ANNEX I SUMMARY OF PRODUCT CHARACTERISTICS

1. NAME OF THE VETERINARY MEDICINAL PRODUCT

Vetmedin 0.75 mg/ml solution for injection for dogs (AT, BE, CY, CZ, DE, EL, ES, HU, IE, LU, NL, PL, PT, RO, SK, UK)

Vetmedin vet 0.75mg/ml solution for injection for dogs (IS, SE, FI, NO, DK)

Vetmedin start 0.75mg/ml solution for injection for dogs (IT)]

2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Each ml contains:

Active substance:

Pimobendan 0.75 mg

Excipients:

For the full list of excipients, see section 6.1.

3. PHARMACEUTICAL FORM

Solution for injection. Clear colourless solution

4. CLINICAL PARTICULARS

4.1 Target species

Dogs

4.2 Indications for use, specifying the target species

To initiate treatment of canine congestive heart failure originating from valvular insufficiency (mitral and/or tricuspid regurgitation) or dilated cardiomyopathy.

4.3 Contraindications

Do not use in cases of hypersensitivity to the active substance or to any of the excipients. Do not use in cases of hypertrophic cardiomyopathies or clinical conditions where an augmentation of cardiac output is not possible for functional or anatomical reasons (e.g. aortic stenosis).

4.4 Special warnings for each target species

None.

4.5 Special precautions for use

Special precautions for use in animals

In case of accidental subcutaneous injection temporary swelling and mild to slight resorptive inflammatory reactions can occur at or below the injection site. For single administration only.

The product should be used for the initiation of treatment of congestive heart failure in dogs, following a risk:benefit assessment by the responsible veterinarian, taking into account the overall health status

of the dog. Before treatment, diagnosis should be made by the means of a comprehensive physical and cardiac examination which should include echocardiography or radiography where appropriate.

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

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

Wash hands after use.

4.6 Adverse reactions (frequency and seriousness)

A moderate positive chronotropic effect and vomiting may occur in rare cases. In rare cases transient diarrhoea, anorexia or lethargy have been observed.

The frequency of adverse reactions is defined using the following convention:

- very common (more than 1 in 10 animals treated displaying adverse reaction(s))
- common (more than 1 but less than 10 animals in 100 animals treated)
- uncommon (more than 1 but less than 10 animals in 1,000 animals treated)
- rare (more than 1 but less than 10 animals in 10,000 animals treated)
- very rare (less than 1 animal in 10,000 animals treated, including isolated reports).

4.7 Use during pregnancy, lactation or lay

In studies with rats and rabbits pimobendan had no effect on fertility. Embryotoxic effects only occurred at maternotoxic doses. In rat experiments it has been shown that pimobendan is excreted into milk. Therefore, the product should only be administered to pregnant and lactating bitches if the expected therapeutic benefits outweigh the potential risk.

4.8 Interaction with other medicinal products and other forms of interaction

In pharmacological studies no interaction between the cardiac glycoside ouabain and pimobendan was detected. The pimobendan-induced increase in contractility of the heart is attenuated in the presence of the calcium antagonist verapamil and the β-antagonist propranolol.

4.9 Amounts to be administered and administration route

Single intravenous injection at a dosage of 0.15 mg pimobendan/kg body weight (i.e. 2 ml/10 kg body weight).

A 5 ml and a 10 ml vial can treat up to a 25 kg and 50 kg body weight dog, respectively. Each vial is for single use only.

Vetmedin chewable tablets or Vetmedin capsules for dogs may be used for continuation of treatment at the recommended dosage, to be started 12 hours after administration of the injection.

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

In the case of overdose symptomatic treatment should be initiated.

4.11 Withdrawal period(s)

Not applicable.

5. PHARMACOLOGICAL PROPERTIES

Pharmacotherapeutic group: Cardiac stimulants excl. cardiac glycosides, phosphodiesterase inhibitors. ATC vet code: QC01CE90.

5.1 Pharmacodynamic properties

Pimobendan, a benzimidazole-pyridazinone derivative, is a non-sympathomimetic, non-glycoside inotropic substance with potent vasodilatative properties.

Pimobendan exerts its stimulatory myocardial effect by a dual mechanism of action: increase in calcium sensitivity of cardiac myofilaments and inhibition of phosphodiesterase (type III). It also exhibits a vasodilating action through an inhibitory action on phosphodiesterase III activity.

5.2 Pharmacokinetic particulars

Absorption

Due to the intravenous administration, the bioavailability is 100 %.

Distribution:

After intravenous administration the volume of distribution is 2.6 L/kg indicating that pimobendan is distributed readily into the tissues. The mean plasma protein binding is 93 %.

Metabolism:

The compound is oxidatively demethylated to its major active metabolite (UD-CG 212). Further metabolic pathways are phase II conjugates of UD-CG 212, in essence glucuronides and sulfates.

Elimination:

Following intravenous adminsitration, the plasma elimination half-life of pimobendan is 0.4 ± 0.1 hours, consistent with the high clearance of 90 ± 19 ml/min/kg and a short mean residence time of 0.5 + 0.1 hours.

The main active metabolite is eliminated with plasma elimination half-life of 2.0 ± 0.3 hours. Almost the entire dose is eliminated via faeces.

6. PHARMACEUTICAL PARTICULARS

6.1 List of excipients

Hydroxypropylbetadex Disodium hydrogen phosphate dodecahydrate Sodium dihydrogen phosphate dihydrate Sodium hydroxide (for pH adjustment) Hydrochloric acid (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 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: use immediately.

6.4. Special precautions for storage

This veterinary medicinal product does not require any special storage conditions.

This product does not contain an antimicrobial preservative.

This product is intended for single use only.

Any product remaining in the bottle after withdrawal of the required dose should be discarded.

6.5 Nature and composition of immediate packaging

Single-use 5 ml or 10 ml colourless injection Type 1 glass vial with a FluroTec coated butyl rubber stopper and sealed with an aluminium cap, packed singly in a cardboard box. 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 product should be disposed of in accordance with local requirements.

7. MARKETING AUTHORISATION HOLDER

```
{Name
Address
Country}
<{Tel.}>
<{Fax}>
<{E-mail}>
// to be completed nationally}
```

8. MARKETING AUTHORISATION NUMBER(S)

[to be completed nationally]

9. DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION

```
<Date of first authorisation:> <{DD/MM/YYYY}><{DD month YYYY}>.
<Date of last renewal:> <{DD/MM/YYYY}> <{DD month YYYY}.>
[to be completed nationally]
```

10 DATE OF REVISION OF THE TEXT

```
<{MM/YYYY}>
<{DD/MM/YYYY}>
<{DD month YYYY}>
```

PROHIBITION OF SALE, SUPPLY AND/OR USE

Not applicable

ANNEX III LABELLING AND PACKAGE LEAFLET

A. LABELLING

PARTICULARS TO APPEAR ON THE OUTER PACKAGE
Carton for 5 ml and 10 ml
1. NAME OF THE VETERINARY MEDICINAL PRODUCT
Vetmedin 0.75 mg/ml solution for injection for dogs (AT, BE, CY, CZ, DE, EL, ES, HU, IE, LU, NL, PL, PT, RO, SK, UK)
Vetmedin vet 0.75mg/ml solution for injection for dogs (IS, SE, FI, NO, DK)
Vetmedin start 0.75mg/ml solution for injection for dogs (IT)
Pimobendan
2. STATEMENT OF ACTIVE SUBSTANCES
Each ml contains: 0.75 mg of pimobendan.
3. PHARMACEUTICAL FORM
Solution for injection
4. PACKAGE SIZE
5 ml 10 ml
5. TARGET SPECIES
Dogs
6. INDICATION(S)
Read the package leaflet before use.
7. METHOD AND ROUTE(S) OF ADMINISTRATION
Single intravenous injection. Read the package leaflet before use.
8. WITHDRAWAL PERIOD(S)
9. SPECIAL WARNING(S), IF NECESSARY

10. EXPIRY DATE

EXP {month/year}

Once broached, use immediately.

11. SPECIAL STORAGE CONDITIONS

12. SPECIFIC PRECAUTIONS FOR THE DISPOSAL OF UNUSED PRODUCTS OR WASTE MATERIALS, IF ANY

Disposal: read package leaflet.

13. THE WORDS "FOR ANIMAL TREATMENT ONLY" AND CONDITIONS OR RESTRICTIONS REGARDING SUPPLY AND USE, IF APPLICABLE

For animal treatment only. To be supplied only on veterinary prescription.

14. THE WORDS "KEEP OUT OF THE SIGHT AND REACH OF CHILDREN"

Keep out of the sight and reach of children.

15. NAME AND ADDRESS OF THE MARKETING AUTHORISATION HOLDER

{Name

Address

Country}

<{Tel.}>

<{Fax}>

<{E-mail}>

[to be completed nationally]

16. MARKETING AUTHORISATION NUMBER(S)

[to be completed nationally]

17. MANUFACTURER'S BATCH NUMBER

Lot {number}

MINIMUM PARTICULARS TO APPEAR ON SMALL IMMEDIATE PACKAGING UNITS
Vial, 5 ml and 10 ml
4 NAME OF THE VETERINARY AND ACTIVITY OF THE STATE OF THE
1. NAME OF THE VETERINARY MEDICINAL PRODUCT
Vetmedin 0.75 mg/ml solution for injection for dogs (AT, BE, CY, CZ, DE, EL, ES, HU, IE, LU, NL, PL, PT, RO, SK, UK)
Vetmedin vet 0.75mg/ml solution for injection for dogs (IS, SE, FI, NO, DK)
Vetmedin start 0.75mg/ml solution for injection for dogs (IT)
Pimobendan
2. QUANTITY OF THE ACTIVE SUBSTANCE(S)
Pimobendan 0.75 mg/ml
3. CONTENTS BY WEIGHT, BY VOLUME OR BY NUMBER OF DOSES
5 ml 10 ml
4. ROUTE(S) OF ADMINISTRATION
IV
5. WITHDRAWAL PERIOD(S)
6. BATCH NUMBER
Lot {number}
7. EXPIRY DATE
EXP {month/year} Once broached, use immediately.
8. THE WORDS "FOR ANIMAL TREATMENT ONLY"
For animal treatment only.

B. PACKAGE LEAFLET

PACKAGE LEAFLET:

Vetmedin 0.75 mg/ml solution for injection for dogs (AT, BE, CY, CZ, DE, EL, ES, HU, IE, LU, NL, PL, PT, RO, SK, UK)

Vetmedin vet 0.75mg/ml solution for injection for dogs (IS, SE, FI, NO, DK)

Vetmedin start 0.75mg/ml solution for injection for dogs (IT)

1. NAME AND ADDRESS OF THE MARKETING AUTHORISATION HOLDER AND OF THE MANUFACTURING AUTHORISATION HOLDER RESPONSIBLE FOR BATCH RELEASE, IF DIFFERENT

Marketing authorisation holder:

[to be completed nationally]

Manufacturer responsible for batch release:

[to be completed nationally]

2. NAME OF THE VETERINARY MEDICINAL PRODUCT

Vetmedin 0.75 mg/ml solution for injection for dogs (AT, BE, CY, CZ, DE, EL, ES, HU, IE, LU, NL, PL, PT, RO, SK, UK)

Vetmedin vet 0.75mg/ml solution for injection for dogs (IS, SE, FI, NO, DK)

Vetmedin start 0.75mg/ml solution for injection for dogs (IT)

Pimobendan

3. STATEMENT OF THE ACTIVE SUBSTANCE(S) AND OTHER INGREDIENTS

Each ml contains

Active substance:

Pimobendan 0.75 mg

A clear colourless solution.

4. INDICATION(S)

To initiate treatment of canine congestive heart failure originating from valvular insufficiency (mitral and/or tricuspid regurgitation) or dilated cardiomyopathy.

5. CONTRAINDICATIONS

Do not use in cases of hypersensitivity to the active substance or to any of the excipients. Do not use in cases of hypertrophic cardiomyopathies or clinical conditions where an augmentation of cardiac output is not possible for functional or anatomical reasons (e.g. aortic stenosis).

6. ADVERSE REACTIONS

A moderate positive chronotropic effect and vomiting may occur in rare cases. In rare cases transient diarrhoea, anorexia or lethargy have been observed.

The frequency of adverse reactions is defined using the following convention:

- very common (more than 1 in 10 animals treated displaying adverse reaction(s))
- common (more than 1 but less than 10 animals in 100 animals treated)
- uncommon (more than 1 but less than 10 animals in 1,000 animals treated)
- rare (more than 1 but less than 10 animals in 10,000 animals treated)
- very rare (less than 1 animal in 10,000 animals treated, including isolated reports).

If you notice any side effects, even those not already listed in this package leaflet or you think that the medicine has not worked, please inform your veterinary surgeon.

Alternatively you can report via your national reporting system {national system details}

7. TARGET SPECIES

Dogs

8. DOSAGE FOR EACH SPECIES, ROUTE(S) AND METHOD OF ADMINISTRATION

Single intravenous injection at a dosage of 0.15 mg pimobendan/kg body weight (i.e. 2 ml/ 10 kg body weight).

Vetmedin chewable tablets or Vetmedin capsules for dogs may be used for continuation of treatment at the recommended dosage, to be started 12 hours after administration of the injection.

9. ADVICE ON CORRECT ADMINISTRATION

A 5 ml and a 10 ml vial can treat up to a 25 kg and 50 kg body weight dog respectively. Each vial is for single use only.

10. WITHDRAWAL PERIOD(S)

Not applicable.

11. SPECIAL STORAGE PRECAUTIONS

Keep out of the sight and reach of children.

This veterinary medicinal product does not require any special storage conditions.

This product does not contain an antimicrobial preservative.

This product is intended for single use only.

Any product remaining in the bottle after withdrawal of the required dose should be discarded.

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

Do not use this veterinary medicinal product after the expiry date which is stated on the carton and the vial after EXP.

The expiry date refers to the last day of that month.

12. SPECIAL WARNING(S)

Special precautions for use in animals:

In case of accidental subcutaneous injection temporary swelling and mild to slight resorptive inflammatory reactions can occur at or below the injection site. For single administration only.

The product should be used for the initiation of treatment of congestive heart failure in dogs, following a risk:benefit assessment by the responsible veterinarian, taking into account the overall health status of the dog. Before treatment, diagnosis should be made by the means of a comprehensive physical and cardiac examination which should include echocardiography or radiography where appropriate.

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

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

Wash hands after use.

Pregnancy and lactation:

In studies with rats and rabbits pimobendan had no effect on fertility. Embryotoxic effects only occurred at maternotoxic doses. In rat experiments it has been shown that pimobendan is excreted into milk. Therefore, the product should only be administered to pregnant and lactating bitches if the expected therapeutic benefits outweigh the potential risk.

Interaction with other medicinal products and other forms of interaction:

In pharmacological studies no interaction between the cardiac glycoside ouabain and pimobendan was detected. The pimobendan-induced increase in contractility of the heart is attenuated in the presence of the calcium antagonist verapamil and the β-antagonist propranolol.

Overdose (symptoms, emergency procedures, antidotes):

In the case of overdose symptomatic treatment should be initiated.

Incompatibilities:

In the absence of compatibility studies, this veterinary medicinal product must not be mixed with other veterinary medicinal products.

13. SPECIAL PRECAUTIONS FOR THE DISPOSAL OF UNUSED PRODUCT OR WASTE MATERIALS, IF ANY

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

14. DATE ON WHICH THE PACKAGE LEAFLET WAS LAST APPROVED

<*DD/MM/YYYY*>

<15. OTHER INFORMATION>

5 ml or 10 ml single-use injection vial. Not all pack sizes may be marketed.

For any information about this veterinary medicinal product, please contact the local representative of the marketing authorisation holder.