ANNEX I

SUMMARY OF PRODUCT CHARACTERISTICS

1. NAME OF THE VETERINARY MEDICINALPRODUCT

Oxyglobin 130 mg/ml solution for infusion for dogs

2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Active substance:
Haemoglobin glutamer-200 (bovine) – 130 mg/ml

Excipients:

For a full list of excipients, see section 6.1.

3. PHARMACEUTICAL FORM

Solution for infusion.

4. CLINICAL PARTICULARS

4.1 Target species

Dogs

4.2 Indications for use, specifying the target species

Oxyglobin provides oxygen carrying support to dogs improving the clinical signs of anaemia for at least 24 hours, independent of the underlying condition.

4.3 Contraindications

Do not use in animals previously treated with Oxyglobin.
Plasma volume expanders, such as Oxyglobin, are contraindicated in dogs predisposed to circulatory overload with conditions such as oliguria or anuria or advanced cardiac disease (i.e., congestive heart failure) or otherwise severely impaired cardiac function.
Oxyglobin is intended for single administration only.

4.4 Special warnings

None.

4.5 Special precautions for use

Special precautions for use in animals

Concomitant treatment of the cause of the anaemia should be instituted.

The animal should not be over-hydrated prior to administration. Due to the plasma expanding properties of Oxyglobin, the possibility of circulatory overload and pulmonary oedema should be considered especially when administering adjunctive intravenous fluids, particularly colloidal solutions. Signs of circulatory overload should be carefully monitored or central venous pressure (CVP) measured (increase in CVP has been recorded in all treated dogs in which it was measured). Circulatory overload may be controlled by slowing the rate of administration.

Treatment with Oxyglobin results in a mild decrease in PCV (packed cell volume) immediately post infusion.

The safety and efficacy of Oxyglobin have not been evaluated in dogs with thrombocytopenia with active bleeding, oliguria or anuria, or advanced cardiac disease.

Clinical Pathology

Chemistry: The presence of Oxyglobin in serum may interfere with colorometric readings and result in artifactual increases or decreases in the results of serum chemistry tests depending on the dosage administered, the time since infusion, the type of analyser and the reagents used. (Contact the distributor for specific data.)

Haematology: No interference. Confirm that haemoglobin is measured, not calculated from red blood cell number.

Coagulation: Prothrombin time (PT) and activated partial thromboplastin time (aPTT) can be accurately determined using methods that are mechanical, magnetic, and light scattering. Optical methods are not reliable for coagulation assays in the presence of Oxyglobin.

Urinalysis: Sediment examination is accurate. Dipstick measurements (i.e., pH, glucose, ketones, protein) are inaccurate while gross discolouration of the urine is present.

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

Not applicable.

4.6 Adverse reactions (frequency and seriousness)

Adverse events related to Oxyglobin and/or the underlying disease causing anaemia have been observed. Undesirable effects include mild to moderate yellow/orange discoloration of the skin, mucous membranes, sclera, dark faeces and discoloured or turbid urine due to metabolism and/or excretion of haemoglobin. A commonly observed undesirable effect was circulatory overload with associated clinical signs such as tachypnea, dyspnea, harsh lung sounds and pulmonary oedema. Adverse effects commonly seen were vomiting, a loss of appetite, and fever. Occasionally noted adverse events were diarrhoea, cardiac arrhythmias and very rarely nystagmus.

4.7 Use during pregnancy, lactation or lay

The safety of Oxyglobin for use in pregnant or lactating bitches has not been determined.

4.8 Interaction with other medicinal products and other forms of interaction

None known.

4.9 Amounts to be administered and administration route

The recommended dosage of Oxyglobin is 30 ml/kg of body weight administered intravenously at a rate up to 10 ml/kg/h. Oxyglobin is intended for single administration.

In certain clinical situations, a dosage of 15–30 ml/kg may be appropriate.
The optimum dosage is based upon the degree and chronicity of the anaemia and the desired duration of the effect. (See Table A Pharmacokinetic Parameters)

Table A: Pharmacokinetic Parameters at Multiple Dose Levels after a Single Infusion of Oxyglobin

Dose (ml/kg)	Immediate postinfusion plasma concentration* (g/dl)	Duration (hours): Oxyglobin levels over 1 g/dl**	Cleared from plasma (days)***
15	2.0–2.5	23–39	4–6
21	3.4–4.3	66–70	5–7
30	3.6–4.8	74–82	5–9

* range based on mean ± SD
** range based on estimated mean value with bounds of a 95 % prediction interval
*** range based on 5 terminal half-lives

Remove overwrap prior to use. Use within 24 hours. Oxyglobin should be administered using aseptic technique via a standard intravenous infusion set and catheter.

As with any intravenous fluid administration, Oxyglobin should be warmed to 37 °C prior to administration. Do not microwave. Do not overheat.

Use of Oxyglobin does not require typing or cross–matching of the recipient's blood.

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

Overdosage or an excessive rate of administration (i.e., >10 ml/kg/h) could result in immediate cardiopulmonary effects, in which case infusion of Oxyglobin should be discontinued immediately until signs abate. Treatment of circulatory overload may be necessary.

4.11 Withdrawal period(s)

Not applicable.

5. PHARMACOLOGICAL PROPERTIES

Pharmacotherapeutic group: Blood substitutes, ATCvet code: QB05AA90.

5.1 Pharmacodynamic properties

Oxyglobin is a haemoglobin-based oxygen carrying fluid that increases plasma and total haemoglobin concentrations and thus increases arterial oxygen content. The plasma half-life is 30–40 hours. It is eliminated from the plasma in 5–7 days.

5.2 Pharmacokinetic particulars

Metabolism and excretion: Haemoglobin dissociates in plasma and is progressively incorporated in the protein pool of the organism. Haeme degrades according to common pathways leading to bilirubin and bile pigments. A small amount of unstabilised tetrameric haemoglobin (<5 %) may be excreted through the kidneys, resulting in transient haemoglobinuria for < 4 hours.

6. PHARMACEUTICAL PARTICULARS

6.1 List of excipients

Modified Lactated Ringer's Solution containing the standard components: Water for injection,
NaCl
KCl
$CaC1_2\ 2H_2O$
NaOH

Sodium lactate
N-acetyl-l cysteine

6.2 Incompatibilities

Do not administer with other fluids or medicinal products concurrently via the same infusion set. Do not add medications or other solutions to the bag. Do not combine the contents of more than one bag.

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: 24 hours.

6.4. Special precautions for storage

Do not store above 30 °C. Do not freeze. Use within 24 hours of removing overwrap.

6.5 Nature and composition of immediate packaging

A box with one (1) polyolefin infusion bag (containing either 60 ml or 125 ml), within an overwrap.
Not all pack sizes may be marketed.

6.6 Special precautions for the disposal of unused veterinary medicinal product 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

OPK Biotech Netherlands BV
Teleportboulevard 140
1043EJ
Amsterdam
The Netherlands

8. MARKETING AUTHORISATION NUMBER

EU/2/99/015/003
EU/2/99/015/004

9. DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION

01.10.2009

10. DATE OF REVISION OF THE TEXT

Detailed information on this veterinary medicinal product is available on the website of the European Medicines Agency (EMA) http://www.ema.europa.eu/.

PROHIBITION OF SALE, SUPPLY AND/OR USE

Not applicable.