animals / 10,000 animals treated):	Nervous system disorder
Very rare (<1 animal / 10,000 animals treated, including isolated reports):	Renal disorder ^{2,3} Hepatic disorder ^{2,3} Blood in faeces ² Anorexia ² , Lethargy ² , Weight loss ^{2,4}

¹ Transient and reversible when the treatment is stopped.

² If adverse reactions occur, treatment should be discontinued, and the advice of a veterinarian should be sought.

³ Including degradation of renal or hepatic biochemistry parameters

⁴ sudden

⁵ If repeatedly occurring, treatment should be discontinued, and the advice of a veterinarian should be sought.

As with other NSAIDs, serious adverse effects can occur and, in very rare cases, may be fatal.

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 holder 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:

Do not use in pregnant or lactating bitches.

Laboratory studies in rabbits have shown evidence of maternotoxic and foetotoxic effects at dose rates approximating the recommended treatment dose for the dog.

3.8 Interaction with other medicinal products and other forms of interaction

Pre-treatment with other anti-inflammatory substances may result in additional or increased adverse effects and accordingly a treatment-free period with such drugs should be observed for at least 24 hours before the commencement of treatment with the veterinary medicinal product. The treatment-free period, however, should take into account the pharmacokinetic properties of the veterinary medicinal products used previously.

The veterinary medicinal product must not be administered in conjunction with other NSAIDs or glucocorticosteroids. Gastrointestinal tract ulceration may be exacerbated by corticosteroids in animals given non-steroidal anti-inflammatory drugs.

Concomitant treatment with molecules displaying action on renal flow, e.g. diuretics or Angiotensin Converting Enzyme (ACE) inhibitors, should be subject to clinical monitoring. Concurrent administration of potentially nephrotoxic drugs should be avoided as there might be an increased risk of renal toxicity. As anaesthetic drugs may affect renal perfusion, the use of parenteral fluid therapy during surgery should be considered to decrease potential renal complications when using NSAIDs peri-operatively.

Concurrent use of other active substances that have a high degree of protein binding may compete with firocoxib for binding and thus lead to toxic effects.

3.9 Administration routes and dosage

Oral use.

Osteoarthritis:

5mg firocoxib/kg bw once daily, as presented in the table below.

Duration of treatment will be dependent on the response observed. As field studies were limited to 90 days, longer-term treatment should be considered carefully and regular monitoring undertaken by the veterinarian.

Relief of post-operative pain:

5mg firocoxib/kg bw once daily as presented in the table below for up to 3 days as needed, starting approximately 2 hours prior to surgery. Following orthopedic surgery and depending on the response observed, treatment using the same daily dosing schedule may be continued after the first 3 days, upon judgment of the attending veterinarian.

Bodyweight (kg)	Number of tablets		Dose range (mg/kg BW)
	62.5 mg	250 mg	
3.1	0.25		5.0
3.2-6.2	0.5		5.0-9.8
6.3-9.3	0.75		5.0-7.4
9.4-12.5	1	0.25	5.0-6.6
12.6-15.5	1.25		5.0-6.2
15.6-18.5	1.5		5.1-6.0
18.6-21.5	1.75		5.1-5.9
21.6-25		0.5	5.0-5.8
25.1-37.5		0.75	5.0-7.5
37.6-50		1	5.0-6.6
50.1-62.5		1.25	5.0-6.2
62.6-75		1.5	5.0-6.0
75.1-87.5		1.75	5.0-5.8
87.6-100		2	5.0-5.7

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

The tablets are palatable, i.e. they are usually taken voluntarily by dogs (voluntary consumption of 76% of occasions in animals studied). If not, they can be given directly in the dog's mouth.

Tablets can be administered with or without food.

Instruction on how to divide the tablet: Put the tablet on an even surface, with its scored side facing down (convex face up). With the tip of the thumb, exert slight vertical pressure on the middle of the tablet to break it along its width into halves. Then, in order to obtain quarters, exert slight pressure on the middle of one half with the thumb to break it into two parts.

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

In dogs ten weeks of age at the start of treatment at dose rates equal or greater to 25 mg/kg/day (5 fold the recommended dose) for three months, the following signs of toxicity were observed: bodyweight loss, poor appetite, changes in the liver (accumulation of lipid), brain (vacuolisation), duodenum (ulcers) and death. At dose rates equal or greater to 15 mg/kg/day (3 fold the recommended dose) for six months, similar clinical signs were observed, albeit that the severity and frequency were less and duodenal ulcers were absent.

In those target animal safety studies, clinical signs of toxicity were reversible in some dogs following cessation of therapy.

In dogs seven months of age at the start of treatment at dose rates greater than or equal to 25 mg/kg/day (5 fold the recommended dose) for six months, gastrointestinal adverse effects, i.e. vomiting were observed.

Overdose studies were not conducted in animals over 14 months of age.

If clinical signs of overdosing are observed, discontinue treatment.

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

Not applicable.

3.12 Withdrawal periods

Not applicable.

4. PHARMACOLOGICAL INFORMATION

4.1 ATC vet code: QM01AH90.

4.2 Pharmacodynamics

Firocoxib is a non-steroidal anti-inflammatory drug (NSAID) belonging to the Coxib group, which acts by selective inhibition of cyclooxygenase-2 (COX-2) – mediated prostaglandin synthesis. Cyclooxygenase is responsible for generation of prostaglandins. COX-2 is the isoform of the enzyme that has been shown to be induced by pro-inflammatory stimuli and has been postulated to be primarily responsible for the synthesis of prostanoid mediators of pain, inflammation, and fever. Coxibs therefore display analgesic, anti-inflammatory and antipyretic properties. COX-2 is also thought to be involved in ovulation, implantation and closure of the *ductus arteriosus*, and central nervous system functions (fever induction, pain perception and cognitive function). In *in-vitro* canine whole blood assays, firocoxib exhibits approximately 380-fold selectivity for COX-2 over COX-1. The concentration of firocoxib required to inhibit 50 % of the COX-2 enzyme (i.e., the IC₅₀) is 0.16 (± 0.05) µM, whereas the IC₅₀ for COX-1 is 56 (± 7) µM.

4.3 Pharmacokinetics

Following oral administration in dogs at the recommended dose of 5 mg per kg of bodyweight, firocoxib is rapidly absorbed and the time to maximal concentration (T_{max}) is 4.09 (± 5.34) hours. The peak concentration (C_{max}) is 0.80 (± 0.42) µg/ml (equivalent to approximately 1.5 µM), plasma concentrations-time can exhibit a bimodal distribution with a potential entero-hepatic cycle, area under the curve (AUC_{t-last}) is 10.24 (±3.41) µg x hr/ml, and oral bioavailability is 36.9 (± 20.4) percent. The terminal half-life (t_{1/2}) is 6.77 (± 2.79) hours (harmonic mean 5.90 h). Firocoxib is approximately 96 % bound to plasma proteins. Following multiple oral administrations, the steady state is reached by the third daily dose. Firocoxib is metabolised predominantly by dealkylation and glucuronidation in the liver. Elimination is principally in the bile and gastrointestinal tract.

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

5.3 Special precautions for storage

This veterinary medicinal product does not require any special storage conditions. Any part-used tablet should be returned to the opened blister and used within 4 days.

5.4 Nature and composition of immediate packaging

Aluminium / Polyvinyl chloride - Aluminium - Polyamide blister containing 6 tablets.
Cardboard box with 12, 36, 96 and 120 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

7. MARKETING AUTHORISATION NUMBER(S)

8. DATE OF FIRST AUTHORISATION

Date of first authorization: {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

Cardboard box

1. NAME OF THE VETERINARY MEDICINAL PRODUCT

Firodyl 250 mg chewable tablets
Firodyl vet 250 mg chewable tablets (DK/FI/NO/SE)

2. STATEMENT OF ACTIVE SUBSTANCES

250 mg of Firocoxib

3. PACKAGE SIZE

12 tablets
36 tablets
96 tablets
120 tablets

4. TARGET SPECIES

Dogs

5. INDICATIONS

6. ROUTES OF ADMINISTRATION

Oral use

7. WITHDRAWAL PERIODS

8. EXPIRY DATE

Exp.{mm/yyyy}
Any part-used tablet should be returned to the opened blister and used within 4 days.

9. SPECIAL STORAGE PRECAUTIONS

10. THE WORDS “READ THE PACKAGE LEAFLET BEFORE USE”

Read 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 NUMBER(S)

15. BATCH NUMBER

Lot {number}

MINIMUM PARTICULARS TO APPEAR ON SMALL IMMEDIATE PACKAGINGS UNITS

Blister

1. NAME OF THE VETERINARY MEDICINAL PRODUCT

Firodyl



2. QUANTITATIVE PARTICULARS OF THE ACTIVE SUBSTANCE

250 mg of firocoxib

3. BATCH NUMBER

Lot {number}

4. EXPIRY DATE

Exp. {mm/yyyy}

B. PACKAGE LEAFLET

PACKAGE LEAFLET:

1. Name of the veterinary medicinal product

Firodyl 250 mg chewable tablets for dogs
Firodyl vet 250 mg chewable tablets for dogs (DK/FI/NO/SE)

2. Composition

Each tablet contains:

Active substance:

Firocoxib 250 mg

Round clover shaped tablet, Beige to light brown. Double scored on one side.
The tablets can be divided into equal quarters.

3. Target species

Dogs



4. Indications for use

For the relief of pain and inflammation associated with osteoarthritis in dogs.
For the relief of post-operative pain and inflammation associated with soft-tissue, orthopaedic and dental surgery in dogs.

5. Contraindications

Do not use in pregnant or lactating bitches.
Do not use in animals less than 10 weeks of age or less than 3 kg body weight.
Do not use in animals suffering from gastrointestinal bleeding, blood dyscrasia or haemorrhagic disorders.
Do not use concomitantly with corticosteroids or other non-steroidal anti-inflammatory drugs (NSAIDs).
Do not use in cases of hypersensitivity to the active substance or to any of the excipients.

6. Special warnings

Special precautions for safe use in the target species

As the tablets are flavoured, they should be stored in a safe place out of the reach of animals.
The recommended dose, as indicated in the dosing table, should not be exceeded.
Use in very young animals, or animals with suspected or confirmed impairment of renal, cardiac or hepatic function may involve additional risk. If such use cannot be avoided, those dogs require careful veterinary monitoring.
Avoid use in any dehydrated, hypovolaemic or hypotensive animals, as there is a potential risk of increased renal toxicity. Concurrent administration of potentially nephrotoxic drugs should be avoided.
Use this veterinary medicinal product under strict veterinary monitoring where there is a risk of gastrointestinal bleeding, or if the animal previously displayed intolerance to NSAIDs. Renal and/or hepatic disorders have been reported in very rare cases in dogs administered the recommended treatment dose. It is possible that a proportion of such cases had sub-clinical renal or hepatic disease prior to the

commencement of therapy. Therefore, appropriate laboratory testing to establish baseline renal or hepatic biochemistry parameters is recommended prior to and periodically during administration. The treatment should be discontinued if any of these signs are observed: repeated diarrhoea, vomiting, faecal occult blood, sudden weight loss, anorexia, lethargy, degradation of renal or hepatic biochemistry parameters.

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

This veterinary medicinal product may be harmful following accidental ingestion.

In order to prevent children from accessing the veterinary medicinal product, tablets should be administered and stored out of sight and reach of children. Halved or quartered tablets should be returned to the open blister pocket and inserted into the outer carton.

Laboratory studies in rats and rabbits have shown evidence that firocoxib has the potential to effect reproduction and to induce malformations in foetuses. Pregnant women or women who are intending to become pregnant should administer the veterinary medicinal product with caution.

Wash hands after use of the veterinary medicinal product.

In the event of accidental ingestion of one or more tablets, seek medical advice immediately and show the package leaflet or the label to the doctor.

Pregnancy and lactation

Do not use in pregnant or lactating bitches.

Laboratory studies in rabbits have shown evidence of maternotoxic and foetotoxic effects at dose rates approximating the recommended treatment dose for the dog.

Interaction with other medicinal products and other forms of interaction

Pre-treatment with other anti-inflammatory substances may result in additional or increased adverse effects and accordingly a treatment-free period with such drugs should be observed for at least 24 hours before the commencement of treatment with the veterinary medicinal product. The treatment-free period, however, should take into account the pharmacokinetic properties of the veterinary medicinal products used previously.

The veterinary medicinal product must not be administered in conjunction with other NSAIDs or glucocorticosteroids. Gastrointestinal tract ulceration may be exacerbated by corticosteroids in animals given non-steroidal anti-inflammatory drugs.

Concomitant treatment with molecules displaying action on renal flow, e.g. diuretics or Angiotensin Converting Enzyme (ACE) inhibitors, should be subject to clinical monitoring. Concurrent administration of potentially nephrotoxic drugs should be avoided as there might be an increased risk of renal toxicity. As anaesthetic drugs may affect renal perfusion, the use of parenteral fluid therapy during surgery should be considered to decrease potential renal complications when using NSAIDs peri-operatively.

Concurrent use of other active substances that have a high degree of protein binding may compete with firocoxib for binding and thus lead to toxic effects.

Overdose :

In dogs ten weeks of age at the start of treatment at dose rates equal or greater to 25 mg/kg/day (5 times the recommended dose) for three months, the following signs of toxicity were observed: bodyweight loss, poor appetite, changes in the liver (accumulation of lipid), brain (vacuolisation), duodenum (ulcers) and death. At dose rates equal or greater to 15 mg/kg/day (3 times the recommended dose) for six months, similar clinical signs were observed, albeit that the severity and frequency were less and duodenal ulcers were absent.

In those target animal safety studies, clinical signs of toxicity were reversible in some dogs following cessation of therapy.

In dogs seven months of age at the start of treatment at dose rates greater than or equal to 25 mg/kg/day (5 times the recommended dose) for six months, gastrointestinal adverse effects, i.e. vomiting were observed.

Overdose studies were not conducted in animals over 14 months of age.

If clinical signs of overdosing are observed, discontinue treatment.

7. Adverse events

Dogs:

Uncommon (1 to 10 animals / 1000 animals treated):
Vomiting ^{1,2} , Diarrhoea ^{1,5}
Rare (1 to 10 animals / 10,000 animals treated):
Nervous system disorder
Very rare (<1 animal / 10,000 animals treated, including isolated reports):
Renal (kidney) disorder ^{2,3} Hepatic (liver) disorder ^{2,3} Blood in faeces ² Anorexia ² , Lethargy ² , Weight loss ^{2,4}

¹ Transient and reversible when the treatment is stopped.

² If adverse reactions occur, treatment should be discontinued, and the advice of a veterinarian should be sought.

³ Including degradation of renal or hepatic biochemistry parameters

⁴ sudden

⁵ If repeatedly occurring, treatment should be discontinued, and the advice of a veterinarian should be sought.

As with other NSAIDs, serious adverse effects can occur and, in very rare cases, may be fatal.

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 its local representative using the contact details at the end of this leaflet, or via your national reporting system.

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

Oral use.

5 mg/kg once daily, as presented in the table below.

For the reduction of post-operative pain and inflammation, the animals can be dosed starting approximately 2 hours before surgery for up to 3 consecutive days as needed. Following orthopaedic surgery and depending on the response observed, treatment using the same daily dosing schedule may be continued after the first 3 days, upon judgement of the attending veterinarian.

Bodyweight (kg)	Number of tablets		Dose range (mg/kg BW)
	62.5 mg	250 mg	
3.1	0.25		5.0
3.2-6.2	0.5		5.0-9.8
6.3-9.3	0.75		5.0-7.4
9.4-12.5	1	0.25	5.0-6.6
12.6-15.5	1.25		5.0-6.2
15.6-18.5	1.5		5.1-6.0
18.6-21.5	1.75		5.1-5.9

21.6-25		0.5	5.0-5.8
25.1-37.5		0.75	5.0-7.5
37.6-50		1	5.0-6.6
50.1-62.5		1.25	5.0-6.2
62.6-75		1.5	5.0-6.0
75.1-87.5		1.75	5.0-5.8
87.6-100		2	5.0-5.7

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

9. Advice on correct administration

The tablets are palatable, i.e. they are usually taken voluntarily by dogs (voluntary consumption of 76% of occasions in animals studied). If not, they can be given directly in the dog's mouth.

Tablets can be administered with or without food.

Instruction on how to divide the tablet: Put the tablet on an even surface, with its scored side facing down (convex face up). With the tip of the thumb, exert slight vertical pressure on the middle of the tablet to break it along its width into halves. Then, in order to obtain quarters, exert slight pressure on the middle of one half with the thumb to break it into two parts.

Do not exceed the recommended dose.

Duration of treatment will be dependent on the response observed. As field studies were limited to 90 days, longer-term treatment should be considered carefully and regular monitoring undertaken by the veterinarian.

10. Withdrawal periods

Not applicable

11. Special storage precautions

Keep out of the sight and reach of children.

This veterinary medicinal product does not require any special storage conditions.

Any part-used tablet should be returned to the opened blister and used within 4 days.

Do not use this veterinary medicinal product after the expiry date which is stated on the 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 authorization numbers and pack sizes

(MA)

Pack sizes:

Cardboard box with 12, 36, 96 and 120 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 and contact details to report suspected adverse reactions:

(Name and address to be completed nationally)

Tel: +800 35 22 11 51

Email: pharmacovigilance@ceva.com

Manufacturer responsible for batch release:

Ceva Santé Animale

Boulevard de la communication

Zone Autoroutière

53950 LOUVERNE

FRANCE

17. Other information