1. NAME OF THE VETERINARY MEDICINAL PRODUCT

NASYM lyophilisate and solvent for suspension for injection or nasal spray for cattle

2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Each dose of 2 ml contains:

Active substance:

Live attenuated bovine respiratory syncytial virus (BRSV), strain Lym-56 *CCID₅₀* *Cell culture infectious dose 50%

Excipients:

Qualitative composition of excipients and other constituents		
Lyophilisate:		
Dextran		
Sucrose		
Gelatin		
N-Z-amine		
Sorbitol		
Potassium dihydrogen phosphate		
Dipotassium phosphate		
Solvent:		
Potassium dihydrogen phosphate		
Disodium phosphate dodecahydrate		
Sodium chloride		
Potassium chloride		
Water for injections		

Lyophilisate: Whitish freeze-dried lyophilisate.

Solvent: Homogeneous clear solution.

3. CLINICAL INFORMATION

3.1 Target species

Cattle.

3.2 Indications for use for each target species

Active immunisation of cattle to reduce virus shedding and respiratory clinical signs caused by bovine respiratory syncytial virus infection.

Onset of immunity: 21 days after administration of one dose by the nasal route.

21 days after the second dose of the two-dose intramuscular vaccination

schedule.

Duration of immunity: 2 months after nasal vaccination.

6 months after intramuscular vaccination.

3.3 Contraindications

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

3.4 Special warnings

Vaccinate healthy animals only.

3.5 Special precautions for use

Special precautions for safe use in the target species:

Not applicable.

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.

Special precautions for the protection of the environment:

Not applicable.

3.6 Adverse events

Cattle:

Common	Slight alteration of faecal consistency
(1 to 10 animals / 100 animals treated):	
Uncommon	Elevated temperature ¹
(1 to 10 animals / 1 000 animals treated):	
Very rare	Anaphylactic-type reaction ²
(<1 animal / 10 000 animals treated, including isolated reports):	

¹A peak in temperature of at least 1.7 °C two days after vaccination that resolves the next day without treatment.

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 and lactation:

²May be serious (including fatal). In case of such reactions, appropriate symptomatic treatment should be administered.

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

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

Nasal use or intramuscular use.

Reconstitute the vaccine with the corresponding volume of solvent:

Number of doses in	Volume of solvent to
vial of lyophilisate	be used
1 dose	2 ml
5 doses	10 ml
25 doses	50 ml

- 1. Peel the top off the aluminium cap on the vial containing the solvent and withdraw 10 ml (2 ml for the 1-dose vial).
- 2. Inject the solvent into the vial containing the lyophilisate (freeze-dried powder).
- 3. Shake until the freeze-dried powder is in suspension. The 1- and 5-dose vials are now ready to use.
- 4. For the 25-dose vial, once the freeze-dried powder is in suspension with the 10 ml of solvent, withdraw all the suspension obtained from the vaccine vial and inject it into the vial containing the remaining solvent.
- 5. Shake well before use. The reconstituted vaccine is a slightly yellowish homogeneous suspension.

Avoid contamination during reconstitution and use. Use only sterile needles and syringes for administration.

For nasal use, spray the required volume of the vaccine into the animal's nostrils (1 ml in each nostril) using an intranasal applicator (droplet size: 25– $220 \mu m$). It is recommended to use a new applicator for each animal.

The following doses and administration methods should be used:

Cattle from 9 days of age

Primary vaccination (nasal use): Spray 1 ml into each nostril (so the total volume administered is 2 ml). Revaccination: One intramuscular injection of 2 ml should be given 2 months after the primary vaccination, and then every 6 months after the last revaccination.

Cattle from 10 weeks of age

Primary vaccination (intramuscular injection): One intramuscular injection of 2 ml should be given, followed by a second intramuscular injection of 2 ml given 4 weeks later.

Revaccination: One intramuscular injection of 2 ml should be given 6 months after completion of the primary vaccination scheme and then every 6 months after the last revaccination.

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

No adverse reactions other than those described in section 3.6 occurred following the administration of an overdose.

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: QI02AD04.

To stimulate active immunity against bovine respiratory syncytial virus.

Reduction of respiratory clinical signs (but not a reduction of virus shedding) is observed 5 days after nasal vaccination. Full immunity is established from 21 days after nasal vaccination.

5. PHARMACEUTICAL PARTICULARS

5.1 Major incompatibilities

Do not mix with any other veterinary medicinal product, except with the solvent supplied for use with the veterinary medicinal product.

5.2 Shelf life

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

Shelf life of the solvent: 5 years.

5.3 Special precautions for storage

Lyophilisate: Store and transport refrigerated (2 $^{\circ}$ C – 8 $^{\circ}$ C). Do not freeze. Protect from light. Solvent: Store below 25 $^{\circ}$ C. Do not freeze. Protect from light.

5.4 Nature and composition of immediate packaging

Lyophilisate (vaccine): 3 or 10 ml type I glass vials of 1, 5 or 25 doses, sealed with a bromobutyl rubber stopper and aluminium cap.

Solvent: type I glass vials of 2 ml and polyethylene (PET) vials of 10 ml or 50 ml, sealed with a bromobutyl rubber stopper and aluminium cap.

Cardboard box with 1 lyophilisate vial of 5 doses and 1 vial of 10 ml of solvent.

Cardboard box with 1 lyophilisate vial of 25 doses and 1 vial of 50 ml of solvent.

Cardboard box with 10 lyophilisate vials of 5 doses.

Cardboard box with 10 vials of 10 ml of solvent.

Cardboard box with 10 lyophilisate vials of 25 doses.

Cardboard box with 10 vials of 50 ml of solvent.

Cardboard box with 10 lyophilisate vials of 1 dose and 10 vials of 2 ml of solvent.

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

LABORATORIOS HIPRA, S.A.

7. MARKETING AUTHORISATION NUMBER(S)

EU/2/19/241/001-005

8. DATE OF FIRST AUTHORISATION

Date of first authorisation: 29/07/2019

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

{DD/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 <u>Union Product Database</u> (https://medicines.health.europa.eu/veterinary).