vetoquinol
ACHIEVE MORE TOGETHER

vetoquinolusa.com

PRODUCT CATALOG

Bringing nine decades of expertise to animal health

Innovative solutions to support the health and well-being of companion animals

A trusted name in animal health since 1933, we're proud to be the same family-owned company today as we were the day we were founded — with the same commitment to excellence and innovation that has allowed us to develop a genuine partnership with our customers.


SATISFACTION
100%
GUARANTEED

Happy pets
make happy pet parents

Zylkene® is the first veterinary behavior supplement made from alpha-casozepine, a milk-derived ingredient with clinically proven calming benefits.

Why recommend Zylkene to pet owners?

- A calming supplement
- Safe for pregnant and nursing mothers, puppies and kittens
- Ideal for short-term or long-term use
- Easy to give and highly palatable; once a day either whole or opened at meal time
- Can be given with medications
- Non-drowsy formulation

Zylkene®

Ideal for short-term or long-term use

SHORT-TERM SITUATIONS	LONG-TERM SITUATIONS
Fireworks	New Pet / Person in House
Vacations	Regular Vacuuming
Celebrations	Loud Noises
Kennel or Cat Carrier	New Home
Veterinarian Visits	Home Alone
Traveling	Training and Socialization

Zylkene

BEHAVIOR

14-Count Blister Pack

- Consumer friendly packaging
- Ideal for waiting room display
- Great for short-term use and trials

75 mg	#443960
225 mg	#443961
450 mg	#443962

30-Count Bottle

- Flexible administration for short-term or long-term usage

75 mg	#424083
225 mg	#424084
450 mg	#424085

120-Count Bottle

- Convenient and economical option for dispensing
- Ideal for boarding and overnights
- Optimal size for long-term use

75 mg	#443963
225 mg	#443964
450 mg	#443965

Zylkene Equine

BEHAVIOR

Zylkene helps keep horses calm and focused during stressful situations.

#439334	Zylkene® Equine – Oral Powder - 8 gram packets (20 ct)

Flexadin® Advanced with UC•II®

JOINT HEALTH

Flexadin Advanced chews with UC•II® for dogs and cats is an innovative supplement that supports healthy joints and flexibility. Featuring UC•II®, an undenatured type-II collagen derived from chicken cartilage, Flexadin Advanced is different from traditional supplements based on glucosamine and chondroitin. Just one chew per day helps ease joint stiffness and works with a healthy immune system.

- Supports healthy joints and flexibility
- Only **1 chew per day**, regardless of pet's bodyweight or size
- Formulated with UC•II®
- Unique mode of action works by targeting the animal's immune system through a process called oral tolerization

30 ct. - Chews	#434572
60 ct. - Chews	#439516

Flexadin® Advanced with UC•II® Extra Strength

JOINT HEALTH

Flexadin Advanced with UC•II® Extra Strength is once-a-day joint support for dogs and cats that's so powerful it is only available from a veterinarian. Flexadin Advanced Extra Strength is equivalent to the amount of UC•II® in two Flexadin Advanced chews. A single chew increases the likelihood of client compliance with daily joint support.

- Only available from a veterinarian
- Easy to manage in the clinic with one package for both cats and dogs
- Ideal for patients who need everyday joint support

30 ct. - Chews	#465203
60 ct. - Chews	#465204

*UC-II & logo are trademarks of Lonza, UC-II undenatured type II collagen ingredient.

Flexadin Advanced

A breakthrough formula, backed by clinical studies, to support joint health and flexibility in dogs and cats. Created with a unique and proprietary form of undenatured type-II collagen which uses the body's natural immune system to help maintain the normal integrity and function of joints in dogs and cats.

Flexadin® Advanced with UC•II® Equine

JOINT HEALTH

Recommended to support optimal joint health and mobility in horses, it is the only equine joint supplement that contains UC•II®.

- Contains UC•II®
- Helps maintain joint mobility and flexibility
- Tasty banana flavor

600 g	#445098

Flexadin® Plus Chews

JOINT HEALTH

Flexadin Plus is an affordably priced and palatable traditional supplement containing: *Perna canaliculus* (a source of Chondroitin), Glucosamine, MSM, Creatine, Omega-3 fatty acids and Vitamin E, supporting healthy joints in both dogs and cats.

90 ct. - Chews - cats & small dogs	#434562
90 ct. - Chews - large dogs	#434567

*UC-II & logo are trademarks of Lonza, UC-II undenatured type II collagen ingredient.

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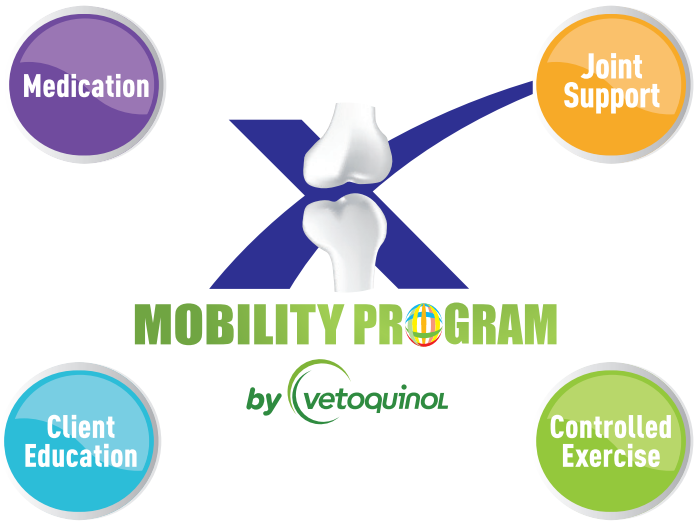


Vetprofen® (carprofen)

PAIN MANAGEMENT

Vetprofen relieves joint pain in dogs caused by osteoarthritis or surgery. Vetprofen is an FDA-approved bioequivalent carprofen.*

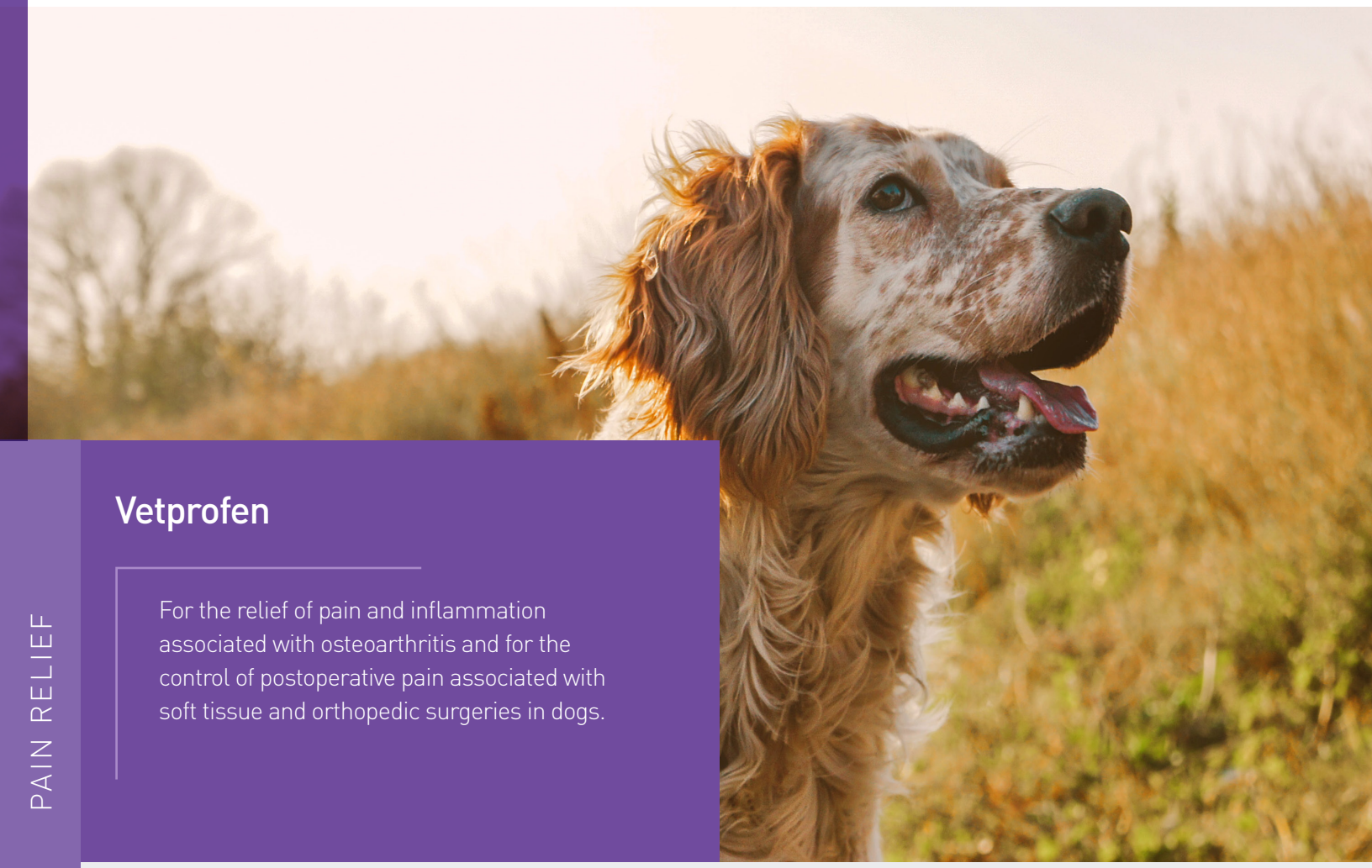
Flavored Tabs	25 mg - 180 ct.	#441145
Flavored Tabs	75 mg - 180 ct.	#441146
Flavored Tabs	100 mg - 180 ct.	#441147
Caplets	25 mg - 240 ct.	#412647
Caplets	75 mg - 240 ct.	#412648
Caplets	100 mg - 240 ct.	#412649

*Federal (USA) law restricts this drug to use by or on the order of a licensed veterinarian.

FLAVORED TABS

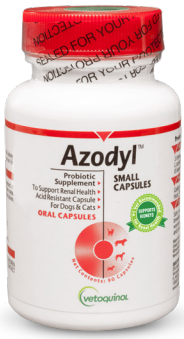
CAPLETS

IMPORTANT SAFETY INFORMATION: As a class, NSAIDS may be associated with gastrointestinal, kidney and liver side effects. These are usually mild, but may be serious. Pet owners should discontinue therapy and contact their veterinarian immediately if side effects occur. Evaluation for pre-existing conditions and regular monitoring are recommended for pets on any medication, including Vetprofen. Use with other NSAIDS or corticosteroids should be avoided. **For full prescribing information, see pages 28 & 29.**



Vetprofen

For the relief of pain and inflammation associated with osteoarthritis and for the control of postoperative pain associated with soft tissue and orthopedic surgeries in dogs.



Azodyl™ Small Capsules

RENAL SUPPORT

Azodyl helps manage uremic toxins such as BUN and Creatinine, which is essential for maintaining quality of life in renal patients.

#1 Veterinarian-Recommended Renal Supplement

- The proprietary formulation of beneficial bacteria in Azodyl supports normal kidney detoxification
- Shown to help quality of life by supporting renal function
- Compatible with other renal support products
- Trusted by veterinarians and pet parents for over a decade
- Easy to administer small capsules

90 ct. bottle	#425856

Renal K+™

RENAL SUPPORT

Renal K+ helps manage potassium levels, an important step in maintaining the quality of life in renal patients.

- A highly palatable potassium supplement
- Use Renal K+ to support normal potassium levels in cats and dogs
- Available in gel and powder

5 oz gel	#410630
100 g powder	#410631

Epakitin®

RENAL SUPPORT

Epakitin helps manage phosphate levels, which has been shown to improve the life expectancy of pets with renal challenges.[1]

- Chitosan-based phosphate binder
- Easy to administer, give orally two times a day
- Can be used in conjunction with renal diets for additional phosphate management
- Use as soon as phosphorus levels exceed 4.5mg/dL[2]

60 g powder	#417361
180 g powder	#417358
300 g powder	#822305

1. Survival of cats with naturally occurring chronic renal failure: effect of dietary management." J. ELLIOTT, J. M. RAWLINGS*, P. J. MARKWELL* AND P. J. BARBER, Journal of Small Animal Practice (2000) 41, 235-242.
2. Based on IRIS renal staging guidelines: www.iris-kidney.com

Vetoquinol is the market leader in renal support

Incidence and impact of renal challenges

- Affects 10.8% of cats and 5.2% of dogs over the age of 7*
- Loss of kidney function is irreversible and progressive
- Since clinical signs can appear late, blood and urine testing of senior patients is critical

* North American Veterinary Research Group (NAVRG). "The Management of Chronic Kidney Disease in Dogs and Cats." Survey conducted in the USA, 2005.

Laxatone®

GASTROINTESTINAL SUPPORT

Laxatone is a gentle but effective lubricant for the prevention and elimination of hairballs in cats. Laxatone's trusted history of palatability, predictable results, and ease of use has made it the industry standard hairball remedy for veterinarians and their clients.

2.5 oz - Maple	#410614
4.25 oz - Maple	#410615
2.5 oz - Tuna	#410618
4.25 oz - Tuna	#410620

Pro-Pectalin™ Paste & Chewable Tablets

GASTROINTESTINAL SUPPORT

Pro-Pectalin contains kaolin, pectin and *Enterococcus faecium*, a beneficial bacteria to help soothe irritated intestines, restore natural intestinal microbiomes, and promote overall digestive health.

Available in a highly-palatable paste or chewable tablets.

15 cc Dial-A-Dose™ Syringe - Paste	#410815
30 cc Dial-A-Dose™ Syringe - Paste	#410816
250 ct. - Chewable Tablets	#410817

Pro-Pectalin™

Pro-Pectalin is highly palatable, effective, and fast-acting. May be used individually along with a bland diet or used as part of a broader protocol. Intended for cases of loose stool in dogs and cats. Some examples of use include:

- Stress
- Garbage gut
- Changes in diet
- Feeding of table scraps

The first and only FDA-approved emetic for dogs

CLEVOR® (ropinirole ophthalmic solution)

TOXICOLOGY

When dogs eat something potentially poisonous or harmful, you need to act quickly. Clevor is a selective emetic with a fast onset of action and short duration of vomiting[1].

- Active ingredient ropinirole is a fast[2], reliable emetic for dogs
- Non-invasive ocular administration
- Single-use dropper provides one injectionless treatment for one dog
- Ready for immediate dosing – no dosage calculation, measuring or additional disposables needed
- Eye drop administration is a patient-friendly way to medicate

5 single-use 30mg/mL droppers	#462253

1. Clevor Product Insert, Orion Pharma, 2020.
2. Suokko, M et al. Vet Rec (2019), doi:10.1136/vr.104953.

Federal law restricts this drug to use by or on the order of a licensed veterinarian.

IMPORTANT SAFETY INFORMATION: Do not use in dogs with central nervous system depression or seizures. Do not use in cases of ingestion of sharp foreign objects, corrosive agents (acids or alkalis), volatile substances or organic solvents. CLEVOR® should not be administered in cases with corneal ulceration, ocular irritation, or ocular injury. Do not use when there is a known sensitivity to ropinirole or the inactive ingredients. **ADVERSE REACTIONS MAY INCLUDE:** Transient mild or moderate hyperemia of the eye, ocular discharge, protrusion of the 3rd eyelid and blepharospasm, transient mild lethargy and increased heart rate. Not recommended for use in breeding, pregnant or lactating dogs. CLEVOR® has not been evaluated in dogs with heart or liver impairments or dogs younger than 4.5 months or less than 4 pounds. Dopamine antagonists, neuroleptics and other medicines with antiemetic properties may reduce the effectiveness of ropinirole. CLEVOR® should be administered by a veterinary professional. Gloves and protective eyewear should be worn when administering. Not for use in humans. Keep out of reach of children. **For full prescribing information, see page 30.**

The protection pets need against broad-spectrum excuses.

Imoxi™ Topical Solution (imidacloprid + moxidectin) is a **once-a-month** topical formula trusted for broad-spectrum protection against fleas, heartworm, and intestinal parasites.

Imoxi Topical Solution offers unique benefits:

For pet owners:	For patients:	For practices:
• Topical application combining excellent flea, heartworm, and intestinal parasite coverage • Twist-N-Go™ cap eliminates a step in the application process	• Kills fleas through contact — no bite necessary • Topical moxidectin is the only formulation approved as a microfilaricide for dogs • Excellent option for dogs and cats facing reinfection from intestinal parasites due to a contaminated environment • Animals with food allergies won't have to be exposed to oral flavorings	• Prescription status • Lower price allows owners to devote more money toward other pet care services

IMOXI™

Topical Solution

(imidacloprid + moxidectin)

Imoxi

PARASITOLOGY

With multiple moxidectin products on the market, it may be time to reconsider the benefits of transdermal moxidectin's unique pharmacologic profile.

- It's the only macrocyclic lactone molecule to be FDA-approved as safe and effective for dogs with circulating microfilariae.[1]
- Moxidectin is the only macrocyclic lactone shown to protect against heartworm **all month long** in dogs.

	Dogs and puppies 7 weeks and at least 3 lbs	Cats and kittens 9 weeks and at least 2 lbs
Prevents heartworm disease	✓	✓
Treats circulating microfilariae	✓	
Kills adult fleas + treats flea infestation	✓	✓
Treats + controls intestinal parasite infections		
• Roundworms	✓	✓
• Hookworms	✓	✓
• Whipworms	✓	
Treats + controls sarcoptic mange	✓	
Treats + controls ear mite infestations		✓

	DOGS					CATS		
								
Weight	3-9 lbs	9.1-20 lbs	20.1-55 lbs	55.1-88 lbs	88.1-110 lbs	2-5 lbs	5.1-9 lbs	9.1-18 lbs
SKU	460420	460421	460422	460423	460424	460425	460426	420427

IMPORTANT SAFETY INFORMATION: CAUTION: Federal (U.S.A.) law restricts this drug to use by or on the order of a licensed veterinarian. Dogs: **WARNING: DO NOT ADMINISTER THIS PRODUCT ORALLY.** For the first 30 minutes after application, ensure that dogs cannot lick the product from application sites on themselves or other treated animals. Children should not come in contact with the application sites for two (2) hours after application. (See Contraindications, Warnings, Human Warnings and Adverse Reactions for more information.) Cats: Do not use on sick, debilitated, or underweight cats. Avoid oral ingestion. **For complete product safety information, see pages 31 & 32.**

1. FDA. Approved Animal Drug Products (Green Book). Feb. 2, 2021. Accessed March 5, 2021. Available at: https://www.fda.gov/animal-veterinary/products/approved-animal-drug-products-green-book.

Felovite® II

GENERAL HEALTH - DAILY CARE

Felovite II is a palatable vitamin and mineral supplement for cats and kittens, fortified with taurine in a fish-flavored gel cats can't resist.

2.5 oz - Oral Gel, Fish Flavor	#412624

Nutri-Cal®

GENERAL HEALTH - DAILY CARE

The brand most trusted and recommended by veterinarians, Nutri-Cal high calorie supplement for dogs and cats is ideal for animals needing an extra boost or aging pets and working/hunting dogs. Loved by pet owners for its palatability and ease of administration.

4.25 oz - Oral Gel, Maple Flavor	#411557

Triglyceride OMEGA

GENERAL HEALTH - DAILY CARE

Helping to support healthy skin and coat for dogs and cats, Triglyceride OMEGA is a supplemental source of vital Omega-3 fatty acids via a natural fish oil.

- Triglyceride form of fish oil – natural form for increased bioavailability
- Fish oil provides preformed EPA and DHA.

Small (up to 30 lbs) Capsules	
60 ct.	#410499
250 ct.	#410498

Medium (up to 60 lbs) Capsules	
60 ct.	#410497
250 ct.	#410496

Large (60 lbs and over) Capsules	
60 ct.	#410495
250 ct.	#410494

All Sizes	
8 oz - Liquid	#410611

Pill Wrap

GENERAL HEALTH - DAILY CARE

Pill Wrap is a moist, flavorful and shapeable paste that is perfect for wrapping around ANY size or shape pill. Pill Wrap is made with proprietary flavor-flakes for a bacon taste both cats and dogs can enjoy. One container can cover approximately 56 pills.

4 oz - Bacon Flavor	#429022

Paxon™

URINARY SUPPORT

With 100 mg of Purified Cranberry Fruit Extract in each tablet, Paxon is an artificial beef-flavored supplement for the support of a healthy urinary tract in dogs. Paxon is free of animal proteins, sugar, and Oxalic Acid.

30 ct. Chewable Tablets	#425855

Methigel®

URINARY SUPPORT

Methigel is a supplemental source of the amino acid d-l Methionine which helps maintain normal urine pH and promotes healthy urinary tracts in dogs and cats.

4.25 oz Oral Gel	#411513

Enisyl-F® Bites & Oral Paste

IMMUNE SUPPORT

Enisyl-F supports respiratory health and helps maintain normal eye function and is available in bite-sized pieces or a palatable paste.

180 g - Bites - Chicken Liver Flavor	#415729
100 ml - Paste Pump - Tuna Flavor	#410240

Viralys® Oral Gel & Oral Powder

IMMUNE SUPPORT

Viralys gel and powder support respiratory health and maintain normal eye function. Available in both a maple-flavored gel and a fish and poultry-flavored powder.

5 oz - Gel - Maple Flavor	#410632
100 g - Powder - Fish & Poultry Flavor	#410633
600 g - Powder - Fish & Poultry Flavor	#410634

Enzadent

The Enzadent "Enzyme System" contains naturally-occurring enzymes that generate a flow of hypothiocyanate ions (OSCN-) to help safely regulate the microbiological oral ecosystem of pets. The line includes tasty and effective toothpaste with a choice of brush styles for an easy and effective method of cleaning a pet's teeth and gums.

Enzadent Toothbrush Kit

DENTAL HYGIENE

The Enzadent Toothbrush Kit contains a traditional-style, dual-ended toothbrush, a handy fingerbrush, and a 90 g tube of poultry-flavored Enzadent Enzymatic Toothpaste.

Toothbrush Kit	#411459

Enzadent Dual-Ended Toothbrush

DENTAL HYGIENE

The Enzadent dual-ended toothbrush features a large head and a smaller head to accommodate dogs and cats of all sizes. The heads are set at ergonomically correct angles to aid in pet owner compliance.

1 Brush	#411449

Enzadent Enzymatic Toothpaste

DENTAL HYGIENE

Enzadent Enzymatic Toothpaste does not foam or need to be rinsed, and can be swallowed safely. Both dogs and cats love the tasty poultry flavor.

90 g - Poultry Flavor	#411451

Enzadent Fingerbrush Kit

DENTAL HYGIENE

The Enzadent fingerbrush is a convenient and effective way to apply toothpaste and massage the gums of compliant pets. Comes with poultry-flavored Enzadent enzymatic toothpaste.

21 g - Poultry Flavor	#411453

Dentahex™ Oral Rinse

DENTAL HYGIENE

Palatable and highly effective in reducing plaque and freshening breath in dogs and cats. The unique formulation provides anti-plaque and anti-calculus properties, thus aiding in the prevention of tooth and gum disease. Contains: Chlorhexidine Gluconate 0.12% with Zinc.

8 oz	#411425

Dentahex™

Dentahex incorporates Chlorhexidine, a proven effective oral hygiene ingredient to help control plaque and tartar.

HA Dermal-Soothe™ Shampoo

DERMATOLOGY

HA Dermal-Soothe Shampoo helps animals with normal, dry, itchy or sensitive skin. Contains Pramoxine HCL and the Hyaluronic Advantage to deliver long lasting moisture for a soft, supple and lustrous coat.

16 oz	#432049

HA Dermal-Soothe™ Spray

DERMATOLOGY

HA Dermal-Soothe Spray uses Pramoxine HCL and the Hyaluronic Advantage to soothe dry, itchy skin in dogs and cats. Spray can be used as needed between baths to maintain skin hydration.

12 oz	#411528

Aloe & Oatmeal Shampoo

DERMATOLOGY

Aloe & Oatmeal Shampoo is specially formulated to soothe the dry skin for dogs and cats. Its formulation adds essential moisture while providing a deep rich lather that gently cleans the skin without removing natural skin oils. Soap free, paraben free and silicone free.

16 oz	#440156
Gallon	#440174

Aloe & Oatmeal Conditioner

DERMATOLOGY

Aloe & Oatmeal Skin & Coat Conditioner is the perfect after-shampoo accompaniment for dogs and cats requiring additional moisturization.

16 oz	#439631
Gallon	#439632

Sebozole™ Shampoo

DERMATOLOGY

Sebozole's unique formulation of Miconazole Nitrate 2%, Salicylic Acid 2% and Chloroxylenol 1% provides antibacterial, antifungal and antiseborrheic activity for optimal therapeutic effectiveness against dermatological conditions associated with conditions responsive to Miconazole Nitrate and Chloroxylenol. For dogs, cats and horses.

16 oz	#411608
Gallon	#411610

BPO-3™ Shampoo

DERMATOLOGY

BPO-3 Shampoo with 3% Benzoyl Peroxide is an antimicrobial, keratolytic, follicular flushing shampoo for dogs, cats and horses. It may be used in the topical treatment of pyoderma, folliculitis and seborrheic skin disorders.

16 oz	#411401
Gallon	#411402

Universal Medicated Shampoo

DERMATOLOGY

May be used as an adjunctive therapy for most common dermatological conditions in dogs, cats and horses.

16 oz	#411627
gallon	#411628

Use this chart to compare products and find the right skin care solutions for your patients.

	SKIN CONDITIONS	PRODUCT
NORMAL	No flaking or itching; no pruritus	Aloe & Oatmeal Shampoo, Aloe & Oatmeal Conditioner, HA Dermal-Soothe™ Shampoo, HA Dermal-Soothe™ Spray
DRY/ITCHY	Cracked, dehydrated appearance; slight pruritus	Aloe & Oatmeal Shampoo, Aloe & Oatmeal Conditioner, HA Dermal-Soothe™ Shampoo, HA Dermal-Soothe™ Spray
DRY/FLAKY	Visible dry flakes; slight pruritus	HA Dermal-Soothe™ Shampoo, HA Dermal-Soothe™ Spray, Sebozole™ Shampoo, Universal Medicated Shampoo
OILY/FLAKY	Coat looks & feels greasy; slight pruritus	BPO-3™ Shampoo, Universal Medicated Shampoo
FOLLICULITIS	Scaly or crusty skin; mild to moderate pruritus	BPO-3™ Shampoo
YEAST/BACTERIA	Annular areas of peripherally expanding alopecia, scale, crust and follicular papules & pustules	BPO-3™ Shampoo, Sebozole™ Shampoo, Universal Medicated Shampoo
ANTIFUNGAL	Coat looks and feels greasy; moderate pruritus	Sebozole™ Shampoo, Universal Medicated Shampoo

Derma GeL®

DERMATOLOGY

The ideal wound dressing for all animals. Supports the healing process.

- Maintains a moist wound environment to prevent scab formation
- Enhances proliferation of epithelial cells that are identical to those lost
- Allows epithelial cells to migrate across the wound, multiply, and support healing

Gel 100 mL (3.4 fl. oz.)	#439195
Spray 50 mL (1.7 fl. oz.)	#439194

Clotrimazole Solution

DERMATOLOGY

Clotrimazole Solution Antifungal drops for dogs and cats. 1% Clotrimazole formula is effective against conditions responsive to clotrimazole.

1 oz	#411417

Groom Aid® Spray

DERMATOLOGY

Scented deodorant spray adds luster and sheen to pet's coat. Helps keep coat tangle free.

7.3 oz	#411491

PHOVIA

Phovia®

DERMATOLOGY

An Accelerated Dermatology System

- **More wavelengths, deeper skin repair**
  Applied to skin, fluorescent light energy reaches deeper skin layers to stimulate cell regeneration
- **Better compliance, more success**
  Weekly in-clinic applications
- **Promote good antimicrobial stewardship**
  Supports skin health and regeneration to only prescribe just enough antibiotics
- **A profitable protocol addition**
  Quick administration by vet nurse and techs provides an additional revenue stream for the business

Phovia Lamp System contains:

- Phovia Lamp
- Clinic docking station and car charger
- 2 Pairs Safety Goggles
- Other Outlet Accessories

Phovia Lamp System	#462467

Phovia Gel Pack contains:

- 5 Jars of Carrier Gel
- 5 Ampules of Chromophore Gel
- 5 Spatulas

Phovia Gel Pack	#461433

pH•notix®

pH•notix®

EAR CARE

pH•notix is an aqueous-based, dual action formula with two ceruminolytic agents to efficiently remove wax and debris from the ears of dogs and cats. Made with an exclusive formula of Lipacides and Tromethamine to support overall health in the ear.

- Penetrates wax barriers and cleans debris quickly
- Helps regulate sebum production
- Assists in restoring skin acid mantle
- pH-balanced and paraben-free
- Oil free

4 oz	#464652

Ear Cleansing Solution

EAR CARE

Ear Cleansing Solution is a gentle and comprehensive aloe-containing formulation for dogs and cats.

- Gentle enough for routine use
- Cleans, dries and deodorizes ears

4 oz	#411439
8 oz	#411441
16 oz	#411437
Gallon	#411443

Cerumene™

EAR CARE

Cerumene effectively penetrates wax barriers and thoroughly cleans debris in ears.

- Safe for use with ruptured tympanic membrane*
- Non-ototoxic
- 25% Squalene
- Trusted for over 25 years

4 oz	#411410

*Philip D. Mansfield, DVM, Janet E. Steiss, DVM, Ph.D., Timothy R. Boosinger, DVM, Ph.D., Arvie E. Marshall, DVM, Ph.D. The Effects of Four, Commercial Ceruminolytic Agents on the Middle Ear. J Am Anim Hosp Assoc 1997;33:479-86.

SIMPLERA®
(florfenicol, terbinafine, mometasone furoate)
Otic Solution

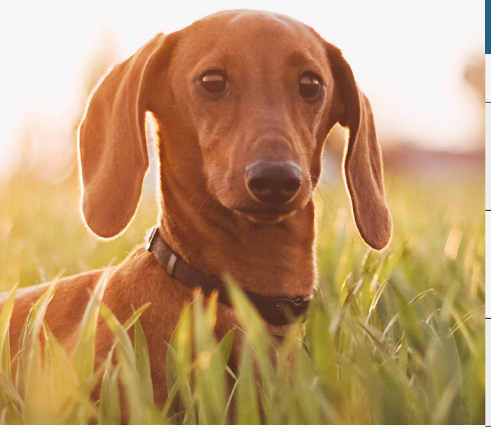
Simplera™

EAR CARE

The more affordable,[1] FDA-approved one-dose treatment for canine otitis externa with susceptible strains of yeast (*Malassezia pachydermatis*) and bacteria (*Staphylococcus pseudintermedius*).

- Bioequivalent to Claro® and FDA-approved for the same one-dose administration
- Less expensive than other in-clinic treatments
- Effective for up to 30 days
- No at-home applications required

10 x 1 mL per carton	#457394



Advantages of Simplera one-dose, in-office treatment		
FOR DOG OWNERS	**FOR DOGS**	**FOR PRACTICES**
Minimizes stress from repeated visits	One veterinarian visit, less stress	Ensures proper dosing and treatment completion
Eliminates at-home pet confrontations	Safe and effective medication	Lower cost
Ensures completion of treatment dose	Long-lasting relief	No refrigeration required

Simplera™ is indicated for the treatment of otitis externa in dogs associated with susceptible strains of yeast (*Malassezia pachydermatis*) and bacteria (*Staphylococcus pseudintermedius*).

IMPORTANT SAFETY INFORMATION:

CAUTION: Federal (U.S.A.) law restricts this drug to use by or on the order of a licensed veterinarian. **WARNINGS:** Not for use in humans. Keep this and all drugs out of reach of children. Do not use in cats. In case of accidental skin contact, wash area thoroughly with water. Avoid contact with eyes. Humans with known hypersensitivity to florfenicol, terbinafine hydrochloride or mometasone furoate should not handle this product. **PRECAUTIONS:** Do not administer orally.

Do not use in dogs with known tympanic membrane perforation. Reevaluate the dog if hearing loss or signs of vestibular dysfunction are observed during treatment. Use of topical otic corticosteroids has been associated with adrenocortical suppression and iatrogenic hyperadrenocorticism in dogs **(see ANIMAL SAFETY on label)**. Use with caution in dogs with impaired hepatic function **(see ANIMAL SAFETY on label)**. The safe use of Simplera in dogs used for breeding purposes, during pregnancy, or in lactating bitches has not been evaluated. **For full prescribing information, see page 33.**

1. Elanco Product Price List.

Dual-Quat

BIO-SECURITY

Dual-Quat one-step 16% disinfectant germicidal detergent and deodorant functions as both disinfectant and cleaner, effective in hard water up to 400 ppm in the presence of moderate organic soil.

Dual-Quat (EPA No. 47371-129-3134)

Gallon	#411434

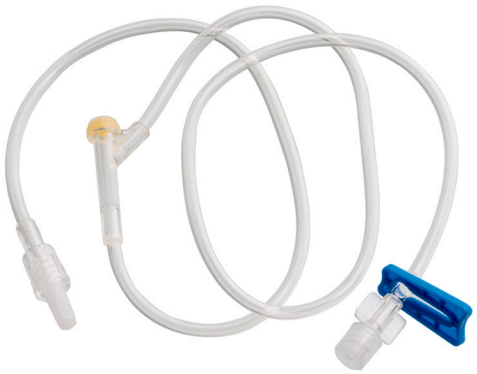
Foam-Quat

BIO-SECURITY

Foam-Quat is a foaming germicidal cleanser and broad spectrum disinfectant that is virucidal, bactericidal and fungicidal.

Foam-Quat (EPA No. 44446-23-3134)

18 oz	#411484



Dual Port IV Set

IV ACCESSORIES

Dual Port IV Administration Sets with Universal Adapters are specifically designed to suit a veterinarian's needs. An 88-inch length combined with two injection ports allows maximum convenience when administering medications. This high-grade medical tubing resists kinks and is compatible with most IV pumps.

10 drops/mL - #427099
For use with animals over 10 kg

60 drops/mL - #411433
For use with animals under 10 kg

10 drops/mL – Luer Slip/Lock	#427099
60 drops/mL – Luer Slip/Lock	#411433

ADDITIONAL IV ACCESSORIES

Injection Plug	#411498
IV Extension Set-Luer Slip/Lock 30 in.	#411497
Microbore T-Connector Extension Set/Plug	#411515

Virkon® Professional

BIO-SECURITY

Virkon® Professional provides multiple components that work synergistically to deactivate and destroy potentially harmful microorganisms. It can be applied to mostly clean surfaces and equipment to clean and disinfect in a one-step process.

Virkon® Professional (EPA No. 39967-137)

5 g - 50 ct. - Tablets	#463819
10 lbs - Powder	#463818

Virkon® Professional kills SARS-related coronavirus 2 (SARS-CoV-2) the coronavirus strain that causes COVID-19, on hard nonporous surfaces in 1 minute. Refer to the CDC website and EPA website for additional information.*

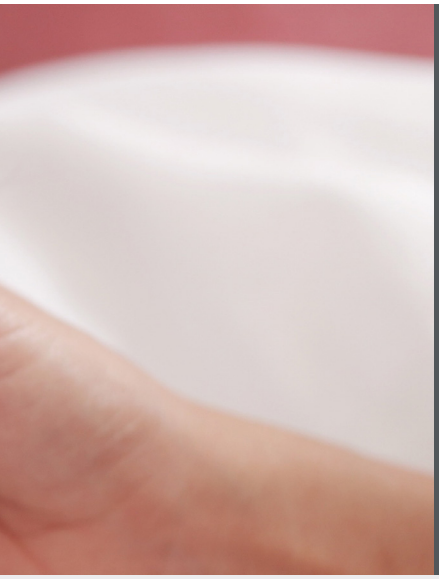
**Not approved for this use in California.*

Surgical Scrub & Handwash

BIO-SECURITY

Surgical Scrub & Handwash's rapid bactericidal action is effective against a wide range of microorganisms. Uniquely kind to skin, this wash is ideal for individuals with chlorhexidine or iodine sensitivity and contains moisturizing emollients to help keep skin soft after multiple washes.

16 oz	#410826
Gallon	#410825



The Equalizer™

BIO-SECURITY

Scientifically formulated to remove organic stains and odors associated with pets, such as those caused by urine, feces, vomit, and fresh blood. Works on rugs, floors, and clothing. Also great for household stains such as food, coffee, and wine.

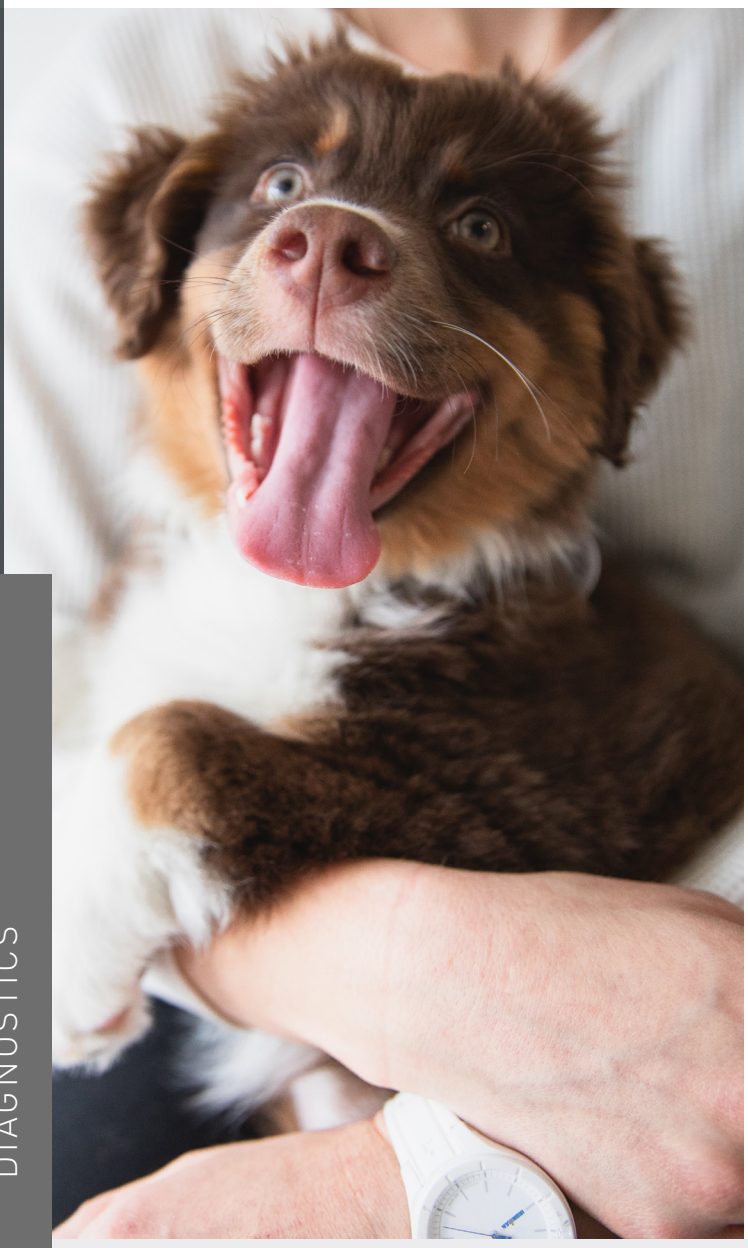
20 oz	#411460

Fecalyzer®

DIAGNOSTICS

Fecalyzer remains one of the most popular fecal diagnostic tools available for cats and dogs. This rapid and simple test features a unique, leakproof collection device that may also be used as a laboratory flotation device.

50 pack	#410414

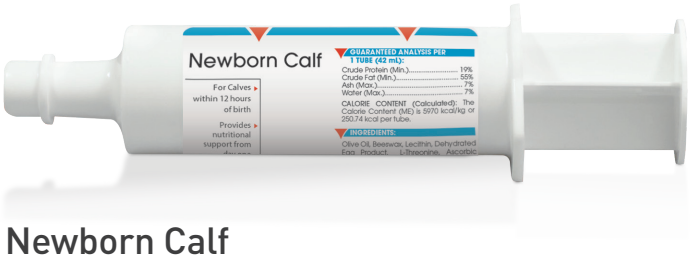


Fecasol®

DIAGNOSTICS

Fecasol provides a ready-to-use, pre-mixed, purified sodium nitrate solution filtered and standardized to a specific gravity of 1.2. Enables the diagnostician to see a wide variety of ova as well as Giardia. Convenient, fast, reliable and economic results every time.

Gallon	#411470
500 cc Dispenser Bottle	#411472

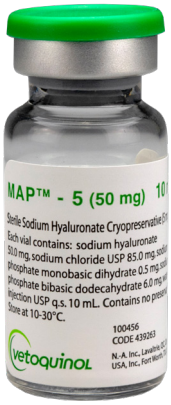


Newborn Calf

IMMUNE SUPPORT

Nutritional supplement for colostrum-deprived and environment-challenged calves within 12 hours of birth.

Oral Paste - 42 mL	#439189



MAP™-5

REPRODUCTION

MAP™-5 is a patented salt of hyaluronic acid in normal saline for use in the collection, handling, culture and cryopreservation of bovine embryos, ova, sperm and other cells.

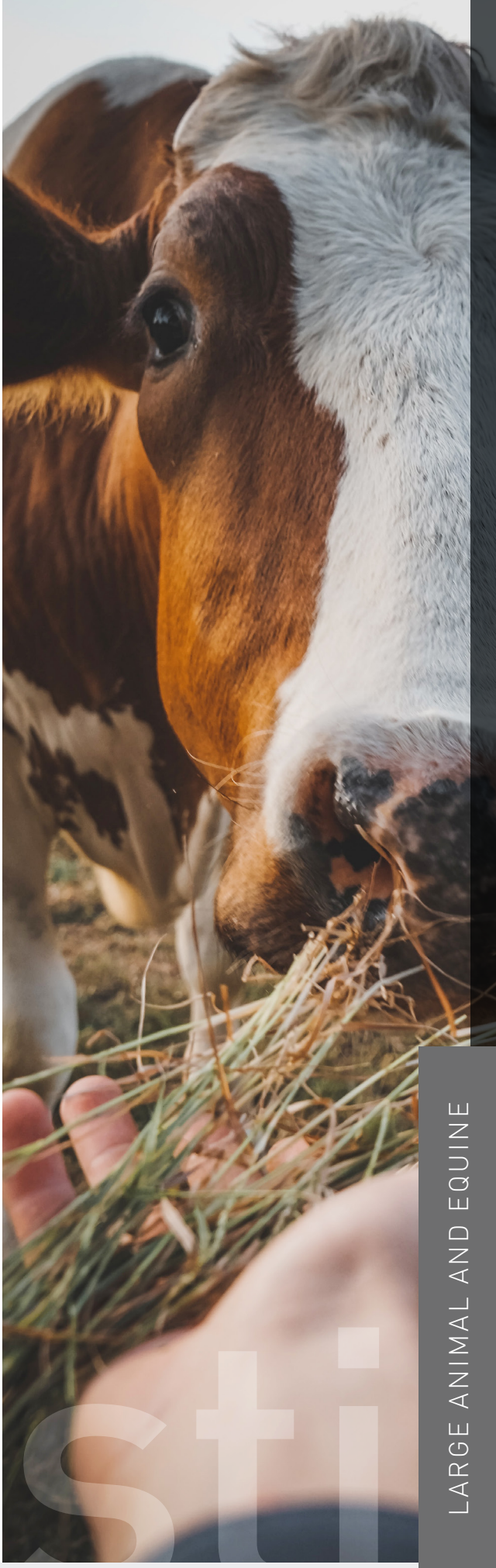
5 mg/mL 10 mL	#439263

EPIC® Daily Equine

IMMUNE SYSTEM

Supports the immune system, respiratory tract, and gastrointestinal health of horses in one highly palatable and easy to use health supplement. Provides triple action support for horses under stress, such as young horses in training, heavy competition schedules, transporting to new venues or pre-sale preparation.

2 kg	#439301

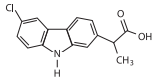


Vetprofen
(carprofen)

Non-steroidal anti-inflammatory drug
For oral use in dogs only

CAUTION: Federal law restricts this drug to use by or on the order of a licensed veterinarian.

DESCRIPTION: Vetprofen (carprofen) is a non-steroidal anti-inflammatory drug (NSAID) of the propionic acid class that includes ibuprofen, naproxen, and ketoprofen. Carprofen is the nonproprietary designation for a substituted carbazole, 6-chloro-α-methyl-9H-carbazole-2-acetic acid. The empirical formula is C15H12ClNO2 and the molecular weight 273.72. The chemical structure of carprofen is:



Carprofen is a white, crystalline compound. It is freely soluble in ethanol, but practically insoluble in water at 25°C.

CLINICAL PHARMACOLOGY: Carprofen is a non-narcotic, non-steroidal anti-inflammatory agent with characteristic analgesic and antipyretic activity approximately equipotent to indomethacin in animal models.[1]

The mechanism of action of carprofen, like that of other NSAIDs, is believed to be associated with the inhibition of cyclooxygenase activity. Two unique cyclooxygenases have been described in mammals.[2] The constitutive cyclooxygenase, COX-1, synthesizes prostaglandins necessary for normal gastrointestinal and renal function. The inducible cyclooxygenase, COX-2, generates prostaglandins involved in inflammation. Inhibition of COX-1 is thought to be associated with gastrointestinal and renal toxicity while inhibition of COX-2 provides anti-inflammatory activity. The specificity of a particular NSAID for COX-2 versus COX-1 may vary from species to species.3 In an in vitro study using canine cell cultures, carprofen demonstrated selective inhibition of COX-2 versus COX-1.4 Clinical relevance of these data has not been shown. Carprofen has also been shown to inhibit the release of several prostaglandins in two inflammatory cell systems: rat polymorphonuclear leukocytes (PMN) and human rheumatoid synovial cells, indicating inhibition of acute (PMN system) and chronic (synovial cell system) inflammatory reactions.[1]

Several studies have demonstrated that carprofen has modulatory effects on both humoral and cellular immune responses.5-9 Data also indicate that carprofen inhibits the production of osteoclast-activating factor (OAF), PGE1, and PGE2 by its inhibitory effects on prostaglandin biosynthesis.[1]

Based upon comparison with data obtained from intravenous administration, carprofen is rapidly and nearly completely absorbed (more than 90% bioavailable) when administered orally.10 Peak blood plasma concentrations are achieved in 1-3 hours after oral administration of 1, 5, and 25 mg/kg to dogs. The mean terminal half-life of carprofen is approximately 8 hours (range 4.5-9.8 hours) after single oral doses varying from 1-35 mg/kg of body weight. After a 100 mg single intravenous bolus dose, the mean elimination half-life was approximately 11.7 hours in the dog. Carprofen is more than 99% bound to plasma protein and exhibits a very small volume of distribution.

Carprofen is eliminated in the dog primarily by biotransformation in the liver followed by rapid excretion of the resulting metabolites (the ester glucuronide of carprofen and the ether glucuronides of 2 phenolic metabolites, 7-hydroxy carprofen and 8-hydroxy carprofen) in the feces (70-80%) and urine (10-20%). Some enterohepatic circulation of the drug is observed.

INDICATIONS: Vetprofen is indicated for the relief of pain and inflammation associated with osteoarthritis and for the control of postoperative pain associated with soft tissue and orthopedic surgeries in dogs.

CONTRAINDICATIONS: Vetprofen should not be used in dogs exhibiting previous hypersensitivity to carprofen.

WARNINGS: Keep out of reach of children. Not for human use. Consult a physician in cases of accidental ingestion by humans. **For use in dogs only.** Do not use in cats.

All dogs should undergo a thorough history and physical examination before initiation of NSAID therapy. Appropriate laboratory tests to establish hematological and serum biochemical baseline data prior to, and periodically during, administration of any NSAID should be considered. **Owners should be advised to observe for signs of potential drug toxicity (see Information for Dog Owners, Adverse Reactions, Animal Safety and Post-Approval Experience).**

PRECAUTIONS: As a class, cyclooxygenase inhibitory NSAIDs may be associated with gastrointestinal, renal and hepatic toxicity. Effects may result from decreased prostaglandin production and inhibition of the enzyme cyclooxygenase which is responsible for the formation of prostaglandins from arachidonic acid.11-14 When NSAIDs inhibit prostaglandins that cause inflammation they may also inhibit those prostaglandins which maintain normal homeostatic function. These anti-prostaglandin effects may result in clinically significant disease in patients with underlying or pre-existing disease more often than in healthy patients.12,14 NSAID therapy could unmask occult disease which has previously been undiagnosed due to the absence of apparent clinical signs. Patients with underlying renal disease for example, may experience exacerbation or decompensation of their renal disease while on NSAID therapy.11-14 The use of parenteral fluids during surgery should be considered to reduce the potential risk of renal complications when using NSAIDs perioperatively.

Carprofen is an NSAID, and as with others in that class, adverse reactions may occur with its use. The most frequently reported effects have been gastrointestinal signs. Events involving suspected renal, hematologic, neurologic, dermatologic, and hepatic effects have also been reported. Patients at greatest risk for renal toxicity are those that are dehydrated, on concomitant diuretic therapy, or those with renal, cardiovascular, and/or hepatic dysfunction. Concurrent administration of potentially nephrotoxic drugs should be approached cautiously, with appropriate monitoring. Concomitant use of Vetprofen® with other anti-inflammatory drugs, such as other NSAIDs or corticosteroids, should be avoided because of the potential increase of adverse reactions, including gastrointestinal ulcerations and/or perforations. Sensitivity to drug-associated adverse reactions varies with the individual patient. Dogs that have experienced adverse reactions from one NSAID may experience adverse reactions from another NSAID. Vetprofen® treatment was not associated with renal toxicity or gastrointestinal ulceration in well-controlled safety studies of up to ten times the dose in healthy dogs.

Carprofen is not recommended for use in dogs with bleeding disorders (e.g., Von Willebrand's disease), as safety has not been established in dogs with these disorders. The safe use of carprofen in animals less than 6 weeks of age, pregnant dogs, dogs used for breeding purposes, or in lactating bitches has not been established. Studies to determine the activity of carprofen when administered concomitantly with other protein-bound or similarly metabolized drugs have not been conducted. Drug compatibility should be monitored closely in patients requiring additional therapy. Such drugs commonly used include cardiac, anticonvulsant and behavioral medications. It has been suggested that treatment with carprofen may reduce the level of inhalant anesthetics needed.15

If additional pain medication is warranted after administration of the total daily dose of carprofen, alternative analgesia should be considered. The use of another NSAID is not recommended. Consider appropriate washout times when switching from one NSAID to another or when switching from corticosteroid use to NSAID use.

INFORMATION FOR DOG OWNERS:
Vetprofen, like other drugs of its class, is not free from adverse reactions. Owners should be advised of the potential for adverse reactions and be informed of the clinical signs associated with drug intolerance. Adverse reactions may include decreased appetite, vomiting, diarrhea, dark or tarry stools, increased water consumption, increased urination, pale gums due to anemia, yellowing of gums, skin or white of the eye due to jaundice, lethargy, incoordination, seizure, or behavioral changes. **Serious adverse reactions associated with this drug class can occur without warning and in rare situations result in death (see Adverse Reactions). Owners should be advised to discontinue Vetprofen therapy and contact their veterinarian immediately if signs of intolerance are observed.** The vast majority of patients with drug related adverse reactions have recovered when the signs are recognized, the drug is withdrawn, and veterinary care, if appropriate, is initiated. Owners should be advised of the importance of periodic follow up for all dogs during administration of any NSAID.

ADVERSE REACTIONS: During investigational studies of osteoarthritis with twice daily administration of 1 mg/lb, no clinically significant adverse reactions were reported. Some clinical signs were observed during field studies (n=297) which were similar for carprofen- and placebo-treated dogs. Incidences of the following were observed in both groups: vomiting (4%), diarrhea (4%), changes in appetite (3%), lethargy (1.4%), behavioral changes (1%), and constipation (0.3%). The product vehicle served as control.

There were no serious adverse events reported during clinical field studies of osteoarthritis with once daily administration of 2 mg/lb. The following categories of abnormal health observations were reported. The product vehicle served as control.

Percentage of Dogs with Abnormal Health Observations Reported in Osteoarthritis Field Study (2 mg/lb once daily)

Observation	Carprofen (n=129)	Placebo (n=132)
Inappetence	1.6	1.5
Vomiting	3.1	3.8
Diarrhea/Soft stool	3.1	4.5
Behavior change	0.8	0.8
Dermatitis	0.8	0.8
PU/PD	0.8	----
SAP increase	7.8	8.3
ALT increase	5.4	4.5
AST increase	2.3	0.8
BUN increase	3.1	1.5
Bilirubinuria	16.3	12.1
Ketonuria	14.7	9.1

Clinical pathology parameters listed represent reports of increases from pre-treatment values; medical judgment is necessary to determine clinical relevance.

During investigational studies of surgical pain for the tablet formulation, no clinically significant adverse reactions were reported. The product vehicle served as control.

Percentage of Dogs with Abnormal Health Observations Reported in Surgical Pain Field Studies with Tablets (2 mg/lb once daily)

Observation*	Carprofen (n=148)	Placebo (n=149)
Vomiting	10.1	13.4
Diarrhea/Soft stool	6.1	6.0
Ocular disease	2.7	0
Inappetence	1.4	0
Dermatitis/skin lesion	2.0	1.3
Dysrhythmia	0.7	0
Apnea	1.4	0
Oral/periodontal disease	1.4	0
Pyrexia	0.7	1.3
Urinary tract disease	1.4	1.3
Wound drainage	1.4	0

* A single dog may have experienced more than one occurrence of an event

Post-Approval Experience: Although not all adverse reactions are reported, the following adverse reactions are based on voluntary post-approval adverse drug experience reporting. The categories of adverse reactions are listed in decreasing order of frequency by body system.
Gastrointestinal: Vomiting, diarrhea, constipation, inappetence, melena, hematemesis, gastrointestinal ulceration, gastrointestinal bleeding, pancreatitis.

Hepatic: Inappetence, vomiting, jaundice, acute hepatic toxicity, hepatic enzyme elevation, abnormal liver function test(s), hyperbilirubinemia, bilirubinuria, hypoalbuminemia.

Approximately one-fourth of hepatic reports were in Labrador Retrievers.

Neurologic: Ataxia, paresis, paralysis, seizures, vestibular signs, disorientation.

Urinary: Hematuria, polyuria, polydipsia, urinary incontinence, urinary tract infection, azotemia, acute renal failure, tubular abnormalities including acute tubular necrosis, renal tubular acidosis, glucosuria.

Behavioral: Sedation, lethargy, hyperactivity, restlessness, aggressiveness.

Hematologic: Immune-mediated hemolytic anemia, immune-mediated thrombocytopenia, blood loss anemia, epistaxis.

Dermatologic: Pruritus, increased shedding, alopecia, pyotraumatic moist dermatitis (hot spots), necrotizing panniculitis/vasculitis, ventral ecchymosis.

Immunologic or hypersensitivity: Facial swelling, hives, erythema.

In rare situations, death has been associated with some of the adverse reactions listed above.

To report a suspected adverse reaction call 1-800-835-9496

DOSAGE AND ADMINISTRATION: Always provide Client Information Sheet with prescription. Carefully consider the potential benefits and risk of Vetprofen and other treatment options before deciding to use Vetprofen. Use the lowest effective dose for the shortest duration consistent with individual response. The recommended dosage for oral administration to dogs is 2 mg/lb (4.4 mg/kg) of body weight daily. The total daily dose may be administered as 2 mg/lb of body weight once daily or divided and administered as 1 mg/lb (2.2 mg/kg) twice daily. For the control of postoperative pain, administer approximately 2 hours before the procedure. Caplets are scored and dosage should be calculated in half-caplet increments.

EFFECTIVENESS: Confirmation of the effectiveness of carprofen for the relief of pain and inflammation associated with osteoarthritis, and for the control of postoperative pain associated with soft tissue and orthopedic surgeries was demonstrated in 5 placebo-controlled, masked studies examining the anti-inflammatory and analgesic effectiveness of carprofen caplets in various breeds of dogs.

Separate placebo-controlled, masked, multicenter field studies confirmed the anti-inflammatory and analgesic effectiveness of carprofen caplets when dosed at 2 mg/lb once daily or when divided and administered at 1 mg/lb twice daily. In these two field studies, dogs diagnosed with osteoarthritis showed statistically significant overall improvement based on lameness evaluations by the veterinarian and owner observations when administered carprofen at labeled doses.

Separate placebo-controlled, masked, multicenter field studies confirmed the effectiveness of carprofen caplets for the control of postoperative pain when dosed at 2 mg/lb once daily in various breeds of dogs. In these studies, dogs presented for ovariohysterectomy, cruciate repair and aural surgeries were administered carprofen preoperatively and for a maximum of 3 days (soft tissue) or 4 days (orthopedic) postoperatively. In general, dogs administered carprofen showed statistically significant improvement in pain scores compared to controls.

ANIMAL SAFETY: Laboratory studies in unanesthetized dogs and clinical field studies have demonstrated that carprofen is well tolerated in dogs after oral administration.

In target animal safety studies, carprofen was administered orally to healthy Beagle dogs at 1, 3, and 5 mg/lb twice daily (1, 3 and 5 times the recommended total daily dose) for 42 consecutive days with no significant adverse reactions. Serum albumin for a single female dog receiving 5 mg/lb twice daily decreased to 2.1 g/dL after 2 weeks of treatment, returned to the pre-treatment value (2.6 g/dL) after 4 weeks of treatment, and was 2.3 g/dL at the final 6-week evaluation. Over the 6-week treatment period, black or bloody stools were observed in 1 dog (1 incident) treated with 1 mg/lb twice daily and in 1 dog (2 incidents) treated with 3 mg/lb twice daily. Redness of the colonic mucosa was observed in 1 male that received 3 mg/lb twice daily.

Two of 8 dogs receiving 10 mg/lb orally twice daily (10 times the recommended total daily dose) for 14 days exhibited hypoalbuminemia. The mean albumin level in the dogs receiving this dose was lower (2.38 g/dL) than each of 2 placebo control groups (2.88 and 2.93 g/dL, respectively). Three incidents of black or bloody stool were observed in 1 dog. Five of 8 dogs exhibited reddened areas of duodenal mucosa on gross pathologic examination. Histologic examination of these areas revealed no evidence of ulceration, but did show minimal congestion of the lamina propria in 2 of the 5 dogs.

In separate safety studies lasting 13 and 52 weeks, respectively, dogs were administered orally up to 11.4 mg/lb/day (5.7 times the recommended total daily dose of 2 mg/lb) of carprofen. In both studies, the drug was well tolerated clinically by all of the animals. No gross or histologic changes were seen in any of the treated animals. In both studies, dogs receiving the highest doses had average increases in serum L-alanine aminotransferase (ALT) of approximately 20 IU.

In the 52 week study, minor dermatologic changes occurred in dogs in each of the treatment groups but not in the control dogs. The changes were described as slight redness or rash and were diagnosed as non-specific dermatitis. The possibility exists that these mild lesions were treatment related, but no dose relationship was observed.

Clinical field studies were conducted with 549 dogs of different breeds at the recommended oral doses for 14 days (297 dogs were included in a study evaluating 1 mg/lb twice daily and 252 dogs were included in a separate study evaluating 2 mg/lb once daily). In both studies the drug was clinically well tolerated and the incidence of clinical adverse reactions for carprofen-treated animals was no higher than placebo-treated animals (placebo contained inactive ingredients found in carprofen). For animals receiving 1 mg/lb twice daily, the mean post-treatment serum ALT values were 11 IU greater and 9 IU less than pre-treatment values for dogs receiving carprofen and placebo, respectively. Differences were not statistically significant. For animals receiving 2 mg/lb once daily, the mean post-treatment serum ALT values were 4.5 IU greater and 0.9 IU less than pre-treatment values for dogs receiving carprofen and placebo, respectively. In the latter study, 3 carprofen-treated dogs developed a 3-fold or greater increase in (ALT) and/or (AST) during the course of therapy. One placebo-treated dog had a greater than 2-fold increase in ALT. None of these animals showed clinical signs associated with laboratory value changes. Changes in the clinical laboratory values (hematology and clinical chemistry) were not considered clinically significant. The 1 mg/lb twice daily course of therapy was repeated as needed at 2-week intervals in 244 dogs, some for as long as 5 years.

Clinical field studies were conducted in 297 dogs of different breeds undergoing orthopedic or soft tissue surgery. Dogs were administered 2 mg/lb of carprofen two hours prior to surgery then once daily, as needed for 2 days (soft tissue surgery) or 3 days (orthopedic surgery). Carprofen was well tolerated when used in conjunction with a variety of anesthetic-related drugs. The type and severity of abnormal health observations in carprofen-and placebo-treated animals were approximately equal and few in number (**see Adverse Reactions**). The most frequent abnormal health observation was vomiting and was observed at approximately the same frequency in carprofen- and placebo- treated animals. Changes in clinicopathologic indices of hematopoetic, renal, hepatic, and clotting function were not clinically significant. The mean post-treatment serum ALT values were 7.3 IU and 2.5 IU less than pre-treatment values for dogs receiving carprofen and placebo, respectively. The mean post-treatment AST values were 3.1 IU less for dogs receiving carprofen and 0.2 IU greater for dogs receiving placebo.

STORAGE: Store at controlled room temperature 15° C - 30° C (59° F - 86° F).

HOW SUPPLIED: Carprofen caplets are scored, and contain 25 mg, 75 mg, or 100 mg of carprofen per caplet. Each caplet size is packaged in bottles containing 30, 60, or 240 caplets.

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For a copy of the Material Safety Data Sheet (MSDS) or to report adverse reactions call: 1-800-835-9496.
ANADA # 200-397, Approved by FDA

Manufactured by:
Belcher Pharmaceuticals, LLC
12393 Belcher Road Suite 420
Largo, Florida 33773

Distributed by:
Vetoquinol U.S.A., Inc.
4250 N. Sylvania Ave.
Ft. Worth, TX (USA) 76137

October 2012 L07I-VET R-0707C
Printed in USA

Vétoquinol

Vetprofen Flavored Tab

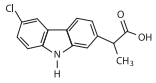
(Carprofen Flavored Tablets)

Non-steroidal anti-inflammatory drug

For oral use in dogs only

CAUTION: Federal law restricts this drug to use by or on the order of a licensed veterinarian.

DESCRIPTION: Vetprofen Flavored Tab is a non-steroidal anti-inflammatory drug (NSAID) of the propionic acid class that includes ibuprofen, naproxen, and ketoprofen. Vetprofen Flavored Tab is the nonproprietary designation for a substituted carbazole, 6-chloro-α-methyl-9H-carbazole-2-acetic acid. The empirical formula is $C_{15}H_{12}ClNO_2$ and the molecular weight 273.72. The chemical structure of carprofen is:



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CONTRAINDICATIONS: Vetprofen Flavored Tab should not be used in dogs exhibiting previous hypersensitivity to carprofen.

WARNINGS: Keep out of reach of children. Not for human use. Consult a physician in cases of accidental ingestion by humans. **For use in dogs only.** Do not use in cats.

All dogs should undergo a thorough history and physical examination before initiation of NSAID therapy. Appropriate laboratory tests to establish hematological and serum biochemical baseline data prior to, and periodically during, administration of any NSAID should be considered. **Owners should be advised to observe for signs of potential drug toxicity (see Information for Dog Owners, Adverse Reactions, Animal Safety and Post-Approval Experience).**

PRECAUTIONS: As a class, cyclooxygenase inhibitory NSAIDs may be associated with gastrointestinal, renal and hepatic toxicity. Effects may result from decreased prostaglandin production and inhibition of the enzyme cyclooxygenase which is responsible for the formation of prostaglandins from arachidonic acid.[11-14] When NSAIDs inhibit prostaglandins that cause inflammation they may also inhibit those prostaglandins which maintain normal homeostatic function. These anti-prostaglandin effects may result in clinically significant disease in patients with underlying or pre-existing disease more often than in healthy patients.[12,14] NSAID therapy could unmask occult disease which has previously been undiagnosed due to the absence of apparent clinical signs. Patients with underlying renal disease for example, may experience exacerbation or decompensation of their renal disease while on NSAID therapy.[11-14] The use of parenteral fluids during surgery should be considered to reduce the potential risk of renal complications when using NSAIDs perioperatively.

Carprofen is an NSAID, and as with others in that class, adverse reactions may occur with its use. The most frequently reported effects have been gastrointestinal signs. Events involving suspected renal, hematologic, neurologic, dermatologic, and hepatic effects have also been reported. Patients at greatest risk for renal toxicity are those that are dehydrated, on concomitant diuretic therapy, or those with renal, cardiovascular, and/or hepatic dysfunction. Concurrent administration of potentially nephrotoxic drugs should be approached cautiously, with appropriate monitoring. Concomitant use of Vetprofen Flavored Tab with other anti-inflammatory drugs, such as other NSAIDs or corticosteroids, should be avoided because of the potential increase of adverse reactions, including gastrointestinal ulcerations and/or perforations. Sensitivity to drug-associated adverse reactions varies with the individual patient. Dogs that have experienced adverse reactions from one NSAID may experience adverse reactions from another NSAID. Vetprofen Flavored Tab treatment was not associated with renal toxicity or gastrointestinal ulceration in well controlled safety studies of up to ten times the dose in healthy dogs.

Vetprofen Flavored Tab is not recommended for use in dogs with bleeding disorders (e.g., Von Willebrand's disease), as safety has not been established in dogs with these disorders. The safe use of Vetprofen Flavored Tab in animals less than 6 weeks of age, pregnant dogs, dogs used for breeding purposes, or in lactating bitches has not been established. Studies to determine the activity of Vetprofen Flavored Tab when administered concomitantly with other protein-bound or similarly metabolized drugs have not been conducted. Drug compatibility should be monitored closely in patients requiring additional therapy. Such drugs commonly used include cardiac, anticonvulsant and behavioral medications. It has been suggested that treatment with carprofen may reduce the level of inhalant anesthetics needed.[15]

If additional pain medication is warranted after administration of the total daily dose of Vetprofen Flavored Tab, alternative analgesia should be considered. The use of another NSAID is not recommended. Consider appropriate washout times when switching from one NSAID to another or when switching from corticosteroid use to NSAID use.

INFORMATION FOR DOG OWNERS:

Vetprofen Flavored Tab, like other drugs of its class, is not free from adverse reactions. Owners should be advised of the potential for adverse reactions and be informed of the clinical signs associated with drug intolerance. Adverse reactions may include decreased appetite, vomiting, diarrhea, dark or tarry stools, increased water consumption, increased urination, pale gums due to anemia, yellowing of gums, skin or white of the eye due to jaundice, lethargy, incoordination, seizure, or behavioral changes. **Serious adverse reactions associated with this drug class can occur without warning and in rare situations result in death (see Adverse Reactions). Owners should be advised to discontinue Vetprofen Flavored Tab therapy and contact their veterinarian immediately if signs of intolerance are observed.** The vast majority of patients with drug related adverse reactions have recovered when the signs are recognized, the drug is withdrawn, and veterinary care, if appropriate, is initiated. Owners should be advised of the importance of periodic follow up for all dogs during administration of any NSAID.

ADVERSE REACTIONS: During investigational studies of osteoarthritis with twice daily administration of 1 mg/lb, no clinically significant adverse reactions were reported. Some clinical signs were observed during field studies (n=297) which were similar for carprofen- and placebo-treated dogs. Incidences of the following were observed in both groups: vomiting (4%), diarrhea (4%), changes in appetite (3%), lethargy (1.4%), behavioral changes (1%), and constipation (0.3%). The product vehicle served as control.

There were no serious adverse events reported during clinical field studies of osteoarthritis with once daily administration of 2 mg/lb. The following categories of abnormal health observations were reported. The product vehicle served as control.

Percentage of Dogs with Abnormal Health Observations Reported in Osteoarthritis Field Study (2 mg/lb once daily)

Observation	Carprofen (n=129)	Placebo (n=132)
Inappetence	1.6	1.5
Vomiting	3.1	3.8
Diarrhea/Soft stool	3.1	4.5
Behavior change	0.8	0.8
Dermatitis	0.8	0.8
PU/PD	0.8	----
SAP increase	7.8	8.3
ALT increase	5.4	4.5
AST increase	2.3	0.8
BUN increase	3.1	1.5
Bilirubinuria	16.3	12.1
Ketonuria	14.7	9.1

Clinical pathology parameters listed represent reports of increases from pre-treatment values; medical judgment is necessary to determine clinical relevance.

During investigational studies of surgical pain for the tablet formulation, no clinically significant adverse reactions were reported. The product vehicle served as control.

Percentage of Dogs with Abnormal Health Observations Reported in Surgical Pain Field Studies with Tablets (2 mg/lb once daily)

Observation*	Carprofen (n=148)	Placebo (n=149)
Vomiting	10.1	13.4
Diarrhea/Soft stool	6.1	6.0
Ocular disease	2.7	0
Inappetence	1.4	0
Dermatitis/skin lesion	2.0	1.3
Dysrhythmia	0.7	0
Apnea	1.4	0
Oral/periodontal disease	1.4	0
Pyrexia	0.7	1.3
Urinary tract disease	1.4	1.3
Wound drainage	1.4	0

* A single dog may have experienced more than one occurrence of an event

Post-Approval Experience:

Although not all adverse reactions are reported, the following adverse reactions are based on voluntary post-approval adverse drug experience reporting. The categories of adverse reactions are listed in decreasing order of frequency by body system.

Gastrointestinal: *Vomiting, diarrhea, constipation, inappetence, melena, hematemesis, gastrointestinal ulceration, gastrointestinal bleeding, pancreatitis.*

Hepatic: *Inappetence, vomiting, jaundice, acute hepatic toxicity, hepatic enzyme elevation, abnormal liver function test(s), hyperbilirubinemia, bilirubinuria, hypoalbuminemia. Approximately one-fourth of hepatic reports were in Labrador Retrievers.*

Neurologic: *Ataxia, paresis, paralysis, seizures, vestibular signs, disorientation.*

Urinary: *Hematuria, polyuria, polydipsia, urinary incontinence, urinary tract infection, azotemia, acute renal failure, tubular abnormalities including acute tubular necrosis, renal tubular acidosis, glucosuria.*

Behavioral: *Sedation, lethargy, hyperactivity, restlessness, aggressiveness.*

Hematologic: *Immune-mediated hemolytic anemia, immune-mediated thrombocytopenia, blood loss anemia, epistaxis.*

Dermatologic: *Pruritus, increased shedding, alopecia, pyotraumatic moist dermatitis (hot spots), necrotizing panniculitis/vasculitis, ventral ecchymosis.*

Immunologic or hypersensitivity: *Facial swelling, hives, erythema.*

In rare situations, death has been associated with some of the adverse reactions listed above.

To report a suspected adverse reaction call 1-800-835-9496.

DOSAGE AND ADMINISTRATION: Always provide Client Information Sheet with prescription. Carefully consider the potential benefits and risk of Vetprofen Flavored Tab and other treatment options before deciding to use Vetprofen Flavored Tab. Use the lowest effective dose for the shortest duration consistent with individual response. The recommended dosage for oral administration to dogs is 2 mg/lb (4.4 mg/kg) of body weight daily. The total daily dose may be administered as 2 mg/lb of body weight once daily or divided and administered as 1 mg/lb (2.2 mg/kg) twice daily. For the control of postoperative pain, administer approximately 2 hours before the procedure. Tablets are scored and dosage should be calculated in half-tablet increments.

EFFECTIVENESS: Confirmation of the effectiveness of Vetprofen Flavored Tab for the relief of pain and inflammation associated with osteoarthritis, and for the control of postoperative pain associated with soft tissue and orthopedic surgeries was demonstrated in 5 placebo-controlled, masked studies examining the antiinflammatory and analgesic effectiveness of Vetprofen Flavored Tab in various breeds of dogs.

Separate placebo-controlled, masked, multicenter field studies confirmed the anti-inflammatory and analgesic effectiveness of Vetprofen Flavored Tab when dosed at 2 mg/lb once daily or when divided and administered at 1 mg/lb twice daily. In these two field studies, dogs diagnosed with osteoarthritis showed statistically significant overall improvement based on lameness evaluations by the veterinarian and owner observations when administered Vetprofen Flavored Tab at labeled doses.

Separate placebo-controlled, masked, multicenter field studies confirmed the effectiveness of Vetprofen Flavored Tab for the control of postoperative pain when dosed at 2 mg/lb once daily in various breeds of dogs. In these studies, dogs presented for ovariohysterectomy, cruciate repair and aural surgeries were administered Vetprofen Flavored Tab preoperatively and for a maximum of 3 days (soft tissue) or 4 days (orthopedic) postoperatively. In general, dogs administered Vetprofen Flavored Tab showed statistically significant improvement in pain scores compared to controls.

ANIMAL SAFETY: Laboratory studies in unanesthetized dogs and clinical field studies have demonstrated that Vetprofen Flavored Tab is well tolerated in dogs after oral administration.

In target animal safety studies, Vetprofen Flavored Tab was administered orally to healthy Beagle dogs at 1, 3, and 5 mg/lb twice daily (1, 3 and 5 times the recommended total daily dose) for 42 consecutive days with no significant adverse reactions. Serum albumin for a single female dog receiving 5 mg/lb twice daily decreased to 2.1 g/dL after 2 weeks of treatment, returned to the pre-treatment value (2.6 g/dL) after 4 weeks of treatment, and was 2.3 g/dL at the final 6-week evaluation. Over the 6-week treatment period, black or bloody stools were observed in 1 dog (1 incident) treated with 1 mg/lb twice daily and in 1 dog (2 incidents) treated with 3 mg/lb twice daily. Redness of the colonic mucosa was observed in 1 male that received 3 mg/lb twice daily.

Two of 8 dogs receiving 10 mg/lb orally twice daily (10 times the recommended total daily dose) for 14 days exhibited hypoalbuminemia. The mean albumin level in the dogs receiving this dose was lower (2.38 g/dL) than each of 2 placebo control groups (2.88 and 2.93 g/dL, respectively). Three incidents of black or bloody stool were observed in 1 dog. Five of 8 dogs exhibited reddened areas of duodenal mucosa on gross pathologic examination. Histologic examination of these areas revealed no evidence of ulceration, but did show minimal congestion of the lamina propria in 2 of the 5 dogs.

In separate safety studies lasting 13 and 52 weeks, respectively, dogs were administered orally up to 11.4 mg/lb/day (5.7 times the recommended total daily dose of 2 mg/lb) of carprofen. In both studies, the drug was well tolerated clinically by all of the animals. No gross or histologic changes were seen in any of the treated animals. In both studies, dogs receiving the highest doses had average increases in serum L-alanine aminotransferase (ALT) of approximately 20 IU.

In the 52 week study, minor dermatologic changes occurred in dogs in each of the treatment groups but not in the control dogs. The changes were described as slight redness or rash and were diagnosed as nonspecific dermatitis. The possibility exists that these mild lesions were treatment related, but no dose relationship was observed.

Clinical field studies were conducted with 549 dogs of different breeds at the recommended oral doses for 14 days (297 dogs were included in a study evaluating 1 mg/lb twice daily and 252 dogs were included in a separate study evaluating 2 mg/lb once daily). In both studies the drug was clinically well tolerated and the incidence of clinical adverse reactions for Vetprofen Flavored Tab-treated animals was no higher than placebo-treated animals (placebo contained inactive ingredients found in Vetprofen Flavored Tab). For animals receiving 1 mg/lb twice daily, the mean post-treatment serum ALT values were 11 IU greater and 9 IU less than pre-treatment values for dogs receiving Vetprofen Flavored Tab and placebo, respectively. Differences were not statistically significant. For animals receiving 2 mg/lb once daily, the mean post-treatment serum ALT values were 4.5 IU greater and 0.9 IU less than pre-treatment values for dogs receiving Vetprofen Flavored Tab and placebo, respectively. In the latter study, 3 Vetprofen Flavored Tab-treated dogs developed a 3-fold or greater increase in (ALT) and/or (AST) during the course of therapy. One placebo-treated dog had a greater than 2-fold increase in ALT. None of these animals showed clinical signs associated with laboratory value changes. Changes in the clinical laboratory values (hematology and clinical chemistry) were not considered clinically significant. The 1 mg/lb twice daily course of therapy was repeated as needed at 2-week intervals in 244 dogs, some for as long as 5 years.

Clinical field studies were conducted in 297 dogs of different breeds undergoing orthopedic or soft tissue surgery. Dogs were administered 2 mg/lb of Vetprofen Flavored Tab two hours prior to surgery then once daily, as needed for 2 days (soft tissue surgery) or 3 days (orthopedic surgery). Vetprofen Flavored Tab was well tolerated when used in conjunction with a variety of anesthetic-related drugs. The type and severity of abnormal health observations in Vetprofen Flavored Tab- and placebo-treated animals were approximately equal and few in number (see **Adverse Reactions**). The most frequent abnormal health observation was vomiting and was observed at approximately the same frequency in Vetprofen Flavored Tab- and placebo-treated animals. Changes in clinicopathologic indices of hematopoietic, renal, hepatic, and clotting function were not clinically significant. The mean post-treatment serum ALT values were 7.3 IU and 2.5 IU less than pre-treatment values for dogs receiving Vetprofen Flavored Tab and placebo, respectively. The mean post-treatment AST values were 3.1 IU less for dogs receiving Vetprofen Flavored Tab and 0.2 IU greater for dogs receiving placebo.

STORAGE: Store at controlled room temperature 15°C - 30°C (59°F - 86°F).

HOW SUPPLIED: Vetprofen Flavored Tab are scored, and contain 25 mg, 75 mg, or 100 mg of carprofen per tablet. Each tablet size is packaged in bottles containing 180 tablets.

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For a copy of the Safety Data Sheet (SDS) or to report adverse reactions call: 1-800-835-9496.

ANADA # 200-578, Approved by FDA.

Manufactured by:
Belcher Pharmaceuticals, LLC
12393 Belcher Road, Suite 420
Largo, Florida 33773

Distributed by:
Vetoquinol U.S.A., Inc.
4250 N. Sylvania Ave.
Ft. Worth, TX (USA) 76137

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vetoquinol

CLEVOR®

(ropinirole ophthalmic solution)

30 mg/mL

For ophthalmic use in dogs only

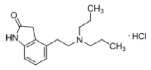
Single use dropper

CAUTION:

Federal law restricts this drug to use by or on the order of a licensed veterinarian.

DESCRIPTION:

CLEVOR (ropinirole ophthalmic solution) is a full dopamine agonist with selectivity for the dopamine D2-like receptor family. Each mL of CLEVOR contains 30 mg ropinirole (equivalent to 34.2 mg ropinirole hydrochloride). The chemical name of ropinirole hydrochloride is 2H-Indol-2-one, 4-[2- (dipropylamino)ethyl]-1,3-dihydro-, monohydrochloride. It is pale cream to yellow powder having a molecular weight of 296.84. The molecular formula is C16 H24 N2O ·HCL and the structural formula is:



Inactive ingredients: citric acid monohydrate, sodium citrate, sodium chloride.

INDICATION:

For induction of vomiting in dogs.

DOSAGE AND ADMINISTRATION:

This product should be administered by veterinary personnel.

Dosing Instructions:

Administer the appropriate number of eye drops topically according to Table 1. The number of eye drops administered corresponding to body weight results in a target dose of 3.75 mg/m^2 (dose band 2.7 - 5.4 mg/m^2). If the dog does not vomit within 20 minutes of the first dose, then a second dose may be administered.

Table 1. Dose Administration

Body weight in kilograms	Body weight in pounds	Total number of eye drops	Example administration
1.8 - 5	4 - 11.1	1	1 drop into either left or right eye
5.1 - 10	11.2 - 22.1	2	1 drop each eye
10.1 - 20	22.2 - 44.1	3	2 drops in one eye and 1 drop in the other eye
20.1 - 35	44.2 - 77.2	4	2 drops in each eye
35.1 - 60	77.3 - 132.3	6	An initial dose of 2 drops in each eye, followed 2 minutes later by 1 drop in each eye
60.1 - 100	132.4 - 220.5	8	An initial dose of 2 drops in each eye, followed 2 minutes later by 2 drops in each eye

Dose Administration:

- Wear gloves and protective eye wear when handling or administering this product to prevent accidental exposure.
- Open the dropper by twisting off the tail.

- Keep the dog's head steady in a slightly upright position.
- Hold the dropper in an upright position without touching the eye.
- Rest your finger on the forehead of your dog to maintain the distance between the dropper and the eye.
- Squeeze the prescribed number of drops in to the eye(s).

- CLEVOR is a single use dropper and is light sensitive.
- After administration, with gloves on, return the dropper to the aluminum pouch and place in the carton.

- If the dog does not vomit, a second dose can be given 20 minutes after administration of the first dose.
- This second dose is the same number of drops as the first dose.
- Thirty minutes after opening, with gloves on, dispose of dropper, aluminum pouch, and carton.

Refer to the **Animal Safety Warnings** section for treatment of protracted vomiting.

CONTRAINDICATIONS:

Do not use in dogs with central nervous system depression or seizures.

Do not use in cases of ingestion of sharp foreign objects, corrosive agents (acids or alkalis), volatile substances or organic solvents.

Do not use in cases with corneal ulceration, ocular irritation, or ocular injury.

Do not use when there is a known sensitivity to ropinirole or the inactive ingredients.

WARNINGS:

Human Safety Warnings:

Not for use in humans. Keep out of reach of children.

Wear gloves and protective eye wear when handling or administering this product to prevent accidental exposure. In case of accidental eye, oral or skin exposure, flush with water. If wearing contact lenses, eyes should be rinsed first, then remove contact lenses and continue rinsing. Remove contaminated clothing.

Ropinirole is a dopamine agonist. **Seek medical attention if accidental exposure occurs and show the package insert or label to the physician.**

Exposure to this drug may cause adverse reactions such as headache, nausea, vomiting, dizziness, orthostatic hypotension, and sleepiness.

Avoid contact with the product if pregnant, planning to become pregnant, or breast-feeding, as exposure has been shown to have adverse effects on embryo-fetal development based on rodent studies.

Animal Safety Warnings:

This product should be administered by veterinary personnel.

Dogs should be monitored for CLEVOR-associated clinical signs, including protracted vomiting, salivation, muscle tremors, evidence of abdominal discomfort, lethargy, transient tachycardia, transient decrease in blood pressure and signs of ocular irritation, including conjunctival hyperemia, mild blepharospasm, and protrusion of the third eyelid. These clinical signs are related to the pharmacological action of ropinirole.

To stop protracted vomiting, administer metoclopramide (dopamine D2 antagonist) at a dose of 0.5 mg/kg intravenously (IV) or subcutaneously (SQ). Metoclopramide also decreases the prevalence of most CLEVOR-associated clinical signs.

PRECAUTIONS:

The safe use of CLEVOR has not been evaluated in dogs with cardiac disease or cardiovascular compromise. CLEVOR can cause transient tachycardia and transient decreased systolic blood pressure.

The safe use of CLEVOR has not been evaluated in dogs with hepatic impairment. CLEVOR is metabolized by the liver.

The safe use of CLEVOR has not been evaluated in dogs younger than 4.5 months of age and weight less than 4 pounds.

The safe use of CLEVOR has not been evaluated in dogs that are pregnant, lactating, or intended for breeding.

ADVERSE REACTIONS:

Safety was evaluated during a field study that enrolled 132 dogs (100 in the CLEVOR group and 32 in the vehicle control group). CLEVOR was administered as drops into the eyes at the dose as directed by the dosing table (see **DOSAGE AND ADMINISTRATION**). The following table shows the number of dogs exhibiting ocular, systemic, and clinical pathology adverse reactions.

Table 2: Adverse Reactions Reported During the Study (all dogs)

Organ System	Adverse Reaction	CLEVOR (N=100)	Vehicle control (N=32)
Ocular	Conjunctival hyperemia[a]	51 (51%)	6 (19%)
	Protrusion of the third eyelid[a]	38 (38%)	1 (3%)
	Conjunctival discharge[a]	30 (30%)	1 (3%)
	Blephar-ospasm[a]	19 (19%)	0
	Conjunctival swelling[a]	3 (3%)	0
	Scratching/ rubbing of eyes[a]	4 (4%)	0
	Corneal ulceration	1 (1%)	0
	Corneal fluorescein uptake without corneal ulceration	1 (1%)	0
Sys-temic	Lethargy	41 (41%)	0
	Tachycardia (>160 beats per minute)[a,b]	14 (14%)	0
	Vomiting duration longer than one hour	8 (8%)	0
	Salivation	3 (3%)	1 (3%)
	Trembling	3 (3%)	0
	Diarrhea or soft stool	2 (2%)	1 (3%)
	Anxious	1 (1%)	0
	Borborygmi	1 (1%)	0
Clinical Patho-logy	Crystalluria[c]	13 (20%)	3 (15%)
	Pyuria[c]	12 (18%)	3 (15%)
	Increased liver enzymes[d]	3 (3%)	0
	Decreased blood glucose	2 (2%)	0
	Increased prothrombin time	1 (1%)	0

[a] Assessment performed 30 minutes after dose administration

[b] Tachycardia resolved for most dogs within 4 hours after dose administration

[c] Urinalysis results were reported for only 86 dogs (66 administered CLEVOR and 20 control)

[d] All three dogs had elevated alanine aminotransferase. Additionally, one of the dogs also had an elevated aspartate aminotransferase and another of the dogs also had an elevated alkaline phosphatase and total bilirubin.

Note: If any animal experienced the event more than once, only the first occurrence was tabulated.

To report suspected adverse events call 1(800) 835-9496, for technical assistance or to obtain a copy of the SDS, contact Vetoquinol USA, Inc. at 1 (800) 267-5707 or www.vetoquinolusa.com.

For additional information about adverse drug experience reporting for animal drugs, contact FDA at 1-888-FDA-VETS or online at www.fda.gov/reportanimalae.

CLINICAL PHARMACOLOGY:

Ropinirole is a full dopamine agonist with selectivity for the dopamine D2-like receptor family. Ropinirole induces vomiting by activating the D2-like receptors in the chemoreceptor trigger zone, located in the area postrema, which transmits the information to the vomiting center to trigger vomiting.

Absorption: Ropinirole solution is rapidly absorbed after ocular administration in dogs. The systemic bioavailability of the drug by this route of administration is 18 to 28%. The maximum concentration (C_{max}) after ocular administration at the target dose level of 3.75 mg/m^2 was 25.6 ± 7.75 ng/mL at 10 to 20 minutes (T_{max}). C_{max} in dogs that had to be re-dosed 20 minutes after the first administration was 34.2 ± 11.0 ng/mL at a T_{max} of 10 to 60 minutes. Vomiting generally starts before the C_{max} in plasma is reached. No direct correlation between the drug concentration in plasma and the duration of vomiting was observed after ocular administration.

Distribution: Ropinirole has a relatively large apparent volume of distribution. In dogs the volume of distribution (Vd) was 5.63 ± 1.40 L/kg after intravenous administration. The fraction bound to plasma proteins in dogs has been reported as 37%.[1]

Metabolism and Elimination: Ropinirole is mainly eliminated by hepatic metabolism.[1,2] The half-life of elimination ($t^{½}$) is approximately 4 hours after intravenous administration to dogs. Biotransformation occurs by dealkylation, hydroxylation and subsequent conjugation with glucuronic acid or oxidation to carboxylic acid.[3,4] Excretion occurs mainly as metabolites in the urine.

EFFECTIVENESS:

Effectiveness was demonstrated in a multi-center, vehicle-controlled, randomized and masked field study in client-owned dogs of various breeds. Dogs enrolled in the study were 7 months to 15 years of age and weighed 1.9 to 66.3 kg. In this study, 132 dogs were enrolled and randomized to treatment with CLEVOR (n=100) or vehicle control (n=32). The effectiveness evaluation population included 99 CLEVOR treated dogs and 29 vehicle control dogs.

Dogs received a dose administered as drops into the eye(s) approximately 1 hour after a meal. The dose was administered according to weight (see Dosage and Administration). If the dog did not vomit within 20 minutes of the first dose, a second dose was administered.

Treatment success was defined for each dog as vomiting within 30 minutes of treatment. The percent of treatment success for CLEVOR was greater than vehicle control. The confidence interval around the estimated success rate 0.969 was (0.831, 0.995).

Table 3. Number and % Effectiveness for CLEVOR and Vehicle Control

Time to Vomit	CLEVOR ® (n=99)	Vehicle Control (n=29)
0-30 minutes	94 (95%)	0 (0%)

The time to first vomition, the number of times the dog vomited, and the description of vomit were evaluated as secondary variables and support the effectiveness of CLEVOR for induction of vomiting in dogs. Eighty-five dogs (86%) in the CLEVOR group vomited within 20 minutes and therefore did not require a second dose. The time to first vomition ranged from 3 minutes to 37 minutes with a mean of 12 minutes. The duration between first and last vomiting episodes ranged from 0 to 108 minutes with a mean duration of 23 minutes. Eight dogs had vomiting episodes over a duration longer than an hour. Five of these eight dogs were administered an antiemetic (metoclopramide). The number of vomits ranged from 0 to 13 vomits with a mean of 4.8 vomits per dog. Of the dogs that vomited, 96% of the dogs produced a vomit containing the meal that had been fed approximately one hour prior to CLEVOR administration.

ANIMAL SAFETY:

In a laboratory study, 32 healthy Beagle dogs aged 4.5 - 5.5 months were administered CLEVOR at 1X, 3X, and 5X the proposed labeled dose of 2.7-5.4 mg/m^2 (0.23-0.31 mg/kg), repeated once after 20 minutes [total dose of 8.5-10.6 mg/m^2 (0.45-0.62 mg/kg)] (dose divided between both eyes), for 3 days.

Dogs in the CLEVOR groups generally vomited within 5 - 10 minutes of dose administration and none of the dogs in the saline group vomited. Vomiting occurred as often as every 1 - 2 minutes and lasted 1 - 2 hours. Additional systemic effects of CLEVOR included retching, salivation, hunched posture, tremors, labored breathing, lethargy, ventral and lateral recumbency, transient tachycardia, transient decrease in indirect systolic blood pressure (but not less than 125 mmHg), and a dose dependent decrease in body temperature (although all temperatures remained within normal limits). Local ocular effects of CLEVOR included ocular discharge, hyperemia, conjunctival erythema, blepharospasm, ptosis, third eyelid elevation, and positive corneal fluorescein staining. All CLEVOR-related observations resolved within 6 hours post-dosing. There was a dose dependent decrease in food consumption for dogs in the CLEVOR groups. Some dogs in the CLEVOR groups also had slight decreases in body weight. There were no effects on gross or microscopic pathology.

STORAGE CONDITIONS:

Store in the original package in order to protect from light at controlled room temperature 20-25˚C (68-77˚F) with excursions permitted to 15-30˚C (59-86˚F). After the first dosing, the opened dropper should be kept in the aluminum pouch. The content should be used and discarded within 30 minutes after opening the aluminum pouch.

HOW SUPPLIED:

CLEVOR is packaged in a unit-dose low density polyethylene dropper. Each dropper is packaged in an individual aluminum foil laminate pouch. The pouch/pouches are further packaged in a carton with the same number of leaflets as the number of unit-dose droppers.

Package sizes: Single package of 1 unit-dose dropper and multipackage of 5 unit-dose droppers.

REFERENCES:

1. Swagzdis J, et. al., (1986) Pharmacokinetics of dopamine-2 agonists in rats and dogs. J Pharm Sci 75 (10): 925-928.
2. Ramji J et al., (1999) Disposition of ropinirole in animals and man. Xenobiotica. 29 (3): 311-325.
3. Mico B et al., (1986) Functional group metabolism of dopamine-2 agonists: Conversion of 4-(2-Di-n-propylaminoethyl)-2-(3H)-indolone to 4-(2-Di-n-propylaminoethyl)-7-hydroxy-2-(3H)-indolone. J Pharm Sci 75 (10): 929-933.
4. Reavill C et al., (2000) Comparative pharmacological study of ropinirole (SKF-101468) and its metabolites in rats. J Pharm Pharmacol 52 (9): 1129-1135.

Manufactured by:
Orion Corporation

Distributed by:
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A-0105307-01-2

IMOXI™ Topical Solution for Dogs
(imidacloprid + moxidectin)

Once-a-month topical solution for the prevention of heartworm disease, the treatment of circulating microfilariae, kills adult fleas, is indicated for the treatment of flea infestations, the treatment and control of sarcoptic mange, as well as the treatment and control of intestinal parasite infections in dogs and puppies that are at least 7 weeks of age and that weigh at least 3 lbs.

WARNING

- **DO NOT ADMINISTER THIS PRODUCT ORALLY**
- **For the first 30 minutes after application ensure that dogs cannot lick the product from application sites on themselves or other treated animals.**
- **Children should not come in contact with application sites for two (2) hours after application.**

(See Contraindications, Warnings, Human Warnings, and Adverse Reactions, for more information.)

CAUTION:

Federal (USA) Law restricts this drug to use by or on the order of a licensed veterinarian.

DESCRIPTION:

IMOXI™ Topical Solution for Dogs (10% imidacloprid + 2.5% moxidectin) is a colorless to yellow ready-to-use solution packaged in single dose applicator tubes for topical treatment of dogs. The formulation and dosage schedule are designed to provide a minimum of 4.5 mg/lb. (10 mg/kg) imidacloprid and 1.1 mg/lb. (2.5 mg/kg) moxidectin based on body weight.

Imidacloprid is a chloronicotinyl nitroguanidine insecticide. The chemical name for imidacloprid is 1-[(6-Chloro-3-pyridinyl) methyl]-N-nitro-2-imidazolidinimine. Moxidectin is a semisynthetic macrocyclic lactone endectocide derived from the actinomycete *Streptomycetes cyaneogriseus noncyanogenus*. The chemical name for moxidectin is [6R, 23E, 25S(E)]-5-O-Demethyl-28-deoxy- 25-(1,3-dimethl-1-butenyl)-6,28-epoxy-23-(methoxyimino) milbemycin B.

INDICATIONS:

IMOXI™ Topical Solution for Dogs is indicated for the prevention of heartworm disease caused by *Dirofilaria immitis* and the treatment of *Dirofilaria immitis* circulating microfilariae in heartworm-positive dogs. IMOXI™ Topical Solution for Dogs kills adult fleas and is indicated for the treatment of flea infestations (*Ctenocephalides felis*). IMOXI™ Topical Solution for Dogs is indicated for the treatment and control of sarcoptic mange caused by *Sarcoptes scabiei* var. *canis*. IMOXI™ Topical Solution for Dogs is also indicated for the treatment and control of the following intestinal parasites:

Intestinal Parasite		Intestinal Stage		
		Adult	Immature Adult	Fourth Stage Larvae
Hookworm Species	*Ancylostoma caninum*	X	X	X
	Uncinaria stenocephala	X	X	X
Roundworm Species	*Toxocara canis*	X		X
	Toxascaris leonina	X		
Whipworm	*Trichuris vulpis*	X		

CONTRAINDICATIONS:

Do not administer this product orally. (See WARNINGS)

Do not use this product (containing 2.5% moxidectin) on cats.

WARNINGS:

For the first 30 minutes after application:

Ensure that dogs cannot lick the product from application sites on themselves or other treated dogs, and separate treated dogs from one another and from other pets to reduce the risk of accidental ingestion.

Ingestion of this product by dogs may cause serious adverse reactions including depression, salivation, dilated pupils, incoordination, panting, and generalized muscle tremors.

In avermectin sensitive dogs,[a] the signs may be more severe and may include coma and death.[b]

[a] Some dogs are more sensitive to avermectins due to a mutation in the MDR1 gene. Dogs with this mutation may develop signs of severe avermectin toxicity if they ingest this product. The most common breeds associated with this mutation include Collies and Collie crosses.

[b] Although there is no specific antagonist for avermectin toxicity, even severely affected dogs have completely recovered from avermectin toxicity with intensive veterinary supportive care.

HUMAN WARNINGS:

Not for human use. Keep out of the reach of children.

Children should not come in contact with application sites for two (2) hours after application.

Causes eye irritation. Harmful if swallowed. Do not get in eyes or on clothing. Avoid contact with skin. Exposure to the product has been reported to cause headache; dizziness; and redness, burning, tingling, or numbness of the skin.

Wash hands thoroughly with soap and warm water after handling.

If contact with eyes occurs, hold eyelids open and flush with copious amounts of water for 15 minutes. If eye irritation develops or persists, contact a physician. If swallowed, call poison control center or physician immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or physician. People with known hypersensitivity to benzyl alcohol, imidacloprid or moxidectin should administer the product with caution. In case of allergic reaction, contact a physician. If contact with skin or clothing occurs, take off contaminated clothing. Wash skin immediately with plenty of soap and water. Call a poison control center or physician for treatment advice.

The Safety Data Sheet (SDS) provides additional occupational safety information. For consumer questions call 1-800-835-9496.

For a copy of the Safety Data Sheet (SDS) or to report adverse reactions call Vetoquinol USA, Inc. at 1-800-835-9496.

PRECAUTIONS:

Do not dispense dose applicator tubes without complete safety and administration information.

Use with caution in sick, debilitated, or underweight animals. The safety of IMOXI™ Topical Solution for Dogs has not been established in breeding, pregnant, or lactating dogs. The safe use of IMOXI™ Topical Solution for Dogs has not been established in puppies and dogs less than 7 weeks of age or less than 3 lbs. body weight.

Prior to administration of IMOXI™ Topical Solution for Dogs, dogs should be tested for existing heartworm infection. At the discretion of the veterinarian, infected dogs should be treated with an adulticide to remove adult heartworms. The safety of IMOXI™ Topical Solution for Dogs has not been evaluated when administered on the same day as an adulticide. IMOXI™ Topical Solution for Dogs is not effective against adult *D. immitis*. Although the number of circulating microfilariae is substantially reduced in most dogs following treatment with IMOXI™ Topical Solution for Dogs, the microfilaria count in some heartworm-positive dogs may increase or remain unchanged following treatment with IMOXI™ Topical Solution for Dogs, alone or in a dosing regimen with melarsomine dihydrochloride.

(See ADVERSE REACTIONS and ANIMAL SAFETY – Safety Study in Heartworm-Positive Dogs.)

IMOXI™ Topical Solution for Dogs has not been evaluated in heartworm-positive dogs with Class 4 heartworm disease.

ADVERSE REACTIONS:

Heartworm-Negative Dogs

Field Studies: Following treatment with imidacloprid and moxidectin topical solution or an active control, dog owners reported the following post-treatment reactions:

OBSERVATION	imidacloprid and moxidectin topical solution n=128	Active Control n=68
Pruritus	19 dogs (14.8%)	7 dogs (10.3%)
Residue	9 dogs (7.0%)	5 dogs (7.4%)
Medicinal Odor	5 dogs (3.9%)	None observed
Lethargy	1 dog (0.8%)	1 dog (1.5%)
Inappetence	1 dog (0.8%)	1 dog (1.5%)
Hyperactivity	1 dog (0.8%)	None observed

During a field study using 61 dogs with pre-existing flea allergy dermatitis, one (1.6 %) dog experienced localized pruritus immediately after imidacloprid application, and one investigator noted hyperkeratosis at the application site of one dog (1.6 %).

In a field safety and effectiveness study, imidacloprid and moxidectin topical solution was administered to 92 client-owned dogs with sarcoptic mange. The dogs ranged in age from 2 months to 12.5 years and ranged in weight from 3 to 231.5 pounds. Adverse reactions in dogs treated with imidacloprid and moxidectin topical solution included hematochezia, diarrhea, vomiting, lethargy, inappetence, and pyoderma.

Laboratory Effectiveness Studies: One dog in a laboratory effectiveness study experienced weakness, depression, and unsteadiness between 6 and 9 days after application with imidacloprid and moxidectin topical solution. The signs resolved without intervention by day 10 post-application. The signs in this dog may have been related to peak serum levels of moxidectin, which vary between dogs, and occur between 1 and 21 days after application of imidacloprid and moxidectin topical solution.

The following clinical observations also occurred in laboratory effectiveness studies following application with imidacloprid and moxidectin topical solution and may be directly attributed to the drug or may be secondary to the intestinal parasite burden or other underlying conditions in the dogs: diarrhea, bloody stools, vomiting, anorexia, lethargy, coughing, ocular discharge and nasal discharge. Observations at the application sites included damp, stiff or greasy hair, the appearance of a white deposit on the hair, and mild erythema, which resolved without treatment within 2 to 48 hours.

Heartworm-Positive Dogs

Field Study: A 56-day field safety study was conducted in 214 *D. immitis* heartworm and microfilaria positive dogs with Class 1, 2 or 3 heartworm disease. All dogs received imidacloprid and moxidectin topical solution on Study Days 0 and 28; 108 dogs also received melarsomine dihydrochloride on Study Days – 14, 14, and 15. All dogs were hospitalized for a minimum of 12 hours following each treatment. Effectiveness against circulating *D. immitis* microfilariae was > 90 % at five of six sites; however, one site had an effectiveness of 73.3 %. The microfilaria count in some heartworm-positive dogs increased or remained unchanged following treatment with imidacloprid and moxidectin topical solution alone or in a dosing regimen with melarsomine dihydrochloride.

Following treatment with imidacloprid and moxidectin topical solution alone or in a dosing regimen with melarsomine dihydrochloride, the following adverse reactions were observed:

Adverse Reaction	Dogs Treated with imidacloprid and moxidectin topical solution n=106	Dogs Treated with imidacloprid and moxidectin topical solution + Melarsomine n=108
Cough	24 (22.6%)	25 (23.1%)
Lethargy	14 (13.2%)	42 (38.9%)
Vomiting	11 (10.4%)	18 (16.7%)
Diarrhea, including hemorrhagic	10 (9.4%)	22 (20.4%)
Inappetence	7 (6.6%)	19 (17.6%)
Dyspnea	6 (5.7%)	10 (9.3%)
Tachypnea	1 (<1%)	7 (6.5%)
Pulmonary Hemorrhage	0	1 (<1%)
Death	0	3 (2.8%)

Three dogs treated with imidacloprid and moxidectin topical solution in a dosing regimen with melarsomine dihydrochloride died of pulmonary embolism from dead and dying heartworms. One dog, treated with imidacloprid and moxidectin topical solution and melarsomine dihydrochloride, experienced pulmonary hemorrhage and responded to supportive medical treatment. Following the first treatment with imidacloprid and moxidectin topical solution alone, two dogs experienced adverse reactions (coughing, vomiting, and dyspnea) that required hospitalization. In both groups, there were more adverse reactions to imidacloprid and moxidectin topical solution following the first treatment than the second treatment.

To report a suspected adverse reaction, call 1-800-835-9496.

Post-Approval Experience:

The following adverse events are based on post-approval adverse drug experience reporting. Not all adverse reactions are reported to FDA CVM.

It is not always possible to reliably estimate the adverse event frequency or establish a causal relationship to product exposure using this data. The following adverse events in dogs are listed in decreasing order of reporting frequency: depression/lethargy, vomiting, pruritus, diarrhea, anorexia, hyperactivity, ataxia, trembling, hypersalivation, application site reactions (alopecia, pruritus, lesions, and erythema), seizures, and anaphylaxis/anaphylactic reactions (hives, urticaria, facial swelling, edema of the head).

Serious reactions, including neurologic signs and death have been reported when cats have been exposed (orally and topically) to this product.

In humans, nausea, numbness or tingling of the mouth/ lips and throat, ocular and dermal irritation, pruritus, headache, vomiting, diarrhea, depression and dyspnea have been reported following exposure to this product.

To report suspected adverse drug events, for technical assistance or to obtain a copy of the SDS, contact Vetoquinol USA, Inc. at 1-800-835-9496.

For additional information about adverse drug experience reporting for animal drugs, contact FDA at 1-888-FDA-VETS or online at http://www.fda.gov/ reportanimalae.

DOSAGE AND ADMINISTRATION:

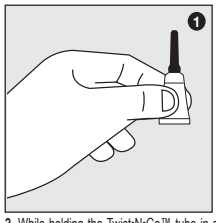
The recommended minimum dose is 4.5 mg/lb. (10 mg/kg) imidacloprid and 1.1 mg/lb. (2.5 mg/kg) moxidectin, once a month, by topical administration.

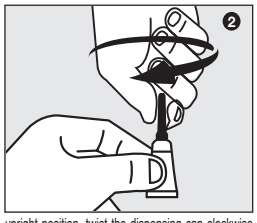
Do not apply to irritated skin.

1. Remove one dose applicator tube from the package. As specified in the table, administer the entire contents of the IMOXI™ Topical Solution for Dogs tube that correctly corresponds with the body weight of the dog.

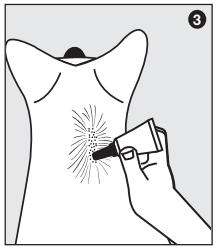
Dog (lbs.)	Volume (mL)	Imidacloprid (mg)	Moxidectin (mg)
3–9	0.4	40	10
9.1–20	1.0	100	25
20.1–55	2.5	250	62.5
55.1–88	4.0	400	100
88.1–110 *	5.0	500	125

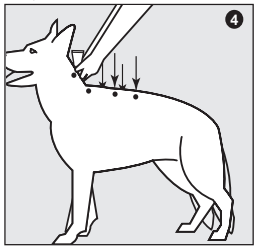
* Dogs over 110 lbs. should be treated with the appropriate combination of IMOXI™ Topical Solution for Dogs tubes.





2. While holding the Twist•N•Go™ tube in an upright position, twist the dispensing cap clockwise about ½ turn to break the tube's seal. Remove the cap from the tube.





3. The dog should be standing for application. Position the dispensing tip on the dog's back between the shoulder blades. The dispensing tip of the tube can be used to part the dog's hair until the skin is visible.

4. For dogs weighing 20 lbs. or less, place the tip of the tube on the skin and apply the entire contents directly on the exposed skin at one spot between the shoulder blades. For dogs weighing more than 20 lbs., place the tip of the tube on the skin and apply the entire contents directly on the exposed skin at 3 or 4 spots on the top of the backline from the base of the neck to the upper back in an area inaccessible to licking. Do not apply an amount of solution at any one location that could run off the side of the dog.

Do not let this product get in your dog's mouth or eyes. **Do not allow the dog to lick any of the application sites for 30 minutes.** In households with multiple pets, keep each treated dog separated from other treated dogs and other pets for 30 minutes after application to prevent licking the application sites.

(See WARNINGS)

Stiff hair, a damp appearance of the hair, pink skin, or a slight powdery residue may be observed at the application site on some animals. This is temporary and does not affect the safety and effectiveness of the product.

Shampooing 90 minutes after treatment does not reduce the effectiveness of IMOXI™ Topical Solution for Dogs in the prevention of heartworm disease. Shampooing or water immersion 4 days after treatment will not reduce the effectiveness of IMOXI™ Topical Solution for Dogs in the treatment of flea infestations. However, shampooing as often as once weekly may reduce the effectiveness of the product against fleas.

Heartworm Prevention: For prevention of heartworm disease, IMOXI™ Topical Solution for Dogs should be administered at one-month intervals. IMOXI™ Topical Solution for Dogs may be administered year-round or at a minimum should start one month before the first expected exposure to mosquitoes and should continue at monthly intervals until one month after the last exposure to mosquitoes. If a dose is missed and a 30-day interval between doses is exceeded, administer IMOXI™ Topical Solution for Dogs immediately and resume the monthly dosing schedule. When replacing another heartworm preventative product in a heartworm prevention program, the first treatment with IMOXI™ Topical Solution for Dogs should be given within one month of the last dose of the former medication.

Treatment of Circulating Microfilaria: For the treatment of circulating *D. immitis* microfilaria in heartworm-positive dogs, IMOXI™ Topical Solution for Dogs should be administered at one-month intervals. Treatment with an approved adulticide therapy is recommended because IMOXI™ Topical Solution for Dogs is not effective for the treatment of adult *D. immitis*.

(See PRECAUTIONS)

Flea Treatment: For the treatment of flea infestations, IMOXI™ Topical Solution for Dogs should be administered at one-month intervals. If the dog is already infested with fleas when the first dose of IMOXI™ Topical Solution for Dogs is administered, adult fleas on the dog will be killed. However, reinfestation from the emergence of preexisting pupae in the environment may continue to occur for six weeks or longer after treatment is initiated. Dogs treated with imidacloprid, including those with pre-existing flea allergy dermatitis have shown clinical improvement as a direct result of elimination of fleas from the dog.

Treatment and Control of Intestinal Nematode Infections: For the treatment and control of intestinal hookworm infections caused by *Ancylostoma caninum* and *Uncinaria stenocephala* (adults, immature adults and fourth stage larvae) and roundworm infections caused by *Toxocara canis* (adults and fourth stage larvae), and *Toxascaris leonina* (adults), and whipworm infections caused by *Trichuris vulpis* (adults), IMOXI™ Topical Solution for Dogs should be administered once as a single topical dose.

Treatment and Control of Sarcoptic Mange: For the treatment and control of sarcoptic mange caused by *Sarcoptes scabiei* var. *canis*, IMOXI™ Topical Solution for Dogs should be administered as a single topical dose. A second monthly dose may be administered if necessary.

ANIMAL SAFETY:

Heartworm–Negative Dogs

Field Study: In a controlled, double-masked, field safety study, imidacloprid and moxidectin topical solution was administered to 128 dogs of various breeds, 3 months to 15 years of age, weighing 4 to 157 pounds. Imidacloprid and moxidectin topical solution was used safely in dogs concomitantly receiving ACE inhibitors, anticonvulsants, antihistamines, antimicrobials, chondroprotectants, corticosteroids, immunotherapeutics, MAO inhibitors, NSAIDs, ophthalmic medications, sympathomimetics, synthetic estrogens, thyroid hormones, and urinary acidifiers. Owners reported the following signs in their dogs after application of imidacloprid and moxidectin topical solution: pruritus, flaky/greasy residue at the treatment site, medicinal odor, lethargy, inappetence, and hyperactivity.

(See ADVERSE REACTIONS)

Safety Study in Puppies: Imidacloprid and moxidectin topical solution was applied topically at 1, 3 and 5X the recommended dose to 7-week-old Beagle puppies once every 2 weeks for 6 treatments on days 0, 14, 28, 42, 56, and 70. Loose stools and diarrhea were observed in all groups, including the controls, throughout the study. Vomiting was seen in one puppy from the 1X treatment group (day 57), in two puppies from the 3X treatment group (days 1 and 79), and in one puppy from the 5X treatment group (day 1). Two puppies each in the 1X, 3X, and 5X groups had decreased appetites within 24 hours post-dosing. One puppy in the 1X treatment group had pruritus for one hour following the fifth treatment. A puppy from the 5X treatment group displayed rapid, difficult breathing from 4 to 8 hours following the second treatment.

Dermal Dose Tolerance Study: Imidacloprid and moxidectin topical solution was administered topically to 8-month-old Beagle dogs at l0X the recommended dose once. One dog showed signs of treatment site irritation after application. Two dogs vomited, one at 6 hours and one at 6 days post-treatment. Increased RBC, hemoglobin, activated partial thromboplastin, and direct bilirubin were observed in the treated group. Dogs in the treated group did not gain as much weight as the control group.

Oral Safety Study in Beagles: Imidacloprid and moxidectin topical solution was administered once orally at the recommended topical dose to 12 dogs. Six dogs vomited within 1 hour of receiving the test article, 2 of these dogs vomited again at 2 hours, and 1 dog vomited again up to 18 hours post-dosing. One dog exhibited shaking (nervousness) 1 hour post-dosing. Another dog exhibited abnormal neurological signs (circling, ataxia, generalized muscle tremors, and dilated pupils with a slow pupillary light response) starting at 4 hours post-dosing through 18 hours post-dosing. Without treatment, this dog was neurologically normal at 24 hours and had a normal appetite by 48 hours post-dosing.

(See CONTRAINDICATIONS)

Dermal Safety Study in Ivermectin-Sensitive Collies: Imidacloprid and moxidectin topical solution was administered topically at 3 and 5X the recommended dose every 28 days for 3 treatments to Collies which had been prescreened for avermectin sensitivity. No clinical abnormalities were observed.

Oral Safety Study in Ivermectin-Sensitive Collies: Imidacloprid and moxidectin topical solution was administered orally to 5 pre-screened ivermectin-sensitive Collies. The Collies were asymptomatic after ingesting 10% of the minimum labeled dose. At 40% of the minimum recommended topical dose, 4 of the dogs experienced neurological signs indicative of avermectin toxicity including depression, ataxia, mydriasis, salivation, muscle fasciculation, and coma, and were euthanized.

(See CONTRAINDICATIONS)

Heartworm-Positive Dogs

Laboratory Safety Study in Heartworm-Positive Dogs: Imidacloprid and moxidectin topical solution was administered topically at 1 and 5X the recommended dose every 14 days for 3 treatments to dogs with adult heartworm infections and circulating microfilaria. At 5X, one dog was observed vomiting three hours after the second treatment. Hypersensitivity reactions were not seen in the 5X treatment group. Microfilaria counts decreased with treatment.

STORAGE INFORMATION:

Store at temperatures between 4º C (39 °F) and 25º C (77 °F), avoiding excess heat or cold.

HOW SUPPLIED:

Applications Per Package: 6 x 0.4 mL tubes, 6 x 1.0 mL tubes, 6 x 2.5 mL tubes, 6 x 4.0 mL tubes, 6 x 5.0 mL tubes

Vetoquinol USA, Inc.
4250 N. Sylvania Avenue
Fort Worth, TX 76137

R2 - 05/2021

IMOXI™ Topical Solution for Cats
(imidacloprid + moxidectin)

Once-a-month topical solution for cats for the prevention of heartworm disease, kills adult fleas, is indicated for the treatment of flea infestations, as well as the treatment and control of ear mite infestations and intestinal parasite infections in cats and kittens 9 weeks of age and older and that weigh at least 2 lbs.

CAUTION:
Federal (U.S.A.) Law restricts this drug to use by or on the order of a licensed veterinarian.

DESCRIPTION:
IMOXI™ Topical Solution for Cats (10% imidacloprid + 1% moxidectin) is a colorless to yellow ready-to-use solution packaged in single-dose applicator tubes for topical treatment of cats. The formulation and dosage schedule are designed to provide a minimum of 4.5 mg/lb (10.0 mg/kg) imidacloprid and 0.45 mg/lb (1.0 mg/kg) moxidectin based on body weight.

Imidacloprid is a chloronicotinyl nitroguanidine insecticide. The chemical name of imidacloprid is 1-[(6-Chloro-3-pyridinyl)methyl]-N-nitro-2-imidazolidinimine. Moxidectin is a semisynthetic macrocyclic lactone endectocide derived from the actinomycete *Streptomycetes cyaneogriseus noncyanogenus.* The chemical name of moxidectin is [6R, 23E, 25S(E)]-5-O-Demethyl-28-deoxy-25-(1,3-dimethyl-1-butenyl)-6,28-epoxy-23-(methoxyimino) milbemycin B.

INDICATIONS:
IMOXI™ Topical Solution for Cats is indicated for the prevention of heartworm disease caused by *Dirofilaria immitis.* IMOXI™ Topical Solution for Cats kills adult fleas *(Ctenocephalides felis)* and is indicated for the treatment of flea infestations. IMOXI™ Topical Solution for Cats is also indicated for the treatment and control of ear mite *(Otodectes cynotis)* infestations and the following intestinal parasites:

Intestinal Parasite		Intestinal Stage		
		Adult	Immature Adult	Fourth Stage Larvae
Hookworm Species	*Ancylostoma tubaeforme*	X	X	X
Roundworm Species	*Toxocara cati*	X		X

WARNINGS:
Do not use on sick, debilitated, or underweight cats (see ADVERSE REACTIONS). Do not use on cats less than 9 weeks of age or less than 2 lbs. body weight.

HUMAN WARNINGS:
Not for human use. Keep out of the reach of children.
Children should not come in contact with the application site for 30 minutes after application.
Causes eye irritation. Harmful if swallowed. Do not get in eyes or on clothing. Avoid contact with skin. Exposure to the product has been reported to cause headache; dizziness; and redness, burning, tingling, or numbness of the skin. **Wash hands thoroughly with soap and warm water after handling.** If contact with eyes occurs, hold eyelids open and flush with copious amounts of water for 15 minutes. If eye irritation develops or persists, contact a physician. If swallowed, call poison control center or physician immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or physician. People with known hypersensitivity to benzyl alcohol, imidacloprid or moxidectin should administer the product with caution. In case of allergic reaction, contact a physician. If contact with skin or clothing occurs, take off contaminated clothing. Wash skin immediately with plenty of soap and water. Call a poison control center or physician for treatment advice.

The Safety Data Sheet (SDS) provides additional occupational safety information. To report suspected adverse drug events, for technical assistance or to obtain a copy of the SDS, contact Vetoquinol USA at 1-800-835-9496 or www.vetoquinolusa.com.

For additional information about adverse drug experience reporting for animal drugs, contact FDA at 1-888-FDA-VETS or online at www.fda.gov/reportanimalae.

PRECAUTIONS:
Do not dispense dose applicator tubes without complete safety and administration information.

Avoid oral ingestion. Cats may experience hypersalivation, tremors, vomiting and decreased appetite if IMOXI™ Topical Solution for Cats is inadvertently administered orally or through grooming/licking of the application site.

The safety of IMOXI™ Topical Solution for Cats has not been established in breeding, pregnant, or lactating cats.

The effectiveness of IMOXI™ Topical Solution for Cats against heartworm infections *(D. immitis)* after bathing has not been evaluated in cats.

Use of this product in geriatric patients with subclinical conditions has not been adequately studied. Several otherwise healthy, thin geriatric cats experienced prolonged lethargy and sleepiness after using imidacloprid and moxidectin topical solution. **(See ADVERSE REACTIONS).**

ADVERSE REACTIONS:
Field Study: Following treatment with imidacloprid and moxidectin topical solution or an active control, cat owners reported the following post-treatment reactions:

OBSERVATION	Imidacloprid and Moxidectin Topical Solution n=113	Active Control n=38
Lethargy (protracted sleeping, poorly responsive)	3 cats* (2.7%)	None observed
Behavioral changes (e.g., agitated, excessive grooming, hiding, pacing, spinning)	9 cats (8.0%)	1 cat (2.6%)
Discomfort (e.g., scratching, rubbing, head-shaking)	5 cats (4.4%)	None observed
Hypersalivation (within 1 hour after treatment)	3 cats (2.7%)	None observed
Polydipsia	3 cats (2.7%)	None observed
Coughing and gagging	1 cat (0.9%)	None observed

***** These three cats were from the same household and included one 13-yr-old cat in good health, one 15-yr-old FIV positive cat in good health, and one 15-yr-old, underweight cat in fair health. Lethargy was noted for 24 to 36 hrs after the first treatment only; one cat was unsteady at 48hrs. These cats were not on other medications.

During another field study, a 16-year-old cat with renal disease slept in the same place without moving for two days following application.
(See PRECAUTIONS).

Laboratory Effectiveness Studies: Imidacloprid and moxidectin topical solution was administered at the recommended dose to 215 cats in 20 effectiveness studies. One random-sourced cat exhibited signs consistent with either moxidectin toxicity or viral respiratory disease and died 26 hours after product application; necropsy findings were inconclusive as to the cause of death. A second cat that became ill 3 days after application of imidacloprid and moxidectin topical solution responded to treatment for respiratory infection and completed the study. A third cat became ill on day 3 and died with signs and lesions attributable to panleukopenia on day 7 after moxidectin application.

Post-Approval Experience: The following adverse events are based on post-approval adverse drug experience reporting. Not all adverse reactions are reported to FDA CVM. It is not always possible to reliably estimate the adverse event frequency or establish a causal relationship to product exposure using this data. The following adverse events in cats are listed in decreasing order of reporting frequency: hypersalivation, depression/lethargy, application site reactions (alopecia, pruritus, lesions, and erythema), decreased appetite, vomiting, hyperactivity, ataxia, trembling, and behavior disorder (hiding).

In some cases, death has been reported.

In humans, ocular and dermal irritation, nausea, numbness or tingling of the mouth and lips, anaphylaxis, pruritus, vomiting, and tongue/taste abnormalities have been reported following exposure to imidacloprid and moxidectin topical solution.

To report suspected adverse drug events, for technical assistance or to obtain a copy of the SDS, contact Vetoquinol USA at 1-800-835- 9496 or www.vetoquinolusa.com.

For additional information about adverse drug experience reporting for animal drugs, contact FDA at 1-888-FDA-VETS or online at www.fda.gov/reportanimalae.

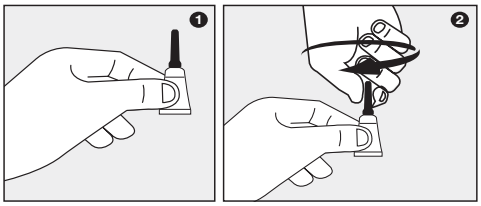
DOSAGE AND ADMINISTRATION:
The recommended minimum dose is 4.5 mg/lb (10.0 mg/kg) imidacloprid and 0.45 mg/lb (1.0 mg/kg) moxidectin, once a month, by topical administration.

Do not apply to irritated skin.

1. Remove one dose applicator tube from the package. As specified in the following table, administer the entire contents of the IMOXI™ Topical Solution for Cats tube that correctly corresponds with the body weight of the cat.

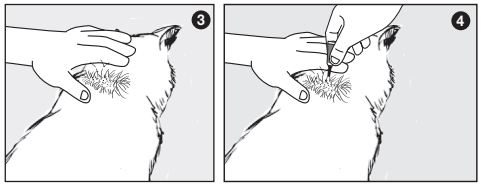
Cat (lbs.)	Volume (mL)	Imidacloprid (mg)	Moxidectin (mg)
2-5	0.23	23	2.3
5.1-9	0.4	40	4
9.1-18*	0.8	80	8

* Cats over 18 lbs. should be treated with the appropriate combination of IMOXI™ Topical Solution for Cats tubes.



2. While holding the Twist•N•Go™ tube in an upright position, twist dispensing tip clockwise about ½ turn to break the tube's seal. Remove the cap from the tube.

3. Part the hair on the back of the cat's neck at the base of the head, until the skin is visible.



4. Place the tip of the tube on the skin and apply the entire contents directly on the exposed skin. Lift the tube away from the skin before releasing pressure on the tube.

Do not get this product in the cat's mouth or eyes or allow the cat to lick the application site for 30 minutes. Treatment at the base of the head will minimize the opportunity for ingestion by grooming. In households with multiple pets, keep animals separated to prevent licking of the application site.

Stiff, matted hair or a damp, oily appearance of the hair may be observed at the application site on some cats. This is temporary and does not affect the safety and effectiveness of the product.

Heartworm Prevention: For prevention of heartworm disease, IMOXI™ Topical Solution for Cats should be administered at one-month intervals. IMOXI™ Topical Solution for Cats may be administered year-around or at a minimum should start one month before the first expected exposure to mosquitoes and should continue at monthly intervals until one month after the last exposure to mosquitoes. If a dose is missed and a 30-day interval between doses is exceeded, administer IMOXI™ Topical Solution for Cats immediately and resume the monthly dosing schedule. When replacing another heartworm preventative product in a heartworm prevention program, the first treatment with IMOXI™ Topical Solution for Cats should be given within one month of the last dose of the former medication. At the discretion of the veterinarian, cats older than 6 months of age may be tested to determine the presence of existing heartworm infection before treatment with IMOXI™ Topical Solution for Cats. **(See ADVERSE REACTIONS – Post-Approval Experience).**

Flea Treatment: For the treatment of flea infestations, IMOXI™ Topical Solution for Cats should be administered at one-month intervals. If the cat is already infested with fleas when the first dose of IMOXI™ Topical Solution for Cats is administered, adult fleas on the cat will be killed. However, re-infestation from the emergence of pre-existing pupae in the environment may continue to occur for six weeks or longer after treatment is initiated. Cats treated with imidacloprid, including those with pre-existing flea allergy dermatitis, have shown clinical improvement as a direct result of elimination of fleas from the cat.

Ear Mite Treatment: For the treatment of ear mites (*Otodectes cynotis*), IMOXI™ Topical Solution for Cats should be administered once as a single topical dose. Monthly use of IMOXI™ Topical Solution for Cats will control any subsequent ear mite infestations.

Intestinal Nematode Treatment: For the treatment and control of intestinal hookworm infections caused by *Ancylostoma tubaeforme* (adults, immature adults and fourth stage larvae) and roundworm infections caused by *Toxocara cati* (adults and fourth stage larvae), IMOXI™ Topical Solution for Cats should be administered once as a single topical dose.

ANIMAL SAFETY:
Studies in Kittens: Imidacloprid and moxidectin topical solution was topically applied at 0, 1, 3, and 5X the maximum dose to 48 healthy 9-week-old kittens on days 0, 28, and 56. Lethargy was observed in 1 kitten from the 3X group and 1 from the 5X group on the day after initial treatment; the kitten from the 3X group was also disoriented and ataxic. One kitten from the 3X group had a slow pupillary light response two days after treatment and one had tremors the day after treatment. Hypersalivation was seen in one kitten from the 5X group approximately six hours post-treatment. One kitten from the 3X group was scratching at the treatment site 2 days after treatment. Slight cough was noted in 7 different kittens (2-0X, 2-1X, and 3-5X) during the 13-day period following the first treatment. Histopathology showed granulomatous inflammation at the treatment site in three 1X kittens. Causal relationship to the drug could not be determined. Pulmonary inflammation (1-5X) and lymphoid hyperplasia (2-1X, 4-3X) were seen in treated kittens. In a second study, imidacloprid and moxidectin topical solution was topically applied at 0, 1.7, 5.2 and 8.7X the maximum dose to 48 healthy 9-week-old kittens every two weeks for 6 doses. One kitten in the 8.7X group apparently ingested an unknown amount of the drug and developed the following clinical signs prior to euthanasia: mydriasis, salivation, depression, vomiting, unsteadiness, rapid to slow to difficult breathing, poor pupillary response, generalized tremors, inability to move, and nystagmus. Two kittens in the 5.2X group developed mydriasis, salivation, depression, squinting, and poor appetite. A kitten in the 1.7X group developed mydriasis.

Dose Tolerance Study: Eight healthy juvenile cats were topically dosed with a single application of imidacloprid and moxidectin topical solution at 10 times the recommended dose volume. Mild, transient hypersalivation occurred in two of the cats.

Oral Study in Cats: The oral safety of imidacloprid and moxidectin topical solution was tested in case of accidental oral ingestion. The maximum topical dose was orally administered to twelve healthy 9-week-old kittens. Hypersalivation (8 of 12 kittens) and vomiting (12 of 12 kittens) were observed immediately post-treatment. Tremors developed in one kitten within 1 hour, resolving without treatment within the next hour. All 12 kittens were either anorexic or had decreased appetite for at least 1 day following treatment. In 3 kittens, the anorexia or decreased appetite continued into the second week following treatment. There was a post-treatment loss of body weight in treated kittens compared to control kittens. In a pilot safety study using kittens younger in age and lighter in weight than allowed by product labeling, an 8-week-old kitten weighing 0.6 kg orally received 2X of the label topical dose (0.46 mL/kg). Immediately after dosing, it vomited, had labored breathing and slight tremors. Within 4 hours, it was normal, but was found dead on day 6. Necropsy could not determine the cause of death.

Study in Heartworm Positive Cats: Young adult cats were inoculated subcutaneously with third-stage *D. immitis* larvae. At 243-245 days post-infection, immunoserology and echocardiography were performed to identify cats with adult heartworm burdens similar to naturally-acquired infections. Two groups were treated topically with either imidacloprid and moxidectin topical solution at the label dose or placebo, once every 28 days, for three consecutive treatments. A third group was treated topically, once, with imidacloprid and moxidectin topical solution at 5X the label dose. Sporadic vomiting and labored breathing related to heartworm burden were observed in the treatment and control groups. There was no difference between treatment groups in the numbers of adult *D. immitis* recovered at study conclusion. No adverse reactions were associated with the topical application of imidacloprid and moxidectin topical solution to experimentally heartworm-infected cats.

STORAGE INFORMATION:
Store at temperatures between 20ºC (68°F) and 25ºC (77°F), avoiding excess heat or cold.

HOW SUPPLIED:
Applications Per Package
3 x 0.23 mL tubes
6 x 0.4 mL tubes
6 x 0.8 mL tubes

Approved by FDA under ANADA # 200-638

R2 - 08/2020

Vetoquinol USA, Inc.
4250 N. Sylvania Avenue
Ft. Worth, TX 76137

SIMPLERA™
(florfenicol, terbinafine, mometasone furoate)
Otic Solution for use in dogs only
Do Not Use in Cats.

Antibacterial, antifungal, and anti-inflammatory

CAUTION: Federal (U.S.A.) law restricts this drug to use by or on the order of a licensed veterinarian.

DESCRIPTION:
SIMPLERA contains 16.6 mg/mL florfenicol, 14.8 mg/mL terbinafine (equivalent to 16.6 mg/mL terbinafine hydrochloride) and 2.2 mg/mL mometasone furoate. Inactive ingredients include purified water, propylene carbonate, propylene glycol, ethyl alcohol, and polyethylene glycol.

INDICATIONS:
SIMPLERA is indicated for the treatment of otitis externa in dogs associated with susceptible strains of yeast (*Malassezia pachydermatis*) and bacteria (*Staphylococcus pseudintermedius*).

DOSAGE AND ADMINISTRATION:
SIMPLERA should be administered by veterinary personnel.

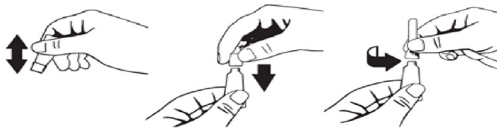
Wear eye protection when administering SIMPLERA.
(see **Human Warnings, PRECAUTIONS, POST-APPROVAL EXPERIENCE).**

Splatter may occur if the dog shakes its head following administration. Persons near the dog during administration should also take steps to avoid ocular exposure.

Shake before use.

Verify the tympanic membrane is intact prior to administration. (see **CONTRAINDICATIONS, PRECAUTIONS, POST-APPROVAL EXPERIENCE).**

Administer one dose (1 dropperette) per affected ear.
1. Clean and dry the external ear canal before administering the product.
2. Verify the tympanic membrane is intact prior to administration.
3. Remove single dose dropperette from the package.
4. While holding the dropperette in an upright position, remove the cap from the dropperette.
5. Turn the cap over and push the other end of the cap onto the tip of the dropperette.
6. Twist the cap to break the seal and then remove cap from the dropperette.
7. Screw the applicator nozzle onto the dropperette.



8. Insert the tapered tip of the dropperette into the affected external ear canal and squeeze to instill the entire contents (1 mL) into the affected ear.
9. Gently massage the base of the ear to allow distribution of the solution. **Restrain the dog to minimize post application head shaking** to reduce potential for splatter of product and accidental eye exposure in people and dogs **(**see **POST-APPROVAL EXPERIENCE).**

10. Repeat with other ear as prescribed.
11. The duration of effect should last 30 days. Cleaning the ear after dosing may affect product effectiveness.

CONTRAINDICATIONS:
Do not use in dogs with known tympanic membrane perforation **(**see **PRECAUTIONS).**

SIMPLERA is contraindicated in dogs with known or suspected hypersensitivity to florfenicol, terbinafine hydrochloride, or mometasone furoate.

WARNINGS:
Human Warnings: **SIMPLERA may cause eye injury and irritation (**see **PRECAUTIONS, POST-APPROVAL EXPERIENCE).**

If contact with eyes occurs, flush copiously with water for at least 15 minutes. If irritation persists, contact a physician.

Humans with known hypersensitivity to any of the active ingredients in SIMPLERA should not handle this product.

Not for use in humans. Keep this and all drugs out of reach of children. Avoid skin contact. In case of accidental ingestion by humans, contact a physician immediately.

PRECAUTIONS:
For use in dogs only. Do not use in cats (see **POST-APPROVAL EXPERIENCE).**

Wear eye protection when administering SIMPLERA and restrain the dog to minimize post application head shaking. Reducing the potential for splatter of product will help prevent accidental eye exposure in people and dogs and help to prevent ocular injury **(**see **DOSAGE AND ADMINISTRATION, Human Warnings, POST-APPROVAL EXPERIENCE).**

Proper patient selection is important when considering the benefits and risks of using SIMPLERA. The integrity of the tympanic membrane should be confirmed before administering the product.

Florfenicol, terbinafine, mometasone furoate otic solution has been associated with rupture of the tympanic membrane. Reevaluate the dog if hearing loss or signs of vestibular dysfunction are observed during treatment.

Signs of internal ear disease such as head tilt, vestibular signs, ataxia, nystagmus, facial paralysis, and keratoconjunctivitis sicca have been reported **(**see **POST-APPROVAL EXPERIENCE)** with the use of florfenicol, terbinafine, mometasone furoate otic solution.

Do not administer orally.

Use of topical otic corticosteroids has been associated with adrenocortical suppression and iatrogenic hyperadrenocorticism in dogs **(**see **ANIMAL SAFETY).**

Use with caution in dogs with impaired hepatic function **(**see **ANIMAL SAFETY).**

The safe use of SIMPLERA™ in dogs used for breeding purposes, during pregnancy, or in lactating bitches, has not been evaluated.

ADVERSE REACTIONS:
In a field study conducted in the United States **(**see **EFFECTIVENESS),** there were no directly attributable adverse reactions in 146 dogs administered florfenicol, terbinafine, mometasone furoate otic solution.

POST-APPROVAL EXPERIENCE (2019):
The following adverse events are based on post-approval adverse drug experience reporting for florfenicol, terbinafine, mometasone furoate otic solution. Not all adverse events are reported to FDA/CVM. It is not always possible to reliably estimate the adverse event frequency or establish a causal relationship to product exposure using these data.

In **humans**, accidental exposure leading to corneal ulcers and other ocular injuries such as eye irritation and redness have been reported. Exposure occurred when the dog shook its head after application of florfenicol, terbinafine, mometasone furoate otic solution. Skin irritation has also been reported.

In **dogs**, the adverse events reported are presented below in decreasing order of reporting frequency:
Ear discharge, head shaking, ataxia, internal ear disorder (head tilt and vestibular), deafness, emesis, nystagmus, pinnal irritation and ear pain, keratoconjunctivitis sicca, vocalization, corneal ulcer, cranial nerve disorder (facial paralysis), tympanic membrane rupture.

SIMPLERA is not approved for use in **cats**. The adverse events reported following extra-label use of florfenicol, terbinafine, mometasone furoate otic solution in **cats** are presented below in decreasing order of reporting frequency:
Ataxia, anorexia, internal ear disorder (head tilt and vestibular), Horner's syndrome (third eyelid prolapse and miosis), nystagmus, lethargy, anisocoria, head shake, emesis, tympanic rupture, and deafness.

To report suspected adverse drug events and/or obtain a copy of the Safety Data Sheet (SDS) or for technical assistance, contact Vetoquinol USA at 1-800-835-9496.

For additional information about adverse drug experience reporting for animal drugs, contact FDA at 1-888-FDA-VETS or http://www.fda.gov/reportanimalae.

Information for Dog Owners:
Owners should be aware that adverse reactions may occur following administration of SIMPLERA and should be instructed to observe the dog for signs such as ear pain and irritation, vomiting, head shaking, head tilt, incoordination, eye pain and ocular discharge **(**see **POST-APPROVAL EXPERIENCE).** Owners should be advised to contact their veterinarian if any of the above signs are observed.

Owners should also be informed that splatter may occur if the dog shakes its head following administration of SIMPLERA which may lead to ocular exposure. Eye injuries, including corneal ulcers, have been reported in humans and dogs associated with head shaking and splatter following administration. Owners should be careful to avoid ocular exposure **(**see **PRECAUTIONS, POST-APPROVAL EXPERIENCE).**

Manufactured for
Vetoquinol USA, Inc.
4250 N. Sylvania Ave
Ft. Worth, TX 76137
Made in Canada by
Vetoquinol N.-A. Inc.
Princeville, Québec, Canada

Approved by FDA under ANADA # 200-719

February 2022

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ACHIEVE MORE TOGETHER

Animal Welfare Program

Any organization that can exhibit nonprofit status; all 501(c)(3) organizations such as animal shelters, humane societies, zoos and wildlife refuges

New Clinic Program

A new practice is defined as a veterinary hospital (stand alone or mobile), opened within the last 180 days

* some restrictions apply, see flyer for details

Vetprofen® (carprofen) New User Program

For any practice that has not purchased Vetprofen in the last 12 months

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Contact Your Vetoquinol Representative for more details

1.800.267.5707 (TEL)
1.817.529.7506 (FAX)

CustomerServiceUSA@vetoquinol.com
www.vetoquinolusa.com