

SUMMARY OF PRODUCT CHARACTERISTICS

1. NAME OF THE VETERINARY MEDICINAL PRODUCT

Dormostart 1 mg/ml solution for injection for dogs and cats

2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Each ml contains:

Active substances:

Medetomidine hydrochloride 1.0 mg
(equivalent to 0.85 mg of medetomidine)

Exipients:

Qualitative composition of excipients and other constituents	Quantitative composition if that information is essential for proper administration of the veterinary medicinal product
Methyl parahydroxybenzoate (E218)	1.0 mg
Propyl parahydroxybenzoate	0.2 mg
Sodium chloride	
Hydrochloric acid, diluted (E507)	
Sodium hydroxide (E524)	
Water for injections	

A clear and colourless solution, practically free from particles.

3. CLINICAL INFORMATION

3.1 Target species

Dogs and cats

3.2 Indications for use for each target species

Dogs: For restraint, sedation and analgesia associated with clinical examinations and procedures, minor surgery and as premedication prior to general anaesthesia.

In combination with butorphanol for sedation and analgesia.

Cats: For restraint and sedation.

In combination with ketamine for the induction of general anaesthesia prior to surgical procedures.

In combination with butorphanol for sedation and analgesia, and combined with both butorphanol and ketamine for general anaesthesia.

3.3 Contraindications

Do not use in animals with heart failure, respiratory disease or impaired liver or kidney function, animals in shock, seriously debilitated animals, or animals that are stressed due extreme heat, cold or fatigue.

Do not use in conjunction with sympathomimetic amines.

Do not use in dogs under 12 weeks of age.

3.4 Special warnings

When medetomidine is administered, the animal should be allowed to rest in a maximally quiet place. Before any procedure is started or other drugs are administered, sedation should be allowed to reach its peak effect, which occurs at about 10 to 30 min, depending on route of administration.

In extremely nervous, excited or agitated animals, the levels of endogenous catecholamines may be high. The pharmacological response elicited by alpha-2 agonists (e.g. medetomidine) in such animals is often reduced, with depth and duration of sedative and analgesic effects ranging from slightly diminished to non-existent. Highly agitated animals should therefore be put at ease and allowed to rest quietly prior to receiving medetomidine. Allowing animals to rest quietly for 10 to 15 minutes after injection may improve the response to medetomidine.

3.5 Special precautions for use

Special precautions for safe use in the target species:

A clinical examination should be carried out in all animals before the use of drugs for sedation and/or general anaesthesia. Care should be taken when using medetomidine in animals with cardiovascular disease.

Care should be taken when combining medetomidine with other anaesthetics or sedatives. Before using any combinations consult the contraindications and warnings that appear on the concomitant product's data sheet.

Medetomidine has marked anaesthetic sparing effects. The dose of the anaesthetic should be reduced accordingly (see section 4.9).

Special care is recommended when treating very young animals and older animals. Medetomidine, ketamine and propofol are metabolised in the liver and excreted primarily via the kidneys. Pre-existing liver or kidney pathology should be carefully evaluated to confirm adequate function prior to using these products.

Fasting is recommended before medetomidine administration. After treatment, the animal should not be given water or food before it is able to swallow properly.

Treated animals should be kept in a warm and even temperature during the procedure and for 12 hours after sedation.

During prolonged procedures an ophthalmic preparation should be administered at regular intervals to lubricate the cornea especially in cats and sometimes also in dogs if their eyes remain open.

In cats, when medetomidine is used in combination with ketamine, laryngeal and pharyngeal reflexes are retained during anaesthesia.

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

This veterinary medicinal product is a sedative. Care should be taken to avoid oral intake and/or accidental self-injection.

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

Avoid skin, eye or mucosal contact. In the case of accidental contact of the veterinary medicinal product with the skin or eyes, rinse with large amounts of fresh water. Remove contaminated clothes that are in direct contact with skin. 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.

People with known hypersensitivity to parabens should administer the veterinary medicinal product with caution.

To the physician:

Medetomidine 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.

Special precautions for the protection of the environment:

Not applicable.

3.6 Adverse events

Dogs and cats:

Very common (>1 animal / 10 animals treated):	Cardiovascular effects (e.g increase of blood pressure ¹ , hypotension ¹). Hyperglycaemia ² .
Common (1 animal to 10 animals / 100 animals treated):	Vomiting ³ . Cyanosis. Muscle tremor.
Rare (1 to 10 animals / 10,000 animals treated):	Injection site pain.
Very rare (<1 animal / 10,000 animals treated, including isolated reports):	Cardiovascular effects ⁴ (e.g. bradycardia, heart block 1 st degree, heart block 2 nd degree). Pulmonary oedema, respiratory depression ⁴ . Hypersensitivity reaction. Hypothermia. Excitation ⁵ . Lack of efficacy. Recovery prolonged.

	Death ⁶ . Circulatory collapse ⁶ . Generalised congestion ⁶
Undetermined frequency (cannot be estimated from the available data):	Cardiovascular effects ⁴ (e.g., extrasystole, vasoconstriction of coronary artery, decreased cardiac output ¹). Increased urine volume. Sensitivity to loud noises.

¹ Shortly after the administration of product followed by a return to the normal value or slightly below.

² Reversible hyperglycaemia due to a depression of insulin secretion

³ Some dogs and most cats will vomit within 5-10 minutes of injection. Cats may also vomit on recovery.

⁴ In cases of cardiovascular and respiratory depression, assisted ventilation and administration of oxygen may be indicated. Atropine can increase the cardiac rate.

⁵ Paradoxical response

⁶ Death from circulatory failure with severe congestion of the lungs, liver, or kidney.

Dogs with a body weight of less than 10 kg may show the undesirable effects mentioned above more often.

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

The safety of the veterinary medicinal product has not been established during pregnancy and lactation.

Pregnancy and lactation

Do not use during pregnancy. The use is not recommended during lactation.

3.8 Interaction with other medicinal products and other forms of interaction

Medetomidine should not be used in conjunction with sympathomimetic amines. The concomitant use of other central nervous system depressants should be expected to potentiate the effect of either product and appropriate dose adjustment should be made. Medetomidine must not be mixed with other products, with the exception of ketamine or butorphanol.

Medetomidine has marked anaesthetic sparing effects. The dose of compounds such as propofol and volatile anaesthetics should be reduced accordingly, by up to 50 - 90 %, depending on the individual animal.

Although bradycardia may be partially prevented by prior administration (at least 5 minutes before medetomidine) of an anticholinergic agent, the administration of anticholinergic agents to treat bradycardia either simultaneously with medetomidine or following sedation with medetomidine could lead to adverse cardiovascular effects.

3.9 Administration routes and dosage

Intravenous, intramuscular or subcutaneous administration.

An appropriately graduated syringe must be used to allow accurate administration of the required dose volume. This is particularly important when injecting small volumes. Administration by intramuscular (IM), intravenous (IV) and subcutaneous (SC) routes are possible. The effect is most rapid after IV administration and slowest after SC administration. The dosage is dependent on the degree of sedation and analgesia required.

Medetomidine Dose

Dogs: 10-80 mcg/kg
Cats: 50-150 mcg/kg

For sedation, small dogs require more medetomidine per kg of bodyweight than large dogs thus the dosage per square meter of body surface could be more accurate. If this approach is used the dosage is 750 to 1000 mcg/square meter. The following table gives the dosage for dogs on the basis of body weight.

Body weight (kg) IV administration	Injection volume (ml)	Body weight (kg) IM/ SC/ administration
1.5-2.2	0.1	
2.3-3.5	0.15	1.8-2.3
3.6-5.1	0.2	2.4-3.3
5.2-6.9	0.25	3.4-4.5
7.0-9.9	0.3	4.6-6.4
10.0-14.4	0.4	6.5-9.4
14.5-19.5	0.5	9.5-12.7
19.6-25.1	0.6	12.8-16.3
25.2-31.1	0.7	16.4-20.2
31.2-37.6	0.8	20.3-24.4
37.7-44.4	0.9	24.5-28.9
44.5-55.3	1.0	29.0-36.1
55.4-71.1	1.2	36.2-46.3
71.2-88.2	1.4	46.4-57.3
88.3+	1.6	57.4-75.8
	2.0	75.9+

Anaesthesia:

Medetomidine is suitable for use as an anaesthetic premedication prior to general anaesthesia. Premedication dosing guide: Medetomidine has marked anaesthetic-sparing effects. It is essential to reduce appropriately the dose of anaesthetic induction and maintenance agents in animals that have been given the product.

Combinant	Dosage (Dogs)	Combinant (mg/kg)	Dosage (Cats)	Combinant (mg/kg)
	Medetomidine (mcg/kg)		Medetomidine (mcg/kg)	
Propofol	10-40	1-4	NA	NA
Butorphanol	10-25	0.1	50	0.4
Ketamine	NA	NA	80	2.5-7.5

Butorphanol +	NA	NA	40-80	But: 0.1-0.4 Ket: 1.25-5.0
Ketamine Alfaxalone /alfadolone	NA	NA	80	2.5-5.0

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

Overdose is mainly manifested by delayed recovery after sedation or anaesthesia. In a few individuals, circulatory and respiratory depression may occur.

The effects of medetomidine can be eliminated using the specific alpha-2 adrenergic antagonist atipamezole. In the dog, the atipamezole dosage expressed in mcg is 5 times that of medetomidine. In the cat, the atipamezole dosage expressed in mcg is 2.5 times that of medetomidine.

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

Not applicable.

4. PHARMACOLOGICAL INFORMATION

4.1 ATCvet code: QN05CM91

4.2 Pharmacodynamics

The active ingredient of this product is medetomidine. Its chemical structure is 4-[1-(2,3-dimethylphenyl)ethyl] 1H imidazole hydrochloride. Medetomidine is an alpha-2 adrenergic agonist with central and peripheral effects inhibiting the transmission of noradrenaline mediated nerve impulses by activating pre-and post-synaptic alpha-2 adrenoceptors. In the animal, the level of consciousness is lowered and the pain threshold is raised. The action of medetomidine is dose dependent: small doses cause mild sedation and analgesia, while larger doses produce high levels of sedation and analgesia.

Medetomidine lowers the heart rate and initially elevates the blood pressure; blood pressure returns to baseline or slightly below baseline over fifteen minutes. The cardiovascular changes observed are either centrally mediated (bradycardia, hypotension) or due to direct effects on alpha-2 receptors (vasoconstriction, increased systemic vascular resistance).

The vasoconstriction may turn the mucous membranes pale or slightly bluish. Dogs may develop benign conductivity disturbances (first or second degree AV block). The respiratory rate is lowered. Local muscular twitching may occur in a few individuals. Blood glucose levels are elevated in both animal species. Body temperature decreases.

4.3 Pharmacokinetics

Medetomidine is rapidly absorbed after intramuscular injection; the t_{max} varies from 15 to 30 min.

Medetomidine is also rapidly distributed in the organism. The V_d varies between 2.8 and 3.6 L/kg.

Protein binding is 85 to 90%.

Medetomidine is oxidised in the liver and a small proportion is methylated in the kidneys. Most metabolites are excreted in the urine. The T_{1/2} is 1-2 hours.

5. PHARMACEUTICAL PARTICULARS

5.1 Major incompatibilities

Medetomidine must not be mixed with other products with the exception of ketamine and butorphanol.

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 type I clear glass vial of 10 ml or 20 ml with coated bromobutyl rubber stopper and aluminium cap.

Pack sizes:

5 ml (in a 10 ml sized vial)

10 ml

20 ml

Not all pack sizes may be marketed.

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

Medicines should not be disposed of via wastewater.

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

Alfasan Nederland B.V.

7. MARKETING AUTHORISATION NUMBER

Vm 36408/5021

8. DATE OF FIRST AUTHORISATION

13 February 2024

9. DATE OF THE LAST REVISION OF THE SUMMARY OF THE PRODUCT CHARACTERISTICS

March 2026

10. CLASSIFICATION OF VETERINARY MEDICINAL PRODUCT

Veterinary medicinal product subject to prescription.

Find more product information by searching for the 'Product Information Database' on www.gov.uk.

Gavin Hall
Approved: 18 March 2026