ANNEX I

SUMMARY OF PRODUCT CHARACTERISTICS

1. NAME OF THE VETERINARY MEDICINAL PRODUCT

Calistrip Biox 6.44 g bee-hive strip for honey bees.

2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Each 50.74 g strip contains:

Active substance:

Oxalic acid dihydrate……6.44 g
(Equivalent to 4.6 g of oxalic acid)

Excipients:

Qualitative composition of excipients and other constituents
Glycerol
Paraffin, light liquid
Erucamide
Polypropylene

Whitish or yellowish solid mixture incorporated in a rectangular strip with two tabs and two marked fold lines.

3. CLINICAL INFORMATION

3.1 Target species

Honey bees (*Apis mellifera).*

3.2 Indications for use for each target species

Treatment of varroosis (*Varroa destructor)* of honey bees *(Apis mellifera).*

3.3 Contraindications

None.

3.4 Special warnings

For best efficacy, the veterinary medicinal product should be used only when brood is absent or at its lowest levels. Oxalic acid does not penetrate the wax, so it does not kill the mites inside the capped brood cells and therefore the presence of brood can considerably reduce the effectiveness of the veterinary medicinal product. Level of brood and climatic conditions must be considered prior to product application. The mode of action of the product is only by direct contact (by contact of adult bees with oxalic acid in the strip and by bee-to bee contact). As consequence, the product should be applied when the bees are still active, i.e. before the bees form a winter cluster, the exact timing of which can vary between climatic zones.
Despite proper treatment, seriously damaged colonies may not survive due to prior effects of Varroa infestation. The efficacy may vary between colonies due to the conditions of use (temperature, reinfestations etc.). No efficacy or safety clinical data were provided for other conditions than Autumn in Southern Europe.

The veterinary medicinal product should be used as a treatment within an Integrated Varroa Management program with mite drop monitored regularly. When possible, rotate the use of this veterinary medicinal product with another approved varroacide with a different mode of action to decrease the potential for Varroa mites to develop resistance.
The use of a bottom net with a metal mesh of approximately 3x3 mm is a recommended practice in a comprehensive varroosis control program that includes the use of the veterinary medicinal product.

3.5 Special precautions for use

Special precautions for safe use in the target species:
All colonies in the same apiary must be treated simultaneously to avoid reinfestation.
Do not re-use the strips.
Bee colonies should be monitored routinely for the level of varroa mite infestation during treatment and also for a period thereafter.
The effect of the veterinary medicinal product has not been studied in presence of super, for this reason it cannot be used in the hive if the honey supers are installed.

Special precautions to be taken by the person administering the veterinary medicinal product to animals:
The veterinary medicinal product could have irriting effects on the skin, eyes and mucous membrane.
Avoid contact with skin, eyes or mouth.
Wear the usual beekeeping protective clothing and gloves when handling and administering the product.
In the case of accidental skin contact, wash thoroughly with soap and water.
In case of accidental eye contact, flush the eyes with plenty of clean, running water.
If skin/eye irritation persists, seek medicinal 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

None Known.

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 the national competent authority via the national reporting system. See also section of the package leaflet for respective contact details.

3.7 Use during pregnancy, lactation or lay

Not applicable.

3.8 Interaction with other medicinal products and other forms of interaction

Do not use simultaneously with other acaricides.

3.9 Administration routes and dosage

In-hive use.
Use two strips per hive (i.e. 12.88 g of oxalic acid dihydrate per hive), hang each strip between two frames of honeycomb food stores. Place the strips between frames where the bees exhibit the greatest mobility. Hang the strips in such a way as to provide bees with free access to both sides, whilst maintaining bee space.

The strips have two-fold lines so that the length of the strip can be adjusted according to the characteristics of each type of hive. Through the fold lines, the strips can be used in hives that requires long strips (~30 cm) and also in hives that require short strips (~25 cm).
Strips must be removed after 6 weeks.
The strips should not be cut.

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

No adverse events were observed when 2 strips/hive containing 10 g oxalic acid dihydrate each one was administered for a period of 6 weeks nor 4 strips/hive (administered as two consecutive treatments of 3 weeks using 2 strips/hive/treatment) containing 10g oxalic acid dihydrate each one administered in two consecutive treatments of 3 weeks (2 strips/hive/treatment).

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

Honey: Zero days.
Do not use during honey flow. Do not extract honey from the brood chamber.
Do not harvest honey during the 6-week treatment period.

4. PHARMACOLOGICAL INFORMATION

4.1 ATCvet code: QP53AG03

4.2 Pharmacodynamics

Oxalic acid dihydrate has no identified pharmacological or therapeutic properties in mammalian species. It is a constituent of plants where its physiological role is not precisely known. It may also function as a pH regulator and might have antioxidant properties. In honey bees, no pharmacodynamic data on oxalic acid dihydrate are available, and the mode of action of oxalic acid against Varroa mites is not well understood. The acaricidal effect is attributed partly to a sensitivity of the mites to acid pH. Oxalic acid dihydrate is believed to immobilize calcium, thus impairing the calcium-potassium ratio in mite tissues.

4.3 Pharmacokinetics

Oxalic acid dihydrate is externally distributed on the bees through body contact and/or social food exchange (trophallaxis) and, as consequence of that contact, the oxalic acid dihydrate acts against the mites.
There is evidence that oxalic acid dihydrate is absorbed, distributed and metabolized in bees after topical administration.
Twelve hours after the topical application of oxalic acid dihydrate to bees, it was detected in the haemolymph and in all areas between the honey sac and rectum. The concentration in haemolymph decreases 80% within 72 hours and it was no longer detected in the intestines 22 and 31 days post-application.

5. PHARMACEUTICAL PARTICULARS

5.1 Major incompatibilities

Not applicable.

5.2 Shelf life

Shelf life of the veterinary medicinal product as packaged for sale: 18 months.
Shelf life after first opening the immediate packaging: 6 months.

5.3 Special precautions for storage

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

5.4 Nature and composition of immediate packaging

Laminated polypropylene sachets.

Package sizes:
Sachet containing 2 bee-hive strips.
Sachet containing 10 bee-hive strips.

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

[To be completed nationally]

7. MARKETING AUTHORISATION NUMBER(S)

8. DATE OF FIRST AUTHORISATION

Date of first authorisation: {DD month 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 not subject to prescription.

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