# SUMMARY OF PRODUCT CHARACTERISTICS

## 1. NAME OF THE VETERINARY MEDICINAL PRODUCT

Heptavac P Plus suspension for injection for sheep (PT, XI)
Heptavac P suspension for injection for sheep (IT)

## 2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Each ml of vaccine contains:

**Active substances:**

| | |
|---|---|
| *Clostridium perfringens* beta toxoid | ≥ 10 IU* |
| *Clostridium perfringens* epsilon toxoid | ≥ 5 IU* |
| *Clostridium septicum* toxoid | ≥ 2.5 IU* |
| *Clostridium tetani* toxoid | ≥ 2.5 IU* |
| *Clostridium novyi* toxoid | ≥ 3.5 IU* |
| Inactivated *Clostridium chauvoei* | ≥ 0.5 guinea pig $PD_{90}$# |
| Inactivated *Mannheimia haemolytica* A1, A2, A6, A7, A9 | $5x10^8$ cells per strain |
| Inactivated *Pasteurella trehalosi* T3, T4, T10, T15 | $5x10^8$ cells per strain |

* International Units of antitoxin, conform Ph.Eur.
# Protective Dose 90%, conform Ph.Eur.

**Adjuvant:**

| | |
|---|---|
| Aluminium hydroxide gel | 400 mg |

**Excipients:**

| **Qualitative composition of excipients and other constituents** | **Quantitative composition if that information is essential for proper administration of the veterinary medicinal product** |
|---|---|
| Thiomersal | 0.067-0.15 mg |
| Tris | |
| Maleic acid | |
| Sodium chloride | |
| Formaldehyde | |
| Water | |

Opaque suspension.

## 3. CLINICAL INFORMATION

### 3.1 Target species

Sheep.

### 3.2 Indications for use for each target species

For the active immunisation of sheep as an aid in the control of lamb dysentery, pulpy kidney, struck, tetanus, braxy, blackleg, black disease, clostridial metritis caused by *Clostridium perfringens* types B, C and D, *Cl.septicum*, *Cl.novyi*, *Cl.chauvoei* and *Cl.tetani*. The vaccine may be used as an aid in the

control of pneumonic pasteurellosis in sheep of all ages from a minimum age of 3 weeks and in the control of systemic pasteurellosis in weaned fattening and breeding sheep.

The vaccine may be used in pregnant ewes as an aid in the control of lamb dysentery, pulpy kidney, tetanus and pasteurellosis in their lambs provided that the lambs receive sufficient immune colostrum during the first 1-2 days of life.

Onset of immunity: As with most inactivated vaccines, significant levels of immunity cannot be expected until 2 weeks after the second dose of vaccine in the primary vaccination course.

Duration of immunity: Evidence of efficacy of the Pasteurella/Mannheimia component of this vaccine was generated in an experimental infection model and it is not possible to provide duration of immunity information using this system. There are reports that active immunity will last for up to 1 year and that passive immunity will persist for up to 4 weeks after birth in lambs from ewes vaccinated with conventional Pasteurella vaccines.

### 3.3 Contraindications

None.

### 3.4 Special warnings

Vaccinate healthy animals only.

### 3.5 Special precautions for use

Special precautions for safe use in the target species:
This vaccine should not be used in lambs less than 3 weeks of age. The nutritional and metabolic status of pregnant ewes is extremely important at the time of vaccination. If in doubt, advice should be sought from a veterinary surgeon.

In any group of animals, a small number of individuals may fail to respond to vaccination as a result of immunological incompetence. Satisfactory immune responses will only be attained in healthy animals, thus it is important to avoid vaccination of animals which have intercurrent infection or metabolic disorder.

When handling sheep, stress should be avoided, particularly during the later stages of pregnancy when there is a risk of inducing abortion and metabolic disorders.

Because sheep are very sensitive to contamination of the injection site (which may result in non-product related tissue reactions and even in abscesses), it is advised to follow strict aseptic injection techniques.

Special precautions to be taken by the person administering the veterinary medicinal product to animals:
Accidental self-injection might result in localized swelling, severe pain, soft tissue injury or infection. In case of accidental self-injection, seek medical advice immediately and show the package leaflet or the label to the physician.

Special precautions for the protection of the environment:
Not applicable.

### 3.6 Adverse events

Sheep:

| | |
|---|---|
| Common<br>(1 to 10 animals / 100 animals treated): | Injection site reaction[1]. |
| Very rare<br>(<1 animal / 10,000 animals treated, including isolated reports): | Hypersensitivity reaction, anaphylaxis[2]. |

[1] Small and transient. Usually characterised by swelling. May be present for up to 3-4 months post-vaccination.
[2] Sometimes fatal. If such reaction occurs, appropriate treatment should be administered without delay.

Reporting adverse events is important. It allows continuous safety monitoring of a veterinary medicinal product. Reports should be sent, preferably via a veterinarian, to either the marketing authorisation holder or its local representative or the national competent authority via the national reporting system. See the package leaflet for respective contact details.

### 3.7 Use during pregnancy, lactation or lay

Pregnancy:
Ewes may be vaccinated during pregnancy as an aid in the control of lamb dysentery, pulpy kidney, tetanus and pasteurellosis in their lambs provided that the lambs receive sufficient immune colostrum during the first 1-2 days of life.

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

No information is available on the safety and efficacy of this vaccine when used with any other veterinary medicinal product.
A decision to use this vaccine before or after any other veterinary medicinal product therefore needs to be made on a case by case basis.

### 3.9 Administration routes and dosage

The vaccine should be administered by subcutaneous injection in the lateral side of the upper neck observing aseptic precautions. Syringes and needles should be sterile before use and the injection should be made through an area of clean, dry skin taking precautions against contamination. All breeding sheep not previously vaccinated with this vaccine must receive two injections, each of 2.0 ml, separated by an interval of 4-6 weeks. Thereafter they must receive booster injections at intervals of not more than 12 months. In adult breeding ewes these yearly booster injections should be given during the pre-lambing period, 4-6 weeks pre-lambing, as an aid in control of disease in their lambs.

On farms where the incidence of pasteurellosis is high, a supplementary booster injection using a Pasteurella vaccine may be required 2-3 weeks prior to expected seasonal outbreaks.

This vaccine should not be used in lambs less than 3 weeks of age due to the possible immunological incompetence of the very young lamb and competition from any maternally derived colostral antibodies. Lambs being retained for fattening or subsequent breeding will require a full course of vaccination. At a minimum age of 3 weeks these lambs should receive two injections, each of 2.0 ml, separated by an interval of 4-6 weeks. It should be noted that this vaccine is the recommended vaccine for breeding stock since it provides optimal aid in the control of the predominant clostridial diseases in adult sheep by active immunisation and in young lambs by passive immunisation.

The vaccine bottle must be shaken well before use. The use of automatic vaccination equipment is recommended. Since the bottle is non-collapsible, a vaccinator with a vented draw-off spike or similar device must be used. The instructions supplied with such equipment should be noted and care should be taken to ensure the delivery of the full dose, particularly with the final few doses from the bottle. Strict precautions should be taken against contamination of the vaccine. A fresh sterile needle must be used each time the rubber cap is punctured, to avoid contamination of the remaining contents.

Syringes and needles must be from gamma irradiated packs or freshly sterilised by boiling for at least 20 minutes.

This vaccine has been developed following research and development which resulted in the application of Plus 'IRP' technology for the manufacture of the Pasteurella/Mannheimia components of this vaccine. The inclusion of these IRP components should provide enhanced efficacy and cross protection e.g. protection against serotype A12, which is not included in the vaccine, has been demonstrated. Studies on the response of sheep to this vaccine show that two injections separated by an interval of 4-6 weeks are required to gain the full benefit of the 'IRP'.

### 3.10 Symptoms of overdose (and where applicable, emergency procedures and antidotes)

Accidental overdosage is unlikely to cause any reaction other than those described in section 3.6. No adverse local or systemic reactions were noted in overdose studies (2-fold overdose) performed in pregnant ewes and lambs.

### 3.11 Special restrictions for use and special conditions for use, including restrictions on the use of antimicrobial and antiparasitic veterinary medicinal products in order to limit the risk of development of resistance

Not applicable.

### 3.12 Withdrawal periods

Zero days.

## 4. IMMUNOLOGICAL INFORMATION

### 4.1 ATCvet code: QI04AB05.

For the immunisation of sheep as an aid in the control of clostridial diseases and pasteurellosis.

## 5. PHARMACEUTICAL PARTICULARS

### 5.1 Major incompatibilities

Do not mix with any other veterinary medicinal product.

### 5.2 Shelf life

Shelf life of the veterinary medicinal product as packaged for sale: 2 years.
Shelf life after first opening the immediate packaging: use within 10 hours.

### 5.3 Special precautions for storage

Store in a refrigerator (2 °C – 8 °C).
Do not freeze.
Protect from light.

### 5.4 Nature and composition of immediate packaging

Low density polyethylene bottle of 50 ml, 100 ml, 250 ml or 500 ml with chlorobutyl rubber closure and aluminium cap.

Pack sizes:

Cardboard box containing 1 bottle of 50 ml, 100 ml, 250 ml or 500 ml.

Not all pack sizes may be marketed.

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

Medicines should not be disposed of via wastewater or household waste.

Use take-back schemes for the disposal of any unused veterinary medicinal product or waste materials derived thereof in accordance with local requirements and with any national collection systems applicable to the veterinary medicinal product concerned.

## 6. NAME OF THE MARKETING AUTHORISATION HOLDER

{Name}

## 7. MARKETING AUTHORISATION NUMBER(S)

## 8. DATE OF FIRST AUTHORISATION

Date of first authorisation: {DD/MM/YYYY}.

## 9. DATE OF THE LAST REVISION OF THE SUMMARY OF THE PRODUCT CHARACTERISTICS

{MM/YYYY}

## 10. CLASSIFICATION OF VETERINARY MEDICINAL PRODUCTS

Veterinary medicinal product subject to prescription.

Detailed information on this veterinary medicinal product is available in the Union Product Database (https://medicines.health.europa.eu/veterinary).

**LABELLING AND PACKAGE LEAFLET**

# A. LABELLING

**PARTICULARS TO APPEAR ON THE OUTER PACKAGE**

**CARDBOARD BOX – for 1 x 50 ml, 1 x 100 ml, 1 x 250 ml or 1 x 500 ml bottle**

## 1. NAME OF THE VETERINARY MEDICINAL PRODUCT

Heptavac P Plus suspension for injection

## 2. STATEMENT OF ACTIVE SUBSTANCES

Each ml of vaccine contains:

| | |
|---|---|
| *Cl. perfringens* beta toxoid | ≥ 10 IU |
| *Cl. perfringens* epsilon toxoid | ≥ 5 IU |
| *Cl. septicum* toxoid | ≥ 2.5 IU |
| *Cl. tetani* toxoid | ≥ 2.5 IU |
| *Cl. novyi* toxoid | ≥ 3.5 IU |
| Inactivated *Cl. chauvoei* | ≥ 0.5 guinea pig $PD_{90}$ |
| Inactivated *M. haemolytica* A1, A2, A6, A7, A9 | $5x10^8$ cells per strain |
| Inactivated *P. trehalosi* T3, T4, T10, T15 | $5x10^8$ cells per strain |

## 3. PACKAGE SIZE

1 x 50 ml
1 x 100 ml
1 x 250 ml
1 x 500 ml

## 4. TARGET SPECIES

Sheep

## 5. INDICATIONS

## 6. ROUTES OF ADMINISTRATION

Subcutaneous use.

## 7. WITHDRAWAL PERIODS

Withdrawal period: Zero days.

## 8. EXPIRY DATE

Exp. {mm/yyyy}
Once broached use within 10 hours.

## 9. SPECIAL STORAGE PRECAUTIONS

Store in a refrigerator.
Do not freeze.
Protect from light.

## 10. THE WORDS "READ THE PACKAGE LEAFLET BEFORE USE"

Read the package leaflet before use.

## 11. THE WORDS "FOR ANIMAL TREATMENT ONLY"

For animal treatment only.

## 12. THE WORDS "KEEP OUT OF THE SIGHT AND REACH OF CHILDREN"

Keep out of the sight and reach of children.

## 13. NAME OF THE MARKETING AUTHORISATION HOLDER

## 14. MARKETING AUTHORISATION NUMBERS

{number}

## 15. BATCH NUMBER

Lot {number}

**PARTICULARS TO APPEAR ON THE IMMEDIATE PACKAGE**

**PLASTIC BOTTLE LABEL** (bottle with 100 ml, 250 ml, or 500 ml)

## 1. NAME OF THE VETERINARY MEDICINAL PRODUCT

Heptavac P Plus suspension for injection

## 2. STATEMENT OF ACTIVE SUBSTANCES

Each ml contains:
*Cl. perfringens* β toxoid ≥ 10 IU, ε toxoid ≥ 5 IU, *Cl. septicum* toxoid ≥ 2.5 IU, *Cl. tetani* toxoid ≥ 2.5 IU, *Cl. novyi* toxoid ≥ 3.5 IU, *Cl. chauvoei* ≥ 0.5 guinea pig $PD_{90}$, *M. haemolytica* and *P. trehalosi*: $5x10^8$ cells/strain

100 ml
250 ml
500 ml

## 3. TARGET SPECIES

Sheep

## 4. ROUTES OF ADMINISTRATION

Subcutaneous use.
Read the package leaflet before use.

## 5. WITHDRAWAL PERIODS

Withdrawal period: Zero days.

## 6. EXPIRY DATE

Exp. {mm/yyyy}
Once broached use within 10 hours.

## 7. SPECIAL STORAGE PRECAUTIONS

Store in a refrigerator.
Do not freeze.
Protect from light.

## 8. NAME OF THE MARKETING AUTHORISATION HOLDER

## 9. BATCH NUMBER

Lot {number}

**MINIMUM PARTICULARS TO APPEAR ON SMALL IMMEDIATE PACKAGING UNITS**

**PLASTIC BOTTLE LABEL (bottle with 50 ml)**

## 1. NAME OF THE VETERINARY MEDICINAL PRODUCT

Heptavac P Plus 

## 2. QUANTITATIVE PARTICULARS OF THE ACTIVE SUBSTANCES

Clostridial cells and toxoids, inactivated *M. haemolytica* and *P. trehalosi* cells; see package leaflet.

50 ml

## 3. BATCH NUMBER

Lot {number}

## 4. EXPIRY DATE

Exp. {mm/yyyy}
Once broached use within 10 hours.

**B. PACKAGE LEAFLET**

# PACKAGE LEAFLET

## 1. Name of the veterinary medicinal product

Heptavac P Plus suspension for injection for sheep

## 2. Composition

Each ml of vaccine contains:

**Active substances:**

| | |
|---|---|
| *Clostridium perfringens* beta toxoid | ≥ 10 IU* |
| *Clostridium perfringens* epsilon toxoid | ≥ 5 IU* |
| *Clostridium septicum* toxoid | ≥ 2.5 IU* |
| *Clostridium tetani* toxoid | ≥ 2.5 IU* |
| *Clostridium novyi* toxoid | ≥ 3.5 IU* |
| Inactivated *Clostridium chauvoei* | ≥ 0.5 guinea pig $PD_{90}$# |
| Inactivated *Mannheimia haemolytica* A1, A2, A6, A7, A9 | $5x10^8$ cells per strain |
| Inactivated *Pasteurella trehalosi* T3, T4, T10, T15 | $5x10^8$ cells per strain |

* International Units of antitoxin, conform Ph.Eur.
# Protective Dose 90%, conform Ph.Eur.

**Excipients:**

| | |
|---|---|
| Aluminium hydroxide gel | 400 mg |
| Thiomersal | 0.067-0.15 mg |

Opaque suspension.

## 3. Target species

Sheep.

## 4. Indications for use

For the active immunisation of sheep as an aid in the control of lamb dysentery, pulpy kidney, struck, tetanus, braxy, blackleg, black disease, clostridial metritis caused by *Clostridium perfringens* types B, C and D, *Cl.septicum*, *Cl.novyi*, *Cl.chauvoei* and *Cl.tetani*. The vaccine may be used as an aid in the control of pneumonic pasteurellosis in sheep of all ages from a minimum age of 3 weeks and in the control of systemic pasteurellosis in weaned fattening and breeding sheep.

The vaccine may be used in pregnant ewes as an aid in the control of lamb dysentery, pulpy kidney, tetanus and pasteurellosis in their lambs provided that the lambs receive sufficient immune colostrum during the first 1-2 days of life.

Onset of immunity: As with most inactivated vaccines, significant levels of immunity cannot be expected until 2 weeks after the second dose of vaccine in the primary vaccination course.

Duration of immunity: Evidence of efficacy of the Pasteurella/Mannheimia component of this vaccine was generated in an experimental infection model and it is not possible to provide duration of immunity information using this system. There are reports that active immunity will last for up to 1 year and that passive immunity will persist for up to 4 weeks after birth in lambs from ewes vaccinated with conventional Pasteurella vaccines.

## 5. Contraindications

None.

## 6. Special warnings

Special warnings:
Vaccinate healthy animals only.

Special precautions for safe use in the target species:
This vaccine should not be used in lambs less than 3 weeks of age. The nutritional and metabolic status of pregnant ewes is extremely important at the time of vaccination. If in doubt, advice should be sought from a veterinary surgeon.

In any group of animals, a small number of individuals may fail to respond to vaccination as a result of immunological incompetence. Satisfactory immune responses will only be attained in healthy animals, thus it is important to avoid vaccination of animals which have intercurrent infection or metabolic disorder.

When handling sheep, stress should be avoided, particularly during the later stages of pregnancy when there is a risk of inducing abortion and metabolic disorders.

Because sheep are very sensitive to contamination of the injection site (which may result in non-product related tissue reactions and even in abscesses), it is advised to follow strict aseptic injection techniques.

Special precautions to be taken by the person administering the veterinary medicinal product to animals:
Accidental self-injection might result in localized swelling, severe pain, soft tissue injury or infection. In case of accidental self-injection, seek medical advice immediately and show the package leaflet or the label to the physician.

Pregnancy:
Ewes may be vaccinated during pregnancy as an aid in the control of lamb dysentery, pulpy kidney, tetanus and pasteurellosis in their lambs provided that the lambs receive sufficient immune colostrum during the first 1-2 days of life.

Interaction with other medicinal products and other forms of interaction:
No information is available on the safety and efficacy of this vaccine when used with any other veterinary medicinal product. A decision to use this vaccine before or after any other veterinary medicinal product therefore needs to be made on a case by case basis.

Overdose:
Accidental overdosage is unlikely to cause any reaction other than those described in "Adverse events" section. No adverse local or systemic reactions were noted in overdose studies (2-fold overdose) performed in pregnant ewes and lambs.

Major incompatibilities:
Do not mix with any other veterinary medicinal product.

## 7. Adverse events

Sheep:

| | |
|---|---|
| Common<br>(1 to 10 animals / 100 animals treated): | Injection site reaction[1]. |
| Very rare<br>(<1 animal / 10,000 animals treated, including isolated reports): | Hypersensitivity reaction, anaphylaxis[2]. |

[1] Small and transient. Usually characterised by swelling. May be present for up to 3-4 months post-vaccination.
[2] Sometimes fatal. If such reaction occurs, appropriate treatment should be administered without delay.

Reporting adverse events is important. It allows continuous safety monitoring of a product. 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 contact, in the first instance, your veterinarian. You can also report any adverse events to the marketing authorisation holder or the local representative of the marketing authorisation holder using the contact details at the end of this leaflet, or via your national reporting system: {national system details}.

## 8. Dosage for each species, routes and method of administration

The vaccine should be administered by subcutaneous injection in the lateral side of the upper neck observing aseptic precautions. Syringes and needles should be sterile before use and the injection should be made through an area of clean, dry skin taking precautions against contamination.
All breeding sheep not previously vaccinated with this vaccine must receive two injections, each of 2.0 ml, separated by an interval of 4-6 weeks. Thereafter they must receive booster injections at intervals of not more than 12 months. In adult breeding ewes these yearly booster injections should be given during the pre-lambing period, 4-6 weeks pre-lambing, as an aid in control of disease in their lambs.

On farms where the incidence of pasteurellosis is high, a supplementary booster injection using a Pasteurella vaccine may be required 2-3 weeks prior to expected seasonal outbreaks.

This vaccine should not be used in lambs less than 3 weeks of age due to the possible immunological incompetence of the very young lamb and competition from any maternally derived colostral antibodies. Lambs being retained for fattening or subsequent breeding will require a full course of vaccination. At a minimum age of 3 weeks these lambs should receive two injections, each of 2.0 ml, separated by an interval of 4-6 weeks. It should be noted that this vaccine is the recommended vaccine for breeding stock since it provides optimal aid in the control of the predominant clostridial diseases in adult sheep by active immunisation and in young lambs by passive immunisation.

## 9. Advice on correct administration

The vaccine bottle must be shaken well before use. The use of automatic vaccination equipment is recommended. Since the bottle is non-collapsible, a vaccinator with a vented draw-off spike or similar device must be used. The instructions supplied with such equipment should be noted and care should be taken to ensure the delivery of the full dose, particularly with the final few doses from the bottle. Strict precautions should be taken against contamination of the vaccine. A fresh sterile needle must be used each time the rubber cap is punctured, to avoid contamination of the remaining contents. Syringes and needles must be from gamma irradiated packs or freshly sterilised by boiling for at least 20 minutes.

## 10. Withdrawal periods

Zero days.

## 11. Special storage precautions

Keep out of the sight and reach of children.

Store in a refrigerator ( 2 °C – 8 °C) . Do not freeze. Protect from light.

Do not use this veterinary medicinal product after the expiry date which is stated on the label. The expiry date refers to the last day of that month.

Shelf life after first opening the immediate packaging: use within 10 hours.

## 12. Special precautions for disposal

Medicines should not be disposed of via wastewater or household waste.

Use take-back schemes for the disposal of any unused veterinary medicinal product or waste materials derived thereof in accordance with local requirements and with any applicable national collection systems. These measures should help to protect the environment.

## 13. Classification of veterinary medicinal products

Veterinary medicinal product subject to prescription.

## 14. Marketing authorisation numbers and pack sizes

Pack sizes:
Cardboard box with 1 bottle of 50 ml, 100 ml, 250 ml or 500 ml.

Not all pack sizes may be marketed.

## 15. Date on which the package leaflet was last revised

{MM/YYYY}

Detailed information on this veterinary medicinal product is available in the Union Product Database (https://medicines.health.europa.eu/veterinary).

## 16. Contact details

Marketing authorisation holder and manufacturer responsible for batch release and contact details to report suspected adverse reactions:

Manufacturer responsible for batch release[1]:
Intervet International BV
Wim de Körverstraat 35
5831 AN Boxmeer
The Netherlands

MSD Animal Health UK, Ltd.
Walton Manor, Walton, Milton Keynes
Buckinghamshire, MK7 7AJ
United Kingdom

Local representative and contact details to report suspected adverse reactions:

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

## 17. Other information

This vaccine has been developed following research and development which resulted in the application of Plus 'IRP' technology for the manufacture of the Pasteurella/Mannheimia components of this vaccine. The inclusion of these IRP components should provide enhanced efficacy and cross protection e.g. protection against serotype A12, which is not included in the vaccine, has been demonstrated. Studies on the response of sheep to this vaccine show that two injections separated by an interval of 4-6 weeks are required to gain the full benefit of the 'IRP'.

[1] The printed package leaflet will state the name and address of the manufacturer responsible for the release of the concerned batch only.