



VIRSAL DuET

Salmonella Enteritidis and *Salmonella* Typhimurium Live attenuated freeze-dried vaccine

COMPOSITION

Active materials: Each dose contains $1\text{-}5 \times 10^{8.0}$ CFU* live attenuated *Salmonella* Enteritidis MTR2 strain bacteria and $1\text{-}5 \times 10^{8.0}$ CFU* live attenuated *Salmonella* Typhimurium MTR40 strain bacteria.
Excipients: Sucrose, Soya peptone.

*CFU = Colony Forming Units.

TARGET SPECIES

Chickens (future breeders and layers).

INDICATIONS

For active immunization of healthy chickens (future breeders and layers) to prevent infections and to reduce colonization and faecal excretion of *Salmonella* Enteritidis and *Salmonella* Typhimurium field strains.

DIRECTIONS FOR USE

For oral administration after resuspension in drinking water.

Recommended vaccination plan:

Age	Layers	Breeders
Day old – 1 day	+	+
5 - 7 weeks	+	+
12 - 13 weeks	+	–
16 - 20 weeks	–	+

Drinking water vaccination

Determine the quantity of water required for the number of birds to be vaccinated. Discontinue the use of medications or sanitizing agents in drinking water 72 hours before vaccination and do not resume for 72 hours after vaccination.

For chicks vaccinated at the age of one day, the administration should be with the "first drinking water."

Deprive the chickens from drinking 1-2 hours before vaccination (depending on the temperature conditions.) Prepare an adequate volume of drinking water for a flock to be consumed within 1-2 hours. To protect the dissolved vaccine from chlorine, add BIOVAC's Blue Neutrachlor (mixed according to product instructions) to the drinking water to be consumed and wait for about 15 minutes.

Reconstitute the vaccine by adding 10 ml of sterile or cooled boiled water. Close the vial with the rubber stopper and gently agitate to reconstitute the lyophilized vaccine. Rinse the vaccine vials several times to remove all the vaccine. Transfer the content of the reconstituted vaccine to a suitable container containing about 1 liter of sterile or cooled boiled water and mix well. Add the diluted vaccine container to the drinking water tank and mix thoroughly. The final solution containing the reconstituted vaccine should be consumed within 2 hours. Resume regular water administration only after all the vaccinated water has been consumed.

PRECAUTIONS

* Immunization of chickens with a live vaccine does not stimulate the immunity system which interferes with the detection of *Salmonella* Gallinarum/Pullorum.

- Ensure all vaccination equipment (containers, spraying devices etc.) is carefully cleaned and free of detergents and disinfectants.
- Wear protective clothing, masks, and gloves according to hazard standards.
- Avoid product contact with the skin, eyes, and mouth.
- Do not eat, drink, or smoke whilst handling the product.
- Wash hands with antibacterial soap or disinfectant after handling the vaccine.
- Use entire content when reconstituted within 2 hours, and do not store unused vaccine for later use.
- Adhere to the vaccination program to obtain optimum results.
- Destroy any unused vaccine and dispose of all vaccine containers and disposable equipment after use in accordance with national environmental requirements.
- Do not contaminate rivers, dams, or any water sources with containers or waste.

WITHDRAWAL PERIOD

Eggs and meat – 21 days.

STORAGE

- Store and transport refrigerated (2-8 °C). Protect from direct sunlight.
- Do not freeze.
- Do not use this veterinary vaccine after the expiry date stated on the labels.

WARNINGS

- Vaccinate healthy chickens only.
- Antimicrobial drugs should not be administered 3 days before and 3 days after immunization.
- Vaccination does not affect the immune response to Newcastle Disease vaccines. The effect on other immune responses was not tested.
- Do not mix with any other vaccine or medication.
- Do not under-dose the vaccine.
- Do not use in birds in lay or within 3 weeks before the onset of the laying period.
- Keep vaccination records, including vaccine batch numbers.
- In case of accidental ingestion, seek medical advice immediately and show the package insert to the physician. (The vaccine strains are sensitive to several antibiotics, including quinolones).
- Keep out of sight and reach of children.
- FOR ANIMAL USE ONLY.
- Although this vaccine has been extensively tested under a large variety of conditions, failure thereof may ensue as a result of a wide range of reasons. If this is suspected, seek veterinary advice and notify the registration holder.

The differentiation between the vaccine and field strains:

Strain	XLDNA Growth of colonies with) (black center up to 18 hours	Nutrient agar	
		+Rifampicin (200 µg/ml)	+Streptomycin (200 µg/ml)
Vaccine strains MTR2/MTR40	No growth	Growth	Growth
Field strains	Growth	No growth	No growth

PRESENTATION

Ten glass vials per carton box, each vial contains 500, 1000, 2000, 2500, or 5000 doses.

Not all pack sizes will be marketed.

MANUFACTURER AND REGISTRATION HOLDER:

Biovac Ltd.

30 Ha'llan St., Or-Akiva, 3060000, Israel.

Tel.: 972-4-6266772

E-mail: vireo@biovac.co.il

0500569-01