

# Summary of Product Characteristics

## 1 NAME OF THE VETERINARY MEDICINAL PRODUCT

PropoFlo Plus 10 mg/ml, Emulsion for injection for dogs and cats

## 2 QUALITATIVE AND QUANTITATIVE COMPOSITION

Each ml contains:

### Active substance

Propofol 10 mg

### Excipient(s)

Benzyl alcohol (E1519) 20 mg

For a full list of excipients, see section 6.1.

## 3 PHARMACEUTICAL FORM

Emulsion for injection.

A white emulsion with no evidence of phase separation.

## 4 CLINICAL PARTICULARS

### 4.1 Target Species

Dogs and cats.

### 4.2 Indications for use, specifying the target species

The veterinary medicinal product is indicated for therapeutic use in dogs and cats as a short-acting, intravenous general anaesthetic with a short recovery period:

For procedures of short duration, lasting up to approximately 5 minutes.

For induction of general anaesthesia where maintenance is provided by inhalation anaesthetic agents.

For induction and short-term maintenance of general anaesthesia by administration of incremental doses of the product to effect for approximately half an hour (30 minutes), not to exceed the total dose stated in section 4.3.

### 4.3 Contraindications

Do not use for prolonged infusion (see section 4.5).

Do not exceed a total dose in one anaesthetic episode of 24 mg/kg (2.4 ml/kg) of propofol in cats or dogs.

Do not use in animals with known hypersensitivity to the active substance or to any of the excipients.

### 4.4 Special warnings for each target species

This product is a stable emulsion; discard the vial if phase separation is observed. Shake the vial gently but thoroughly before withdrawing a dose.

If this product is injected very slowly, an inadequate plane of anaesthesia can occur.

### 4.5 Special precautions for use

#### (i) Special precautions for use in animals

During induction of anaesthesia in any species, mild hypotension and transient apnoea, similar to effects with other intravenous anaesthetic agents, may occur. Apnoea is most likely to occur within the first 5 minutes of administration of the product and must be treated with oxygen and artificial ventilation. **Whenever the product is used, facilities for the maintenance of a patent airway, artificial ventilation and oxygen supplementation must be immediately available.**

As with other intravenous anaesthetic agents, caution should be exercised in dogs and cats with cardiac, respiratory, renal or hepatic impairment, or in hypovolaemic or debilitated animals.

The safety of this product has not been established in dogs or cats younger than 5 months and should be used in these animals only according to the risk/benefit assessment by the responsible veterinarian.

This product should not be used for induction and maintenance of general anaesthesia by incremental doses that would exceed total dose limits specified in section 4.3 (Contraindications), due to the potential for toxic effects caused by the preservative, benzyl alcohol (see section 4.10).

#### **(ii) Special precautions to be taken by the person administering the veterinary medicinal product to animals**

Use aseptic techniques when administering the product.

People with known hypersensitivity to any of the ingredients should avoid contact with the veterinary medicinal product.

This veterinary medicinal product is a potent drug, exercise caution to avoid accidental self-injection. Preferably use a guarded needle until the moment of injection.

In case of accidental self-injection, seek medical advice immediately and show the package leaflet or the label to the physician.

In case of splashes on the skin or in the eyes, wash off immediately.

Advice to the doctor: do not leave the patient unattended. Maintain airways and give symptomatic and supportive treatment.

#### **4.6 Adverse reactions (frequency and seriousness)**

Side-effects during induction, maintenance and recovery are uncommon. As with other anaesthetic agents, the possibility of respiratory or cardiovascular depression should be considered. During induction of anaesthesia, very rarely, mild hypotension and transient apnoea may occur. See section 4.5. Induction is generally smooth, with evidence of excitation (paddling of limbs, nystagmus, focal muscle twitching, opisthotonus) reported in very rare cases. During the recovery phase, emesis and excitation have been observed very rarely in a small proportion of animals.

In clinical trials in cats and dogs, transient apnoea has been observed during induction. In cats sneezing, occasional retching and a paw/face licking characteristic during recovery have been observed in a small proportion of cases.

If panting is present before induction, it may continue throughout the subsequent periods of anaesthesia and recovery.

In very rare cases, inadvertent perivascular administration causes local tissue reactions.

Repeated anaesthesia with propofol in cats may cause oxidative injury and Heinz body production. Recovery may also become prolonged. Limiting repeated anaesthesia to intervals of more than 48 hours will reduce the likelihood.

#### **4.7 Use during pregnancy, lactation or lay**

The safety of this product in foetuses/neonates and during pregnancy/lactation has not been established. In humans parenterally administered benzyl alcohol has been associated with a fatal toxic syndrome in preterm neonates.

Use only according to the risk/benefit assessment by the responsible veterinarian.

#### **4.8 Interaction with other medicinal products and other forms of interactions**

Propofol has been used after premedication with commonly used premedicants, e.g. atropine, acepromazine, diazepam,  $\alpha$ -2 adrenoceptor agents, prior to maintenance with inhalational agents, e.g. halothane, nitrous oxide, sevoflurane, isoflurane and prior to administration of analgesic agents, e.g. pethidine, buprenorphine. No pharmacological incompatibility has been encountered.

The concurrent use of sedative or analgesic drugs is likely to reduce the dose of PropoFlo Plus required to produce and maintain anaesthesia. See section 4.9.

#### **4.9 Amounts to be administered and administration route**

The veterinary medicinal product is a sterile product for intravenous administration.

#### General handling procedures

Prior to use, the product should be inspected visually for absence of particulate matter and discolouration and discarded if

present.

Shake the vial gently but thoroughly before opening. See sections 4.4 and 6.3.

#### Dosage for Induction

The induction dose is calculated according to bodyweight and may be administered to effect over a period of 10-40 seconds. See section 4.4. The use of preanaesthetic drugs may markedly reduce propofol requirements. As with other sedative hypnotic agents, the amount of opioid,  $\alpha$ -2 agonist and/or benzodiazepine premedication will influence the response of the patient to an induction dose of the product.

Where animals have been premedicated with an  $\alpha$ -2 agonist such as medetomidine, the dose of propofol (as with any other intravenous anaesthetic agent) should be reduced by up to 85 % (e.g. from 6.5 mg/kg for unpremedicated dogs to 1.0 mg/kg for dogs premedicated with an  $\alpha$ -2 agonist).

The average induction dose for dogs and cats, either unpremedicated or when premedicated with a non- $\alpha$ -2 agonist tranquilliser such as acepromazine, is given in the following table.

These doses are for guidance only; the actual dose should be based on the response of the particular animal. See section 4.3.

	<b>Dose mg/kg bodyweight</b>	<b>Dose volume ml/kg bodyweight</b>
<b>Dogs</b>		
Unpremedicated	6.5 mg/kg	0.65 ml/kg
Premedicated		
- with non- $\alpha$ -2 agonist	4.0 mg/kg	0.40 ml/kg
- with an $\alpha$ -2 agonist	1.0 mg/kg	0.10 ml/kg
<b>Cats</b>		
Unpremedicated	8.0 mg/kg	0.80 ml/kg
Premedicated	6.0 mg/kg	0.60 ml/kg
- with non- $\alpha$ -2 agonist	1.2 mg/kg	0.12 ml/kg
- with an $\alpha$ -2 agonist		

#### Dosage for Maintenance

When anaesthesia is maintained by incremental injections, the dose rate will vary between animals. Administer incremental doses of the product to effect by giving small doses of around 0.1 ml/kg bodyweight (1.0 mg/kg bodyweight) of the induction dose when anaesthesia becomes too light. These doses may be repeated as often as required, allowing 20-30 seconds to assess the effect before further increments are given. Experience has shown that doses of approximately 1.25-2.5 mg (0.125-0.25 ml) per kg bodyweight sustain anaesthesia for periods of up to 5 minutes.

Continuous and prolonged exposure (greater than 30 minutes) may lead to slower recovery, particularly in cats. See section 4.3 and 4.10.

#### Maintenance by inhalation agents

When inhalation agents are used to maintain general anaesthesia, experience indicates that it may be necessary to use a higher initial concentration of the inhalant anaesthetic than is usually required following induction with barbiturate agents such as thiopentone.

#### **4.10 Overdose (symptoms, emergency procedures, antidotes), if necessary**

Accidental overdosage is likely to cause cardio-respiratory depression. Overdose is likely to cause apnoea. In cases of respiratory depression, stop drug administration, establish a patent airway, and initiate assisted or controlled ventilation with pure oxygen. Cardiovascular depression should be treated with plasma expanders, pressor agents, anti-arrhythmic agents or other techniques as appropriate for the observed abnormality.

#### Propofol

A single dose of 19.5 mg/kg (1.95 ml/kg) in dogs and bolus and intermittent doses totalling 24 mg/kg (2.4 ml/kg) in cats did not cause harm. Bolus and intermittent doses totalling 38.6 mg/kg (3.9 ml/kg) produced paraesthesia in one of four cats and prolonged recovery in all four cats treated.

#### Benzyl Alcohol (preservative)

Benzyl alcohol toxicity may lead to prolonged recovery and hyperkinesia in cats, and neurological signs such as tremors in dogs and fatalities in both species. There is no specific antidote; supportive treatment should be given.

In dogs, lethal doses of benzyl alcohol could result from administration of the maximum total dose of propofol stated in section 4.3, every hour for 9 hours, based on pharmacokinetic modelling and literature reports. In cats, lethal doses of benzyl alcohol could occur within 6.5 hours of administration, based on literature reports, direct estimation and maintenance dose rates.

### **4.11 Withdrawal period(s)**

Not applicable.

## **5 PHARMACOLOGICAL or IMMUNOLOGICAL PROPERTIES**

Pharmacotherapeutic group: General anaesthetic

ATCvet Code: QN01AX10

### **5.1 Pharmacodynamic properties**

Propofol (2, 6-diisopropylphenol) is an intravenous sedative hypnotic agent for use in the induction and maintenance of general anaesthesia.

Propofol is a short-acting anaesthetic characterised by rapid onset and short duration of anaesthesia and by rapid recovery. Propofol produces unconsciousness by its depressant action on the central nervous system.

### **5.2 Pharmacokinetic particulars**

Intravenous injection is followed by extensive metabolism of propofol in the liver to inactive conjugates which are excreted in the urine (major route) and faeces. Elimination from the central compartment occurs rapidly, with an initial half-life of less than 10 minutes. After this initial phase, the decrease in plasma concentration is slower.

## **6 PHARMACEUTICAL PARTICULARS**

### **6.1 List of excipients**

Benzyl alcohol (E1519)  
Soya-bean oil, refined  
Purified egg phosphatides (egg lecithin)  
Glycerol  
Oleic acid  
Sodium hydroxide (for pH adjustment)  
Water for injections

### **6.2 Major incompatibilities**

In the absence of compatibility studies, this veterinary medicinal product must not be mixed with any 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 medicinal product does not require any special storage conditions. Do not freeze.

Keep the vial in the outer carton.

### **6.5 Nature and composition of immediate packaging**

PropoFlo Plus is supplied as a white aqueous isotonic emulsion for intravenous injection contained in vials (Type I glass) with fluorinated polymer coated bromobutyl rubber stoppers and flip off aluminium/polypropylene seals. There are two pack sizes:

20 ml vials of product which each contain 200 mg propofol (propofol 10 mg/ml), 5 vials per carton

50 ml vials of product which each contain 500 mg propofol (propofol 10 mg/ml), 1 vial per carton

Not all pack sizes may be marketed.

### **6.6 Special precautions for the disposal of unused veterinary medicinal products or waste materials derived from the use of such products**

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

## **7 MARKETING AUTHORISATION HOLDER**

Zoetis Belgium S.A.

2nd Floor, Building 10

Cherrywood Business Park, Loughlinstown

Co Dublin

Ireland

## **8 MARKETING AUTHORISATION NUMBER(S)**

VPA10387/056/001

## **9 DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION**

Date of first authorisation: 27 April 2012

Date of last renewal: 29 April 2016

## **10 DATE OF REVISION OF THE TEXT**

September 2017