DESIGN BIOLOGIX
PRODUCT MANUAL

ANIMAL VACCINES MANUFACTURER
www.designbio.co.za

Design Biologix


Biologix

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Design Biologix

Design Biologix is **proud to be a leader** in the field of animal **vaccine research, development** and **manufacture** in Africa.

Our passion is the prevention and control of animal diseases that are unique to Africa. Prevention of spread of some of these diseases to other continents has significantly broadened our market.

We believe the use of vaccines as a preventative method of disease management and herd protection is vastly preferable to the use of antimicrobials.

As is true for many situations, including animal health, prevention is better than crisis management. Timeous use of vaccines provides the means for the prevention of a broad range of animal diseases.

OUR

VISION

is to be one of the world's forward thinking leaders in animal health,

to **empower** veterinarians and farmers to **protect the animals** with the **best solutions** from snout to tail.

A brief introduction to immunity and vaccination

1. IMMUNE SYSTEM

1.1 **Physical barrier**
Mammals have a complex immune system to protect them against microbial pathogens such as bacteria, fungi and viruses. The first line of defence is a physical barrier, namely the skin and mucous membranes. The next level of defence is the innate immune system. The final line of defence is the specialised and sophisticated system that delivers acquired immunity.

1.2 **Innate immunity**
The innate immune system consists of cells that are able to engulf and destroy foreign objects (such as bacteria and viruses), that have managed to penetrate the skin and/or mucosal membranes. It is a rudimentary system that attempts to detect and remove any perceived foreign particles and is not specific for a given pathogen nor established in the immunological memory. Immune memory is pathogen-specific and has to be acquired.

1.3 **Acquired immunity**
Acquired immunity consists of the humoral immune system, made up of circulating antibodies and the cellular immune system, made up of cells capable of killing foreign bodies. These two systems work together to (1) clear the infection and (2) establish a memory in the immunological system. The result is that subsequent exposure to the same pathogen results in a very rapid response to eliminate the foreign body, whether it is a virus, bacterium, or any other class of micro-organism.

1.4 Traditionally, inactivated vaccines primarily elicit a strong humoral response, while live vaccines primarily elicit a strong cellular response. Recent improvements in the adjuvants (immune stimulators) combined with inactivated vaccines may enhance both the cellular and humoral responses.

2. VACCINES

2.1 **Terminology**

2.1.1 **Inactivated vaccines**
For preparation of these vaccines, the target organism(s) are grown in the laboratory and then inactivated or “killed” to destroy their ability to multiply and cause disease. This type of vaccine is typically presented as a liquid-filled product. Inactivated vaccines are less immunogenic than live attenuated vaccines and therefore require an adjuvant in the formulation to stimulate the immune system response. Adjuvanted vaccines traditionally require a second (booster) dose for adequate protection from vaccination.

2.1.2 **Live attenuated vaccines**
These vaccines are made from a version of the target pathogen that has been modified to lose the ability to cause disease while mimicking an infection. In other words, they are not inactivated and resemble the original pathogenic organism as closely as possible, but do not cause disease. This type of vaccine is typically presented as a combination product packed with both a preserved freeze-dried vial and a liquid-filled vial for reconstitution of the freeze-dried cake.

2.1.3 **Recombinant vaccines**
These vaccines are made through genetic recombination technology. Specific genes of the target pathogen are added to vector organisms which are then able to mimic a pathogenic infection, but without causing any disease.

2.1.4 **Antigen**
The term antigen is used loosely to describe either a whole pathogen (virus, bacterium, etc), components of these micro-organisms or proteins produced by these micro-organisms, which are used to make a vaccine.

2.1.5 **Monovalent vaccine**
A monovalent vaccine consists of a single antigen, i.e. one particular strain or serotype of a micro-organism. For example, Bru-Tect S19 consists only of the bacterium *Brucella abortus* S19.

2.1.6 **Multivalent vaccine**
A multivalent vaccine comprises more than one antigen, e.g., Blu-Vax consists of 11 different serotypes of bluetongue virus. It is important to note that vaccines should not contain an unlimited number of antigens, as some are more immune-dominant than others and may reduce the immunity of the animal towards less dominant antigens. Vaccines are evaluated for this before they are finally formulated.

2.2 **Mechanism of action**
The concept of immunisation is to present a pathogen to the animal's immune system in such a way that it does not cause disease, but does elicit a humoral and cellular immune response that is then laid down in the immunological memory of the animal. This means that subsequent natural (field) exposure would result in a much faster response of the immune system, thus either preventing or reducing the occurrence of the disease associated with the micro-organism.

3. THE DIFFERENCE BETWEEN ANTIBIOTICS AND VACCINES

Antibiotics are potentially effective against bacteria, but not at all against viruses. Antibiotics are used as treatment once an animal has already developed the disease and, again, are not effective against viruses. Vaccines, however, may be used proactively to entirely prevent the onset of the disease, or reduce the severity of disease.

This does not mean that antibiotics do not have a role to play in disease management, but well-designed vaccination programmes have the potential to reduce the use of antibiotics. This is significant because microbial resistance to antibiotics is one of the most pressing global health concerns today.

With diseases that are caused by bacterial toxins (e.g., some of the *Clostridium* species), the clostridial toxins will kill the animal before the antibiotic has a chance to kill the bacteria. On the other hand, an established immunity of the animal after vaccination will protect it against the lethal effects of the toxins.

’n Kort inleiding tot immuniteit en inenting

1. IMMUUNSTELSEL

1.1 **Fisiese versperring**
Soogdiere het ’n komplekse immuunstelsel om hulle teen mikrobiese patogene soos bakterieë, swamme en virusse te beskerm. Die eerste verdedigingslinie is ’n fisiese versperring, naamlik die vel en slymvliese. Die volgende vlak van verdediging is die aangebore immuunstelsel. Die finale verdedigingslinie is die gespesialiseerde en gesofistikeerde stelsel wat verworwe immuniteit lewer.

1.2 **Aangebore immuniteit**
Die aangebore immuunstelsel bestaan uit selle wat vreemde voorwerpe (soos bakterieë en virusse) kan verswelg en vernietig, wat daarin geslaag het om die vel en/of slymvliese binne te dring. Dit is ’n eenvoudige sisteem wat poog om enige waargenome vreemde partikels op te spoor en te verwyder en is nie spesifiek vir ’n gegewe patogeen of gevestig in die immunologiese geheue nie. Immuungeheue is patogeen-spesifiek en moet aangeleer word.

1.3 **Verworwe immuniteit**
Verworwe immuniteit bestaan uit die humorale immuunstelsel, wat bestaan uit sirkulerende teenliggaampies en die sellulêre immuunstelsel, wat bestaan uit selle wat in staat is om vreemde liggame dood te maak. Hierdie twee sisteme werk saam om (1) die infeksie op te klaar en (2) ’n geheue in die immunologiese sisteem te vestig. Die gevolg is dat daaropvolgende blootstelling aan dieselfde patogeen ’n baie vinnige reaksie tot gevolg het om die vreemde liggaam uit te skakel, of dit nou ’n virus, bakterium of enige ander klas van mikro-organisme is.

1.4 Tradisioneel ontlok geïnaktiveerde entstowwe hoofsaaklik ’n sterk humorale reaksie, terwyl lewende entstowwe hoofsaaklik ’n sterk sellulêre reaksie ontlok. Onlangse verbeterings in die adjuvante (immuunstimuleerders) gekombineer met geïnaktiveerde entstowwe kan beide die sellulêre en humorale reaksies verbeter.

2. ENTSTOWWE

2.1 **Terminologie**

2.1.1 **Geïnaktiveerde entstowwe**
Vir die voorbereiding van hierdie entstowwe word die teiken organisme(s) in die laboratorium gekweek en dan geïnaktiveer of “gedood” om hul vermoë om te vermeerder en siektes te veroorsaak, te vernietig. Hierdie tipe entstof word tipies as ’n produk in die vorm van ’n vloeistof aangebied. Geïnaktiveerde entstowwe is minder immunogenies as lewende verswakte entstowwe en vereis dus ’n byvoegmiddel in die formulering om die immuunstelselrespons te stimuleer. Adjuvant-bevattende entstowwe benodig tradisioneel ’n opvolg skraagdosis vir voldoende beskerming na inenting.

2.1.2 **Lewende verswakte entstowwe**
Hierdie entstowwe word gemaak van ’n weergawe van die teikenpatogeen wat aangepas is om die vermoë te verloor om siektes te veroorsaak terwyl dit ’n infeksie naboots. Met ander woorde, hulle is nie geïnaktiveer nie en lyk so na as moontlik aan die oorspronklike patogeniese organisme, maar veroorsaak nie siektes nie. Hierdie tipe entstof word tipies aangebied as ’n kombinasieproduk gepak met beide ’n gepreserveerde, gevriesdroogde flessie en ’n vloeistofgevulde flessie vir hersamestelling van die gevriesdroogde koekie.

2.1.3 **Rekombinante entstowwe**
Hierdie entstowwe word gemaak deur genetiese rekombinasietegnologie. Spesifieke gene van die teikenpatogeen word by vektororganismes gevoeg wat dan ’n patogeniese infeksie kan naboots, maar sonder om enige siekte te veroorsaak.

2.1.4 **Antigeen**
Die term antigeen word losweg gebruik om óf ’n hele patogeen (virus, bakterieë, ens.), komponente van hierdie mikro-organismes óf proteïene wat deur hierdie mikro-organismes geproduseer word, wat gebruik word om ’n entstof te maak, te beskryf.

2.1.5 **Monovalente entstof**
’n Monovalente entstof bestaan uit ’n enkele antigeen, dit wil sê een spesifieke stam of serotipe van ’n mikro-organisme. Bru-Tect S19 bestaan byvoorbeeld slegs uit die bakterium *Brucella abortus* S19.

2.1.6 **Multivalente entstof**
’n Multivalente entstof bestaan uit meer as een antigeen, b.v. Blu-Vax bestaan uit 11 verskillende serotipes bloutongvirus. Dit is belangrik om daarop te let dat entstowwe nie ’n onbeperkte aantal antigene moet bevat nie, aangesien sommige meer immuun-dominant is as ander en die immuniteit van die dier teenoor minder dominante antigene kan verminder. Entstowwe word hiervoor geëvalueer voordat die produk finaal geformuleer word.

2.1.7 **Meganisme van aksie**
Die konsep van immunisering is om ’n patogeen aan die dier se immuunstelsel op so ’n manier aan te bied dat dit nie siektes veroorsaak nie, maar wel ’n humorale en sellulêre immuunrespons ontlok wat dan in die immunologiese geheue van die dier neergelê word. Dit beteken dat daaropvolgende natuurlike (veld) blootstelling ’n baie vinniger reaksie van die immuunstelsel tot gevolg sal hê, en dus die voorkoms van die siekte wat met die mikro-organisme geassosieer word, óf voorkom óf verminder.

3. DIE VERSKIL TUSSEN ANTIBIOTIKA EN ENTSTOWWE

Antibiotika is potensieel effektief teen bakterieë, maar glad nie teen virusse nie. Antibiotika word as behandeling gebruik sodra ’n dier reeds die siekte ontwikkel het en is, weer, nie effektief teen virusse is nie. Entstowwe kan egter pro-aktief gebruik word om die aanvang van die siekte (hetsy viraal, bakteries of ander) heeltemal te voorkom, of om die erns van die siekte te verminder.

Dit beteken nie dat antibiotika nie ’n rol in siektebestuur het nie, maar goed ontwerpte inentingsprogramme het die potensiaal om die gebruik van antibiotika te verminder. Dit is betekenisvol omdat mikrobiese weerstand teen antibiotika vandag een van die dringendste wêreldwye gesondheidskwessies is.

Met siektes wat deur bakteriese toksiene veroorsaak word (b.v. sommige van die *Clostridium* spesies), sal die clostridiale toksiene die dier doodmaak voordat die antibiotika ’n kans het om die bakterieë dood te maak. Aan die ander kant, sal ’n gevestigde immuniteit van die dier na inenting dit beskerm teen die dodelike effekte van die toksiene.

BEF-Tect
(3-Day Stiffsickness)

Reg. No. G4365 (Act 36/1947)

SCIENTIFICALLY PROVEN

Strategic prevention of milk losses.
BEF-Tect for 3-Day Stiffsickness, the prophylactic immunisation of cattle against ephemeral fever/3-day stiffsickness disease.

INDICATIONS

BEF-Tect is a prophylactic vaccine for the active immunisation of cattle against BEF (Bovine Ephemeral Fever – 3-day-stiffsickness).

COMPOSITION PER DOSE (2 mℓ)

BEF-Tect contains freeze-dried live attenuated BEF virus.

STORAGE INSTRUCTIONS

Store and transport refrigerated (between 2 °C and 8 °C). Do not freeze. Protect from high temperatures and sunlight during vaccination. Do not use after the expiry date printed on the label and/or carton. **Use entire contents of the vial within 2 hours of reconstitution.**

WARNINGS

- **WITHDRAWAL PERIOD:** DO NOT SLAUGHTER ANIMALS FOR HUMAN CONSUMPTION WITHIN 21 DAYS OF VACCINATION.
- Vaccinate healthy animals only.
- DO NOT mix with any other vaccine or immunological product. No information is available on the compatibility of **BEF-Tect** with any other vaccine or medication.
- Care should be taken to avoid direct contact with the product, to prevent self-injection, or contact with the eyes or skin. **If contact occurs, rinse affected area repeatedly with clean water.** Medical advice should be sought in the event of accidental exposure.
- Do not over- or under-dose the vaccine.
- Usually no marked reaction follows vaccination, although a transient swelling may appear at the site of inoculation and some animals may show a moderate rise of temperature for one or two days.
- Ensure that marketed animals do not have local reactions (swellings) at the site of vaccine administration, or elevated temperature reactions (fever) as this may result in the condemnation of the carcasses.
- Use the entire contents of the vial once opened.
- Do not use in animal species other than those indicated.
- Do not administer to animals in poor or extremely poor body condition.
- Do not inject intravenously.
- KEEP THE PRODUCT OUT OF REACH OF CHILDREN, UNINFORMED PERSONS AND ANIMALS.
- Although this product 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.

PRECAUTIONS

- Follow aseptic procedures. Ensure that all vaccination equipment (containers, syringes and needles) is clean and sterile prior to and during use to prevent contaminating the contents of the vial.
- Do not use the contents of damaged vials.
- Wear protective clothing, masks, gloves, etc. according to hazard standards.
- Avoid contact of the product with skin, eyes and mouth.
- Do not eat, drink or smoke whilst handling the product.
- Do not store partially used vials and dispose of all containers and disposable equipment after use, in accordance with the National Environmental Management: Waste Act (Act No. 59 of 2008).
- Do not contaminate rivers, dams or any water sources with containers or waste.
- Local reactions may occur in some animals at the injection site. They will disappear after a few days. If you notice any serious effects not mentioned in this package insert, please inform your veterinarian.
- Do not use disinfectants or antiseptics to sterilise any equipment.
- Wash and disinfect hands with a disinfectant after vaccination.

DIRECTIONS FOR USE

- **Use only as directed.**
- **Please consult with your veterinarian before use.**

- Use a sterile syringe to transfer approximately 5 mℓ of sterile **BEF-Tect** diluent (adjuvant) into the 7 mℓ glass vial containing the freeze-dried BEF virus cake. Mix gently until all the powder is dissolved and then transfer the suspension back into the diluent vial. Mix gently using a simple inversion of the vial to distribute the virus evenly through the liquid.
- Animals must receive a full vaccination schedule before the period of highest risk associated with BEF.
- Ensure that all animals are vaccinated.
- It is essential to adhere to the vaccination programme to maintain a satisfactory immune response.
- **BEF-Tect** is safe for use in cows in all stages of pregnancy.
- Vaccination of lactating cows with **BEF-Tect** does not influence milk production.
- Vaccination of bulls with **BEF-Tect** does not affect fertility.
- Discard any remaining product after the container was punctured.
- Use the entire contents of the vial within 2 hours of reconstitution.
- Revaccinate annually with a single dose (2 mℓ) and a booster dose (2 mℓ) 3 to 4 weeks later.

DOSAGE
- Administer a single dose (2 mℓ) subcutaneously, on the side of the neck only. DO NOT deviate from the recommended route and injection site location.
- A booster dose of 2 mℓ must be administered 3 to 4 weeks later.
- Vaccination and booster must be completed 2 months prior to the outbreak season.

PRESENTATION

The 20 mℓ pack size (10 doses) and 100 mℓ pack size (50 doses) contains:
- **Lyophilised component:** a light yellow freeze-dried cake is presented in 7 mℓ glass vials, stoppered with a rubber bung and capped with a gold-coloured aluminium cap with a two-bridge tab.
- **Diluent component:** a clear and colourless liquid diluent is presented in 20 mℓ or 100 mℓ translucent high density polyethylene (HDPE) vials, capped with a gold-coloured aluminium cap with a two-bridge tab.

Both components are labelled and packed together in a product-specific outer cardboard carton.

INDIKASIES

BEF-Tect is vir die profilaktiese inenting van beeste teen 3-dae-stywesiekte (3DSS).

SAMESTELLING PER DOSIS (2 mℓ)

BEF-Tect bevat gevriesdroogde, lewende, verswakte 3DSS virus.

BERGINGSAANWYSINGS

Bêre in 'n yskas en verkoel tydens vervoer (tussen 2 °C en 8 °C). Moenie vries nie. Beskerm teen hoë temperature en sonlig tydens inenting. Moenie gebruik na die vervaldatum wat op die etiket en/of karton gedruk is nie. Gebruik die volle inhoud van die entstofhouer binne 2 ure na hersamestelling.

WAARSKUWINGS
- **ONTTREKKINGSPERIODE:** MOENIE DIERE BINNE 21 DAE NA INENTING VIR MENSLIKE VERBRUIK SLAG NIE.
- Slegs gesonde diere moet ingeënt word.
- MOENIE met enige ander entstof of enige ander immunologiese produk meng nie. Geen informasie is beskikbaar in verband met die gebruik van **BEF-Tect** met enige ander entstof of medisyne nie.
- Voorsorg moet getref word om direkte kontak met die produk, self-inspuiting, of kontak met die oë of vel te voorkom. **Indien kontak plaasvind, spoel die geaffekteerde area herhaaldelik met skoon water af.** Verkry mediese advies in die geval van toevallige blootstelling aan die produk.
- Moenie die entstof oor- of onderdoseer nie.
- Normaalweg volg geen merkbare reaksie na inenting nie, alhoewel kortstondige swelling op die plek van inenting kan voorkom en sommige diere 'n matige styging in temperatuur vir een of twee dae kan toon.
- Verseker dat diere wat bemark word geen lokale reaksies (swelling) by die entstof toedieningsplek of verhoogde liggaamstemperatuur (koorsreaksie) toon nie, aangesien dit kan lei tot afkeur van karkasse.
- Gebruik die volle inhoud van die entstofhouer sodra dit oopgemaak word.
- Moenie in diere anders as die aangeduide spesie gebruik word nie.
- Moenie toegedien word aan diere in 'n swak of uiters swak liggaamskondisie nie.
- Moenie binneaars toegedien word nie.
- HOU DIE PRODUK BUITE BEREIK VAN KINDERS, ONINGELIGTE PERSONE EN DIERE.
- Alhoewel hierdie produk breedvoerig onder 'n wye verskeidenheid van toestande getoets is, mag dit faal as gevolg van verskeie redes. Indien vermoed word dat die produk gefaal het, raadpleeg 'n veearts en verwittig die registrasiehouer.

VOORSORGMAATREËLS
- Volg aseptiese prosedures. Maak alle inentingstoerusting (houers, spuite en naalde) skoon en steriliseer dit voor en tydens gebruik om te voorkom dat die inhoud van die entstofhouer besmet word.
- Moenie die inhoud van beskadigde entstofhouers gebruik nie.
- Dra beskermende klere, maskers, handskoene, ens. in lyn met die standaarde vir gevaarlike middels.
- Vermy kontak van die produk met die vel, oë en mond.
- Moenie eet, drink of rook tydens hantering van die produk nie.
- Moenie gedeeltelik gebruikte enstofhouers bêre nie. Verwyder entstofhouers en entstoftoerusting na gebruik, in ooreenstemming met die Nasionale Omgewingsbestuur: Wet op Afval (Wet 59 van 2008).
- Moenie riviere, damme of enige waterbronne met entstofhouers of afval besoedel nie.
- Lokale reaksies mag voorkom by die inspuitingsplek van sommige diere. Dit sal verdwyn na 'n paar dae. Indien u ernstige reaksies opmerk wat nie in hierdie voubiljet vermeld is nie, stel asseblief u veearts in kennis.

- Moenie ontsmettingsmiddels of antiseptika gebruik om enige toerusting te steriliseer nie.
- Was en ontsmet jou hande met 'n ontsmettingsmiddel na inenting.

GEBRUIKSAANWYSINGS

- **Gebruik slegs soos aangedui.**
- **Raadpleeg asseblief u veearts voor gebruik.**
- Gebruik 'n steriele spuit om ongeveer 5 mℓ steriele **BEF-Tect** verdunningsmiddel (adjuvant) na die 7 mℓ glas entstofhouer wat die gevriesdroogde 3DSS virus koek bevat, oor te dra. Meng versigtig om die virus eweredig deur die vloeistof te versprei. Trek die inhoud weer versigtig op vanuit die glas entstofhouer tot in die spuit en SPUIT DIE OPLOSSING TERUG in die plastiek flessie wat die verdunningsmiddel bevat. Meng liggies met 'n versigtige omkering van die flessie sodat die virus eweredig deur die vloeistof versprei.
- 'n Volledige inentingsprogram moet voltooi word voor die tydperk van die hoogste risiko wat verband hou met 3DSS.
- Verseker dat alle diere ingeënt word.
- Dit is noodsaaklik om die inentingsprogram te volg om 'n bevredigende immuunresponse te handhaaf.
- **BEF-Tect** is veilig vir gebruik by koeie in alle stadiums van dragtigheid.
- Inenting van lakterende koeie met **BEF-Tect** beïnvloed nie melkproduksie nie.
- Inenting van bulle met **BEF-Tect** beïnvloed nie vrugbaarheid nie.
- Na oopmaak van die enstofhouer moet enige ongebruikte entstof weggegooi word.
- Gebruik die volle inhoud van die entstofhouer binne 2 ure na hersamestelling.
- Herhaal jaarliks met 'n enkele dosis (2 mℓ) en 'n skraagdosis (2 mℓ) 3 tot 4 weke later.

DOSIS

- Dien 'n enkele dosis (2 mℓ) onderhuids toe, slegs aan die kant van die nek. MOENIE afwyk van die aanbevole roete en inspuitingsarea nie.
- 'n Skraagdosis van 2 mℓ moet 3 tot 4 weke later toegedien word.
- Inenting en skraagdosis moet 2 maande voor die uitbraakseisoen toegedien wees.

AANBIEDING

Die 20 mℓ pakgrootte (10 dossise) en 100 mℓ pakgrootte (50 dosisse) bevat:

- **Gevriesdroogde komponent:** 'n liggeel gevriesdroogde koek word aangebied in 'n 7 mℓ glas enstofhouer, verseël met 'n rubber stopprop en 'n goudkleurige aluminium doppie met 'n twee-brug lip.
- **Verdunningsmiddel:** 'n helder en kleurlose vloeistof word aangebied in pakgroottes van 20 mℓ of 100 mℓ deurskynende hoëdigtheid-poliëtileen (HDPE) flessies, bedek met 'n goudkleurige aluminium doppie met 'n twee-brug lip.

Beide komponente word geëtiketteer en dan saam verpak in 'n produkspesifieke buitenste kartonhouer.

REGISTRATION HOLDER AND MANUFACTURER

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PI/F/003

PROTECT AGAINST 3-DAY STIFFSICKNESS

Strategic prevention of milk losses

BEF-Tect Reg. No. G4365 (Act 36/1947)

A vaccine for the active immunisation of cattle against bovine ephemeral fever (BEF), also commonly known as 3-day-stiffsickness.

REGISTRATION HOLDER & MANUFACTURER: Design Biologix CC, Reg. No. 1992/028856/23

ANIMAL VACCINES MANUFACTURER www.designbio.co.za

Design Biologix

Blu-Vax

Reg. No. G4534 (Act 36/1947)

SCIENTIFICALLY PROVEN

Blu-Vax is a **formalin-inactivated polyvalent bluetongue virus** (BTV) **vaccine** for the **active immunisation** of healthy sheep against **against bluetongue disease.**

INDICATIONS

Blu-Vax is an inactivated adjuvanted polyvalent bluetongue virus (BTV) vaccine, formulated as an emulsion, for the active immunisation of healthy sheep against bluetongue disease.

Bluetongue is a notifiable disease in terms of the Animal Diseases Act (Act No. 35 of 1984) and any suspicion or confirmation of the disease must be reported to the responsible state veterinarian immediately.

COMPOSITION PER DOSE (1 mℓ)

Blu-Vax is an oil emulsion vaccine containing multiple inactivated serotypes of the bluetongue virus (BTV).

STORAGE INSTRUCTIONS

Store and transport refrigerated (between 2 °C and 8 °C). Do not freeze.
Protect from high temperatures and sunlight during vaccination.
Do not use after the expiry date printed on the label and/or carton.
Use immediately after opening the vial.

WARNINGS

- **WITHDRAWAL PERIOD:** DO NOT SLAUGHTER ANIMALS FOR HUMAN CONSUMPTION WITHIN 21 DAYS OF VACCINATION.
- Vaccinate healthy animals only.
- Do NOT mix with any other vaccine or immunological product. No information is available on the compatibility of **Blu-Vax** with any other vaccine or medication.
- Care should be taken to avoid direct contact with the product, to prevent self-injection, or contamination of the eyes or skin. **If contact occurs, rinse affected area repeatedly with clean water.** Medical advice should be sought in the event of accidental exposure.
- Do not over- or under-dose the vaccine.
- Usually no marked reaction follows vaccination, although a transient swelling may appear at the site of inoculation and some animals may show a moderate rise of temperature for one or two days.
- Ensure that marketed animals do not have local reactions (swellings) at the site of vaccine administration, or elevated temperature reactions (fever) as this may result in the condemnation of the carcasses.
- Use the entire contents of the vial once opened.
- Do not use in animal species other than those indicated.
- Do not administer to animals in poor or extremely poor body condition.
- Do not inject intravenously.
- KEEP THE PRODUCT OUT OF REACH OF CHILDREN, UNINFORMED PERSONS AND ANIMALS.
- Although this product 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.

PRECAUTIONS

- Follow aseptic procedures. Clean and sterilise all vaccination equipment (containers, syringes and needles) prior to and during use to prevent contaminating the contents of the vial.
- Do not use the contents of damaged vials.
- Wear protective clothing, masks, gloves etc. according to hazard standards.
- Avoid contact of the product with skin, eyes and mouth.
- Do not eat, drink or smoke whilst handling the product.
- Do not store partially used vials and dispose of all containers and disposable equipment after use, in accordance with the National Environmental Management: Waste Act (Act No. 59 of 2008).
- Do not contaminate rivers, dams or any water sources with containers or waste.
- Local reactions may occur in some animals at the injection site. They will disappear after a few days. If you notice any serious effects not mentioned in this package insert, please inform your veterinarian.

DIRECTIONS FOR USE

- **Use only as directed.**
- **Please consult with your veterinarian before use.**
- Simple inversion of the vial prior to and during use is adequate to mix all components.
- Inject sheep subcutaneously on the side of the neck. DO NOT deviate from the recommended route and injection site location.
- Animals must receive a full vaccination schedule before the period of highest risk associated with bluetongue outbreak.
- Ensure that all animals are vaccinated.
- It is essential to adhere to the vaccination programme to maintain a satisfactory immune response.
- This inactivated vaccine is safe for use in ewes during all stages of pregnancy and newborn lambs born from unvaccinated ewes.
- This inactivated vaccine does not affect semen production and is safe for use in breeding rams.
- Vaccination with **Blu-Vax** allows targeted use in the face of an outbreak or in case of perceived immediate threat of infection.
- DO NOT miss the booster dose as it is essential to elicit protective immunity.
- Repeat vaccination annually according to the DOSAGE instructions.

DOSAGE

- Administer a single dose (1 mℓ) subcutaneously, on the side of the neck only. DO NOT deviate from the recommended route and injection site location.
- **A second dose of 1 mℓ must be administered 3 to 4 weeks later as a booster to complete the vaccination.**
- Animals that have never been vaccinated before, will benefit from a second booster dose of 1 mℓ 3 to 4 weeks after the first booster.
- Vaccination and both boosters (where applicable) must be completed 2 months prior to the outbreak season.

PRESENTATION

Blu-Vax, a white to light-pink emulsion, is presented in pack sizes of 20 mℓ and 100 mℓ translucent high density polyethylene (HDPE) vials capped with a gold-coloured aluminium cap with a two-bridge tab, labelled and packed in a product-specific outer cardboard carton.

IINDIKASIES

Blu-Vax is 'n geïnaktiveerde adjuvant-bevattende polivalente bloutongvirus (BTV) entstof, geformuleer as 'n emulsie, vir die aktiewe immunisering van gesonde skape teen bloutong.

Bloutong is 'n aanmeldbare dieresiekte kragtens die Wet op Dieresiektes (Wet Nr. 35 van 1984). Enige vermoede of bevestigde gevalle van die siekte moet onmiddellik aan die verantwoordelike staatsveearts gerapporteer word.

SAMESTELLING PER DOSIS (1 mℓ)

Blu-Vax is 'n olie-emulsie entstof wat geïnaktiveerde serotipes van die bloutongvirus (BTV) bevat.

BERGINGSAANWYSINGS

Bêre in 'n yskas en verkoel tydens vervoer (tussen 2 °C en 8 °C). Moenie vries nie. Beskerm teen hoë temperature en sonlig tydens inenting.

Moenie gebruik na die vervaldatum wat op die entstofhouer gedruk is nie. Gebruik onmiddelik nadat die entstofhouer oopgemaak is.

WAARSKUWINGS

- **ONTTREKKINGSPERIODE**: MOENIE DIERE BINNE 21 DAE NA INENTING VIR MENSLIKE VERBRUIK SLAG NIE.
- Slegs gesonde diere moet ingeënt word.
- MOENIE met enige ander entstof of enige ander immunologiese produk meng nie. Geen informasie is beskikbaar in verband met die gebruik van **Blu-Vax** met enige ander entstof of medisyne nie.
- Voorsorg moet getref word om direkte kontak met die produk, self-inspuiting, of kontak van die oë of vel te voorkom. **Indien kontak plaasvind, spoel die geaffekteerde area herhaaldelik met skoon water af.** Verkry mediese advies in die geval van toevallige blootstelling aan die produk.
- Moenie die entstof oor- of onderdoseer nie.
- Normaalweg volg geen merkbare reaksie na inenting nie, alhoewel kortstondige swelling op die plek van inenting kan voorkom en sommige diere 'n matige styging in temperatuur vir een of twee dae kan toon.
- Verseker dat diere wat bemark word geen lokale reaksies (swelling) by die entstof toedieningsplek of verhoogde liggaamstemperatuur (koorsreaksie) toon nie, aangesien dit kan lei tot afkeur van karkasse.
- Gebruik die volle inhoud van 'n entstofhouer sodra dit oopgemaak word.
- Moenie in diere anders as die aangeduide spesie gebruik word nie.
- Moenie toegedien word aan diere in 'n swak of uiters swak liggaamskondisie nie.
- Moenie binneaars toegedien word nie.
- HOU DIE PRODUK BUITE BEREIK VAN KINDERS, ONINGELIGTE PERSONE EN DIERE.
- Alhoewel hierdie produk breedvoerig onder 'n wye verskeidenheid van toestande getoets is, mag dit faal as gevolg van verskeie redes. Indien vermoed word dat die produk gefaal het, raadpleeg 'n veearts en verwittig die Registrasiehouer.

VOORSORGMAATREËLS

- Volg aseptiese prosedures. Maak alle inentingstoerusting (houers, spuite en naalde) skoon en steriliseer dit voor en tydens gebruik om te voorkom dat die inhoud van die entstofhouer besmet word.
- Moenie die inhoud van beskadigde entstofhouers gebruik nie.
- Dra beskermende klere, maskers, handskoene, ens. in lyn met die standaarde vir gevaarlike middels.
- Vermy kontak van die produk met die vel, oë en mond.
- Moenie eet, drink of rook tydens hantering van die produk nie.
- Moenie gedeeltelik gebruikte enstofhouers bêre nie. Verwyder entstofhouers en entstoftoerusting na gebruik, in ooreenstemming met die Nasionale Omgewingsbestuur: Wet op Afval (Wet 59 van 2008).
- Moenie riviere, damme of enige waterbronne met entstofhouers of afval besoedel nie.
- Lokale reaksies mag voorkom by die inspuitingsplek van sommige diere. Dit sal verdwyn na 'n paar dae. Indien u ernstige reaksies opmerk wat nie in hierdie voubiljet vermeld is nie, stel asseblief u veearts in kennis.

GEBRUIKSAANWYSINGS

- **Gebruik slegs soos aangedui.**
- **Raadpleeg asseblief u veearts voor gebruik.**
- Vermeng die entstof voor en tydens gebruik deur versigtige omkering van die entstofhouer.
- Spuit skape onderhuids, slegs aan die kant van die nek. MOENIE afwyk van die aanbevole roete en inspuitingsarea nie.
- 'n Volledige inentingsprogram moet voltooi word voor die tydperk van die hoogste risiko wat verband hou met bloutong uitbraak.
- Verseker dat alle diere ingeënt word.
- Dit is noodsaaklik om die inentingsprogram te volg om 'n bevredigende immuunresponse te handhaaf.
- Hierdie geïnaktiveerde entstof is veilig vir gebruik in ooie tydens al die fases van dragtigheid asook in lammetjies gebore van ongeënte ooie.
- Hierdie geïnaktiveerde entstof beïnvloed nie semenkwaliteit nie en is veilig vir gebruik in teelramme.
- Enting met **Blu-Vax** bewerkstellig doelgerigte gebruik wanneer bloutong uitbraak in die gesig gestaar word of indien 'n onmiddellike bedreiging van infeksie ontstaan.
- MOENIE die skraagdosis mis nie want dit is noodsaaklik om beskermende immuniteit op te wek.
- Herhaal die inenting jaarliks soos voorgeskryf in die DOSIS aanwysings.

DOSIS

- Dien 'n enkele dosis (1 mℓ) onderhuids toe, slegs aan die kant van die nek. MOENIE afwyk van die aanbevole roete en inspuitingsarea nie.
- **'n Tweede dosis van 1 mℓ moet 3 tot 4 weke later as 'n skraagdosis toegedien word om die inenting te voltooi.**
- Diere wat nog nooit vantevore ingeënt is nie, sal beter beskerming kry na 'n tweede skraagdosis van 1 mℓ, 3 tot 4 weke na die eerste skraagdosis.
- Inenting en beide skraagdosisse (waar toepasklik) moet 2 maande voor die uitbraakseisoen toegedien wees.

AANBIEDING

Blu-Vax, 'n wit tot lig-pienk emulsie, word aangebied in pakgroottes van 20 mℓ en 100 mℓ deurskynende hoëdigtheid-poliëtileen (HDPE) entstofhouers, bedek met 'n goudkleurige aluminium doppie met 'n twee-brug lip, geëtiketteer en verpak in 'n produkspesifieke buitenste kartonhouer.

REGISTRATION HOLDER

Vetvax (Pty) Ltd, Reg. No. 2004/035302/07
442 Rigel Avenue, Erasmusrand, Pretoria, 0181
Tel: +27 (0) 12 349 2772

MANUFACTURER

Design Biologix CC, Reg. No. 1992/028856/23
Tel: +27 (0) 12 349 2772
www.designbio.co.za

PI/BT/005

Bleeeh to Bluetongue!

BLU-VAX: We've got you covered

SCIENTIFICALLY PROVEN PROTECTION

Pregnancy

Safe to use during any trimester.

Rams

Does not affect semen production. Safe for use in breeding rams.

Dosage[1]

1 mℓ and second 1 mℓ dose 3 to 4 weeks later to complete the vaccination.

Vaccination and booster must be completed 2 months before outbreak season.

Repeat vaccination annually.

Naïve Animals[1]

Animals that haven't been vaccinated before, will benefit from a second booster dose of 1 mℓ 3 to 4 weeks after the first booster.

Vaccination and both boosters must be completed 2 months before outbreak season.

Lambs from unvaccinated ewes[1]

1 mℓ and boost 1 mℓ, 3 to 4 weeks later from 7 days old.

Lambs from vaccinated ewes[1]

Vaccinate weanlings with 1 mℓ and boost 1 mℓ, 3 to 4 weeks later.

1. Administer subcutaneously, on the side of the neck only.
DO NOT deviate from the recommended route and injection site location.

Blu-Vax Reg. No. G4534 (Act 36/1947)

An inactivated adjuvanted polyvalent bluetongue virus (BTV) vaccine, formulated as an emulsion, for the active immunisation of healthy sheep against bluetongue disease.

REGISTRATION HOLDER: Vetvax (Pty) Ltd, Reg. No. 2004/035302/07 | MANUFACTURER: Design Biologix CC, Reg. No. 1992/028856/23

ANIMAL VACCINES MANUFACTURER

www.designbio.co.za

Design Biologix

Bovipox

Reg. No. G3861 (Act 36/1947)

SCIENTIFICALLY PROVEN

For the prophylactic immunisation of cattle against lumpy skin disease.

INDICATIONS

Bovipox is used for the prophylactic immunisation of cattle against lumpy skin disease.

COMPOSITION PER DOSE (1 mℓ)

Bovipox is a prophylactic vaccine containing freeze-dried, live attenuated lumpy skin disease virus (Neethling-type).

STORAGE INSTRUCTIONS

Store and transport refrigerated (between 2 °C and 8 °C). Do not freeze. Protect from high temperatures and sunlight during vaccination. Do not use after the expiry date printed on the label and/or carton. **Use entire contents of the vial within 2 hours of reconstitution.**

WARNINGS

- **WITHDRAWAL PERIOD:** DO NOT SLAUGHTER ANIMALS FOR HUMAN CONSUMPTION WITHIN 21 DAYS OF VACCINATION.
- Vaccinate healthy animals only.
- DO NOT mix with any other vaccine or immunological product. No information is available on the compatibility of **Bovipox** with any other vaccine or medication.
- Care should be taken to avoid direct contact with the product, to prevent self-injection, or contact with the eyes or skin. **If contact occurs, rinse affected area repeatedly with clean water.** Medical advice should be sought in the event of a ccidental exposure.
- Do not over- or under-dose the vaccine.
- Usually no marked reaction follows vaccination, although a transient swelling may appear at the site of inoculation and some animals may show a moderate rise of temperature for one or two days.
- Ensure that marketed animals do not have local reactions (swellings) at the site of vaccine administration, or elevated temperature reactions (fever) as this may result in the condemnation of the carcasses.
- Use the entire contents of the vial once opened.
- Do not use in animal species other than those indicated.
- Do not administer to animals in poor or extremely poor body condition.
- Do not inject intravenously.
- KEEP THE PRODUCT OUT OF REACH OF CHILDREN, UNINFORMED PERSONS AND ANIMALS.
- Although this product 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.
- A temporary decrease in milk production may occur.

PRECAUTIONS

- Follow aseptic procedures. Ensure that all vaccination equipment (containers, syringes and needles) is clean and sterile prior to and during use to prevent contaminating the contents of the vial.
- Do not use disinfectants or antiseptics to sterilise any equipment. Sterilise all equipment before use by boiling in water for at least 15 minutes.
- Do not use the contents of damaged vials.
- Wear protective clothing, masks, gloves, etc. according to hazard standards.
- Avoid contact of the product with skin, eyes and mouth.
- Do not eat, drink or smoke whilst handling the product.
- Do not store partially used vials and dispose of all containers and disposable equipment after use, in accordance with the National Environmental Management: Waste Act (Act No. 59 of 2008).
- Do not contaminate rivers, dams or any water sources with containers or waste.
- Local reactions may occur in some animals at the injection site. They will disappear after a few days. If you notice any serious effects not mentioned in this package insert, please inform your veterinarian.
- It is essential to adhere to the vaccination programme to maintain a satisfactory immune response.

DIRECTIONS FOR USE

- **Use only as directed.**
- **Please consult with your veterinarian before use.**
- Use a sterile syringe to transfer approximately 5 mℓ of sterile **Bovipox** diluent into the 7 mℓ glass vial containing the freeze-dried virus cake. Mix gently to dissolve the powder, aspirate contents gently and TRANSFER BACK into the HDPE diluent vial. Mix gently using a simple inversion of the vial to distribute the virus evenly through the liquid.
- Discard any product remaining after the container was punctured.
- **Use the entire contents of the vial within 2 hours of reconstitution.**
- Animals must receive a full vaccination schedule before the period of highest risk associated with lumpy skin disease.
- Ensure that all animals are vaccinated.
- **Bovipox** is safe for use in cows in all stages of pregnancy.
- Calves from vaccinated cows can be vaccinated from 6 months of age.
- Calves from unvaccinated cows may be vaccinated at any age.
- Immunity starts to develop about 10 days after immunisation and animals should be fully protected after three weeks. (The vaccine may not necessarily confer absolute immunity to all animals).
- A small percentage of cattle are naturally immune to lumpy skin disease and do not develop antibodies following vaccination. When this occurs, there is no colostral antibody protection and the calves of these cows may be at risk from an early age.
- Revaccinate annually with a single dose (1 mℓ).

DOSAGE

- Administer a single dose (1 mℓ) subcutaneously, on the side of the neck only. DO NOT deviate from the recommended route and injection site location.
- Vaccination must be completed 2 months prior to the outbreak season.

PRESENTATION

The 10 mℓ (10 doses) and 100 mℓ (100 doses) pack sizes contain:

- **Lyophilised component:** a beige freeze-dried cake is presented in 7 mℓ glass vials, stoppered with a rubber bung and capped with a gold-coloured aluminium cap with a two-bridge tab.
- **Diluent component:** a clear and colourless liquid diluent is presented in 10 mℓ or 100 mℓ translucent high density polyethylene (HDPE) vials, capped with a gold-coloured aluminium cap with a two-bridge tab.

Both components are labelled and packed together in a product-specific outer cardboard carton.

INDIKASIES

Bovipox word gebruik vir die profilaktiese immunisering van beeste teen knopvelsiekte.

SAMESTELLING PER DOSIS (1 mℓ)

Bovipox is 'n profilaktiese entstof wat gevriesdroogde, lewendige, verswakte knopvelsiekte virus bevat (Neethling-tipe).

BERGINGSAANWYSINGS

Bêre in 'n yskas en verkoel tydens vervoer (tussen 2 °C en 8 °C). Moenie vries nie. Beskerm teen hoë temperature en sonlig tydens inenting. Moenie gebruik na die vervaldatum wat op die entstofhouer gedruk is nie. **Gebruik die volle inhoud van die entstofhouer binne 2 ure na hersamestelling.**

WAARSKUWINGS

- **ONTTREKKINGSPERIODE:** MOENIE DIERE BINNE 21 DAE NA INENTING VIR MENSLIKE VERBRUIK SLAG NIE.
- Slegs gesonde diere moet ingeënt word.
- MOENIE met enige ander entstof of enige ander immunologiese produk meng nie. Geen informasie is beskikbaar in verband met die gebruik van **Bovipox** met enige ander entstof of medisyne nie.
- Voorsorg moet getref word om direkte kontak met die produk, self-inspuiting, of kontak met die oë of vel te voorkom. **Indien kontak plaasvind, spoel die geaffekteerde area herhaaldelik met skoon water af.** Verkry mediese advies in die geval van toevallige blootstelling aan die produk.
- Moenie die entstof oor- of onderdoseer nie.
- Normaalweg volg geen merkbare reaksie na inenting nie, alhoewel kortstondige swelling op die plek van inenting kan voorkom en sommige diere 'n matige styging in temperatuur vir een of twee dae kan toon.
- Verseker dat diere wat bemark word geen lokale reaksies (swelling) by die entstof toedieningsplek of verhoogde liggaamstemperatuur (koorsreaksie) toon nie, aangesien dit kan lei tot afkeur van karkasse.
- Gebruik die volle inhoud van die entstofhouer sodra dit oopgemaak word.
- Moenie in diere anders as die aangeduide spesie gebruik word nie.
- Moenie toegedien word aan diere in 'n swak of uiters swak liggaamskondisie nie.
- Moenie binneaars toegedien word nie.
- HOU DIE PRODUK BUITE BEREIK VAN KINDERS, ONINGELIGTE PERSONE EN DIERE.
- Alhoewel hierdie produk breedvoerig onder 'n wye verskeidenheid van toestande getoets is, mag dit faal as gevolg van verskeie redes. Indien vermoed word dat die produk gefaal het, raadpleeg 'n veearts en verwittig die registrasiehouer.
- 'n Tydelike afname in melkproduksie kan voorkom.

VOORSORGMAATREËLS

- Volg aseptiese prosedures. Maak alle inentingstoerusting (houers, spuite en naalde) skoon en steriliseer dit voor en tydens gebruik om te voorkom dat die inhoud van die entstofhouer besmet word.
- Moenie ontsmettingsmiddels of antiseptika gebruik om enige toerusting te steriliseer nie. Steriliseer alle toerusting deur dit vir minstens 15 minute in water te kook.
- Moenie die inhoud van beskadigde entstofhouers gebruik nie.
- Dra beskermende klere, maskers, handskoene, ens. in lyn met die standaarde vir gevaarlike middels.
- Vermy kontak van die produk met die vel, oë en mond.

- Moenie eet, drink of rook tydens hantering van die produk nie.
- Moenie gedeeltelik gebruikte enstofhouers bêre nie. Verwyder entstofhouers en entstoftoerusting na gebruik, in ooreenstemming met die Nasionale Omgewingsbestuur: Wet op Afval (Wet 59 van 2008).
- Moenie riviere, damme of enige waterbronne met entstofhouers of afval besoedel nie.
- Lokale reaksies mag voorkom by die inspuitingsplek van sommige diere. Dit sal verdwyn na 'n paar dae. Indien u ernstige reaksies opmerk wat nie in hierdie voubiljet vermeld is nie, stel asseblief u veearts in kennis.
- Dit is noodsaaklik om die inentingsprogram te volg om 'n bevredigende immuunresponse te handhaaf.

GEBRUIKSAANWYSINGS

- **Gebruik slegs soos aangedui.**
- **Raadpleeg asseblief u veearts voor gebruik.**
- Gebruik 'n steriele spuit om ongeveer 5 mℓ steriele **Bovipox** verdunningsmiddel na die 7 mℓ glas entstofhouer wat die gevriesdroogde virus koek bevat, oor te dra. Meng versigtig om die virus eweredig deur die vloeistof te versprei. Trek die inhoud weer versigtig op vanuit die glas entstofhouer tot in die spuit en SPUIT DIE OPLOSSING TERUG in die aanvanklike plastiek flessie wat die verdunningsmiddel bevat. Meng liggies met 'n versigtige omkering van die flessie sodat die virus eweredig deur die vloeistof versprei.
- Na oopmaak van die enstofhouer moet enige ongebruikte entstof weggegooi word.
- **Gebruik die volle inhoud van die entstofhouer binne 2 ure na hersamestelling.**
- Diere moet 'n volledige inentingsprogram voltooi voordat die periode van die grootste risiko vir 'n knopvelsiekte-uitbraak aanbreek.
- Verseker dat alle diere ingeënt word.
- **Bovipox** is veilig vir gebruik by koeie in alle stadiums van dragtigheid.
- Kalwers van koeie wat reeds ingeënt is, kan vanaf 6 maande oud ingeënt word.
- Kalwers van koeie wat nie geënt is nie, mag op enige ouderdom ingeënt word.
- Immuniteit begin ontwikkel ongeveer 10 dae na immunisering en diere behoort na drie weke ten volle beskerm te wees. (Die entstof mag nie noodwendig absolute immuniteit aan alle diere verleen nie).
- 'n Klein persentasie beeste is natuurlik immuun teen knopvelsiekte en ontwikkel nie teenliggaampies na inenting nie. Wanneer dit gebeur, is daar geen kolostrum-teenliggaambeskerming nie en die kalwers van hierdie koeie mag vanaf 'n vroeë ouderdom in gevaar wees.
- Herhaal jaarliks met 'n enkele dosis (1 mℓ).

DOSIS

- Dien 'n enkele dosis (1 mℓ) onderhuids toe, slegs aan die kant van die nek. MOENIE afwyk van die aanbevole roete en inspuitingsarea nie.
- Inenting moet 2 maande voor die uitbraakseisoen voltooi wees.

AANBIEDING

Die 10 mℓ pakgrootte (10 dosisse) en 100 mℓ pakgrootte (100 dosisse) bevat:

- **Gevriesdroogde komponent:** 'n beige gevriesdroogde koek word aangebied in 7 mℓ glas entstofhouers, verseël met 'n rubber stopprop en 'n goudkleurige aluminium doppie met 'n twee-brug lip.
- **Verdunningsmiddel:** 'n helder en kleurlose vloeistof word in pakgroottes aangebied van 10 mℓ of 100 mℓ deurskynende hoëdigtheid-poliëtileen (HDPE) flessies bedek met 'n goudkleurige aluminium doppie met 'n twee-brug lip.

Beide komponente word geëtiketteer en dan saam verpak in 'n produkspesifieke buitenste kartonhouer.

REGISTRATION HOLDER

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Tel: +27 (0) 12 349 2772
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Design Biologix

Bovipox: Your Partner in Animal Health

For the **prophylactic immunisation** of cattle against **lumpy skin disease.**

2013 - 2025 Design Biologix

Experienced production team

12 years

Manufacturing lumpy skin disease vaccines:

No reports of vaccine failure or perceived adverse events.

82 006 190

Doses of lumpy skin disease vaccines

manufactured over the last 12 years

Quality in everything we do

- Continued post-registration vaccine evaluation as part of our commitment to animal health.
- Supporting our customers before and after vaccination.

BOVIPOX PACKAGE INSERT

- Each claim is supported by local data in our product dossier.
- Evaluated by technical experts.
- Proven to be a safe and effective product.

As your **trusted partner in animal health, we support you** every step of the way — with **reliable quality, fair pricing,** and stock that's always there when you need it.

REGISTRATION HOLDER & MANUFACTURER
Design Biologix CC. | Reg. No. 1992/028856/23 | 442 Rigel Avenue, Erasmusrand, Pretoria, 0181
Tel: +27 (0) 12 349 2772 | www.designbio.co.za

Bru-Tect Rev 1

Reg. No. G4497 (Act 36/1947)
Namibia Reg. No. V24/24.4.2/1523

SCIENTIFICALLY PROVEN

Prevention of contagious abortion and milk contamination. **Bru-Tect Rev 1 supports and protects** your herd against **ovine** and **caprine brucellosis.**

Bru-Tect Rev 1 is a lyophilised vaccine containing live attenuated *Brucella melitensis* Rev 1 for the prevention of ovine and caprine brucellosis. Prophylactic immunisation against *Brucella ovis* infection (epididymitis, orchi-epididymitis and infertility) is indicated for ovine ram lambs only. Prophylactic immunisation against *Brucella melitensis* infection is indicated for ovine lambs and caprine kids of both sexes.

Brucellosis is a controlled disease in terms of the Animal Diseases Act (Act No. 35 of 1984) and any suspicion or confirmation of the disease must be reported to the responsible state veterinarian immediately.

STORAGE INSTRUCTIONS

Store and transport refrigerated (between 2 °C and 8 °C). Do not freeze. Protect from high temperatures and sunlight during vaccination. Do not use after the expiry date printed on the container. Do not store any vials into which a needle or another device has been inserted, for future use. **Use entire contents of the vial within 2 hours of reconstitution.**

COMPOSITION PER DOSE (2 mℓ)

Bru-Tect Rev 1 is a lyophilised vaccine containing live attenuated *B. melitensis* Rev 1. Each 2 mℓ (1 dose) of reconstituted vaccine contains 5 x 10^8 cfu/dose – 2 x 10^9 cfu/dose.

WARNINGS

- **WITHDRAWAL PERIOD:** DO NOT SLAUGHTER ANIMALS FOR HUMAN CONSUMPTION WITHIN 21 DAYS OF VACCINATION.
- Vaccinate healthy animals only.
- Do NOT mix with any other vaccine or immunological product. No information is available on the compatibility of **Bru-Tect Rev 1** with any other vaccine or medication.
- Potentially harmful to humans. Care should be taken to avoid direct contact with the product, to prevent self-injection, or contamination of the eyes or skin. **If contact occurs, rinse affected area repeatedly with clean water.** Medical advice should be sought in the event of accidental exposure.
- Do not over- or under-dose the vaccine.
- Usually no marked reaction follows vaccination although a transient swelling may appear at the site of inoculation, and some animals may show a moderate rise of temperature for one or two days.
- Ensure that marketed animals do not have local reactions (swellings) at the site of vaccine administration, or elevated temperature reactions (fever) as this may result in the condemnation of the carcasses.
- **Simultaneous administration of antibiotics to vaccinated animals is contraindicated as the antibiotic will interfere with the vaccine.**
- **Antibiotics should not be given for several days before and after vaccination.**
- Use the entire contents of a vial once opened.
- Do not use in animal species other than those indicated.
- DO NOT USE IN PREGNANT ANIMALS.
- **DO NOT USE IN MALE ANIMALS OLDER THAN 4 MONTHS.**
- Do not administer to animals in poor or extremely poor body condition.
- Do not inject intravenously.
- KEEP THE PRODUCT OUT OF REACH OF CHILDREN, UNINFORMED PERSONS AND ANIMALS.
- Although this product 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 and Registrar.

PRECAUTIONS

- Observe aseptic precautions. Ensure that all vaccination equipment (containers, syringes and needles) is clean and sterile prior to and during use.
- Do not use the contents of damaged vials.
- Wash and disinfect hands with a disinfectant after vaccination.
- Wear protective clothing, masks, gloves etc. according to hazard standards.

- Avoid contact of the product with skin, eyes and mouth.
- Do not eat, drink or smoke whilst handling the product.
- Destroy any unused vaccine and dispose of all vaccine containers and disposable equipment after use, in accordance with the National Environmental Management: Waste Act (Act No. 59 of 2008).
- Do not contaminate rivers, dams or any water sources with containers or waste.
- **Syringes and needles that are used for Bru-Tect Rev 1 administration, cannot be used for any other purpose. If syringes and needles are re-used for Bru-Tect Rev 1 administration, they must be dedicated for this purpose only. Where chemical sterilisation of needles and syringes is practised, needles and syringes must be rinsed in cooled down boiled water before re-use to ensure that the attenuated live bacterial component of the next dose is not destroyed by the disinfectant.**
- **A single inoculation of this vaccine will not produce absolute immunity in all animals. Therefore, complete reliance should not be placed on the vaccine alone to prevent and control brucellosis. It is important that a veterinarian be consulted regarding additional control measures.**

Local reactions may occur in some animals at the injection site. They will disappear after a few days. If you notice any serious effects not mentioned in this package insert, please inform your veterinarian.

DIRECTIONS FOR USE
- **Use only as directed.**
- **Please consult with your veterinarian before use.**
- Draw up 2 mℓ to 3 mℓ of the **Bru-Tect Rev 1** diluent component from the HDPE vial and inject into the 7 mℓ glass vial containing the live attenuated *B. melitensis* Rev 1 lyophilised cake. Owing to the nature of the product, it is normal for the cake to take a few minutes to dissolve. Very gently aspirate at least 5 times with a 15-18G needle and syringe to assist with dissolving the cake. Mix gently to dissolve the powder, aspirate contents gently and **TRANSFER BACK** into the HDPE diluent vial. Mix gently to distribute the bacterial suspension evenly throughout the liquid. **Use the entire contents of the vial within 2 hours of reconstitution.**

DOSAGE
- ***B. ovis:*** Single 2 mℓ subcutaneous injection on the side of the neck only, in ovine ram lambs only, between 2 and 4 months of age. **Goats do not develop *B. ovis* infections and should not be vaccinated for this purpose.**
- ***B. melitensis:*** Single 2 mℓ subcutaneous injection on the side of the neck only, in ovine lambs and caprine kids of both sexes, between 2 and 4 months of age. **Vaccination against *B. melitensis* is not common practice as the disease is not widespread within the country.**
- **Inject ovine lambs or caprine kids subcutaneously, on the side of the neck. DO NOT deviate from the recommended route and injection site location.**

PRESENTATION
The 20 mℓ pack size (10 doses) contains:
- **Lyophilised component:** an off-white freeze-dried cake is presented in a 7 mℓ glass vial, stoppered with a rubber bung and capped with a gold-coloured aluminium cap.
- **Diluent component:** a clear and colourless liquid diluent is presented in a 20 mℓ high density polyethylene (HDPE) vial of natural colour, capped with a gold-coloured aluminium combination seal.

Both components are labelled and packed together in a product-specific outer cardboard carton.

Bru-Tect Rev 1 is 'n gevriesdroogde entstof wat lewende, verswakte *Brucella melitensis* Rev 1 bevat, vir die voorkoming van brucellose in skape en bokke. Profilaktiese inenting is slegs aangedui vir skaap ramlammers teen *Brucella ovis* infeksie (bybalontsteking en onvrugbaarheid). Profilaktiese inenting is aangedui vir skaaplammers en boklammers van beide geslagte, vir die voorkoming van *Brucella melitensis* infeksie.

Brucellose is 'n beheerde dieresiekte kragtens die Wet op Dieresiektes (Wet Nr. 35 van 1984). Enige vermoede of bevestigde gevalle van die siekte moet onmiddellik aan die verantwoordelike staatsveearts gerapporteer word.

BERGINGSAANWYSINGS
Bêre in 'n yskas en verkoel tydens vervoer (tussen 2 °C en 8 °C). Moenie vries nie. Beskerm teen hoë temperature en sonlig tydens inenting. Moenie gebruik na die vervaldatum wat op die entstofhouer gedruk is nie. Moenie entstofhouers waarin 'n naald of ander toestel aangebring is, vir toekomstige gebruik bêre nie. **Gebruik die volle inhoud van die entstofhouer binne 2 ure na hersamestelling.**

SAMESTELLING PER DOSIS (2 mℓ)
Bru-Tect Rev 1 is 'n gevriesdroogde entstof wat lewende, verswakte *B. melitensis* Rev 1 bevat. Elke 2 mℓ (1 dosis) hersaamgestelde entstof bevat 5 x 10^8 cfu/dosis – 2 x 10^9 cfu/dosis.

WAARSKUWINGS
- **ONTTREKKINGSPERIODE:** MOENIE DIERE BINNE 21 DAE NA INENTING VIR MENSLIKE VERBRUIK SLAG NIE.
- Slegs gesonde diere moet ingeënt word.
- MOENIE met enige ander entstof of immunologiese produk meng nie. Geen informasie is beskikbaar in verband met die verenigbaarheid van **Bru-Tect Rev 1** met enige ander entstof of medisyne nie.
- Potensieël skadelik vir mense. Voorsorg moet getref word om direkte kontak met die produk, self-inspuiting, of kontaminasie van die oë of vel te voorkom. **Indien kontak plaasvind, spoel die geaffekteerde area herhaaldelik met skoon water af.** Verkry mediese advies in die geval van toevallige blootstelling aan die produk.
- Moenie die entstof oor- of onderdoseer nie.
- Normaalweg volg geen merkbare reaksie na inenting nie, alhoewel kortstondige swelling op die plek van inenting kan voorkom en sommige diere 'n matige styging in temperatuur vir een of twee dae kan toon.

- Verseker dat diere wat bemark word geen lokale reaksies (swelling) by die entstof toedieningsplek of verhoogde liggaamstemperatuur (koorsreaksie) toon nie, aangesien dit kan lei tot afkeur van karkasse.
- **Gelyklopende toediening van antibiotika, aan diere wat ingeënt is, word teenaangedui aangesien die entstof se werking nadelig deur die antibiotika beïnvloed sal word.**
- **Antibiotika moet nie vir 'n hele paar dae voor en na inenting aan diere toegedien word nie.**
- Gebruik die volle inhoud van die entstofhouer sodra dit oopgemaak word.
- Moenie in diere anders as die aangeduide spesies gebruik word nie.
- MOENIE IN DRAGTIGE DIERE GEBRUIK NIE.
- **MOENIE IN RAMME OUER AS 4 MAANDE GEBRUIK NIE.**
- Moenie toegedien word aan diere in 'n swak of uiters swak liggaamskondisie nie.
- Moenie binneaars toegedien word nie.
- HOU DIE PRODUK BUITE BEREIK VAN KINDERS, ONINGELIGTE PERSONE EN DIERE.
- Alhoewel hierdie produk breedvoerig onder 'n wye verskeidenheid van toestande getoets is, mag dit faal as gevolg van verskeie redes. Indien vermoed word dat die produk gefaal het, raadpleeg 'n veearts en verwittig die Registrasiehouer en die Registrateur.

VOORSORGMAATREËLS

- Volg standaard steriele prosedures tydens toediening van inspuitings. Verseker dat alle entstoftoerusting (houers, spuite en naalde) skoon en steriel is voor en tydens gebruik.
- Moenie die inhoud van beskadigde entstofhouers gebruik nie.
- Was en ontsmet hande met 'n ontsmettingsmiddel na enting van diere.
- Dra beskermende klere, maskers en handskoene, ens. in lyn met die standaarde vir gevaarlike middels.
- Vermy kontak van die produk met die vel, oë en mond.
- Moenie eet, drink of rook tydens hantering van die produk nie.
- Vernietig enige ongebruikte entstof en verwyder entstofhouers en entstoftoerusting na gebruik, in ooreenstemming met die Nasionale Omgewingsbestuur: Wet op Afval (Wet 59 van 2008).
- Moenie riviere, damme of enige waterbronne met entstofhouers of afval besoedel nie.
- **Spuite en naalde wat gebruik word vir die toediening van Bru-Tect Rev 1 mag nie vir enige ander doel gebruik word nie. Indien spuite en naalde hergebruik word vir Bru-Tect Rev 1 toediening, moet dit slegs vir hierdie doel eenkant gehou word. Waar chemiese sterilisasie van naalde en spuite gebruik word, moet die naalde en spuite na afloop van sterilisasie afgespoel word in afgekoelde gekookte water, voordat dit hergebruik mag word. Dit sal verseker dat die verswakte, lewende bakteriese komponent van die volgende dosis nie deur die ontsmettingsmiddel vernietig word nie.**
- **'n Enkele inentingsdosis van hierdie entstof kan nie volkome immuniteit in alle diere teweegbring nie. Daarom moet volle vertroue nie in die entstof alleen geplaas word vir die voorkoming en beheer van brucellose nie. Dit is belangrik om 'n veearts te raadpleeg vir bykomende voorsorg en riglyne om die siekte te beheer.**

Lokale reaksies mag voorkom by die inspuitingsplek van sommige diere. Dit sal verdwyn na 'n paar dae. Indien u ernstige reaksies opmerk wat nie in hierdie voubiljet vermeld is nie, stel asseblief u veearts in kennis.

GEBRUIKSAANWYSINGS

- **Gebruik slegs soos aangedui.**
- **Raadpleeg asseblief u veearts.**
- Gebruik 'n steriele spuit om 2 mℓ tot 3 mℓ van die **Bru-Tect Rev 1** verdunningsmiddel op te trek vanuit die plastiek flessie. Dra dit oor na die 7 mℓ glas entstofhouer wat die lewende, verswakte *B. melitensis* Rev 1 gevriesdroogde koek bevat. Weens die aard van die produk is dit normaal dat die koek tot 'n paar minute neem om op te los. Aspireer baie saggies ten minste 5 keer met 'n 15-18G naald en spuit, om die oplos van die koek aan te help. Meng deeglik, maar versigtig totdat die poeier opgelos is. Trek die inhoud weer versigtig op vanuit die glas entstofhouer tot in die spuit; **SPUIT DIE OPLOSSING TERUG** in die aanvanklike plastiek flessie wat die verdunningsmiddel bevat. Meng versigtig sodat die bakteriële suspensie eweredig deur die vloeistof versprei. **Gebruik die volle inhoud van die flessie binne 2 ure na hersamestelling.**

DOSIS

- ***B. ovis:*** 'n Enkeldosis van 2 mℓ via die onderhuidse roete aan die kant van die nek, slegs in skaap ramlammers, met 'n ouderdom van 2 tot 4 maande. **Bokke is nie vatbaar vir *B. ovis* infeksies nie en moet dus nie hiervoor ingeënt word nie.**
- ***B. melitensis:*** 'n Enkeldosis van 2 mℓ via die onderhuidse roete aan die kant van die nek, in skaaplammers en boklammers van beide geslagte, met 'n ouderdom van 2 tot 4 maande. **Enting teen *B. melitensis* is nie algemene praktyk nie, aangesien die siekte nie wydverspreid in die land voorkom nie.**
- **Spuit skaaplammers of boklammers onderhuids, slegs aan die kant van die nek. MOENIE van die aanbevole roete en inspuitingsplek afwyk nie.**

AANBIEDING

Die 20 mℓ pakgrootte (10 dossise) bevat:

- **Gevriesdroogde komponent:** 'n afwit gevriesdroogde koek word aangebied in 'n 7 mℓ glas enstofhouer, verseël met 'n rubber stopprop en 'n goue aluminium doppie.
- **Verdunningsmiddel:** 'n helder kleurlose oplossing word aangebied in 'n 20 mℓ hoëdigtheid-poliëtileen (HDPE) flessie van natuurlike kleur, verseël met 'n goue aluminium kombinasie doppie.

Beide komponente word geëtiketteer en dan saam verpak in 'n produkspesifieke buitenste kartonhouer.

REGISTRATION HOLDER
Vetvax (Pty) Ltd, Reg. No. 2004/035302/07
442 Rigel Avenue, Erasmusrand, Pretoria, 0181
Tel: +27 (0) 12 349 2772

MANUFACTURER
Design Biologix CC, Reg. No. 1992/028856/23
442 Rigel Avenue, Erasmusrand, Pretoria, 0181
Tel: +27 (0) 12 349 2772
www.designbio.co.za

PI/BR/002

SCIENTIFICALLY PROVEN SUPPORT

Reproduction protection through PRO-action

Sheep and goat brucellosis is a **zoonotic*** **infection** with **devastating effects on public health, animal health** and **reproduction.**

Bru-Tect Rev 1 Reg. No. G4497 (Act 36/1947) Namibia Reg. No. V24/24.4.2/1523

A lyophilised vaccine containing live attenuated *Brucella melitensis* Rev 1 for the prevention of ovine and caprine brucellosis. It supports and protects your herd's breeding production.

* Potential to infect humans

REGISTRATION HOLDER: Vetvax (Pty) Ltd, Reg. No. 2004/035302/07 | MANUFACTURER: Design Biologix CC, Reg. No. 1992/028856/23

ANIMAL VACCINES MANUFACTURER www.designbio.co.za

Design Biologix

Bru-Tect S19

Reg. No. G4496 (Act 36/1947)
Namibia Reg. No. V24/24.4.2/1522

SCIENTIFICALLY PROVEN

Bru-Tect S19 supports and protects your herd's **breeding & milk production,** and prevents **contaminating milk, contagious abortion and sterility.**

INDICATIONS

Bru-Tect S19 is a lyophilised vaccine containing live attenuated *Brucella abortus* S19 for the prevention of bovine brucellosis (contagious abortion).

Brucellosis is a controlled disease in terms of the Animal Diseases Act (Act No. 35 of 1984) and any suspicion or confirmation of the disease must be reported to the responsible state veterinarian immediately.

As per Table 2 of the Animal Diseases Regulations (R. 2026 of 1986), all heifers between the ages of 4 and 8 months must be vaccinated against brucellosis, and, no bovine above the age of 8 months may be vaccinated, using the S19 vaccine, against brucellosis without the written consent of the responsible state veterinarian.

STORAGE INSTRUCTIONS

Store and transport refrigerated (between 2 °C and 8 °C). Do not freeze. Protect from high temperatures and sunlight during vaccination. Do not use after the expiry date printed on the container. Do not store any vials into which a needle or another device has been inserted, for future use. **Use entire contents of the vial within 2 hours of reconstitution.**

COMPOSITION PER DOSE (2 mℓ)

Bru-Tect S19 is a lyophilised vaccine containing live attenuated *B. abortus* S19. Each 2 mℓ (1 dose) of reconstituted vaccine contains 5 x 10^{10} cfu/dose - 1 x 10^{11} cfu/dose.

WARNINGS

- **WITHDRAWAL PERIOD:** DO NOT SLAUGHTER ANIMALS FOR HUMAN CONSUMPTION WITHIN 21 DAYS OF VACCINATION.
- Vaccinate healthy animals only.
- Do NOT mix with any other vaccine or immunological product. No information is available on the compatibility of **Bru-Tect S19** with any other vaccine or medication.
- Potentially harmful to humans. Care should be taken to avoid direct contact and self-injection or eye or skin contamination. **If contact occurs, rinse affected area repeatedly with clean water.** Medical advice should be sought in the event of accidental exposure.
- Do not over- or under-dose the vaccine.
- Usually no marked reaction follows vaccination, although a transient swelling may appear at the site of inoculation and some animals may show a moderate rise of temperature for one or two days.
- Ensure that marketed animals do not have local reactions (swellings) at the site of vaccine administration, or elevated temperature reactions (fever) as this may result in the condemnation of the carcasses.
- **Simultaneous administration of antibiotics to vaccinated animals is contraindicated as the antibiotic will interfere with the vaccine.**
- **Antibiotics should not be given for several days before and after vaccination.**
- Use the entire contents of a vial once opened.
- Do not use in animal species other than those indicated.
- DO NOT USE IN PREGNANT ANIMALS.
- Do not administer to animals in poor or extremely poor body condition.
- Do not inject intravenously.
- KEEP THE PRODUCT OUT OF REACH OF CHILDREN, UNINFORMED PERSONS AND ANIMALS.
- Although this product 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 and Registrar.

PRECAUTIONS

- Observe aseptic precautions. Ensure that all vaccination equipment (containers, syringes and needles) is clean and sterile prior to and during use.
- Do not use the contents of damaged vials.
- Wash and disinfect hands with a disinfectant after vaccination.
- Wear protective clothing, masks, gloves etc. according to hazard standards.
- Avoid contact of the product with skin, eyes and mouth.
- Do not eat, drink or smoke whilst handling the product.
- Destroy any unused vaccine and dispose of all vaccine containers and disposable equipment after use, in accordance with the National Environmental Management: Waste Act (Act No. 59 of 2008).

- Do not contaminate rivers, dams or any water sources with containers or waste.
- **Syringes and needles that are used for Bru-Tect S19 administration, cannot be used for any other purpose. If syringes and needles are re-used for Bru-Tect S19 administration, they must be dedicated for this purpose only. Where chemical sterilisation of needles and syringes is practiced, needles and syringes must be rinsed in cooled down boiled water before re-use to ensure that the attenuated live bacterial component of the next dose is not destroyed by the disinfectant.**
- **A single inoculation of this vaccine will not produce absolute immunity in all animals. Therefore, complete reliance should not be placed on the vaccine alone to prevent and control brucellosis. It is important that a veterinarian be consulted regarding additional control measures.**

Local reactions may occur in some animals at the injection site. They will disappear after a few days. If you notice any serious effects not mentioned in this leaflet, please inform your veterinarian.

DIRECTIONS FOR USE

- **Use only as directed.**
- **Please consult with your veterinarian before use.**
- For 20 mℓ and 100 mℓ pack sizes: Draw up 2 mℓ to 3 mℓ of the **Bru-Tect S19** diluent component from the HDPE vial and inject into the 7 mℓ glass vial containing the live attenuated *B. abortus* S19 lyophilised cake. Owing to the nature of the product, it is normal for the cake to take a few minutes to dissolve. Very gently aspirate at least 5 times with a 15-18G needle and syringe to assist with dissolving the cake. Mix gently to dissolve the powder, aspirate contents gently and TRANSFER BACK into the HDPE diluent vial. Mix gently to distribute the bacterial suspension evenly throughout the liquid. **Use the entire contents of the vial within 2 hours of reconstitution.**

DOSAGE

- Inject a single 2 mℓ subcutaneous injection on the side of the neck only, in heifers between the ages of 4 and 8 months. DO NOT deviate from the recommended route and injection site location. **Do not repeat vaccination.**

PRESENTATION

The 20 mℓ pack size (10 doses) and 100 mℓ pack size (50 doses) contains:

- **Lyophilised component:** an off-white freeze-dried cake is presented in a 7 mℓ glass vial, stoppered with a rubber bung and capped with a gold-coloured aluminium cap.
- **Diluent component:** a clear and colourless liquid diluent is presented in a 20 mℓ or 100 mℓ high density polyethylene (HDPE) vial of natural colour, capped with a gold-coloured aluminium combination seal.

Both components are labelled and packed together in a product-specific outer cardboard carton.

INDIKASIES

Bru-Tect S19 is 'n gevriesdroogde entstof wat lewende, verswakte *Brucella abortus* S19 bevat, vir die voorkoming van brucellose in beeste (besmetlike misgeboorte).

Brucellose is 'n beheerde dieresiekte kragtens die Wet op Dieresiektes (Wet Nr. 35 van 1984). Enige vermoede of bevestigde gevalle van die siekte moet onmiddellik aan die verantwoordelike staatsveearts gerapporteer word.

In ooreenstemming met Tabel 2 van die Dieresiekteregulasies (R. 2026 van 1986), moet alle verse met 'n ouderdom van tussen 4 en 8 maande teen brucellose geënt word, en geen beeste ouer as 8 maande mag teen brucellose geënt word sonder skriftelike toestemming van die verantwoordelike staatsveearts nie.

BERGINGSAANWYSINGS

Bêre in 'n yskas en verkoel tydens vervoer (tussen 2 °C en 8 °C). Moenie vries nie. Beskerm teen hoë temperature en sonlig tydens inenting. Moenie gebruik na die vervaldatum wat op die entstofhouer gedruk is nie. Moenie entstofhouers waarin 'n naald of ander toestel aangebring is, vir toekomstige gebruik bêre nie. **Gebruik die volle inhoud van die entstofhouer binne 2 ure na hersamestelling.**

SAMESTELLING PER DOSIS (2 mℓ)

Bru-Tect S19 is 'n gevriesdroogde entstof wat lewende, verswakte *Brucella abortus* S19 bevat. Elke 2 mℓ (1 dosis) hersaamgestelde entstof bevat 5 x 10^{10} cfu/dosis - 1 x 10^{11} cfu/dosis.

WAARSKUWINGS

- **ONTTREKKINGSPERIODE:** MOENIE DIERE BINNE 21 DAE NA INENTING VIR MENSLIKE GEBRUIK SLAG NIE.
- Slegs gesonde diere moet ingeënt word.
- MOENIE met enige ander entstof of immunologiese produk meng nie. Geen informasie is beskikbaar in verband met die verenigbaarheid van **Bru-Tect S19** met enige ander entstof of medisyne nie.
- Potensieël skadelik vir mense. Voorsorg moet getref word om direkte kontak met die produk, self-inspuiting, of kontaminasie van die oë of vel te voorkom. **Indien kontak plaasvind, spoel die geaffekteerde area herhaaldelik met skoon water af.** Verkry mediese advies in die geval van toevallige blootstelling aan die produk.
- Moenie die entstof oor- of onderdoseer nie.
- Normaalweg volg geen merkbare reaksie na inenting nie, alhoewel kortstondige swelling op die plek van inenting kan voorkom en sommige diere 'n matige styging in temperatuur vir een of twee dae kan toon.
- Verseker dat diere wat bemark word geen lokale reaksies (swelling) by die entstof toedieningsplek of verhoogde liggaamstemperatuur (koorsreaksie) toon nie, aangesien dit kan lei tot afkeur van karkasse.
- **Gelyklopende toediening van antibiotika aan diere wat ingeënt is, word teenaangedui aangesien die entstof se werking nadelig beïnvloed sal word deur die antibiotika.**
- **Antibiotika moet vir 'n hele paar dae voor- en na inenting nie aan diere toegedien word nie.**
- Gebruik die volle inhoud van 'n entstofhouer sodra dit oopgemaak word.
- Moenie in diere anders as die aangeduide spesies gebruik word nie.
- MOENIE IN DRAGTIGE DIERE GEBRUIK NIE.
- Moenie toegedien word aan diere in 'n swak of uiters swak liggaamskondisie nie.
- Moenie binneaars toegedien word nie.
- HOU DIE PRODUK BUITE BEREIK VAN KINDERS, ONINGELIGTE PERSONE EN DIERE.
- Alhoewel hierdie produk breedvoerig onder 'n wye verskeidenheid van toestande getoets is, mag dit faal as gevolg van verskeie redes. Indien vermoed word dat die produk gefaal het, raadpleeg 'n veearts en verwittig die Registrasiehouer en die Registrateur.

VOORSORGMAATREËLS

- Volg standaard steriele prosedures tydens toediening van inspuitings. Verseker dat alle entstoftoerusting (houers, spuite en naalde) skoon en steriel is voor en tydens gebruik.
- Moenie die inhoud van beskadigde entstofhouers gebruik nie.
- Was en ontsmet hande met 'n ontsmettingsmiddel na enting van diere.
- Dra beskermende klere, maskers en handskoene, ens. in lyn met die standaarde vir gevaarlike middels.
- Vermy kontak van die produk met die vel, oë en mond.
- Moenie eet, drink of rook tydens hantering van die produk nie.
- Vernietig enige ongebruikte entstof en verwyder entstofhouers en entstoftoerusting na gebruik, in ooreenstemming met die Nasionale Omgewingsbestuur: Wet op Afval (Wet 59 van 2008).
- Moenie riviere, damme of enige waterbronne met entstofhouers of afval besoedel nie.
- **Spuite en naalde wat gebruik word vir die toediening van Bru-Tect S19 mag nie vir enige ander doel gebruik word nie. Indien spuite en naalde hergebruik word vir Bru-Tect S19 toediening, moet dit slegs vir hierdie doel eenkant gehou word. Waar chemiese sterilisasie van naalde en spuite gebruik word, moet die naalde en spuite na afloop van sterilisasie afgespoel word in afgekoelde gekookte water, voordat dit hergebruik mag word. Dit sal verseker dat die verswakte, lewendige bakteriese komponent van die volgende dosis nie deur die ontsmettingsmiddel vernietig word nie.**
- **'n Enkele inentingsdosis van hierdie entstof kan nie volkome immuniteit in alle diere teweegbring nie. Daarom moet volle vertroue nie in die entstof alleen geplaas word vir die voorkoming en beheer van brucellose nie. Dit is belangrik om 'n veearts te raadpleeg vir bykomende voorsorg en riglyne om die siekte te beheer.**

Lokale reaksies mag voorkom by die inspuitingsplek van sommige diere. Dit sal verdwyn na 'n paar dae. Indien u ernstige reaksies opmerk wat nie in hierdie voubiljet vermeld is nie, stel asseblief u veearts in kennis.

GEBRUIKSAANWYSINGS

- **Gebruik slegs soos aangedui.**
- **Raadpleeg asseblief u veearts.**
- **Vir die 20 mℓ en 100 mℓ pakgroottes:** Gebruik 'n steriele spuit om 2 mℓ tot 3 mℓ van die **Bru-Tect S19** verdunningsmiddel op te trek vanuit die plastiek flessie. Dra dit oor na die 7 mℓ glas entstofhouer wat die lewende, verswakte *B. abortus* S19 gevriesdroogde koek bevat. Weens die aard van die produk is dit normaal dat die koek tot 'n paar minute neem om op te los. Aspireer baie saggies ten minste 5 keer met 'n 15-18G naald en spuit, om die oplos van die koek aan te help. Meng deeglik, maar versigtig totdat die poeier opgelos is. Trek die inhoud weer versigtig op vanuit die glas entstofhouer tot in die spuit; **SPUIT DIE OPLOSSING TERUG** in die aanvanklike plastiek flessie wat die verdunningsmiddel bevat. Meng versigtig sodat die bakteriële suspensie eweredig deur die vloeistof versprei. **Gebruik die volle inhoud van die plastiek flessie binne 2 ure na hersamestelling.**

DOSIS

- Spuit 'n enkele dosis van 2 mℓ onderhuids, slegs aan die kant van die nek, in verse met 'n ouderdom van 4 tot 8 maande. MOENIE van die aanbevole roete en inspuitingsplek afwyk nie. **Moenie enting herhaal nie.**

AANBIEDING

Die 20 mℓ pakgrootte (10 dossise) en 100 mℓ pakgrootte (50 dosisse) bevat:

- **Gevriesdroogde komponent:** 'n afwit gevriesdroogde koek word aangebied in 'n 7 mℓ glas entstofhouer, verseël met 'n rubber stopprop en 'n goue aluminium doppie.
- **Verdunningsmiddel:** 'n helder kleurlose oplossing word aangebied in 'n 20 mℓ of 100 mℓ hoëdigtheid-poliëtileen (HDPE) flessie van natuurlike kleur, verseël met 'n goue aluminium kombinasie doppie.

Beide komponente word geëtiketteer en dan saam verpak in 'n produkspesifieke buitenste kartonhouer.

REGISTRATION HOLDER

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PI/BS/002

SCIENTIFICALLY PROVEN SUPPORT

Reproduction protection through PRO-action

Cattle brucellosis is a **zoonotic*** **infection** with **devastating effects on public health, animal health** and **reproduction.**

Bru-Tect S19 Reg. No. G4496 (Act 36/1947) Namibia Reg. No. V24/24.4.2/1522

A lyophilised vaccine containing live attenuated *Brucella abortus* S19 for the prevention of bovine brucellosis (contagious abortion). It supports and protects your herd's breeding production, milk production, milk sterility and prevention of milk contamination.

* Potential to infect humans

REGISTRATION HOLDER: Vetvax (Pty) Ltd, Reg. No. 2004/035302/07 | MANUFACTURER: Design Biologix CC, Reg. No. 1992/028856/23

ANIMAL VACCINES MANUFACTURER www.designbio.co.za

Design Biologix

Chlamyvax

Reg. No. G4535 (Act 36/1947)

SCIENTIFICALLY PROVEN

Chlamyvax is an **inactivated bivalent vaccine** for the **active immunisation** of healthy cattle, sheep and goats against **enzootic abortion.**

INDICATIONS

Chlamyvax is an inactivated bivalent vaccine for the active immunisation of healthy cattle, sheep and goats against enzootic abortion caused by *Chlamydia abortus* and a range of subclinical disease manifestations including infectious conjunctivitis, arthritis, infertility, enteritis, mastitis and reduced growth rates caused by *Chlamydia pecorum*.

COMPOSITION PER DOSE (1 mℓ)

Chlamyvax is an oil emulsion vaccine consisting of formalin-inactivated *C. abortus* and *C. pecorum* strains.

Each dose (1 mℓ) of Chlamyvax contains:

Inactivated *C. abortus*: $\geq 2{,}5 \times 10^5$ $TCID_{50}$ per 1 mℓ dose
Inactivated *C. pecorum*: $\geq 2{,}5 \times 10^5$ $TCID_{50}$ per 1 mℓ dose

STORAGE INSTRUCTIONS

Store and transport refrigerated (between 2 °C to 8 °C). Protect from light. Do not freeze. Do not use this veterinary vaccine after the expiry date which is stated on the container label. Use immediately after opening. Do not store any vials into which a needle or other device has been inserted, for future use.

WARNINGS

- **WITHDRAWAL PERIOD:** DO NOT SLAUGHTER ANIMALS FOR HUMAN CONSUMPTION WITHIN 21 DAYS OF VACCINATION.
- Vaccinate healthy animals only.
- Do NOT mix with any other vaccine or immunological product. No information is available on the compatibility of **Chlamyvax** with any other vaccine or medication.
- Care should be taken to avoid direct contact with the product and self-injection or eye or skin contamination. **If contact occurs, rinse affected area repeatedly with clean water.**
- Accidental self-injection of the user may cause serious reactions. In case of accidental self-injection, seek medical advice immediately and show the package insert or label to the physician.
- Do not over- or under-dose the vaccine.
- Usually no marked reaction follows vaccination, although a transient swelling may appear at the site of inoculation and some animals may show a moderate rise of temperature for one or two days.
- Ensure that marketed animals do not have local reactions (swellings) at the site of vaccine administration, or elevated temperature reactions (fever) as this may result in the condemnation of the carcasses.
- May be used in pregnant animals during all stages of pregnancy.
- Do not use in animal species other than those indicated.
- Do not administer to animals in poor or extremely poor body condition.
- Do not inject intravenously.
- KEEP THE PRODUCT OUT OF REACH OF CHILDREN, UNINFORMED PERSONS AND ANIMALS.
- Although this product 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 and Registrar.

PRECAUTIONS

- Observe aseptic precautions. Ensure that all vaccination equipment (containers, syringes and needles) is clean and sterile prior to and during use. Use sterile equipment when administering the vaccine.
- Do not use the contents of damaged vials.
- Wash and disinfect hands with a disinfectant after vaccination.
- Do not use disinfectants or antiseptics to sterilize any equipment.
- Wear protective clothing, masks, gloves etc. according to hazard standards.
- Avoid contact of the product with skin, eyes and mouth.
- Do not eat, drink or smoke whilst handling the product.
- Use the entire contents of a vial once opened. Do not store partially used containers for future use.

- It is essential to adhere to the vaccination programme to maintain a satisfactory immune response.
- Destroy any unused vaccine and dispose of all vaccine containers and disposable equipment after use in accordance with the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008).
- Do not contaminate rivers, dams or any water sources with containers or waste.

Local reactions may occur in some animals at the injection site. They will disappear after a few days. If you notice any serious effects not mentioned in this leaflet, please inform your veterinarian.

DIRECTIONS FOR USE

- **Use only as directed.**
- It is normal for **Chlamyvax** to develop a cream layer on top during storage. **Simple inversion of the vial prior to injection is adequate to remix all the components.**
- Inject animals subcutaneously, on the side of the neck only. DO NOT deviate from the recommended route and injection site location.
- Ensure that all animals are vaccinated.
- Administer a dose at least four weeks before the breeding season or during early pregnancy, before 60 days of gestation.
- **Chlamyvax** is safe for use during all stages of pregnancy.
- In the face of an outbreak animals may be vaccinated before lambing/calving, which reduces abortions and prevents excretion of the pathogenic micro-organism by infected pregnant animals.
- Vaccination during an outbreak also protects heifers/ewes not previously vaccinated (naïve animals) from becoming latently infected, thus resulting in fewer aborted animals for the following year.
- It is critical to vaccinate replacement heifers/ewes as well as newly purchased animals.
- **Chlamyvax** may be used as a therapeutic vaccine targeted at subclinical chlamydial infections caused by *C. pecorum* during high risk outbreak periods. A long-term protective effect however requires frequent revaccination.

DOSAGE

- **Cattle**: Inject 2 mℓ subcutaneously, on the side of the neck only.
- **Sheep and goats**: Inject 1 mℓ subcutaneously, on the side of the neck only.

A booster vaccination of the above mentioned doses for cattle, sheep and goats respectively is recommended 3 to 4 weeks later.

PRESENTATION

Chlamyvax, a white to light-pink emulsion, is presented in pack sizes of 20 mℓ and 100 mℓ high density polyethylene (HDPE) vials of natural colour, capped with a gold-coloured aluminium cap with two-bridge tabs, labelled and packed in a product-specific outer cardboard carton.

INDIKASIES

Chlamyvax is 'n geïnaktiveerde bivalente entstof vir die aktiewe immunisering van gesonde beeste, skape en bokke teen ensoötiese aborsie wat veroorsaak word deur *Chlamydia abortus*, asook 'n reeks subkliniese manifestasies van siektes insluitend aansteeklike konjunktivitis, artritis, onvrugbaarheid, enteritis, mastitis en verlaagde groeitempo wat veroorsaak word deur *Chlamydia pecorum*.

SAMESTELLING PER DOSIS (1 mℓ)

Chlamyvax is 'n olie-emulsie entstof wat formalien-geïnaktiveerde *C. abortus* en *C. pecorum* stamme bevat.

Elke dosis (1 mℓ) van die entstof bevat:

Geïnaktiveerde *C. abortus* ≥ 2,5 x 10^5 $TCID_{50}$ per 1 mℓ dosis
Geïnaktiveerde *C. pecorum* ≥ 2,5 x 10^5 $TCID_{50}$ per 1 mℓ dosis

BERGINGSAANWYSINGS

Bêre in 'n yskas en verkoel tydens vervoer (tussen 2 °C en 8 °C). Beskerm teen lig. Moenie vries nie. Moenie hierdie veeartsenykundige entstof gebruik na die vervaldatum wat op die verpakking aangedui is nie. Gebruik onmiddellik nadat die flessie oopgemaak is. Moenie flessies waarin 'n naald of ander toestel aangebring is, vir toekomstige gebruik bêre nie.

WAARSKUWINGS

- **ONTREKKINGSPERIODE**: MOENIE DIERE BINNE 21 DAE NA INENTING VIR MENSLIKE GEBRUIK SLAG NIE.
- Slegs gesonde diere moet ingeënt word.
- MOENIE met enige ander entstof of immunologiese produk meng nie. Geen informasie is beskikbaar in verband met die verenigbaarheid van **Chlamyvax** met enige ander entstof of medisyne nie.
- Voorsorg moet getref word om direkte kontak met die produk, self-inspuiting, of kontaminasie van die oë of vel te voorkom. **Indien kontak plaasvind, spoel die geaffekteerde area herhaaldelik met skoon water af.**
- Toevallige self-inspuiting mag ernstige reaksies tot gevolg hê. In geval van toevallige self-inspuiting, verkry onmiddellik mediese advies en verskaf die inhoud van hierdie voubiljet of die etiket aan die geneesheer.
- Moenie die entstof oor- of onderdoseer nie.
- Normaalweg volg geen merkbare reaksie na inenting nie, alhoewel kortstondige swelling op die plek van inenting kan voorkom en sommige diere 'n matige styging in temperatuur vir een of twee dae kan toon.
- Verseker dat diere wat bemark word geen lokale reaksies (swelling) by die entstof toedieningsplek of verhoogde liggaamstemperatuur (koorsreaksie) toon nie, aangesien dit kan lei tot afkeur van karkasse.
- Veilig vir gebruik in dragtige diere tydens alle stadiums van dragtigheid.
- Moenie in diere anders as die aangeduide spesies gebruik word nie.

- Moenie toegedien word aan diere in 'n swak of uiters swak liggaamskondisie nie.
- Moenie binneaars toegedien word nie.
- HOU DIE PRODUK BUITE BEREIK VAN KINDERS, ONINGELIGTE PERSONE EN DIERE.
- Alhoewel hierdie produk breedvoerig onder 'n wye verskeidenheid van toestande getoets is, mag dit faal as gevolg van verskeie redes. Indien vermoed word dat die produk gefaal het, raadpleeg 'n veearts en verwittig die registrasiehouer en Registrateur.

VOORSORGMAATREËLS

- Volg standaard steriele prosedures tydens toediening van inspuitings. Verseker dat alle entstoftoerusting (houers, spuite en naalde) skoon en steriel is voor en tydens gebruik. Gebruik steriele toerusting vir die toediening van die entstof.
- Moenie die inhoud van beskadigde flessies gebruik nie.
- Was en ontsmet hande met 'n ontsmettingsmiddel na enting van diere.
- Moenie ontsmettingsmiddels of antiseptiese middels gebruik om enige toerusting vir enting te steriliseer nie.
- Dra beskermende klere, maskers en handskoene, ens. in lyn met die standaarde vir gevaarlike middels.
- Vermy kontak van die produk met die vel, oë en mond.
- Moenie eet, drink of rook tydens hantering van die produk nie.
- Gebruik die volle inhoud van 'n flessie sodra dit oopgemaak word. Moenie ongebruikte entstof berg vir latere gebruik nie.
- Dit is belangrik om die inentingsprogram te volg om sodoende 'n optimale immuunrespons te handhaaf.
- Vernietig enige ongebruikte entstof en verwyder alle entstofhouers en weggooibare entstoftoerusting na gebruik, in ooreenstemming met die Nasionale Wet op Omgewingsafval, 2008 (Wet Nr. 59 van 2008).
- Moenie riviere, damme of enige waterbronne met houers of afval besoedel nie**.**

Lokale reaksies mag voorkom by die inspuitingsplek van sommige diere. Dit sal verdwyn na 'n paar dae. Indien u ernstige reaksies opmerk wat nie in hierdie voubiljet vermeld is nie, stel asseblief u veearts in kennis.

GEBRUIKSAANWYSINGS

- **Gebruik slegs soos aangedui.**
- Dit is normaal vir **Chlamyvax** om 'n romerige laag bo-op te vorm tydens berging. **Versigtige omkering van die flessie is voldoende om al die komponente weer te vermeng voor toediening.**
- Spuit beeste, skape of bokke onderhuids, slegs aan die kant van die nek. MOENIE van die aanbevole roete en inspuitingsplek afwyk nie.
- Verseker dat alle diere ingeënt word.
- 'n Entingsdosis moet toegedien word ten minste vier weke voor die teelseisoen, 60 dae voor dragtigheid of tydens vroeë dragtigheid.
- **Chlamyvax** is veilig vir gebruik tydens alle stadiums van dragtigheid.
- Wanneer 'n uitbraak in die gesig gestaar word, mag diere voor kalwing/lamtyd ingeënt word om sodoende aborsies te voorkom. Dit sal ook dien as voorkoming van die verspreiding van die patogeniese mikro-organisme deur geïnfekteerde weefsel van dragtige diere.
- Enting tydens 'n uitbraak voorkom ook dat verse en ooie wat nog nooit ingeënt is nie (naïewe diere) nie later van tyd besmet word nie. Dit lei dus tot minder geaborteerde diere vir die volgende jaar.
- Dit is krities belangrik om alle vervangingsdiere (verse/ooie en diere wat nuut aangekoop word) in te ent.
- **Chlamyvax** mag gebruik word as 'n terapeutiese entstof wat spesifiek gemik is op die subkliniese chlamydiale infeksies wat veroorsaak word deur *C. pecorum* tydens periodes wat geassosieer word met 'n hoë risiko vir uitbraak. 'n Langtermyn beskermende effek vereis dat diere gereeld her-ingeënt moet word.

DOSIS

- **Beeste**: Spuit 1 dosis (2 mℓ) onderhuids, slegs aan die kant van die nek.
- **Skape en bokke:** Spuit 1 dosis (1 mℓ) onderhuids, slegs aan die kant van die nek.

'n Skraagdosis van die bogenoemde doserings, vir beeste, skape en bokke afsonderlik, moet 3 tot 4 weke later toegedien word.

AANBIEDING

Chlamyvax, 'n wit tot lig-pienk emulsie, word aangebied in 'n pakgrootte van 20 mℓ en 100 mℓ hoëdigtheid-poliëtileen (HDPE) flessies van natuurlike kleur, bedek met 'n goudkleurige aluminium doppie, geëtiketeer en verpak in 'n produkspesifieke buitenste kartonhouer.

REGISTRATION HOLDER

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PI/CHL/002

SCIENTIFICALLY PROVEN

Guard against **enzootic abortion, infertility & eye infections** in cattle, sheep and goats.

Chlamyvax is an inactivated bivalent vaccine for the active immunisation of healthy cattle, sheep and goats against enzootic abortion caused by *Chlamydia abortus* and a range of subclinical disease manifestations including infectious conjunctivitis, arthritis, infertility, enteritis, mastitis and reduced growth rates caused by *Chlamydia pecorum*.

VACCINATION RECOMMENDATION
HEALTHY HERD OR FLOCK

Anti- *C. abortus* vaccination

- When introducing stock, vaccinate replacement stock and all animals in the flock/herd on arrival with full dosage.
- Vaccinate breeding rams/bulls.

Anti- *C. pecorum* vaccination

- Requires therapeutic vaccination.
- Vaccinate young sheep/calves with full dosage at 3 to 4 weeks of age.

Dosage

- **Sheep and goats:** 1 mℓ subcutaneous with booster at 3 to 4 weeks.
- **Cattle:** 2 mℓ subcutaneous with booster at 3 to 4 weeks.
- Annual revaccination with full dosage.

BIOSECURITY

PLAN

- Check the source of replacement stock.
- Quarantine replacements from farm stock for 4 weeks.
- Use antibiotics only in the face of an outbreak in pregnant ewes between days 90 to 126 of pregnancy.
- *C. pecorum*: Herd management (hygiene, nutrition, reduce crowding and stress).

PREVENT

- Isolate aborting females.
- Remove and destroy aborted material.
- Remove chronic infected animals.
- Monitor animal health and productivity.
- Test for chlamydia-specific antibodies.

VACCINATION RECOMMENDATION
INFECTED HERD OR FLOCK

Anti- *C. abortus* vaccination

- Full dosage before breeding or before 90 days of gestation in ewes or before 3 months in pregnant cows.
- Vaccinate all replacement stock and breeding males.
- Vaccination offers protection, reduces abortions and shedding at the time of parturition.
- Infected animals develop an immune response that protects from abortions, however, affected animals become inapparent carriers and persistently shed the organism in subsequent births and estrus.

Anti- *C. pecorum* vaccination

- Requires therapeutic vaccination.
- Vaccinate young sheep/calves with full dosage at 3 to 4 weeks of age.

Dosage

- Administer two doses, 3 to 4 weeks apart.

AT-RISK GROUPS

- Breeding stock with prior reproductive issues.
- Test for anti-chlamydia antibodies at regular shorter intervals since chlamydiae shed intermittently, i.e. infections may be persistent resulting in ongoing reinfections.
- If Chlamydia is diagnosed, annual revaccination of breeding stock may be necessary for at least three years.

MANUFACTURER
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Tel: +27 (0) 12 349 2772

Clostrivax B

Reg. No. G4483 (Act 36/1947)

SCIENTIFICALLY PROVEN

Protection against the most deadly diseases in cattle. **Clostrivax B** is the **ONLY 9 antigen multi-clostridial formulation** that protects against **BOTULISM** in cattle and *Mannheimia haemolytica* leukotoxin that causes bovine respiratory disease.

Clostrivax B is an adjuvanted multi-component vaccine for the active immunisation of cattle against diseases caused by *Clostridium perfringens* type A (enterotoxaemia), *C. botulinum* types C and D (botulism), *C. novyi* type A (swollen head), *C. novyi* type B (black disease), *C. chauvoei* (black quarter), *C. sordellii* (sudden death syndrome), *C. septicum* (malignant oedema) and *Mannheimia haemolytica* type A1 (bovine respiratory disease).

STORAGE INSTRUCTIONS

Store in a refrigerator between 2 °C and 8 °C. Do not freeze. Protect from high temperatures and direct sunlight. Do not use after the expiry date printed on the packaging and container. Do not store any vials into which a needle or other device has been inserted, for future use.

COMPOSITION

Clostrivax B contains toxoids from *C. perfringens* type A, *C. botulinum* types C and D, *C. novyi* types A and B, *C. sordellii*, *C. septicum*, *M. haemolytica* type A1 leukotoxin and formalin-inactivated *C. chauvoei* anacultures.

WARNINGS

- DO NOT SLAUGHTER ANIMALS FOR HUMAN CONSUMPTION WITHIN 21 DAYS OF VACCINATION.
- Usually no marked reaction follows vaccination although a transient swelling may appear at the site of inoculation, and some animals may show a moderate rise of temperature for one or two days.
- Do not use in any other species other than those indicated.
- Do not administer to animals in poor or extremely poor body condition.
- KEEP THE PRODUCT OUT OF REACH OF CHILDREN, UNINFORMED PERSONS AND ANIMALS.
- If failure of this product is suspected, seek veterinary advice and notify the registration holder and the Registrar.

PRECAUTIONS

- Follow standard sterile procedures during administration of injections.
- Do not mix this product with any other vaccines or medicines.
- Avoid contact of the product with skin, eyes and mouth.
- Do not eat, drink or smoke whilst handling the product.
- Do not contaminate rivers, dams or any other water sources with containers or waste.
- Dispose of all containers and all unused contents in accordance with the local law.

DIRECTIONS FOR USE

- Use only as directed.
- Shake gently before use by inverting the vial several times.
- Use sterile needles and syringes to administer **Clostrivax B**.
- Inject cattle subcutaneously on the side of the neck. DO NOT deviate from the recommended route and injection site location.
- Calves may be vaccinated from two months of age and older.
- **Clostrivax B** is safe to use in heifers and cows in all trimesters of pregnancy or calves nursed by pregnant cows.
- Cows that have been vaccinated during the previous 12 months should be revaccinated 2 to 6 weeks before calving is due to commence. This provides passive protection to the calf, via colostrum, for up to 8 weeks.

DOSAGE

- 2 mℓ via the subcutaneous route.
- A booster vaccination of 2 mℓ should be administered 3 to 4 weeks later. Annual revaccination is recommended thereafter.

PRESENTATION

Clostrivax B, a light brown to amber liquid with an off-white sediment if left to settle, is presented in a pack size of a 100 mℓ and 500 mℓ high density polyethylene (HDPE) vial of natural colour, capped with a gold coloured aluminium cap with two-bridge tabs, labelled and packed in a product-specific outer cardboard carton.

Clostrivax B is 'n multi-komponent entstof vir die aktiewe immunisering van beeste teen siektes wat veroorsaak word deur *Clostridium perfringens* tipe A (enterotoksemie), *C. botulinum* tipes C en D (lamsiekte), *C. novyi* tipe A (dikkop), *C. novyi* tipe B (aansteeklike nekrotiese hepatitis), *C. chauvoei* (sponssiekte), *C. sordellii* (skielike dood sindroom), *C. septicum* (kwaadaardige edeem) en *M. haemolytica* tipe A1 (bees respiratoriese siekte).

BERGINGSAANWYSINGS
Bêre in 'n yskas tussen 2 °C en 8 °C. Moenie vries nie. Beskerm teen hoë temperature en direkte sonlig. Moenie gebruik na die vervaldatum wat op die verpakking en houer gedruk is nie. Moenie houers waarin 'n naald of ander toestel aangebring is, vir toekomstige gebruik bêre nie.

SAMESTELLING
Clostrivax B bevat toksoïede van *C. perfringens* tipe A, *C. botulinum* tipes C en D, *C. novyi* tipes A en B, *C. sordellii*, *C. septicum*, *M. haemolytica* tipe A1 leukotoksien en formalien-geïnaktiveerde *C. chauvoei* anakultuur.

WAARSKUWINGS
- MOENIE DIERE BINNE 21 DAE NA INENTING VIR MENSLIKE VERBRUIK SLAG NIE.
- Normaalweg volg geen merkbare reaksie op inenting nie, alhoewel 'n kortstondige swelling op die plek van inenting kan voorkom, en sommige diere 'n matige styging in temperatuur vir een of twee dae kan toon.
- Moenie in ander spesies anders as die aangeduide spesies gebruik nie.
- Moenie toegedien word aan diere in 'n swak of uiters swak liggaamskondisie nie.
- HOU DIE PRODUK BUITE BEREIK VAN KINDERS, ONINGELIGTE PERSONE EN DIERE.
- Indien dit vermoed word dat die produk oneffektief is, raadpleeg 'n veearts en verwittig die registrasiehouer en Registrateur.

VOORSORGMAATREËLS
- Volg standaard steriele prosedures tydens toediening van inspuitings.
- Moenie hierdie produk met enige ander entstof of medisyne meng nie.
- Vermy kontak met die vel, oë en mond.
- Moenie eet, drink of rook tydens die hantering van die produk nie.
- Moenie riviere, damme of waterbronne met houers of afval besoedel nie.
- Gooi alle leë houers en alle ongebruikle inhoud volgens die plaaslike wetgewing weg.

GEBRUIKSAANWYSINGS
- Gebruik slegs soos aangedui.
- Meng die houer goed voor en tydens gebruik deur dit 'n paar keer om te keer.
- Gebruik steriele naalde en spuite om **Clostrivax B** toe te dien.
- Spuit beeste onderhuids aan die kant van die nek. MOENIE van die aanbevole roete en inspuitplek afwyk nie.
- Kalwers kan ingeënt word vanaf 2 maande ouderdom en ouer.
- **Clostrivax B** is veilig vir die gebruik in verse en koeie in alle trimesters van dragtigheid, of kalwers wat drink aan dragtige koeie.
- Koeie wat binne die vorige 12 maande ingeënt was moet 2 tot 6 weke voor kalf weer ingeënt word. Dit bied die kalf tot 8 weke passiewe beskerming via die biesmelk.

DOSIS
- 2 mℓ via die onderhuidse roete.
- 'n Skraagdosis van 2 mℓ moet 3 tot 4 weke later toegedien word. Daar word daarna 'n jaarlikse herinenting aanbeveel.

AANBIEDING
Clostrivax B, 'n ligbruin tot amber vloeistof met 'n wit sediment, word aangebied in 'n pakgrootte van 'n 100 mℓ en 500 mℓ hoëdigtheid-poliëtileen (HDPE) houer van natuurlike kleur, bedek met 'n goudkleurige aluminium doppie, geëtiketteer en verpak in 'n produkspesifieke buitenste karton.

REGISTRATION HOLDER
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MANUFACTURER
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PI/CB/002

CLOSTRIDIAL DISEASES

Are you diagnosing & vaccinating correctly?

Crucial information in protecting your herd against a specific, diagnosed Clostridial Disease.

NO SUPPORTING EVIDENCE OF **ISOLATION OR TYPING OF *C. PERFRINGENS* TYPE B OR TYPE C IN LAST 30 YEARS**

Evidence from **actual isolates from suspected cases** shows that there has been **no isolation or typing of** *C. perfringens* type B or C in the last 30 years.
(Ref: *Dr Henton*)

PROTECTION AGAINST THE MOST COMMON TOXIGENIC STRAINS IS KEY TO YOUR VACCINE PROGRAM.

- Why vaccinate against diseases that are not prevalent in your farm?
- Don't incorrectly vaccinate animals if the disease only occurs (rarely) in lambs 0-14 days only.

IT IS IMPORTANT TO HIGHLIGHT THAT UTILISING DATA FROM REPORTED CASES IS NOT SUFFICIENT TO MAKE A CORRECT RISK ASSESSMENT BECAUSE *C. PERFRINGENS* TYPE B IS OFTEN MISDIAGNOSED PURELY ON CLINICAL OBSERVATIONS.

VALUATION OF MOLECULAR TYPING OF *C. PERFRINGENS* TYPES SUBMITTED TO ARC-OVI: JAN 2009 – NOV 2009

87.9%	0%	0%	12.1%
C. perfringens TYPE A	*C. perfringens* TYPE B	*C. perfringens* TYPE C	*C. perfringens* TYPE D

NO SAMPLES WERE IDENTIFIED AS POSITIVE FOR SEROTYPE B OR SEROTYPE C DURING THE 10 MONTH EVALUATION PERIOD.

The isolates were isolated from various animal species and characterised by PCR that targeted alpha, beta epsilon and iota genes. Reference strains for *C. perfringens* types A, B, C and D were used as control samples. During the 10 month evaluation period, 58 samples positively identified as *Clostridium perfringens* were submitted.

(Madoroba, E., Gelaw, A. K., Hlokwe, T. and Mnisi, M. S. 2010. Molecular typing of *Clostridium perfringens* types among animals in South Africa. Proceedings of the 9th annual congress, Southern African Society for Veterinary Epidemiology and Preventative Medicine, p18-20).

THE DIFFERENCE BETWEEN CLINICAL OBSERVATIONS DIAGNOSIS BY VETS* **VS** VETDIAGNOSTIX ISOLATION & TYPING

C. perfringens TYPE B					*C. perfringens* TYPE C				
6 CLINICAL DIAGNOSES	9 CLINICAL DIAGNOSES	14 CLINICAL DIAGNOSES	9 CLINICAL DIAGNOSES	6 CLINICAL DIAGNOSES	0 CLINICAL DIAGNOSES	0 CLINICAL DIAGNOSES	0 CLINICAL DIAGNOSES	0 CLINICAL DIAGNOSES	0 CLINICAL DIAGNOSES
0 ISOLATION & TYPED	0 ISOLATION & TYPED	0 ISOLATION & TYPED	0 ISOLATION & TYPED	0 ISOLATION & TYPED	0 ISOLATION & TYPED	0 ISOLATION & TYPED	0 ISOLATION & TYPED	0 ISOLATION & TYPED	0 ISOLATION & TYPED
2019	2020	2021	2022	2023	2019	2020	2021	2022	2023

Far less clinical diagnoses made by vets reported between 2019 – 2023.

* Reference: Vet Network

IS YOUR HERD AT RISK?

Send samples from affected animals for **isolation and typing to VetDiagnostix** (Dr M. Henton) to support the diagnosis with **isolation and typing the correct serotype.**

Design Biologix

Clostrivax B+

Reg. No. G4484 (Act 36/1947)

SCIENTIFICALLY PROVEN

Extra protection against the most deadly diseases in cattle. **Clostrivax B+** is the **ONLY 10 antigen multi-clostridial formulation** that protects against **ANTHRAX & BOTULISM** in cattle and *Mannheimia haemolytica* leukotoxin that causes bovine respiratory disease.

INDICATIONS

Clostrivax B+ is an adjuvanted multi-component vaccine for the active immunisation of cattle against diseases caused by *Clostridium perfringens* type A (enterotoxaemia, gas gangrene, sudden death syndrome), *C. botulinum* types C and D (botulism), *C. novyi* type A (swelled head), *C. novyi* type B (black disease, infectious necrotic hepatitis), *C. chauvoei* (black leg, black quarter), *C. sordellii* (sudden death syndrome), *C. septicum* (malignant oedema, braxy), *Mannheimia haemolytica* type A1 (pneumonia) and *Bacillus anthracis* (anthrax).

Anthrax is a controlled disease in terms of the Animal Diseases Act (Act No. 35 of 1984) and any suspicion or confirmation of the disease must be reported to the responsible state veterinarian immediately.

COMPOSITION PER DOSE (2 mℓ)

Clostrivax B+ contains toxoids from *C. perfringens* type A, *C. botulinum* types C and D, *C. novyi* types A and B, *C. sordellii*, *C. septicum*, *M. haemolytica* type A1 leukotoxin, formalin-inactivated *C. chauvoei* anacultures and live uncapsulated avirulent spores of *B. anthracis* Sterne 34F2.

STORAGE INSTRUCTIONS

Store and transport refrigerated (between 2 °C and 8 °C).
Do not freeze. Protect from high temperatures and sunlight during vaccination. Do not use after the expiry date printed on the label and/or carton. Use immediately after opening the vial.

WARNINGS

- **WITHDRAWAL PERIOD:** DO NOT SLAUGHTER ANIMALS FOR HUMAN CONSUMPTION WITHIN 21 DAYS OF VACCINATION.
- Vaccinate healthy animals only.
- Do NOT mix with any other vaccine or immunological product. No information is available on the compatibility of **Clostrivax B+** with any other vaccine or medication.
- Care should be taken to avoid direct contact with the product, to prevent self-injection, or contamination of the eyes or skin. **If contact occurs, rinse affected area repeatedly with clean water.** Medical advice should be sought in the event of accidental exposure.
- Do not over- or under-dose the vaccine.
- Usually no marked reaction follows vaccination, although a transient swelling may appear at the site of inoculation and some animals may show a moderate rise of temperature for one or two days.
- Ensure that marketed animals do not have local reactions (swellings) at the site of vaccine administration, or elevated temperature reactions (fever) as this may result in the condemnation of the carcasses.
- Use the entire contents of the vial once opened.
- Do not use in animal species other than those indicated.
- Do not administer to animals in poor or extremely poor body condition.
- Do not inject intravenously.
- KEEP THE PRODUCT OUT OF REACH OF CHILDREN, UNINFORMED PERSONS AND ANIMALS.
- Although this product 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.
- **Simultaneous administration of antibiotics to vaccinated animals is contraindicated as the antibiotic will interfere with the vaccine.**
- **Antibiotics should not be given for several days before and after vaccination.**
- **Clostrivax B+** is safe to use in heifers and cows in all trimesters of pregnancy or calves nursing from pregnant cows.

PRECAUTIONS

- Follow aseptic procedures. Clean and sterilise all vaccination equipment (containers, syringes and needles), prior to and during use to prevent contaminating the contents of the vial.

- Do not use the contents of damaged vials.
- Wear protective clothing, masks, gloves etc. according to hazard standards.
- Avoid contact of the product with skin, eyes and mouth.
- Do not eat, drink or smoke whilst handling the product.
- Do not store partially used vials and dispose of all containers and disposable equipment after use, in accordance with the National Environmental Management: Waste Act (Act No. 59 of 2008).
- Do not contaminate rivers, dams or any water sources with containers or waste.
- Local reactions may occur in some animals at the injection site. They will disappear after a few days. If you notice any serious effects not mentioned in this package insert, please inform your veterinarian.
- Wash and disinfect hands with a disinfectant after vaccination.

DIRECTIONS FOR USE
- **Use only as directed.**
- **Please consult with your veterinarian before use.**
- Simple inversion of the vial prior to and during use is adequate to mix all components.
- Inject cattle subcutaneously on the side of the neck. DO NOT deviate from the recommended route and injection site location.
- Animals must receive a full vaccination schedule before the period of highest risk.
- Ensure that all animals are vaccinated.
- It is essential to adhere to the vaccination programme to maintain a satisfactory immune response.
- Calves may be vaccinated from 2 months of age and older.
- Cows that were vaccinated in the past 12 months must be vaccinated 2 to 6 weeks before calving is due to commence. This provides passive protection to the calf, via colostrum, for up to 8 weeks.
- Revaccinate annually with a single dose (2 mℓ).

DOSAGE
- Administer a single dose (2 mℓ) subcutaneously, on the side of the neck only. DO NOT deviate from the recommended route and injection site location.
- A booster dose of 2 mℓ is required 3 to 4 weeks later, with either **Clostrivax B+** or **Clostrivax B**.
- Vaccination and booster must be completed 2 months prior to the outbreak season.

PRESENTATION
Clostrivax B+, a light brown to amber liquid with an off-white sediment if left to settle, is presented in pack sizes of 100 mℓ and 500 mℓ translucent high density polyethylene (HDPE) vials capped with a gold-coloured aluminium cap with a two-bridge tab, labelled and packed in a product-specific outer cardboard carton.

INDIKASIES
Clostrivax B+ is 'n multi-komponent entstof vir die aktiewe immunisering van beeste teen siektes wat veroorsaak word deur *Clostridium perfringens* tipe A (enterotoksemie, gasgangreen, skielike dood sindroom), *C. botulinum* tipes C en D (lamsiekte), *C. novyi* tipe A (dikkop), *C. novyi* tipe B (aansteeklike nekrotiese hepatitis), *C. chauvoei* (sponssiekte), *C. sordellii* (skielike dood sindroom), *C. septicum* (kwaadaardige edeem), *Mannheimia haemolytica* tipe A1 (bees respiratoriese siekte) en *Bacillus anthracis* (miltsiekte).

Miltsiekte is 'n beheerde siekte ingevolge die Wet op Dieresiektes (Wet No. 35 van 1984) en enige vermoede of bevestiging van die siekte moet onmiddellik by die verantwoordelike staatsveearts aangemeld word.

SAMESTELLING PER DOSIS (2 mℓ)
Clostrivax B+ bevat toksoïede van *C. perfringens* tipe A, *C. botulinum* tipes C en D, *C. novyi* tipes A en B, *C. sordellii*, *C. septicum*, *M. haemolytica* tipe A1 leukotoksien formalien-geïnaktiveerde *C. chauvoei* anakultuur en lewendige ongekapsuleerde avirulente spore van *B. anthracis* Sterne 34F2.

BERGINGSAANWYSINGS
Bêre in 'n yskas en verkoel tydens vervoer (tussen 2 °C en 8 °C). Moenie vries nie. Beskerm teen hoë temperature en sonlig tydens inenting. Moenie gebruik na die vervaldatum wat op die entstofhouer gedruk is nie. Gebruik onmiddelik nadat die entstofhouer oopgemaak is.

WAARSKUWINGS
- **ONTTREKKINGSPERIODE:** MOENIE DIERE BINNE 21 DAE NA INENTING VIR MENSLIKE VERBRUIK SLAG NIE.
- Slegs gesonde diere moet ingeënt word.
- MOENIE met enige ander entstof of enige ander immunologiese produk meng nie. Geen informasie is beskikbaar in verband met die gebruik van **Clostrivax B+** met enige ander entstof of medisyne nie.
- Voorsorg moet getref word om direkte kontak met die produk, self-inspuiting, of kontak van die oë of vel te voorkom. **Indien kontak plaasvind, spoel die geaffekteerde area herhaaldelik met skoon water af.** Verkry mediese advies in die geval van toevallige blootstelling aan die produk.
- Moenie die entstof oor- of onderdoseer nie.
- Normaalweg volg geen merkbare reaksie na inenting nie, alhoewel kortstondige swelling op die plek van inenting kan voorkom en sommige diere 'n matige styging in temperatuur vir een of twee dae kan toon.
- Verseker dat diere wat bemark word geen lokale reaksies (swelling) by die entstof toedieningsplek of verhoogde liggaamstemperatuur (koorsreaksie) toon nie, aangesien dit kan lei tot afkeur van karkasse.
- Gebruik die volle inhoud van 'n entstofhouer sodra dit oopgemaak word.
- Moenie in diere anders as die aangeduide spesie gebruik word nie.
- Moenie toegedien word aan diere in 'n swak of uiters swak liggaamskondisie nie.
- Moenie binneaars toegedien word nie.
- HOU DIE PRODUK BUITE BEREIK VAN KINDERS, ONINGELIGTE PERSONE EN DIERE.

- Alhoewel hierdie produk breedvoerig onder 'n wye verskeidenheid van toestande getoets is, mag dit faal as gevolg van verskeie redes. Indien vermoed word dat die produk gefaal het, raadpleeg 'n veearts en verwittig die Registrasiehouer.
- **Gelyktydige toediening van antibiotika aan ingeënte diere is teenaangedui aangesien die antibiotika met die entstof sal inmeng.**
- **Antibiotika moet nie vir 'n paar dae voor en na inenting gegee word nie.**
- **Clostrivax B+** is veilig vir die gebruik in verse en koeie in alle trimesters van dragtigheid, of kalwers wat drink aan dragtige koeie.

VOORSORGMAATREËLS
- Volg aseptiese prosedures. Maak alle inentingstoerusting (houers, spuite en naalde) skoon en steriliseer dit voor en tydens gebruik om te voorkom dat die inhoud van die entstofhouer besmet word.
- Moenie die inhoud van beskadigde entstofhouers gebruik nie.
- Dra beskermende klere, maskers, handskoene, ens. in lyn met die standaarde vir gevaarlike middels.
- Vermy kontak van die produk met die vel, oë en mond.
- Moenie eet, drink of rook tydens hantering van die produk nie.
- Moenie gedeeltelik gebruikte enstofhouers bêre nie. Verwyder entstofhouers en entstoftoerusting na gebruik, in ooreenstemming met die Nasionale Omgewingsbestuur: Wet op Afval (Wet 59 van 2008).
- Moenie riviere, damme of enige waterbronne met entstofhouers of afval besoedel nie.
- Lokale reaksies mag voorkom by die inspuitingsplek van sommige diere. Dit sal verdwyn na 'n paar dae. Indien u ernstige reaksies opmerk wat nie in hierdie voubiljet vermeld is nie, stel asseblief u veearts in kennis.
- Was en ontsmet hande met 'n ontsmettingsmiddel na enting van diere.

GEBRUIKSAANWYSINGS
- **Gebruik slegs soos aangedui.**
- **Raadpleeg asseblief u veearts voor gebruik.**
- Vermeng die entstof voor en tydens gebruik deur versigtige omkering van die entstofhouer.
- Spuit beeste onderhuids, slegs aan die kant van die nek. MOENIE afwyk van die aanbevole roete en inspuitingsarea nie.
- 'n Volledige inentingsprogram moet voltooi word voor die tydperk van die hoogste risiko.
- Verseker dat alle diere ingeënt word.
- Dit is noodsaaklik om die inentingsprogram te volg om 'n bevredigende immuunresponse te handhaaf.
- Kalwers kan ingeënt word vanaf 'n ouderdom van 2 maande en ouer.
- Koeie wat binne die vorige 12 maande ingeënt was moet 2 tot 6 weke voor kalf weer ingeënt word. Dit bied die kalf tot 8 weke passiewe beskerming via die biesmelk.
- Herhaal jaarliks met 'n enkele dosis (2 mℓ).

DOSIS
- Dien 'n enkele dosis (2 mℓ) onderhuids toe, slegs aan die kant van die nek. MOENIE afwyk van die aanbevole roete en inspuitingsarea nie.
- 'n Skraagdosis van 2 mℓ moet 3 tot 4 weke later toegedien word, met **Clostrivax B+** of **Clostrivax B**.
- Inenting en skraagdosis moet 2 maande voor die uitbraakseisoen toegedien wees.

AANBIEDING
Clostrivax B+, 'n ligbruin tot amber vloeistof met 'n afwit sediment, word aangebied in pakgroottes van 100 mℓ en 500 mℓ deurskynende hoëdigtheid-poliëtileen (HDPE) entstofhouers, bedek met 'n goudkleurige aluminium doppie met 'n twee-brug lip, geëtiketteer en verpak in 'n produkspesieke buitenste kartonhouer.

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PI/CBP/002

SCIENTIFICALLY PROVEN

Extra protection against the most deadly diseases in cattle

Clostrivax B+

Reg. No. G4484 (Act 36/1947)

A **10-antigen multi-clostridial formulation** that **protects against ANTHRAX & BOTULISM** in cattle and *Mannheimia haemolytica* leukotoxin that **causes bovine respiratory disease**.

An adjuvanted multi-component vaccine for the active immunisation of cattle against diseases caused by *Clostridium perfringens* type A (enterotoxaemia, gas gangrene, sudden death syndrome), *C. botulinum* types C and D (botulism), *C. novyi* type A (swelled head), *C. novyi* type B (black disease, infectious necrotic hepatitis), *C. chauvoei* (black leg, black quarter), *C. sordellii* (sudden death syndrome), *C. septicum* (malignant oedema, braxy), *Mannheimia haemolytica* type A1 (pneumonia) and *Bacillus anthracis* (anthrax).

Registration Holder
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Manufacturer
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Design Biologix

Clostrivax O

Reg. No. G4487 (Act 36/1947)

SCIENTIFICALLY PROVEN

Protection against the most deadly diseases in sheep. **Clostrivax O** is a **9 antigen multi-clostridial formulation** that protects against the veterinary important **clostridial diseases** and **pneumonia** in sheep.

Clostrivax O is an adjuvanted multi-component vaccine for the active immunisation of sheep against diseases caused by *Clostridium perfringens* type A (enterotoxaemia, gas gangrene, sudden death syndrome), *C. perfringens* type D (enterotoxaemia, pulpy kidney), *C. tetani* (tetanus), *C. novyi* type A (swelled head), *C. novyi* type B (black disease, infectious necrotic hepatitis), *C. chauvoei* (black leg, black quarter), *Bibersteinia trehalosi* (pasteurellosis, septicaemia), *C. septicum* (malignant oedema, braxy) and *Mannheimia haemolytica* type A1 (respiratory disease).

COMPOSITION PER DOSE (2 mℓ)

Clostrivax O contains toxoids from *C. perfringens* type A and D, *C. tetani, C. novyi* types A and B, *C. septicum, M. haemolytica* type A1 leukotoxin, formalin inactivated *C. chauvoei* and *B. trehalosi* anacultures.

STORAGE INSTRUCTIONS

Store and transport refrigerated (between 2 °C and 8 °C).
Do not freeze. Protect from high temperatures and sunlight during vaccination. Do not use after the expiry date printed on the label and/or carton. Use immediately after opening the vial.

WARNINGS

- **WITHDRAWAL PERIOD:** DO NOT SLAUGHTER ANIMALS FOR HUMAN CONSUMPTION WITHIN 21 DAYS OF VACCINATION.
- Vaccinate healthy animals only.
- Do NOT mix with any other vaccine or immunological product. No information is available on the compatibility of **Clostrivax O** with any other vaccine or medication.
- Care should be taken to avoid direct contact with the product, to prevent self-injection, or contamination of the eyes or skin. **If contact occurs, rinse affected area repeatedly with clean water.** Medical advice should be sought in the event of accidental exposure.
- Do not over- or under-dose the vaccine.
- Usually no marked reaction follows vaccination, although a transient swelling may appear at the site of inoculation and some animals may show a moderate rise of temperature for one or two days.
- Ensure that marketed animals do not have local reactions (swellings) at the site of vaccine administration, or elevated temperature reactions (fever) as this may result in the condemnation of the carcasses.
- Use the entire contents of the vial once opened.
- Do not use in animal species other than those indicated.
- Do not administer to animals in poor or extremely poor body condition.
- Do not inject intravenously.
- KEEP THE PRODUCT OUT OF REACH OF CHILDREN, UNINFORMED PERSONS AND ANIMALS.
- Although this product 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.
- **Clostrivax O** is safe to use in ewes in all trimesters of pregnancy or lambs nursing from pregnant ewes.

PRECAUTIONS

- Follow aseptic procedures. Clean and sterilise all vaccination equipment (containers, syringes and needles) prior to and during use to prevent contaminating the contents of the vial.
- Do not use the contents of damaged vials.
- Wear protective clothing, masks, gloves etc. according to hazard standards.
- Avoid contact of the product with skin, eyes and mouth.
- Do not eat, drink or smoke whilst handling the product.
- Do not store partially used vials and dispose of all containers and disposable equipment after use, in accordance with the National Environmental Management: Waste Act (Act No. 59 of 2008).
- Do not contaminate rivers, dams or any water sources with containers or waste.

- Local reactions may occur in some animals at the injection site. They will disappear after a few days. If you notice any serious effects not mentioned in this package insert, please inform your veterinarian.

DIRECTIONS FOR USE

- **Use only as directed.**
- **Please consult with your veterinarian before use.**
- Simple inversion of the vial prior to and during use is adequate to mix all components.
- Inject sheep subcutaneously on the side of the neck. DO NOT deviate from the recommended route and injection site location.
- Animals must receive a full vaccination schedule before the period of highest risk.
- Ensure that all animals are vaccinated.
- It is essential to adhere to the vaccination programme to maintain a satisfactory immune response.
- Sheep may be vaccinated from the age of 2 months and older.
- Ewes that have been vaccinated during the previous 12 months must be vaccinated 2 to 6 weeks before lambing is due to commence. This provides passive protection to the lamb, via colostrum, for up to 8 weeks.
- Revaccinate annually with a single dose (2 mℓ).

DOSAGE

- Administer a single dose (2 mℓ) subcutaneously, on the side of the neck only. DO NOT deviate from the recommended route and injection site location.
- A booster dose of 2 mℓ is required 3 to 4 weeks later.
- Vaccination and booster must be completed 2 months prior to the outbreak season.

PRESENTATION

Clostrivax O, a light-brown to amber liquid with an off-white sediment if left to settle, is presented in pack sizes of 100 mℓ and 500 mℓ translucent high density polyethylene (HDPE) vials capped with a gold-coloured aluminium cap with a two-bridge tab, labelled and packed in a product-specific outer cardboard carton.

INDIKASIES

Clostrivax O is 'n adjuvant multi-komponent entstof vir die aktiewe immunisering van skape teen siektes wat veroorsaak word deur *Clostridium perfringens* tipe A (enterotoksemie, gasgangreen, skielike dood sindroom), *C. perfringens* tipe D (enterotoksemie, bloednier), *C. tetani* (klem-in-die-kaak), *C. novyi* tipe A (dikkop), *C. novyi* tipe B (aansteeklike nekrotiese hepatitis), *C. chauvoei* (sponssiekte), *Bibersteinia trehalosi* (pasteurellose, septisemie), *C. septicum* (kwaadaardige edeem) en *Mannheimia haemolytica* tipe A1 (respiratoriese siekte).

SAMESTELLING PER DOSIS (2 mℓ)

Clostrivax O bevat toksoïede van *C. perfringens* tipes A en D, *C. tetani*, *C. novyi* tipes A en B, *C. septicum, M. haemolytica* tipe A1 leukotoksien, formalien-geïnaktiveerde *C. chauvoei* en *B. trehalosi* anakulture.

BERGINGSAANWYSINGS

Bêre in 'n yskas en verkoel tydens vervoer (tussen 2 °C en 8 °C). Moenie vries nie. Beskerm teen hoë temperature en sonlig tydens inenting. Moenie gebruik na die vervaldatum wat op die entstofhouer gedruk is nie. Gebruik onmiddelik nadat die entstofhouer oopgemaak is.

WAARSKUWINGS

- **ONTTREKKINGSPERIODE:** MOENIE DIERE BINNE 21 DAE NA INENTING VIR MENSLIKE VERBRUIK SLAG NIE.
- Slegs gesonde diere moet ingeënt word.
- MOENIE met enige ander entstof of enige ander immunologiese produk meng nie. Geen informasie is beskikbaar in verband met die gebruik van **Clostrivax O** met enige ander entstof of medisyne nie.
- Voorsorg moet getref word om direkte kontak met die produk, self-inspuiting, of kontak van die oë of vel te voorkom. **Indien kontak plaasvind, spoel die geaffekteerde area herhaaldelik met skoon water af.** Verkry mediese advies in die geval van toevallige blootstelling aan die produk.
- Moenie die entstof oor- of onderdoseer nie.
- Normaalweg volg geen merkbare reaksie na inenting nie, alhoewel kortstondige swelling op die plek van inenting kan voorkom en sommige diere 'n matige styging in temperatuur vir een of twee dae kan toon.
- Verseker dat diere wat bemark word geen lokale reaksies (swelling) by die entstof toedieningsplek of verhoogde liggaamstemperatuur (koorsreaksie) toon nie, aangesien dit kan lei tot afkeur van karkasse.
- Gebruik die volle inhoud van 'n entstofhouer sodra dit oopgemaak word.
- Moenie in diere anders as die aangeduide spesie gebruik word nie.
- Moenie toegedien word aan diere in 'n swak of uiters swak liggaamskondisie nie.
- Moenie binneaars toegedien word nie.
- HOU DIE PRODUK BUITE BEREIK VAN KINDERS, ONINGELIGTE PERSONE EN DIERE.
- Alhoewel hierdie produk breedvoerig onder 'n wye verskeidenheid van toestande getoets is, mag dit faal as gevolg van verskeie redes. Indien vermoed word dat die produk gefaal het, raadpleeg 'n veearts en verwittig die Registrasiehouer.
- **Clostrivax O** is veilig vir gebruik in ooie tydens alle trimesters van dragtigheid, of by lammers wat drink aan dragtige ooie.

VOORSORGMAATREËLS

- Volg aseptiese prosedures. Maak alle inentingstoerusting (houers, spuite en naalde) skoon en steriliseer dit voor en tydens gebruik om te voorkom dat die inhoud van die entstofhouer besmet word.
- Moenie die inhoud van beskadigde entstofhouers gebruik nie.
- Dra beskermende klere, maskers, handskoene, ens. in lyn met die standaarde vir gevaarlike middels.
- Vermy kontak van die produk met die vel, oë en mond.
- Moenie eet, drink of rook tydens hantering van die produk nie.
- Moenie gedeeltelik gebruikte enstofhouers bêre nie. Verwyder entstofhouers en entstoftoerusting na gebruik, in ooreenstemming met die Nasionale Omgewingsbestuur: Wet op Afval (Wet 59 van 2008).

- Moenie riviere, damme of enige waterbronne met entstofhouers of afval besoedel nie.
- Lokale reaksies mag voorkom by die inspuitingsplek van sommige diere. Dit sal verdwyn na 'n paar dae. Indien u ernstige reaksies opmerk wat nie in hierdie voubiljet vermeld is nie, stel asseblief u veearts in kennis.

GEBRUIKSAANWYSINGS

- **Gebruik slegs soos aangedui.**
- **Raadpleeg asseblief u veearts voor gebruik.**
- Vermeng die entstof voor en tydens gebruik deur versigtige omkering van die entstofhouer.
- Spuit skape onderhuids, slegs aan die kant van die nek. MOENIE afwyk van die aanbevole roete en inspuitingsarea nie.
- 'n Volledige inentingsprogram moet voltooi word voor die tydperk van die hoogste risiko.
- Verseker dat alle diere ingeënt word.
- Dit is noodsaaklik om die inentingsprogram te volg om 'n bevredigende immuunresponse te handhaaf.
- Skape mag vanaf die ouderdom van 2 maande en ouer ingeënt word.
- Ooie wat binne die vorige 12 maande ingeënt was, moet 2 tot 6 weke voor lamtyd weer ingeënt word. Dit bied die lam tot 8 weke passiewe beskerming via die biesmelk.
- Herhaal jaarliks met 'n enkele dosis (2 mℓ).

DOSIS

- Dien 'n enkele dosis (2 mℓ) onderhuids toe, slegs aan die kant van die nek. MOENIE afwyk van die aanbevole roete en inspuitingsarea nie.
- 'n Skraagdosis van 2 mℓ moet 3 tot 4 weke later toegedien word.
- Inenting en skraagdosis moet 2 maande voor die uitbraakseisoen toegedien wees.

AANBIEDING

Clostrivax O, 'n ligbruin tot amberkleurige vloeistof met 'n afwit sediment, word aangebied in pakgroottes van 100 mℓ en 500 mℓ deurskynende hoëdigtheid-poliëtileen (HDPE) entstofhouers, bedek met 'n goudkleurige aluminium doppie met 'n twee-brug lip, geëtiketteer en verpak in 'n produkspesifieke buitenste kartonhouer..

REGISTRATION HOLDER
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MANUFACTURER
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PI/CO/004

SCIENTIFICALLY PROVEN

Protection against the most deadly diseases in sheep

Clostrivax O

Reg. No. G4487 (Act 36/1947)

A **9-antigen multi-clostridial formulation** that **protects against** the veterinary important **clostridial diseases** and **pneumonia in sheep**.

An adjuvanted multi-component vaccine for the active immunisation of sheep against diseases caused by *Clostridium perfringens* type A (enterotoxaemia), *C. perfringens* type D (pulpy kidney), *C. tetani* (tetanus), *C. novyi* type A (swelled head), *C. novyi* type B (black disease), *C. chauvoei* (black quarter), *C. septicum* (malignant oedema), *Bibersteinia trehalosi* (pasteurellosis) and *Mannheimia haemolytica* type A1 (pasteurellosis).

Ram image courtesy of Lionel and Jean De La Harpe and Dohne Merino

Registration Holder
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Design Biologix

Enterotect P

Reg. No. G4256 (Act 36/1947)

SCIENTIFICALLY PROVEN

Enterotect P is a vaccine that aids in the **prevention of sheep and goat pneumonia (Pasteurellosis).**

INDICATIONS

Enterotect P is used for vaccinating healthy sheep and goats as an aid in preventing pneumonic pasteurellosis caused by *Mannheimia haemolytica*, enterotoxaemia caused by *Clostridium perfringens* Type A and pulpy kidney caused by *Clostridium perfringens* Type D.

Enterotect P is safe for use in pregnant animals and maternal antibodies are transferred to newborns through the intake of immune colostrum within 48 hours after birth.

COMPOSITION

Alum-precipitated suspensions of *M. haemolytica* leukotoxin with inactivated *C. perfringens* Type A (alpha toxoid) and *C. perfringens* Type D (epsilon toxoid) for use in sheep and goats.

STORAGE

- Store in a refrigerator between 2 °C to 8 °C.
- Do not freeze.
- Protect from high temperatures and sunlight during vaccination.
- Do not use **Enterotect P** after the expiry date printed on the container.

WARNINGS

- **Withdrawal period**: Animals should not be slaughtered for human consumption within 21 days of vaccination.
- Vaccinate healthy animals only.
- Use the entire contents of the vial once opened.
- Discard any empty containers and any unused contents in accordance with local waste disposal regulations.
- KEEP OUT OF REACH OF CHILDREN, UNINFORMED PERSONS AND ANIMALS.
- 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.

DIRECTIONS FOR USE

Use only as directed. Shake gently and thoroughly by end over end mixing before and during use. Use sterile needles and syringes only. Do not use chemical sterilisation as traces of disinfectant may negatively affect the vaccine. Do not mix **Enterotect P** with any other vaccines or substances.

DOSAGE

Administer a single 1 mℓ dose subcutaneously in healthy sheep and goats followed by a second dose 4 to 6 weeks later. The booster vaccination is very important for the development of immunity.

PRESENTATION

Natural white, see-through, high-density polyethylene (HDPE) 20 mℓ and 100 mℓ vials closed with gold coloured aluminium combination seals.

INDIKASIES

Enterotect P word gebruik vir die inenting van gesonde skape en bokke as 'n hulpmiddel in die voorkoming van pneumoniese pasteurellose wat veroorsaak word deur *Mannheimia haemolytica*, enterotoksemie (rooiderm) veroorsaak deur *Clostridium perfringens* Tipe A en bloednier veroorsaak deur *Clostridium perfringens* Tipe D.

Enterotect P is veilig vir gebruik in dragtige diere en moederteenliggaampies word binne 48 uur na geboorte oorgedra aan pasgeborenes deur die inname van kolostrum.

SAMESTELLING

Aluin-gepresipiteerde suspensie van *M. haemolytica* leukotoksien met geïnaktiveerde *C. perfringens* Tipe A (alfa toksoïed) en *C. perfringens* Tipe D (epsilon toksoïed) vir gebruik in skape en bokke.

BERGING

- Bêre in 'n yskas tussen 2 °C en 8 °C.
- Moenie vries nie.
- Vermy blootstelling aan hoë temperature en direkte sonlig gedurende enting.

- Moenie **Enterotect P** gebruik na die vervaldatum wat op die bottel gedruk is nie.

WAARSKUWINGS
- **Onttrekkingsperiode**: Diere moenie binne 21 dae na enting vir menslike verbruik geslag word nie.
- Ent slegs gesonde diere.
- Moenie ongebruikte entstof berg vir latere gebruik nie.
- Vernietig alle leë houers en ongebruikte vloeistof volgens plaaslike afvalbestuursregulasies.
- HOU BUITE DIE BEREIK VAN KINDERS, ONINGELIGTE PERSONE EN DIERE.
- Alhoewel hierdie entstof breedvoerig onder 'n wye verskeidenheid van toestande getoets is, mag dit faal as gevolg van verskeie redes. Indien dit vermoed word, raadpleeg 'n veearts en verwittig die registrasiehouer.

GEBRUIKSAANWYSINGS
Gebruik slegs soos aangedui. Skud liggies en meng deeglik voor en tydens gebruik deur die flessie 'n paar keer onderstebo en terug te dop. Gebruik slegs steriele naalde en spuite. Moenie chemiese sterilisasie gebruik nie, aangesien spore van ontsmettingsmiddels die entstof negatief kan beïnvloed. Moenie **Enterotect P** met ander entstowwe of middels meng nie.

DOSIS
Dien 'n enkele 1 mℓ dosis onderhuids toe in gesonde skape en bokke, gevolg deur 'n tweede dosis 4 tot 6 weke later. Die skraaginenting is baie belangrik vir die ontwikkeling van immuniteit.

AANBIEDING
Natuurlike wit, deurskynende, hoëdigtheidspoliëtileen (HDPE) 20 mℓ en 100 mℓ flessies toegemaak met goudkleurige aluminium kombinasie seëls.

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PI/ENTP/002

Protection against pneumonia in sheep and goats

Dosage
Administer a single 1 mℓ dose subcutaneously in healthy sheep and goats followed by a second dose 4 to 6 weeks later. The booster vaccination is very important for the development of immunity.

Enterotect P

Reg. No. G4256 (Act 36/1947)

Enterotect P is a vaccine that **aids in the prevention** of **sheep and goat pneumonia** (Pasteurellosis).

Enterotect P is used for vaccinating healthy sheep and goats as an aid in preventing pneumonic pasteurellosis caused by *Mannheimia haemolytica*, enterotoxaemia caused by *Clostridium perfringens* Type A and pulpy kidney caused by *Clostridium perfringens* Type D.

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Design Biologix

Micromin B

Reg. No. G4382 (Act 36/1947)

SCIENTIFICALLY PROVEN

Raising quality through corrective supplementation. **Micromin B** is a superior **multi-mineral supplement formulation** that **supports and protects** your herd's **breeding life-cycle**: fertility, milk production, semen quality and optimum growth.

Micromin B is intended as an injectable multi-mineral supplement for cattle for prevention, maintenance or correction of diagnosed deficiencies of manganese, and/or copper, and/or chromium, and/or zinc and/or selenium which may arise during critical phases of the production or breeding life cycle.

CAUTION

STORAGE INSTRUCTIONS

Store in a cool dry place at or below 25 °C. Do not freeze. Protect from high temperatures and sunlight during administration. Do not use after the expiry date printed on the container. Do not store any vials into which a needle or other device has been inserted, for future use.

COMPOSITION

Chromium 5 mg/mℓ, Copper 7,5 mg/mℓ, Manganese 10 mg/mℓ, Zinc 40 mg/mℓ, Selenium 5 mg/mℓ.

This product contains Copper & Chromium

WARNINGS

- **Micromin B** has a zero-day withdrawal period.
- Prolonged exposures to higher temperatures and sunlight may adversely affect efficacy.
- The product is safe for the user, the consumer of foodstuffs from treated animals and for the environment, when used as recommended.
- Do not use in species other than those indicated.
- Deficiencies in trace elements may only be diagnosed by professionals. Before using this product, consult a veterinarian.
- Selenium and copper toxicity may occur when an injectable product is used if selenium and copper levels are not established before use.
- Local reactions at the injection site are common. A slight local irritation may be noticed for approximately 30 seconds after injection. A slight swelling may be observed at the injection site for a few days after administration.
- Do not administer to animals in poor or extremely poor body condition.
- Do not use in animals with jaundice.
- KEEP THE PRODUCT OUT OF REACH OF CHILDREN, UNINFORMED PERSONS AND ANIMALS.
- Although this remedy 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 and the Registrar.

PRECAUTIONS

- Consult a veterinarian before use.
- Follow standard sterile procedures during administration of injections.
- Wear protective clothing, masks, gloves, boots, etc. according to hazard standards.
- Avoid contact of the product with skin, eyes and mouth.
- Do not eat, drink or smoke whilst handling the product.
- Do not contaminate rivers, dams or any water sources with containers or waste.
- Dispose of all empty containers and all unused contents in accordance with the local law.
- Do not mix this product with any other vaccines or medicines.

DIRECTIONS FOR USE

- Use only as directed.
- Shake gently before use by inverting the vial several times.
- Use the entire contents of a vial once opened.
- Use sterile syringes and needles to administer **Micromin B**.
- Inject cattle subcutaneously on the side of the neck. DO NOT deviate from the recommended route and injection site location.

DOSAGE
- **Calves (25 to 250 kg):** 1 mℓ per 50 kg body weight, subcutaneous.
- **Cattle (> 250 kg):** 1 mℓ per 100 kg body weight, subcutaneous.

PRESENTATION
Micromin B, a dark blue solution, is presented in a pack size of a 500 mℓ high density polyethylene (HDPE) vial of natural colour, capped with a gold-coloured aluminium cap.

Micromin B word as 'n multi-minerale aanvulling vir beeste ingespuit as 'n voorkomende, onderhouds- of korrektiewe dosis vir gediagnoseerde tekorte aan mangaan, en/of koper, en/of chroom, en/of sink en/of selenium wat tydens kritieke fases van die produksie of lewensiklus mag ontstaan.

VERSIGTIG

BERGINGSAANWYSINGS
Bêre op 'n koel, droë plek onder 25 °C. Moenie vries nie. Beskerm teen hoë temperature en sonlig tydens toediening. Moenie gebruik na die vervaldatum wat op die houer gedruk is nie. Moet nie die inhoud van 'n houer wat alreeds gebruik is, berg vir toekomstige gebruik nie.

SAMESTELLING
Chroom 5 mg/mℓ, Koper 7,5 mg/mℓ, Mangaan 10 mg/mℓ, Sink 40 mg/mℓ, Selenium 5 mg/mℓ.

Hierdie produk bevat Koper & Chroom

WAARSKUWINGS
- **Micromin B** het geen onttrekkingsperiode nie.
- Langdurige blootstelling aan hoë temperature en sonlig kan die effektiwiteit van die produk benadeel.
- Die produk is veilig vir die gebruiker, die verbruiker van voedsel van behandelde diere en vir die omgewing, wanneer dit gebruik word soos aanbeveel.
- Moenie in ander spesies anders as die aangeduide spesies gebruik nie.
- Tekortekominge in spoorelemente kan slegs deur professionele persone gediagnoseer word. Raadpleeg 'n veearts voordat u hierdie produk gebruik.
- Selenium- en kopertoksisiteit kan voorkom wanneer 'n inspuitbare produk gebruik word indien selenium- en kopervlakke nie voor gebruik vasgestel is nie.
- Plaaslike reaksies op die inspuitingsplek is normaal. 'n Ligte plaaslike irritasie kan vir ongeveer 30 sekondes na toediening opgemerk word. 'n Ligte swelling kan vir 'n paar dae na toediening op die inspuitingsplek waargeneem word.
- Moet nie toegedien word aan diere in 'n swak of uiters swak liggaamskondisie nie.
- Moet nie in diere met geelsug gebruik word nie.
- HOU DIE PRODUK BUITE BEREIK VAN KINDERS, ONINGELIGTE PERSONE EN DIERE.
- Alhoewel hierdie middel breedvoerig onder 'n wye verskeidenheid toestande getoets is, mag dit faal as gevolg van verskeie redes. Indien dit vermoed word, raadpleeg 'n veearts en verwittig die registrasiehouer en die Registrateur.

VOORSORGMAATREËLS
- Raadpleeg 'n veearts voor gebruik.
- Volg standaard steriele prosedures tydens toediening van inspuitings.
- Dra beskermende klere, maskers, handskoene, stewels, ens. volgens die risikostandaarde.
- Vermy kontak met die vel, oë en mond.
- Moet nie eet, drink of rook tydens die hantering van die produk nie.
- Moenie riviere, damme of waterbronne met houers of afval besoedel nie.
- Gooi alle leë houers en alle ongebruikte inhoud volgens die plaaslike wetgewing weg.
- Moenie hierdie produk met enige ander entstof of medisyne meng nie.

GEBRUIKSAANWYSINGS
- Gebruik slegs soos aangedui.
- Skud versigtig voor gebruik deur die houer 'n paar keer om te keer.
- Gebruik die totale inhoud van 'n houer sodra dit oopgemaak is.
- Gebruik steriele spuite en naalde om **Micromin B** toe te dien.
- Spuit beeste onderhuids aan die kant van die nek. MOENIE van die aanbevole roete en plek van die inspuitingsplek afwyk nie.

DOSIS
- **Kalwers (25 tot 250 kg):** 1 mℓ per 50 kg liggaamsmassa, onderhuids.
- **Beeste (> 250 kg):** 1 mℓ per 100 kg liggaamsmassa, onderhuids.

AANBIEDING
Micromin B, 'n donkerblou oplossing, word aangebied in 'n verpakkingsgrootte van 'n 500 mℓ hoëdigtheidspoliëtileen (HDPE) houer van natuurlike kleur, bedek met 'n goudkleurige aluminiumdoppie.

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PI/BM/002

SCIENTIFICALLY PROVEN

Raising quality through corrective supplementation

Micromin B

Reg. No. G4382 (Act 36/1947)

A **multi-mineral supplement** for the **prevention, maintenance or correction** of diagnosed deficiencies during **critical phases** in the **breeding cycle of cattle.**

An injectable multi-mineral supplement for cattle. It is for prevention, maintenance or correction of diagnosed deficiencies of manganese, and/or copper, and/or chromium, and/or zinc and/or selenium which may arise during critical phases of the production or breeding life cycle.

Composition per dose (1 mℓ)
Chromium 5 mg/mℓ,
Copper 7.5 mg/mℓ,
Manganese 10 mg/mℓ,
Zinc 40 mg/mℓ and
Selenium 5 mg/mℓ.

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Design Biologix

Micromin O

Reg. No. G4384 (Act 36/1947)

SCIENTIFICALLY PROVEN

Raising quality through corrective supplementation. **Micromin O** is a superior **multi-mineral supplement formulation** that **supports and protects** your herd's **breeding life-cycle:** fertility, milk production, semen quality and optimum growth.

Micromin O is intended as an injectable multi-mineral supplement for cattle and sheep for prevention, maintenance or correction of diagnosed deficiencies of manganese, and/or zinc and/or selenium which may arise during critical phases of the production or breeding life cycle.

CAUTION

STORAGE INSTRUCTIONS

Store in a cool dry place at or below 25 °C. Do not freeze. Protect from high temperatures and sunlight during administration. Do not use after the expiry date printed on the container. Do not store any vials into which a needle or other device has been inserted, for future use.

COMPOSITION

Manganese 10 mg/mℓ, Zinc 40 mg/mℓ, Selenium 3 mg/mℓ.

WARNINGS

- **Micromin O** has a zero-day withdrawal period.
- Prolonged exposures to higher temperatures and sunlight may adversely affect efficacy.
- The product is safe for the user, the consumer of foodstuffs from treated animals and for the environment, when used as recommended.
- Do not use in species other than those indicated.
- Deficiencies in trace elements may only be diagnosed by professionals. Before using this product, consult a veterinarian.
- Selenium toxicity may occur when an injectable product is used if selenium levels are not established before use.
- Local reactions at the injection site are common. A slight local irritation may be noticed for approximately 30 seconds after injection. A slight swelling may be observed at the injection site for a few days after administration.
- Do not administer to animals in poor or extremely poor body condition.
- Do not use in animals with jaundice.
- KEEP THE PRODUCT OUT OF REACH OF CHILDREN, UNINFORMED PERSONS AND ANIMALS.
- Although this remedy 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 and the Registrar.

PRECAUTIONS

- Consult a veterinarian before use.
- Follow standard sterile procedures during administration of injections.
- Wear protective clothing, masks, gloves, boots, etc. according to hazard standards.
- Avoid contact of the product with skin, eyes and mouth.
- Do not eat, drink or smoke whilst handling the product.
- Do not contaminate rivers, dams or any water sources with containers or waste.
- Dispose of all containers and all unused contents in accordance with the local law.
- Do not mix this product with any other vaccines or medicines.

DIRECTIONS FOR USE

- Use only as directed.
- Shake gently before use by inverting the vial several times.
- Use the entire contents of a vial once opened.
- Use sterile syringes and needles to administer **Micromin O**.
- Inject cattle subcutaneously on the side of the neck. DO NOT deviate from the recommended route and injection site location.

DOSAGE

- **Sheep:** 1 mℓ per 50 kg body weight, subcutaneous.
- **Calves (25 to 250 kg):** 1 mℓ per 50 kg body weight, subcutaneous.
- **Cattle (> 250 kg):** 1 mℓ per 100 kg body weight, subcutaneous.

PRESENTATION
Micromin 0, a clear solution, is presented in a pack size of a 100 mℓ and a 500 mℓ high density polyethylene (HDPE) vial of natural colour, capped with a gold-coloured aluminium cap.

Micromin 0 word as 'n multi-minerale aanvulling vir beeste en skape ingespuit as 'n voorkomende, onderhouds- of korrektiewe dosis vir gediagnoseerde tekorte aan mangaan, en/of sink en/of selenium wat tydens kritieke fases van die produksie- of lewensiklus mag ontstaan.

VERSIGTIG

BERGINGSAANWYSINGS
Bêre op 'n koel, droë plek onder 25 °C. Moenie vries nie. Beskerm teen hoë temperature en sonlig tydens toediening. Moenie gebruik na die vervaldatum wat op die houer gedruk is nie. Moet nie die inhoud van 'n houer wat alreeds gebruik is, berg vir toekomstige gebruik nie.

SAMESTELLING
Mangaan 10 mg/mℓ, Sink 40 mg/mℓ, Selenium 3 mg/mℓ.

WAARSKUWINGS
- **Micromin 0** het geen onttrekkingsperiode nie.
- Langdurige blootstelling aan hoë temperature en sonlig kan die effektiwiteit van die produk benadeel.
- Die produk is veilig vir die gebruiker, die verbruiker van voedsel van behandelde diere en vir die omgewing, wanneer dit gebruik word soos aanbeveel.
- Moenie in ander spesies anders as die aangeduide spesies gebruik nie.
- Tekortkominge in spoorelemente kan slegs deur professionele persone gediagnoseer word. Raadpleeg 'n veearts voordat u hierdie produk gebruik.
- Seleniumtoksisiteit kan voorkom wanneer 'n inspuitbare produk gebruik word indien seleniumvlakke nie voor gebruik vasgestel is nie.
- Plaaslike reaksies op die inspuitingsplek is normaal. 'n Ligte plaaslike irritasie kan vir ongeveer 30 sekondes na toediening opgemerk word. 'n Ligte swelling kan vir 'n paar dae na toediening op die inspuitingsplek waargeneem word.
- Moet nie toegedien word aan diere in 'n swak of uiters swak liggaamskondisie nie.
- Moet nie in diere met geelsug gebruik word nie.
- HOU DIE PRODUK BUITE BEREIK VAN KINDERS, ONINGELIGTE PERSONE EN DIERE.
- Alhoewel hierdie middel breedvoerig onder 'n wye verskeidenheid toestande getoets is, mag dit faal as gevolg van verskeie redes. Indien dit vermoed word, raadpleeg 'n veearts en verwittig die registrasiehouer en die Registrateur.

VOORSORGMAATREËLS
- Raadpleeg 'n veearts voor gebruik.
- Volg standaard steriele prosedures tydens toediening van inspuitings.
- Dra beskermende klere, maskers, handskoene, stewels, ens. volgens die risikostandaarde.
- Vermy kontak met die vel, oë en mond.
- Moenie eet drink of rook tydens die hantering van die produk nie.
- Moenie riviere, damme of waterbronne met houers of afval besoedel nie.
- Gooi alle leë houers en alle ongebruikte inhoud volgens die plaaslike wetgewing weg.
- Moenie hierdie produk met enige ander entstof of medisyne meng nie.

GEBRUIKSAANWYSINGS
- Gebruik slegs soos aangedui.
- Skud versigtig voor gebruik deur die houer 'n paar keer om te keer.
- Gebruik die totale inhoud van 'n houer sodra dit oopgemaak is.
- Gebruik steriele spuite en naalde om **Micromin 0** toe te dien.
- Spuit beeste en skape onderhuids aan die kant van die nek. MOENIE van die aanbevole roete of inspuitingsplek afwyk nie.

DOSIS
- **Skape:** 1 mℓ per 50 kg liggaamsmassa, onderhuids.
- **Kalwers (25 tot 250 kg):** 1 mℓ per 50 kg liggaamsmassa, onderhuids.
- **Beeste (> 250 kg):** 1 mℓ per 100 kg liggaamsmassa, onderhuids.

AANBIEDING
Micromin 0, 'n helder oplossing, word aangebied in verpakkingsgroottes van 'n 100 mℓ of 500 mℓ. Beide verpakkingsgroottes kom in hoëdigtheidspoliëtileen (HDPE) houers van natuurlike kleur, bedek met goudkleurige aluminiumdoppies.

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PI/OM/002 & PI/OM500/002

PROVEN SUPERIOR SUPPORT

Raising quality through corrective supplementation

Manufactured according to the highest standards, using cutting edge formulatory technology, to bring you an injectable trace mineral supplement with proven benefits and superior safety.

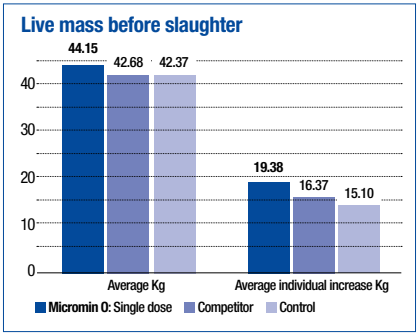
LATEST TECHNOLOGY | PROVEN BENEFITS | COMPETITIVE EDGE | BEST QUALITY | HIGHEST STANDARDS

Mn	Zn	Se
MANGANESE 10 mg/mℓ	ZINC 40 mg/mℓ	SELENIUM 3 mg/mℓ

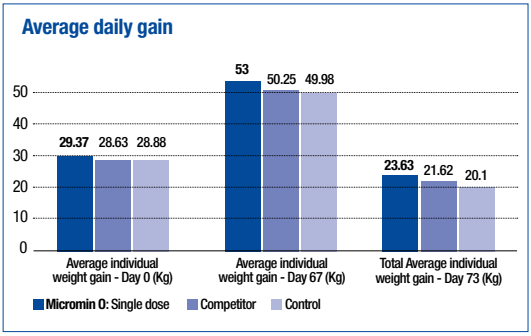
Micromin O

Reg. No. G4384 (Act 36/1947)

An **injectable multi-mineral supplement** for cattle and sheep for the **prevention, maintenance or correction** of **diagnosed deficiencies** of manganese, and/or zinc and/or selenium which may arise **during critical phases of the production or breeding life cycle**: fertility, milk production, semen quality and optimum growth.



Summary of a trial evaluating the use of **Micromin O** in a sheep feedlot over a 57 day period. **Micromin O** proves to be the most effective as a single administration on day 0 in feedlot sheep.*



Summary of a trial evaluating the use of **Micromin O** in a sheep feedlot over a 73 day period. **Micromin O** proves to be the most effective as a single administration on day 0 in feedlot sheep.*

* data on file

Micromin O+

Reg. No. G4383 (Act 36/1947)

SCIENTIFICALLY PROVEN

Raising quality through corrective supplementation. **Micromin O+** is a superior **multi-mineral supplement formulation** that **supports and protects** your herd's **breeding life-cycle**: fertility, milk production, semen quality and optimum growth.

Micromin O+ is intended as an injectable multi-mineral supplement for cattle and sheep for prevention, maintenance or correction of diagnosed deficiencies of manganese, and/or copper, and/or zinc and/or selenium which may arise during critical phases of the production or breeding life cycle.

CAUTION

STORAGE INSTRUCTIONS

Store in a cool dry place at or below 25 °C. Do not freeze. Protect from high temperatures and sunlight during administration. Do not use after the expiry date printed on the container. Do not store any vials into which a needle or other device has been inserted, for future use.

COMPOSITION

Copper 5 mg/mℓ, Manganese 10 mg/mℓ, Zinc 40 mg/mℓ, Selenium 3 mg/mℓ.

This product contains Copper

WARNINGS

- **Micromin O+** has a zero-day withdrawal period.
- Prolonged exposures to higher temperatures and sunlight may adversely affect efficacy.
- The product is safe for the user, the consumer of foodstuffs from treated animals and for the environment, when used as recommended.
- Do not use in species other than those indicated.
- Deficiencies in trace elements may only be diagnosed by professionals. Before using this product, consult a veterinarian.
- Selenium and copper toxicity may occur when an injectable product is used if selenium and copper levels are not established before use.
- Local reactions at the injection site are common. A slight local irritation may be noticed for approximately 30 seconds after injection. A slight swelling may be observed at the injection site for a few days after administration.
- Do not administer to animals in poor or extremely poor body condition.
- Do not use in animals with jaundice.
- KEEP THE PRODUCT OUT OF REACH OF CHILDREN, UNINFORMED PERSONS AND ANIMALS.
- Although this remedy 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 and the Registrar.

PRECAUTIONS

- Consult a veterinarian before use.
- Follow standard sterile procedures during administration of injections.
- Wear protective clothing, masks, gloves, boots, etc., according to hazard standards.
- Avoid contact of the product with skin, eyes and mouth.
- Do not eat, drink or smoke whilst handling the product.
- Do not contaminate rivers, dams or any water sources with containers or waste.
- Dispose of all empty containers and all unused contents in accordance with the local law.
- Do not mix this product with any other vaccines or medicines.

DIRECTIONS FOR USE

- Use only as directed.
- Shake gently before use by inverting the vial several times.
- Use the entire contents of a vial once opened.
- Use sterile syringes and needles to administer **Micromin O+**.
- Inject cattle and sheep subcutaneously on the side of the neck. DO NOT deviate from the recommended route and injection site location.

DOSAGE

- **Sheep:** 1 mℓ per 50 kg body weight, subcutaneous.
- **Calves (25 to 250 kg):** 1 mℓ per 50 kg body weight, subcutaneous.
- **Cattle (> 250 kg):** 1 mℓ per 100 kg body weight, subcutaneous.

PRESENTATION
Micromin 0+, a light blue solution, is presented in a pack size of a 100 mℓ and a 500 mℓ high density polyethylene (HDPE) vial of natural colour, capped with a gold coloured-aluminium cap.

Micromin 0+ word as 'n multi-minerale aanvulling vir beeste en skape ingespuit as 'n voorkomende, onderhouds- of korrektiewe dosis vir gediagnoseerde tekorte aan mangaan, en/of koper, en/of sink en/of selenium wat tydens kritieke fases van die produksie- of lewensiklus mag ontstaan.

VERSIGTIG

BERGINGSAANWYSINGS
Bêre op 'n koel, droë plek onder 25 °C. Moenie vries nie. Beskerm teen hoë temperature en sonlig tydens toediening. Moenie gebruik na die vervaldatum wat op die houer gedruk is nie. Moenie die inhoud van 'n houer wat alreeds gebruik is, berg vir toekomstige gebruik nie.

SAMESTELLING
Koper 5 mg/mℓ, Mangaan 10 mg/mℓ, Sink 40 mg/mℓ, Selenium 3 mg/mℓ.

Hierdie produk bevat Koper

WAARSKUWINGS
- **Micromin 0+** het geen onttrekkingsperiode nie.
- Langdurige blootstelling aan hoë temperature en sonlig kan die effektiwiteit van die produk benadeel.
- Die produk is veilig vir die gebruiker, die verbruiker van voedsel van behandelde diere en vir die omgewing, wanneer dit gebruik word soos aanbeveel.
- Moenie in ander spesies anders as die aangeduide spesies gebruik nie.
- Tekortkominge in spoorelemente kan slegs deur professionele persone gediagnoseer word. Raadpleeg 'n veearts voordat u hierdie produk gebruik.
- Selenium- en kopertoksisiteit kan voorkom wanneer 'n inspuitbare produk gebruik word indien selenium- en kopervlakke nie voor gebruik vasgestel is nie.
- Plaaslike reaksies op die inspuitingsplek is normaal. 'n Ligte plaaslike irritasie kan vir ongeveer 30 sekondes na toediening opgemerk word. 'n Ligte swelling kan vir 'n paar dae na toediening op die inspuitingsplek waargeneem word.
- Moet nie toegedien word aan diere in 'n swak of uiters swak liggaamskondisie nie.
- Moet nie in diere met geelsug gebruik word nie.
- HOU DIE PRODUK BUITE BEREIK VAN KINDERS, ONINGELIGTE PERSONE EN DIERE.
- Alhoewel hierdie middel breedvoerig onder 'n wye verskeidenheid toestande getoets is, mag dit faal as gevolg van verskeie redes. Indien dit vermoed word, raadpleeg 'n veearts en verwittig die registrasiehouer en die Registrateur.

VOORSORGMAATREËLS
- Raadpleeg 'n veearts voor gebruik.
- Volg standaard steriele prosedures tydens toediening van inspuitings.
- Dra beskermende klere, maskers, handskoene, stewels, ens. volgens die risikostandaarde.
- Vermy kontak met die vel, oë en mond.
- Moenie eet, drink of rook tydens die hantering van die produk nie.
- Moenie riviere, damme of waterbronne met houers of afval besoedel nie.
- Gooi alle leë houers en alle ongebruikte inhoud volgens die plaaslike wetgewing weg.
- Moenie hierdie produk met enige ander entstof of medisyne meng nie.

GEBRUIKSAANWYSINGS
- Gebruik slegs soos aangedui.
- Skud versigtig voor gebruik deur die houer 'n paar keer om te keer.
- Gebruik die totale inhoud van 'n houer sodra dit oopgemaak is.
- Gebruik steriele spuite en naalde om **Micromin 0+** toe te dien.
- Spuit beeste en skape onderhuids aan die kant van die nek. MOENIE van die aanbevole roete en inspuitingsplek afwyk nie.

DOSIS
- **Skape:** 1 mℓ per 50 kg liggaamsmassa, onderhuids.
- **Kalwers (25 tot 250 kg):** 1 mℓ per 50 kg liggaamsmassa, onderhuids.
- **Beeste (> 250 kg):** 1 mℓ per 100 kg liggaamsmassa, onderhuids.

AANBIEDING
Micromin 0+, 'n ligblou oplossing, word aangebied in verpakkingsgroottes van 'n 100 mℓ of 500 mℓ. Beide verpakkingsgroottes kom in hoëdigtheidspoliëtileen (HDPE) houers van natuurlike kleur, bedek met goudkleurige aluminiumdoppies.

REGISTRATION HOLDER
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MANUFACTURER
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PI/OMP/002 & PI/OMP500/002

Multisomni

Reg. No. G4357 (Act 36/1947)

SCIENTIFICALLY PROVEN

Reduction in risk of bovine respiratory disease in cattle. **Multisomni** is a superior **adjuvanted multi-component vaccine** that actively **protects** against **pneumonia** in cattle.

INDICATIONS

Multisomni is an adjuvanted multi-component vaccine for the active immunisation of healthy cattle against bovine pneumonia caused by *Pasteurella multocida* type A, *P. multocida* type D and *Histophilus somni*.

DOSAGE FORM

Vaccine suspension for injection with a 1 mℓ dose via the subcutaneous route. A booster vaccination of 1 mℓ should be administered 3 to 4 weeks later. Annual revaccination is recommended thereafter.

STORAGE INSTRUCTIONS

Store in a refrigerator between 2 to 8 °C. Do not freeze. Protect from high temperatures and direct sunlight. Do not use after the expiry date printed on the packaging and container. Do not store any vials into which a needle or other device has been inserted, for future use.

WARNINGS

- Do not slaughter animals for human consumption within 21 days of vaccination.
- Usually no marked reaction follows vaccination although a transient swelling may appear at the site of inoculation, and some animals may show a moderate rise of temperature for one or two days.
- Do not use in animal species other than those indicated.
- Do not administer to animals in poor or extremely poor body condition.
- KEEP THE PRODUCT OUT OF REACH OF CHILDREN, UNINFORMED PERSONS AND ANIMALS.
- Although this remedy 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; notify the registration holder and the Registrar.

PRECAUTIONS

- Follow standard sterile procedures during administration of injections.
- Wear protective clothing, masks, gloves, boots, etc. according to hazard standards.
- Avoid contact of the product with skin, eyes and mouth.
- Do not eat, drink or smoke whilst handling the product.
- Do not contaminate rivers, dams or any water sources with containers or waste.
- Dispose of all empty containers and all unused contents in accordance with the local law.
- Do not mix this product with any other vaccines or medicines.

DIRECTIONS FOR USE

- Shake the bottle well before and during use with gentle end-over-end mixing.
- Inject cattle subcutaneously on the side of the neck. DO NOT deviate from the recommended route and injection site location.
- Recommended dose for **Multisomni** is 1 mℓ via the subcutaneous route. A booster vaccination of 1 mℓ should be administered 3 to 4 weeks later. Annual revaccination is recommended thereafter.
- Animals may therefore require a full vaccination program to be completed before the period of highest risk associated with respiratory pneumonia.
- Cattle may be vaccinated from age of weaning and older.
- It is essential to adhere to the vaccination programme to maintain a satisfactory immune response.

PRESENTATION

Multisomni, a light-yellow liquid with an off-white sediment if left to settle, is presented in a pack size of a 20 mℓ and 100 mℓ high density polyethylene (HDPE) vial of natural colour, capped with a gold-coloured aluminium cap, labelled and packed in a product specific outer cardboard carton.

AANDUIDINGS

Multisomni is 'n multi-komponent entstof met adjuvant vir die aktiewe inenting van gesonde beeste teen respiratoriese

longontsteking, veroorsaak deur *Pasteurella multocida* tipe A, *P. multocida* tipe D en *Histophilus somni*.

ROETE VAN TOEDIENING
Entstof suspensie vir inspuiting met 'n 1 mℓ dosis via die onderhuidse roete. 'n Skraagdosis van 1 mℓ moet 3 tot 4 weke later toegedien word. Daar word daarna 'n jaarlikse her-inenting aanbeveel.

BERGINGSAANWYSINGS
Bêre in 'n yskas tussen 2 tot 8 °C. Moenie vries nie. Beskerm teen hoë temperature en direkte sonlig. Moenie gebruik na die vervaldatum wat op die verpakking en houer gedruk is nie. Moenie houers waarin 'n naald of ander toestel aangebring is, vir toekomstige gebruik bere nie.

WAARSKUWINGS
- Moenie diere binne 21 dae na inenting vir menslike verbruik slag nie.
- Normaalweg volg geen merkbare reaksie op inenting nie, alhoewel 'n kortstondige swelling op die plek van inenting kan voorkom, en sommige diere 'n matige styging in temperatuur vir een of twee dae kan toon.
- Moenie in ander spesies anders as die aangeduide spesies gebruik nie.
- Moet nie toegedien word aan diere in 'n swak of uiters swak liggaamskondisie nie.
- HOU DIE PRODUK BUITE BEREIK VAN KINDERS, ONINGELIGTE PERSONE EN DIERE.
- Alhoewel hierdie middel breedvoerig onder 'n wye verskeidenheid toestande getoets is, mag dit faal as gevolg van verskeie redes. Indien dit vermoed word, raadpleeg 'n veearts en verwittig die registrasiehouer en die Registrateur.

VOORSORGMAATREËLS
- Volg standaard steriele prosedures tydens toediening van inspuitings.
- Dra beskermende klere, maskers, handskoene, stewels, ens. volgens die risikostandaarde.
- Vermy kontak met die vel, oë en mond.
- Moenie eet, drink of rook tydens die hantering van die produk nie.
- Moenie riviere, damme of waterbronne met houers of afval besoedel nie.
- Gooi alle leë houers en alle ongebruikte inhoud volgens die plaaslike wetgewing weg.
- Moenie hierdie produk met enige ander entstof of medisyne meng nie.

GEBRUIKSAANWYSINGS
- Meng die houer goed voor en tydens gebruik.
- Spuit beeste onderhuids aan die kant van die nek. MOENIE van die aanbevole roete en inspuitplek afwyk nie.
- Die aanbevole dosis vir **Multisomni** is 1 mℓ via die onderhuidse roete. 'n Skraagdosis moet 3 tot 4 weke later toegedien word. Daar word daarna 'n jaarlikse her-inenting aanbeveel.
- Dit word dus vereis dat die volledige inentingsprogram voltooi moet word voor die periode met die grootste risiko wat verband hou met respiratoriese longontsteking.
- Beeste kan ingeënt word vanaf speenouderdom en ouer.
- Dit is noodsaaklik om die inentingsprogram te volg om 'n bevredigende immuunrespons te handhaaf.

AANBIEDING
Multisomni, 'n liggeel vloeistof met 'n wit sediment, word aangebied in 'n pakgrootte van 'n 20 mℓ en 100 mℓ hoëdigtheid-poliëtileen (HDPE) houer van natuurlike kleur, bedek met 'n goudkleurige aluminium doppie, geëtiketteer en verpak in 'n produkspesifieke buitenste karton.

REGISTRATION HOLDER AND MANUFACTURER
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PI/M/002

Get ahead of pneumonia

SCIENTIFICALLY PROVEN PROTECTION

Directions
Cattle may be vaccinated from age of weaning and older.

Dosage[1]
Vaccinate 1 mℓ and boost 1 mℓ 3-4 weeks later.

Repeat 1 mℓ dose annually.

Multisomni
Reg. No. G4357 (Act 36/1947)

An adjuvanted multi-component vaccine for the **active immunisation** of **healthy cattle** against **bovine pneumonia.**

1. Inject cattle subcutaneously on the side of the neck.

REGISTRATION HOLDER & MANUFACTURER: Design Biologix CC, Reg. No. 1992/028856/23

ANIMAL VACCINES MANUFACTURER www.designbio.co.za

Design Biologix

Ovipast

Reg. No. G4356 (Act 36/1947)

SCIENTIFICALLY PROVEN

Ovipast is an adjuvanted multivalent vaccine, without antibiotics or preservatives, and **aids in the prevention of sheep and goat pneumonia** (Pasteurellosis).

INDICATIONS

Ovipast is an adjuvanted multivalent vaccine, without antibiotics or preservatives, formulated with *Mannheimia haemolytica* leukotoxin and lipopolysaccharide (LPS) supernatant antigens, as well as *Pasteurella multocida* type A bacterin. **Ovipast** aids in the prevention of sheep and goat pneumonia (Pasteurellosis).

DOSAGE FORM

Vaccine suspension for injection of a 1 mℓ dose via the subcutaneous route. A booster vaccination of 1 mℓ should be administered 3 to 4 weeks later. Annual revaccination is recommended thereafter.

STORAGE

Store in a refrigerator between 2 °C and 8 °C. Do not freeze. Protect from high temperatures and direct sunlight. Do not use after the expiry date printed on the packaging and container. Do not store any vials into which a needle or other device has been inserted, for future use.

WARNINGS

- Do not slaughter animals for human consumption within 21 days of vaccination.
- While no marked reaction should follow vaccination, a transient swelling may appear at the site of injection, and some animals may show a moderate rise of temperature for one or two days.
- Do not use in animal species other than those indicated.
- Do not administer to animals in poor or extremely poor body condition.
- KEEP THE PRODUCT OUT OF REACH OF CHILDREN, UNINFORMED PERSONS AND ANIMALS.
- Although this product 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 and the Registrar.

PRECAUTIONS

- Observe aseptic precautions. Ensure that all vaccination equipment (needles, syringes etc.) is clean and sterile prior to use.
- Ensure that all equipment is kept clean and sterile during vaccination.
- Do not mix **Ovipast** with any other vaccine or medication.
- Use entire contents of vials when opened and do not store unused vaccine for future use.
- Do not use the contents of damaged vials.
- It is good vaccination practice when handling the vaccine to avoid contact with the eyes, mucous membranes, hands and clothing.
- Wash and disinfect hands with a disinfectant after vaccination.
- Use disposable vaccine equipment. Unused vaccine must be disposed of according to the National Environmental Waste Act, 2008 (Act 59 of 2008).

DIRECTIONS FOR USE

- Shake the bottle well before and during use with gentle end-over-end mixing.
- Inject sheep and goats subcutaneously on the side of the neck. DO NOT deviate from the recommended route and injection site location.
- Sheep and goats may be vaccinated from age of weaning and older.
- **Ovipast** can be administered to pregnant ewes to ensure passive antibody transfer to the lamb provided the lamb consumes sufficient quality colostrum within 1 day.
- It is essential to adhere to the vaccination programme to maintain a satisfactory immune response.
- Animals may therefore require a full vaccination program to be completed before the period of highest risk associated with respiratory pneumonia.

PRESENTATION
Ovipast a light-yellow liquid with an off-white sediment if left to settle, is presented in a pack size of a 100 mℓ high density polyethylene (HDPE) vial of natural colour, capped with a gold-coloured aluminium cap, labelled and packed in a product-specific outer cardboard carton.

AANDUIDINGS
Ovipast is 'n multivalente entstof met adjuvant, sonder antibiotika of preserveermiddels, geformuleer met *Mannheimia haemolytica* leukotoksien en lipopolisakkaried (LPS) bo-vloeistof antigene, asook die bakterien van *Pasteurella multocida* tipe A. **Ovipast** is 'n hulpmiddel in die voorkoming van skaap- en bok longontsteking (Pasteurellose).

ROETE VAN TOEDIENING
Entstof suspensie vir inspuiting met 'n 1 mℓ dosis via die onderhuidse roete. 'n Skraagdosis van 1 mℓ moet 3 tot 4 weke later toegedien word. Daar word daarna 'n jaarlikse her-inenting aanbeveel.

BERGINGSAANWYSINGS
Bêre in 'n yskas tussen 2 °C en 8 °C. Moenie vries nie. Beskerm teen hoë temperature en direkte sonlig. Moenie gebruik na die vervaldatum wat op die verpakking en houer gedruk is nie. Moenie houers waarin 'n naald of ander toestel aangebring is, vir toekomstige gebruik bêre nie.

WAARSKUWINGS
- Moenie diere binne 21 dae na inenting vir menslike verbruik slag nie.
- Normaalweg volg geen merkbare reaksie op inenting nie, alhoewel 'n kortstondige swelling op die plek van inenting kan voorkom, en sommige diere 'n matige styging in temperatuur vir een of twee dae kan toon.
- Moenie in spesies anders as die aangeduide spesies gebruik nie.
- Moet nie toedien aan diere in 'n swak of uiters swak liggaamskondisie nie.
- HOU DIE PRODUK BUITE BEREIK VAN KINDERS, ONINGELIGTE PERSONE EN DIERE.
- Alhoewel hierdie produk breedvoerig onder 'n wye verskeidenheid toestande getoets is, mag dit faal as gevolg van verskeie redes. Indien dit vermoed word, raadpleeg 'n veearts en verwittig die registrasiehouer en die Registrateur.

VOORSORGMAATREËLS
- Let op aseptiese voorsorgmaatreëls. Maak seker dat alle inentingstoerusting (naalde, spuite, ens.) skoon en steriel is voor gebruik.
- Sorg dat alle toerusting tydens inenting skoon en steriel gehou word.
- Moet nie **Ovipast** met enige ander entstof of medikasie meng nie.
- Gebruik die hele inhoud van die houer wanneer dit oopgemaak word en moet nie ongebruikte entstof vir toekomstige gebruik bêre nie.
- Moenie die inhoud van 'n beskadigde houer gebruik nie.
- Dit is goeie inentingspraktyk om die entstof te hanteer om kontak met die oë, slymvliese, hande en klere te vermy.
- Was hande met 'n ontsmettingsmiddel na inenting.
- Gebruikte weggooibare toerusting, ongebruikte entstof, ens. moet weggedoen word volgens die Wet op Nasionale Omgewingsafval van 2008 (Wet 59 van 2008).

GEBRUIKSAANWYSINGS
- Meng die bottel goed voor en tydens gebruik deur ent-oor-ent te meng.
- Spuit skape en bokke onderhuids aan die kant van die nek. MOENIE van die aanbevole roete en inspuitingsplek afwyk nie.
- Skape en bokke kan ingeënt word vanaf speenouderdom.
- Die entstof kan aan dragtige ooie toegedien word sodat passiewe teenliggame na die lam oorgedra word mits die lam binne 1 dag voldoende kwaliteit kolostrum inneem.
- Dit is noodsaaklik om die inentingsprogram te volg om 'n bevredigende immuunrespons te handhaaf.
- Dit word vereis dat die volledige inentingsprogram voltooi moet word voor die periode met die grootste risiko wat verband hou met respiratoriese longontsteking.

AANBIEDING
Ovipast, 'n liggeel vloeistof met wit sediment, word aangebied in 'n pakgrootte van 'n 100 mℓ hoëdigtheid-poliëtileen (HDPE) houer van natuurlike kleur, bedek met 'n goudkleurige aluminium doppie, geëtiketteer en verpak in 'n produkspesifieke buitenste karton.

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PI/P/004

Ovipast

PROVEN SUPERIOR SUPPORT

Reducing the risk of death caused by Pneumonia

Ovipast

Reg. No. G4356 (Act 36/1947)

Ovipast is an adjuvanted multi-valent vaccine, without antibiotics or preservatives, formulated with *Mannheimia haemolytica* leukotoxin and lipopolysaccharide (LPS) supernatant antigens, as well as *Pasteurella multocida* type A bacterin.

Ovipast aids in the prevention of sheep and goat pnemonia (Pasteurellosis).

REGISTRATION HOLDER & MANUFACTURER: Design Biologix CC, Reg. No. 1992/028856/23

ANIMAL VACCINES MANUFACTURER www.designbio.co.za

Design Biologix

Ovivax

Reg. No. G4552 (Act 36/1947)

SCIENTIFICALLY PROVEN

Ovivax aids in the prevention of sheep and goat respiratory diseases.

INDICATIONS

Ovivax is an inactivated combination vaccine for the active immunisation of healthy sheep and goats against respiratory disease complex caused by *Mannheimia haemolytica* serotype A1, *Pasteurella multocida* serotype A, *Bibersteinia trehalosi* and Parainfluenza virus type 3 (PI-3).

COMPOSITION PER DOSE (2 mℓ)

Ovivax is a formalin-inactivated multi-component whole cell formulation containing *M. haemolytica* serotype A1 (leukotoxin), *P. multocida* serotype A, *B. trehalosi* and PI-3. Each dose (2 mℓ) of vaccine contains *M. haemolytica* serotype A1: $\geq 4 \times 10^7$ cfu, *P. multocida* serotype A: $\geq 1 \times 10^8$ cfu, *B. trehalosi*: $\geq 1 \times 10^8$ cfu and Parainfluenza virus type 3: $\geq 5 \times 10^5$ $TCID_{50}$ per 2 mℓ.

STORAGE INSTRUCTIONS

Store and transport refrigerated (between 2 °C and 8 °C). Do not freeze. Protect from high temperatures and sunlight during vaccination. Do not use after the expiry date printed on the container. Use immediately after opening the vial. **Do not store any vials into which a needle or another device has been inserted, for future use.**

WARNINGS

- **WITHDRAWAL PERIOD:** Do not slaughter animals for human consumption within 21 days of vaccination.
- Vaccinate healthy animals only.
- Do NOT mix with any other vaccine or immunological product. No information is available on the compatibility of **Ovivax** with any other vaccine or medication.
- Care should be taken to avoid direct contact with the product, self-injection or eye or skin contamination. **If contact occurs, rinse affected area repeatedly with clean water.** Medical advice should be sought in the event of accidental exposure.
- Do not over- or under-dose the vaccine.
- Usually no marked reaction follows vaccination, although a transient swelling may appear at the site of inoculation and some animals may show a moderate rise of temperature for one or two days.
- Use the entire contents of a vial once opened.
- Do not use in animal species other than those indicated.
- **Ovivax** may be used in pregnant animals during all stages of pregnancy.
- Do not administer to animals in poor or extremely poor body condition.
- Do not inject intravenously.
- KEEP THE PRODUCT OUT OF REACH OF CHILDREN, UNINFORMED PERSONS AND ANIMALS.
- Although this product 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 and Registrar.

PRECAUTIONS

- Observe aseptic precautions. Ensure that all vaccination equipment (containers, syringes and needles) is clean and sterile prior to and during use.
- Do not use the contents of damaged vials.
- Wash and disinfect hands with a disinfectant after vaccination.
- Wear protective clothing, masks, gloves etc. according to hazard standards.
- Avoid contact of the product with skin, eyes and mouth.
- Do not eat, drink or smoke whilst handling the product.
- Destroy any unused vaccine and dispose of all vaccine containers and disposable equipment after use, in accordance with the National Environmental Management: Waste Act (Act No. 59 of 2008).
- Do not contaminate rivers, dams or any water sources with containers or waste.

Local reactions may occur in some animals at the injection site. They will disappear after a few days. If you notice any serious effects not mentioned in this package insert, please inform your veterinarian.

DIRECTIONS FOR USE

- **Use only as directed.**
- It is normal for **Ovivax** to develop a cream layer on top during storage. **Simple inversion of the vial prior to injection is adequate to remix all the components.**
- Inject sheep and goats subcutaneously, on the side of the neck only. DO NOT deviate from the recommended route and injection site location.
- Sheep and goats may be vaccinated from the age of 2 months and older.
- Animals require a full vaccination program to be completed before the period of highest risk associated with pneumonia.
- Ensure that all animals are vaccinated.
- It is essential to adhere to the vaccination schedule to maintain a satisfactory immune response.
- Annual revaccination of all animals with a 2 mℓ dose prior to the highest risk period is recommended.

DOSAGE

Sheep and goats: Inject 1 dose (2 mℓ) subcutaneously, on the side of the neck only. A booster vaccination of 2 mℓ should be administered after 3 to 4 weeks. Annual revaccination of all animals with a 2 mℓ dose is recommended thereafter.

PRESENTATION

Ovivax, a milky off-white to light-yellow emulsion, is presented in pack sizes of 20 mℓ and 100 mℓ high density polyethylene (HDPE) vials of natural colour, capped with a gold-coloured aluminium cap with two-bridge tabs, labelled and packed in a product-specific outer cardboard carton.

INDIKASIES

Ovivax is 'n geïnaktiveerde kombinasie-entstof vir die aktiewe immunisering van gesonde skape en bokke teen respiratoriese siekte kompleks veroorsaak deur *Mannheimia haemolytica* serotipe A1, *Pasteurella multocida* serotipe A, *Bibersteinia trehalosi* en Parainfluenza virus tipe 3 (PI-3).

SAMESTELLING PER DOSIS (2 mℓ)

Ovivax is 'n formalien-geïnaktiveerde multi-komponent heelsel formulering wat *M. haemolytica* serotipe A1 (leukotoksien), *P. multocida* serotipe A, *B. trehalosi* en PI-3 bevat. Elke dosis (2 mℓ) van die entstof bevat *M. haemolytica* serotipe A1: $\geq 4 \times 10^7$ cfu, *P. multocida* serotipe A: $\geq 1 \times 10^8$ cfu, *B. trehalosi*: $\geq 1 \times 10^8$ cfu en Parainfluenza virus tipe 3: $\geq 5 \times 10^5$ $TCID_{50}$ per 2 mℓ.

BERGINGSAANWYSINGS

Bêre in 'n yskas en verkoel tydens vervoer (tussen 2 °C en 8 °C). Moenie vries nie. Beskerm teen hoë temperature en sonlig tydens inenting. Moenie gebruik na die vervaldatum wat op die entstofhouer gedruk is nie. Gebruik onmiddellik nadat die entstofhouer oopgemaak is. **Moenie entstofhouers waarin 'n naald of ander toestel aangebring is, vir toekomstige gebruik bêre nie.**

WAARSKUWINGS

- **ONTTREKKINGSPERIODE:** Moenie diere binne 21 dae na inenting vir menslike gebruik slag nie.
- Slegs gesonde diere moet ingeënt word.
- MOENIE met enige ander entstof of enige ander produk meng nie. Geen informasie is beskikbaar in verband met die gebruik van **Ovivax** met enige ander entstof of produk nie.
- Voorsorg moet getref word om direkte kontak met die produk, self-inspuiting, of kontak van die oë of vel te voorkom. **Indien kontak plaasvind, spoel die geaffekteerde area herhaaldelik met skoon water af.** Verkry mediese advies in die geval van toevallige blootstelling aan die produk.
- Moenie die entstof oor- of onderdoseer nie.
- Normaalweg volg geen merkbare reaksie na inenting nie, alhoewel kortstondige swelling op die plek van inenting kan voorkom en sommige diere 'n matige styging in temperatuur vir een of twee dae kan toon.
- Gebruik die volle inhoud van 'n entstofhouer sodra dit oopgemaak word.
- Moenie in diere anders as die aangeduide spesies gebruik word nie.
- **Ovivax** is veilig vir die gebruik in skape en bokke in alle trimesters van dragtigheid.
- Moenie toegedien word aan diere in 'n swak of uiters swak liggaamskondisie nie.
- Moenie binneaars toegedien word nie.
- HOU DIE PRODUK BUITE BEREIK VAN KINDERS, ONINGELIGTE PERSONE EN DIERE.
- Alhoewel hierdie produk breedvoerig onder 'n wye verskeidenheid van toestande getoets is, mag dit faal as gevolg van verskeie redes. Indien vermoed word dat die produk gefaal het, raadpleeg 'n veearts en verwittig die Registrasiehouer en die Registrateur.

VOORSORGMAATREËLS

- Volg standaard steriele prosedures tydens toediening van inspuitings. Verseker dat alle entstoftoerusting (houers, spuite en naalde) skoon en steriel is voor en tydens gebruik.
- Moenie die inhoud van beskadigde entstofhouers gebruik nie.
- Was en ontsmet hande met 'n ontsmettingsmiddel na enting van diere.
- Dra beskermende klere, maskers en handskoene, ens. in lyn met die standaarde vir gevaarlike middels.
- Vermy kontak van die produk met die vel, oë en mond.
- Moenie eet, drink of rook tydens hantering van die produk nie.
- Vernietig enige ongebruikte entstof; en verwyder entstofhouers en entstoftoerusting na gebruik, in ooreenstemming met die Nasionale Omgewingsbestuur: Wet op Afval (Wet 59 van 2008).
- Moenie riviere, damme of enige waterbronne met entstofhouers of afval besoedel nie.

Lokale reaksies mag voorkom by die inspuitingsplek van sommige diere. Dit sal verdwyn na 'n paar dae. Indien u ernstige reaksies opmerk wat nie in hierdie voubiljet vermeld is nie, stel asseblief u veearts in kennis.

GEBRUIKSAANWYSINGS

- **Gebruik slegs soos aangedui.**
- Dit is normaal vir **Ovivax** om 'n romerige laag bo-op te vorm tydens berging. **Versigtige omkering van die entstofhouer is voldoende om al die komponente weer te vermeng voor gebruik.**
- Spuit skape en bokke onderhuids, slegs aan die kant van die nek. MOENIE afwyk van die aanbevole roete en inspuitingsarea nie.
- Skape en bokke mag vanaf die ouderdom van 2 maande en ouer ingeënt word.
- 'n Volledige inentingsprogram moet voltooi word voor die tydperk van die hoogste risiko verbonde aan respiratoriese siekte.
- Verseker dat alle diere ingeënt word.
- Dit is noodsaaklik om die inentingsprogram te volg om 'n bevredigende immuunresponse te handhaaf.
- Jaarlikse herinenting met 'n enkeldosis (2 mℓ) van alle diere word aanbeveel, voor die hoogste risiko tydperk.

DOSIS

Skape en bokke: Spuit 1 dosis (2 mℓ) onderhuids, slegs aan die kant van die nek. 'n Skraagdosis van 2 mℓ moet 3 tot 4 weke later toegedien word. Jaarlikse herinenting met 'n enkel dosis (2 mℓ) word daarna aanbeveel.

AANBIEDING

Ovivax, 'n melkerige wit tot liggeel emulsie, word aangebied in pakgroottes van 20 mℓ en 100 mℓ hoëdigtheid-poliëtileen (HDPE) entstofhouers van natuurlike kleur, bedek met 'n goudkleurige aluminium doppie, geëtiketeer en verpak in 'n produkspesifieke buitenste kartonhouer.

REGISTRATION HOLDER
Vetvax (Pty) Ltd, Reg. No. 2004/035302/07
442 Rigel Avenue, Erasmusrand, Pretoria, 0181
Tel: +27 (0) 12 349 2772

MANUFACTURER
Design Biologix CC, Reg. No. 1992/028856/23
442 Rigel Avenue, Erasmusrand, Pretoria, 0181
Tel: +27 (0) 12 349 2772
www.designbio.co.za

PI/PS/003

Ovivax: Outsmart pneumonia!

SCIENTIFICALLY PROVEN PROTECTION

Pregnancy
Safe to use in all trimesters of pregnancy

Dosage
Vaccinate 2 mℓ and boost 2 mℓ 3-4 weeks later. Repeat 2 mℓ dose annually[1]

Directions
Sheep and goats may be vaccinated from the age of 2 months and older

Serotypes
Mannheimia haemolytica serotype A1, *Pasteurella multocida* serotype A, *Bibersteinia trehalosi* and Parainfluenza virus type 3 (PI-3).

1. Subcutaneously, only on the side of the neck.

Ovivax Reg. No. G4552 (Act 36/1947)

An inactivated combination vaccine for the active immunisation of healthy sheep and goats against pneumonia.

REGISTRATION HOLDER: Vetvax (Pty) Ltd, Reg. No. 2004/035302/07 | MANUFACTURER: Design Biologix CC, Reg. No. 1992/028856/23

ANIMAL VACCINES MANUFACTURER www.designbio.co.za

Design Biologix

Sterile Diluent

TECHNOLOGICALLY ADVANCED

Sterile Diluent is a clear, colourless sterile buffered saline used for injectable veterinary drug administration.

INDICATIONS

Sterile diluent is a clear, colourless, odourless liquid. It is sterile buffered saline which contains no bacteriostatic or antimicrobial agents. It is a diluent or solvent suitable for injectable veterinary drug administration.

COMPOSITION PER DOSE

Sterile phosphate buffered saline.

STORAGE

Store at room temperature or between 2 °C and 8 °C. Do not freeze. Protect from high temperatures and sunlight. Do not use after the expiry date printed on the packaging and container. Do not store any vials into which a needle or another device has been inserted, for future use.

WARNINGS

- When used as directed, without any additives, this product is safe for the handler.
- Animals treated with this product without any additives, are safe for human consumption.
- Without any additives, this product is safe for the environment.
- KEEP THE PRODUCT OUT OF REACH OF CHILDREN, UNINFORMED PERSONS AND ANIMALS.

PRECAUTIONS

- Do not administer unless solution is clear, and the seal is intact.
- Dispose of all containers and all unused contents in accordance with the local law.

DIRECTIONS FOR USE

Refer to the instructions provided with the accompanying additive drug.

DOSAGE

Refer to the instructions provided with the accompanying additive drug.

PRESENTATION

Sterile diluent, a clear, colourless, odourless liquid, is presented in pack sizes of 20 mℓ, 100 mℓ and 500 mℓ high-density polyethylene (HDPE) vials of natural colour, capped with a gold-coloured aluminium combination seal. Each vial is labelled with a product-specific label.

INDIKASIES

Steriele verdunningsmiddel is 'n deursigtige, kleurlose, reuklose vloeistof. Dit is steriele gebufferde soutoplossing wat geen bakteriostatiese of antimikrobiese middels bevat nie. Dit is 'n verdunningsmiddel of oplosmiddel wat geskik is vir toediening van inspuitbare veeartsenykundige entstowwe.

SAMESTELLING PER DOSIS

Steriele fosfaat gebufferde soutoplossing.

BERGINGSAANWYSINGS

Bêre teen kamertemperatuur of tussen 2 °C en 8 °C. Moenie vries nie. Beskerm teen hoë temperature en sonlig. Moenie gebruik na die vervaldatum wat op die houer gedruk is nie. Moenie houers waarin 'n naald of ander toestel aangebring is, vir toekomstige gebruik bêre nie.

WAARSKUWINGS

- Wanneer die produk volgens voorskrif gebruik word, sonder enige bymiddels, is dit veilig vir die hanteerder.
- Diere wat met hierdie produk behandel word, sonder enige bymiddels, is veilig vir menslike verbruik.
- Sonder enige bymiddels is hierdie produk veilig vir die omgewing.
- HOU BUITE BEREIK VAN KINDERS, ONINGELIGTE PERSONE EN DIERE.

VOORSORGMAATREËLS

- Moenie die produk gebruik indien die oplossing nie helder is nie, of as die seël beskadig is nie.

• Verwyder enige houers en alle ongebruikte inhoud in ooreenstemming met plaaslike wetgewing.

GEBRUIKSAANWYSINGS
Raadpleeg die aanwysings wat saam met die bygaande toevoegmiddel verskaf word.

DOSIS
Raadpleeg die aanwysings wat saam met die bygaande toevoegmiddel verskaf word.

AANBIEDING
Steriele verdunningsmiddel, 'n helder, kleurlose, reuklose vloeistof, word aangebied in pakgroottes van 20 mℓ, 100 mℓ en 500 mℓ hoëdigtheid-poliëtileen (HDPE) flessies van natuurlike kleur, bedek met 'n goudkleurige aluminium doppie. Elke flessie het 'n produk-spesifieke etiket.

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PI/DIL/001

Suggested Cattle Vaccination Plan

	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR
	DRY			CALVE			BREED					WEAN
BULLS		Clostrivax B+ Micromin B			BEF-Tect	Micromin B BEF-Tect 2nd Vaccination	BREED	BREED	BREED		Micromin B	
COWS		Clostrivax B+ Micromin B		CALVE	CALVE	Micromin B CALVE	BREED	BREED	BREED		Micromin B	
CALVES				BIRTH	BIRTH	BIRTH		Clostrivax B Micromin B	Clostrivax B+ Multisomni	Bru-Tect S19 (Heifer Calves)	Micromin B	WEAN
Average Age (months)					0	1	2	3	4	5	6	7

	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR
HEIFERS 1 (8-19m)		Clostrivax B+ Multisomni Micromin B		Rift Valley Fever Bovipox		Micromin B Chlamyvax	BEF-Tect	BEF-Tect 2nd Vaccination			Micromin B	
Average Age (months)	8	9	10	11	12	13	14	15	16	17	18	19
HEIFERS 2 (20-32m)		Clostrivax B+ Multisomni Micromin B		Rift Valley Fever Bovipox	Chlamyvax BEF-Tect	1st BREED Micromin B BEF-Tect 2nd Vaccination	1st BREED	1st BREED			Micromin B	
Average Age (months)	20	21	22	23	24	25	26	27	28	29	30	31
HEIFERS 3 (32-43m)	Clostrivax B+ Micromin B		1st CALVE	2nd CALVE	3rd CALVE	Chlamyvax BEF-Tect Micromin B	2nd BREED BEF-Tect 2nd Vaccination	2nd BREED	2nd BREED		Micromin B	
Average Age (months)	32	33	34	35	36	37	38	39	40	41	42	43
CALVES (from Heifers)			BIRTH	BIRTH	BIRTH			Clostrivax B	Clostrivax B+	Bru-Tect S19 (Heifer Calves) Micromin B	WEAN	
				0	1	2	3	4	5	6	7	8

	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR
BULLS 1 (8-19m)		Clostrivax B+ Multisomni Micromin B		Rift Valley Fever Bovipox			BEF-Tect	BEF-Tect 2nd Vaccination			Micromin B	
Average Age (months)	8	9	10	11	12	13	14	15	16	17	18	19
BULLS 2 (20-32m)		Clostrivax B+ Multisomni Micromin B		Rift Valley Fever Bovipox				BEF-Tect	BEF-Tect 2nd Vaccination		Micromin B	
Average Age (months)	20	21	22	23	24	25	26	27	28	29	30	31

Empowering and supporting you to **protect your herd** from snout to tail

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Suggested Sheep & Goat Vaccination Plan

SPRING LAMBING

	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG
	Lambing Season			Weaning & Preparation for Breeding			Breeding Season			Scan & Preparation for Lambing		
RAM[b]	Blu-Vax	Blu-Vax 2nd Vaccination	Clostrivax O or Enterotect P		Micromin O	Test Fertility	Teaser Ram	Rams IN	Rams OUT			
EWES	START of Lambing Season	END of Lambing Season	Blu-Vax	Blu-Vax 2nd Vaccination			Chlamyvax Micromin O	Breeding Season STARTS	Breeding Season ENDS	SCAN	Clostrivax O or Enterotect P Micromin O	
LAMBS & REPLACEMENT EWES	MARK	MARK 1[c]	Bru-Tect REV 1[a] Clostrivax O or Enterotect P 2[c]	1st HALF OF MONTH Clostrivax O or Enterotect P / Micromin O Blu-Vax 3[c]	Blu-Vax 2nd Vaccination WEAN 4[c]	5[c]	6[c]	7[c]	8[c]	9[c]	Clostrivax O or Enterotect P Micromin O Ovivax or Ovipast 10[c]	Move over to Ewe program 11[c]

AUTUMN LAMBING

	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG
	Preparation for & Breeding Season				Scan & Preparation for Lambing			Lambing Season			Wean	
RAM[b]	Test Fertility	Teaser Ram	Rams IN	Rams OUT						Micromin O	Blu-Vax	1st half of month Clostrivax O or Enterotect P / Micromin O Blu-Vax
EWES	Blu-Vax	Chlamyvax Micromin O Blu-Vax 2nd Vaccination	Breeding Season STARTS	Breeding Season ENDS	SCAN	Clostrivax O or Enterotect P Micromin O		START of Lambing Season	END of Lambing Season			
LAMBS & REPLACEMENT EWES	5[c]	Blu-Vax 6[c]	Blu-Vax 2nd Vaccination 7[c]	8[c]	9[c]	Clostrivax O or Enterotect P Micromin O 10[c]	Move over to Ewe program 11[c]	MARK	MARK 1[c]	Bru-Tect REV 1[a] Clostrivax O or Enterotect P 2[c]	Clostrivax O or Enterotect P Micromin O Ovivax or Ovipast 3[c]	WEAN 4[c]

a) Stud ram lambs only. b) If the same rams are used for two breeding seasons, vaccination can only be done according to the 'Autumn lamb' program. c) Average lamb age in months.

Empowering and supporting you to **protect your herd** from snout to tail

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