# 1. NAME OF THE VETERINARY MEDICINAL PRODUCT

Pergosafe 2 mg film-coated tablets for horses

# 2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Each tablet contains:

### **Active substance:**

Pergolide 2.0 mg equivalent to 2.62 mg pergolide mesilate

# **Excipients:**

Qualitative composition of excipients and other constituents	Quantitative composition if that information is essential for proper administration of the veterinary medicinal product			
Core:				
Lactose monohydrate				
Croscarmellose sodium				
Povidone				
Magnesium stearate				
Iron oxide yellow (E172)	0.24 mg			
Coat:				
Polyvinylalcohol				
Talc				
Titanium dioxide (E171)	5.06 mg			
Glycerol monocaprylocaprate				
Sodium laurilsulfate				
Iron oxide yellow (E172)	0.66 mg			
Ferrosofferic oxide	0.28 mg			

Green sphere shaped, film-coated tablet

# 3. CLINICAL INFORMATION

# 3.1 Target species

Horses (non food-producing)

# 3.2 Indications for use for each target species

Symptomatic treatment of clinical signs associated with Pituitary Pars Intermedia Dysfunction (PPID) (Equine Cushing's Disease).

# 3.3 Contraindications

Do not use in horses with known hypersensitivity to pergolide mesilate or other ergot derivatives or to any of the excipients.

Do not use in horses less than 2 years of age.

### 3.4 Special warnings

Appropriate endocrinologic laboratory tests should be conducted as well as evaluation of clinical signs in order to establish a diagnosis of PPID.

# 3.5 Special precautions for use

Special precautions for safe use in the target species:

As the majority of cases of PPID are diagnosed in aged horses, other pathological processes are frequently present. For monitoring and frequency of testing, see section 3.9.

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

This product may cause hypersensitivity (allergy) reactions. People with known hypersensitivity to pergolide or other ergot derivatives should avoid contact with the veterinary medicinal product.

This product may cause adverse effects due to decreased prolactin levels, which poses a particular risk to pregnant and lactating women. Pregnant or lactating women should avoid dermal contact or hand-to-mouth contact and wear gloves when administering the product.

Accidental ingestion, especially by children, may cause adverse reactions such as emesis, dizziness, lethargy or low blood pressure. To avoid accidental ingestion, the blister should be replaced into the carton and carefully kept away from children. Avoid hand-to-mouth contact. Do not eat, drink or smoke when using this product. In case of accidental ingestion, seek medical advice immediately and show the package leaflet or the label to the physician.

This product may cause eye irritation. Avoid contact with the eyes including hand-to-eye contact when handling the tablets. Minimize exposure risks when dissolving the tablets, e.g. tablets should not be crushed. In case of contact of the dissolved product with skin, wash exposed skin with water. In the event of eye exposure, flush the affected eye immediately with water and seek medical advice. Wash hands after use.

Special precautions for the protection of the environment:

Not applicable.

### 3.6 Adverse events

### Horses:

Rare	Inappetence, anorexia <sup>1</sup> , lethargy <sup>1</sup> .		
(1 to 10 animals / 10,000 animals treated):	Central nervous system signs <sup>2</sup> (e.g. depression <sup>2</sup> , ataxia <sup>2</sup> ).		
	Diarrhoea, colic.		
Very rare	Sweating.		
(<1 animal / 10,000 animals treated, including isolated reports):			

<sup>1</sup> transient

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

<sup>&</sup>lt;sup>2</sup> mild

authorisation holder or its local representative or the national competent authority via the national reporting system. See also section 'contact details' of the package leaflet for respective contact details.

### 3.7 Use during pregnancy, lactation or lay

### Pregnancy:

Use only according to the benefit/ risk assessment by the responsible veterinarian. The safety of this veterinary medicinal product has not been demonstrated in pregnant mares. Laboratory studies in mice and rabbits have not produced any evidence of teratogenic effects. Reduced fertility was seen in mice at a dose of 5.6 mg/kg body weight per day.

#### Lactation:

The use is not recommended in lactating horses, in which the safety of this veterinary medicinal product has not been demonstrated. In mice, reduced body weights and survival rates in the progeny were attributed to the pharmacological inhibition of prolactin secretion resulting in lactation failure.

### 3.8 Interaction with other medicinal products and other forms of interaction

Use with caution in case the veterinary medicinal product is co-administered with other drugs known to affect protein binding.

Do not administer concurrently with dopamine antagonists, such as neuroleptics (phenothiazines - e.g. acepromazine), domperidone, or metoclopramide, as these agents may reduce the effectiveness of pergolide.

# 3.9 Administration routes and dosage

Oral use, once daily.

To facilitate administration, the required daily dose should be placed in a small amount of water and/or mixed with molasses or other sweetener and agitated until dissolved. In this case, the dissolved tablets should be administered with a syringe. The whole amount should be administered immediately. Tablets should not be crushed, see section 3.5.

### **Starting dose**

The starting dose is about 2  $\mu$ g pergolide/kg (dose range: 1.3 to 2.5  $\mu$ g/kg; see table below). The maintenance dose should then be titrated according to the individual response as determined by monitoring (see below), resulting in an average maintenance dose of 2  $\mu$ g pergolide/kg bodyweight with a dose range of 0.6 to 10  $\mu$ g pergolide/kg bodyweight.

Starting doses are recommended as follows:

Horse body weight	0.5 mg tablet		1 mg tablet	2 mg tablet	Starting dose	Dosage range
200 - 400 kg	0				0.5 mg	1.3 – 2.5 μg/kg
401 - 600 kg					1.0 mg	1.7 <b>–</b> 2.5 μg/kg
or						
401 - 600 kg					1.0 mg	1.7 <b>–</b> 2.5 μg/kg
601 - 850 kg	0	+			1.5 mg	1.8 <b>–</b> 2.5 μg/kg
or						
601 - 850 kg	$\infty$				1.5 mg	1.8 <b>–</b> 2.5 μg/kg
851 - 1000 kg					2.0 mg	2.0 – 2.4 μg/kg
or						
851 - 1000 kg					2.0 mg	2.0 – 2.4 μg/kg

# Maintenance dose

Lifelong treatment is anticipated for this disease.

Most horses respond to therapy and are stabilised at an average dose of  $2 \mu g$  pergolide/kg body weight. Clinical improvement with pergolide is expected within 6 to 12 weeks. Horses may respond clinically at lower or varying doses; it is therefore recommended to titrate to the lowest effective dose per individual based on response to therapy, whether it is effectiveness or signs of intolerance. Some horses may require doses as high as  $10 \mu g$  pergolide/kg body weight per day. In these rare situations, appropriate additional monitoring is advised.

Following initial diagnosis, repeat endocrinologic testing for dose titration and monitoring of treatment at intervals of 4 to 6 weeks until stabilisation or improvement of clinical signs and/or diagnostic testing occurs.

If clinical signs or diagnostic testing have not yet improved at the first 4 to 6 week interval, the total daily dose may be increased by 0.50 mg. In case clinical signs have improved but are not yet normalised, the veterinarian may decide to titrate or not to titrate the dose, considering the individual's response/tolerance to the dose.

In case clinical signs are not adequately controlled (clinical evaluation and/or diagnostic testing) it is recommended to increase the total daily dose by 0.5 mg increments (if the drug is tolerated at that dose) every 4 to 6 weeks until stabilisation occurs. If signs of dose intolerance develop, treatment

should be stopped for 2 to 3 days and reinstated at one-half of the previous dose. The total daily dose may then be titrated back up to the desired clinical effect by 0.5 mg increments every 2 to 4 weeks. If a dose is missed, the next scheduled dose should be administered as prescribed.

Following stabilisation, regular clinical assessment and diagnostic testing should be performed every 6 months to monitor treatment and dose. Where there is no apparent response to treatment, the diagnosis should be re-evaluated.

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

No information available.

# 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 authorised for use in horses intended for human consumption.

Treated horses may never be slaughtered for human consumption.

The horse must have been declared as not intended for human consumption under national horse passport legislation.

Not authorised for use in mares producing milk for human consumption.

### 4. PHARMACOLOGICAL INFORMATION

### **4.1 ATCvet code:** QN04BC02

### 4.2 Pharmacodynamics

Pergolide is a synthetic ergot derivative and is a potent, long-acting dopamine receptor agonist. Both *in vitro* and *in vivo* pharmacological studies have demonstrated the activity of pergolide as a selective dopamine agonist with little or no effect on norepinephrine, epinephrine or serotonin pathways at therapeutic doses. As with other dopamine agonists, pergolide inhibits the release of prolactin. In horses with Pituitary Pars Intermedia Dysfunction (PPID) pergolide exerts its therapeutic effect by stimulating dopamine receptors. Further, in horses with PPID, pergolide has been shown to decrease the plasma levels of ACTH, MSH and other pro-opiomelanocortin peptides.

### 4.3 Pharmacokinetics

Pharmacokinetic information in the horse is available for oral doses of 2, 4 and 10  $\mu$ g pergolide/kg body weight. It has been demonstrated that pergolide is rapidly absorbed with a short time to peak concentration.

Peak concentrations (Cmax) following the dose of 10  $\mu$ g/kg were low and variable with a mean of  $\sim$  4 ng/ml and a mean terminal half-life (T  $\frac{1}{2}$ ) of  $\sim$  6 hours. The median time of peak concentration (Tmax) was  $\sim$  0.4 hours and the area under the curve (AUC) was  $\sim$  14 ng x hours/ml.

In a more sensitive analytical assay, plasma concentrations following the dose of 2  $\mu$ g pergolide/kg were very low and variable with peak concentrations ranging from 0.138 to 0.551 ng/ml. The peak concentrations occurred at 1.25 +/- 0.5 hours ( $T_{max}$ ). Plasma concentrations in most horses were quantifiable for only 6 hours post dose. However, one horse had quantifiable concentrations for 24 hours. Terminal half-lives were not calculated as there was incomplete elucidation of the plasma concentration-time curve for most horses.

Peak concentrations (Cmax) following the dose of 4  $\mu$ g/kg were low and variable with a range from 0.4 – 4.2 ng/mL with a mean of 1.8 ng/mL, and a mean terminal half-life (T ½) of ~ 6 hours. The median time of peak concentration (Tmax) was ~ 0.6 hours and the AUCt ~ 3.4 ng x h/ml.

Pergolide mesilate is approximately 90% associated with plasma proteins in humans and laboratory animals. The route of elimination is via the kidneys.

### 5. PHARMACEUTICAL PARTICULARS

### 5.1 Major incompatibilities

Not applicable.

### 5.2 Shelf life

Shelf life of the veterinary medicinal product as packaged for sale: 30 months

### 5.3 Special precautions for storage

Store in the original package, in order to protect from light.

# 5.4 Nature and composition of immediate packaging

PVC/PE/PVDC-aluminium blister containing 10 tablets. OPA/aluminium/PVC-aluminium blister containing 10 tablets. Carton box of 10, 30, 60, 90, 100, 120, 160 or 240 tablets. 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 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

Alfasan Nederland BV

# 7. MARKETING AUTHORISATION NUMBER(S)

VPA10980/042/003

### 8. DATE OF FIRST AUTHORISATION

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

### 10. CLASSIFICATION OF VETERINARY MEDICINAL PRODUCTS

Veterinary medicinal product subject to prescription.

Detailed information on this veterinary medicinal product is available in the  $\underline{\text{Union Product Database}}$  (<a href="https://medicines.health.europa.eu/veterinary">https://medicines.health.europa.eu/veterinary</a>).