# ANNEX I SUMMARY OF PRODUCT CHARACTERISTICS

### 1. NAME OF THE VETERINARY MEDICINAL PRODUCT

Arti-Cell Forte suspension for injection for horses

### 2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Each 2 ml dose - contains:

### Active substance (1 ml):

Chondrogenic induced equine allogeneic peripheral blood-derived mesenchymal stem cells (1 ml) 1.4–2.5×10<sup>6</sup>

## **Excipients (1ml):**

Equine allogeneic plasma (EAP) 1 ml

For the full list of excipients, see section 6.1.

#### 3. PHARMACEUTICAL FORM

Suspension for injection.

Chondrogenic induced equine allogeneic peripheral blood-derived mesenchymal stem cell suspension: clear colourless suspension.

Equine allogeneic plasma suspension (diluent): clear yellow suspension.

### 4. CLINICAL PARTICULARS

### 4.1 Target species

Horses

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

Reduction of mild to moderate recurrent lameness associated with non-septic joint inflammation in horses.

#### 4.3 Contraindications

Do not use in cases of hypersensitivity to the active substance or to any of the excipients.

### 4.4 Special warnings for each target species

The product has been demonstrated to be efficacious in horses showing mild to moderate lameness in the fetlock joint. Efficacy data are not available regarding treatment of other joints.

The efficacy of the product was demonstrated in a pivotal field trial after single administration of the product and concurrent single systemic administration of an NSAID. According to the benefit-risk assessment of the responsible veterinarian of the individual case a single dose systemic NSAID may be administered on the day of intraarticular injection.

### 4.5 Special precautions for use

### Special precautions for use in animals

In order to avoid thrombosis in small vessels when administering intraarticular injections the correct placement of the needle is critical.

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

Liquid nitrogen containers should be handled by properly trained personnel only. The handling of liquid nitrogen should take place in a well-ventilated area. Before withdrawing the vials from the liquid nitrogen canister, protective equipment consisting of gloves, long sleeves and a facemask or goggles should be worn.

In case of accidental self-injection this product can cause pain, local inflammatory reactions and swelling at the site of injection which may persist for several weeks and possibly cause fever, seek medical advice immediately and show the package leaflet or the label to the physician.

## 4.6 Adverse reactions (frequency and seriousness)

Mild increases in lameness and injection site reactions, such as mild to moderate increases in joint swelling and mild increases in temperature at the injection sites, occurred very commonly in the first week after use of the product. In the pivotal clinical field study a single systemic administration of an NSAID was given concurrently to treatment with Arti-Cell Forte.

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

The safety of the veterinary medicinal product has not been established during pregnancy and lactation.

Use only accordingly to the benefit-risk assessment by the responsible veterinarian.

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

No data available.

Do not administer simultaneously with any other intraarticular veterinary medicinal product.

### 4.9 Amounts to be administered and administration route

### Route of administration:

Intraarticular use.

### Dosage:

A single intraarticular injection of 1 dose (2 ml) per animal.

# <u>Preparation of the suspension for injection:</u>

The veterinary product must be administered intraarticularly by a veterinary surgeon taking special precautions to ensure sterility of the injection process. The product must be manipulated and injected using sterile techniques and in a clean environment.

The product needs to be administered immediately after thawing to prevent significant cell death.

Using appropriate gloves, remove the two vials (one vial of cells (1 ml) and one vial of EAP (1ml)) from the freezer/liquid nitrogen and thaw immediately at  $25 \,^{\circ}\text{C} - 37 \,^{\circ}\text{C}$ , e.g. in a water bath, until the contents in each are completely thawed (approximately 5 minutes).

If any cell clusters are visible in either of the vials after thawing, gently shake the vial concerned until the suspension is clear and colourless (stem cell suspension) or clear and yellow (equine allogeneic plasma suspension: the diluent).

Remove the cap of the vial that thawed first and aspirate the suspension in a syringe, then remove the cap of the other (thawed) vial and aspirate the suspension in the same syringe. Then mix both the suspensions in the same syringe to produce one dose of the product (2 ml).

Use a needle with a diameter greater than or equal to 22G in order to prevent cell damage.

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

No data available.

### 4.11 Withdrawal period(s)

Zero days.

### 5. PHARMACOLOGICAL PROPERTIES

Pharmacotherapeutic group: Other drugs for disorders of the musculo-skeletal system ATCvet code: QM09AX90

### 5.1 Pharmacodynamic properties

This product contains chondrogenic induced equine mesenchymal stem cells and equine allogeneic plasma (EAP). The addition of the EAP to the stem cells after thawing and just before injection of the product increases the viability of the stem cells.

The chondrogenic induction of the mesenchymal stem cells aims to activate chondroprotective mechanisms, such as the production of extracellular matrix. In an experimental model of osteoarthritis in horses these effects were reflected through parameters related to cartilage turnover.

### 5.2 Pharmacokinetic particulars

After injection of the product the stem cells do not migrate or distribute from the treated joint and synovia to tissues surrounding the synovial space.

### 6. PHARMACEUTICAL PARTICULARS

### 6.1 List of excipients

Active substance (stem cells) vial:
Dimethyl sulfoxide
Dulbecco's Modified Eagle Medium Low Glucose

Diluent (EAP) vial:

Equine allogeneic plasma

# 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: 2 years. Shelf life after reconstitution according to directions: Use immediately.

### 6.4 Special precautions for storage

Store and transport frozen (-90 °C to -70 °C) or in liquid nitrogen.

### 6.5 Nature and composition of immediate packaging

Chondrogenic induced mesenchymal stem cell suspension:

Cyclo-olefin co-polymer (COC) vial with a thermoplastic elastomer (TPE) stopper and a high-density polyethylene (HDPE) cap.

Equine allogeneic plasma suspension:

Cyclo-olefin co-polymer (COC) vial with a thermoplastic elastomer (TPE) stopper and a high-density polyethylene (HDPE) cap.

Each pack (polycarbonate container) contains a single dose of the product: one vial of stem cell suspension and one vial of EAP suspension.

# 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

Boehringer Ingelheim Vetmedica GmbH 55216 Ingelheim/Rhein GERMANY

### 8. MARKETING AUTHORISATION NUMBER(S)

EU/2/18/228/001

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

Date of first authorisation: 29/03/2019

### 10. DATE OF REVISION OF THE TEXT

Detailed information on this veterinary medicinal product is available on the website of the European Medicines Agency (<a href="http://www.ema.europa.eu/">http://www.ema.europa.eu/</a>).

# PROHIBITION OF SALE, SUPPLY AND/OR USE

Not applicable.

# ANNEX II

- A. MANUFACTURER OF THE BIOLOGICAL ACTIVE SUBSTANCE AND MANUFACTURER RESPONSIBLE FOR BATCH RELEASE
- B. CONDITIONS OR RESTRICTIONS REGARDING SUPPLY AND USE
- C. STATEMENT OF THE MRLs

# A. MANUFACTURER OF THE BIOLOGICAL ACTIVE SUBSTANCE AND MANUFACTURER RESPONSIBLE FOR BATCH RELEASE

Name and address of the manufacturer of the biological active substance
Boehringer Ingelheim Veterinary Medicine Belgium NV
Noorwegenstraat 4
9940 Evergem
BELGIUM

Name and address of the manufacturer(s) responsible for batch release Boehringer Ingelheim Veterinary Medicine Belgium NV Noorwegenstraat 4 9940 Evergem BELGIUM

### B. CONDITIONS OR RESTRICTIONS REGARDING SUPPLY AND USE

Veterinary medicinal product subject to prescription.

### C. STATEMENT OF THE MRLs

The active substance being a principle of biological origin intended to produce passive immunity is not within the scope of Regulation (EC) No 470/2009.

The excipients listed in section 6.1 of the SPC are either allowed substances for which table 1 of the annex to Commission Regulation (EU) No 37/2010 indicates that no MRLs are required or are considered as not falling within the scope of Regulation (EC) No 470/2009 when used as in this veterinary medicinal product.

# ANNEX III LABELLING AND PACKAGE LEAFLET

A. LABELLING

PARTICULARS TO APPEAR ON THE OUTER PACKAGE
Polycarbonate container
1. NAME OF THE VETERINARY MEDICINAL PRODUCT
Arti-Cell Forte suspension for injection for horses
2. STATEMENT OF ACTIVE SUBSTANCES
$1.4-2.5\times10^6$ chondrogenic induced equine allogeneic peripheral blood-derived mesenchymal stem cells
3. PHARMACEUTICAL FORM
Suspension for injection
4. PACKAGE SIZE
One vial (1 ml) of stem cells and one vial (1 ml) of equine allogeneic plasma.
5. TARGET SPECIES
Horses
6. INDICATION(S)
7. METHOD AND ROUTE(S) OF ADMINISTRATION
Read the package leaflet before use. Intraarticular use.
8. WITHDRAWAL PERIOD(S)
Withdrawal period(s): Zero days.
9. SPECIAL WARNING(S), IF NECESSARY
Read the package leaflet before use.
10. EXPIRY DATE

EXP {month/year}

Once reconstituted use immediately.

# 11. SPECIAL STORAGE CONDITIONS

Store and transport frozen (-90 °C to -70 °C or in liquid nitrogen).

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

Dispose of waste material in accordance with local requirements.

# 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

Boehringer Ingelheim Vetmedica GmbH GERMANY

## 16. MARKETING AUTHORISATION NUMBER(S)

EU/2/18/228/001

# 17. MANUFACTURER'S BATCH NUMBER

Lot {number}

# MINIMUM PARTICULARS TO APPEAR ON SMALL IMMEDIATE PACKAGING UNITS Vial containing the stem cell suspension 1. NAME OF THE VETERINARY MEDICINAL PRODUCT Arti-Cell Forte Suspension for injection 2. QUANTITY OF THE ACTIVE SUBSTANCE(S) $1.4-2.5\times10^{6}$ cells 3. CONTENTS BY WEIGHT, BY VOLUME OR BY NUMBER OF DOSES 1 ml 4. **ROUTE(S) OF ADMINISTRATION** Intraarticular use 5. WITHDRAWAL PERIOD(S) Withdrawal period: zero days 6. **BATCH NUMBER** Lot {number}

# 7. EXPIRY DATE

EXP {month/year}

Once reconstituted use immediately.

# 8. THE WORDS "FOR ANIMAL TREATMENT ONLY"

For animal treatment only.

MINIMUM PARTICULARS TO APPEAR ON SMALL IMMEDIATE PACKAGING UNITS
Vial containing the equine allogeneic plasma suspension
1. NAME OF THE VETERINARY MEDICINAL PRODUCT
Diluent for Arti-Cell Forte
2. QUANTITY OF THE ACTIVE SUBSTANCE(S)
3. CONTENTS BY WEIGHT, BY VOLUME OR BY NUMBER OF DOSES
1 ml
1 ml
4. ROUTE(S) OF ADMINISTRATION
Intraarticular use
5. WITHDRAWAL PERIOD(S)
Withdrawal period: zero days
·
6. BATCH NUMBER
Lot {number}
Lot {number}
7. EXPIRY DATE
EXP {month/year} Once reconstituted use immediately.
Once reconstituted use infinediatery.
8. THE WORDS "FOR ANIMAL TREATMENT ONLY"
For animal treatment only.

B. PACKAGE LEAFLET

### **PACKAGE LEAFLET:**

### Arti-Cell Forte suspension for injection for horses

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

Marketing authorisation holder Boehringer Ingelheim Vetmedica GmbH 55216 Ingelheim/Rhein GERMANY

Manufacturer responsible for batch release:
Boehringer Ingelheim Veterinary Medicine Belgium NV
Noorwegenstraat 4
9940 Evergem
BELGIUM

### 2. NAME OF THE VETERINARY MEDICINAL PRODUCT

Arti-Cell Forte suspension for injection for horses Chondrogenic induced equine allogeneic peripheral blood-derived mesenchymal stem cells

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

Each dose (2 ml) contains:

### Active substance (1 ml):

1.4–2.5×10<sup>6</sup> Chondrogenic induced equine allogeneic peripheral blood-derived mesenchymal stem cells (1 ml)

Colourless and clear suspension.

### **Excipients (1 ml):**

Equine allogeneic plasma (1 ml) Yellow and clear suspension.

# 4. INDICATION(S)

Reduction of mild to moderate recurrent lameness associated with non-septic joint inflammation in horses.

### 5. CONTRAINDICATIONS

Do not use in cases of hypersensitivity to the active substance or any of the excipients.

### 6. ADVERSE REACTIONS

Mild increases in lameness and injection site reactions, such as mild to moderate increases in joint swelling and mild increases in temperature at the injection sites, occurred very commonly in the first week after use of the product. In the pivotal clinical field study a single systemic administration of an NSAID was given concurrently to treatment.

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.

### 7. TARGET SPECIES

Horses

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

For intraarticular use.

### Dosage:

Single administration of 1 dose (equivalent to 2 ml) per animal

### 9. ADVICE ON CORRECT ADMINISTRATION

### Preparation of the suspension for injection:

The veterinary product must be administered intraarticularly by a veterinary surgeon taking special precautions to ensure sterility of the injection process. The product must be manipulated and injected using sterile techniques and in a clean environment.

The product needs to be administered immediately after thawing to prevent significant cell death.

Using appropriate gloves, remove the two vials (one vial of cells (1 ml) and one vial of EAP (1ml)) from the freezer/liquid nitrogen and thaw immediately at 25 °C -37 °C, e.g. in a water bath, until the contents in each are completely thawed (approximately 5 minutes).

If any cell clusters are visible in either of the vials after thawing, gently shake the vial concerned until the suspension is clear and colourless (stem cell suspension) or clear and yellow (equine allogeneic plasma suspension: the diluent).

Remove the cap of the vial that thawed first and aspirate the suspension in a syringe, then remove the cap of the other (thawed) vial and aspirate the suspension in the same syringe. Then mix both the suspensions in the same syringe to produce one dose of the product (2 ml).

Use a needle with a diameter greater than or equal to 22G in order to prevent cell damage.

### 10. WITHDRAWAL PERIOD(S)

Zero days.

### 11. SPECIAL STORAGE PRECAUTIONS

Keep out of the sight and reach of children. Store and transport frozen (-90 ° to -70 °C) or in liquid nitrogen. Do not use this veterinary medicinal product after the expiry date which is stated on the labels. The expiry date refers to the last day of that month.

Shelf life after preparation of the suspension for injection according to directions: use immediately

## 12. SPECIAL WARNING(S)

### Special warnings for each target species:

The product has been demonstrated to be efficacious in horses showing mild to moderate lameness in the fetlock joint. Efficacy data are not available regarding treatment of other joints.

The efficacy of the product was demonstrated in a pivotal field trial after single administration of the product and concurrent single systemic administration of an NSAID. According to the benefit-risk assessment of the responsible veterinarian of the individual case a single dose systemic NSAID may be administered on the day of intraarticular injection.

## Special precautions for use in animals

In order to avoid thrombosis in small vessels when administering intraarticular injections the correct placement of the needle is critical.

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

Liquid nitrogen containers should be handled by properly trained personnel only. The handling of liquid nitrogen should take place in a well-ventilated area. Before withdrawing the vials from the liquid nitrogen canister, protective equipment consisting of gloves, long sleeves and a facemask or goggles should be worn.

In case of accidental self-injection this product can cause pain, local inflammatory reactions and swelling at the site of injection which may persist for several weeks and possibly cause fever, seek medical advice immediately and show the package leaflet or the label to the physician.

# Pregnancy and lactation:

The safety of the veterinary medicinal product has not been established during pregnancy and lactation.

Use only accordingly to the benefit-risk assessment by the responsible veterinarian.

### <u>Interaction</u> with other medicinal products and other forms of interaction:

No data available.

Do not administer simultaneously with any other intraarticular veterinary medicinal product.

### Overdose:

No data available

## Major incompatibilities:

In the absence of incompatibility studies, this veterinary 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 product should be disposed of in accordance with local requirements.

# 14. DATE ON WHICH THE PACKAGE LEAFLET WAS LAST APPROVED

Detailed information on this veterinary medicinal product is available on the website of the European Medicines Agency (<a href="http://www.ema.europa.eu/">http://www.ema.europa.eu/</a>).

# 15. OTHER INFORMATION

Each pack (polycarbonate container) contains a single dose of the product: one vial of stem cell suspension and one vial of EAP suspension.