

# Summary of Product Characteristics

## 1 NAME OF THE VETERINARY MEDICINAL PRODUCT

Propofol 10 mg/ml emulsion for injection for dogs and cats

## 2 QUALITATIVE AND QUANTITATIVE COMPOSITION

Each ml contains:

### Active substance:

Propofol 10 mg

### Excipients:

For the full list of excipients, see section 6.1.

## 3 PHARMACEUTICAL FORM

Emulsion for injection.

White or almost white, homogenous emulsion.

## 4 CLINICAL PARTICULARS

### 4.1 Target Species

Dogs and cats.

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

A short-acting, intravenous general anaesthetic with a short recovery period. Intended for brief procedures lasting up to five minutes.

For induction and maintenance of general anaesthesia by administration of incremental doses to effect.

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

### 4.3 Contraindications

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

The product is a stable emulsion.

Prior to use, the product should be inspected visually for absence of visible droplets or extraneous foreign particles or phase separation and discarded if present.

If the product is injected too slowly an adequate plane of anaesthesia may not be achieved due to failure to reach the appropriate threshold of pharmacological activity.

## 4.5 Special precautions for use

### Special precautions for use in animals

During induction of anaesthesia, similar to effects with other intravenous anaesthetic agents, mild hypotension and transient apnoea may occur. Facilities for the maintenance of a patent airway, artificial ventilation and oxygen supplementation must be available.

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

It has been reported that the clearance of propofol is slower in dogs over 8 years of age than in younger animals. Extra care should be taken when administering the product to these animals; in particular, a lower dose of propofol may be adequate for induction in such cases.

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

Propofol is a potent general anaesthetic drug and particular care should be taken to avoid accidental self-injection. A guarded needle should preferably be used until the moment of injection.

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

People with known hypersensitivity to propofol or any of the excipients should avoid contact with the veterinary medicinal product.

Avoid contact with the skin and eyes as this product can cause irritation.

Wash splashes from skin or eyes immediately with plenty of fresh water. Seek medical advice if irritation persists.

**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)

Induction is generally smooth, with few signs of excitation (paddling of limbs, myoclonus, nystagmus, opisthotonus). During induction of anaesthesia, mild hypotension and transient apnoea may occur.

In cats, sneezing, occasional retching, and a paw/face licking characteristics during recovery have been observed in a small proportion of cases.

During the recovery phase, rare cases of vomiting and excitation have been reported.

Repeated anaesthesia with propofol in cats may cause oxidative injury and Heinz body production, and non-specific signs such as anorexia, diarrhoea and mild facial oedema. 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 lactation has not been established.

Successful use of the product in dogs for induction prior to Caesarean section has been reported.

Only use according to the benefit-risk assessment by the responsible veterinarian.

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

Propofol may be used in association with premedicants, e.g. atropine, acepromazine, diazepam,  $\alpha$ -2 agonists; inhalational agents e.g. halothane, isoflurane, enflurane and nitrous oxide; and analgesic agents such as pethidine and buprenorphine. Administration of propofol with other drugs that are metabolised by cytochrome P450 2B11 (e.g. ketoconazole, loperamide, etc.) may prolong recovery from anaesthesia.

The product may be administered at the same time as glucose, sodium chloride and glucose+sodium chloride solutions.

The product may be mixed with glucose infusion solutions or saline solution.

The concurrent use of sedative or analgesic drugs is likely to reduce the dose of propofol required to induce and maintain anaesthesia.

Concomitant use of propofol and opioids may cause significant respiratory depression. To reduce the risk of such an effect, propofol should be administered slowly, for example, over 60 seconds.

Co-administration of propofol and opioid (e.g. fentanyl, alfentanil) infusions for maintenance of general anaesthesia may result in a prolonged recovery. Cardiac arrest has been observed in dogs that received propofol followed by alfentanil.

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

The product is a sterile product for intravenous administration.

Shake gently prior to use.

**Dose requirements can vary significantly between individual animals and are influenced by a range of factors (please refer to section 4.5 (i) Special precautions for use in animals, and section 4.8 Interactions).** In particular, the use of pre-anaesthetic drugs (premedication) may markedly reduce propofol requirements dependent on the type and dose of pre-anaesthetic drugs used.

The dose to be administered should be estimated based on average dose requirements in preparation for anaesthesia. **The actual dose requirements of an individual animal may be significantly lower or higher than the average dose.**

#### Induction

The induction dose of the veterinary medicinal product presented in the table below is based on data taken from controlled laboratory and field studies and is the average amount of drug required for dogs or cats to be successfully induced for anaesthesia. **The actual dose administered must be based on the individual response of each animal.**

DOGS	Guide Dose	Dose volume
	mg/kg bodyweight	ml/kg bodyweight
<b>Unpremedicated</b>	6.5	0.65
<b><u>Premedicated*</u></b>		
<b>alpha-2 agonist</b>	3.0	0.30
<b>acepromazine-based</b>	4.5	0.45
<b>CATS</b>		
<b>Unpremedicated</b>	8.0	0.8
<b><u>Premedicated*</u></b>		
<b>alpha-2 agonist</b>	2.0	0.2
<b>acepromazine-based</b>	6.0	0.6

\* Induction doses significantly below the average dose may be effective after premedication with an alpha-2 adrenoceptor based protocol in some animals.

The dosing syringe should be prepared based on the dose volume of product shown above, calculated based on bodyweight. The dose should be administered slowly to effect and administration should continue until the clinician is satisfied that the depth of anaesthesia is sufficient for endotracheal intubation. As a guide the product should be administered over a period of 10 - 40 seconds.

**Maintenance**

Where anaesthesia is maintained by incremental injections of the product, the dose rate and duration of effect will vary between animals. The incremental dose required to maintain anaesthesia is typically lower in premedicated animals compared with unpremedicated animals.

An incremental dose of approximately 0.15 ml/kg (1.5 mg/kg b.w.) in dogs and of approximately 0.2 ml/kg (2.0 mg/kg b.w.) in cats can be administered when anaesthesia becomes too light. This dose can be repeated as required to maintain an appropriate depth of anaesthesia, allowing 20 - 30 seconds between each dose to assess the effect. Each incremental dose should be administered slowly to effect.

Continuous and prolonged exposure (greater than 30 minutes) may lead to slower recovery, especially in cats.

**Maintenance of anaesthesia by inhalation agents**

Where inhalation agents are used to maintain general anaesthesia, it may be necessary to use a higher initial concentration of the inhalation anaesthetic than is normally the case following induction with barbiturate agents.

Please refer also to Section 4.5 (i) Special precaution for use in animals.

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

Accidental overdose is likely to cause cardio-respiratory depression. In such cases, ensure the airways are open and initiate assisted or controlled ventilation with oxygen, administering pressor agents and intravenous fluids to support cardiovascular function.

**4.11 Withdrawal period(s)**

Not applicable.

**5 PHARMACOLOGICAL or IMMUNOLOGICAL PROPERTIES**

Pharmacotherapeutic group: general anaesthetics.

ATCvet code: QN01AX10.

**5.1 Pharmacodynamic properties**

Propofol is a short-acting, intravenous general anaesthetic, characterised by rapid onset, a short duration of anaesthesia and by rapid recovery. Propofol produces unconsciousness by depressing the central nervous system.

The depressant effects of propofol are primarily mediated through potentiation of postsynaptic GABA<sub>A</sub> receptors in the central nervous system. However, the glutaminergic and noradrenergic neurotransmitter systems are also thought to have a role in mediating the effects of propofol.

**5.2 Pharmacokinetic particulars**

Blood concentrations of propofol exhibit a tri-exponential decline in both dogs and cats. This is likely to reflect rapid distribution of propofol from the blood and brain to less well vascularised tissues, rapid metabolic clearance and slower redistribution from poorly vascularised tissues to blood. It is the first phase ( $t_{1/2, \alpha}$  approximately 10 min) that is clinically relevant, since animals awaken subsequent to the initial redistribution of propofol from the brain. The clearance of the drug is high in dogs (58.6 ml/kg.min) but lower in cats (8.6 ml/kg.min), possibly due to inter-species differences in metabolism. In dogs, clearance is higher than hepatic blood flow, suggesting the presence of metabolic sites in addition to the liver. The volume of distribution is high in both dogs (4.9 l/kg) and cats (8.4 l/kg).

The main method of elimination is through renal excretion of propofol metabolites.

**6 PHARMACEUTICAL PARTICULARS****6.1 List of excipients**

Egg phospholipids

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Glycerol  
Soya-bean oil refined  
Sodium hydroxide (for pH adjustment)  
Water for injections

## **6.2 Major incompatibilities**

Do not mix with other veterinary medicinal products, with the exception of glucose infusion solutions or saline infusions.

## **6.3 Shelf-life**

Shelf life of the veterinary medicinal product as packaged for sale: 2 years.

Shelf life after first opening the immediate packaging: immediate use.

## **6.4 Special precautions for storage**

Do not freeze.

Withdrawn product should be used immediately. Product remaining in the container should be discarded.

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

Colourless type I glass vials, closed with a siliconised bromobutyl rubber stopper and an aluminium cap.

Pack sizes:

Box containing 5 x 20 ml vials

Box containing 1 x 50 ml vial

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 product should be disposed of in accordance with local requirements.

## **7 MARKETING AUTHORISATION HOLDER**

Axience  
Tour Essor  
14 Rue Scandicci  
93500 Pantin  
France

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

VPA22873/001/001

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

Date of first authorisation: 01 March 2017

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

September 2019