Veterinary Medicines Directorate

United Kingdom
Veterinary Medicines Directorate
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NATIONAL PROCEDURE

PUBLICLY AVAILABLE ASSESSMENT REPORT FOR A PROPOSED VETERINARY MEDICINAL PRODUCT

Primun Salmonella T Lyophilisate for Use in Drinking Water for Chickens

Date Created: February 2024

MODULE 1

PRODUCT SUMMARY

Name, strength and pharmaceutical form	Primun Salmonella T Lyophilisate for Use in Drinking Water for Chickens , Lyophilisate for use in drinking water
Applicant	Laboratorios Calier, S.A. Barcelones 26 (Pla del Ramassa) 08520 Les Franqueses del Valles Barcelona Spain
Active substance(s)	Salmonella typhimurium
ATC Vetcode	QI01AE01
Target species	Chickens
Indication for use	Active immunisation of chickens (future layers and breeders) to reduce faecal excretion and colonisation of internal organs with Salmonella Typhimurium field strains. Onset of immunity: 14 days after first vaccination. Duration of immunity: 61 weeks after the third vaccination, when used according to the recommended vaccination schedule.

MODULE 2

The Summary of Product Characteristics (SPC) for this product is available on the Product Information Database of the Veterinary Medicines Directorate.

(www.gov.uk/check-animal-medicine-licensed)

MODULE 3

PUBLIC ASSESSMENT REPORT

Legal basis of original application	Full application in accordance with Article 12(3) of Directive 2001/82/EC as amended.
Date of conclusion of the procedure	28/11/2023

I. SCIENTIFIC OVERVIEW

The product is produced and controlled using validated methods and tests which ensure the consistency of the product released on the market. It has been shown that the product can be safely used in the target species, any reactions observed are indicated in the SPC.[1] The product is safe for the user, the consumer of foodstuffs from treated animals and for the environment, when used as recommended. Suitable warnings and precautions are indicated in the SPC. The efficacy [2] of the product was demonstrated according to the claims made in the SPC. The overall benefit/risk analysis is in favour of granting a marketing authorisation.

II. QUALITATIVE AND QUANTITATIVE PARTICULARS OF THE CONSTITUENTS

II.A. Composition

The product contains Live, attenuated Salmonella enterica subsp. enterica serovar Typhimurium bacteria, strain ST CAL 16 Str+/Rif+/Enr- and the excipients skimmed milk, sucrose, gelatine, HEPES buffer and water for injections.

The container/closure system consists of transparent type I glass bottles, closed with bromo-butyl rubber stoppers and sealed with aluminium caps. The particulars of the containers and controls performed are provided and conform to the regulation.

The choice of the vaccine strain and the absence of preservative are justified.

The product is an established pharmaceutical form and its development is adequately described in accordance with the relevant European guidelines.

II.B. Method of Preparation of the Product

[1] SPC – Summary of product Characteristics.
[2] Efficacy – The production of a desired or intended result.

The product is manufactured fully in accordance with the principles of good manufacturing practice from a licensed manufacturing site. The manufacturing method consists of: filling, lyophilisation, capping and secondary conditioning.

Process validation data on the product have been presented in accordance with the relevant European guidelines.

II.C. Control of Starting Materials

The active substance is *Salmonella* Typhimurium, an established active substance. The active substance is manufactured in accordance with the principles of good manufacturing practice.

Starting materials of non-biological origin used in production comply with Ph. Eur. with the exception of HEPES and strutkol which are described in in-house monographs.

Biological starting materials used are described in in-house monographs. Monographs and guidelines and are appropriately screened for the absence of extraneous agents.

The master and working seeds have been produced according to the Seed Lot System as described in the relevant guideline.

II.C.4. Substances of Biological Origin

Scientific data and/or certificates of suitability issued by the EDQM have been provided and compliance with the Note for Guidance on Minimising the Risk of Transmitting Animal Spongiform Encephalopathy Agents via Human and Veterinary Medicinal Products has been satisfactorily demonstrated.

II.D. Control Tests Carried Out at Intermediate Stages of the Manufacturing Process

The tests performed during production are described and the results of 3 consecutive runs, conforming to the specifications, are provided.

II.E. Control Tests on the Finished Product

The tests performed on the final product conform to the relevant requirements; any deviation from these requirements is justified. The tests are appearance, residual moisture, vacuum, identity, purity and bacterial count.
The demonstration of the batch to batch consistency is based on the results of 3 batches produced according to the method described in the dossier. Other supportive data provided confirm the consistency of the production process.

II.F. Stability

Stability data on the active substance have been provided in accordance with applicable European guidelines, demonstrating the stability of the active substance when stored under the approved conditions.

Stability data on the finished product have been provided in accordance with applicable European guidelines, demonstrating the stability of the product throughout its shelf life when stored under the approved conditions.

The in-use shelf-life of the reconstituted vaccine is supported by the data provided.

G. Other Information

Shelf life of the veterinary medicinal product as packaged for sale: 2 years.
Shelf life after reconstitution according to directions: 3 hours.

III. SAFETY ASSESSMENT

Laboratory trials

The safety of the administration of one dose, an overdose and the repeated administration of one dose in the target animal is demonstrated. The investigation was performed according to the recommendations of Directive 2001/82/EC as amended and the relevant guidelines.

The active substance is not known to cause any negative impact on the reproductive performances in the target animals and, therefore, no specific studies have been performed. A field trial was presented to support this conclusion.

There are no data suggesting that this product might adversely affect the immune system of the vaccinated animal or its progeny therefore a specific study was not carried out. The same field trial was presented to support this.

Specific studies were carried out to describe the spread, dissemination, reversion to virulence, biological properties, recombination or genetic reassortment of the vaccine strain.

No MRLs are required.

The interaction of the vaccine with Primun Salmonella E was studied. Interaction with other medicinal products and other forms of interaction since the vaccine strain consists of live bacteria, simultaneous use of chemotherapeutics, which are effective against Salmonella should be avoided. However, if this is inevitable, the flock must be re-immunised. A decision to use this vaccine before or after any chemotherapeutic treatment needs to be taken on a case-by-case basis.

No information is available on the safety and efficacy of this vaccine when used with any other veterinary medicinal product, so 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.

Field studies

Studies evaluating the safety and efficacy of the vaccine under field conditions were conducted. No adverse events were detected after vaccination. These trials concluded the safety of the vaccine.

Ecotoxicity

The applicant provided a Phase 1 environmental risk assessment in compliance with the relevant guideline which showed that no further assessment is required. Warnings and precautions as listed on the product literature are adequate to ensure safety to the environment when the product is used as directed.

IV. CLINICAL ASSESSMENT (EFFICACY)

Clinical Studies

Laboratory Trials

The efficacy of the product has been demonstrated in laboratory studies in accordance with the relevant requirements.

Dose confirmation studies:

A preliminary study was performed to identify a suitable dose. The study included 4 groups of 30 SPF chickens that were vaccinated at day 1 of life. One group of 18 SPF chickens remained unvaccinated as a negative control group. 14 days post vaccination, 20 chickens from each group were challenged with the challenge strain. Animals vaccinated had lower rates of excretion and colonisation compared to the non-vaccinated control group. Based on the results of the preliminary studies, a 1 x 10^8 CFU/dose was selected as the minimum protective dose.

Onset of Immunity

An onset of immunity of 14 days post first vaccination was established after two immunogenicity studies.

Field Trials

Two field trials were conducted to investigate the safety and efficacy of the vaccine. In both trials, groups of vaccinated and non-vaccinated control groups were challenged. The vaccinated animals excreted low rates of challenge strains and were significantly lower levels than the control groups. It was determined that the vaccine is efficacious.

V OVERALL CONCLUSION AND BENEFIT– RISK ASSESSMENT

The data submitted in the dossier demonstrate that when the product is used in accordance with the Summary of Product Characteristics, the benefit/risk profile of the product is favourable.

MODULE 4

POST- AUTHORISATION ASSESSMENTS

The SPC and package leaflet may be updated to include new information on the quality, safety and efficacy of the veterinary medicinal product. The current SPC is available on the Product Information Database of the Veterinary Medicines Directorate website.

(www.gov.uk/check-animal-medicine-licensed)

The post-authorisation assessment (PAA) contains information on significant changes which have been made after the original procedure which are important for the quality, safety or efficacy of the product.

The PAA for this product is available on the Product Information Database of the Veterinary Medicines Directorate website.

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