[Version 8, 10/2012]

ANNEX I

SUMMARY OF PRODUCT CHARACTERISTICS

1. NAME OF THE VETERINARY MEDICINAL PRODUCT

Bupaq Multidose 0.3 mg/ml Solution for Injection for Dogs and Cats
(AT, BE, BG, CZ, EE, ES, FR, HU, IE, IT, LT, LV, NL, PL, PT, RO, SK, UK)
Bupaq Multidose vet 0.3 mg/ml Solution for Injection (FI, DK, NO, SE)
Buprenovet Multidose 0.3 mg/ml Solution for Injection for Dogs and Cats (DE)

2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Each ml contains:

Active substance:
Buprenorphine (as hydrochloride) 0.3 mg

Excipients:
Chlorocresol 1.35 mg

For the full list of excipients, see section 6.1

3. PHARMACEUTICAL FORM

Solution for injection
Clear, colourless to almost colourless solution

4. CLINICAL PARTICULARS

4.1 Target species

Dogs and cats

4.2 Indications for use, specifying the target species

DOG
Post-operative analgesia.
Potentiation of the sedative effects of centrally-acting agents.

CAT
Post-operative analgesia.

4.3 Contraindications

Do not use in case of hypersensitivity to the active substance or to any of the excipients.
Do not administer by the intrathecal or peridural route.
Do not use pre-operatively for Caesarian section (see section 4.7).

4.4 Special warnings for each target species

None.

4.5 Special precautions for use

Special precautions for use in animals

Use of the veterinary medicinal product in the below circumstances should only be in accordance with the benefit/risk assessment by the responsible veterinarian.
Buprenorphine may cause respiratory depression and as with other opioid drugs, care should be taken when treating animals with impaired respiratory function or animals that are receiving drugs that can cause respiratory depression.
In case of renal, cardiac or hepatic dysfunction or shock, there may be greater risk associated with the use of the product.
Safety has not been fully evaluated in clinically compromised cats.
Buprenorphine should be used with caution in animals with impaired liver function, especially biliary tract disease, as the substance is metabolised by the liver and its intensity and duration of action may be affected in such animals.
The safety of buprenorphine has not been demonstrated in animals less than 7 weeks of age.
Repeat administration earlier than the recommended repeat interval suggested in section 4.9 is not recommended.
Long-term safety of buprenorphine in cats has not been investigated beyond 5 consecutive days of administration.
The effect of an opioid on head injury is dependent on the type and severity of the injury and the respiratory support supplied.

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

Wash hands/affected area thoroughly after any accidental spillage.
As buprenorphine has opioid-like activity, care should be taken to avoid self-injection. In case of accidental self-injection or ingestion, seek medical advice immediately and show the package leaflet or the label to the physician. Naloxone should be available in case of accidental parenteral exposure.
Following eye contamination or skin contact, wash thoroughly with cold running water. Seek medical advice if irritation persists.

4.6 Adverse reactions (frequency and seriousness)

Salivation, bradycardia, hypothermia, agitation, dehydration and miosis can occur in the dog, and rarely hypertension and tachycardia.
Mydriasis and signs of euphoria (excessive purring, pacing, rubbing) commonly occur in cats and will usually resolve within 24 hours.
Buprenorphine may cause respiratory depression (refer to section 4.5). When used to provide analgesia, sedation is rarely seen, but may occur at dose levels higher than those recommended.
Local discomfort or pain at the injection site, resulting in vocalisation, may occur very rarely*. The effect is normally temporary.

*The frequency of adverse reactions is defined using the following convention:
- very common (more than 1 in 10 animals displaying adverse reactions during the course of one treatment)
- common (more than 1 but less than 10 animals in 100 animals)
- uncommon (more than 1 but less than 10 animals in 1,000 animals)
- rare (more than 1 but less than 10 animals in 10,000 animals)
- very rare (less than 1 animal in 10,000 animals, including isolated reports)

4.7 Use during pregnancy, lactation or lay

Pregnancy:
Laboratory studies in rats have not produced any evidence of a teratogenic effect. However, these studies have shown post-implantation losses and early foetal deaths. These may have resulted from a reduction in parental body condition during gestation and in post-natal care owing to sedation of the mothers.
As reproductive toxicity studies have not been conducted in the target species, use only according to the benefit/risk assessment by the responsible veterinarian.

The product should not be used pre-operatively in cases of Caesarean section, due to the risk of respiratory depression in the offspring periparturiently, and should only be used post-operatively with special care (see below).

Lactation:
Studies in lactating rats have shown that, after intramuscular administration of buprenorphine, concentrations of unchanged buprenorphine in the milk equalled or exceeded that in the plasma. As it is likely that buprenorphine will be excreted in the milk of other species, use is not recommended during lactation. Use only in accordance with the benefit/risk assessment by the responsible veterinarian.

4.8 Interaction with other medicinal products and other forms of interaction

Buprenorphine may cause some drowsiness, which may be potentiated by other centrally acting agents, including tranquillisers, sedatives and hypnotics.
There is evidence in humans to indicate that therapeutic doses of buprenorphine do not reduce the analgesic efficacy of standard doses of an opioid agonist, and that when buprenorphine is employed within the normal therapeutic range, standard doses of opioid agonist may be administered before the effects of the former have ended without compromising analgesia. However, it is recommended that buprenorphine is not used in conjunction with morphine or other opioid-type analgesics, e.g. etorphine, fentanyl, pethidine, methadone, papaveretum or butorphanol.
Buprenorphine has been used with acepromazine, alphaxalone/alphadalone, atropine, dexmedetomidine, halothane, isoflurane, ketamine, medetomidine, propofol, sevoflurane, thiopental and xylazine. When used in combination with sedatives, depressive effects on heart rate and respiration may be augmented.

4.9 Amounts to be administered and administration route

For intramuscular or intravenous use.

DOG: Post-operative analgesia, potentiation of the sedation
CAT: Post-operative analgesia

10 - 20 micrograms per kg (0.3 - 0.6 ml per 10 kg)

For further pain relief the dose may be repeated if necessary:

DOG: either after 3 - 4 hours with 10 µg/kg
or after 5 - 6 hours with 20 µg/kg.
CAT: Once, after 1 - 2 hours with 10 - 20 µg/kg.

While sedative effects are present by 15 minutes after administration, analgesic activity becomes apparent after approximately 30 minutes. To ensure that analgesia is present during surgery and immediately on recovery, the product should be administered preoperatively as part of premedication. When administered for potentiation of sedation or as part of premedication, the dose of other centrally-acting agents, such as acepromazine or medetomidine, should be reduced. The reduction will depend on the degree of sedation required, the individual animal, the type of other agents included in premedication and how anaesthesia is to be induced and maintained. It may also be possible to reduce the amount of inhalational anaesthetic used.
Animals administered opioids possessing sedative and analgesic properties may show variable responses. Therefore, the response of individual animals should be monitored and subsequent doses should be adjusted accordingly. In some cases, repeat doses may fail to provide additional analgesia. In these cases, consideration should be given to using a suitable injectable NSAID.
Before administration, the weight of the animal should be accurately determined. An appropriately graduated syringe must be used to allow accurate dosing.

The rubber stopper can be punctured a maximum of 25 times.

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

In cases of overdosage, supportive measures should be instituted, and, if appropriate, naloxone or respiratory stimulants may be used.
When administered at overdose to dogs, buprenorphine may cause lethargy. At very high doses, bradycardia and miosis may be observed.

Naloxone may be of benefit in reversing reduced respiratory rate and respiratory stimulants such as Doxapram are also effective in man. Because of the prolonged duration of effect of buprenorphine in comparison to such drugs, they may need to be administered repeatedly or by continuous infusion. Volunteer studies in man have indicated that opiate antagonists may not fully reverse the effects of buprenorphine.
In toxicological studies of buprenorphine hydrochloride in dogs, biliary hyperplasia was observed after oral administration for one year at dose levels of 3.5 mg/kg/day and above. Biliary hyperplasia was not observed following daily intramuscular injection of dose levels up to 2.5 mg/kg/day for 3 months. This is well in excess of any clinical dose regimen in the dog.
Please also refer to sections 4.5 and 4.6 of this SPC.

4.11 Withdrawal period(s)

Not applicable.

5. PHARMACOLOGICAL PROPERTIES

Pharmacotherapeutic group: Opioid analgesics, oripavine derivatives
ATCvet code: QN02AE01.

5.1 Pharmacodynamic properties

In summary, buprenorphine is a potent, long-acting analgesic acting at opiate receptors in the central nervous system. Buprenorphine can potentiate the effects of other centrally-acting agents, but unlike most opiates, buprenorphine has, at clinical doses, only a limited sedative effect of its own. Buprenorphine exerts its analgesic effect via high affinity binding to various subclasses of opiate receptors, particularly μ, in the central nervous system. At clinical dose levels for analgesia, buprenorphine binds to opiate receptors with high affinity and high receptor avidity, such that its dissociation from the receptor site is slow, as demonstrated in *in vitro* studies. This unique property of buprenorphine could account for its longer duration of activity when compared to morphine. In circumstances where excessive opiate agonist is already bound to opiate receptors, buprenorphine can exert a narcotic antagonistic activity as a consequence of its high-affinity opiate receptor binding, such that an antagonistic effect on morphine equivalent to naloxone has been demonstrated.
Buprenorphine has little effect on gastro-intestinal motility.

5.2 Pharmacokinetic particulars

When given parenterally, the product may be administered by intramuscular or intravenous injection. Buprenorphine is rapidly absorbed after intramuscular injection in various animal species and man. The substance is highly lipophilic and the volume of distribution in body compartments is large. Pharmacological effects (e.g. mydriasis) may occur within minutes of administration and signs of sedation normally appear by 15 minutes. Analgesic effects appear around 30 minutes with peak effects usually being observed at about 1 – 1.5 hours.
Following intravenous administration to dogs at a 20 μg/kg dose, the mean terminal half-life was 9 hours and the mean clearance was 24 ml/kg/min, however, there is considerable inter-dog variability in pharmacokinetic parameters.

Following intramuscular administration to cats, the mean terminal half-life was 6.3 hours and the clearance was 23 ml/kg/min; however, there was considerable inter-cat variability in pharmacokinetic parameters.
Combined pharmacokinetic and pharmacodynamic studies have demonstrated a marked hysteresis between plasma concentration and analgesic effect. Plasma concentrations of buprenorphine should not be used to formulate individual animal dosage regimens, which should be determined by monitoring the patient's response.
The major route of excretion in all species except the rabbit (where urinary excretion predominates) is the faeces. Buprenorphine undergoes N-dealkylation and glucuronide conjugation by the intestinal wall and the liver and its metabolites are excreted via the bile into the gastro-intestinal tract.
In tissue distribution studies carried out in rats and rhesus monkeys the highest concentrations of drug-related material were observed in liver, lung and brain. Peak levels occurred rapidly and declined to low levels by 24 hours after dosing.
Protein binding studies in rats have shown that buprenorphine is highly bound to plasma proteins, principally to alpha and beta globulins.

6. PHARMACEUTICAL PARTICULARS

6.1 List of excipients

Chlorocresol
Glucose monohydrate
Hydrochloric acid (for pH adjustment)
Water for injection

6.2 Incompatibilities

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

6.3 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

6.4. Special precautions for storage

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

6.5 Nature and composition of immediate packaging

Amber glass vials type I, bromobutyl rubber stopper type I, coated, aluminium cap
Package sizes: 10 ml, 5 x 10 ml, 10 x 10 ml.
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 such veterinary medicinal products should be disposed of in accordance with local requirements.

7. MARKETING AUTHORISATION HOLDER

VetViva Richter GmbH, Durisolstrasse 14, 4600 Wels, Austria

8. MARKETING AUTHORISATION NUMBER(S)

9. DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION

Date of first authorisation:
Date of last renewal:

10 DATE OF REVISION OF THE TEXT

PROHIBITION OF SALE, SUPPLY AND/OR USE

Not applicable.

ANNEX III

LABELLING AND PACKAGE LEAFLET

A. LABELLING

PARTICULARS TO APPEAR ON THE OUTER PACKAGE -
Cardboard box (10 ml)

1. NAME OF THE VETERINARY MEDICINAL PRODUCT

Bupaq Multidose 0.3 mg/ml Solution for Injection for Dogs and Cats
(AT, BE, BG, CZ, EE, ES, FR, HU, IE, IT, LT, LV, NL, PL, PT, RO, SK, UK)
Bupaq Multidose vet 0.3 mg/ml Solution for Injection (FI, DK, NO, SE)
Buprenovet Multidose 0.3 mg/ml Solution for Injection for Dogs and Cats (DE)

Buprenorphine

2. STATEMENT OF ACTIVE AND OTHER SUBSTANCES

Buprenorphine (as hydrochloride) 0.3 mg/ml

3. PHARMACEUTICAL FORM

Solution for injection

4. PACKAGE SIZE

10 ml
5 x 10 ml
10 x 10 ml

5. TARGET SPECIES

Dogs and cats

6. INDICATION(S)

-

7. METHOD AND ROUTE(S) OF ADMINISTRATION

For IM or IV injection.

Read the package leaflet before use.

8. WITHDRAWAL PERIOD

-

9. SPECIAL WARNING(S), IF NECESSARY

-

10. EXPIRY DATE

EXP {month/year}
Once broached, use within 28 days.

11. SPECIAL STORAGE CONDITIONS

Protect from light.
Do not refrigerate or freeze.

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

Disposal: read package leaflet.

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 SIGHT AND REACH OF CHILDREN"

Keep out of the sight and reach of children.

15. NAME AND ADDRESS OF THE MARKETING AUTHORISATION HOLDER

VetViva Richter GmbH, 4600 Wels, Austria

16. MARKETING AUTHORISATION NUMBER(S)

17. MANUFACTURER'S BATCH NUMBER

Batch {number}

MINIMUM PARTICULARS TO APPEAR ON SMALL IMMEDIATE PACKAGING UNITS

10 ml amber glass vial type I with brombutyl rubber stopper and alu-caps

1. NAME OF THE VETERINARY MEDICINAL PRODUCT

Bupaq Multidose 0.3 mg/ml Solution for Injection for Dogs and Cats
(AT, BE, BG, CZ, EE, ES, FR, HU, IE, IT, LT, LV, NL, PL, PT, RO, SK, UK)
Bupaq Multidose vet 0.3 mg/ml Solution for Injection (FI, DK, NO, SE)
Buprenovet Multidose 0.3 mg/ml Solution for Injection for Dogs and Cats (DE)

Buprenorphine

2. QUANTITY OF THE ACTIVE SUBSTANCE(S)

Buprenorphine (as hydrochloride) 0.3 mg/ml

3. CONTENTS BY WEIGHT, BY VOLUME OR BY NUMBER OF DOSES

10 ml

4. ROUTE(S) OF ADMINISTRATION

IV, IM

5. WITHDRAWAL PERIOD

-

6. BATCH NUMBER

Batch {number}

7. EXPIRY DATE

EXP {month/year}
Once broached use by …….

8. THE WORDS "FOR ANIMAL TREATMENT ONLY"

For animal treatment only.

B. PACKAGE LEAFLET

PACKAGE LEAFLET FOR:

Bupaq Multidose 0.3 mg/ml Solution for Injection for Dogs and Cats
(AT, BE, BG, CZ, EE, ES, FR, HU, IE, IT, LT, LV, NL, PL, PT, RO, SK, UK)
Bupaq Multidose vet 0.3 mg/ml Solution for Injection (FI, DK, NO, SE)
Buprenovet Multidose 0.3 mg/ml Solution for Injection for Dogs and Cats (DE)

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

Marketing authorisation holder and manufacturer responsible for batch release:
VetViva Richter GmbH, Durisolstrasse 14, 4600 Wels, Austria

2. NAME OF THE VETERINARY MEDICINAL PRODUCT

Bupaq Multidose 0.3 mg/ml Solution for Injection for Dogs and Cats
(AT, BE, BG, CZ, EE, ES, FR, HU, IE, IT, LT, LV, NL, PL, PT, RO, SK, UK)
Bupaq Multidose vet 0.3 mg/ml Solution for Injection (FI, DK, NO, SE)
Buprenovet Multidose 0.3 mg/ml Solution for Injection for Dogs and Cats (DE)

Buprenorphine

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

Each ml contains:

Active substance:
Buprenorphine (as hydrochloride) 0.3 mg

Excipient:
Chlorocresol 1.35 mg

Clear, colourless to almost colourless solution

4. INDICATIONS

DOG
Post-operative analgesia.
Potentiation of the sedative effects of centrally-acting agents.

CAT
Post-operative analgesia.

5. CONTRAINDICATIONS

Do not use in case of hypersensitivity to the active substance or to any of the excipients. Do not administer by the intrathecal or peridural route. Do not use pre-operatively for Caesarian section (see section “Pregnancy”).

6. ADVERSE REACTIONS

Salivation, bradycardia, hypothermia, agitation, dehydration and miosis can occur in the dog, and rarely hypertension and tachycardia.
Mydriasis and signs of euphoria (excessive purring, pacing, rubbing) commonly occur in cats and will usually resolve within 24 hours.
Buprenorphine may cause respiratory depression (refer to section "Special Warnings"). When used to provide analgesia, sedation is rarely seen, but may occur at dose levels higher than those recommended.
Local discomfort or pain at the injection site, resulting in vocalisation, may occur very rarely*. The effect is normally temporary.

*The frequency of adverse reactions is defined using the following convention:
- very common (more than 1 in 10 animals displaying adverse reactions during the course of one treatment)
- common (more than 1 but less than 10 animals in 100 animals)
- uncommon (more than 1 but less than 10 animals in 1,000 animals)
- rare (more than 1 but less than 10 animals in 10,000 animals)
- very rare (less than 1 animal in 10,000 animals, including isolated reports)

If you notice any serious effects or other effects not mentioned in this package leaflet, please inform your veterinary surgeon.

7. TARGET SPECIES

Dogs and cats

8. DOSAGE FOR EACH SPECIES, ROUTES AND METHOD OF ADMINISTRATION

For intramuscular or intravenous use.

DOG: Post-operative analgesia, potentiation of the sedation
CAT: Post-operative analgesia

10 - 20 micrograms per kg (0.3 - 0.6 ml per 10 kg)

For further pain relief the dose may be repeated if necessary:

DOG: either after 3 - 4 hours with 10 µg/kg
or after 5 - 6 hours with 20 µg/kg.
CAT: Once, after 1 - 2 hours with 10 - 20 µg/kg.

The rubber stopper can be punctured a maximum of 25 times.

9. ADVICE ON CORRECT ADMINISTRATION

While sedative effects are present by 15 minutes after administration, analgesic activity becomes apparent after approximately 30 minutes. To ensure that analgesia is present during surgery and immediately on recovery, the product should be administered preoperatively as part of premedication. When administered for potentiation of sedation or as part of premedication, the dose of other centrally-acting agents, such as acepromazine or medetomidine, should be reduced. The reduction will depend on the degree of sedation required, the individual animal, the type of other agents included in premedication and how anaesthesia is to be induced and maintained. It may also be possible to reduce the amount of inhalational anaesthetic used.

Animals administered opioids possessing sedative and analgesic properties may show variable responses. Therefore, the response of individual animals should be monitored and subsequent doses should be adjusted accordingly. In some cases, repeat doses may fail to provide additional analgesia. In these cases, consideration should be given to using a suitable injectable NSAID.
Before administration, the weight of the animal should be accurately determined. An appropriately graduated syringe must be used to allow accurate dosing.

10. WITHDRAWAL PERIOD

Not applicable.

11. SPECIAL STORAGE PRECAUTIONS

Keep out of the sight and reach of children.
Keep the vial in the outer carton in order to protect from light.
Do not refrigerate or freeze.
Do not use this veterinary medicinal product after the expiry date which is stated on the label and carton after "EXP". The expiry date refers to the last day of that month.
Shelf-life after first opening the container: 28 days

12. SPECIAL WARNINGS

Special precautions for use in animals
Use of the veterinary medicinal product in the below circumstances should only be in accordance with the benefit/risk assessment by the responsible veterinarian.
Buprenorphine may cause respiratory depression and as with other opioid drugs, care should be taken when treating animals with impaired respiratory function or animals that are receiving drugs that can cause respiratory depression.
In case of renal, cardiac or hepatic dysfunction or shock, there may be greater risk associated with the use of the product.
Safety has not been fully evaluated in clinically compromised cats.
Buprenorphine should be used with caution in animals with impaired liver function, especially biliary tract disease, as the substance is metabolised by the liver and its intensity and duration of action may be affected in such animals.
The safety of buprenorphine has not been demonstrated in animals less than 7 weeks of age.
Repeat administration earlier than the recommended repeat interval suggested in section "Dosage for each species" is not recommended.
Long-term safety of buprenorphine in cats has not been investigated beyond 5 consecutive days of administration.
The effect of an opioid on head injury is dependent on the type and severity of the injury and the respiratory support supplied.

Interaction with other medicinal products
Buprenorphine may cause some drowsiness, which may be potentiated by other centrally acting agents, including tranquillisers, sedatives and hypnotics.
There is evidence in humans to indicate that therapeutic doses of buprenorphine do not reduce the analgesic efficacy of standard doses of an opioid agonist, and that when buprenorphine is employed within the normal therapeutic range, standard doses of opioid agonist may be administered before the effects of the former have ended without compromising analgesia. However, it is recommended that buprenorphine is not used in conjunction with morphine or other opioid-type analgesics, e.g. etorphine, fentanyl, pethidine, methadone, papaveretum or butorphanol.
Buprenorphine has been used with acepromazine, alphaxalone/alphadalone, atropine, dexmedetomidine, halothane, isoflurane, ketamine, medetomidine, propofol, sevoflurane, thiopental

and xylazine. When used in combination with sedatives, depressive effects on heart rate and respiration may be augmented.

Overdose
In cases of overdosage, supportive measures should be instituted, and, if appropriate, naloxone or respiratory stimulants may be used.
When administered at overdose to dogs, buprenorphine may cause lethargy. At very high doses, bradycardia and miosis may be observed.

Naloxone may be of benefit in reversing reduced respiratory rate and respiratory stimulants such as Doxapram are also effective in man. Because of the prolonged duration of effect of buprenorphine in comparison to such drugs, they may need to be administered repeatedly or by continuous infusion. Volunteer studies in man have indicated that opiate antagonists may not fully reverse the effects of buprenorphine.
In toxicological studies of buprenorphine hydrochloride in dogs, biliary hyperplasia was observed after oral administration for one year at dose levels of 3.5 mg/kg/day and above. Biliary hyperplasia was not observed following daily intramuscular injection of dose levels up to 2.5 mg/kg/day for 3 months. This is well in excess of any clinical dose regimen in the dog.

Pregnancy:
Laboratory studies in rats have not produced any evidence of a teratogenic effect. However, these studies have shown post-implantation losses and early foetal deaths. These may have resulted from a reduction in parental body condition during gestation and in post-natal care owing to sedation of the mothers.
As reproductive toxicity studies have not been conducted in the target species, use only according to the benefit/risk assessment by the responsible veterinarian.
The product should not be used pre-operatively in cases of Caesarean section, due to the risk of respiratory depression in the offspring periparturiently, and should only be used post-operatively with special care (see below section “Lactation”).

Lactation:
Studies in lactating rats have shown that, after intramuscular administration of buprenorphine, concentrations of unchanged buprenorphine in the milk equalled or exceeded that in the plasma. As it is likely that buprenorphine will be excreted in the milk of other species, use is not recommended during lactation. Use only in accordance with the benefit/risk assessment by the responsible veterinarian.

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

Special precautions to be taken by the person administering the veterinary medicinal product to animals
Wash hands/affected area thoroughly after any accidental spillage.
As buprenorphine has opioid-like activity, care should be taken to avoid self-injection. In case of accidental self-injection or ingestion, seek medical advice immediately and show the package leaflet or the label to the physician. Naloxone should be available in case of accidental parenteral exposure.
Following eye contamination or skin contact, wash thoroughly with cold running water. Seek medical advice if irritation persists.

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

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

14. DATE ON WHICH THE PACKAGE LEAFLET WAS LAST APPROVED

15. OTHER INFORMATION

Pharmacodynamic properties
Buprenorphine is a potent, long-acting analgesic acting at opiate receptors in the central nervous system. Buprenorphine can potentiate the effects of other centrally-acting agents, but has, at clinical doses, only a limited sedative effect of its own.
Buprenorphine exerts its analgesic effect via high affinity binding to opiate receptors, particularly μ, in the central nervous system. At clinical dose levels buprenorphine binds with high affinity and high receptor avidity, such that its dissociation from the receptor site is slow. This could account for its longer duration of activity. Buprenorphine has little effect on gastro-intestinal motility.

Pharmacokinetic particulars
Signs of sedation normally appear by 15 minutes. Analgesic effects appear around 30 minutes with peak effects usually being observed at about 1 – 1.5 hours.
Following intravenous administration to dogs there is considerable inter-dog variability in pharmacokinetic parameters.
The major route of excretion in dogs and cats is the faeces. Highest concentrations of drug-related material were observed in liver, lung and brain. Peak levels occurred rapidly and declined to low levels by 24 hours after dosing.

Package sizes
10 ml, 5 x 10 ml, 10 x 10 ml.
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.