torphasol® 10 mg/ml

Solution for Injection for Horses

Butorphanol (as butorphanol tartrate)

Horses: For short-term relief of pain associated with colic of gastrointestinal tract origin. For sedation in combination with certain α2-adrenoceptor agonists.

POM-V

PACKAGE LEAFLET

Name of the veterinary medicinal product

Torphasol 10 mg/ml solution for injection for horses.
Butorphanol (as butorphanol tartrate).

Statement of the active substances and other ingredients

1 ml contains:
Active substance: 10 mg butorphanol (as butorphanol tartrate 14.7 mg)
Excipients: 0.1 mg benzethonium chloride
A clear and colourless solution.

Indications

For the short-term relief of pain associated with colic of gastrointestinal tract origin. For information on the onset and duration of analgesia that can be expected following treatment, see section "Pharmacodynamic properties".
For sedation in combination with certain α2-adrenoceptor agonists (see section "Dosage for each species, route and method of administration").

Contraindications

Butorphanol – as a sole agent and in any combination: Do not use in horses with a history of liver or kidney disease.
Do not use in cases of known hypersensitivity to the active substance or to any of the excipients.
Do not use in cases of cerebral injury or organic brain lesions (e.g. lesions following cranial trauma) and in animals with obstructive respiratory diseases, heart dysfunction or spastic convulsions.

Butorphanol / detomidine hydrochloride combination: The combination should not be used in pregnant animals.
Do not use the combination in horses with a preexisting cardiac dysrhythmia or bradycardia.
Do not use in horses with emphysema due to a possible depressive effect in the respiratory system.

Butorphanol / romifidine combination: Do not use during the last month of pregnancy.

Butorphanol / xylazine combination: The combination should not be used in pregnant animals.

Any reduction in gastrointestinal motility caused by butorphanol (see section "Adverse reactions") may be enhanced by the concomitant use of α2-adrenoceptor agonists. Consequently, such combinations should not be used in cases of colic associated with impaction.

Adverse reactions

Butorphanol may cause the following side-effects:
- Excitatory locomotor effects (pacing)
- Mild sedation (may occur following the administration of butorphanol as a sole agent)
- Ataxia
- Reduction in gastrointestinal motility
- Depression of cardiovascular system

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

Target species

Horses

Dosage for each species, routes and method of administration

For intravenous administration only.

For analgesia:
Dose rate: 100 µg butorphanol per kg body-weight (BW) (equivalent to 1 ml for 100 kg BW), by intravenous injection. Butorphanol is intended for use where short duration analgesia is required. The dose may be repeated as required. The need for and timing of repeat treatment will be based on clinical response.

For information on the onset and duration of analgesia see section "Pharmacodynamic properties". For cases where longer duration analgesia is likely to be required, an alternative therapeutic agent should be used.

For sedation in combination with detomidine hydrochloride:
A dose rate of 12 µg detomidine hydrochloride per kg BW should be given intravenously followed within 5 minutes by a dose rate of 25 µg butorphanol per kg BW (equivalent to 0.25 ml for 100 kg BW) intravenously.

For sedation in combination with romifidine:
A dose of 40 –120 µg romifidine per kg BW followed within 5 minutes by a dose rate of 20 µg butorphanol per kg BW (equivalent to 0.2 ml for 100 kg BW) should be administered intravenously.

For sedation in combination with xylazine:
A dose rate of 500 µg xylazine per kg BW followed immediately by a dose of 25 – 50 µg butorphanol per kg BW (equivalent to 0.25 –0.5 ml per 100 kg) should be administered intravenously.

Advice on correct administration

None.

Withdrawal period

Meat and offal: zero days.
Milk: zero hours.

Special storage precautions

Keep the vial in the outer carton in order to protect from light. Keep out of the sight and reach of children. Do not use this veterinary medicinal product after the expiry date which is stated on the carton and vial after "EXP". The expiry date refers to the last day of that month. Shelf-life after first opening the vial: 28 days. When the container is broached for the first time, using the in-use shelf-life which is specified on this package insert, the date on which any product remaining in the container

should be discarded should be worked out. This discard date should be written in the space provided on the label.

Special warnings

Special precautions for use in animals

Safety and efficacy of butorphanol in foals have not been established. In foals use the product only according to the benefit/risk assessment by the responsible veterinarian. Due to its antitussive properties, butorphanol may lead to an accumulation of mucous in the respiratory tract. Therefore, in animals with respiratory diseases associated with increased mucous production or in animals that are being treated with expectorants, butorphanol should only be used on the basis of a risk-benefit analysis by the responsible veterinarian. The use of the product at the recommended dose may lead to transient ataxia and/or excitement. Therefore, to prevent injuries in patient and people, the location for the treatment should be chosen carefully. Butorphanol / detomidine hydrochloride combination: Routine cardiac auscultation should be performed prior to use in combination with detomidine.

User warnings

Direct contact with skin or eyes of the user should be avoided since the product might induce irritation and sensitization. Accidental spillage on the skin should be washed immediately with soap and water. When the product comes into contact with the eyes, rinse immediately with plenty of water. 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 insert 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.

Interaction with other medicinal products and other forms of interaction

See section "Special precautions for use in animals".

Butorphanol may be used in combination with other sedatives such as α2-adrenoceptor agonists (e.g. romifidine, detomidine, xylazine) where synergistic effects can be expected. Therefore, an appropriate reduction in dose is necessary when used concomitantly with such agents. Because of its antagonist properties at the opiate mu receptor, butorphanol may inhibit the analgesic effect in animals, which have already received pure opioid mu agonists (morphine/oxymorphine). 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 combination of butorphanol and α2-adrenoceptor agonists should be used with caution in animals with cardiovascular disease. The concurrent use of anticholinergic drugs, e.g. atropine should be considered.

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

The main sign of overdose is respiratory depression which can be reversed with an opioid antagonist (naloxone). Other possible signs of overdose in the horse include restlessness/excitability, muscle tremor, ataxia, hypersalivation, decrease of gastrointestinal motility and seizure.

Incompatibilities

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

Use during pregnancy or lactation

The safety of this product has not been investigated in the target species during pregnancy and lactation. The use of butorphanol during pregnancy and lactation is not recommended. For information on use in combination with α2-adrenoceptor agonists, see section "Contraindications".

Special precautions for the disposal of unused product or waste material

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

Date on which the package leaflet was last approved

Other information

Pharmacodynamic properties

Butorphanol tartrate (R(-) enantiomer) is a centrally acting analgesic. Its action is agonist-antagonist at the opiate receptors in the central nervous system; agonist at the kappa opioid receptor subtype and antagonist at the mu receptor subtype. The kappa receptors control analgesia, sedation without depression of cardiopulmonary system and body temperature, whereas the mu receptors control supraspinal analgesia, sedation and depression of cardiopulmonary system and body temperature. The agonist component of butorphanol activity is ten times more potent than the antagonist component. Onset and duration of analgesia: Analgesia generally occurs within 15 minutes following intravenous administration. After a single intravenous dose in the horse, analgesia usually lasts for 15–90 minutes.

Pharmacokinetic particulars

Following intravenous injection, butorphanol is well distributed in tissue. Butorphanol is metabolised extensively in the liver and excreted in the urine. In horses, butorphanol administered by intravenous route has a high clearance (21 ml/kg/min) and a short terminal half-life (44 minutes), indicating that 97% of a dose will be eliminated after intravenous administration in, on average, less than 5 hours.

Presentation: 20 ml vials

For animal treatment only. To be supplied only on veterinary prescription.

Vm 24745/4009

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