1. NAME OF THE VETERINARY MEDICINAL PRODUCT

Morphasol 4 mg/ml solution for injection for dogs and cats (AT, BE, DE, EE, EL, HU, IE, LT, LU, LV, NL, PL)
Morphasol vet 4 mg/ml solution for injection for dogs and cats (DK, IS, NO)
Torphasol 4 mg/ml solution for injection for dogs and cats (ES, FR, IT, PT)
Torphasol vet 4 mg/ml solution for injection for dogs and cats (FI)

2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Each ml contains:

Active substances:
Butorphanol 4 mg
(as Butorphanol tartrate 5.83 mg)

Excipients:

Qualitative composition of excipients and other constituents	**Quantitative composition if that information is essential for proper administration of the veterinary medicinal product**
Benzethonium chloride	0.1 mg
Citric acid monohydrate	
Sodium citrate	
Sodium chloride	
Water for injections	

A clear and colourless solution.

3. CLINICAL INFORMATION

3.1 Target species

Dogs and cats.

3.2 Indications for use for each target species

Dogs:
As an analgesic: for the relief of mild to moderate visceral pain.
As a sedative: in combination with medetomidine.

Cats:
As an analgesic: for the relief of mild to moderate visceral pain.

3.3 Contraindications

Do not use in cases of hypersensitivity to the active substance or to any of the excipients.
Do not use in animals with known or suspected liver or kidney disease.
Use of butorphanol is contraindicated in case of cerebral injury or organic brain lesions and in animals with obstructive respiratory diseases, heart dysfunction or spastic conditions.

3.4 Special warnings

Butorphanol is intended for use where short (dog) and short to medium (cat) analgesia is required. For information on the duration of analgesia that can be expected following treatment, see section 4.2. However, repeat treatments of butorphanol may be administered. For cases where longer duration analgesia is likely to be required, an alternative therapeutic agent should be used.
The safety of the veterinary medicinal product in young puppies and kittens has not been established. Use of the veterinary medicinal product in these groups should be on the basis of a benefit: risk analysis by the responsible veterinarian.
In cats, individual response to butorphanol may be variable. In the absence of an adequate analgesic response, an alternative analgesic agent should be used.
In cats, increasing the dose may not increase the intensity or duration of analgesia.

3.5 Special precautions for use

Special precautions for safe use in the target species:
Routine cardiac auscultation should be performed prior to use in combination with α_2-adrenoceptor agonists. The combination of butorphanol and α_2-adrenoceptor agonists should be used with caution in animals with cardiovascular disease. The concurrent use of anticholinergic drugs, e.g. atropine should be considered. In cases of respiratory depression, it can be reversed by an opioid antagonist (e.g. Naloxone).
Sedation may be noted in treated animals.
Due to the antitussive properties of butorphanol, it should not be used in combination with an expectorant or in animals with respiratory disease associated with increased mucous production, as this may lead to accumulation of mucous in the airways.
Cats should be weighed to ensure that the correct dose is calculated. Use of either insulin syringes or 1 ml graduated syringes is recommended.

Special precautions to be taken by the person administering the veterinary medicinal product to animals:
Direct contact with skin or eye of the user should be avoided. Care should be taken when handling the veterinary medicinal product to avoid self-injection. Accidental spillage on the skin should be washed immediately with soap and water. When the veterinary medicinal product comes into contact with the eyes, rinse immediately with plenty of water. In case of accidental self-injection, seek medical advice immediately and show the package leaflet or the label to the physician, and DO NOT DRIVE, since drowsiness, nausea and dizziness may occur. Effects can be reversed by the administration of an opioid antagonist.

Special precautions for the protection of the environment:
Not applicable.

3.6 Adverse events

Dogs:

Rare (1 to 10 animals / 10 000 animals treated):	Ataxia[1] Anorexia[1] Diarrhoea[1]
Undetermined frequency (cannot be estimated from the available data):	Cardiac depression Respiratory depression Digestive tract hypomotility Sedation[2]

[1] Transient.

[2] Mild.

Cats:

Undetermined frequency (cannot be estimated from the available data):	Cardiac depression Respiratory depression Mydriasis Disorientation Agitation Anxiety Restlessness Increased sensitivity to sound Sedation[1]

[1] Mild.

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

Pregnancy and lactation:
The safety of the veterinary medicinal product has not been established during pregnancy and lactation. The use is not recommended during pregnancy and lactation.

3.8 Interaction with other medicinal products and other forms of interaction

Butorphanol may be used in combination with other sedatives such as α_2-adrenoceptor agonists (e.g. medetomidine in dogs) where synergistic effects can be expected. Therefore, an appropriate reduction in dose is necessary when used concomitantly with such agents (see section 3.9).
Because of the antitussive properties of butorphanol, it should not be used in combination with an expectorant, as this may lead to an accumulation of mucous in the airways.
The concomitant use of α_2-agonists may decrease gastrointestinal motility.
Because of its antagonist properties at the opiate mu (μ) receptor butorphanol may remove the analgesic effect in animals, which have already received pure opioid mu (μ) agonists (morphine/oxymorphine).

3.9 Administration routes and dosage

Intravenous use.

Dogs:
Analgesia:
intravenous administration of 0.2 - 0.4 mg/kg bodyweight (BW) butorphanol (equivalent to 0.05 - 0.1 ml/kg BW). For postoperative analgesia intravenous administration of 0.2 - 0.4 mg/kg BW butorphanol is recommended 20 minutes prior to end of soft tissue surgery.
Sedation in combination with medetomidine:
intravenous administration of 0.1 - 0.2 mg/kg BW butorphanol (equivalent to 0.025 - 0.05 ml/kg BW) with 10 - 30 μg/kg BW medetomidine, depending on degree of sedation required.

Cats:

Analgesia:
intravenous administration of 0.1-0.2 mg/kg BW butorphanol (equivalent to 0.025-0.05 ml/kg BW)

Avoid rapid intravenous injection.

Butorphanol is intended for use where short (dog) and short to medium (cat) analgesia is required. For information on the duration of analgesia that can be expected following treatment, see section 4.2. However, repeat treatments of butorphanol may be administered. The need for, and timing of repeat treatment should be based on clinical response. For cases where longer duration analgesia is likely to be required, an alternative therapeutic agent should be used.

In the absence of an adequate analgesic response (see section 3.4), use of an alternative analgesic agent, such as another suitable opioid analgesic and/or a non-steroidal anti-inflammatory drug, should be considered. Any alternative analgesia should take account of the action of butorphanol on opioid receptors, as described in Section 3.8.

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

The main sign of overdose is respiratory depression, which can be reversed with an opioid antagonist (e.g. Naloxone).

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

3.12 Withdrawal periods

Not applicable.

4. PHARMACOLOGICAL INFORMATION

4.1 ATCvet code :

QN02AF01

4.2 Pharmacodynamics

Butorphanol tartrate is a synthetic opioid, with agonist - antagonist action at the opiate receptors in the central nervous system. It possesses agonist activity at the kappa receptor subtype which control analgesia, sedation without depression of the cardiopulmonary system or body temperature. It has antagonist activity at the mu receptor subtype which controls analgesia, sedation, depression of the cardiovascular system and body temperature. It also possesses weak affinity to the δ-receptors, which may occasionally cause dysphoria.
The agonist component is ten times more potent than the antagonist component.
The analgesic effect of butorphanol occurs within 15 minutes following intravenous administration in dogs and cats and lasts from 15 minutes up to 30 minutes in dogs. The duration of effect lasts for 15 minutes up to 6 hours in cats. Duration of effect in cats relates to visceral pain only. In cats with somatic pain the duration of effect is likely to be considerably shorter.

4.3 Pharmacokinetics

The volume of distribution after intravenous injection is large (7.4 l/kg for cats and 4.4 l/kg for dogs) suggesting wide distribution into tissues. The terminal half-life of butorphanol is short: 4.1 hours for

cats and 1.7 hours for dogs. Butorphanol is metabolised extensively in the liver and mainly excreted in urine.

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

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

5.4 Nature and composition of immediate packaging

Cardboard box with 1 glass vial (type I) of 10 ml with a grey butyl rubber stopper and an aluminium cap.
Cardboard box with 5 glass vials (type I) of 10 ml with grey butyl rubber stopper and an aluminium cap.

Not all pack sizes may be marketed.

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

aniMedica GmbH

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).

ANNEX III

LABELLING AND PACKAGE LEAFLET

A. LABELLING

PARTICULARS TO APPEAR ON THE OUTER PACKAGE

Cardboard box 10 ml
Cardboard box 5 x 10 ml

1. NAME OF THE VETERINARY MEDICINAL PRODUCT

Morphasol 4 mg/ml solution for injection

2. STATEMENT OF ACTIVE SUBSTANCES

Each ml contains:
4 mg butorphanol (as butorphanol tartrate 5.83 mg)

3. PACKAGE SIZE

10 ml
5 x 10 ml

4. TARGET SPECIES

Dogs and cats.

5. INDICATIONS

6. ROUTES OF ADMINISTRATION

Intravenous use.

7. WITHDRAWAL PERIODS

8. EXPIRY DATE

Exp. {mm/yyyy}
Once broached use within 28 days.

9. SPECIAL STORAGE PRECAUTIONS

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

aniMedica GmbH

14. MARKETING AUTHORISATION NUMBERS

15. BATCH NUMBER

Lot {number}

MINIMUM PARTICULARS TO APPEAR ON SMALL IMMEDIATE PACKAGING UNITS

Label 10 ml

1. NAME OF THE VETERINARY MEDICINAL PRODUCT

Morphasol 4 mg/ml

2. QUANTITATIVE PARTICULARS OF THE ACTIVE SUBSTANCES

Each ml contains:
4 mg butorphanol (as butorphanol tartrate 5.83 mg)

3. BATCH NUMBER

Lot {number}

4. EXPIRY DATE

Exp. {mm/yyyy}
Once broached use within 28 days. Use by ……

B. PACKAGE LEAFLET

PACKAGE LEAFLET

1. Name of the veterinary medicinal product

Morphasol 4 mg/ml solution for injection for dogs and cats

2. Composition

Each ml contains:
Active substances: 4 mg butorphanol (as butorphanol tartrate 5.83 mg)
Excipients: 0.1 mg benzethonium chloride

A clear and colourless solution.

3. Target species

Dogs and cats.

4. Indications for use

Dogs:
As an analgesic: for the relief of mild to moderate visceral pain.
As a sedative: in combination with medetomidine.

Cats:
As an analgesic: for the relief of mild to moderate visceral pain.

5. Contraindications

Do not use in cases of hypersensitivity to the active substance or to any of the excipients.
Do not use in animals with known or suspected liver or kidney disease.
Use of butorphanol is contraindicated in case of cerebral injury or organic brain lesions and in animals with obstructive respiratory diseases, heart dysfunction or spastic conditions.

6. Special warnings

Special warnings:
Butorphanol is intended for use where short (dog) and short to medium (cat) analgesia is required. However, repeat treatments of butorphanol may be administered. For cases where longer duration analgesia is likely to be required, an alternative therapeutic agent should be used.
The safety of the veterinary medicinal product in young puppies and kittens has not been established. Use of the veterinary medicinal product in these groups should be on the basis of a benefit: risk analysis by the responsible veterinarian.
In cats, individual response to butorphanol may be variable. In the absence of an adequate analgesic response, an alternative analgesic agent should be used.
In cats, increasing the dose may not increase the intensity or duration of analgesia.

Special precautions for safe use in the target species:
Routine cardiac auscultation should be performed prior to use in combination with α_2-adrenoceptor agonists. The combination of butorphanol and α_2-adrenoceptor agonists should be used with caution in

animals with cardiovascular disease. The concurrent use of anticholinergic drugs, e.g atropine should be considered. In cases of respiratory depression, it can be reversed by an opioid antagonist (e.g. Naloxone).
Sedation may be noted in treated animals.
Due to the antitussive properties of butorphanol, it should not be used in combination with an expectorant or in animals with respiratory disease associated with increased mucous production, as this may lead to accumulation of mucous in the airways.
Cats should be weighed to ensure that the correct dose is calculated. Use of either insulin syringes or 1 ml graduated syringes is recommended.

Special precautions to be taken by the person administering the veterinary medicinal product to animals:
Direct contact with skin or eye of the user should be avoided. Care should be taken when handling the veterinary medicinal product to avoid self-injection. Accidental spillage on the skin should be washed immediately with soap and water. When the veterinary medicinal product comes into contact with the eyes, rinse immediately with plenty of water. In case of accidental self-injection, seek medical advice immediately and show the package leaflet or the label to the physician, and DO NOT DRIVE, since drowsiness, nausea and dizziness may occur. Effects can be reversed by the administration of an opioid antagonist.

Pregnancy and lactation:
The safety of the veterinary medicinal product has not been established during pregnancy and lactation. The use is not recommended during pregnancy and lactation.

Interaction with other medicinal products and other forms of interaction:
Butorphanol may be used in combination with other sedatives such as α_2-adrenoceptor agonists (e.g. medetomidine in dogs) where synergistic effects can be expected. Therefore, an appropriate reduction in dose is necessary when used concomitantly with such agents (see dosage for each species, routes and method of administration).
Because of the antitussive properties of butorphanol, it should not be used in combination with an expectorant, as this may lead to an accumulation of mucous in the airways.
The concomitant use of α_2-agonists may decrease gastrointestinal motility.
Because of its antagonist properties at the opiate mu (μ) receptor butorphanol may remove the analgesic effect in animals, which have already received pure opioid mu (μ) agonists (morphine/oxymorphine).

Overdose:
The main sign of overdose is respiratory depression, which can be reversed with an opioid antagonist (i.e. Naloxone).

Special restrictions for use and special conditions for use:

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

7. Adverse events

Dogs:

Rare (1 to 10 animals / 10 000 animals treated):	Ataxia (Incoordination)[1] Anorexia (Loss of appetite)[1] Diarrhoea[1]

Undetermined frequency (cannot be estimated from the available data):	Cardiac depression Respiratory depression Digestive tract hypomotility Sedation[2]

[1] Transient.
[2] Mild.

Cats:

Undetermined frequency (cannot be estimated from the available data):	Cardiac depression Respiratory depression Mydriasis (Dilated pupils) Disorientation Agitation Anxiety Restlessness Increased sensitivity to sound Sedation[1]

[1] Mild.

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: {national system details}

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

Intravenous use.

Dogs:
Analgesia:
intravenous administration of 0.2-0.4 mg/kg bodyweight (BW) butorphanol (equivalent to **0.05-0.1 ml/kg BW**) For postoperative analgesia intravenous administration of 0.2-0.4 mg/kg BW butorphanol is recommended 20 minutes prior to the end of soft tissue surgery.

Sedation in combination with medetomidine:
intravenous administration of 0.1-0.2 mg/kg BW butorphanol (equivalent to **0.025-0.05 ml/kg BW**) with 10-30 µg/kg BW medetomidine, depending on degree of sedation required.

Cats:
Anlagesia:
intravenous administration of 0.1-0.2 mg/kg BW butorphanol (equivalent to **0.025-0.05 ml/kg BW**)

Butorphanol is intended for use where short (dog) and short to medium (cat) analgesia is required.

However, repeat treatments of butorphanol may be administered. The need for, and timing of repeat treatment should be based on clinical response. For cases where longer duration analgesia is likely to be required, an alternative therapeutic agent should be used.

In the absence of an adequate analgesic response, use of an alternative analgesic agent, such as another suitable opioid analgesic and/or a non-steroidal anti-inflammatory drug, should be considered. Any alternative analgesia should take account of the action of butorphanol on opioid receptors, as described in section "Interaction with other medicinal products and other forms of interaction".

9. Advice on correct administration

Avoid rapid intravenous injection.

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.
Do not use this veterinary medicinal product after the expiry date which is stated on the carton and vial label 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

{National marketing authorisation numbers}

Pack sizes:
Cardboard box with 1 vial of 10 ml.
Cardboard box with 5 vials of 10 ml.

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 events:
aniMedica GmbH
Im Südfeld 9
48308 Senden-Bösensell
Germany
Tel: +49-2536-3302-0

Manufacturer responsible for batch release:
aniMedica GmbH
Im Südfeld 9
48308 Senden-Bösensell
Germany

Industrial Veterinaria S.A.
Esmeralda 19
08950 Esplugues de Llobregat (Barcelona)
Spain

Local representatives and contact details to report suspected adverse events:

17. Other information