ANNEX I

SUMMARY OF PRODUCT CHARACTERISTICS

1. NAME OF THE VETERINARY MEDICINAL PRODUCT

Suvaxyn CSF Marker lyophilisate and solvent for suspension for injection for pigs

2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Each dose of 1 ml contains:

Active substance:

Lyophilisate:
Live recombinant E2 gene-deleted bovine viral diarrhoea virus containing classical swine fever virus E2 gene (CP7_E2alf) $10^{4.8}$* to $10^{6.5}$ TCID**$_{50}$

* min 100 PD_{50}
** Tissue culture infectious dose

Solvent:
Sodium chloride 9 mg/ml
Water for injections q.s.p. 1 ml

For the full list of excipients, see section 6.1.

3. PHARMACEUTICAL FORM

Lyophilisate and solvent for suspension for injection.

Lyophilisate: Off-white pellet
Solvent: Clear colourless liquid
After reconstitution, the suspension should be slightly pink clear liquid.

4. CLINICAL PARTICULARS

4.1 Target species

Pigs

4.2 Indications for use, specifying the target species

For active immunisation of pigs from 7 weeks of age onwards to prevent mortality and reduce infection and disease caused by classical swine fever virus (CSFV).

Onset of immunity: 14 days after vaccination
Duration of immunity: at least 6 months after vaccination

For active immunisation of breeding females to reduce transplacental infection caused by CSFV.

Onset of immunity: 21 days after vaccination
Duration of immunity has not been demonstrated.

4.3 Contraindications

None.

4.4 Special warnings for each target species

Vaccinate healthy animals only.

Documentation provided for this vaccine supports that it is only to be used in an outbreak situation in herds within restricted control zones.

Protection against transplacental transmission of CSFV was shown 21 days after vaccination when challenge was applied in 6 pregnant sows with a moderately virulent CSFV strain. Partial protection against transplacental transmission of CSFV was observed when challenge was applied in 6 pregnant sows with a highly virulent CSFV strain.
Birth of persistently infected immunotolerant piglets represent a very high risk since they are shedding field virus and they cannot be identified serologically due to their seronegative status. Vaccination of breeding animals may be included in risk-based control strategies in case of outbreak and considering the above information.

The vaccine has shown reduced protection in studies of piglets with maternally derived antibodies compared to studies of piglets without maternally derived antibodies.

Studies in vaccinated breeding boars addressing potential shedding of virulent challenge virus in semen have not been conducted. Use of the vaccine in experimental studies in breeding boars has not revealed safety concerns.
Therefore, the decision to vaccinate breeding boars and piglets with maternally derived antibodies should be taken based on the actual outbreak case and associated control zones.

RT-PCR tools could be used in outbreak situations to differentiate between the vaccine virus genome and those of field strains based on sequences unique to the CP7_E2alf.

4.5 Special precautions for use

Special precautions for use in animals

Vaccine virus genome is rarely detectable by RT-PCR in tonsils and lymph nodes for up to 63 days after vaccination and vaccine virus is very rarely detectable by virus isolation in tonsil for the first week after vaccination. Transplacental transmission of the vaccine virus has not been detected in the limited studies performed but cannot be excluded.

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.

4.6 Adverse reactions (frequency and seriousness)

In laboratory safety studies in pregnant animals, the following adverse reactions were observed:
A local and transient tissue reaction in the form of swelling of up to 5 mm in diameter at the injection site was very common and lasted for up to 1 day. A transient increase in body temperature of 2.9 °C was observed commonly 4 hours after vaccination. This resolved spontaneously within 1 day after vaccination.

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 vaccine can be used in sows during pregnancy.
See section 4.4.

4.8 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.

4.9 Amounts to be administered and administration route

Intramuscular use.

Reconstitute the lyophilisate aseptically with the solvent to obtain a suspension for injection.

After reconstitution, the suspension should be slightly pink clear liquid.

Basic vaccination
A single 1 ml dose should be administered intramuscularly to pigs from 7 weeks of age and breeding females.

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

None known.

4.11 Withdrawal period(s)

Zero days.

5. IMMUNOLOGICAL PROPERTIES

Pharmacotherapeutic group: live viral vaccines, live recombinant E2 gene-deleted bovine viral diarrhoea virus containing classical swine fever virus E2 gene, ATC vet code: QI09AD04

To stimulate active immunity to classical swine fever virus.

The vaccine is a live recombinant E2 gene-deleted bovine viral diarrhoea virus containing classical swine fever virus E2 gene. The virus is grown in porcine cells.

Challenge studies were conducted with the highly virulent reference strain CSFV Koslov (genotype 1) and the moderately virulent, Roesrath strain (genotype 2, Germany 2009). Limited studies in young pigs support protection against CSF1045 (genotype 2, Germany 2009) and CSF1047 (genotype 2, Israel 2009) field strains.

The recombinant vaccine virus has potential marker properties for use in DIVA (differentiation between field virus infected and solely vaccinated animals). Diagnostic tools targeted to detection of antibody responses could enable DIVA strategies. Serological DIVA tools based on detection of CSFV antibodies other than those raised against E2, such as Erns antibody detection should be able to differentiate between antibody responses against Erns-BVDV after solely herd vaccination with CP7_E2alf from responses against Erns-CSFV after natural field CSFV infection.

DIVA efficiency depends on the performance of tests related to fitness for purpose in outbreak situations. Serological DIVA concept has been shown in principle, while actual DIVA tools remain to be tested on large panels of samples from emergency vaccination in outbreak situations.

6. PHARMACEUTICAL PARTICULARS

6.1 List of excipients

Lyophilisate:
L2 Freeze-drying stabilizer composed as follows
Dextran 40
Casein hydrolysate
Lactose monohydrate
Sorbitol 70% (solution)
Sodium hydroxide
Water for injections
Dulbecco's Modified Eagle culture medium (DMEM)

Solvent:
Sodium chloride
Water for injections

6.2 Major Incompatibilities

Do not mix with any other veterinary medicinal product.

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 refrigerated (2 °C – 8 °C).
Do not freeze.
Protect from light.

6.5 Nature and composition of immediate packaging

Type I hydrolytic glass vials containing 10 or 50 doses of lyophilisate and 10 or 50 ml of solvent.

Lyophilisate: bromobutyl rubber stoppers and aluminium caps
Solvent: chlorobutyl rubber stoppers and aluminium caps

Cardboard box containing 1 vial with 10 doses of lyophilisate and 1 vial with 10 ml solvent.
Cardboard box containing 1 vial with 50 doses of lyophilisate and 1 vial with 50 ml solvent.

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

Zoetis Belgium SA
Rue Laid Burniat 1
1348 Louvain-la-Neuve
BELGIUM

8. MARKETING AUTHORISATION NUMBER(S)

EU/2/14/179/001–002

9. DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION

Date of first authorisation: 10/02/2015.
Date of last renewal: 11/11/2019.

10. DATE OF REVISION OF THE TEXT

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

PROHIBITION OF SALE, SUPPLY AND/OR USE

Council Directive 2001/89/EC and Commission Decision 2002/106 prohibit prophylactic vaccination within the European Union. Specific derogation is required to use this vaccine in an outbreak situation.

Any person intending to manufacture, import, possess, sell, supply and use this veterinary medicinal product must first consult the relevant Member State's competent authority on the current vaccination policies, as these activities may be prohibited in a Member State on the whole or part of its territory pursuant to national legislation.

ANNEX II

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

Name and address of the manufacturers of the biological active substance

Zoetis Belgium SA
Rue Laid Burniat 1
1348 Louvain-la-Neuve
BELGIUM

Zoetis Manufacturing & Research Spain, S.L.
Ctra. Camprodon s/n "La Riba",
17813 Vall de Bianya
Girona
SPAIN

Name and address of the manufacturer responsible for batch release

Zoetis Belgium SA
Rue Laid Burniat 1
1348 Louvain-la-Neuve
BELGIUM

B. CONDITIONS OR RESTRICTIONS REGARDING SUPPLY AND USE

Veterinary medicinal product subject to prescription.

According to Community Legislation on classical swine fever (Council Directive 2001/89/EC, as amended), in the European Union:

a) the use of classical swine fever vaccines is prohibited. However, the use of vaccines may be authorised in the framework of an emergency vaccination plan, implemented by the competent authority of a Member State following confirmation of disease, in accordance with Community Legislation on control and eradication of classical swine fever.

b) the manipulation, manufacture, storage, supply, distribution and sale of classical swine fever vaccines must be carried out under supervision and in accordance with the eventual instructions established by the competent authority of the Member State.

c) special provisions regulate the movement of pigs from areas where classical swine fever vaccine is being or has been used and the processing or marking of pig meat from vaccinated pigs.

C. STATEMENT OF THE MRLs

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

The excipients (including adjuvants) 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 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

Boxes of 1 vial of 10 or 50 doses

1. NAME OF THE VETERINARY MEDICINAL PRODUCT

Suvaxyn CSF Marker lyophilisate and solvent for suspension for injection for pigs

2. STATEMENT OF ACTIVE SUBSTANCES

Each dose of 1 ml contains:

Live recombinant E2 gene-deleted bovine viral diarrhoea virus containing classical swine fever virus E2 gene (CP7_E2alf) $10^{4.8}$ to $10^{6.5}$ $TCID_{50}$

3. PHARMACEUTICAL FORM

Lyophilisate and solvent for suspension for injection for pigs

4. PACKAGE SIZE

10 doses
50 doses

5. TARGET SPECIES

Pigs

6. INDICATION(S)

7. METHOD AND ROUTE(S) OF ADMINISTRATION

Intramuscular use.
Read the package leaflet before use.

8. WITHDRAWAL PERIOD (S)

Withdrawal period: 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 refrigerated.
Do not freeze.
Protect from light.

12. SPECIAL 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

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

Zoetis Belgium SA
Rue Laid Burniat 1
1348 Louvain-la-Neuve
BELGIUM

16. MARKETING AUTHORISATION NUMBER(S)

EU/2/14/179/001 (10 doses)
EU/2/14/179/002 (50 doses)

17. MANUFACTURER'S BATCH NUMBER

Lot {number}

MINIMUM PARTICULARS TO APPEAR ON SMALL IMMEDIATE PACKAGING UNITS

Lyophilisate vial (10 and 50 doses)

1. NAME OF THE VETERINARY MEDICINAL PRODUCT

Suvaxyn CSF Marker lyophilisate for suspension for injection for pigs

2. QUANTITY OF THE ACTIVE SUBSTANCES

Live recombinant CP7_E2alf: $10^{4.8}$ - $10^{6.5}$ $TCID_{50}$

3. CONTENTS BY WEIGHT, VOLUME OR BY NUMBER OF DOSES

10 doses
50 doses

4. ROUTE(S) OF ADMINISTRATION

IM

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

Solvent vial (10 and 50 ml)

1. NAME OF THE VETERINARY MEDICINAL PRODUCT

Solvent for Suvaxyn CSF Marker

2. QUANTITY OF THE ACTIVE SUBSTANCE(S)

Sodium chloride solution 9 mg/ml

3. CONTENTS BY WEIGHT, VOLUME OR BY NUMBER OF DOSES

10 ml
50 ml

4. ROUTE(S) OF ADMINISTRATION

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:
Suvaxyn CSF Marker lyophilisate and solvent for suspension for injection for pigs

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

Marketing authorisation holder and manufacturer responsible for batch release:

Zoetis Belgium SA
Rue Laid Burniat 1
1348 Louvain-la-Neuve
BELGIUM

2. NAME OF THE VETERINARY MEDICINAL PRODUCT

Suvaxyn CSF Marker lyophilisate and solvent for suspension for injection for pigs

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

Active substance:

Lyophilisate
Live recombinant E2 gene-deleted bovine viral diarrhoea virus containing classical swine fever virus E2 gene (CP7_E2alf) $10^{4.8}$* to $10^{6.5}$ TCID**$_{50}$

* min 100 PD_{50}
** Tissue culture infectious dose

Solvent:
Sodium chloride 9 mg/ml
Water for injections q.s.p. 1 ml

Lyophilisate: Off-white pellet
Solvent: Clear colourless liquid

After reconstitution, the suspension should be slightly pink clear liquid.

4. INDICATION(S)

For active immunisation of pigs from 7 weeks of age onwards to prevent mortality and reduce infection and disease caused by classical swine fever virus.

Onset of immunity: 14 days after vaccination
Duration of immunity: at least 6 months after vaccination

For active immunisation of breeding females to reduce transplacental infection caused by CSFV.

Onset of immunity: 21 days after vaccination
Duration of immunity has not been demonstrated.

5. CONTRAINDICATIONS

None.

6. ADVERSE REACTIONS

In laboratory safety studies in pregnant animals, the following adverse reactions were observed:
A local and transient tissue reaction in the form of swelling of up to 5 mm in diameter at the injection site was very common and lasted for up to 1 day. A transient increase in body temperature of 2.9 °C was observed commonly 4 hours after vaccination. This resolved spontaneously within 1 day after vaccination.

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, whether or not listed in this package leaflet or you think that the medicine has not worked, please inform your veterinary surgeon.

7. TARGET SPECIES

Pigs

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

Intramuscular use.

Basic vaccination
A single 1 ml dose should be administered to pigs from 7 weeks of age and breeding females.

9. ADVICE ON CORRECT ADMINISTRATION

Reconstitute the lyophilisate aseptically with the solvent to obtain a suspension for injection.

10. WITHDRAWAL PERIOD(S)

Zero days.

11. SPECIAL STORAGE PRECAUTIONS

Keep out of the sight and reach of children.

Store and transport refrigerated (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 and carton after EXP {month/year}.

Shelf life after reconstitution according to directions: use immediately.

12. SPECIAL WARNING(S)

Special warnings for each target species:

Vaccinate healthy animals only.

Documentation provided for this vaccine supports that it is only to be used in an outbreak situation in herds within restricted control zones.

Protection against transplacental transmission of CSFV was shown 21 days after vaccination when challenge was applied in 6 pregnant sows with a moderately virulent CSFV strain. Partial protection against transplacental transmission of CSFV was observed when challenge was applied in 6 pregnant sows with a highly virulent CSFV strain.

Birth of persistently infected immunotolerant piglets represent a very high risk since they are shedding field virus and they cannot be identified serologically due to their seronegative status. Vaccination of breeding animals may be included in risk-based control strategies in case of outbreak and considering the above information.

The vaccine has shown reduced protection in studies of piglets with maternally derived antibodies compared to studies of piglets without maternally derived antibodies.

Studies in vaccinated breeding boars addressing potential shedding of virulent challenge virus in semen have not been conducted. Use of the vaccine in experimental studies in breeding boars has not revealed safety concerns. Therefore, the decision to vaccinate breeding boars and piglets with maternally derived antibodies should be taken based on the actual outbreak case and associated control zones.

RT-PCR tools could be used in outbreak situations to differentiate between the vaccine virus genome and those of field strains based on sequences unique to the CP7_E2alf.

Special precautions for use in animals:
Vaccine virus genome is rarely detectable by RT-PCR in tonsils and lymph nodes for up to 63 days after vaccination and vaccine virus is very rarely detectable by virus isolation in tonsil for the first week after vaccination. Transplacental transmission of the vaccine virus has not been detected in the limited studies performed but cannot be excluded.

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.

Pregnancy:
The vaccine can be used in sows during pregnancy.

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.

Incompatibilities:
Do not mix with any other veterinary medicinal product.

DIVA tests:
The recombinant vaccine virus has potential marker properties for use in DIVA (differentiation between field virus infected and solely vaccinated animals). Diagnostic tools targeted to detection of antibody responses could enable DIVA strategies. Serological DIVA tools based on detection of CSFV antibodies other than those raised against E2, such as Erns antibody detection should be able to differentiate between antibody responses after solely herd vaccination with CP7_E2alf from responses after natural field CSFV infection.

DIVA efficiency depends on the performance of tests related to fitness for purpose in outbreak situations. Serological DIVA concept has been shown in principle, while actual DIVA tools remain to be tested on large panels of samples from emergency vaccination in outbreak situations.

Council Directive 2001/89/EC and Commission Decision 2002/106 prohibit prophylactic vaccination within the European Union. Specific derogation is required to use this vaccine in an outbreak situation.

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

Medicines should not be disposed of via wastewater or household waste.
Ask your veterinary surgeon how to dispose of medicines no longer required.
These measures should help to protect the environment.

14. DATE ON WHICH THE PACKAGE LEAFLET WAS LAST APPROVED

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

15. OTHER INFORMATION

Cardboard box containing 1 vial with 10 doses of lyophilisate and 1 vial with 10 ml solvent.
Cardboard box containing 1 vial with 50 doses of lyophilisate and 1 vial with 50 ml solvent.

Not all pack sizes may be marketed.