SUMMARY OF PRODUCT CHARACTERISTICS

1. NAME OF THE VETERINARY MEDICINAL PRODUCT

Domidine 10 mg/ml
Domidine vet. (Denmark)
Domodin vet. (Sweden, Finland)
Solution for Injection, for horses and cattle

2. QUALITATIVE AND QUANTITATIVE COMPOSITION

1 ml solution for injection contains:
Active substances:
Detomidine hydrochloride 10.0 mg
this corresponds to 8.36 mg detomidine base

Excipients:
Methyl parahydroxybenzoate (E 218) 1.0 mg
For a full list of excipients, see section 6.1.

3. PHARMACEUTICAL FORM

Solution for injection
Clear and colourless solution

4. CLINICAL PARTICULARS

4.1. Target species

Horse, cattle.

4.2. Indications for use

For the sedation and slight analgesia of horses and cattle, to facilitate physical examinations and treatments, such as minor surgical interventions.
Detomidine can be used for:

- Examinations (e.g. endoscopia, rectal and gynaecological examinations, X-rays).
- Minor surgical procedures (e.g. treatment of wounds, dental treatment, tendon treatment, excision of skin tumours, teat treatment).
- Before treatment and medication (e.g. stomach tube, horse shoeing).

For premedication prior to administration of injection- or inhalation anaesthetics.

4.3. Contraindications

Do not use in animals with cardiac abnormalities or respiratory diseases.
Do not use in animals with liver insufficiency or renal failure.
Do not use in animals with general health problems (e.g. diabetes mellitus,

dehydrated animals, shock or any other extraordinary stress conditions).
Do not use in combination with butorphanol in horses suffering from colic.

See also section 4.7 and 4.8

4.4. Special warnings for each target species

None.

4.5. Special precautions for use

i Special precautions for use in animals

As sedation begins, especially horses may start to sway and lower the head rapidly while they remain standing. Cattle and especially young cattle will try to lie down. To prevent injuries the location should therefore be chosen carefully. To avoid aspiration of feed or saliva, cattle should be maintained in sternal recumbency following treatment and head and neck of recumbent cattle should be lowered. Especially for horses usual precautionary measures should be taken to prevent self-injury. Detomidine should be prescribed with caution in horses which present with signs of colic or impaction.
Animals suffering from shock or liver or kidney disease should only be treated according to the benefit risk assessment by the responsible veterinarian. Detomidine/butorphanol combination should not be used in horses with a history of liver disease or cardiac irregularities.
It is recommended that feed should be withheld for at least 12 hours prior to anaesthesia.
Water or food should not be offered to treated animals until the drug effect has passed.
In painful procedures detomidine should be used only in combination with an analgesic or a local anaesthetic.
While waiting for sedation animals should remain in calm surroundings.

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

In the case of accidental oral intake or self-injection, seek medical advice immediately and show the package insert to the physician but DO NOT DRIVE as sedation and changes in blood pressure may occur.

Avoid skin, eye or mucosal contact.

Wash the exposed skin immediately after exposure with large amounts of water.

Remove contaminated clothes that are in direct contact with skin.

In the case of accidental contact of the product with eyes, rinse abundantly with fresh water. If symptoms occur, seek the advice of a physician.

If pregnant women handle the product, special caution should be observed not to self-inject as uterine contractions and decreased foetal blood pressure may occur after accidental systemic exposure.

Advice to doctors: Detomidine is an alpha2-adrenoreceptor agonist, symptoms after absorption may involve clinical effects including dose-dependent sedation, respiratory depression, bradycardia, hypotension, a dry mouth, and hyperglycaemia. Ventricular arrhythmias have also been reported. Respiratory and haemodynamic symptoms should be treated symptomatically.

4.6. Adverse reactions (frequency and seriousness)

Injection of detomidine may cause the following side effects:

- Bradycardia
- Transient hypo- and/or hypertension.
- Respiratory depression, rarely hyperventilation,
- Increase in blood glucose
- As with other sedatives, in rare cases paradoxical reactions (excitation) can develop.
- Ataxia
- In horses: Cardiac arrhythmia, atrioventricular and sino-atrial block
- In cattle: Inhibition of rumen motility, tympania, paralysis of the tongue.

At doses above 40 µg/kg bodyweight, the following symptoms can also be observed: sweating, pilo-erection and tremor of muscles, transient penis prolaps in stallions and geldings and mild, transient tympania of rumen and increased salivation in cattle.
In very rare cases horses may show mild symptoms of colic following administration of alpha-2 sympathomimetics because substances of this class transiently inhibit the motility of the intestines.
A diuretic effect is usually observed within 45 to 60 minutes after treatment.

4.7. Use during pregnancy and lactation

Do not use this product during the last trimester of pregnancy. Use only accordingly to the benefit/risk assessment by the responsible veterinarian during pregnancy.

4.8. Interactions with other medicinal products and other forms of interaction

Concurrent use of other sedatives only after consultation of the warnings and precautions of the product concerned.
Detomidine should not be used in combination with sympathomimetic amines such as adrenaline, dobutamine and ephedrine.
The concurrent use of certain potentiated sulphonamides may cause cardiac arrhythmia with fatal outcome. Do not use in combination with sulphonamides.
Detomidine in combination with other sedatives and anaesthetics should be used carefully because additive/synergistic effects may be possible. Where anaesthesia is induced with a combination of detomidine and ketamine, prior to maintenance with halothane, the effects of halothane may be delayed and care must be taken to avoid overdosage. When detomidine is used as a premedicant prior to general anaesthesia, the product may delay the onset of induction.

4.9. Amounts to be administered and administration route

For intravenous (IV) or intramuscular (IM) administration. The product should be injected slowly. Onset of effect is more rapid following intravenous administration.

Dosage in µg/kg	Dosage in ml/100 kg	Level of sedation	Commencement of effect (min)		Duration of effect (hrs)
			horse	cattle	
10-20	0.1-0.2	Light	3-5	5-8	0.5-1
20-40	0.2-0.4	Moderate	3-5	5-8	0.5-1

When prolonged sedation and analgesia is required, doses of 40 to 80 µg/kg can be used. The duration of effect is up to 3 hours.
For combination with other products to intensify the sedation or for premedication prior to general anaesthesia, doses of 10 to 30 µg/kg can be used.
It is recommended to wait 15 minutes after the detomidine administration before starting the planned procedure.

The bodyweight of the animal to be treated should be determined as accurately as possible to avoid overdosing.

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

In the event of an accidental overdose, cardiac arrhythmias, hypotension, delayed recovery and profound CNS and respiratory depression may occur. Should the effects of detomidine become life-threatening, administration of an α_2-adrenergic antagonist is recommended.

4.11. Withdrawal periods

Horse, cattle:
Meat and offal: 2 days
Milk: 12 hours

5. PHARMACOLOGICAL PROPERTIES

Pharmacotherapeutic group: hypnotics and sedatives.

ATCvet code: QN05CM90

5.1. Pharmacodynamic properties

Detomidine is an α_2-adrenoceptor agonist.
Detomidine is a sedative with analgesic properties (α_2-adrenoceptor agonist). Detomidine causes sedation in animals and relieves pain. Duration and intensity of the effect is dependent from dose. The mode of action of detomidine is based on specific stimulation of central alpha-2-adrenoceptors. The analgesic effect is based on inhibition of transfer of pain impulses in the CNS.

Because detomidine also acts on peripheral alphareceptors, increase of blood glucose, and at higher doses pilo-erection, sweating and diuresis can occur. Following an initial decrease in blood pressure, it will return to normal or slightly below normal, and heart frequency will decrease. The ECG will show an enlarged PR interval and in horses a mild atrioventricular-block. These effects are transient. In most animals respiratory frequency decreases. Hyperventilation is rarely observed.

5.2. Pharmacokinetic particulars

Detomidine is absorbed rapidly after intramuscular injection. T_{max} is 15 – 30 min. Bioavailability after intramuscular administration is 66-85 %. After rapid distribution of detomidine into the tissues, it is metabolized nearly completely mainly in the liver, t ½ is 1 to 2 hours. Metabolites are mainly excreted via urine and faeces.

6. PHARMACEUTICAL PARTICULARS

6.1. List of excipients

Methyl parahydroxybezoate (E 218)
Sodium chloride
Sodium hydroxide (for pH adjustment)
Hydrochloric acid (for pH adjustment)
Water for injection

6.2. Incompatibilities

In the absence of incompatibility 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

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

6.5. Nature and composition of immediate packaging

5, 10 and 20 ml vials (colourless glass (type I), teflon coated halogeneted rubber stopper (type I), secured with aluminium cap)
Not all pack sizes may be marketed.

6.6. Special precautions for the disposal of unused medicinal product or waste materials derived from the use of such products.

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

7. MARKETING AUTHORISATION HOLDER

Eurovet Animal Health B.V.
Handelsweg 25,
PO Box 179
5530 AD Bladel,
The Netherlands

8. MARKETING AUTHORISATION NUMBER

Vm 16849/4008

9. DATE OF RENEWAL OF THE AUTHORISATION

Date: 18 April 2011

10. DATE OF REVISION OF THE TEXT

Date: March 2013

PROHIBITION OF SALE, SUPPLY AND/OR USE

Not applicable.

APPROVED T. NASH **19/03/2013**