ANNEX I

SUMMARY OF PRODUCT CHARACTERISTICS

1. NAME OF THE VETERINARY MEDICINAL PRODUCT

Carprosol 50 mg/ml solution for injection for cattle (DE, HU)

2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Each ml contains:

Active substance:

Carprofen 50,0 mg

Excipients:

Qualitative composition of excipients and other constituents	**Quantitative composition if that information is essential for proper administration of the veterinary medicinal product**
Ethanol 96%	0.1 ml
Macrogol 400	
Poloxamer 188	
Ethanolamine	
Water for injections	

Clear, light yellow solution.

3. CLINICAL INFORMATION

3.1 Target species

Cattle

3.2 Indications for use for each target species

An adjunct treatment to antimicrobial therapy to reduce clinical signs in acute infectious respiratory disease and in acute mastitis in cattle.

3.3 Contraindications

Do not use
- in animals suffering from cardiac, hepatic or renal disease.
- in animals suffering from gastro-intestinal ulceration or bleeding.
- if there is evidence of blood dyscrasia.
- 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:

- Avoid use in dehydrated or hypovolaemic animals or animals with hypotension, because there is a potential risk of increased renal toxicity.
- Concurrent administration of potentially nephrotoxic drugs should be avoided.
- The recommended dose and duration of treatment should not be exceeded.
- Do not administer other NSAIDs concurrently or within 24 hours after each administration.
- As treatment with NSAIDs may be accompanied by gastrointestinal or renal impairment, adjunctive fluid therapy should be considered, especially in the treatment of acute mastitis.

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

As with other NSAIDs, photosensitivity can also occur with carprofen. Avoid skin contact and accidental self-injection with the veterinary medicinal product. In case skin contact does occur, immediately wash with water and soap.
Wash hands after use.

Special precautions for the protection of the environment:

Not applicable.

3.6 Adverse events

Cattle:

Undetermined frequency (cannot be estimated from the available data)	Injection site reaction*

* transient

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 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

Use only according to the benefit/risk assessment of the responsible veterinarian, as specific studies on pregnant cattle are not available.

3.8 Interaction with other medicinal products and other forms of interaction

No specific interactions with other veterinary medicinal products have been reported for carprofen. Four different classes of antibiotics have been used during clinical studies with cattle (macrolides, tetracyclines, cephalosporins and potentiated penicillins) with no known interactions. However, as is the case with other NSAIDs, carprofen should not be administered simultaneously with any other veterinary medicinal product from the NSAID group or with glucocorticoids. Animals that receive an anticoagulant simultaneously with carprofen should be carefully monitored.
NSAIDs have a high percentage of binding to plasma proteins and are competitive with other agents with high plasma protein binding, which can lead to toxic effects.

3.9 Administration routes and dosage

Intravenous use, subcutaneous use.

Single subcutaneous or intravenous injection at a dose of 1.4 mg carprofen per kg of body weight (1 ml/35 kg) in combination with antibiotic therapy, as appropriate.

The stopper should not be punctured more than 20 times.

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

In clinical trials, no adverse effects were observed after intravenous or subcutaneous administration of up to 5 times the recommended dose.
There is no specific antidote for carprofen overdosage. General symptomatic treatment, as is usual for clinical overdosage with NSAIDs, should be established.

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

Meat and offal: 21 days.
Milk: Zero hours.

4. PHARMACOLOGICAL INFORMATION

4.1 ATCvet code: QM01AE91

4.2 Pharmacodynamics

Carprofen is a member of the 2-arylpropionic acid group of non-steroidal anti-inflammatory drugs (NSAIDs), and possesses anti-inflammatory, analgesic and antipyretic properties.

As with most other NSAIDs, carprofen is an inhibitor of the enzyme cyclo-oxygenase of the arachidonic acid cascade. However, the inhibition of prostaglandin synthesis by carprofen is slight compared to its anti-inflammatory and analgesic properties. The exact mechanism of action is not clear.

Studies have demonstrated that carprofen exhibits strong antipyretic activity and provides a significant reduction of inflammation in lung tissue in acute infectious respiratory disease with fever in cattle. Studies on experimentally induced acute mastitis in cattle have shown that intravenously administered carprofen has a powerful antipyretic activity and improves heart rate and rumen function.

4.3 Pharmacokinetics

Absorption: Following a single subcutaneous dose of 1.4 mg carprofen/kg, the maximum plasma concentration (C_{max}) of 15.4 µg /ml was reached after (T_{max}) 7 - 19 hours.

Distribution: The highest carprofen concentrations were found in bile and plasma, and more than 98% of the carprofen is bound to plasma proteins. Carprofen was well distributed among the tissues, with the highest concentrations found in kidneys and liver, followed by fat and muscle.

Metabolism: Carprofen (parent compound) is the main component in all tissues. Carprofen (parent compound) is metabolised slowly, mainly by ring hydroxylation, hydroxylation at the α-carbon site and by conjugation of the carboxylic acid group with glucuronic acid. The 8-hydroxyl metabolite and unmetabolised carprofen predominate in the faeces. Bile samples contain conjugated carprofen.

Elimination: Carprofen has a plasma elimination half-life of 70 hours. Carprofen is excreted mainly in the faeces, indicating that biliary excretion plays an important role.

5. PHARMACEUTICAL PARTICULARS

5.1 Major incompatibilities

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

5.2 Shelf life

Shelf life of the veterinary medicinal product as packaged for sale: 3 years.
Shelf life after first opening the immediate packaging: 28 days.

5.3 Special precautions for storage

Do not refrigerate or freeze.
Keep the vial in the outer carton in order to protect from light.

5.4 Nature and composition of immediate packaging

50 ml amber glass vial (Type I) closed with a chlorobutyl rubber stopper and covered with an aluminum cap in a carton box.

5.5 Special precautions for the disposal of unused veterinary medicinal products 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

CP-Pharma Handelsgesellschaft mbH

7. MARKETING AUTHORISATION NUMBER(S)

8. DATE OF FIRST AUTHORISATION

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*).

PARTICULARS TO APPEAR ON THE OUTER PACKAGE

CARTON BOX

1. NAME OF THE VETERINARY MEDICINAL PRODUCT

Carprosol 50 mg/ml solution for injection for cattle

2. STATEMENT OF ACTIVE SUBSTANCES

Each ml contains:
Active substance:
Carprofen 50,0 mg

3. PACKAGE SIZE

50 ml

4. TARGET SPECIES

Cattle

5. INDICATIONS

6. ROUTES OF ADMINISTRATION

i.v., **s.c.**

7. WITHDRAWAL PERIODS

Withdrawal period:
Meat and offal: 21 days.
Milk: Zero hours.

8. EXPIRY DATE

Exp. {mm/yyyy}

Once broached use within 28 days.
Once broached, use by:_____

9. SPECIAL STORAGE PRECAUTIONS

Do not refrigerate or freeze.
Keep the vial in the outer carton in order to protect from light.

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

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

CP-Pharma Handelsgesellschaft mbH

14. MARKETING AUTHORISATION NUMBERS

15. BATCH NUMBER

Lot {number}

PARTICULARS TO APPEAR ON THE IMMEDIATE PACKAGE

Vial (50 ml)

1. NAME OF THE VETERINARY MEDICINAL PRODUCT

Carprosol 50 mg/ml solution for injection for cattle

2. STATEMENT OF ACTIVE SUBSTANCES

Each ml contains:
Carprofen 50,0 mg/ml

3. TARGET SPECIES

Cattle

4. ROUTES OF ADMINISTRATION

i.v., **s.c.**Read the package leaflet before use.

5. WITHDRAWAL PERIODS

Withdrawal period:
Meat and offal: 21 days.
Milk: Zero hours.

6. EXPIRY DATE

Exp. {mm/yyyy}

Once broached use by:…

7. SPECIAL STORAGE PRECAUTIONS

Do not refrigerate or freeze.
Keep the vial in the outer carton in order to protect from light.

8. NAME OF THE MARKETING AUTHORISATION HOLDER

CP-Pharma Handelsgesellschaft mbH

9. BATCH NUMBER

Lot {number}

B. PACKAGE LEAFLET

PACKAGE LEAFLET

1. Name of the veterinary medicinal product

Carprosol 50 mg/ml solution for injection for cattle

2. Composition

Each ml contains:

Active substance:
Carprofen: 50.0 mg

Excipients:
Ethanol 96% 0.1 ml

Clear, light yellow solution.

3. Target species

Cattle.

4. Indications for use

An adjunct treatment to antimicrobial therapy to reduce clinical signs in acute infectious respiratory disease and in acute mastitis in cattle.

5. Contraindications

Do not use
- in animals suffering from cardiac, hepatic or renal disease.
- in animals suffering from gastro-intestinal ulceration or bleeding.
- if there is evidence of blood dyscrasia.
- 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:

- Avoid use in dehydrated or hypovolaemic animals or animals with hypotension, because there is a potential risk of increased renal toxicity.
- Concurrent administration of potentially nephrotoxic drugs should be avoided.
- The recommended dose and duration of treatment should not be exceeded.
- Do not administer other NSAIDs concurrently or within 24 hours after each administration.
- As treatment with NSAIDs may be accompanied by gastrointestinal or renal impairment, adjunctive fluid therapy should be considered, especially in the treatment of acute mastitis.

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

As with other NSAIDs, photosensitivity can also occur with carprofen. Avoid skin contact and accidental self-injection with the veterinary medicinal product. In case skin contact does occur, immediately wash with water and soap.
Care should be taken when handling the product to avoid self-injection. In case of accidental self-injection, seek medical advice immediately and show the package leaflet or the label to the physician. Wash hands after use.

Pregnancy and lactation:

Use only according to the benefit/risk assessment of the responsible veterinarian, as specific studies on pregnant cattle are not available.

Interaction with other medicinal products and other forms of interaction:

No specific interactions with other veterinary medicinal products have been reported for carprofen. Four different classes of antibiotics have been used during clinical studies with cattle (macrolides, tetracyclines, cephalosporins and potentiated penicillins) with no known interactions. However, as is the case with other NSAIDs, carprofen should not be administered simultaneously with any other veterinary medicinal product from the NSAID group or with glucocorticoids. Animals that receive an anticoagulant simultaneously with carprofen should be carefully monitored.
NSAIDs have a high percentage of binding to plasma proteins and are competitive with other agents with high plasma protein binding, which can lead to toxic effects.

Overdose:

In clinical trials, no adverse effects were observed after intravenous or subcutaneous administration of the product of up to 5 times the recommended dose.
There is no specific antidote for carprofen overdosage. General symptomatic treatment, as is usual for clinical overdosage with NSAIDs, should be established.

Major incompatibilities:

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

7. Adverse events

Cattle:

Undetermined frequency (cannot be estimated from the available data)	Injection site reaction*

* transient

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.

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

Intravenous use, subcutaneous use (**i.v**., **s.c.**)

Single subcutaneous or intravenous injection at a dose of 1.4 mg carprofen per kg of body weight (1 ml/35 kg) in combination with antibiotic therapy, as appropriate.

9. Advice on correct administration

The stopper should not be punctured more than 20 times.

10. Withdrawal periods

Meat and offal: 21 days.
Milk: Zero hours.

11. Special storage precautions

Keep out of the sight and reach of children.

Do not refrigerate or freeze.
Keep the vial in the outer carton in order to protect from light.

Do not use this veterinary medicinal product after the expiry date which is stated on the label and the carton box after Exp. The expiry date refers to the last day of that month.
Shelf life after first opening the immediate packaging: 28 days.

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

50 ml amber glass vial (Type I) closed with a chlorobutyl rubber stopper and, covered with an aluminum cap in a carton box.

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 manufacturer responsible for batch release <and contact details to report suspected adverse reactions>:

CP-Pharma Handelsgesellschaft mbH
Ostlandring 13
31303 Burgdorf
Germany