ANNEX I

SUMMARY OF PRODUCT CHARACTERISTICS

1. NAME OF THE VETERINARY MEDICINAL PRODUCT

Vectra 3D spot-on solution for dogs 1.5–4 kg
Vectra 3D spot-on solution for dogs 4–10 kg
Vectra 3D spot-on solution for dogs 10–25 kg
Vectra 3D spot-on solution for dogs 25–40 kg
Vectra 3D spot-on solution for dogs > 40 kg

2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Active substances:

Each ml contains 54 mg dinotefuran, 4.84 mg pyriproxyfen and 397 mg permethrin.

Each spot-on applicator delivers:

Weight of dog (kg)	Colour of applicator cap	Volume (ml)	Dinotefuran (mg)	Pyriproxyfen (mg)	Permethrin (mg)
for dogs 1.5–4 kg	Yellow	0.8	44	3.9	317
for dogs 4–10 kg	Teal	1.6	87	7.7	635
for dogs 10–25 kg	Blue	3.6	196	17.4	1,429
for dogs 25–40 kg	Purple	4.7	256	22.7	1,865
for dogs > 40 kg	Red	8.0	436	38.7	3,175

For the full list of excipients, see section 6.1.

3. PHARMACEUTICAL FORM

Spot-on solution.
Pale yellow solution.

4. CLINICAL PARTICULARS

4.1 Target species

Dogs.

4.2 Indications for use, specifying the target species

Fleas:
Treatment and prevention of flea infestation (*Ctenocephalides felis* and *Ctenocephalides canis*). The treatment prevents flea infestation for one month. It also prevents multiplication of fleas for two months after application by inhibiting egg hatching (ovicidal activity) and by inhibiting the emergence of adults from eggs laid by adult fleas (larvicidal activity).
The veterinary medicinal product can be used as part of a treatment strategy for flea allergy dermatitis (FAD).

Ticks:
The veterinary medicinal product has persistent acaricidal and repellent efficacy against tick infestations (*Rhipicephalus sanguineus* and *Ixodes ricinus* for one month, and *Dermacentor reticulatus* for up to three weeks).

If ticks are present when the veterinary medicinal product is applied, the ticks may not all be killed within the first 48 hours, but they may be killed within a week. To remove ticks, it is recommended to use an appropriate tick removal device.

Sand flies, mosquitoes and stable flies:
The treatment provides persistent repellent (anti-feeding) activity. It prevents biting from sand flies (*Phlebotomus perniciosus*), mosquitoes (*Culex pipiens, Aedes aegypti)* and from stable flies (*Stomoxys calcitrans*) for one month post-application. The treatment also provides persistent insecticidal activity for one month against mosquitoes (*Aedes aegypti*) and stable fly (*Stomoxys calcitrans).*

4.3 Contraindications

Do not use in case of hypersensitivity to any of the active substances or to any of the excipients.

Do not use on cats. Due to their unique physiology and inability to metabolise permethrin, this veterinary medicinal product must not be used on cats. If applied to a cat, or ingested by a cat that actively grooms a recently treated dog, this veterinary medicinal product may have serious harmful effects. (See section 4.5.)

4.4 Special warnings for each target species

All dogs within the household should be treated. Cats in the household should only be treated with a veterinary medicinal product authorised for use in that species.

Fleas can infest the dog's basket, bedding and regular resting areas such as carpets and soft furnishings. In case of massive flea infestation and at the beginning of the control measures, these areas should be treated with a suitable insecticide and then vacuumed regularly.

4.5 Special precautions for use

Special precautions for use in animals

This veterinary medicinal product can induce convulsions in cats that could be fatal, due to the unique physiology of this species which is unable to metabolise certain compounds, including permethrin. In case of accidental exposure, if undesirable effects occur, wash the cat with shampoo or soap. To prevent cats from being accidentally exposed to the veterinary medicinal product, keep cats away from treated dogs until the application site is dry. It is important to ensure that cats do not groom the site of application on a dog which has been treated with this veterinary medicinal product.

The safety of the veterinary medicinal product has not been established in dogs younger than 7 weeks or weighing less than 1.5 kg.

Care should be taken to avoid contact between the veterinary medicinal product and the eyes of the dog.

The attachment of a single tick after treatment cannot be excluded. For this reason the transmission of infectious diseases cannot be completely excluded if conditions are favourable.

The veterinary medicinal product remains effective when treated animals are immersed in water (e.g. swimming, bathing). Water immersion repeated weekly for one month and starting 48 hours after treatment, as well as shampooing 2 weeks after treatment do not affect the efficacy of this product. However, in case of frequent shampooing, or bathing within 48 hours after treatment, the duration of activity may be reduced.

Special precautions to be taken by the person administering the veterinary medicinal product to animals

Do not eat, drink or smoke while handling the veterinary medicinal product.
Wash hands thoroughly and immediately after use.
This veterinary medicinal product is irritating to the eyes and skin.
Avoid contact with the skin.
In case of accidental spillage onto skin, wash off immediately with soap and water.
If the veterinary medicinal product accidentally gets into the eyes, they should be thoroughly flushed with water.
If skin or eye irritation persists, or if the veterinary medicinal product is accidentally swallowed, seek medical advice immediately and show the package leaflet or the label to the physician.
People with known hypersensitivity to any of the ingredients should avoid contact with the veterinary medicinal product.

Children must not handle treated dogs for at least four hours after administration of the veterinary medicinal product. It is therefore recommended to treat dogs in the evening, or before taking them for a walk. On the day of treatment, treated dogs should not be permitted to sleep with their owners, especially children. Used applicators should be disposed of immediately and not left within the sight or reach of children.

Wait for the application site to dry before allowing the treated dog to come in contact with fabrics or furnishings.

Other precautions
Treated dogs should not be allowed to enter surface water for 48 hours after treatment to avoid adverse effects on aquatic organisms. (See section 6.6)

4.6 Adverse reactions (frequency and seriousness)

Transient erythema, pruritus or other signs of discomfort at the application site have been reported very rarely and usually disappear spontaneously, within 24 hours following administration of the product. Gastrointestinal signs such as vomiting or diarrhoea have also been reported very rarely. Transient cosmetic effects (wet appearance, spiking of hair coat and deposits) at the application site have been reported very rarely, however these effects are usually not noticeable after 48 hours.

The frequency of adverse reactions is defined using the following convention:
- very common (more than 1 in 10 animals displaying adverse reaction(s) during the course of one treatment)
- common (more than 1 but less than 10 animals in 100 animals)
- uncommon (more than 1 but less than 10 animals in 1,000 animals)
- rare (more than 1 but less than 10 animals in 10,000 animals)
- very rare (less than 1 animal in 10,000 animals, including isolated reports).

4.7 Use during pregnancy, lactation or lay

The safety of the veterinary medicinal product in bitches has not been established during pregnancy and lactation. The use of the veterinary medicinal product in pregnant and lactating bitches or in dogs intended for breeding should be based on a benefit/risk assessment by the responsible veterinarian.

Laboratory studies, with each of the components, dinotefuran, pyriproxyfen or permethrin, in rats and rabbits have not produced any evidence of maternotoxic, teratogenic or foetotoxic effects.

Dinotefuran has been shown to cross the blood-milk barrier and is excreted in the milk.

N-methylpyrrolidone, an excipient in the veterinary medicinal product, has shown to be teratogenic in laboratory animals.

4.8 Interaction with other medicinal products and other forms of interaction

None known.

4.9 Amounts to be administered and administration route

Dosage:

The minimum recommended dose is 6.4 mg dinotefuran/kg body weight, 0.6 mg pyriproxyfen/kg body weight and 46.6 mg permethrin/kg body weight, equivalent to 0.12 ml of the veterinary medicinal product per kg body weight.

The following table shows the size of spot-on applicator to be used according to the weight of the dog:

Weight of dog (kg)	Colour of applicator cap	Volume (ml)	Applicator to be used	
for dogs 1.5–4 kg	Yellow	0.8	1 applicator of	Vectra 3D for dogs 1.5–4 kg
for dogs 4–10 kg	Teal	1.6		Vectra 3D for dogs 4–10 kg
for dogs 10–25 kg	Blue	3.6		Vectra 3D for dogs 10–25 kg
for dogs 25–40 kg	Purple	4.7		Vectra 3D for dogs 25–40 kg
for dogs > 40 kg	Red	8.0		Vectra 3D for dogs > 40 kg

Method and route of administration

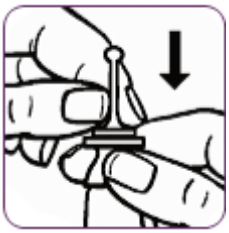
Spot-on use.

Care should be taken to apply the veterinary medicinal product only onto intact skin.

How to apply:
Remove the spot-on applicator from the pack.

Step 1: Hold the applicator upright, placing fingers below the larger disk as shown.

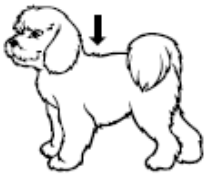
Step 2: With the other hand, press downwards on the smaller disk until the 2 disks meet evenly. This will pierce the seal.



Step 3: The dog should be standing or in a comfortable position for easy application. Part the hair until the skin is visible. Apply the veterinary medicinal product (as directed in step 4 below) slowly with the tip of the applicator on the skin.

Step 4
Use according to **4a** or **4b** recommendation:

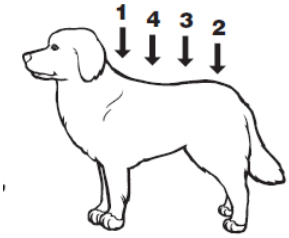
4a recommendation: Gently squeeze the applicator and apply the veterinary medicinal product to the skin along the dog's back, beginning between the shoulder blades, in the number of spots and order shown in the diagrams below and squeezing until the applicator is empty. Avoid superficial application to the dog's hair. The number of application spots will depend on the body weight of the dog.



Dogs from 1.5 to 4 kg body weight

Dogs over 4 kg and up to 10 kg body weight

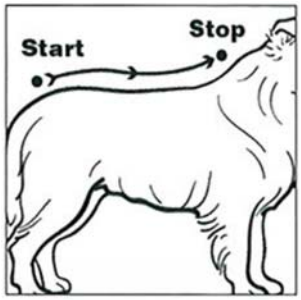
Dogs over 10 kg and up to 40 kg body weight



Dogs over 40 kg body weight

OR

4b recommendation: Regardless of the dog's body weight, using the applicator tip, part the hair at the base of the tail and begin applying the veterinary medicinal product directly onto the skin in a continuous line from the base of the tail along the centre of the back all the way up to the shoulder blades, as shown in the diagram, squeezing the applicator until it is empty.



Treatment schedule:

Following a single administration, the veterinary medicinal product will prevent infestation for one month. The treatment can be repeated once a month.

4.10 Overdose (symptoms, emergency procedures, antidotes), if necessary

Apart from erythema and cosmetic hair coat changes at the site of application, no adverse reactions were observed in healthy puppies aged 7 weeks, topically treated 7 times at 2 week intervals and with up to 5 times the highest recommended dose.

After accidental ingestion of the highest recommended dose, vomiting, salivation and diarrhoea may occur, however these should resolve without treatment.

4.11 Withdrawal period(s)

Not applicable.

5. PHARMACOLOGICAL PROPERTIES

Pharmacotherapeutic group: Ectoparasiticides, insecticides and repellents, permethrin combinations.
ATCvet code: QP53AC54.

5.1 Pharmacodynamic properties

Dinotefuran is an insecticide. Its structure is derived from the neurotransmitter acetylcholine and acts on nicotinic acetylcholine receptors of the insect nerve synapse. Once bound to these receptors, the agonist action of repeated excitatory impulses kills the insect. Insects do not have to ingest dinotefuran, it kills by contact. Dinotefuran has low affinity to mammalian acetylcholine receptor sites.

Pyriproxyfen is a photostable insect growth regulator (IGR). It acts through contact, by mimicking the juvenile hormone, which regulates the moulting of insects from one life stage to the next. Pyriproxyfen stops the flea life cycle by both inducing premature oviposition and also suppressing yolk deposition in flea eggs, leading to the production of infertile eggs. Pyriproxyfen also blocks the development of juvenile stages (larvae and early (pharate) pupae) into adult emergence. This prevents infestation within the environment of the treated animal.

Permethrin is a synthetic pyrethroid. Pyrethroids act as neurotoxics on voltage-gated sodium channels by slowing their activation and inactivation properties. This results in hyperexcitability and death of the parasite. Permethrin is acaricide and insecticide. It also possesses repellent properties.

A synergistic effect was observed *in vitro* when dinotefuran was administered in conjunction with permethrin, leading to a faster onset of insecticidal activity *in vivo*. On the day of first treatment this

veterinary medicinal product results in adequate flea adulticidal activity within 12 hours after application.

The anticipated clinical benefit resulting from a combination of dinotefuran with permethrin was demonstrated in one laboratory study on dogs which showed a prolongation of the duration of efficacy against *C. canis* fleas to 4 weeks.

5.2 Pharmacokinetic particulars

Following topical application, dinotefuran and pyriproxyfen are partially absorbed through the dog's skin leading to systemic exposure. For permethrin, the plasma levels remain under the limit of quantification.

The three active substances rapidly distribute over the body surface of the animal within the first day, with maximum concentrations obtained 3 days after the application. The three active substances were still measurable in different zones of the hair coat one month after treatment.

Environmental properties

The veterinary medicinal product should not enter water courses as it is dangerous for fish and other aquatic organisms. Do not contaminate ponds, waterways or ditches with the veterinary medicinal product or with used containers.

6. PHARMACEUTICAL PARTICULARS

6.1 List of excipients

N-octyl-2-pyrrolidone
N-methylpyrrolidone

6.2 Incompatibilities

None known.
Do not mix with any other veterinary medicinal product, and do not apply together with any other veterinary medicinal product at the same time and site.

6.3 Shelf life

Shelf life of the veterinary medicinal product as packaged for sale: 3 years.

6.4. Special precautions for storage

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

6.5 Nature and composition of immediate packaging

Spot-on applicator made of a multilayered complex of aluminium and polyethylene (PE) with HDPE, top-sealed with a liner complex (aluminium/polyester/sealable PE layer).

Pack sizes:
Cardboard box of 1, 3, 6, 12 or 48 spot-on applicators of 0.8 ml, 1.6 ml, 3.6 ml, 4.7 ml or 8.0 ml.
(Only one size per box.)

Not all pack sizes may be marketed.

6.6 Special precautions for the disposal of unused veterinary medicinal product or waste materials derived from the use of such products

Any unused veterinary medicinal product or waste materials derived from such veterinary medicinal product should be disposed of in accordance with local requirements.

Vectra 3D should not enter water courses as it is dangerous for fish and other aquatic organisms. Do not contaminate ponds, waterways or ditches with the veterinary medicinal product or with used containers.

7. MARKETING AUTHORISATION HOLDER

Ceva Santé Animale
10, av. de La Ballastière
33500 Libourne
FRANCE

8. MARKETING AUTHORISATION NUMBER(S)

EU/2/13/156/001–025

9. DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION

Date of first authorisation: {DD/MM/YYYY}

10. DATE OF REVISION OF THE TEXT

{MM/YYYY}

Detailed information on this product is available on the website of the European Medicines Agency (http://www.ema.europa.eu/).

PROHIBITION OF SALE, SUPPLY AND/OR USE

Not applicable.

ANNEX II

A. MANUFACTURER RESPONSIBLE FOR BATCH RELEASE

B. CONDITIONS OR RESTRICTIONS REGARDING SUPPLY AND USE

C. STATEMENT OF THE MRLs

A. MANUFACTURER RESPONSIBLE FOR BATCH RELEASE

Ceva Santé Animale
10, av. de La Ballastière
33500 Libourne
FRANCE

B. CONDITIONS OR RESTRICTIONS REGARDING SUPPLY AND USE

Veterinary medicinal product subject to prescription.

C. STATEMENT OF THE MRLs

Not applicable.

ANNEX III

LABELLING AND PACKAGE LEAFLET

A. LABELLING

PARTICULARS TO APPEAR ON THE OUTER PACKAGE

Cardboard boxes of 1, 3, 6, 12 and 48 spot-on applicators

1. NAME OF THE VETERINARY MEDICINAL PRODUCT

Vectra 3D spot-on solution for dogs 1.5–4 kg
Vectra 3D spot-on solution for dogs 4–10 kg
Vectra 3D spot-on solution for dogs 10–25 kg
Vectra 3D spot-on solution for dogs 25–40 kg
Vectra 3D spot-on solution for dogs > 40 kg

Dinotefuran / pyriproxyfen / permethrin

2. STATEMENT OF ACTIVE AND OTHER SUBSTANCES

Each spot-on applicator contains dinotefuran 44 mg / pyriproxyfen 3.9 mg / permethrin 317 mg
Each spot-on applicator contains dinotefuran 87 mg / pyriproxyfen 7.7 mg / permethrin 635 mg
Each spot-on applicator contains dinotefuran 196 mg / pyriproxyfen 17.4 mg / permethrin 1429 mg
Each spot-on applicator contains dinotefuran 256 mg / pyriproxyfen 22.7 mg / permethrin 1865 mg
Each spot-on applicator contains dinotefuran 436 mg / pyriproxyfen 38.7 mg / permethrin 3175 mg

3. PHARMACEUTICAL FORM

Spot-on solution

4. PACKAGE SIZE

1 spot-on applicator
3 spot-on applicators
6 spot-on applicators
12 spot-on applicators
48 spot-on applicators

5. TARGET SPECIES

Dogs.

6. INDICATION(S)

Read the package leaflet before use.

7. METHOD AND ROUTE(S) OF ADMINISTRATION

Spot-on use.
Read the package leaflet before use.

8. WITHDRAWAL PERIOD

9. SPECIAL WARNING(S), IF NECESSARY

Do not use on cats.

Read the package leaflet before use.

10. EXPIRY DATE

EXP {month/year}

11. SPECIAL STORAGE CONDITIONS

12. SPECIFIC PRECAUTIONS FOR THE DISPOSAL OF UNUSED PRODUCTS OR WASTE MATERIALS, IF ANY

Disposal: read package leaflet.

13. THE WORDS "FOR ANIMAL TREATMENT ONLY" AND CONDITIONS OR RESTRICTIONS REGARDING SUPPLY AND USE, if applicable

For animal treatment only. To be supplied only on veterinary prescription.

14. THE WORDS "KEEP OUT OF THE SIGHT AND REACH OF CHILDREN"

Keep out of the sight and reach of children.

15. NAME AND ADDRESS OF THE MARKETING AUTHORISATION HOLDER

Ceva Santé Animale
10, av. de La Ballastière
33500 Libourne
FRANCE

16. MARKETING AUTHORISATION NUMBER(S)

EU/2/13/156/001 (1 spot-on applicator for dogs 1.5–4 kg)

EU/2/13/156/002 (3 spot-on applicators for dogs 1.5–4 kg)
EU/2/13/156/003 (6 spot-on applicators for dogs 1.5–4 kg)
EU/2/13/156/004 (12 spot-on applicators for dogs 1.5–4 kg)
EU/2/13/156/005 (48 spot-on applicators for dogs 1.5–4 kg)
EU/2/13/156/006 (1 spot-on applicator for dogs 4–10 kg)
EU/2/13/156/007 (3 spot-on applicators for dogs 4–10 kg)
EU/2/13/156/008 (6 spot-on applicators for dogs 4–10 kg)
EU/2/13/156/009 (12 spot-on applicators for dogs 4–10 kg)
EU/2/13/156/010 (48 spot-on applicators for dogs 4–10 kg)
EU/2/13/156/011 (1 spot-on applicator for dogs 10–25 kg)
EU/2/13/156/012 (3 spot-on applicators for dogs 10–25 kg)
EU/2/13/156/013 (6 spot-on applicators for dogs 10–25 kg)
EU/2/13/156/014 (12 spot-on applicators for dogs 10–25 kg)
EU/2/13/156/015 (48 spot-on applicators for dogs 10–25 kg)
EU/2/13/156/016 (1 spot-on applicator for dogs 25–40 kg)
EU/2/13/156/017 (3 spot-on applicators for dogs 25–40 kg)
EU/2/13/156/018 (6 spot-on applicators for dogs 25–40 kg)
EU/2/13/156/019 (12 spot-on applicators for dogs 25–40 kg)
EU/2/13/156/020 (48 spot-on applicators for dogs 25–40 kg)
EU/2/13/156/021 (1 spot-on applicator for dogs > 40 kg)
EU/2/13/156/022 (3 spot-on applicators for dogs > 40 kg)
EU/2/13/156/023 (6 spot-on applicators for dogs > 40 kg)
EU/2/13/156/024 (12 spot-on applicators for dogs > 40 kg)
EU/2/13/156/025 (48 spot-on applicators for dogs > 40 kg)

17. MANUFACTURER'S BATCH NUMBER

Lot {number}

MINIMUM PARTICULARS TO APPEAR ON SMALL IMMEDIATE PACKAGING UNITS

Spot-on applicator label

1. NAME OF THE VETERINARY MEDICINAL PRODUCT

Vectra 3D spot-on (1.5–4 kg)
Vectra 3D spot-on (4–10 kg)
Vectra 3D spot-on (10–25 kg)
Vectra 3D spot-on (25–40 kg)
Vectra 3D spot-on (> 40 kg)

2. QUANTITY OF THE ACTIVE SUBSTANCE(S)

3. CONTENTS BY WEIGHT, BY VOLUME OR BY NUMBER OF DOSES

4. ROUTE(S) OF ADMINISTRATION

Spot-on use

5. WITHDRAWAL PERIOD

6. BATCH NUMBER

Lot {number}

7. EXPIRY DATE

EXP {month/year}

8. THE WORDS "FOR ANIMAL TREATMENT ONLY"

For animal treatment only.

B. PACKAGE LEAFLET

PACKAGE LEAFLET FOR:
Vectra 3D spot-on solution for dogs 1.5–4 kg
Vectra 3D spot-on solution for dogs 4–10 kg
Vectra 3D spot-on solution for dogs 10–25 kg
Vectra 3D spot-on solution for dogs 25–40 kg
Vectra 3D spot-on solution for dogs > 40 kg

1. NAME AND ADDRESS OF THE MARKETING AUTHORISATION HOLDER AND OF THE MANUFACTURING AUTHORISATION HOLDER RESPONSIBLE FOR BATCH RELEASE, IF DIFFERENT

Marketing authorisation holder and manufacturer responsible for batch release:

Ceva Santé Animale
10, av. de La Ballastière
33500 Libourne
FRANCE

2. NAME OF THE VETERINARY MEDICINAL PRODUCT

Vectra 3D spot-on solution for dogs 1.5–4 kg
Vectra 3D spot-on solution for dogs 4–10 kg
Vectra 3D spot-on solution for dogs 10–25 kg
Vectra 3D spot-on solution for dogs 25–40 kg
Vectra 3D spot-on solution for dogs > 40 kg

Dinotefuran / pyriproxyfen / permethrin

3. STATEMENT OF THE ACTIVE AND OTHER SUBSTANCES

Each ml contains 54 mg dinotefuran, 4.84 mg pyriproxyfen and 397 mg permethrin.

Each spot-on applicator delivers:

Weight of dog (kg)	Colour of applicator cap	Volume (ml)	Dinotefuran (mg)	Pyriproxyfen (mg)	Permethrin (mg)
for dogs 1.5–4 kg	Yellow	0.8	44	3.9	317
for dogs 4–10 kg	Teal	1.6	87	7.7	635
for dogs 10–25 kg	Blue	3.6	196	17.4	1,429
for dogs 25–40 kg	Purple	4.7	256	22.7	1,865
for dogs > 40 kg	Red	8.0	436	38.7	3,175

The veterinary medicine is a pale yellow spot-on solution, packaged in single dose spot-on applicators.

4. INDICATIONS

Fleas:
This veterinary medicine kills fleas on infested animals and prevents further infestations for one month. It is effective against the following fleas found on dogs *(Ctenocephalides canis* and *Ctenocephalides felis*). This veterinary medicine also prevents the multiplication of fleas for two

months after use by inhibiting flea egg hatching (ovicidal activity) and by inhibiting the transformation of immature fleas into adult fleas.
The veterinary medicine can be used as part of a treatment strategy for flea allergy dermatitis (FAD), an inflammation of the skin.

Ticks:
This veterinary medicine kills and repels ticks (*Rhipicephalus sanguineus* and *Ixodes ricinus* ticks are controlled for one month; *Dermacentor reticulatus* ticks are controlled for up to three weeks).
If ticks are present when this medicine is applied, the ticks may not all be killed within the first 48 hours after use, but they may be killed within a week. To remove ticks, it is recommended to use an appropriate tick removal device.

Sand flies, mosquitoes and stable flies:
The veterinary medicine repels (prevents biting) flying insects such as sand flies (*Phlebotomus perniciosus*), mosquitoes (*Culex pipiens, Aedes aegypti)* and stable flies (*Stomoxys calcitrans*) for one month after use. It also kills mosquitoes (*Aedes aegypti*) and stable flies for one month after use.

5. CONTRAINDICATIONS

Do not use on cats (see 'Special warnings'). Due to their unique physiology and inability to metabolise permethrin (one of the active substances in this product), this veterinary medicinal product must not be used on cats. If applied to a cat, or ingested by a cat that actively grooms a recently treated dog, this veterinary medicinal product may have serious harmful effects.

Do not use in case of hypersensitivity to the active substances or to any of the excipients.

6. ADVERSE REACTIONS

Transient skin redness, itching or other signs of discomfort at the application site have been reported very rarely and usually disappear without any treatment and within 24 hours after using the medicine.
Gastrointestinal (stomach or guts) adverse effects, such as vomiting or diarrhoea, have also been reported very rarely.
Transient cosmetic effects (wet appearance, spiking of hair coat and deposits) at the application site have been reported very rarely, however these effects are usually not noticeable after 48 hours.

The frequency of adverse reactions is defined using the following convention:
- very common (more than 1 in 10 animals displaying adverse reaction(s) during the course of one treatment)
- common (more than 1 but less than 10 animals in 100 animals)
- uncommon (more than 1 but less than 10 animals in 1,000 animals)
- rare (more than 1 but less than 10 animals in 10,000 animals)
- very rare (less than 1 animal in 10,000 animals, including isolated reports).

If you notice any serious effects or other effects not mentioned in this package leaflet, please inform your veterinary surgeon.

7. TARGET SPECIES

Dogs.

8. DOSAGE FOR EACH SPECIES, ROUTE AND METHOD OF ADMINISTRATION

Spot-on use.

Care should be taken to apply the veterinary medicine only onto intact (undamaged) skin.

Dosage:

Your veterinarian will determine the correct size of spot-on applicator needed for your dog (see also section "Special warnings").

The minimum recommended dose is 6.4 mg dinotefuran/kg body weight, 0.6 mg pyriproxyfen/kg body weight and 46.6 mg permethrin/kg body weight, equivalent to 0.12 ml of the veterinary medicine per kg body weight.

The following table shows the size of spot-on applicator to be used according to the weight of the dog:

Weight of dog (kg)	Colour of applicator cap	Volume (ml)	Applicator to be used	
for dogs 1.5–4 kg	Yellow	0.8	1 applicator of	Vectra 3D for dogs 1.5–4 kg
for dogs 4–10 kg	Teal	1.6		Vectra 3D for dogs 4–10 kg
for dogs 10–25 kg	Blue	3.6		Vectra 3D for dogs 10–25 kg
for dogs 25–40 kg	Purple	4.7		Vectra 3D for dogs 25–40 kg
for dogs > 40 kg	Red	8.0		Vectra 3D for dogs > 40 kg

9. ADVICE ON CORRECT ADMINISTRATION

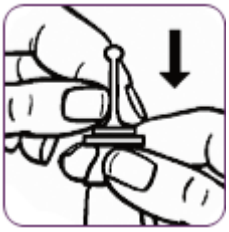
Administration:

How to apply:

Remove the spot-on applicator from the pack.

Step 1: Hold the applicator upright, placing fingers below the larger disk as shown.

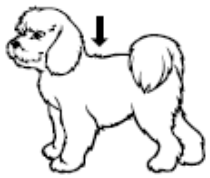
Step 2: With the other hand, press downwards on the smaller disk until the 2 disks meet evenly. This will pierce the seal.



Step 3: The dog should be standing or in a comfortable position for easy application. Part the hair until the skin is visible. Apply the veterinary medicine (as directed in step 4 below) slowly with the tip of the applicator on the skin.

Step 4
Use according to **4a** or **4b** recommendation:

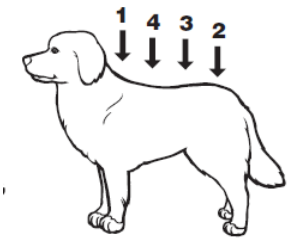
4a recommendation: Gently squeeze the applicator and apply the veterinary medicine to the skin along the dog's back, beginning between the shoulder blades, in the number of spots and order shown in the diagrams below and squeezing until the applicator is empty. Avoid superficial application to the dog’s hair. The number of application spots will depend on the body weight of the dog.



Dogs from 1.5 to 4 kg body weight

Dogs over 4 kg and up to 10 kg body weight

Dogs over 10 kg and up to 40 kg body weight

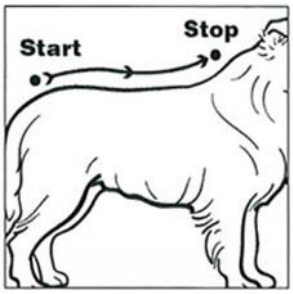


Dogs over 40 kg body weight

OR

4b recommendation: Regardless of the dog’s body weight, using the applicator tip, part the hair at the base of the tail and begin applying the veterinary medicine directly onto the skin in a continuous line

from the base of the tail along the centre of the back all the way up to the shoulder blades, as shown in the diagram, squeezing the applicator until it is empty.



Treatment schedule:

Following a single administration, the veterinary medicine will prevent infestation for one month.

The treatment can be repeated once a month if recommended by your veterinarian.

10. WITHDRAWAL PERIOD

Not applicable.

11. SPECIAL STORAGE PRECAUTIONS

Special precautions for storage

Keep out the sight and reach of children.

This veterinary medicine does not require any special storage conditions.

Do not use this veterinary medicinal product after the expiry date which is stated on the carton and spot-on applicator (after "EXP").

12. SPECIAL WARNING(S)

Special warnings for each target species:
All dogs within the household should be treated. Cats in the household should only be treated with a veterinary medicinal product authorised for use in that species.
Fleas can infest the dog's basket, bedding and regular resting areas such as carpets and soft furnishings. In case of massive flea infestation and at the beginning of the control measures, these areas should be treated with a suitable insecticide and then vacuumed regularly.

Do not use on cats. If the veterinary medicine is accidentally swallowed it can cause convulsions in cats that could be fatal. In case of accidental exposure, wash the cat with shampoo or soap, and seek veterinary advice immediately. To prevent cats from being accidentally exposed to the veterinary medicine, keep cats away from treated dogs until the application site is dry. It is important to ensure that cats do not groom the site of application on a dog which has been treated with this veterinary medicine. In case of exposure of this type seek veterinary advice immediately.

Special precautions for use in animals:
For external use only.
The safety of this veterinary medicine has not been established in dogs younger than 7 weeks or weighing less than 1.5 kg.

Care should be taken to avoid contact between the veterinary medicine and the eyes of the dog.

The attachment of a single tick after treatment cannot be excluded. For this reason the transmission of infectious diseases cannot be completely excluded if conditions are favourable.

The veterinary medicine remains effective when treated animals are immersed in water (e.g. swimming, bathing). Water immersion repeated weekly for one month and starting 48 hours after treatment, as well as shampooing 2 weeks after treatment do not affect the efficacy of this veterinary medicine. However, in case of frequent shampooing, or bathing within 48 hours after treatment, the duration of activity may be reduced.

Treated dogs should not be allowed to enter surface water for 48 hours after treatment to avoid adverse effects on aquatic organisms. See also section "Special precautions for the disposal of unused product or waste materials".

Special precautions to be taken by the person administering the veterinary medicinal product to animals:
Do not eat, drink or smoke while handling the veterinary medicine.
Wash hands thoroughly and immediately after use.
This veterinary medicine is irritating to the eyes and skin.
Avoid contact with the skin.
In case of accidental spillage onto skin, wash off immediately with soap and water.
If the veterinary medicine accidentally gets into the eyes, they should be thoroughly flushed with water.
If skin or eye irritation persists, or if the veterinary medicine is accidentally swallowed, seek medical advice immediately and show the package leaflet or the label to the physician.

People with known hypersensitivity to any of the ingredients should avoid contact with the veterinary medicine.

Children must not handle treated dogs for at least four hours after administration of the veterinary medicine. It is therefore recommended to treat the dogs in the evening, or before taking them for a walk. On the day of treatment, treated dogs should not be permitted to sleep with their owners, especially children. Used applicators should be disposed of immediately and not left within the sight or reach of children.

Wait for the application site to dry before allowing the treated dog to come in contact with fabrics or furnishings.

Pregnancy and lactation:
The safety of this veterinary medicine in bitches has not been established during pregnancy and lactation. The use of the veterinary medicine in pregnant and lactating bitches or in dogs intended for breeding should be based on a benefit-risk assessment by the responsible veterinarian.

Laboratory studies with each of the active substances (dinotefuran, pyriproxyfen and permethrin) in rats and rabbits have not produced any evidence of toxic effects on the pregnant or lactating animal, or toxic effects on the embryo or foetus.

Dinotefuran has been shown to pass into the milk of lactating animals.

N-methylpyrrolidone, an excipient in the veterinary medicine, has been shown to cause foetal malformations leading to birth defects in laboratory animals.

Incompatibilities:
Do not mix with any other veterinary medicine, and do not apply together with any other veterinary medicine at the same time and site.

Overdose (symptoms, emergency procedures, antidotes):
Apart from local skin redness and cosmetic hair coat changes where the medicine was applied, no adverse reactions were observed in healthy puppies aged 7 weeks, given the medicine on the skin 7 times at 2-week intervals and with up to 5 times the highest recommended dose.
After accidental swallowing of the highest recommended dose, vomiting, salivation and diarrhoea may occur, however these should disappear without treatment.

13. SPECIAL PRECAUTIONS FOR THE DISPOSAL OF UNUSED PRODUCT OR WASTE MATERIALS, IF ANY

Medicines should not be disposed of via wastewater or household waste.

This veterinary medicine should not enter water courses as it is dangerous for fish and other aquatic organisms. Do not contaminate ponds, waterways or ditches with the veterinary medicine or with used containers.

Ask your veterinarian how to dispose of medicines no longer required. These measures should help to protect the environment.

14. DATE ON WHICH THE PACKAGE LEAFLET WAS LAST APPROVED

Detailed information on this product is available on the website of the European Medicines Agency (http://www.ema.europa.eu).

15. OTHER INFORMATION

Pack sizes:
Cardboard box of 1, 3, 6, 12 or 48 spot-on applicators of 0.8 ml, 1.6 ml, 3.6 ml, 4.7 ml or 8.0 ml.
Not all pack sizes may be marketed.

Mechanisms of action:
The three active ingredients in the veterinary medicine act by contact on the parasites.
Dinotefuran acts by binding to nerve sites in the insects. Insects do not have to ingest dinotefuran. Dinotefuran is partially taken up (absorbed) by the dog's skin, but this absorption into the dog's body is not relevant for the efficacy of this veterinary medicine.

Pyriproxyfen works by disrupting the reproduction and growth of fleas. This prevents infestation of the environment of the treated animal with the developing flea stages.

Permethrin acts on the nervous system of arthropods, such as insects and ticks, leading to their death. It also has repellent properties.

Dinotefuran and permethrin work together (in synergy) which has been shown to lead to a faster onset of activity *in vivo*. On the day of first treatment this veterinary medicinal product results in adequate flea adulticidal activity within 12 hours after application. The anticipated clinical benefit resulting from a combination of dinotefuran with permethrin was demonstrated in one laboratory study on dogs which showed a prolongation of the duration of efficacy against *C. canis* fleas to 4 weeks.

Following a single application onto the skin, the three active substances spread over the body surface of the dog within the first day after application. The veterinary medicine is still measurable in different zones of the hair-coat of the treated animal one month after treatment.