VIRBAC Product Guide

Virbac

Shaping the future of animal health

TABLE OF CONTENTS

WHO IS VIRBAC?

The Virbac Group is driven by a passion for enhancing the health of livestock and companion animals.

In the U.S., our focus is on meeting the unique needs of veterinarians and animal care providers for many different species of animals. We are also thrilled to announce our entry into livestock Health to broaden our portfolio in the U.S. within the large animal segment. We recognize that meeting these needs starts with listening.

Ultimately, the essence of Virbac U.S. is found in our relationships with people who put their trust in us and our products. It is through these relationships that, together, we can find the right answers by first asking the right questions.

us.virbac.com
vet-us.virbac.com
iVet.com

If you have any questions regarding these products, please contact Virbac Veterinary Technical Product Support at 1-800-338-3659 or your local Virbac representative.

PRODUCT LISTING

ANTIBIOTICS — PAGE 28

Product Description	Product No.	Size
CLINTABS® (clindamycin hydrochloride) Tablets (25 mg)	902540	400 ct.
CLINTABS® (clindamycin hydrochloride) Tablets (75 mg)	907520	200 ct.
CLINTABS® (clindamycin hydrochloride) Tablets (150 mg)	915010	100 ct.
RILEXINE® (cephalexin) Chewable Tablets (150 mg)	07620	100 ct.
RILEXINE® (cephalexin) Chewable Tablets (300 mg)	07630	100 ct.
RILEXINE® (cephalexin) Chewable Tablets (600 mg)	07640	100 ct.

EAR HEALTH — PAGE 11

Product Description	Product No.	Size
EASOTIC® (hydrocortisone aceponate, miconazole nitrate, gentaminicin sulfate) Otic Suspension for Dogs	09360	10 mL
EPIOTIC® *Advanced* Ear Cleanser	003104	4 fl oz.
EPIOTIC® *Advanced* Ear Cleanser	003108	8 fl oz.
OTOMITE PLUS® Ear Miticide	601712	0.5 fl oz.

SKIN HEALTH — PAGE 12

Product Description	Product No.	Size
ALLERDERM® OMEGADERM® Essential Fatty Acids Supplement	14149	4 mL (28 ct.)
ALLERDERM® OMEGADERM® Essential Fatty Acids Supplement	14186	8 mL (28 ct.)
ALLERGROOM® Shampoo	12208	8 fl oz.
ALLERGROOM® Shampoo	12216	16 fl oz.
ALLERMYL® (Piroctone Olamine) Medicated Shampoo	002409	8 fl oz.
ALLERMYL® (Piroctone Olamine) Medicated Shampoo	002417	16 fl oz.
EPI-SOOTHE® Cream Rinse	001808	8 fl oz.
EPI-SOOTHE® Cream Rinse	001816	16 fl oz.
EPI-SOOTHE® Shampoo	11708	8 fl oz.
EPI-SOOTHE® Shampoo	11716	16 fl oz.
GENESIS® (triamcinolone acetonide) Topical Spray	410508	8 fl oz.
GENESIS® (triamcinolone acetonide) Topical Spray	410500	16 fl oz.
KERATOLUX® (Piroctone Olamine) Medicated Shampoo	002009	8 fl oz.
KERATOLUX® (Piroctone Olamine) Medicated Shampoo	002017	16 fl oz.
KETOCHLOR® (Chlorhexidine Gluconate, Ketoconazole) Medicated Shampoo	002908	8 fl oz.
KETOCHLOR® (Chlorhexidine Gluconate, Ketoconazole) Medicated Shampoo	002916	16 fl oz.
ITRAFUNGOL™ (itraconazole oral solution) 10 mg/mL	11605	52 mL
CYCLAVANCE™ (cyclosporine oral solution) USP MODIFIED 100 mg/mL	20301	15 mL
CYCLAVANCE™ (cyclosporine oral solution) USP MODIFIED 100 mg/mL	20303	50 mL

DENTAL HEALTH — PAGE 16

Product Description	Product No.	Size
C.E.T. AQUADENT® FR3SH® Dental Solution	90508	8.45 fl oz.
C.E.T. AQUADENT® FR3SH® Dental Solution	90516	16.9 fl oz.
C.E.T.® Enzymatic Oral Hygiene Chews for Dogs - Extra Small	90601	8.4 oz.
C.E.T.® Enzymatic Oral Hygiene Chews for Dogs - Small	90603	8.5 oz.
C.E.T.® Enzymatic Oral Hygiene Chews for Dogs - Medium	90605	12.8 oz.
C.E.T.® Enzymatic Oral Hygiene Chews for Dogs - Large	90607	1.13 lb.
C.E.T.® Enzymatic Toothpaste - Beef	CET201	2.5 oz.
C.E.T.® Enzymatic Toothpaste - Seafood	CET202	2.5 oz.
C.E.T.® Enzymatic Toothpaste - Malt	CET102	2.5 oz.
C.E.T.® Enzymatic Toothpaste - Poultry	CET101	2.5 oz.
C.E.T.® Enzymatic Toothpaste - Vanilla-Mint	CET103	2.5 oz.
C.E.T.® Enzymatic Toothpaste - Trial Packet Dispenser - Poultry	CET002	0.4 oz. (25 ct.)
C.E.T.® HEXTRA® Premium Oral Hygiene Chews for Dogs - Extra Small	90612	8.4 oz.
C.E.T.® HEXTRA® Premium Oral Hygiene Chews for Dogs - Small	90614	8.5 oz.
C.E.T.® HEXTRA® Premium Oral Hygiene Chews for Dogs - Medium	90616	12.8 oz.
C.E.T.® HEXTRA® Premium Oral Hygiene Chews for Dogs - Large	90618	1.13 lb.
C.E.T.® Oral Hygiene Kit w/ 2.5 oz - Poultry	CET401	1 each
C.E.T.® Oral Hygiene Kit for Cats w// 2.5 oz - Seafood	CET402	1 each
C.E.T.® Dual-Ended Toothbrush	CET305	1 each
C.E.T.® Fingerbrush w/ 0.4 oz Trial Packet	CET301	1 each
C.E.T.® Mini-Toothbrush w/ 0.4 oz Trial Packet	CET302	1 each
C.E.T.® Cat Toothbrush w/ 0.4 oz Trial Packet	CET303	1 each
C.E.T.® Pet Toothbrush	CET304	1 each
C.E.T.® Pet Toothbrush Bulk Dispenser	CET350	24 ct.
C.E.T.® VEGGIEDENT® Flex Tartar Control Chews for Dogs - Extra Small	90085	30 ct.
C.E.T.® VEGGIEDENT® Flex Tartar Control Chews for Dogs - Small	90086	30 ct.
C.E.T.® VEGGIEDENT® Flex Tartar Control Chews for Dogs - Medium	90087	30 ct.
C.E.T.® VEGGIEDENT® Flex Tartar Control Chews for Dogs - Large	90088	30 ct.
C.E.T.® VEGGIEDENT® FR3SH® Tartar Control Chews for Dogs - Extra Small	90055	30 ct.
C.E.T.® VEGGIEDENT® FR3SH® Tartar Control Chews for Dogs - Small	90056	30 ct.
C.E.T.® VEGGIEDENT® FR3SH® Tartar Control Chews for Dogs - Medium	90057	30 ct.
C.E.T.® VEGGIEDENT® FR3SH® Tartar Control Chews for Dogs - Large	90058	30 ct.
C.E.T.® VEGGIEDENT® Zen Tartar Control Chews for Dogs - Extra Small	90075	30 ct.
C.E.T.® VEGGIEDENT® Zen Tartar Control Chews for Dogs - Small	90076	30 ct.
C.E.T.® VEGGIEDENT® Zen Tartar Control Chews for Dogs - Medium	90077	30 ct.
C.E.T.® VEGGIEDENT® Zen Tartar Control Chews for Dogs - Large	90078	30 ct.
C.E.T.® IntelliDent® Cat Bites	90700	90 ct.

HEARTWORM — PAGE 21

Product Description	Product No.	Size
IVERHART MAX® Chew (ivermectin/pyrantel pamoate/praziquantel) - Toy	50102	10 Boxes of 6 Doses
IVERHART MAX® Chew (ivermectin/pyrantel pamoate/praziquantel) - Small	50104	10 Boxes of 6 Doses
IVERHART MAX® Chew (ivermectin/pyrantel pamoate/praziquantel) - Medium	50106	10 Boxes of 6 Doses
IVERHART MAX® Chew (ivermectin/pyrantel pamoate/praziquantel - Large	50108	10 Boxes of 6 Doses
IVERHART PLUS® (ivermectin/pyrantel) *Flavored Chewables* - Small	0170DS	10 Boxes of 6 Doses
IVERHART PLUS® (ivermectin/pyrantel) *Flavored Chewables* - Medium	0170DM	10 Boxes of 6 Doses
IVERHART PLUS® (ivermectin/pyrantel) *Flavored Chewables* - Large	0170DL	10 Boxes of 6 Doses
MILBEHART™ (milbemycin oxime) Flavored Tablets - Toy	31024	10 Boxes of 6 Doses
MILBEHART™ (milbemycin oxime) Flavored Tablets - Small	31025	10 Boxes of 6 Doses
MILBEHART™ (milbemycin oxime) Flavored Tablets - Medium	31026	10 Boxes of 6 Doses
MILBEHART™ (milbemycin oxime) Flavored Tablets - Large	31027	10 Boxes of 6 Doses
SENERGY® (selamectin) - Kitten and Puppy	50005	10 Boxes of 3 Doses
SENERGY® (selamectin) for Cats - 5.1-15 lbs	50010	10 Boxes of 3 Doses
SENERGY® (selamectin) for Cats - 15.1-22 lbs	50020	10 Boxes of 3 Doses
SENERGY® (selamectin) for Dogs - Toy	50040	10 Boxes of 3 Doses
SENERGY® (selamectin) for Dogs - Small	50085	10 Boxes of 3 Doses
SENERGY® (selamectin) for Dogs - Medium	50090	10 Boxes of 3 Doses
SENERGY® (selamectin) for Dogs - Large	50095	10 Boxes of 3 Doses
SENERGY® (selamectin) for Dogs - X-Large	50097	10 Boxes of 3 Doses

PARASITICIDES — PAGE 24

Product Description	Product No.	Size
EFFIPRO PLUS® Topical Solution for Cats	60463	10 Boxes of 3 Doses
EFFIPRO PLUS® Topical Solution for Dogs - Small	60473	10 Boxes of 3 Doses
EFFIPRO PLUS® Topical Solution for Dogs - Medium	60483	10 Boxes of 3 Doses
EFFIPRO PLUS® Topical Solution for Dogs - Large	60503	10 Boxes of 3 Doses
EFFIPRO PLUS® Topical Solution for Dogs - X-Large	60513	10 Boxes of 3 Doses
EFFITIX® PLUS Topical Solution for Dogs - Toy	60520	10 Boxes of 3 Doses
EFFITIX® PLUS Topical Solution for Dogs - Small	60522	10 Boxes of 3 Doses
EFFITIX® PLUS Topical Solution for Dogs - Medium	60524	10 Boxes of 3 Doses
EFFITIX® PLUS Topical Solution for Dogs - Large	60526	10 Boxes of 3 Doses
EFFITIX® PLUS Topical Solution for Dogs - X-Large	60528	10 Boxes of 3 Doses
KNOCKOUT® Area Treatment	612014	14 oz.
KNOCKOUT® E.S. Area Treatment	612216	16 oz.
KNOCKOUT® Room & Area Fogger	612106	6 oz.
VIRBANTEL® (pyrantel pamoate/praziquantel) Flavored Chewables - Small Dogs & Puppies	54030	50 ct.
VIRBANTEL® (pyrantel pamoate/praziquantel) Flavored Chewables - Medium & Large Dogs	51114	50 ct.

IN-CLINIC USE — PAGE 32

Product Description	Product No.	Size
EUTHASOL® (pentobarbital sodium and phenytoin sodium) Euthanasia Solution	710101	100 mL
STELFONTA® (tigilanol tiglate injection) - 2 mg/mL - Bottle	10101	1 mL
SUPRELORIN® F (deslorelin acetate) Implant - 4.7 mg	44402	2 ct.
SUPRELORIN® F (deslorelin acetate) Implant - 4.7 mg	44405	5 ct.

SUPPLEMENTS — PAGE 29

Product Description	Product No.	Size
REBOUND® Recuperation Formula for Cats	10851	5.1 fl oz.
REBOUND® Recuperation Formula for Dogs	10850	5.1 fl oz.
TUMIL-K® (potassium gluconate) Powder	846004	4 oz.
TUMIL-K® (potassium gluconate) Tablets	845100	100 ct.
VETASYL® Fiber Capsules - 500 mg	VF410	100 ct.

HIP & JOINT — PAGE 30

Product Description	Product No.	Size
MOVOFLEX® Soft Chews Small - 0.07 oz	10700	60 ct.
MOVOFLEX® Soft Chews Medium - 0.14 oz	10701	60 ct.
MOVOFLEX® Soft Chews Large - 0.2 oz	10702	60 ct.

PET NUTRITION — PAGE 10

Product Description	Product No.	Size
VETERINARY HPM® Spay & Neuter Diets:		
Canine Diets - Small & Toy - Junior	10900	3.0 lb.
Canine Diets - Small & Toy - Junior	10901	6.5 lb.
Canine Diets - Small & Toy - Adult	10902	3.0 lb.
Canine Diets - Small & Toy - Adult	10903	6.5 lb.
Canine Diets - Small & Toy - Adult	10904	15.0 lb.
Canine Diets - Large & Medium - Junior	10905	3.0 lb.
Canine Diets - Large & Medium - Junior	10914	15.0 lb.
Canine Diets - Large & Medium - Junior	10906	26.0 lb.
Canine Diets - Large & Medium - Adults	10907	3.0 lb.
Canine Diets - Large & Medium - Adults	10915	15.0 lb.
Canine Diets - Large & Medium - Adults	10908	26.0 lb.
Feline Diets - Junior	10909	3.0 lb.
Feline Diets - Junior	10910	6.5 lb.
Feline Diets - Adult	10911	3.0 lb.
Feline Diets - Adult	10912	6.5 lb.
Feline Diets - Adult	10913	15.0 lb.

BEHAVIOR — PAGE 31

Product Description	Product No.	Size
CLOMICALM® (clomipramine hydrochloride) Tablets - 5 mg	10506	30 ct.
CLOMICALM® (clomipramine hydrochloride) Tablets - 20 mg	10507	30 ct.
CLOMICALM® (clomipramine hydrochloride) Tablets - 80 mg	10508	30 ct.
ANXITANE® (L-Theanine) Chewable Tablets - S - 50 mg	10432	30 ct.
ANXITANE® (L-Theanine) Chewable Tablets - M & L - 100 mg	10435	30 ct.

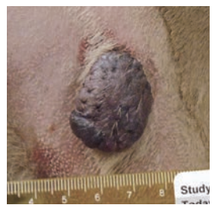
STELFONTA®
(tigilanol tiglate injection)
1 mg/mL

SEEING IS BELIEVING

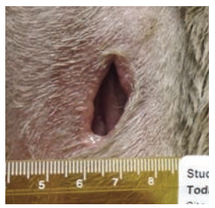
75% complete response with just one treatment[1]

A novel way to treat mast cell tumors (MCTs) with an intratumoral injection

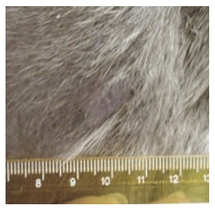
4 HOURS



7 DAYS



6 WEEKS



Hours: visible changes

Days: tumor destruction

Weeks: tumor site typically healed

Learn more while earning CE credits. View the e-learning modules by using the camera on your smartphone to capture the QR code or by visiting https://vet-us.virbac.com/stelfonta.

To place an order, contact your Virbac representative or call 1-844-4-VIRBAC (1-844-484-7222).

Discover an innovative alternative to surgery for the treatment of MCTs in dogs

STELFONTA® (tigilanol tiglate injection) is indicated for use in dogs for the treatment of non-metastatic cutaneous mast cell tumors, and non-metastatic subcutaneous mast cell tumors located at or distal to the elbow or the hock.

STELFONTA removes 75% of MCTs with a single treatment[1]

Of the dogs achieving complete response at Day 28, 96% remained disease free† at 12 weeks[1]

Study design: A multicenter, randomized, controlled, investigator- and owner-masked clinical study in 123 client-owned dogs with MCT measuring ≤10 cm^3. Effectiveness was evaluated using response evaluation criteria in solid tumors (RECIST), where complete response was defined as complete removal of the tumor. The dogs in the STELFONTA group were treated once at the start of the study, in addition to receiving concurrent medications. Patients in the STELFONTA-treated or control groups that did not achieve a complete response at Day 28 were eligible to receive a second treatment or a first treatment if the patient was in the original control group. All patients in both the STELFONTA-treated and control groups received concurrent medications. Patients that achieved a complete response at Day 28 in either phase were followed for 12 weeks after the final treatment.[1]

*Complete response was defined as complete resolution of the tumor.[1]

† No evidence of tumor recurrence at the site of STELFONTA treatment.

Treat MCTs with a single intratumoral injection, without surgery or anesthesia

Always administer the recommended concomitant medications (corticosteroids, H1 and H2 receptor blocking agents) with STELFONTA. Death has occurred following mast cell degranulation when these concomitant medications were not administered appropriately.

IMPORTANT SAFETY INFORMATION

Accidental self-injection of STELFONTA® may cause severe wound formation. To decrease the risk of accidental self-injection, sedation of the dog may be necessary. In dogs, do not inject STELFONTA into subcutaneous mast cell tumors located above the elbow or hock. Formation of wounds, possibly extensive, is an intended and likely response to treatment with STELFONTA along with associated swelling, bruising and pain; these wounds are expected to heal. Appropriate pre- and post-treatment medications must be given, including a corticosteroid plus blocking agents for both H1 and H2 receptors, in order to decrease the potential for severe systemic adverse reactions, including death, from mast cell degranulation. For full prescribing information, contact VIRBAC at 1-800-338-3659 or visit https://vet-us.virbac.com/stelfonta.

References:

1. DeRidder TR, Campbell JE, Burke-Schwarz C, et al. Randomized controlled clinical study evaluating the efficacy and safety of intratumoral treatment of canine mast cell tumors with tigilanol tiglate (EBC-46). *J Vet Intern Med.* 2021;35(1):415–429. doi: 10.1111/jvim.15806
2. Melo S, Januário E, Pinto AC. Intra-tumoral injection of tigilanol tiglate in canine mast cell tumors: time-assessed thermographic images, computed tomography and clinical response. Proceedings of the *Veterinary Cancer Society Conference* 2019; October 17–19, 2019; Houston, TX. **3.** Reddell P, DeRidder TR, Morton JM, et al. Wound formation, wound size, and progression of wound healing after intratumoral treatment of mast cell tumors in dogs with tigilanol tiglate. *J Vet Intern Med.* 2021;35(1):430–441. doi: 10.1111/jvim.16009

Virbac Shaping the future of animal health

TAILORED NUTRITION FOR SPAYED & NEUTERED PETS

VETERINARY HPM® PET NUTRITION

Spaying and neutering cause physiologic changes that can lead to a 2-3X increase in risk for obesity.[1,2] **VETERINARY HPM®** Spay & Neuter Diets are tailored to the unique needs of spayed and neutered pets and are specifically formulated to help pets maintain body condition.

NUTRITIONAL SUPPORT FOR:

- Appetite Control
- Healthy Metabolism
- Healthy Muscles
- Healthy Digestion
- Healthy Skin & Coat
- Healthy Body Condition

iVet® BY VIRBAC®

Veterinary Exclusive Wellness Nutrition
Register Your Clinic and Order Today
Visit iVet.com/vets/orderHPM

1. Lefebvre SL, Yang M, Wang M, Elliott DA, Buff PR, Lund EM. Effect of age at gonadectomy on the probability of dogs becoming overweight. *J Am Vet Med Assoc.* 2013;243(2):236-243. doi:10.2460/javma.243.2.236
2. Nguyen PG, Dumon HJ, Siliart BS, Martin LJ, Sergheraert R, Biourge VC. Effects of dietary fat and energy on body weight and composition after gonadectomy in cats. *Am J Vet Res.* 2004 Dec;65(12):1708-13. doi:10.2460/ajvr.2004.65.1708

Virbac Shaping the future of animal health

VETERINARY HPM®
Spay & Neuter Diets

- Tailor-made for spayed & neutered pets
- Supports appetite and a healthy metabolism
- Available in growth (Junior) and Adult diets
- Helps maintain a healthy body condition
- Specifically addresses the unique needs of spayed & neutered pets

Available in:

Canine Diets:

Small & Toy Junior
3.0 lb bag SKU 10900
6.5 lb bag SKU 10901

Small & Toy Adult
3.0 lb bag SKU 10902
6.5 lb bag SKU 10903
15.0 lb bag SKU 10904

Large & Medium Junior
3.0 lb bag SKU 10905
15.0 lb bag SKU 10914
26.0 lb bag SKU 10906

Large & Medium Adult
3.0 lb bag SKU 10907
15.0 lb bag SKU 10915
26.0 lb bag SKU 10908

Feline Diets:

Junior
3.0 lb bag SKU 10909
6.5 lb bag SKU 10910

Adult
3.0 lb bag SKU 10911
6.5 lb bag SKU 10912
15.0 lb bag SKU 10913

Visit ivet.com/vets to register your clinic and order today.
Call 1-800-436-5909, fax 1-877-398-4838 or orders@ivet.com.

EASOTIC® (hydrocortisone aceponate, miconazole nitrate, gentamicin sulfate) Otic Suspension for Dogs

- Effective, innovative and easy
- Proven results for the treatment of canine otitis externa
- Unique anti-inflammatory, hydrocortisone aceponate (HCA) is a new-generation di-ester steroid with a favorable benefit/risk ratio
- Contains proven effective antimicrobial and antifungal agents
- Features an ergonomically designed applicator
- Shown to provide sustained treatment of otitis externa with 5 once-a-day doses
- For use in dogs only
- Active ingredients:
  – Hydrocortisone aceponate (1.11 mg/mL)
  – Miconazole nitrate (17.4 mg/mL)
  – Gentamicin sulfate (1.5 mg/mL)

Available in:
10 mL (10 doses) SKU 09360

Important Safety Information
EASOTIC® (hydrocortisone aceponate, miconazole nitrate, gentamicin sulfate) Otic Suspension for Dogs: For otic (ear) use in dogs only. Humans with known or suspected hypersensitivity to hydrocortisone, aminoglycoside antibiotics, or azole antifungals should not handle this product. Contraindicated in dogs with known or suspected hypersensitivity to corticosteroids, imidazole antifungals, or amino-glycoside antibiotics. Do not use in dogs with known tympanic membrane (ear drum) perforation. The safe use of EASOTIC Otic Suspension in dogs used for breeding purposes has not been evaluated. Do not administer orally. For full prescribing information, contact Virbac at 1-800-338-3659 or visit us.virbac.com.

See package insert at the end of the Product Guide for full product information.

EPIOTIC® *Advanced* Ear Cleanser

Ideal for supporting ear health in cats and dogs, particularly those predisposed to otitis externa. This includes:
  – Allergic/atopic animals
  – Frequent swimmers
  – Those with floppy ear anatomy, creating an environment that can encourage microbial overgrowth
- Cleans gently and powerfully with pH-neutral, low-alcohol, non-stinging, non-irritating formula
- Can be used daily or 2-3 times per week
- Limits the bonding of microorganisms to the ear canal surface
- Facilitates the removal of cellular debris and excessive aural exudate
- Provides a drying effect
- Keeps ears smelling fresh

Available in:
4 fl oz (118 mL) SKU 003104
8 fl oz (237 mL) SKU 003108

OTOMITE PLUS® Ear Miticide

- For treatment of ear mites in dogs, cats, puppies and kittens over 12 weeks of age
- Contains pyrethrins with two synergist ingredients:
  — Piperonyl butoxide
  — n-Octyl bicycloheptene dicarboximide
- Soothing olive oil base facilitates the dispersal and penetration of the stratum corneum
- Active ingredients:
  – 0.15% Pyrethrins
  – 1.50% Piperonyl Butoxide Technical
  – 0.48% n-Octyl bicycloheptene dicarboximide

Available in:
0.5 fl oz (14.7 mL) SKU 601712

GENESIS® Topical Spray (0.015% triamcinolone acetonide)

- Controls pruritus associated with allergic dermatitis in dogs
- Low concentration (0.015%) of triamcinolone acetonide in a topical spray with potent topical anti-inflammatory action

Available in:
8 fl oz (237 mL) bottle with sprayer SKU 410508
16 fl oz (478 mL) bottle with sprayer SKU 410500

Important Safety Information
GENESIS® Topical Spray (0.015% triamcinolone acetonide): For use on dogs only. Wear gloves when applying the product. The use of this product on dogs less than 8 pounds, less than one year of age, breeding, pregnant, or lactating has not been evaluated. Adverse events of polyuria and polyphagia have been reported in <6% of dogs receiving treatment. For full prescribing information, contact Virbac at 1-800-338-3659 or visit us.virbac.com.

See package insert at the end of the Product Guide for full product information.

CYCLAVANCE™ (cyclosporine oral solution) USP MODIFIED 100 mg/mL

- Indicated for the control of atopic dermatitis in dogs weighing at least 4 lbs (1.8 kg)
- The effective cyclosporine you know and trust — in liquid form
- Convenient and easy dosing to help promote compliance
- Precise dosing — CYCLAVANCE eliminates the inefficiencies of dosing with capsules
- Both sizes come with a syringe and adaptor cap for easy dosing with no leaks or spills

Available in two vial presentations:
15 mL SKU 20301
50 mL SKU 20303

Important Safety Information
CYCLAVANCE™ (cyclosporine oral solution) USP MODIFIED: For use in dogs only. Wear gloves during and wash hands after administration. Gastrointestinal problems and gingival hyperplasia may occur at the initial recommended dose of CYCLAVANCE oral solution. CYCLAVANCE oral solution should be used with caution: 1) in cases with diabetes mellitus as it may cause elevated levels of serum glucose; 2) in dogs with renal insufficiency since the effect of cyclosporine use on dogs with compromised renal function has not been studied; 3) in simultaneous administration with drugs that suppress the P-450 enzyme system, such as azoles (e.g., ketoconazole), that may lead to increased plasma levels of cyclosporine. Killed vaccines are recommended for dogs receiving CYCLAVANCE oral solution because the impact of cyclosporine on the immune response to modified live vaccines has not been evaluated. For full prescribing information, contact Virbac at 1-800-338-3659 or visit us.virbac.com.

See package insert at end of the Product Guide for full product information.

KERATOLUX® (Piroctone Olamine) Medicated Shampoo

- With S-I-S SKIN INNOVATIVE SCIENCE® Technology, KERATOLUX is a unique cleanser that removes scales, crusts and excessive oil on the skin surface of dogs and cats for management of keratoseborrheic conditions. With regular bathing, KERATOLUX Medicated Shampoo helps manage normal sebum production, resulting in a pleasant smell and healthy appearance to the skin coat.

KERATOLUX:
- Contains plant extracts that promote natural skin microbial defenses (Defensin technology) by supporting the innate immune response — antimicrobial peptides (AMPs)
- Improves hair and skin balance
- Removes excess sebum and scales
- Neutralizes unpleasant odors
- Provides microorganism anti-adhesive effects (Glycotechnology)
- Promotes a healthy microbial balance in animals with keratoseborrheic conditions *(Piroctone Olamine)*

Available in:
8 fl oz (237 mL) SKU 002009
16 fl oz (473 mL) SKU 002017

ALLERMYL® (Piroctone Olamine) Medicated Shampoo

- With S-I-S SKIN INNOVATIVE SCIENCE® Technology, ALLERMYL is a soothing shampoo for the management of allergic skin conditions. Specifically designed to meet the needs of dogs and cats with sensitive and itchy skin, ALLERMYL Medicated Shampoo is a unique micro-emulsified formulation that combines ingredients that help:
  - Maintain skin barrier integrity
  - Provide moisturizing and soothing effects (Skin Lipid Complex)
  - Reduce microorganism adhesion (Glycotechnology)
  - Promote natural skin microbial defenses (Defensin technology) supporting the immune response — antimicrobial peptides (AMPs) with natural plant extracts
  - Promote a healthy microbial balance in animals with allergic skin conditions *(Piroctone Olamine)*

Available in:
8 fl oz (237 mL) SKU 002409
16 fl oz (473 mL) SKU 002417

KETOCHLOR® (Chlorhexidine Gluconate, Ketoconazole) Medicated Shampoo

- An antiseptic shampoo for the management of conditions responsive to ketoconazole or chlorhexidine in dogs and cats
  - Promotes natural skin microbial defenses (Defensin technology) with natural plant extracts
- Specifically designed to meet the needs of dogs and cats with skin microbial imbalances, its antiseptic and cleansing properties help manage bacterial and fungal skin infections in dogs and cats
  - Neutralizes unpleasant odors
  - Reduces microorganism adhesion (Glycotechnology)

Available in:
8 fl oz (237 mL) SKU 002908
16 fl oz (473 mL) SKU 002916

ITRAFUNGOL™ (itraconazole oral solution) 10 mg/mL

The only oral FDA-approved treatment for feline dermatophytosis (ringworm)

- Cherry-caramel liquid formulation
- Can be dosed with or without food
- Shelf life is two years unopened or five weeks once opened
- In a clinical study, 80 cats infected with *Microsporum canis* were treated with either placebo or ITRAFUNGOL, pulse-dosed (5 mg/kg/day) over alternate weeks for three treatments and followed by a 4-week follow-up period. No topical therapy was used. In the group treated with ITRAFUNGOL:
  - Clinical cure occurred well in advance of mycological cure
  - 90% had at least one negative fungal culture by the end of the study
  - 98% had complete resolution of all clinical lesions, compared to 15% of untreated cats by the end of the study

Available in:
52 mL bottle SKU 11605
One bottle provides treatment course for a 10 lb cat

Important Safety Information

ITRAFUNGOL™ (itraconazole oral solution): For use in cats only. Wash hands and exposed skin after use. Do not administer to cats with hypersensitivity to itraconazole. Itrafungol oral solution has not been shown to be safe in pregnant cats and should only be used in pregnant or lactating cats when the benefits outweigh the potential risks. Administer orally using the enclosed graduated dosing syringe. Use with caution in cats with renal dysfunction or impaired liver function. If clinical signs suggestive of liver dysfunction develop, treatment should be discontinued. Itrafungol oral solution is a cytochrome P-450 inhibitor and may increase or prolong plasma concentrations of other drugs metabolized by this pathway. Cats suffering from heart disease should be carefully monitored during treatment. The most common adverse reactions reported in clinical trials were elevated hepatic enzymes and gastrointestinal upset such as increased salivation, vomiting, diarrhea, and decreased appetite. For full prescribing information, contact 1-888-545-5973 or visit us.virbac.com.

See package insert at end of the Product Guide for full product information.

EPI-SOOTHE® Cream Rinse

- Formulated for dry and sensitive skin in dogs, cats and horses of any age. This unique formula helps restore natural skin oils and moisture, makes the hair coat more manageable and helps prevent tangles while adding a high sheen to the hair coat.

Available in:
8 fl oz (237 mL) SKU 001808
16 fl oz (473 mL) SKU 001816

EPI-SOOTHE® Shampoo

- Natural oat-grain derivative, soap-free shampoo designed for soothing and cleansing dry and sensitive skin in dogs, cats and horses of any age. This shampoo is designed for soothing and cleansing sensitive skin.

Available in:
8 fl oz (237 mL) SKU 11708
16 fl oz (473 mL) SKU 11716

ALLERDERM® OMEGADERM® Essential Fatty Acids Supplement

- A nutritional supplement containing omega-3 and omega-6 essential fatty acids
- Formulated for dogs and cats
- Once-daily supplement
- Ideal for maintaining healthy skin and hair coat
- Premeasured EZ-dose packets
- High product acceptance

Available in: 28-count dispensers
4 mL for small dogs and cats < 20 lbs SKU 14149
8 mL for medium and large dogs > 20 lbs SKU 14186

ALLERGROOM® Shampoo

- Gentle, soap-free moisturizing shampoo designed for frequent use on normal to dry skin to optimize the skin and hair coat of dogs, cats and horses of any age.

Available in:
8 fl oz (237 mL) SKU 12208
16 fl oz (473 mL) SKU 12216

THE FR3SH® FAMILY

C.E.T.® VEGGIEDENT® FR3SH® Tartar Control Chews for Dogs

- Multifunctional dental chew to support digestive health
- Made with FR3SH® Technology that delivers fresh breath and more
- Just one chew per day reduces tartar and plaque
- Highly palatable
- Unique Z-shape allows the chew to reach front to back
- Supports at-home dental care between professional cleanings

Available in 30 chews per bag:
Extra Small: < 11 lbs SKU 90055
Small: 11-22 lbs SKU 90056
Medium: 22-60 lbs SKU 90057
Large: > 60 lbs SKU 90058

C.E.T.® VEGGIEDENT® FLEX Tartar Control Chews for Dogs

- Multifunctional dental chew to support joint health
- Made with FR3SH® Technology that delivers fresh breath and more
- Formulated with BIOVAFLEX® eggshell membrane
- Just one chew per day reduces tartar and plaque
- Highly palatable
- Unique Z-shape allows the chew to reach front to back
- Supports at-home dental care between professional cleanings

Available in 30 chews per bag:
Extra Small: < 11 lbs SKU 90085
Small: 11-22 lbs SKU 90086
Medium: 22-60 lbs SKU 90087
Large: > 60 lbs SKU 90088

C.E.T.® VEGGIEDENT® ZEN Tartar Control Chews for Dogs

- Multifunctional dental chew to support mental well-being
- Made with FR3SH® Technology that delivers fresh breath and more
- Formulated with L-Theanine
- Just one chew per day reduces tartar and plaque
- Highly palatable
- Unique Z-shape allows the chew to reach front to back
- Supports at-home dental care between professional cleanings

Available in 30 chews per bag:
Extra Small: < 11 lbs SKU 90075
Small: 11-22 lbs SKU 90076
Medium: 22-60 lbs SKU 90077
Large: > 60 lbs SKU 90078

DENTAL HEALTH

CHEWS & BITES

C.E.T.® ENZYMATIC Oral Hygiene Chews for Dogs

- Features an exclusive Dual-Enzyme System plus an abrasive texture that works with the dog's chewing action to remove tartar and provide plaque control
- Contains single layer beef hide for a natural abrasive cleansing action
- Appealing poultry flavor

Available in:
Extra Small: < 11 lbs SKU 90601
Small: 11-25 lbs SKU 90603
Medium: 26-50 lbs SKU 90605
Large: > 50 lbs SKU 90607
Approximately 30 chews per bag (based on weight)

C.E.T.® INTELLIDENT® Cat Bites

- Freshens breath by controlling plaque and tartar with mechanical action
- Results shown with only 3 bites per day
- Crunchy porous texture to provide an effective clean

Available in 90 bites per bag SKU 90700

C.E.T.® HEXTRA® Premium Oral Hygiene Chews for Dogs

- Natural rawhide coated with solution of Chlorhexidine that helps reduce plaque and tartar
- Contains single layer beef hide for a natural abrasive cleansing action
- Appealing poultry flavor
- Chew size and thickness may vary

Available in:
Extra Small: < 11 lbs SKU 90612
Small: 11-25 lbs SKU 90614
Medium: 26-50 lbs SKU 90616
Large: > 50 lbs SKU 90618
Approximately 30 chews per bag (based on weight)

C.E.T. AQUADENT® FR3SH® Dental Solution

- Daily water additive to fight the source of bad breath
- Supports healthy teeth and gums by controlling plaque in dogs and cats
- Combination of 3 natural ingredients:
  – Erythritol: a natural sweetener, has a freshening effect in mouth
  – Inulin: a natural prebiotic to help control bad breath
  – Pomegranate Extract: a natural antioxidant
- For use in dogs and cats

Available in:
8.45 fl oz (250 mL) SKU 90508
16.9 fl oz (500 mL) SKU 90516

DENTAL HEALTH

TOOTHPASTES, TOOTHBRUSHES AND KITS

C.E.T.® ENZYMATIC TOOTHPASTE

- Formulated using an enzyme system to reduce plaque, freshen breath and ensure a clean mouth
- No foaming agents, so it is safe for pets to swallow
- Available in 5 flavors: Seafood, Malt, Beef, Poultry and Vanilla-Mint
- Can be used for dogs and cats

Available in:
2.5 oz (70 g) tube – Poultry SKU CET101
2.5 oz (70 g) tube – Malt SKU CET102
2.5 oz (70 g) tube – Vanilla-Mint SKU CET103
2.5 oz (70 g) tube – Beef SKU CET201
2.5 oz (70 g) tube – Seafood SKU CET 202
Poultry flavor is also available in 0.4 oz (12 g) trial-size packets in a 25-count dispenser SKU CET002

C.E.T.® FINGER TOOTHBRUSH

- Ideal beginner toothbrush to help acquaint dogs, cats and their owners with the tooth brushing experience
- Convenient design and excellent pet acceptance
- Made of durable, dishwasher-safe material
- Helps remove plaque from tooth surface
- Massages and strengthens gums
- Also contains a 0.4 oz (12 g) trial-size packet of poultry-flavored toothpaste

C.E.T. Fingerbrush w/ 0.4 oz Trial Packet SKU CET301
C.E.T. Oral Hygiene Kit for Cats w/ 2.5 oz – Poultry SKU CET401
C.E.T. Oral Hygiene Kit for Cats w/ 2.5 oz – Seafood SKU CET402

C.E.T.® DUAL-ENDED TOOTHBRUSH

- Long handle with reverse angle allows for easy application
- Tapered end conforms to pet's mouth and teeth
- Dual-ended for large and small tooth surfaces
- Soft bristles assure a gentle, well-tolerated application
- Individually packaged, assorted colors

C.E.T. Dual-Ended Toothbrush SKU CET305
C.E.T. Oral Hygiene Kit for Dogs w/ 2.5 oz – Poultry SKU CET401
C.E.T. Oral Hygiene Kit for Cats w/ 2.5 oz – Seafood SKU CET402

C.E.T.® PET TOOTHBRUSH

- Soft bristles for pet comfort and acceptance
- Small end with reverse angle allows for easy application
- Individually packaged, assorted colors
- Available individually or in a 24 ct. dispenser

C.E.T. Pet Toothbrush SKU CET304
C.E.T. Pet Toothbrush Bulk Dispenser SKU CET350

C.E.T.® MINI-TOOTHBRUSH

- Soft bristles for pet comfort and acceptance
- Small end and fingertip design allow for easy access
- Also contains a 0.4 oz (12 g) trial-size packet of poultry-flavored toothpaste

C.E.T. Mini-Toothbrush w/ 0.4 oz Trial Packet SKU CET302

C.E.T.® CAT TOOTHBRUSH

- Soft, gentle, easy to use
- Long, soft bristles with a pointed tuft
- Unique shape is designed for the limited confines of the feline mouth
- Also contains a 0.4 oz (12 g) trial-size packet of poultry-flavored toothpaste

C.E.T. Cat Toothbrush w/ 0.4 oz Trial Packet SKU CET303
C.E.T. Oral Hygiene Kit for Cats w/ 2.5 oz Seafood SKU CET402

C.E.T.® ORAL HYGIENE KIT for Cats
Seafood-flavor Toothpaste 2.5 oz (70 g)

- Contains:
  – C.E.T.® Tartar Control Toothpaste
  – C.E.T.® Finger Toothbrush
  – C.E.T.® Cat Toothbrush

Oral Hygiene Kit for Cats Seafood-flavor Toothpaste 2.5 oz (70 g) SKU CET402

C.E.T.® CAT TOOTHBRUSH
with 0.4 oz (12 g) Trial Packet

- Contains:
  – C.E.T.® Cat Toothbrush
  – 0.4 oz (12 g) trial-size packet toothpaste in poultry-flavor

Cat Toothbrush with 0.4 oz (12 g) Trial Packet SKU CET303

C.E.T.® CAT FINGERBRUSH
with 0.4 oz (12 g) Trial Packet

- Contains:
  – C.E.T.® Finger Toothbrush
  – 0.4 oz (12 g) trial-size packet toothpaste in poultry-flavor

Cat Fingerbrush with 0.4 oz (12 g) Trial Packet SKU CET301

C.E.T.® ORAL HYGIENE KIT for Dogs
Poultry-flavor Toothpaste 2.5 oz (70 g)

- Contains:
  – C.E.T.® Enzymatic Toothpaste
  – C.E.T.® Finger Toothbrush
  – C.E.T.® Dual-Ended Toothbrush

Oral Hygiene Kit for Dogs Poultry-flavor Toothpaste 2.5 oz (70 g) SKU CET401

C.E.T.® CAT MINI-TOOTHBRUSH
with 0.4 oz (12 g) Trial Packet

- Contains:
  – C.E.T.® Mini-Toothbrush
  – 0.4 oz (12 g) trial-size packet toothpaste in poultry-flavor

Cat Mini-Toothbrush with 0.4 oz (12 g) Trial Packet SKU CET302

DENTAL HEALTH

MILBEHART™ (milbemycin oxime) Flavored Tablets

- Prevents heartworm disease
- Treats and controls roundworms and hookworms
- Treats and controls whipworms in dogs only
- Satisfaction guaranteed
- Administer once a month, year-round
- Meat-flavored (no animal protein)

Available in four sizes, depending on the dog's or cat's weight:
Toy: Dogs 2-10 lbs SKU 31024
Small: Dogs 11-25 lbs / Cats 1.5-6 lbs SKU 31025
Medium: Dogs 26-50 lbs / Cats 6.1-12 lbs SKU 31026
Large: Dogs 51-100 lbs / Cats 12.1-25 lbs SKU 31027
6-dose card display box / 10 cards per display (60 doses)

Important Safety Information
MILBEHART™ (milbemycin oxime) Flavored Tablets is well tolerated in dogs and cats. Dogs should be tested for heartworm prior to use. In a small percentage of treated dogs, digestive and neurologic side effects may occur. Safety in heartworm positive cats has not been established. Safety in breeding, pregnant, and lactating queens and breeding toms has not been established. For full prescribing information, contact Virbac at 1-800-338-3659 or visit us.virbac.com.

See package insert at the end of the Product Guide for full product information.

SENERGY® (selamectin) for Cats and Dogs

Indications:
- Kills adult fleas
- Prevention and control of flea infestations
- Prevention of heartworm disease
- Treatment and control of ear mites
- Treatment and control of hookworms and roundworms (cats only)
- Treatment and control of sarcoptic mange and control of tick infestations (dogs only)
- Topical application
- Administer once a month, year-round
- Quick drying

Available in eight sizes, depending on the dog's or cat's weight:
Kitten (at least 8 weeks old) and Puppy (at least 6 weeks old):
Up to 5 lbs SKU 50090
Cats: 5.1-15 lbs SKU 50095
Cats: 15.1-22 lbs SKU 50097
Dogs, Toy: 5.1-10 lbs SKU 50005
Dogs, Small: 10.1-20 lbs SKU 50010
Dogs, Medium: 20.1-40 lbs SKU 50020
Dogs, Large: 40.1-85 lbs SKU 50040
Dogs, X-Large: 85.1-130 lbs SKU 50085
3-dose card display box / 10 cards per display (30 doses)

Important Safety Information
SENERGY® (selamectin) may be irritating to the skin and eyes for people. Wash hands after use. Do not use in sick, debilitated or underweight animals. All dogs should be tested for heartworm disease before starting a preventive protocol. Use only on cats that are at least 8 weeks old and dogs that are at least 6 weeks old. For full prescribing information, contact Virbac at 1-800-338-3659 or visit us.virbac.com.

See package insert at the end of the Product Guide for full product information.

For more information, call 1-800-338-3659 or visit vet-us.virbac.com.

IVERHART MAX® Chew (ivermectin/ pyrantel pamoate/praziquantel)

- Prevents heartworm disease
- Treats and controls roundworms, hookworms and tapeworms in dogs
- Satisfaction guaranteed
- Administer once a month, year-round
- Bacon-flavored

Available in four sizes, depending on the dog's weight:
Toy: 6-12 lbs SKU 50102
Small: 12.1-25 lbs SKU 50104
Medium: 25.1-50 lbs SKU 50106
Large: 50.1-100 lbs SKU 50108
6-dose card display box / 10 cards per display (60 doses)

Important Safety Information
IVERHART MAX® Chew (ivermectin/pyrantel pamoate/ praziquantel) is well tolerated. All dogs should be tested for heartworm disease before starting a preventive protocol. Following the use of IVERHART MAX® Chew, gastrointestinal and neurological side effects have been reported. For full prescribing information, contact Virbac at 1-800-338-3659 or visit us.virbac.com.

See package insert at the end of the Product Guide for full product information.

IVERHART PLUS® (ivermectin/ pyrantel) *Flavored Chewables*

- Prevents heartworm disease
- Treats and controls roundworm and hookworm infections in dogs
- Satisfaction guaranteed
- Administer once a month, year-round
- Pork liver-flavored

Available in three sizes, depending on the dog's weight:
Small: < 25 lbs SKU 0170DS
Medium: 26-50 lbs SKU 0170DM
Large: 51-100 lbs SKU 0170DL
6-dose card display box / 10 cards per display (60 doses)

Important Safety Information
IVERHART PLUS® (ivermectin/pyrantel) *Flavored Chewables* is well tolerated. All dogs should be tested for heartworm disease before starting a preventive protocol. There are rare reports of digestive or neurological side effects following use of *IVERHART* PLUS *Flavored Chewables*. For full prescribing information, contact Virbac at 1-800-338-3659 or visit us.virbac.com.

See package insert at the end of the Product Guide for full product information.

EFFITIX® PLUS Topical Solution for Dogs

- Effective monthly application against fleas, flea eggs, flea pupae, flea larvae, ticks and mosquitoes
- Easy to apply, quick-drying, waterproof
- Repels and kills:
  - Adult fleas
  - All stages of Deer Tick, Brown Dog Tick, Lone Star Tick and American Dog Tick
  - Mosquitoes
- Repels biting flies
- Starts working on contact
- Kills fleas, flea eggs and flea larvae

Active ingredients:
- Fipronil
- Permethrin
- Pyriproxyfen

EFFITIX® PLUS Topical Solution for Dogs:
DO NOT USE ON CATS.
Read entire label before each use.

Available in five sizes depending on dog's weight:
Toy: 5-10.9 lbs SKU 60520
Small: 11-22.9 lbs SKU 60522
Medium: 23-44.9 lbs SKU 60524
Large: 45-88.9 lbs SKU 60526
X-Large: 89-132 lbs SKU 60528
3-dose card display box / 10 cards per display (30 doses)

VIRBANTEL® (pyrantel pamoate/ praziquantel) Flavored Chewables

- Flavored chewables to treat and control roundworms, hookworms and tapeworms in dogs and puppies 12 weeks and older
- Safety in breeding and pregnant dogs has not been evaluated

Available in 50-count bottles:
30 mg for dogs 6.0-25 lbs SKU 54030
114 mg for dogs 25.1-200 lbs SKU 51114

Important Safety Information
VIRBANTEL® (pyrantel pamoate/praziquantel) Flavored Chewables: Do not use in sick animals. Safety in breeding dogs and pregnant dogs has not been evaluated. For complete product insert, contact Virbac at 1-800-338-3659 or us.virbac.com.

See package insert at the end of the Product Guide for full product information.

EFFIPRO® PLUS Topical Solution for Cats

- Dual action of fipronil and pyriproxyfen to break flea life cycle
- Kills fleas and ticks for up to one month in cats and kittens
- Only use on cats and kittens 8 weeks or older
- DO NOT USE ON DOGS, PUPPIES OR RABBITS
- One convenient dose for cats and kittens weighing 1.5 pounds or more

Active ingredients:
- Fipronil
- Pyriproxyfen

EFFIPRO® PLUS Topical Solution for Cats: Read entire label before each use.

Available in three applicators per carton:
For cats weighing 1.5 lbs and over SKU 60463
3-dose card display box / 10 cards per display (30 doses)

EFFIPRO® PLUS Topical Solution for Dogs

- Dual action of fipronil and pyriproxyfen to break flea life cycle
- Kills fleas and ticks for up to one month for dogs and puppies
- Only use on dogs and puppies 8 weeks or older
- DO NOT USE ON CATS

Active ingredients:
- Fipronil
- Pyriproxyfen

EFFIPRO® PLUS Topical Solution for Dogs:
DO NOT USE ON CATS.
Read entire label before each use.

Available in four sizes depending on dog's weight:
Small: 5-22.9 lbs SKU 60473
Medium: 23-44.9 lbs SKU 60483
Large: 45-88.9 lbs SKU 60503
X-Large: 89-132 lbs SKU 60513
3-dose card display box / 10 cards per display (30 doses)

KNOCKOUT® E.S. Area Treatment

- Contains Nylar® insect growth regulator
- Kills active flea infestations
- Prevents flea infestations from developing
- Prevents flea reinfestations for 7 months
- Kills ticks
- One 16-oz. spray can treats up to 2,100 sq. feet
- Apply this product only as specified on the labeling. DO NOT TREAT PETS WITH THIS PRODUCT.

Available in:
16 oz (454 g) inverted aerosol can SKU 612216

KNOCKOUT® Room and Area Fogger

- Kills adult fleas, preadult fleas and flea eggs for 7 months
- Reaches fleas (and other insects) in rugs, draperies, upholstery, pet bedding, floor cracks and open cabinets
- One 6-oz. fogger treats a room measuring up to 27 feet by 27 feet with an 8-foot ceiling
- Apply this product only as specified on the labeling. DO NOT TREAT PETS WITH THIS PRODUCT.

Available in:
6 oz (170 g) size SKU 612106

KNOCKOUT® Area Treatment

- Kills adult fleas and controls preadult fleas for four months
- Kills ticks
- Leaves no objectionable odor or sticky residue; and, when used as directed, does not stain furniture
- Apply this product only as specified on the labeling. DO NOT TREAT PETS WITH THIS PRODUCT.

Available in:
14 oz (397 g) aerosol can SKU 612014

CLINTABS® (clindamycin hydrochloride) Tablets

- Easy-to-swallow tablet form
- A bacteriostatic antibiotic indicated for the treatment of susceptible dental and skin infections (wounds and abscesses) and osteomyelitis for dogs only

Available in:
25 mg (400 tablets) SKU 902540
75 mg (200 tablets) SKU 907520
150 mg (100 tablets) SKU 915010

Important Safety Information
CLINTABS® (clindamycin hydrochloride) Tablets: Keep out of reach of children. Not for human use. Contraindicated in animals with a history of hypersensitivity to clindamycin or lincomycin. Do not use in rabbits, hamsters, guinea pigs, horses, chinchillas or ruminating animals. Use with caution in patients with very severe kidney or liver disease and in animals receiving neuromuscular blocking agents such as succinylcholine. Safety in pregnant females or breeding males has not been established. Monitor blood work in animals on either high dose or prolonged therapy. Side effects occasionally observed include vomiting and diarrhea. For full prescribing information, contact Virbac at 1-800-338-3659 or visit us.virbac.com.

See package insert at the end of the Product Guide for full product information.

RILEXINE® (cephalexin tablets) Chewable Tablets

The first and only veterinary-approved cephalexin indicated for the treatment of secondary superficial bacterial pyoderma in dogs.

- Proven palatability means at-home dosing is easy for your clients
- Tablets available in three sizes and scored for precise dosing

Available in scored, flavored chewable tablets:
150 mg (100 count) SKU 07620
300 mg (100 count) SKU 07630
600 mg (100 count) SKU 07640

Important Safety Information
RILEXINE® (cephalexin tablets) Chewable Tablets: For oral use in dogs only. People with sensitivities to penicillins or cephalosporins should avoid contact with this product. RILEXINE Chewable Tablets are very palatable for pets and should be stored in a secure location where pets cannot access them. Do not give to dogs with known allergy to penicillins or cephalosporins. Safety in pregnant females or breeding males has not been established. The most common adverse reactions in dogs include diarrhea, vomiting, anorexia and lethargy. For full prescribing information, contact Virbac at 1-800-338-3659 or visit us.virbac.com.

See package insert at the end of the Product Guide for full product information.

For more information, call 1-800-338-3659 or visit vet-us.virbac.com.
For more information, call 1-800-338-3659 or visit vet-us.virbac.com.

REBOUND® Recuperation Formula for Dogs

- Helps support pet's nutrition needs during recuperation
- Balanced, fortified nutrition in a low-calorie liquid formula
- Palatable and easy to administer
- No added preservatives or colorants
- Can be used up to 14 days or until the dog starts to eat and drink normally
- For use in dogs

Available in:
Formula for Dogs: 5.1 fl oz (150 mL) SKU 10850

REBOUND® Recuperation Formula for Cats

- Helps support pet's nutrition needs during recuperation
- Balanced, fortified nutrition in a low-calorie liquid formula
- Palatable and easy to administer
- No added preservatives or colorants
- Can be used up to 14 days or until the cat starts to eat and drink normally
- For use in cats

Available in:
Formula for Cats: 5.1 fl oz (150 mL) SKU 10851

TUMIL-K® (potassium gluconate) Tablets and TUMIL-K® (potassium gluconate) Powder

- For use as a supplement to support the health of the kidneys in cats and dogs with potassium deficiency

Available in:
Tablets in 100-count bottles SKU 845100
Powder: 4 oz SKU 846004

VETASYL® Fiber Capsules

- Natural fiber source — psyllium seed husks (95%)
- Provides gentle support, proper digestion and bowel health in dogs and cats
- Barley malt extract powder for flavor

Available in:
500 mg capsules in a 100-count bottle SKU VF410

MOVOFLEX® Soft Chews

- Joint supplement that is made up of an unique blend of five proprietary ingredients, including:
  - BIOVAFLEX® egg shell membrane: supports joint function
  - ZANTHIN® natural astaxanthin: protects against free radicals
  - *Boswellia serrata*: supports the structure of joints and connective tissue
  - Hyaluronic acid: supports the viscosity of the synovial fluid
  - Vitamin D_3: supports healthy bones
- Easy to administer
- For use in dogs
- No loading dose required

Available in 60-count bottles:
Small: Up to 40 lbs (120 g / 4.2 oz) SKU 10700
Medium: 40-80 lbs (240 g / 8.5 oz) SKU 10701
Large: Over 80 lbs (360 g / 12.7 oz) SKU 10702

CLOMICALM® (clomipramine hydrochloride) tablets

- Effective treatment for canine separation anxiety as part of a behavioral management regimen for use in dogs greater than 6 months of age
- Clomipramine hydrochloride, the active ingredient in CLOMICALM, binds to the serotonin uptake receptor and prevents the removal of excess serotonin; this increases positive emotional neural signaling in the brain
- Artificial beef flavoring
- Scored tablet

Available in 30-count bottles:
5 mg (one tablet) for dogs 2.75-5.5 lbs SKU 10506
5 mg (two tablets) for dogs 5.6-10.9 lbs SKU 10506
20 mg (one tablet) for dogs 11-22 lbs SKU 10507
20 mg (two tablets) for dogs 22.1-44 lbs SKU 10507
80 mg (one tablet) for dogs 44.1-88 lbs SKU 10508
80 mg (two tablets) for dogs 88.1-176 lbs SKU 10508

Important Safety Information
CLOMICALM® (clomipramine hydrochloride) tablets: For use in dogs only. Keep out of reach of children. In children, accidental ingestion should be regarded as serious. Do not administer to dogs with hypersensitivity to clomipramine or other tricyclic antidepressants. CLOMICALM tablets should not be used in: 1) male breeding dogs; 2) combination or within 14 days before or after treatment with a monoamine oxidase inhibitor; 3) dogs with a history of seizures or concomitantly with drugs which lower the seizure threshold. CLOMICALM tablets are not recommended for other behavior problems such as aggression. Effectiveness and clinical safety for long-term use (i.e., for >12 weeks) has not been evaluated. To reduce the incidence of vomiting that may be experienced by some dogs, CLOMICALM tablets may be given with a small amount of food. For full prescribing information, contact 1-888-545-5973 or visit us.virbac.com.

See package insert at the end of the Product Guide for full product information.

ANXITANE® (L-THEANINE) Chewable Tablets

- Supplement for dogs and cats for anxious behavior
- Promotes relaxation in cats and dogs exhibiting nervousness, responding to environmentally induced stress or are anxious without causing drowsiness or sedation
- Containing a pure synthetic form of L-Theanine, an amino acid naturally found in green tea leaves
- ANXITANE Chewable Tablets are a palatable option that both cats and dogs will enjoy

Not intended for use in animals with severe phobias, separation anxiety or in animals with a known history of aggression.

Available in 30-count box:
Small (dogs and cats up to 22 lbs); 50 mg tablets SKU 10432
Medium/Large (dogs >22 lbs); 100 mg tablets SKU 10435

SUPRELORIN® F (deslorelin acetate) IMPLANT

- For the management of adrenal gland cortical disease (ACD) in the male and female domestic ferret
- Reduces clinical signs of ACD with a return to normalcy in 2-8 weeks[1-2]
- 4.7 mg dose implant has been shown to be well tolerated with clinical monitoring[1]

Available in:
2-count SKU 44402
5-count SKU 44405

Important Safety Information
SUPRELORIN® F (deslorelin acetate) Implant: For use in ferrets only. DO NOT HANDLE THIS PRODUCT IF YOU ARE PREGNANT OR NURSING OR SUSPECT YOU MAY BE PREGNANT. Accidental administration in humans may lead to disruption of the menstrual cycle. Do not use in animals intended for breeding. The safe use of this product has not been evaluated in pregnant or lactating ferrets. Do not use this product in ferrets with known hypersensitivity to deslorelin acetate or other synthetic hormones. For full prescribing information, contact Virbac at 1-800-338-3659 or visit us.virbac.com.

See package insert at the end of the Product Guide for full product information.

1. Wagner RA, Piché CA, Jöchle W, Oliver JW. Clinical and endocrine responses to treatment with deslorelin acetate implants in ferrets with adrenocortical disease. *Am J Vet Res*. 2005;66(5):910–914.
2. Wagner RA, Finkler MR, Fecteau KA, Trigg TE. The treatment of adrenal cortical disease in ferrets with 4.7 mg deslorelin acetate implants. *J Exotic Pet Med*. 2009;18(2):146–152.

STELFONTA® (tigilanol tiglate injection) 1 mg/mL

Treat Mast Cell Tumors (MCTs) with a single intratumoral injection, without surgery or anesthesia.
STELFONTA injection is indicated for use in dogs for the treatment of non-metastatic mast cell tumors all over the body, and
non-metastatic subcutaneous mast cells located at or distal to the elbow or the hock.

- Destroys 75% of the MCTs with just one treatment
- Complete wound healing at tumor site typically healed in 28 days, with minimal intervention

Available in:
2 mL vial SKU 10101

Important Safety Information
Accidental self-injection of STELFONTA® (tigilanol tiglate injection) may cause severe wound formation. To decrease the risk of accidental self-injection, sedation of the dog may be necessary. In dogs, do not inject STELFONTA into subcutaneous mast cell tumors located above the elbow or hock. Formation of wounds, possibly extensive, is an intended and likely response to treatment with STELFONTA along with associated swelling, bruising, and pain; these wounds are expected to heal. Appropriate pre- and post-treatment medications must be given, including a corticosteroid plus blocking agents for both H1 and H2 receptors, in order to decrease the potential for severe systemic adverse reactions, including death, from mast cell degranulation. For full prescribing information, contact Virbac at 1-800-338-3659 or visit vet-us.virbac.com/stelfonta.

See package insert at the end of the Product Guide for full product information.

EUTHASOL® (pentobarbital sodium and phenytoin sodium) Euthanasia Solution

- Intravenous solution for humane, painless and rapid euthanasia
- For dogs only

Available in:
100 mL multiple dose vials SKU 710101

Important Safety Information

EUTHASOL® (pentobarbital sodium and phenytoin sodium) Euthanasia Solution: WARNING: Keep out of reach of children. If eye contact, flush with water and seek medical advice/attention. **CAUTION:** Caution should be exercised to avoid contact of the drug with open wounds or accidental self-inflicted injections. For canine euthanasia only. Must not be used for therapeutic purposes. Do not use in animals intended for food. Euthanasia may be delayed in dogs with severe cardiac or circulatory deficiencies.

ENVIRONMENTAL HAZARD: This product is toxic to wildlife. Birds and mammals feeding on treated animals may be killed. Euthanized animals must be properly disposed of by deep burial, incineration, or other method in compliance with state and local laws, to prevent consumption of carcass material by scavenging wildlife. For full prescribing information, contact Virbac at 1-800-338-3659 or visit us.virbac.com.

See full prescribing information for complete boxed warning.

ANADA 200-316, Approved by FDA

CLINTABS® Tablets

brand of clindamycin hydrochloride tablets, USP

DESCRIPTION

CLINTABS® Tablets contain clindamycin hydrochloride which is the hydrated salt of clindamycin. Clindamycin is a semisynthetic antibiotic produced by a 7(S)-chlorosubstitution of the 7(R)-hydroxyl group of a naturally produced antibiotic produced by *Streptomyces lincolnensis var. lincolnensis*.

CLINTABS Tablets (For Use in Dogs Only):

25 mg Tablet, each white bisected tablet is marked "C" above the bisect and "25" below the bisect and contains clindamycin hydrochloride equivalent to 25 mg of clindamycin.

75 mg Tablet, each white bisected tablet is marked "C" above the bisect and "75" below the bisect and contains clindamycin hydrochloride equivalent to 75 mg of clindamycin.

150 mg Tablet, each white tablet is marked "C 150" on one side and contains clindamycin hydrochloride equivalent to 150 mg of clindamycin.

ACTIONS

Site and Mode of Action: Clindamycin is an inhibitor of protein synthesis in the bacterial cell. The site of binding appears to be in the 50S sub-unit of the ribosome. Binding occurs to the soluble RNA fraction of certain ribosomes, thereby inhibiting the binding of amino acids to those ribosomes. Clindamycin differs from cell wall inhibitors in that it causes irreversible modification of the protein-synthesizing subcellular elements at the ribosomal level.

MICROBIOLOGY: Clindamycin is a lincosaminide antimicrobial agent with activity against a wide variety of aerobic and anaerobic bacterial pathogens. Clindamycin is a bacteriostatic compound that inhibits bacterial protein synthesis by binding to the 50S ribosomal subunit. The minimum inhibitory concentrations (MICs) of Gram-positive and obligate anaerobic pathogens isolated from dogs in the United States are presented in Table 1. Bacteria were isolated in 1998-1999. All MICs were performed in accordance with the National Committee for Clinical Laboratory Standards (NCCLS).

Table 1. Clindamycin MIC Values (µg/mL) from Diagnostic Laboratory Survey Data Evaluating Canine Pathogens in the U.S. during 1998-99[1]

Organism	Number of Isolates	MIC_{50}	MIC_{65}	MIC_{90}	Range
Soft Tissue/Wound[2]					
Staphylococcus aureus	17	0.5	0.5	≥4.0	0.25->4.0
Staphylococcus intermedius	28	0.25	0.5	≥4.0	0.125->4.0
Staphylococcus spp.	18	0.5	0.5	≥4.0	0.25->4.0
Beta-hemolytic streptococci	46	0.5	0.5	≥4.0	0.25->4.0
Streptococcus spp.	11	0.5	≥4.0	≥4.0	0.25->4.0
Osteomyelitis/Bone[3]					
Staphylococcus aureus	20	0.5	0.5	0.5	0.5[4]
Staphylococcus intermedius	15	0.5	≥4.0	≥4.0	0.25->4.0
Staphylococcus spp.	18	0.5	≥4.0	≥4.0	0.25->4.0
Beta-hemolytic streptococci	21	0.5	2.0	2.0	0.25->4.0
Streptococcus spp.	21	≥4.0	≥4.0	≥4.0	0.25->4.0
Dermal/Skin[5]					
Staphylococcus aureus	25	0.5	≥4.0	≥4.0	0.25->4.0
Staphylococcus intermedius	48	0.5	≥4.0	≥4.0	0.125->4.0
Staphylococcus spp.	32	0.5	≥4.0	≥4.0	0.25->4.0
Beta-hemolytic streptococci	17	0.5	0.5	0.5	0.25-0.5

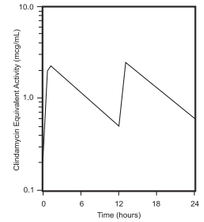
[1] The correlation between the *in vitro* susceptibility data and clinical response has not been determined.
[2] Soft Tissue/Wound: includes samples labeled wound, abscess, aspirate, exudates, draining tract, lesion, and mass
[3] Osteomyelitis/Bone: includes samples labeled bone, fracture, joint, tendon
[4] No range, all isolates yielded the same value
[5] Dermal/Skin: includes samples labeled skin, skin swab, biopsy, incision, lip

PHARMACOLOGY

Absorption: Clindamycin hydrochloride is rapidly absorbed from the canine gastrointestinal tract.

Dog Serum Levels: Serum levels at or above 0.5 µg/mL can be maintained by oral dosing at a rate of 2.5 mg/lb of clindamycin hydrochloride every 12 hours. This same study revealed that average peak serum concentrations of clindamycin occur 1 hour and 15 minutes after oral dosing. The elimination half-life for clindamycin in dog serum was approximately 5 hours. There was no bioactivity accumulation after a regimen of multiple oral doses in healthy dogs.

Clindamycin Serum Concentrations
2.5 mg/lb (5.5 mg/kg) After B.I.D. Oral Dose
of Clindamycin Hydrochloride to Dogs



METABOLISM AND EXCRETION

Extensive studies of the metabolism and excretion of clindamycin hydrochloride administered orally in animals and humans have shown that unchanged drug and bioactive and bioinactive metabolites are excreted in urine and feces. Almost all of the bioactivity detected in serum after clindamycin hydrochloride administration is due to the parent molecule (clindamycin). Urine bioactivity, however, reflects a mixture of clindamycin and active metabolites, especially N-dimethyl clindamycin and clindamycin sulfoxide.

ANIMAL SAFETY SUMMARY

Rat and Dog Data: One year oral toxicity studies in rats and dogs at doses of 30, 100 and 300 mg/kg/day (13.6, 45.5 and 136.4 mg/lb/day) have shown clindamycin hydrochloride capsules to be well tolerated. Differences did not occur in the parameters evaluated to assess toxicity when comparing groups of treated animals with contemporary controls. Rats administered clindamycin hydrochloride at 600 mg/kg/day (272.7 mg/lb/day) for six months tolerated the drug well; however, dogs orally dosed at 600 mg/kg/day (272.7 mg/lb/day) vomited, had anorexia, and subsequently lost weight. At necropsy these dogs had erosive gastritis and focal areas of necrosis of the mucosa of the gall bladder.

Safety in gestating bitches or breeding males has not been established.

INDICATIONS

CLINTABS® Tablets (brand of clindamycin hydrochloride) (for use in dogs only) are indicated for the treatment of infections caused by susceptible strains of the designated microorganisms in the specific conditions listed below:

Dogs: Skin infections (wounds and abscesses) due to: coagulase positive staphylococci *(Staphylococcus aureus* or *Staphylococcus intermedius).*

Deep wounds and abscesses due to Bacteroides *fragilis, Prevotella melaninogenicus, Fusobacterium necrophorum* and *Clostridium perfringens.*

Dental infections due to *Staphyloccus aureus, Bacteroides fragilis, Prevotella melaninogenicus, Fusobacterium necrophorum* and *Clostridium perfringens.*

Osteomyelitis due to *Staphylococcus aureus, Bacteroides fragilis, Prevotella melaninogenicus, Fusobacterium necrophorum* and *Clostridium perfringens.*

CONTRAINDICATIONS

CLINTABS Tablets are contraindicated in animals with a history of hypersensitivity to preparations containing clindamycin or lincomycin.

Because of potential adverse gastrointestinal effects, do not administer to rabbits, hamsters, guinea pigs, horses, chinchillas or ruminating animals.

WARNINGS

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

PRECAUTIONS

During prolonged therapy of one month or greater, periodic liver and kidney function tests and blood counts should be performed.

The use of clindamycin hydrochloride occasionally results in overgrowth of non-susceptible organisms such as clostridia and yeasts. Therefore, the administration of CLINTABS Tablets should be avoided in those species sensitive to the gastrointestinal effects of clindamycin (see **CONTRAINDICATIONS**).

Should superinfections occur, appropriate measures should be taken as indicated by the clinical situation.

Patients with very severe renal disease and/or very severe hepatic disease accompanied by severe metabolic aberrations should be dosed with caution, and serum clindamycin levels monitored during high-dose therapy.

Clindamycin hydrochloride has been shown to have neuromuscular blocking properties that may enhance the action of other neuromuscular blocking agents. Therefore, CLINTABS Tablets should be used with caution in animals receiving such agents.

Safety in gestating bitches or breeding male dogs has not been established.

ADVERSE REACTIONS

Side effects occasionally observed in either clinical trials or during clinical use were vomiting and diarrhea.

To report adverse reactions or a suspected adverse reaction, call 1-800-338-3659.

DOSAGE AND ADMINISTRATION

Dogs:

Infected Wounds, Abscesses, and Dental Infections

Oral: 2.5-15.0 mg/lb body weight every 12 hours.

Duration: Treatment with clindamycin hydrochloride products may be continued up to a maximum of 28 days if clinical judgment indicates. Treatment of acute infections should not be continued for more than three or four days if no response to therapy is seen.

Dosage Schedule:

Tablets

CLINTABS 25 mg, administer 1-6 tablets every 12 hours for each 10 pounds of body weight.
CLINTABS 75 mg, administer 1-6 tablets every 12 hours for each 30 pounds of body weight.
CLINTABS 150 mg, administer 1-6 tablets every 12 hours for each 60 pounds of body weight.

Dogs:

Osteomyelitis

Oral: 5.0-15.0 mg/lb body weight every 12 hours.

Duration: Treatment with clindamycin hydrochloride is recommended for a minimum of 28 days. Treatment should not be continued for longer than 28 days if no response to therapy is seen.

Dosage Schedule:

Tablets

CLINTABS 25 mg, administer 2-6 tablets every 12 hours for each 10 pounds of body weight.
CLINTABS 75 mg, administer 2-6 tablets every 12 hours for each 30 pounds of body weight.
CLINTABS 150 mg, administer 2-6 tablets every 12 hours for each 60 pounds of body weight.

HOW SUPPLIED

CLINTABS Tablets are available as:
25 mg - bottles of 400
75 mg - bottles of 200
150 mg - bottles of 100
ANADA #200-316, Approved by FDA

To report a suspected adverse reaction or to request a material safety data sheet (MSDS), call 1-800-338-3659.

Store at controlled room temperature 20° to 25° C (68° to 77° F) [see USP].

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

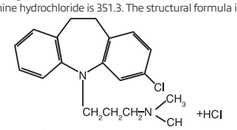
Mfd. for
Virbac AH, Inc.
Fort Worth, TX 76137-4611, USA

Revised May 13 301617-05
CLINTABS is a registered trademark of Virbac AH, Inc.

CLOMICALM
(clomipramine hydrochloride)

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

Description:
CLOMICALM® (clomipramine hydrochloride) tablets belong to the dibenzazepine class of tricyclic antidepressants. Clomipramine hydrochloride is 3-chloro-5[3-(dimethyl-amino)propyl]-10,11dihydro-5H dibenz[b,f]azepine monohydrochloride. CLOMICALM tablets are oblong, light brown in color and contain clomipramine hydrochloride formulated together with meat components. The molecular weight of clomipramine hydrochloride is 351.3. The structural formula is:



Clinical Pharmacology:
Clomipramine hydrochloride reduces the clinical signs of separation anxiety by affecting serotonergic and noradrenergic neuronal transmission in the central nervous system. While clomipramine hydrochloride can cause lethargy in dogs (see Adverse Reactions) its mode of action is not as a sedative. Clomipramine hydrochloride's capacity to inhibit re-uptake of serotonin in the central nervous system is believed to be the primary mechanism of action. Clomipramine hydrochloride is rapidly absorbed when administered orally. A single-dose crossover study involving 12 dogs evaluated clomipramine hydrochloride bioavailability after IV (2 mg/kg) and oral (4 mg/kg) administration in either a fed or fasted state. The administration of clomipramine hydrochloride in the presence of food resulted in an increase in the rate and extent of drug absorption as shown in the following table (mean ±SD):

	AUC0-inf (nmol hr/L)	Cmax (nmol/L)	Tmax (hr)	Absolute Bioavail-ability (F)
Fed	1670±575	601±286	1.18±0.32	0.21±0.07
Fasted	1350±447	379±154	1.31±0.32	0.17±0.05

The absolute bioavailability is approximately 25% greater in fed dogs. The apparent terminal plasma half-life ranges from approximately 2 to 9 hours in fed and 3 to 21 hours in fasted dogs. The difference and variability in apparent half-life estimates may be attributable to prolonged drug absorption in the fasted state. The relatively large volume of distribution (3.8±0.8 L/kg) suggests that the drug is widely distributed throughout the body. **Clomipramine is primarily metabolized in the liver.**

Indications and Usage: CLOMICALM tablets are to be used as part of a comprehensive behavioral management program to treat separation anxiety in dogs greater than 6 months of age. Inappropriate barking or destructive behavior, as well as inappropriate elimination (urination or defecation) may be alleviated by the use of CLOMICALM tablets in conjunction with behavior modification.

Separation anxiety is a complex behavior disorder displayed when the owner (or other attachment figure) leaves the dog. The signs of separation anxiety evaluated in controlled trials were vocalization, destructive behavior, excessive salivation, and inappropriate elimination. In the absence of the owner or attachment figure, dogs with separation anxiety may exhibit one or more of these clinical signs. Although the owner (attachment figure) may inadvertently misinterpret this behavior, which only happens in their absence, as spiteful, it is thought to be the result of anxiety experienced by the dog. Punishment is not considered appropriate for a dog with separation anxiety.

Proper recognition of clinical signs, including a complete patient history and assessment of the patient's household environment, is essential to accurately diagnose and treat separation anxiety.

The use of CLOMICALM tablets should not replace appropriate behavioral and environmental management but should be used to facilitate a comprehensive behavior management program.

Contraindications:
CLOMICALM tablets are contraindicated in dogs with known hypersensitivity to clomipramine or other tricyclic antidepressants. CLOMICALM tablets should not be used in male breeding dogs. Testicular hypoplasia was seen in dogs treated for 1 year at 12.5 times the maximum daily dose.

CLOMICALM tablets should not be given in combination, or within 14 days before or after treatment with a monoamine oxidase inhibitor [e.g., selegiline hydrochloride (L-deprenyl), amitraz].

CLOMICALM tablets are contraindicated for use in dogs with a history of seizures or concomitantly with drugs which lower the seizure threshold.

Human Warnings:
Not for use in humans. Keep out of reach of children. In case of accidental ingestion seek medical attention immediately. In children, accidental ingestion should be regarded as serious. There is no specific antidote for clomipramine. Overdose in humans causes anticholinergic effects including effects on the central nervous (e.g., convulsions) and cardiovascular (e.g., arrhythmia, tachycardia) systems. People with known hypersensitivity to clomipramine should administer the product with caution.

Precautions:
General: CLOMICALM tablets are not recommended for other behavior problems, such as aggression (see Adverse Reactions). Studies to establish the safety and efficacy of CLOMICALM tablets in dogs less than 6 months of age have not been conducted.

Diagnosis: It is critical to conduct a comprehensive physical examination, including appropriate laboratory tests, and to obtain a thorough history and assessment of the patient's household environment, to rule-out causes of inappropriate behavior unrelated to separation anxiety before prescribing CLOMICALM tablets. Periodic reassessment of hematological and serum biochemical data during the administration of this medication is advised. Veterinarians should be familiar with the risks and benefits of the treatment of behavioral disorders in dogs before initiating therapy. Inappropriate use of CLOMICALM tablets, i.e., in the absence of a diagnosis or without concurrent behavioral modification, may expose the animal to unnecessary adverse effects and may not provide any lasting benefit of therapy.

Drug Interactions: Recommendations on the interaction between clomipramine and other medications are extrapolated from data generated in humans. Plasma levels of tricyclic antidepressants have been reported to be decreased by the concomitant administration of hepatic enzyme inducers (e.g., barbiturates, phenytoin); therefore plasma concentrations of clomipramine may be decreased by the concomitant administration of phenobarbital. Plasma levels of closely related tricyclic antidepressants have been reported to be increased by the concomitant administration of hepatic enzyme inhibitors (e.g., cimetidine, fluoxetine). Tricyclic antidepressants themselves may exhibit hepatic enzyme inhibition and possibly increase plasma levels of barbiturates (phenobarbital). Caution is advised in using clomipramine with anticholinergic or sympathomimetic drugs or with other CNS-active drugs, including general anesthetics and neuroleptics. Prior to elective surgery with general anesthetics, clomipramine should be discontinued for as long as clinically feasible.

Use in Concomitant Illness: Use with caution in dogs with cardiovascular disease. At 20 mg/kg/day (5X the maximum recommended dose), bradycardia and arrhythmias (atrioventricular node block and ventricular extrasystole) were observed in dogs. Because of its anticholinergic properties, clomipramine should be used with caution in patients with increased intraocular pressure, a history of narrow angle glaucoma, urinary retention or reduced gastrointestinal motility. Because clomipramine is principally metabolized in the liver, caution is advised in using this medication in the presence of preexisting liver disease.

Reproductive Safety: Safety studies to determine the effects of CLOMICALM tablets in pregnant or lactating female dogs have not been conducted. CLOMICALM tablets should not be used in breeding males (See Contraindications).

Efficacy:
Dose Establishment: A 12 week, placebo-controlled, multi-site clinical trial was conducted in the US and Europe to establish an effective dose of CLOMICALM (clomipramine hydrochloride) tablets in dogs. Treatment with CLOMICALM tablets, at 2 - 4 mg/kg/day divided twice daily, in conjunction with behavioral modification (desensitization and counterconditioning) was more effective than behavior modification alone in reducing the signs of separation anxiety in dogs.

Dose Confirmation: In another placebo-controlled, multi-site clinical trial, CLOMICALM tablets at 2 - 4 mg/kg/day given either once daily or divided twice daily showed significant improvement in resolving signs of separation anxiety when tested against behavioral modification alone (desensitization and counterconditioning). In this 8 week study, the rate of improvement of the dogs receiving CLOMICALM tablets with behavioral modification was significantly faster than the rate of improvement of the dogs receiving behavioral modification alone. After one week on trial, 47% of the dogs receiving CLOMICALM tablets once or twice (divided dose) daily in conjunction with behavioral modification showed clinical improvement compared to improvement in 29% of the dogs receiving behavioral modification alone.

Safety:
CLOMICALM tablets were demonstrated to be well-tolerated in dogs at the recommended label dose of 2-4 mg/kg/day. In a six month target animal safety study, beagle dogs were dosed daily at 4 (1X), 12 (3X), and 20 (5X) mg/kg/day. Emesis was seen in all groups including the dogs receiving placebo, but occurred more frequently in dogs receiving 12 and 20 mg/kg. Decreased activity was also seen in dogs receiving the 12 and 20 mg/kg. There were no apparent treatment-related alterations in the following: body weights, physical examination findings, electrocardiograph examinations, hematology or biochemistry parameters, ophthalmoscopic examinations, macroscopic or microscopic organ examinations and organ weights. Average food and water consumption over the 26 week period was similar for control and treated groups. In a one year study, pure bred dogs were dosed daily at 12.5 (3X), 50 (12.5X), and 100 (25X) mg/kg/day. Emesis and mydriasis were observed within 15 minutes to one hour after dosing in dogs receiving 12.5, 50, and 100 mg/kg/day and lethargy was observed within 1 hour of dosing in dogs receiving 50 and 100 mg/kg. Testicular hypoplasia was seen in dogs receiving 50 mg/kg. At 100 mg/kg/day (25X) convulsions and eventual death occurred in five out of the eight dogs.

Adverse Reactions: Frequency and category of adverse reactions observed in dogs dosed with CLOMICALM tablets or placebo were observed in multisite clinical studies as follows.

Adverse Reactions Reported in Placebo-Controlled Clinical Field Trials		
	CLOMICALM N=180	**Placebo N=88**
Emesis	36 (20%)	8 (9%)
Lethargy	26 (14%)	7 (8%)
Diarrhea	17 (9%)	4 (5%)
Polydipsia	6 (3%)	0
Decreased Appetite	6 (3%)	3 (3%)
Aggression*	3 (2%)	1 (1%)
Seizure	2 (1%)	0
Dry Mouth	1 (0.5%)	1 (1%)
Tremors	1 (0.5%)	0
Constipation	1 (0.5%)	0
Anisocoria	1 (0.5%)	0
Polyuria	1 (0.5%)	0
Hyperthermia	1 (0.5%)	0

*These dogs displayed growling behavior towards either humans or other dogs.

Post-Approval Experience: Although not all adverse reactions are reported, the following adverse reactions are based on voluntary post-approval adverse drug experience reporting: lethargy/depression, anorexia, elevation in liver enzymes, vomiting and diarrhea. Hepatobiliary disease has occurred, especially in the presence of pre-existing conditions or with concurrent administration of drugs metabolized via the hepatic system. Additionally, in an overdose situation, the following signs have been reported: ataxia, convulsion(s), anticholinergic effects (e.g., mydriasis, bradycardia, tachycardia, and arrhythmia) and vocalization.

To report suspected adverse drug events, for technical assistance or to obtain a copy of the Safety Data Sheet (SDS), contact Virbac AH, Inc. at 1-800-338-3659 or us.virbac.com. For additional information about adverse drug experience reporting for animal drugs, contact FDA at 1-888-FDA-VETS or http://www.fda.gov/reportanimalae.

Dosage and Administration:

The recommended daily dose of CLOMICALM tablets is 2 to 4 mg/kg/day (0.9 -1.8 mg/lb/day) (see dosing table below). It can be administered as a single daily dose or divided twice daily based on patient response and/or tolerance of the side effects. It may be prudent to initiate treatment in divided doses to minimize side effects by permitting tolerance to side effects to develop or allowing the patient time to adapt if tolerance does not develop. To reduce the incidence of vomiting that may be experienced by some dogs, CLOMICALM tablets may be given with a small amount of food.

Dog Weight (lbs.)	CLOMICALM per Day	No. Tablets per Day	Tablet Strength
2.75-5.5	5 mg	1	5 mg
5.6-10.9	10 mg	2	5 mg
11-22	20 mg	1	20 mg
22.1-44	40 mg	1	40 mg
44.1-88	80 mg	1	80 mg
88.1-176	160 mg	2	80 mg

The specific methods of behavioral modification used in clinical trials involved desensitization and counterconditioning techniques. Since the manifestation of separation anxiety can vary according to the individual dog, it is advised that a specific behavior modification plan be developed based on a professional assessment of each individual case.

Once the desired clinical effect is achieved and the owners have successfully instituted the appropriate behavioral modification, the dose of CLOMICALM tablets may be reduced to maintain the desired effect or discontinued. Withdrawal side effects were not reported in studies with CLOMICALM tablets in dogs. However, in clinical practice, it is recommended to taper the individual patient dose while continuing to monitor the dog's behavior and clinical status through the dose reduction or withdrawal period. Continued behavioral modification is recommended to prevent recurrence of the clinical signs.

The effectiveness and clinical safety of CLOMICALM tablets for long-term use (i.e., for more than 12 weeks) has not been evaluated.

Professional judgment should be used in monitoring the patient's clinical status, response to therapy and tolerance to side effects to determine the need to continue treatment with CLOMICALM tablets and to continue to rule-out physiological disorders which may complicate the diagnosis and treatment of separation anxiety.

Storage Conditions: Store in a dry place at controlled room temperature, between 59° and 77°F (15-25°C). Store unused tablets in the original closed container.

How Supplied: CLOMICALM tablets are available in 5, 20, 40 and 80 mg tablet strengths in color-coded packaging for oral administration to dogs.

Keep this and all drugs out of reach of children.

Manufactured for: Virbac AH, Inc.
P.O. Box 162059, Forth Worth, TX 76161, USA

Approved by FDA under NADA # 141-120.

11/21 - 01

Virbac

PRODUCT INSERTS/DISCLOSURES

Virbac

CYCLAVANCE™
(cyclosporine oral solution) USP MODIFIED
100 mg/mL

Brief Summary: Before using **CYCLAVANCE™** (cyclosporine oral solution) USP MODIFIED consult the product insert, a summary of which follows:

CAUTION: Federal (USA) law restricts this drug to use by or on the order of a licensed veterinarian.
Indications: CYCLAVANCE is indicated for the control of atopic dermatitis in dogs weighing at least 4 lbs (1.8 kg) body weight.
Dosing Instructions: Always Provide the Instructions for Assembling the Dispensing System and Preparing a Dose of CYCLAVANCE and the Information for Dog Owners with the prescription (see product insert).
The initial dose of CYCLAVANCE is 5 mg/kg/day as a single daily dose for 30 days. Following this initial daily treatment period, the dose of CYCLAVANCE may be tapered by decreasing the frequency of dosing to every other day or twice weekly, until a minimum frequency is reached which will maintain the desired therapeutic effect.
CYCLAVANCE should be given at least one hour before or two hours after a meal. If a dose is missed, the next dose should be administered (without doubling) as soon as possible but dosing should be no more frequent than once daily.
The dispensing system for the 15 mL vial size includes a 1 mL oral dosing syringe graduated in 0.05 mL increments. To dose the dog, administer 0.05 mL of CYCLAVANCE per 2.2 lbs of body weight. The dispensing system for the 50 mL vial size includes both a 1 mL oral dosing syringe graduated in 0.05 mL increments, and a 3 mL oral dosing syringe graduated in 0.1 mL increments.
To dose the dog, administer 0.1 mL of CYCLAVANCE per 4.4 lbs of body weight. **Do not rinse or clean the oral dosing syringe between uses.** (See Instructions for Assembling the Dispensing System and Preparing a Dose of CYCLAVANCE.)
Contraindications: CYCLAVANCE is contraindicated for use in dogs with a history of neoplasia. Do not use in dogs with a hypersensitivity to cyclosporine.

WARNINGS: CYCLAVANCE is a systemic immunosuppressant that may increase the susceptibility to infection and the development of neoplasia.
HUMAN WARNINGS: Not for human use. Keep this and all drugs out of reach of children. **For use only in dogs. Special precautions to be taken when administering CYCLAVANCE in dogs**: Do not eat, drink, smoke, or use smokeless tobacco while handling CYCLAVANCE. Wear gloves during administration. **Wash hands after administration.** In case of accidental ingestion, seek medical advice immediately and provide the package insert or the label to the physician.

PRECAUTIONS: The safety and effectiveness of cyclosporine has not been established in dogs less than 6 months of age or less than 4 lbs body weight. CYCLAVANCE is not for use in breeding dogs, pregnant or lactating bitches. As with any immunomodulation regimen, exacerbation of sub-clinical neoplastic and infectious conditions may occur. Gastrointestinal problems and gingival hyperplasia may occur at the initial recommended dose (*See Animal Safety in the product insert*).
CYCLAVANCE may cause elevated levels of serum glucose, and should be used with caution in cases with diabetes mellitus. If signs of diabetes mellitus develop following the use of CYCLAVANCE, consideration should be given to tapering or discontinuing the dose.
CYCLAVANCE should be used with caution with drugs that affect the P-450 enzyme system.
Simultaneous administration of CYCLAVANCE with drugs that suppress the P-450 enzyme system, such as azoles (e.g. ketoconazole), may lead to increased plasma levels of cyclosporine.
Since the effect of cyclosporine use on dogs with compromised renal function has not been studied, CYCLAVANCE should be used with caution in dogs with renal insufficiency.
There have been reports of convulsions in human adult and pediatric patients receiving cyclosporine, particularly in combination with high dose methylprednisolone (*See Animal Safety in the product insert*).
Killed vaccines are recommended for dogs receiving CYCLAVANCE because the impact of cyclosporine on the immune response to modified live vaccines is unknown (*See Animal Safety in the product insert*).

Adverse Reactions: Vomiting and diarrhea were the most common adverse reactions occurring during the field study. In most cases, signs spontaneously resolved with continued dosing. In other cases, temporary dose modifications (brief interruption in dosing, divided dosing, or administration with a small amount of food) were employed to resolve signs.
Persistent otitis externa, urinary tract infections, anorexia, gingival hyperplasia, lymphadenopathy and lethargy were the next most frequent adverse events observed. Gingival hyperplasia regressed with dose tapering.
Otitis externa, allergic otitis, or pinna erythema, with or without exudates, commonly accompanies atopy. Many dogs entered the study with otitis externa, which did not resolve without otic treatment. New cases of otitis externa, allergic otitis, or pinna erythema developed while dogs were receiving cyclosporine. However, the incidence rate was lower with cyclosporine compared to placebo. A change in the dose frequency was not necessary when new cases occurred.

Number of Dogs Displaying Each Clinical Observation in the Field Study

Clinical sign	% out of 265
Vomiting	30.9%
Diarrhea	20.0%
Persistent Otitis Externa	6.8%
Urinary Tract Infection	3.8%
Anorexia	3.0%
Lethargy	2.3%
Gingival Hyperplasia	2.3%
Lymphadenopathy	2.3%

Clinical Pathology Changes: During the study, some dogs experienced changes in clinical chemistry parameters while receiving cyclosporine, as described in the following table:

Clinical Chemistry	% Affected (out of 265)
Elevated Creatinine	7.8%
Hyperglobulinemia	6.4%
Hyperphosphatemia	5.3%
Hyperproteinemia	3.4%
Hypercholesterolemia	2.6%
Hypoalbuminemia	2.3%
Hypocalcemia	2.3%
Elevated BUN	2.3%

Effectiveness: See full prescribing information for details on effectiveness.
Contact Information: To report suspected adverse drug events, for technical assistance or to obtain a copy of the Safety Data Sheet, contact Virbac AH, Inc. at 1-800-338-3659. For additional information about adverse drug experience reporting for animal drugs, contact FDA at 1-888-FDA-VETS or http://www.fda.gov/reportanimalae.

CYCLAVANCE is a trademark of Virbac S.A.
Approved by FDA under ANADA # 200-692
Manufactured for:
Virbac AH, Inc.
P.O. Box 162059
Fort Worth, TX 76161
Rev. 03/2021

easOtic®

(hydrocortisone aceponate, miconazole nitrate, gentamicin sulfate)
Otic Suspension for Dogs
Anti-inflammatory, antifungal, and antibacterial

Rx
For Otic Use in Dogs Only

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

DESCRIPTION
EASOTIC® Otic Suspension contains 1.11 mg/mL hydrocortisone aceponate, 17.4 mg/mL miconazole nitrate and 1.5 mg/mL gentamicin (as sulfate). The inactive ingredient is a semi-liquid petroleum jelly.

INDICATIONS
EASOTIC Otic Suspension 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
Verify that the tympanic membrane is intact. **Shake well before each use.**

Priming the canister: Prior to the first use of the dosing container, press firmly on the pump several times until the product fills the nozzle (canula tip) with a full dose of product.

Carefully insert the canula into the affected external ear canal(s) and apply 1 mL (a single pump) of Otic Suspension once per day for 5 days. Wash hands after usage.

CONTRAINDICATIONS
Do not use in dogs with known tympanic membrane perforation.

EASOTIC Otic Suspension is contraindicated in dogs with known or suspected hypersensitivity to corticosteroids, imidazole antifungals, or aminoglycoside antibiotics.

WARNINGS
Human Warnings: Not for use in humans. Keep this and all drugs out of reach of children. In case of accidental skin contact, wash area thoroughly with water. Avoid contact with eyes.

Humans with known or suspected hypersensitivity to hydrocortisone, aminoglycoside antibiotics, or azole antifungals should not handle this product.

In case of accidental ingestion by humans, contact a physician immediately. Physicians may contact a Poison Control Center for advice concerning cases of ingestion by humans.

Animal Warnings: As a class, aminoglycoside antibiotics are associated with ototoxicty, vestibular dysfunction and renal toxicity. The use of EASOTIC Otic Suspension in a dog with a damaged tympanic membrane can result in damage to the structures of the ear associated with hearing and balance or in transmission of the infection to the middle or inner ear. Immediately discontinue use of EASOTIC Otic Suspension if hearing loss or signs of vestibular dysfunction are observed during treatment (see **ADVERSE REACTIONS**).

PRECAUTIONS
Do not administer orally.

Concurrent administration of potentially ototoxic drugs should be avoided.

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

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

The safe use of EASOTIC Otic Suspension 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 adverse reactions reported in 145 dogs administered EASOTIC Otic Supsension.

In foreign market experience, reports of hearing loss and application site erythema have been received. In most reported cases, the hearing loss and erythema were transient and resolved with discontinuation of EASOTIC® suspension.

To report suspected adverse drug events, contact Virbac AH, Inc at 1-800-338-3659 or the FDA at 1-888-FDA-VETS or www.fda.gov/reportanimalae.

For technical assistance or to obtain a Safety Data Sheet, call Virbac at 800-338-3659 or visit us at us.virbac.com.

PHARMACOLOGY
Hydrocortisone aceponate is a glucocorticoid with anti-inflammatory effects. Miconazole nitrate is an imidazole antifungal. Gentamicin sulfate is an aminoglycoside antibiotic.

In the target animal safety study, hydrocortisone aceponate, miconazole and gentamicin were shown to be systemically absorbed from the ears of healthy dogs (see **ANIMAL SAFETY**); increased systemic absorption may be observed in inflamed ears.

MICROBIOLOGY
The compatibility and additive effect of each of the components in EASOTIC® Otic Suspension was demonstrated in a component effectiveness and non-interference study. An in vitro study of organisms collected from clinical cases of otitis externa in dogs and from dogs enrolled in the clinical effectiveness study for EASOTIC Otic Suspension determined that miconazole nitrate and gentamicin sulfate inhibit the growth of bacteria and yeast commonly associated with otitis externa in dogs. No consistent synergistic or antagonistic effect of the two antimicrobials was demonstrated. The addition of hydrocortisone aceponate to the combination did not impair antimicrobial activity to any clinically-significant extent.

In a field study (see **EFFECTIVENESS**), the minimum of 10 isolates from successfully treated cases was met for *S. pseudintermedius* and *M. pachydermatis*.

EFFECTIVENESS
The effectiveness of this drug was evaluated in 157 dogs with otitis externa. The study was a double-masked field study with a placebo control. One hundred and four dogs were treated with EASOTIC Otic Suspension and 53 dogs were treated with the placebo control. Treatment was administered once daily for 5 consecutive days to the affected ear(s). The dogs were evaluated at 4 different intervals over the course of 1 month to determine response to therapy. The 6 clinical signs evaluated were: malodor, aural discharge, pruritus, erythema, swelling and pain. The individual clinical scores were assigned based on the severity of each sign. Success was based on clinical improvement at Day 28 ±2 days. The success rates of the 2 groups were significantly different (p=0.0179); 68.5% of dogs administered EASOTIC Otic Suspension were successfully treated, compared to 21.8% of the dogs in the placebo control group.

ANIMAL SAFETY
In the target animal safety study, EASOTIC Otic Suspension was administered at 0X, 1X, 3X and 5X the recommended dose for 15 consecutive days (3 times the recommended treatment duration) in laboratory Beagles, with 8 dogs per group. Hypersensitivity reactions in the external ear canal and inner pinnae were seen in all EASOTIC Otic Suspension groups and included mild to severe aural erythema (3X group), papules and ulceration (1X and 5X groups), otitis externa (3X and 5X groups), and otitis media (5X group). Renal tubular crystals were present in the cortex and medulla (0X, 1X, 3X, and 5X groups) and mild renal tubular basophilia and atrophy were present in one 5X group dog. Baseline cortisol values and the cortisol response to ACTH stimulation were lower in treated dogs compared to the control dogs. The ACTH stimulation test results are consistent with systemic absorption of topical corticosteroids causing suppression of the hypothalamic-pituitary-adrenal axis. Dogs in the 3X and 5X groups demonstrated elevations in AST and ALP, while dogs in the 1X, 3X, and 5X groups had elevated cholesterol, total protein, and albumin levels. Dogs in the 3X and 5X groups also had higher liver weights and greater food consumption.

STORAGE INFORMATION: Store at temperatures between 20° C-25° C (68° F-77° F), with excursions permitted between 15° C-30° C (59° F-86° F).

HOW SUPPLIED: EASOTIC Otic Suspension is supplied in a polyethylene canister, with a soft applicator canula.

Each canister contains ten 1 mL doses.Made in the U.S.A.

Distributed by:
Virbac AH, Inc.
P.O. Box 162059
Fort Worth, TX 76161 USA

Approved by FDA under NADA # 141-330

Revision Date 04/2020

PRODUCT INSERTS/DISCLOSURES

Approved by FDA under ANADA # 200-071

0234
0302086-04

PRODUCT INFORMATION

EUTHASOL®

(pentobarbital sodium and phenytoin sodium)
Euthanasia Solution

FOR DOGS ONLY

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

DESCRIPTION A non-sterile solution containing pentobarbital sodium and phenytoin sodium as the active ingredients. Rhodamine B, a bluish-red fluorescent dye, is included in the formulation to help distinguish it from parenteral drugs intended for therapeutic use. Although the solution is not sterile, benzyl alcohol, a bacteriostat, is included to retard the growth of microorganisms.

Each mL contains: Active ingredients: 390 mg pentobarbital sodium (barbituric acid derivative), 50 mg phenytoin sodium; *Inactive ingredients:* 10% ethyl alcohol, 18% propylene glycol, 0.003688 mg rhodamine B, 2% benzyl alcohol (preservative), water for injection q.s. Sodium hydroxide and/or hydrochloric acid may be added to adjust pH.

ACTIONS EUTHASOL® Euthanasia Solution contains two active ingredients which are chemically compatible but pharmacologically different. Each ingredient acts in such a manner so as to cause humane, painless, and rapid euthanasia. Euthanasia is due to cerebral death in conjunction with respiratory arrest and circulatory collapse. Cerebral death occurs prior to cessation of cardiac activity.

When administered intravenously, pentobarbital sodium produces rapid anesthetic action. There is a smooth and rapid onset of unconsciousness. At the lethal dose, there is depression of vital medullary respiratory and vasomotor centers.

When administered intravenously, phenytoin sodium produces toxic signs of cardiovascular collapse and/or central nervous system depression. Hypotension occurs when the drug is administered rapidly.

Pharmacodynamic Activity The sequence of events leading to humane, painless, and rapid euthanasia following intravenous injection of EUTHASOL® Euthanasia Solution is similar to that following intravenous injection of pentobarbital sodium or other barbituric acid derivatives. Within seconds, unconsciousness is induced with simultaneous collapse of the dog. This stage rapidly progresses to deep anesthesia with concomitant reduction in the blood pressure. A few seconds later, breathing stops, due to depression of the medullary respiratory center; encephalographic activity becomes isoelectric, indicating cerebral death; and then cardiac activity ceases.

Phenytoin sodium exerts its effect during the deep anesthesia stage caused by the pentobarbital sodium. This ingredient, due to its cardiotoxic properties, hastens the stoppage of electrical activity in the heart.

INDICATIONS For use in dogs for humane, painless, and rapid euthanasia.

WARNING For canine euthanasia only. Must not be used for therapeutic purposes. Do not use in animals intended for food.

ENVIRONMENTAL HAZARD: This product is toxic to wildlife. Birds and mammals feeding on treated animals may be killed. Euthanized animals must be properly disposed of by deep burial, incineration, or other method in compliance with state and local laws, to prevent consumption of carcass material by scavenging wildlife.

HUMAN WARNING Caution should be exercised to avoid contact of the drug with open wounds or accidental self-inflicted injections. Keep out of reach of children. If eye contact, flush eyes with water and seek medical attention.

PRECAUTIONS Euthanasia may sometimes be delayed in dogs with severe cardiac or circulatory deficiencies. This may be explained by the impaired movement of the drug to its site of action. An occasional dog may elicit reflex responses manifested by motor movement; however, an unconscious animal does not experience pain, because the cerebral cortex is not functioning.

When restraint may cause the dog pain, injury, or anxiety, or danger to the person making the injection, prior use of tranquilizing or immobilizing drugs may be necessary.

DOSAGE AND ADMINISTRATION

Dosage: Dogs, 1 mL for each 10 pounds of body weight.

Administration: Intravenous injection is preferred. Intracardiac injection may be made when intravenous injection is impractical, as in a very small dog or in a comatose dog with impaired vascular functions. Good injection skill is necessary for intracardiac injection.

The calculated dose should be given in a single bolus injection.

For intravenous injection, a needle of sufficient gauge to ensure intravenous placement of the entire dose should be used.

The use of a Luer-Lok® syringe is recommended to prevent accidental exposure due to needle/syringe separation.

To report suspected adverse drug events, for technical assistance or to obtain a copy of the Safety Data Sheet (SDS), contact Virbac AH, Inc. at 1-800-338-3659 or us.virbac.com. For additional information about adverse drug experience reporting for animal drugs, contact FDA at 1-888-FDA-VETS or http://www.fda.gov/reportanimalae.

HOW SUPPLIED EUTHASOL® Euthanasia Solution is available in 100 mL multiple dose vials.

STORAGE Store at controlled room temperature of between 20˚ and 25˚C (68˚ and 77˚F), with excursions permitted between 15° to 30°C (59° to 86°F).

Manufactured by a nonsterilizing process.

Manufactured for **Virbac AH, Inc.**, P.O. Box 162059, Fort Worth, TX 76161

GENESIS®
TOPICAL SPRAY
Solution of 0.015% triamcinolone acetonide

FOR TOPICAL USE IN DOGS ONLY

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

DESCRIPTION
GENESIS® Topical Spray contains 0.015% triamcinolone acetonide for dermatologic use. Each mL of GENESIS Topical Spray contains 0.15 mg triamcinolone acetonide in an aqueous solution containing propylene glycol, specially denatured alcohol, and DMDM hydantoin.

PHARMACOLOGY
Triamcinolone acetonide is highly potent synthetic glucocorticoid, which is primarily effective because of its anti-inflammatory activity. Topical corticosteroids can be absorbed from normal intact skin. Studies have demonstrated that topical preparations of triamcinolone have decreased plasma cortisol levels and suppressed the response to ACTH.

INDICATIONS
GENESIS Topical Spray is indicated for the control of pruritus associated with allergic dermatitis in dogs.

DOSAGE AND ADMINISTRATION
Apply sufficient pump sprays to uniformly and thoroughly wet the affected areas while avoiding run-off of excess product. Avoid getting the spray in dog's eyes. GENESIS Topical Spray should be administered twice daily for seven days, once daily for the next seven days, then every other day for an additional 14 days (28 days total).

DOSAGE AND ADMINISTRATION
Apply sufficient pump sprays to uniformly and thoroughly wet the affected areas while avoiding run-off of excess product. Avoid getting the spray in dog's eyes. GENESIS Topical Spray should be administered twice daily for seven days, once daily for the next seven days, then every other day for an additional 14 days (28 days total). To avoid overdosing the product, use the following table to determine the maximum number of pump sprays per treatment application. For mild pruritus or for small treatment surface areas, the number of pumps used should be less than this maximum amount.

Table 1. Maximum allowable dosage

Dog weight		Maximum number of pumps per single application*	Total maximum volume (mL) per 28 day treatment regimen
lb	kg		
11	5	4	101
22	10	7	176
33	15	11	277
44	20	15	378
55	25	19	478 (one 16-oz bottle)
66	30	22	554
77	35	26	655
88	40	30	756
99	45	33	832
110	50	37	932 (two 16-oz bottles)

*Using the recommended dosing regimen, there are two applications per day for the first week, one application per day for the second week and one application every other day for the last two weeks of treatment.

WARNINGS
User Safety: Wear gloves when applying the product. Spray in a well ventilated area. If the spray causes irritation to mucous membranes, discontinue use.

Keep this and all drugs out of reach of children.

Animal Safety: Clinical and experimental data have demonstrated that corticosteroids administered orally or by injection to animals may induce the first stage of parturition if used during the last trimester of pregnancy and may precipitate premature parturition followed by dystocia, fetal death, retained placenta, and metritis. Additionally, corticosteroids administered to dogs, rabbits, and rodents during pregnancy have resulted in cleft palates in offspring. Corticosteroids administered to dogs during pregnancy have also resulted in other congenital anomalies including deformed forelegs, phocomelia, and anasarca.

PRECAUTIONS
The safety of this product for dogs less than eight pounds or for dogs less than one year of age has not been evaluated. The safety of this product in breeding, pregnant or lactating dogs has not been evaluated (see **WARNINGS**). The safety of long term or repeated use of this product (greater than 28 days) has not been evaluated.

Prolonged use or overdosage of any corticosteroid may produce adverse effects.

Because absorption of triamcinolone acetonide through topical application on the skin and by licking may occur, dogs receiving triamcinolone acetonide therapy should be observed closely for evidence of hypothalamic-pituitary-adrenal (HPA) axis suppression. When the product was applied at approximately 6 times the maximum allowable dose (100 mL) once daily to normal skin of two dogs for five days, plasma cortisol levels were decreased after the first treatment and response to ACTH was reduced.

If adverse clinical signs are observed, treatment should be discontinued. Once the signs have disappeared, treatment can be resumed at a lower dose or frequency of application. If hypersensitivity to the product occurs, treatment should be discontinued and appropriate therapy instituted. In the presence of dermatological infections, use of an appropriate antifungal or antibacterial agent should be instituted. If a favorable response does not occur promptly, the corticosteroid should be discontinued until the infection has been adequately controlled.

ADVERSE REACTIONS
In a field study with GENESIS Topical Spray, polyuria was reported in 3 of 57 dogs (5.3%) and polyphagia in 1 of 57 dogs (1.8%). Mild (within reference range) decreases in total leukocyte, lymphocyte and eosinophil counts were also reported. The following local reactions were reported in ≤ 3.6% of 110 dogs treated with GENESIS Topical Spray or the product vehicle: aversion/discomfort, sneezing and watery eyes.

EFFECTIVENESS
In a 28-day field study to demonstrate the effectiveness of GENESIS Topical Spray in controlling pruritus associated with allergic dermatitis in dogs under field conditions, 105 dogs with atopy, unspecified allergic dermatitis, flea allergy, and food allergy were treated with GENESIS Topical Spray at the recommended use level or placebo. Results are shown in Table 2.

Table 2. Percent of cases considered treatment successes

Treatment	Percent success[1]
GENESIS Topical Spray	35/54 = 64.8%*
Placebo	12/51 = 23.5%

[1]Success = reduction in the level of severity by two or more grades in the investigator's overall evaluation from the pre-treatment to the post-treatment evaluation period.
*Significantly different from placebo at $p < 0.05$

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

HOW SUPPLIED
GENESIS Topical Spray is supplied in 8 ounce (237 mL) and 16 ounce (478 mL) bottles with spray applicators.

For technical information or to report adverse reactions, please call 1-800-338-3659.

Approved by FDA under NADA # 141-210.

Distributed by:
Virbac AH, Inc.
Fort Worth, TX 76161

Rev. 10/21

PRODUCT INSERTS/DISCLOSURES

CODE TP - 11605

Itrafungol®
(itraconazole oral solution)

10 mg/mL

Antifungal for oral use in cats only

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

Description
ITRAFUNGOL (itraconazole oral solution) is a yellow to slightly amber, clear solution containing the active ingredient, itraconazole, at 10 mg/mL.

Indication
ITRAFUNGOL is indicated for the treatment of dermatophytosis caused by *Microsporum canis* in cats.

Dosage and Administration
The solution should be administered orally using the enclosed graduated dosing syringe. The daily dosage is 5 mg/kg (0.5 mL/kg) body weight administered once daily on alternating weeks for 3 treatment cycles. Cats are treated during weeks 1, 3, and 5, and left untreated during weeks 2 and 4.

7 days	7 days	7 days	7 days	7 days
Daily treatment	No treatment	Daily treatment	No treatment	Daily treatment

Each line on the dosing syringe represents 0.05 mL of oral solution.

Table 1: Dose Table for ITRAFUNGOL

Weight of Cat	Volume of ITRAFUNGOL
0.5 lb	0.1 mL
1 lb	0.2 mL
1.5 lb	0.35 mL
2 lb	0.45 mL
2.5 lb	0.55 mL
3 lb	0.7 mL
3.5 lb	0.8 mL
4 lb	0.9 mL
4.5 lb	1 mL
5 lb	1.15 mL
6 lb	1.35 mL
7 lb	1.6 mL
8 lb	1.8 mL
9 lb	2 mL
10 lb	2.25 mL
11 lb	2.5 mL
12 lb	2.7 mL
13 lb	3 mL

The solution should be administered orally using the enclosed graduated dosing syringe. Keep the bottle upright and insert the dosing syringe through the opening of the top of the bottle (Figure 1). Do not invert the bottle (Figure 2). Fill the syringe by pulling the plunger until it reaches the graduation corresponding to the correct mL dose as indicated at the top of the syringe ring (Figure 3). Treat the cat by slowly and gently administering the liquid into the mouth, allowing the cat to swallow the product (Figure 4). For cats weighing more than 13.0 lbs, the total dose will need to be calculated and given over two doses as the dosing syringe only holds 3.0 mL of solution.

Fig 1

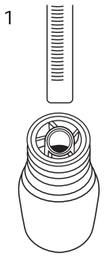


Fig 2

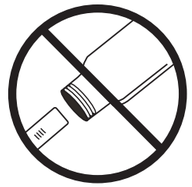


Fig 3

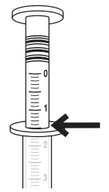


Fig 4

After dosing, do not replace syringe in the bottle. Rinse and dry the syringe. The bottle cap should be screwed back on tightly.

Contraindications
Do not administer to cats with hypersensitivity to itraconazole.

Warnings

User Safety Warnings
Not for use in humans. Keep this and all medications out of reach of children. Wash hands and exposed skin after use. In case of accidental contact with eyes, rinse thoroughly with water. In case of pain or irritation, seek medical advice. In case of accidental ingestion, rinse mouth with water and seek medical advice.
Special precautions for person administering the veterinary product to the animal:
Microsporum canis dermatophytosis is a zoonotic disease (a disease that can be transmitted from animals to humans); therefore consult a physician if a suspected lesion occurs on a human. Wear protective gloves when handling the animal during treatment or when cleaning the syringe. Wash hands and exposed skin after handling the animal.
ITRAFUNGOL (itraconazole oral solution) has not been shown to be sporicidal; therefore in order to reduce zoonotic potential, environmental contamination, and to decrease course of the disease, topical and environmental treatment should also be utilized.

Animal Safety Warnings
ITRAFUNGOL has not been shown to be safe in pregnant cats (see *Animal Safety*). ITRAFUNGOL should only be used in pregnant or lactating cats when the benefits outweigh the potential risks.

Keep ITRAFUNGOL in a secure location out of reach of dogs, cats, and other animals to prevent accidental ingestion or overdose.

Precautions
ITRAFUNGOL has been associated with renal changes found on histopathology that were not noted after an eight week recovery period (see *Animal Safety*). Use with caution in cats with renal dysfunction.

ITRAFUNGOL is metabolized by the liver (mainly CYP3A) and can cause elevated liver enzymes (see *Animal Safety*). Use with caution in cats with impaired liver function. If clinical signs suggestive of liver dysfunction develop, treatment should be discontinued.

ITRAFUNGOL is a cytochrome p-450 inhibitor and may increase or prolong plasma concentrations of other drugs metabolized by this pathway, such as amitriptyline, amlodipine, benzodiazepines, buspirone, cisapride, corticosteroids, cyclosporine, ivermectin, and macrolide antibiotics.

Negative inotropic effects have been reported in literature when itraconazole was administered intravenously to dogs and healthy human volunteers. Cats suffering from heart disease should be carefully monitored during treatment.

Adverse Reactions
In the laboratory effectiveness study, adverse reactions related to exposure to ITRAFUNGOL were primarily related to the gastrointestinal tract. Two ITRAFUNGOL-treated cats experienced transient hypersalivation during the dosing period. Vomiting was observed in 5 ITRAFUNGOL-treated cats (12.5%) during the dosing period compared to four cats (10%) in the control group. Diarrhea was observed in 9 ITRAFUNGOL-treated cats (22.5%) during the dosing period as compared to 7 cats (17.5%) in the control group.

One ITRAFUNGOL-treated cat showed mild increases in alanine aminotransferase (ALT) and aspartate aminotransferase (AST) at the end of the dosing period. No related clinical signs were observed, and these values returned to normal by the end of the follow-up period. One cat in the ITRAFUNGOL-treated group was noted to have lip erythema and lip induration once during the study.

Field safety was evaluated in 266 cats randomized to receive itraconazole oral solution. Of the 266 cats that received at least one dose of itraconazole oral solution, adverse reactions included 35 cases (13%) of one or more elevated hepatic enzymes and 8 cases (3%) of gastrointestinal upset, including decreased appetite, vomiting and/or diarrhea. Other infrequent adverse reactions included less than 3 cases each of somnolence, depression, and increased salivation.

PRODUCT INSERTS/DISCLOSURES

CODE TP - 11605

Contact Information
To report suspected adverse drug events, for technical assistance or to obtain a copy of the Safety Data Sheet (SDS), contact Virbac AH, Inc. at 1-800-338-3659 or us.virbac.com. For additional information about adverse drug experience reporting for animal drugs, contact FDA at 1-888-FDA-VETS or http://www.fda.gov/reportanimalae

Clinical Pharmacology
The mode of action of itraconazole is based on its highly selective binding ability to fungal cytochrome p-450 iso-enzymes. This inhibits the synthesis of ergosterol and affects membrane-bound enzyme function and membrane permeability. This effect is irreversible and causes structural degeneration of the fungal organism.

Itraconazole was absorbed rapidly following oral administration of ITRAFUNGOL (itraconazole oral solution) to laboratory cats. Compared to the fasted state, administration of ITRAFUNGOL with food results in slightly higher (1.3 fold) mean total itraconazole exposure (AUC), delay in median T_{max} (Fed 4 hours vs. Fasted 2 hours) and significant decrease (approximately 0.55 fold) in maximum plasma concentration (C_{max}). ITRAFUNGOL can be administered with or without food. Itraconazole oral solution binds extensively to plasma proteins (> 99%), and distributes well to tissues. More than 30 metabolites are formed. Hydroxy-itraconazole is the parent metabolite and has antifungal activity. Excretion is rapid and primarily via the feces.

In cats, a single oral dose of 5 mg/kg results in a C_{max} of 0.525 µg/mL post dose at 2 hours (T_{max}). The $AUC_{0\text{-}24h}$ is 5.09 µg.h/mL and the half-life in plasma is 12.1 hours. After repeated daily administration for seven days at 5 mg/kg/day, the C_{max} is doubled (1.05 µg/mL), the $AUC_{0\text{-}24h}$ is increased 3-fold (15.4 µg.h/mL) and the plasma half-life is increased to 36 hours.

In the therapeutic treatment schedule, itraconazole is almost completely cleared from plasma after each wash-out period. The hydroxy-itraconazole remains near or below the quantification limit in feline plasma after a single dose of itraconazole oral solution at 5 mg/kg. However, after repeated daily doses of itraconazole oral solution at 5 mg/kg for one week, the hydroxy-itraconazole C_{max} of 0.059 µg/mL was reached at 2 hours (T_{max}). Itraconazole concentrations in cat's hair vary; an increase occurs during treatment to a median value of 3.0 µg/g (mean 5.2 µg/g) at the end of the third dosing week and concentrations drop slowly to 1.5 µg/g (mean 1.9 µg/g) at 14 days after final dosing. Concentrations of hydroxy-itraconazole in hair are insignificant.

Effectiveness
Laboratory Study
Effectiveness was demonstrated using ITRAFUNGOL in a masked, placebo controlled laboratory study. Eighty cats were experimentally infected with *Microsporum canis* and treated with either ITRAFUNGOL or sterile water (control product) for the proposed therapeutic treatment schedule followed by a 4-week follow-up period. No topical therapy was used during this study. A statistical difference (P =0.0003) in mycological cure rate (defined as two consecutive negative mycological cultures) was demonstrated between cats treated with ITRAFUNGOL (24/40 or 60%) versus control (1/40 or 2.5%). Ninety percent of ITRAFUNGOL-treated cats (36/40) achieved at least one negative culture by the end of the study. Improvement was seen in inoculation site erythema and skin thickening by Day 7 and in crusts and scales by Day 14. By the end of the study, 98% of ITRAFUNGOL-treated cats had complete resolution of all clinical lesions, compared to 15% in the control group. Wood's lamp cure (defined as no fluorescence at the base and mid-shaft of the hair) in the ITRAFUNGOL-treated group (39/40 or 97.5%) was higher compared to the control group (6/40 or 15%). Itraconazole MICs indicative of susceptibility were obtained in *M. canis* isolates from the two cats unsuccessfully treated with ITRAFUNGOL.

Field Study
A masked, positive-controlled, multi-site field study was conducted in client-owned cats in Europe. In this study, 514 cats diagnosed with dermatophytosis were randomly administered itraconazole oral solution or an active control. Cats received a daily dose of either itraconazole oral solution for three alternating weeks plus a placebo tablet once daily for 5 consecutive weeks, or a placebo solution for three alternating weeks plus the active control once daily for five weeks. Success was evaluated on clinical cure, which was noted with a complete resolution of all clinical lesions. Four weeks after the end of treatment, 175 (83%) out of 207 cats treated with itraconazole oral solution were clinically cured.

Animal Safety
Margin of Safety Study with Recovery
In a margin of safety study, ITRAFUNGOL (itraconazole oral solution) was administered orally to 9-10 week old healthy kittens once daily at 0X (saline control), 1X (5 mg/kg), 3X (15 mg/kg), and 5X (25 mg/kg) the therapeutic dose for 17 alternating weeks (9 total weeks of dosing) followed by an 8 week recovery period. Hypersalivation during or immediately following dosing, vomiting, and loose stool were the most frequent abnormal clinical observations related to treatment with ITRAFUNGOL. Hypersalivation was limited to the 3X and 5X groups and was observed in every dosing cycle. Vomiting was noted at similar levels in the control, 1X and 3X groups; however, it occurred approximately twice as often in the 5X group. Mild gingival bleeding and perioral irritation (patchy alopecia and erythema) was noted in cats in the 3X and 5X groups. Food consumption was consistently higher throughout the study in the control group than the ITRAFUNGOL group. The control group gained more weight during the study than the groups administered ITRAFUNGOL. Mild elevations in ALT were sporadically noted in all groups; however, the number of affected cats increased with the higher doses (two cats in the control group, two cats in the 1X group, three cats in the 3X group, and four cats in the 5X group). In most cats, ALT values peaked just above the upper limit of the reference range and were continuing to trend upward or were elevated yet stable at the end of the study. One cat in the 5X group exhibited inappetence progressing to anorexia, dehydration and vomiting during the first dosing cycle. This cat had repeated episodes of inappetence during the second and third dosing cycles. This cat also had markedly elevated ALT and AST values on Day 36 (693 U/L and 283 U/L, respectively), was treated with minimal supportive care and recovered to complete the study.

Margin of Safety Study
In a margin of safety study, ITRAFUNGOL was administered orally to healthy adult cats once daily at 0X (saline control), 1X (5 mg/kg), 3X (15 mg/kg), and 5X (25 mg/kg) the therapeutic dose for 17 alternating weeks (9 total weeks of dosing) with no recovery period. Hypersalivation was the most frequent abnormal clinical observation related to treatment with ITRAFUNGOL and the incidence increased with the higher doses. One cat in group 4 (5X; Cat #26302) lost 22% of its body weight and had a number of episodes of vomiting, salivation, and anorexia during the treatment period. This cat also had renal lesions found on histopathology. Increasing trends were noted in ALT, AST, and creatinine values in some cats administered ITRAFUNGOL as compared to baseline values. Abnormal renal findings included proximal convoluted tubule acute degeneration in 3 cats in the 1X group and 3 cats in the 5X group; one 5X cat (cat #26302) also had proximal convoluted tubule marked pallor and focal mononuclear cell infiltration in the kidneys. In the lungs, one 3X group cat and five 5X cats had intra-alveolar foamy macrophages; five 5X group cats had intra-alveolar syncytial cells.

These histopathology findings are likely related to exposure to ITRAFUNGOL, specifically the vehicle component hydroxypropyl-β-cyclodextrin (HPβCD). There were no corresponding adverse clinical effects noted on observation or on clinical pathology analysis. In addition, similar changes have been described in literature in other species exposed to HPβCD and have been reported to be reversible.

Reproductive Safety
In a study of 16 pregnant queens administered itraconazole oral solution at 5 mg/kg bodyweight for a total of 21 days (7 days on alternate weeks) during gestation or lactation, there was a high frequency of fetal resorption (partial and total), abnormal fetuses, and abnormal maternal behaviors. Confounding factors, such as infectious disease *(Chlamydia psittaci)* in some cats made it difficult to establish a definitive relationship between administration of itraconazole and the abnormal findings. However, the results of this study reveal potential reproductive safety risks and do not support the safe of use of ITRAFUNGOL in pregnant queens.

Storage conditions
Store at 68-77°F (20-25°C). Excursions permitted between 59-86°F (15-30°C).

How supplied
ITRAFUNGOL is available in a glass bottle containing 52 mL of oral solution, closed with a child resistant screw cap and packaged in a cardboard box that includes a package insert and a graduated dosing syringe.

Approved by FDA under NADA # 141-474

Manufactured for Virbac AH, Inc.
P.O. Box 162059
Fort Worth, TX 76161

Version Date: February 2022
xxxxxx - 01

Virbac

IVERHART MAX®
Chew
(ivermectin/pyrantel pamoate/praziquantel)

For oral use in dogs only.

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

Description: IVERHART MAX® Chew is a combination of three anthelmintics (ivermectin/pyrantel pamoate/praziquantel). The chews are available in four sizes in color-coded packages for oral administration to dogs according to their weight **(see Dosage and Administration)**.

Indications: For use in dogs to prevent canine heartworm disease by eliminating the tissue stage of heartworm larvae (*Dirofilaria immitis*) for a month (30 days) after infection and for the treatment and control of roundworms (*Toxocara canis, Toxascaris leonina*), hookworms (*Ancylostoma caninum, Uncinaria stenocephala, Ancylostoma braziliense*), and tapeworms (*Dipylidium caninum, Taenia pisiformis*).

Dosage and Administration: IVERHART MAX Chew should be administered orally at monthly intervals and the recommended minimum dose level of 6 mcg of ivermectin per kilogram (2.72 mcg/lb), 5 mg of pyrantel (as pamoate salt) per kg (2.27 mg/lb) and 5 mg of praziquantel per kg (2.27 mg/lb) of body weight, as follows:

Dog Weight Pounds	Chew per Month	Chew Size	Ivermectin Content	Pyrantel Pamoate Content	Praziquantel Content
6.0 to 12	1	Toy	34 mcg	28.5 mg	28.5 mg
12.1 to 25	1	Small	68 mcg	57 mg	57 mg
25.1 to 50	1	Medium	136 mcg	114 mg	114 mg
50.1 to 100	1	Large	272 mcg	228 mg	228 mg

IVERHART MAX Chew is recommended for dogs 8 weeks of age or older. For dogs over 100 lbs, use the appropriate combination of these soft chews.

Remove only one dose at a time from the packaging. Return the remaining chew(s) to their box to protect from light. The chew can be offered to the dog by hand or added, intact, to a small amount of dog food. Care should be taken to ensure that the dog consumes the complete dose. The treated dog should be observed for a few minutes after administration to confirm that none of the dose has been lost or rejected. If it is suspected that any of the dose has been lost, redosing is recommended.

IVERHART MAX Chew should be given at monthly intervals during the period of the year when mosquitoes (vectors), potentially carrying infective heartworm larvae, are active. The initial dose must be given within a month (30 days) after the dog's first exposure to mosquitoes. The final dose must be given within a month (30 days) after the dog's last exposure to mosquitoes.

When replacing another heartworm preventative product in a heartworm disease prevention program, the first dose of IVERHART MAX Chew must be given within a month (30 days) after the last dose of the former medication. A heartworm test should be performed prior to and 6 months after switching heartworm preventative products.

If the interval between doses exceeds a month (30 days), the effectiveness of ivermectin can be reduced. Therefore, for optimal performance, the chew must be given once a month on or about the same day of the month. If treatment is delayed, whether by a few days or many, immediate treatment with IVERHART MAX Chew and resumption of the recommended dosing regimen will minimize the opportunity for the development of adult heartworms.

Warnings:
For use in dogs only. Keep this and all drugs out of reach of children and pets. In safety studies with ivermectin/pyrantel pamoate/praziquantel tablets, testicular hypoplasia was observed in some dogs receiving 3 and 5 times the maximum recommended dose monthly for 6 months (see Animal Safety).

In case of ingestion by humans, clients should be advised to contact a physician immediately. Physicians may contact a Poison Control Center for advice concerning cases of ingestion by humans.

Precautions: Use with caution in sick, debilitated, or underweight animals and dogs weighing less than 10 lbs (see Animal Safety). The safe use of this drug has not been evaluated in pregnant or lactating bitches.

All dogs should be tested for existing heartworm infection before and 6 months after starting treatment with IVERHART MAX Chew, which is not effective against adult *Dirofiliaria immitis*. Infected dogs should be treated to remove adult heartworms and microfilariae before initiating a heartworm prevention program.

While some microfilariae may be killed by the ivermectin in IVERHART MAX® Chew at the recommended dose level, IVERHART MAX Chew is not effective for microfilariae clearance. A mild hypersensitivity-type reaction, presumably due to dead or dying microfilariae and particularly involving a transient diarrhea, has been observed in clinical trials with ivermectin alone after treatment of some dogs that have circulating microfilariae.

Adverse Reactions: In a field study with IVERHART MAX Chew, self-limiting adverse reactions, including vomiting, diarrhea, lethargy, difficulty swallowing, excessive salivation, increased water consumption, and coughing were reported. Self-limiting adverse reactions, including lethargy, limpness, salivation, shaking, diarrhea, decreased appetite, licking lips, and belching were reported between 20 minutes and 72 hours following treatment in a field study with ivermectin/pyrantel pamoate/praziquantel tablets.

In field studies with ivermectin/pyrantel/praziquantel pamoate tablets, vomiting or diarrhea within 24 hours of dosing was rarely observed (1.1% of administered doses). The following adverse reactions have been reported in dogs following the use of ivermectin products: depression/lethargy, vomiting, anorexia, diarrhea, mydriasis, ataxia, staggering, convulsions, and hypersalivation.

To report suspected adverse events, for technical assistance or to obtain a copy of the Safety Data Sheet (SDS), contact Virbac AH, Inc. at 1-800-338-3659 or us.virbac.com. For additional information about adverse drug experience reporting for animal drugs, contact the FDA at 1-888-FDA-VETS or www.fda.gov/reportanimalae.

Effectiveness: Prevention of the tissue larval stage of heartworm (*Dirofilaria immitis*) and the elimination of the adult stage of hookworm (*Ancylostoma caninum, Uncinaria stenocephala, Anyclostoma braziliense*), roundworm (*Toxocara canis, Toxascaris leonina*), and tapeworm (*Dipylidium caninum, Taenia pisiformis*) infections in dogs was demonstrated in well-controlled laboratory studies.

Palatability: In a field study of 132 dogs, IVERHART MAX Chew was offered once monthly for 3 months. The dogs voluntarily consumed 86.3% of the doses from the owner's hand or from a bowl within 5 minutes, 13.0% accepted the dose when it was offered in food or administered by placing in the back of the dog's tongue (pilling), and 0.7% of the doses were unable to be administered.

Animal Safety: Studies with ivermectin indicate that certain dogs of the Collie breed are more sensitive to the effects of ivermectin administered at elevated dose levels (more than 16 times the target dose level of 6 mcg/kg) than dogs of other breeds. At elevated doses, sensitive dogs showed more adverse reactions which included mydriasis, depression, ataxia, tremors, drooling, paresis, recumbency, excitability, stupor, coma and death. No signs of toxicity were seen at 10 times the recommended dose (27.2 mcg/lb) in sensitive Collies. Data from these studies support the safety of ivermectin products in dogs, including Collies, when used at the label recommended dose.

Because ivermectin and praziquantel are approximately 30% more bioavailable in the IVERHART MAX Chew than in the ivermectin/pyrantel pamoate/praziquantel tablets used in the following target animal safety studies, the margin of safety is narrower than reported in these studies. The potential for adverse reactions may be greater in individual dogs administered IVERHART MAX Chew than ivermectin/pyrantel pamoate/praziquantel tablets.

In a target animal safety study using ivermectin/pyrantel pamoate/praziquantel tablets, doses were administered to 8 week old Beagle puppies at one, three, and five times the maximum recommended dose of 12.5 mcg/kg ivermectin, 10.47 mg/kg pyrantel and 10.47 mg/kg praziquantel. The dogs were treated every 30 days for 6 months. Vomiting within 6 hours of dosing and soft or watery feces within 24 hours of dosing were observed. Other observations during the study were: ano-genital swelling, lethargy, head movements, shallow, audible or difficult breathing, and salivation. One dog in the 5X group had tremors and decreased activity. All of these signs were transient. No treatment was required. Histopathology showed testicular hypoplasia in the 3X and 5X groups **(see Warnings)**.

In a laboratory safety study using ivermectin/pyrantel pamoate/praziquantel tablets, 12-week-old Beagle puppies receiving 3 and 5 times the recommended dose once weekly for 13 weeks demonstrated a dose-related decrease in testicular maturation compared to controls. In this study, all treated puppies had significantly higher cholesterol levels compared to untreated controls.

In a reproductive safety study, adult males were treated at 37.5 mcg/kg ivermectin, 31.4 mg/kg pyrantel and 31.4 mg/kg praziquantel every 14 days during two full spermatogenic cycles (112 days). The quality of semen and reproductive health were not affected by treatment. Treatment related vomiting and soft feces were reported during this study.

In a study of the effectiveness of ivermectin/pyrantel pamoate/praziquantel tablets for the treatment of *Toxocara canis*, one 8.1 lb, 72-day-old puppy died 6 days after administration of the label dose. This puppy and many other puppies in the study had high worm burdens and were reported to have diarrhea, sometimes bloody, frequently before and after treatment. Dehydration and signs of anemia (pale mucous membranes) were the only abnormal gross necropsy finding observed. No definitive cause was determined. In a 90-day field study using ivermectin/pyrantel pamoate/praziquantel tablets, the most serious adverse reactions (lethargy, limpness, and salivation) were seen in dogs weighing less than 10 lbs **(see Precautions)**.

Storage Information: Store at 20°C to 25°C (68°F to 77°F), excursions permitted between 15°C and 30°C (59°F to 86°F). Protect product from light.

How Supplied: IVERHART MAX Chew is available in four dosage strengths **(see Dosage and Administration)** for dogs of different weights. Each strength comes in a package of 6 chews.

Approved by FDA under NADA # 141-441

Manufactured by:

Virbac AH, Inc.
Fort Worth, TX 76137 USA
Phone: 1-800-338-3659

302143-04
10/2020

Virbac Shaping the future of animal health

IVERHART PLUS®
(ivermectin/pyrantel)
Flavored Chewables

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

INDICATIONS: For use in dogs to prevent canine heartworm disease by eliminating the tissue stage of heartworm larvae *(Dirofilaria immitis)* for a month (30 days) after infection and for the treatment and control of ascarids *(Toxocara canis, Toxascaris leonina)* and hookworms *(Ancylostoma caninum, Uncinaria stenocephala, Ancylostoma braziliense)*.

DOSAGE: *IVERHART* PLUS® (ivermectin/pyrantel) *Flavored Chewable*s should be administered orally at monthly intervals at the recommended minimum dose level of 6 mcg of ivermectin per kilogram (2.72 mcg/lb) and 5 mg of pyrantel (as pamoate salt) per kg (2.27 mg/lb) of body weight. The recommended dosing schedule for prevention of canine heartworm disease and for the treatment and control of ascarids and hookworms is as follows:

Dog Weight	Flavored Chewable Per Month	Ivermectin Content	Pyrantel Content
Up to 25 lbs	1	68 mcg	57 mcg
26 to 50 lbs	1	136 mcg	114 mcg
51 to 100 lbs	1	272 mcg	227 mcg

IVERHART PLUS *Flavored Chewables* are recommended for dogs 6 weeks of age and older. For dogs over 100 lbs use the appropriate combination of these flavored chewables.

ADMINISTRATION: Remove only one chewable at a time from the foil-backed blister card. Return the card with the remaining chewables to its box to protect the product from light. Because most dogs find *IVERHART* PLUS *Flavored Chewables* palatable, the product can be offered to the dog by hand. Alternatively, it may be added intact to a small amount of dog food. The chewable should be administered in a manner that encourages the dog to chew, rather than to swallow without chewing. Chewables may be broken into pieces and fed to dogs that normally swallow treats whole.

Care should be taken that the dog consumes the complete dose, and treated animals should be observed for a few minutes after administration to ensure that part of the dose is not lost or rejected. If it is suspected that any of the dose has been lost, redosing is recommended.

IVERHART PLUS *Flavored Chewables* should be given at monthly intervals during the period of the year when mosquitoes (vectors), potentially carrying infective heartworm larvae, are active. The initial dose must be given within a month (30 days) after the dog's first exposure to mosquitoes. The final dose must be given within a month (30 days) after the dog's last exposure to mosquitoes.

When replacing another heartworm preventive product in a heartworm disease preventive program, the first dose of *IVERHART* PLUS *Flavored Chewable*s must be given within a month (30 days) of the last dose of the former medication.

If the interval between doses exceeds a month (30 days), the efficacy of ivermectin can be reduced. Therefore, for optimal performance, the flavored chewable must be given once a month on or about the same day of the month. If treatment is delayed, whether by a few days or many, immediate treatment with *IVERHART* PLUS *Flavored Chewables* and resumption of the recommended dosing regimen will minimize the opportunity for the development of adult heartworms.

Monthly treatment with *IVERHART* PLUS *Flavored Chewables* also provides effective treatment and control of ascarids (*T. canis, T. leonina*) and hookworms (*A. caninum, U. stenocephala, A. braziliense*). Clients should be advised of measures to be taken to prevent reinfection with intestinal parasites.

EFFICACY: *IVERHART* PLUS *Flavored Chewables*, given orally using the recommended dose and regimen, are effective against the tissue larval stage of *D. immitis* for a month (30 days) after infection and, as a result, prevent the development of the adult stage. *IVERHART* PLUS *Flavored Chewables* are also effective against canine ascarids (*T. canis, T. leonina*) and hookworms (*A. caninum, U. stenocephala, A. braziliense*).

ACCEPTABILITY: In a trial in client-owned dogs, *IVERHART* PLUS *Flavored Chewables* were shown to be a palatable oral dosage form consumed at first offering by the majority of dogs.

PRECAUTIONS: All dogs should be tested for existing heartworm infection before starting treatment with *IVERHART* PLUS *Flavored Chewables*, which are not effective against adult *D. immitis*. Infected dogs must be treated to remove adult heartworms and microfilariae before initiating a program with *IVERHART* PLUS *Flavored Chewables*.

While some microfilariae may be killed by the ivermectin in *IVERHART* PLUS *Flavored Chewable*s at the recommended dose level, *IVERHART* PLUS *Flavored Chewable*s are not effective for microfilariae clearance. A mild hypersensitivity-type reaction, presumably due to dead or dying microfilariae and particularly involving a transient diarrhea, has been observed in clinical trials with ivermectin alone after treatment of some dogs that have circulating microfilariae.

Keep this and all drugs out of the reach of children.
In case of ingestion by humans, clients should be advised to contact a physician immediately. Physicians may contact a Poison Control Center for advice concerning cases of ingestion by humans.

Store at 20°C - 25°C (68°F - 77°F), excursions permitted between 15°C - 30°C (59°F - 86°F). Protect product from light.

Warnings: Use product on or before its expiration date.
Discard or return unused tablets.

ADVERSE REACTIONS: In clinical trials with ivermectin/pyrantel, vomiting or diarrhea within 24 hours of dosing was rarely observed (1.1% of administered doses). The following adverse reactions have been reported following the use of ivermectin: Depression/lethargy, vomiting, anorexia, diarrhea, mydriasis, ataxia, staggering, convulsions and hypersalivation.

To report suspected adverse drug events, for technical assistance or to obtain a copy of the Safety Data Sheet (SDS), contact Virbac AH, Inc at 1-800-338-3659 or us.virbac.com. For additional information about adverse drug experience reporting for animal drugs, contact FDA at 1-888-FDA-VETS or http://www.fda.gov/reportanimalae.

SAFETY: Studies with ivermectin indicate that certain dogs of the Collie breed are more sensitive to the effects of ivermectin administered at elevated dose levels (more than 16 times the target use level of 6 mcg/kg) than dogs of other breeds. At elevated doses, sensitive dogs showed adverse reactions which included mydriasis, depression, ataxia, tremors, drooling, paresis, recumbency, excitability, stupor, coma and death. Ivermectin demonstrated no signs of toxicity at 10 times the recommended dose (60 mcg/kg) in sensitive Collies. Results of these trials and bioequivalency studies, support the safety of ivermectin products in dogs, including Collies, when used as recommended.

Ivermectin/pyrantel has shown a wide margin of safety at the recommended dose level in dogs, including pregnant or breeding bitches, stud dogs and puppies aged 6 or more weeks. In clinical trials, many commonly used flea collars, dips, shampoos, anthelmintics, antibiotics, vaccines and steroid preparations have been administered with ivermectin/pyrantel in a heartworm disease preventive program.

In one trial, where some pups had parvovirus, there was a marginal reduction in efficacy against intestinal nematodes, possibly due to a change in intestinal transit time.

HOW SUPPLIED: *IVERHART* PLUS *Flavored Chewables* are available in three dosage strengths (See DOSAGE section) for dogs of different weights. Each strength comes in a box of 6 tablets, packed 10 boxes per display box.

Approved by FDA under ANADA # 200-302

Manufactured by: Virbac AH, Inc.
Fort Worth, TX 76161, USA
301732-06
07/21

Virbac

PRODUCT INSERTS/DISCLOSURES

Virbac

MILBEHART™
(milbemycin oxime)
Flavored Tablets

INFORMATION FOR DOSING DOGS

The once-a-month tablet that prevents heartworm disease, controls adult hookworm, and removes and controls adult roundworm and whipworm infections in dogs and puppies.

Caution: Federal (USA) law restricts this drug to use by or on the order of a licensed veterinarian. Keep this and all drugs out of the reach of children.

Description: MILBEHART™ (milbemycin oxime) Flavored Tablets are available in four tablet sizes in color-coded packages for oral administration to dogs and puppies. Each tablet is formulated to provide a minimum of 0.23 mg/lb (0.5 mg/kg) body weight of milbemycin oxime. Milbemycin oxime consists of the oxime derivatives of 5-didehydromilbemycins in the ratio of approximately 80% A_4 ($C_{32}H_{45}NO_7$, MW 555.71) and 20% A_3 ($C_{31}H_{43}NO_7$, MW 541.68).

Package color	Milbemycin oxime tablet
Brown	2.3 mg*
Green	5.75 mg
Yellow	11.5 mg
Gray	23.0 mg

*for dogs only

Indications: MILBEHART™ Flavored Tablets are indicated for use in the prevention of heartworm disease caused by Dirofilaria immitis, the control of adult Ancylostoma caninum (hookworm), and the removal and control of adult Toxocara canis and Toxascaris leonina (roundworms) and Trichuris vulpis (whipworm) infections in dogs and in puppies four weeks of age or greater and two pounds body weight or greater.

Dosage: MILBEHART™ Flavored Tablets are given orally, once a month, at the recommended minimum dosage rate of 0.23 mg milbemycin oxime per pound of body weight (0.5 mg/kg).

Recommended Dosage Schedule for Dogs

Body Weight	MILBEHART™ Flavored Tablets
2-10 lbs.	One tablet (2.3 mg)
11-25 lbs.	One tablet (5.75 mg)
26-50 lbs.	One tablet (11.5 mg)
51-100 lbs.	One tablet (23.0 mg)

Dogs over 100 lbs. are provided the appropriate combination of tablets

Administration: MILBEHART™ Flavored Tablets are dual-purpose and may be offered in food or administered as other tablet medications. Watch the dog closely following dosing to be sure the entire dose has been consumed. If it is not entirely consumed, redose once with the full recommended dose as soon as possible.

MILBEHART™ Flavored Tablets must be administered monthly, preferably on the same date each month. The first dose should be administered within one month of the dog's first exposure to mosquitoes and monthly thereafter until the end of the mosquito season. If a dose is missed and a 30-day interval between dosing is exceeded, administer MILBEHART™ Flavored Tablets immediately and resume the monthly dosing schedule.

If MILBEHART™ Flavored Tablets replaces diethylcarbamazine (DEC) for heartworm prevention, the first dose must be given within 30 days after the last dose of DEC.

Precautions: Do not use in puppies less than four weeks of age or less than two pounds of body weight. Prior to initiation of the MILBEHART™ Flavored Tablets treatment program, dogs should be tested for existing heartworm infections. Infected dogs should be treated to remove adult heartworms and microfilariae prior to initiating treatment with MILBEHART™ Flavored Tablets. Mild, transient hypersensitivity reactions manifested as labored respiration, vomiting, salivation and lethargy, have been noted in some treated dogs carrying a high number of circulating microfilariae. These reactions are presumably caused by release of protein from dead or dying microfilariae.

Adverse Reactions: The following adverse reactions have been reported following the use of MILBEHART™ Flavored Tablets: Depression/lethargy, vomiting, ataxia, anorexia, diarrhea, convulsions, weakness and hypersalivation.

Efficacy: MILBEHART™ Flavored Tablets eliminate the tissue stage of heartworm larvae and the adult stage of hookworm (Ancylostoma caninum), roundworms (Toxocara canis, Toxascaris leonina) and whipworm (Trichuris vulpis) infestations when administered orally according to the recommended dosage schedule. The anthelmintic activity of milbemycin oxime is believed to be a result of interference with invertebrate neurotransmission.

Safety: Milbemycin oxime has been tested safely in over 75 different breeds of dogs, including collies, pregnant females, breeding males and females, and puppies over two weeks of age. In well-controlled clinical field studies, 786 dogs completed treatment with milbemycin oxime. Milbemycin oxime was used safely in animals receiving frequently used veterinary products such as vaccines, anthelmintics, antibiotics, steroids, flea collars, shampoos and dips.

Two studies in heartworm-infected dogs were conducted which demonstrated mild, transient hypersensitivity reactions in treated dogs with high microfilaremia counts (see Precautions for reactions observed). Safety studies in pregnant dogs demonstrated that high doses (1.5 mg/kg =3X) of milbemycin oxime given in an exaggerated dosing regimen (daily from mating through weaning), resulted in measurable concentrations of the drug in milk. Puppies nursing these females which received exaggerated dosing regimens demonstrated milbemycin-related effects. These effects were directly attributable to the exaggerated experimental dosing regimen. The product is normally intended for once-a-month administration only. Subsequent studies included using 3X daily from mating to one week before weaning and demonstrated no effects on the pregnant females or their litters. A second study where pregnant females were dosed once at 3X the monthly use rate either before, on the day of or shortly after whelping resulted in no effects on the puppies.

Some nursing puppies, at 2, 4, and 6 weeks of age, given greatly exaggerated oral milbemycin oxime doses (9.6 mg/kg = 19X) exhibited signs typified by tremors, vocalization and ataxia. These effects were all transient and puppies returned to normal within 24 to 48 hours. No effects were observed in puppies given the recommended dose of milbemycin oxime (0.5 mg/kg). This product has not been tested in dogs less than 1 kg weight.

A rising-dose safety study conducted in rough-coated collies, manifested a clinical reaction consisting of ataxia, pyrexia and periodic recumbency, in one of fourteen dogs treated with milbemycin oxime at 12.5 mg/kg (25X monthly use rate). Prior to receiving the 12.5 mg/kg dose (25X monthly use rate) on day 56 of the study, all animals had undergone an exaggerated dosing regimen consisting of 2.5 mg/kg milbemycin oxime (5X monthly use rate) on day 0, followed by 5.0 mg/kg (10X monthly use rate) on day 14 and 10.0 mg/kg (20X monthly use rate) on day 32. No adverse reactions were observed in any of the collies treated with this regimen up through the 10.0 mg/kg (20X monthly use rate) dose.

How supplied: MILBEHART™ Flavored Tablets are available in four tablet sizes (see Dosage section), formulated according to the weight of the dog. Each tablet size is available in color-coded packages of 6 tablets each, which are packaged 10 per display carton.

Storage conditions: MILBEHART™ Flavored Tablets should be stored at room temperature, between 68° and 77°F (20-25°C).

INFORMATION FOR DOSING CATS

The once-a-month tablet that prevents heartworm disease and removes adult roundworms and hookworms in cats and kittens.

Caution: Federal (USA) law restricts this drug to use by or on the order of a licensed veterinarian. Keep this and all drugs out of the reach of children.

Description: MILBEHART™ Flavored Tablets for Cats are available in three tablet sizes in color-coded packages for oral administration to cats and kittens. Each tablet is formulated to provide a minimum of 0.9 mg/lb (2.0 mg/kg) body weight of milbemycin oxime. Milbemycin oxime consists of the oxime derivatives of 5-didehydromilbemycins in the ratio of approximately 80% A4 (C32H45NO7, MW 555.71) and 20% A3 (C31H43NO7, MW 541.68).

Package color	Milbemycin oxime tablet
Green	5.75 mg
Yellow	11.5 mg
Gray	23.0 mg

Indications: MILBEHART™ Flavored Tablets for Cats are indicated for use in the prevention of heartworm disease caused by Dirofilaria immitis, and the removal of adult Ancylostoma tubaeforme (hookworm) and Toxocara cati (roundworm) in cats and kittens six weeks of age or greater and 1.5 lbs. body weight or greater.

Dosage: MILBEHART™ Flavored Tablets for Cats are given orally, once a month, at the recommended minimum dosage rate of 0.9 mg milbemycin oxime per pound of body weight (2.0mg/kg).

Recommended Dosage Schedule for Cats

Body Weight	MILBEHART™ Flavored Tablets
1.5-6 lbs.	One tablet (5.75 mg)
6.1-12 lbs.	One tablet (11.5 mg)
12.1-25 lbs.	One tablet (23.0 mg)

Cats over 25 lbs. are provided the appropriate combination of tablets

Administration: MILBEHART™ Flavored Tablets for Cats may be offered in food or administered as other tablet medications. The tablets can be broken for ease of administration. Watch the cat closely following dosing to be sure the entire dose has been consumed. If it is not entirely consumed, redose once with the full recommended dose as soon as possible.

MILBEHART™ Flavored Tablets for Cats must be administered monthly, preferably on the same date each month. The first dose should be administered within one month of the cat's first exposure to mosquitoes and monthly thereafter until the end of the mosquito season. If a dose is missed and a 30-day interval between dosing is exceeded, administer MILBEHART™ Flavored Tablets for Cats immediately and resume the monthly dosing schedule. It is recommended that cats be tested for existing heartworm infection prior to starting treatment with MILBEHART™ Flavored Tablets for Cats (See Precautions).

Precautions: Do not use in kittens less than six weeks of age or less than 1.5 lbs. body weight. Safety in heartworm positive cats has not been established. Safety in breeding, pregnant, and lactating queens and breeding toms has not been established.

Efficacy: MILBEHART™ Flavored Tablets for Cats eliminate the tissue stage of heartworm larvae and hookworm (Ancylostoma tubaeforme) and roundworm (Toxocara cati) infections when administered orally according to the recommended dosage schedule. The anthelmintic activity of milbemycin oxime is believed to be a result of interference with invertebrate neurotransmission.

Safety: Milbemycin oxime has been tested safely in over 8 different breeds of cats. In well-controlled clinical field studies 141 cats completed treatment with milbemycin oxime. Milbemycin oxime was used safely in animals receiving frequently used veterinary products such as vaccines, anthelmintics, anesthetics, antibiotics, steroids, flea collars, shampoos and dips.

Safety studies were conducted in young cats and kittens and doses of 1X, 3X and 5X the minimum recommended dose of 2.0 mg/kg demonstrated no drug-related effects. Tolerability studies at exaggerated doses of 10X also demonstrated no drug-related adverse effects in kittens and young adult cats.

How supplied: MILBEHART™ Flavored Tablets for Cats are available in three tablet sizes (see Dosage section), formulated according to the weight of the cat. Each tablet size is available in color-coded packages of 6 tablets each, which are packaged 10 per display carton.

Storage conditions: MILBEHART™ Flavored Tablets for Cats should be stored at room temperature, between 68° and 77°F (20-25°C).

Manufactured for:
Virbac AH, Inc.
P.O. Box 162059
Fort Worth, TX 76161
Phone: 1-800-338-3659

Made in Canada.
Approved by FDA under ANADA # 200-629

12461-01
D86910E 08-A1-V1

RILEXINE®

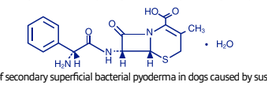
(cephalexin tablets)

Chewable Tablets

Antimicrobial for Oral Use in Dogs only

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

DESCRIPTION: RILEXINE® Chewable Tablets are a chewable, bisected tablet supplied in 3 sizes containing 150 mg, 300 mg, and 600 mg of cephalexin. Cephalexin is a cephalosporin, beta-lactam, broad spectrum antibiotic. The full chemical name for cephalexin is 7-(D-α-amino- α-phenylacetamido)-3-methyl-3-cephem-4-carboxylic acid monohydrate.



INDICATION: For the treatment of secondary superficial bacterial pyoderma in dogs caused by susceptible strains of *Staphylococcus pseudintermedius*.

DOSAGE AND ADMINISTRATION: The recommended dose is 22 mg/kg (10 mg/lb) of body weight twice daily for 28 days.

Appropriate culture and susceptibility tests should be performed before treatment to determine the causative organism and its susceptibility to cephalexin. Therapy with RILEXINE Chewable Tablets may be initiated before results of these tests are known; once the results become available, antimicrobial therapy should be adjusted accordingly. If acceptable response to treatment is not observed, then the diagnosis should be re-evaluated and appropriate alternative therapy considered.

CONTRAINDICATIONS: RILEXINE Chewable Tablets are contraindicated in dogs with a known allergy to cephalexin or to the β-lactam (any of the penicillins or cephalosporins) group of antibiotics.

WARNINGS: For use in dogs only. Not for use in humans. Keep this drug out of the reach of children. Antimicrobials, including penicillins and cephalosporins, can cause allergic reactions in sensitized individuals. Sensitized individuals handling such antimicrobials, including cephalexin, should avoid contact of the product with the skin and mucous membranes in order to minimize the risk of allergic reactions.

In case of ingestion by humans contact a physician immediately. Physicians may contact a poison control center for advice concerning cases of ingestion by humans.

To obtain a copy of the Safety Data Sheet (SDS), or to report adverse reactions, call Virbac at 1-800-338-3659.

PRECAUTIONS: Prescribing antibacterial drugs in the absence of a proven or strongly suspected bacterial infection is unlikely to provide benefit to treated animals and may increase the risk of the development of drug-resistant animal pathogens.

RILEXINE Chewable Tablets are designed to taste good. **Store RILEXINE Chewable Tablets out of reach of dogs, cats, and other pets in a secured location.** Post approval experience has shown that dogs and cats may willingly consume more than the recommended dosage of RILEXINE Chewable Tablets, which can result in overdose. Adverse reactions may occur if large quantities of tablets are ingested (see **Adverse Reactions, Animal Safety,** and **Information for Dog Owners** sections). If the product is dispensed in a container other than the original, prescribers should consider adding a statement on the bottle label reminding the owner that RILEXINE Chewable Tablets are designed to taste good and should be stored out of reach of pets in a secured location.

The safe use of RILEXINE Chewable Tablets in dogs intended for breeding and in pregnant or lactating bitches has not been evaluated.

Positive direct Coombs' test results and false positive reactions for glucose in the urine have been reported during treatment with some cephalosporin antimicrobials. Cephalosporin antimicrobials may also cause falsely elevated urine protein determinations. Some antimicrobials, including cephalosporins, can cause lowered albumin values due to interference with certain testing methods.

Occasionally, cephalosporins have been associated with myelotoxicity, thereby creating a toxic neutropenia[1]. Other hematological reactions observed with cephalosporin therapy include neutropenia, anemia, hypoprothrombinemia, thrombocytopenia, prolonged prothrombin time (PT) and partial thromboplastin time (PTT), platelet dysfunction, and transient increases in serum aminotransferases[2].

ADVERSE REACTIONS: The most common adverse reactions in dogs include diarrhea, vomiting, anorexia and lethargy. To report suspected adverse reactions call Virbac at 1-800-338-3659.

A total of 211 dogs were included in the field study safety analysis. Adverse reactions reported in dogs treated with RILEXINE Chewable Tablets and placebo are summarized in Table 1.

Table 1: Number of Adverse Reactions* Reported During the Field Study with RILEXINE Chewable Tablets

ADVERSE REACTION	RILEXINE Tablets n = 145	Placebo n = 66
Number of dogs with adverse reactions*	50 (34%)	22 (33%)
	# of Each Event*	# of Each Event*
Vomiting	29	9
Diarrhea	19	6
Anorexia	13	2
Lethargy	9	3
Pruritus	5	0
Dermatitis	4	3
Skin Lesions	5	1
Otitis Externa	4	2
Polydipsia	2	2
Somnolence	2	0
Flatulence	1	1
Tachypnea	1	1

*Some dogs may have experienced more than one adverse reaction or more than one occurrence of the same adverse reaction during the study.

No clinically significant differences were observed in the mean values for all laboratory tests including urinalysis between RILEXINE Chewable Tablets and placebo-treated dogs. At the end of treatment, group means for neutrophils, WBC, and globulin values were significantly higher in the placebo group than in the RILEXINE Chewable Tablets group; whereas, group mean values for eosinophils, A/G Ratio values, and total protein values were significantly higher in the RILEXINE Chewable Tablets group than in the placebo group. For all six of these parameters, the differences were not clinically significant and the mean values for each of the parameters remained within the normal range.

To report suspected adverse drug events and/or obtain a copy of the Safety Data Sheet (SDS) or for technical assistance, contact Virbac at 1-800-338-3659. 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/AnimalVeterinary/SafetyHealth*

INFORMATION FOR DOG OWNERS: Owners should be advised that RILEXINE Chewable Tablets are designed to taste good. Owners should be instructed to keep the product in a secured storage area out of the reach of pets in order to prevent accidental ingestion or overdose. Post approval experience has shown that dogs and cats may willingly consume more than the recommended dosage of RILEXINE Chewable Tablets. Adverse reactions may occur if large quantities of tablets are ingested (see **Precautions, Adverse Reactions,** and **Animal Safety sections**).

Owners should be advised to contact their veterinarian immediately and notify Virbac (1-800-338-3659) if the dog ingests more tablets than prescribed or if other pets ingest RILEXINE Chewable Tablets. In the case of accidental ingestion by humans, contact a physician immediately.

CLINICAL PHARMACOLOGY: Cephalexin belongs to the cephalosporin family of bactericidal antibiotics.

Cephalexin is readily and almost completely absorbed following oral administration (90% absolute bioavailability). Blood concentrations are proportional to dose within the range of at least 15 to 45 mg/kg. Binding to canine plasma proteins is low, ranging from 9 to 13% for cephalexin concentrations of 0.5 to 100 μg/mL.

Food reduces the peak cephalexin concentrations but has negligible effect on the extent of absorption.

A summary of the pharmacokinetics (PK) observed in fed and fasted Beagle dogs administered a single 22 mg/kg dose is provided in Table 2.

Table 2: Pharmacokinetics Parameter values (mean ± standard deviation), protein-corrected in fasted and fed dogs following a single administration of 22 mg/kg dose of RILEXINE Chewable Tablets (N = 12)

Parameter	FASTED Mean ± SD[1]	FED Mean ± SD[1]
AUCINF_obs (mg.h/L)	105.36 ± 17.31	108.35 ± 25.85
AUClast (mg.h/L)	97.33 ± 13.18	95.19 ± 11.84
Cmax (mg/L)	21.66 ± 2.74	16.99 ± 2.71
$T_{1/2}$(h)	7.33 ± 4.30	8.79 ± 6.44
Tmax (h)	1.42 ± 0.42	1.17 ± 0.25

[1]SD = Standard Deviation

Cephalosporins are associated with time dependent killing effects. Accordingly, the pharmacodynamic (PD) target is time above MIC (T>MIC). For staphylococcal infections, the goal for time above MIC is 40% of the dosing interval (which translates to 4.8 hrs for a BID dosing schedule). For streptococcal infections, the target for time above MIC is 60% of the dosing interval (i.e., 7.2 hrs).[1] To assess whether or not the PK-PD target is met with a 22 mg/kg BID dosing regimen under fed and fasted conditions, it was assumed that the MIC_{90} for *S. pseudintermedius* is 2 μg/mL. Plasma drug concentrations were normalized to exactly 22 mg/kg dose and corrected for 10% protein binding (protein binding observed in canine plasma).

Under fasted conditions, all targets were met in all dogs after the first daily dose. With food, the target for *S. aureus* was met by the second daily dose. Therefore, a 22 mg/kg BID dosing interval under fed or fasted conditions succeeded in attaining the PK-PD targets.

MICROBIOLOGY: Cephalexin is a cephalosporin antibiotic. Like other β-lactam antimicrobials, cephalexin exerts its inhibitory effect by interfering with bacterial cell wall synthesis. This interference is primarily due to its covalent binding to the penicillin-binding proteins (PBPs) (i.e., transpeptidase and carboxypeptidase), which are essential for synthesis of the bacterial wall. Minimum Inhibitory Concentrations (MICs) for cephalexin against label-claim pathogens isolated from canine pyoderma in a 2008-2009 U.S. field trial are presented in Table 3. All MICs were determined in accordance with the Clinical Laboratory Standards Institute (CLSI) standards.

Table 3: Summary of Cephalexin MIC values against *S. pseudintermedius* isolates from 88 dogs treated with RILEXINE® Chewable Tablets for bacterial pyoderma in a U.S. field study during 2008-2009

Microbial Treatment Outcome	Time of Sampling	MIC_{50} μg/mL	MIC_{90} μg/mL	MIC Range μg/mL
Success (n = 61)*	Pre-treatment	1	2	1-2
Failure (n = 27)**	Pre-treatment	1	2	1-8
	Post-treatment (n = 17)	2	16	1-32

*No post-treatment sampling was conducted due to the absence of lesions.
**Of the 27 failures, 10 did not have positive post-treatment cultures.

EFFECTIVENESS: The clinical effectiveness of RILEXINE Chewable Tablets was established in a randomized, multi-location, placebo-controlled field study (see Table 4). In this study, 131 dogs with secondary superficial bacterial pyoderma treated with either RILEXINE Chewable Tablets (n = 91) at 22 mg/kg (10 mg/lb) body weight or with a negative control (n = 40), twice daily for 28 days, were analyzed. RILEXINE Chewable Tablets were considered superior to the placebo (70% success rate vs. 13% respectively) in the treatment of secondary superficial bacterial pyoderma caused by susceptible strains of *S. pseudintermedius*.

Table 4: Primary endpoint: Percentage of Cure* in the Effectiveness population

Treatment	RILEXINE Tablets	Placebo	p-value
N	91	40	
Success	64 (70.3%)	5 (12.5%)	0.0009
Failures	27	35	

*Absence of lesions at the end of the study.

PALATABILITY: The palatability of RILEXINE Chewable Tablets was evaluated in two separate multi-location studies. In the first study, 39 client-owned dogs were dosed with RILEXINE Chewable Tablets at 22 mg/kg and evaluated for palatability of the product. Palatability testing was performed twice daily prior to feeding for 7 days. Dogs freely consumed (from empty bowl or open hand) 80.8% of their doses. In a second study, 64 client-owned dogs enrolled in the field efficacy study were evaluated in a similar manner and freely consumed 78.4% of their doses.

ANIMAL SAFETY: RILEXINE Chewable Tablets were administered orally three times a day to 12-week-old healthy Beagles at 0 mg/kg (placebo), 22 mg/kg (1X), 66 mg/kg (3X), and 110 mg/kg (5X) for 12 weeks, and at 22 mg/kg twice a day for 12 weeks. The most common clinical findings included epiphora, salivation, vomiting and diarrhea among all the dose groups. Three dogs had decreased activity (1 in each from the 22 mg/kg twice a day, 22 mg/kg three times a day, and the 66 mg/kg three times a day groups). These observations were mild and sporadic.

There were increases in alanine aminotransferase (ALT) in the 110 mg/kg three times a day group and in the 22 mg/kg twice a day group that increased in a dose-dependent pattern. There was an increase in sorbitol dehydrogenase (SDH) in the 110 mg/kg three times a day group compared to the controls. These changes were minimal and the values remained within expected historical control ranges. There were several decreases in total protein (in the 110 mg/kg three times a day group) and/or globulin (in the 22, 66, and 110 mg/kg three times a day groups) compared to the controls. These changes resulted in occasional increases in albumin/globulin ratios. Although a drug effect cannot be ruled-out, these changes were not clinically relevant.

A mild prolongation in prothrombin time (PT) was observed in the 22 mg/kg three times a day group. This was not considered clinically relevant due to the small change that remained within the reference ranges.

One dog in the 110 mg/kg three times a day group had moderate amounts of bilirubinuria at the Week 8 and Week 12 samplings. No clinical significance was noted.

Cephalexin was not present in any Day 1 samples prior to dosing or in any control animals. After dosing, cephalexin was well absorbed into systemic circulation of the treated dogs. Within gender and dosage level, Week 8 mean trough concentrations were generally higher than the Week 4 and 12 mean trough concentrations (between a 0.9 and 3.6-fold difference). The geometric mean plasma cephalexin trough concentration following three times daily administration of the 110 mg/kg dose was 11.2 μg/mL compared to 2.6 μg/mL and 8.7 μg/mL following 22 mg/kg and 66 mg/kg, respectively at Week 12. Geometric mean plasma cephalexin trough concentrations following administration of 22 mg/kg twice daily were 0.7, 1.3, and 1.0 μg/mL at Weeks 4, 8, and 12, respectively.

STORAGE INFORMATION: Store at 20°C-25°C (68°F-77°F), with excursions permitted between 15°C-30°C (59°F-86°F).

HOW SUPPLIED: RILEXINE (cephalexin tablets) Chewable Tablets are supplied in 150 mg, 300 mg, and 600 mg tablets packaged in bottles of 100 tablets.

Approved by FDA under NADA # 141- 326

Distributed by: Virbac AH, Inc.
Fort Worth, TX 76137 USA

150 mg 302054 - 05, 300 mg 302055-05 , 600 mg 302056-05

Revision date 7/2018

[1]Birchard SJ and Sherding RG. Saunders Manual of Small Animal Practice, 2nd edition. W.B. Saunders Co. 2000: p. 166.

[2]Adams HR. *Veterinary Pharmacology and Therapeutics*, 8th edition, 2001, p. 825.

PRODUCT INSERTS/DISCLOSURES

SENERGY™

(selamectin)

Topical Parasiticide For Dogs and Cats

CAUTION:

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

DESCRIPTION:

SENERGY (selamectin) Topical Parasiticide is available as a colorless to yellow, ready to use solution in single dose tubes for topical (dermal) treatment of dogs six weeks of age and older and cats eight weeks of age and older. The content of each tube is formulated to provide a minimum of 2.7 mg/lb (6 mg/kg) of body weight of selamectin. The chemical composition of selamectin is (5Z,25S)-25-cyclohexyl-4'-O-de(2,6-dideoxy-3-O-methyl-α-L-*arabino*-hexopyranosyl)-5-demethoxy-25-de(1-methylpropyl)-22, 23-dihydro-5-hydroxyiminoavermectin A_{1a}.

INDICATIONS:

SENERGY is recommended for use in dogs six weeks of age or older and cats eight weeks of age and older for the following parasites and indications:

Dogs:

SENERGY kills adult fleas and prevents flea eggs from hatching for one month and is indicated for the prevention and control of flea infestations (*Ctenocephalides felis*), prevention of heartworm disease caused by *Dirofilaria immitis*, and the treatment and control of ear mite (*Otodectes cynotis*) infestations. SENERGY also is indicated for the treatment and control of sarcoptic mange (*Sarcoptes scabiei*) and for the control of tick infestations due to *Dermacentor variabilis*.

Cats:

SENERGY kills adult fleas and prevents flea eggs from hatching for one month and is indicated for the prevention and control of flea infestations (*Ctenocephalides felis*), prevention of heartworm disease caused by *Dirofilaria immitis*, and the treatment and control of ear mite (*Otodectes cynotis*) infestations. SENERGY is also indicated for the treatment and control of roundworm (*Toxocara cati*) and intestinal hookworm (*Ancylostoma tubaeforme*) infections in cats.

WARNINGS:

Not for human use. Keep out of the reach of children.
In humans, SENERGY may be irritating to skin and eyes.
Reactions such as hives, itching and skin redness have been reported in humans in rare instances. Individuals with known hypersensitivity to SENERGY should use the product with caution or consult a health care professional. SENERGY contains isopropyl alcohol and the preservative butylated hydroxytoluene (BHT). Wash hands after use and wash off any product in contact with the skin immediately with soap and water. If contact with eyes occurs, then flush eyes copiously with water. In case of ingestion by a human, contact a physician immediately. The safety data sheet (SDS) provides more detailed occupational safety information. To report suspected adverse drug events, for technical assistance or to obtain a copy of the SDS, contact Virbac AH, Inc. at 1-800-338-3659 or us.virbac.com.

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

Flammable - Keep away from heat, sparks, open flames or other sources of ignition.

Do not use in sick, debilitated or underweight animals (see SAFETY).

PRECAUTIONS:

Prior to administration of SENERGY, dogs should be tested for existing heartworm infections. At the discretion of the veterinarian, infected dogs should be treated to remove adult heartworms. Selamectin is not effective against adult *D. immitis* and, while the number of circulating microfilariae may decrease following treatment, selamectin is not effective for microfilariae clearance.

Hypersensitivity reactions have not been observed in dogs with patent heartworm infections administered three times the recommended dose of selamectin. Higher doses were not tested.

ADVERSE REACTIONS:

Pre-approval clinical trials:

Following treatment with selamectin, transient localized alopecia with or without inflammation at or near the site of application was observed in approximately 1% of 691 treated cats. Other signs observed rarely (≤0.5% of 1743 treated cats and dogs) included vomiting, loose stool or diarrhea with or without blood, anorexia, lethargy, salivation, tachypnea, and muscle tremors.

Post-approval experience:

In addition to the aforementioned clinical signs that were reported in pre-approval clinical trials, there have been reports of pruritus, urticaria, erythema, ataxia, fever, and rare reports of death. There have also been rare reports of seizures in dogs (see **WARNINGS**).

DOSAGE:

The recommended minimum dose is 2.7 mg selamectin per pound (6 mg/kg) of body weight.

Administer the entire contents of a single dose tube (or two tubes used in combination for dogs weighing over 130 pounds) of SENERGY topically in accordance with the following tables. (See **ADMINISTRATION** for the recommended treatment intervals.)

Cats (lb)	Package Color	mg per tube	Potency (mg/mL)	Administered volume (mL)
Up to 5	Mauve	15 mg	60	0.25
5.1–15	Blue	45 mg	60	0.75
15.1–22	Taupe	60 mg	60	1.0

For cats over 22 lbs use the appropriate combination of tubes.

Dogs (lb)	Package Color	mg per tube	Potency (mg/mL)	Administered volume (mL)
Up to 5	Mauve	15 mg	60	0.25
5.1–10	Lavender	30mg	120	0.25
10.1–20	Brown	60 mg	120	0.5
20.1–40	Red	120 mg	120	1.0
40.1–85	Teal	240 mg	120	2.0
85.1–130	Plum	360 mg	120	3.0

For dogs over 130 lbs use the appropriate combination of tubes. Recommended for use in dogs 6 weeks of age and older and in cats 8 weeks of age and older.

ADMINISTRATION:

A veterinarian or veterinary technician should demonstrate or instruct the pet owner regarding the appropriate technique for applying SENERGY topically to dogs and cats prior to first use. Remove the tube from the package and hold upright with the lot and expiration at the bottom. Bend the tip back until it snaps off. To administer the product, part the hair on the back of the animal at the base of the neck in front of the shoulder blades until the skin is visible. Place the tip of the tube on the skin and squeeze the tube 3 or 4 times to empty its entire contents directly onto the skin in one spot. Keeping the tube squeezed, drag it away from the liquid and lift to remove. Check the tube to ensure that it is empty. Do not massage the product into the skin. Due to alcohol content, do not apply to broken skin. Avoid contact between the product and fingers. Do not apply when the haircoat is wet. Bathing or shampooing the dog 2 or more hours after treatment will not reduce the effectiveness of SENERGY against fleas or heartworm. Bathing or shampooing the cat 2 hours after treatment will not reduce the effectiveness of SENERGY against fleas. Bathing or shampooing the cat 24 hours after treatment will not reduce the effectiveness of SENERGY against heartworm. Stiff hair, clumping of hair, hair discoloration, or a slight powdery residue may be observed at the treatment site in some animals. These effects are temporary and do not affect the safety or effectiveness of the product. Discard empty tubes in your ordinary household refuse.

Flea Control in Dogs and Cats

For the prevention and control of flea infestations, SENERGY should be administered at monthly intervals throughout the flea season, starting one month before fleas become active. In controlled laboratory studies >98% of fleas were killed within 36 hours. Results of clinical field studies using selamectin monthly demonstrated >90% control of flea infestations within 30 days of the first dose. Dogs and cats treated with selamectin, including those with pre-existing flea allergy dermatitis, showed improvement in clinical signs associated with fleas as a direct result of eliminating the fleas from the animals and their environment.

If the dog or cat is already infested with fleas when the first dose of selamectin is administered, adult fleas on the animal are killed and no viable fleas hatch from eggs after the first administration. However, an environmental infestation of fleas may persist for a short time after beginning treatment with selamectin because of the emergence of adult fleas from pupae.

Heartworm Prevention in Dogs and Cats

For the prevention of heartworm disease, SENERGY must be administered on a monthly basis. SENERGY may be administered year-round or at least within one month after the animal's first exposure to mosquitoes and monthly thereafter until the end of the mosquito season. The final dose must be given within one month after the last exposure to mosquitoes. If a dose is missed and a monthly interval between dosing is exceeded then immediate administration of SENERGY and resumption of monthly dosing will minimize the opportunity for the development of adult heartworms. When replacing another heartworm preventive product in a heartworm disease prevention program, the first dose of SENERGY must be given within a month of the last dose of the former medication.

Selamectin, the active ingredient in SENERGY, is a macrocyclic lactone compound. These compounds effectively prevent the development of adult heartworms when administered to dogs and cats within one month of exposure to infective (L_3) *Dirofilaria immitis* larvae. Efficacy of macrocyclic lactones decreases below 100% in dogs, however, if first administered >2 months after exposure to infective larvae. Thus, in heartworm endemic regions, delaying initiation of heartworm prevention using SENERGY beyond 2 months of first exposure to infective larvae (e.g., starting puppies and kittens at >8 weeks of age), or gaps of >2 months in the administration of SENERGY during periods of heartworm transmission, increases the risk of the animal acquiring heartworms. Animals with unknown heartworm history that test negative for heartworms prior to the initiation of SENERGY may be harboring pre-patent infections at the time SENERGY was started. Testing such animals 3–4 months after initiation of SENERGY would be necessary to confirm their negative heartworm status.

At the discretion of the veterinarian, cats ≥6 months of age may be tested to determine the presence of existing heartworm infections before beginning treatment with SENERGY. Cats already infected with adult heartworms can be given SENERGY monthly to prevent further infections.

Ear Mite Treatment in Dogs and Cats

For the treatment of ear mite (*O. cynotis*) infestations in dogs and cats, SENERGY should be administered once as a single topical dose. A second monthly dose may be required in some dogs. Monthly use of SENERGY will control any subsequent ear mite infestations. In the clinical field trials ears were not cleaned, and many animals still had debris in their ears after the second dose. Cleansing of the infested ears is recommended to remove the debris.

Sarcoptic Mange Treatment in Dogs

For the treatment of sarcoptic mange (*S. scabiei*) in dogs, SENERGY should be administered once as a single topical dose. A second monthly dose may be required in some dogs. Monthly use of SENERGY will control any subsequent sarcoptic mange mite infestations. Because of the difficulty in finding sarcoptic mange mites on skin scrapings, effectiveness assessments also were based on resolution of clinical signs. Resolution of the pruritus associated with the mite infestations was observed in approximately 50% of the dogs 30 days after the first treatment and in approximately 90% of the dogs 30 days after the second monthly treatment.

Tick Control in Dogs

For the control of tick (*Dermacentor variabilis*) infestations in dogs, SENERGY should be administered on a monthly basis. In heavy tick infestations, complete efficacy may not be achieved after the first dose. In these cases, one additional dose may be administered two weeks after the previous dose, with monthly dosing continued thereafter.

Nematode Treatment in Cats

For the treatment and control of intestinal hookworm (*A. tubaeforme*) and roundworm (*T. cati*) infections, SENERGY should be applied once as a single topical dose.

SAFETY:

Selamectin has been tested safe in over 100 different pure and mixed breeds of healthy dogs and over 15 different pure and mixed breeds of healthy cats, including pregnant and lactating females, breeding males and females, puppies six weeks of age and older, kittens eight weeks of age and older, and avermectin-sensitive collies. A kitten, estimated to be 5–6 weeks old (0.3 kg), died 8 1/2 hours after receiving a single treatment of selamectin at the recommended dosage. The kitten displayed clinical signs which included muscle spasms, salivation and neurological signs. The kitten was a stray with an unknown history and was malnourished and underweight (see **WARNINGS**).

DOGS: In safety studies, selamectin was administered at 1, 3, 5, and 10 times the recommended dose to six-week-old puppies, and no adverse reactions were observed. The safety of selamectin administered orally also was tested in case of accidental oral ingestion. Oral administration of selamectin at the recommended topical dose in 5- to 8-month-old beagles did not cause any adverse reactions. In a pre-clinical study selamectin was dosed orally to ivermectin-sensitive collies. Oral administration of 2.5, 10, and 15 mg/kg in this dose escalating study did not cause any adverse reactions; however, eight hours after receiving 5 mg/kg orally, one avermectin-sensitive collie became ataxic for several hours, but did not show any other adverse reactions after receiving subsequent doses of 10 and 15 mg/kg orally. In a topical safety study conducted with avermectin-sensitive collies at 1, 3 and 5 times the recommended dose of selamectin, salivation was observed in all treatment groups, including the vehicle control. Selamectin also was administered at 3 times the recommended dose to heartworm infected dogs, and no adverse effects were observed.

CATS: In safety studies, selamectin was applied at 1, 3, 5, and 10 times the recommended dose to six-week-old kittens. No adverse reactions were observed. The safety of selamectin administered orally also was tested in case of accidental oral ingestion. Oral administration of the recommended topical dose of selamectin to cats caused salivation and intermittent vomiting. Selamectin also was applied at 4 times the recommended dose to patent heartworm infected cats, and no adverse reactions were observed.

In well-controlled clinical studies, selamectin was used safely in animals receiving other frequently used veterinary products such as vaccines, anthelmintics, antiparasitics, antibiotics, steroids, collars, shampoos and dips.

STORAGE CONDITIONS: Store below 25°C (77°F).

HOW SUPPLIED: Available in eight separate dose strengths for dogs and cats of different weights (see **DOSAGE**). SENERGY for puppies and kittens is available in cartons containing 3 single dose tubes. SENERGY for cats and dogs is available in cartons containing 3 single dose tubes.

Virbac SENERGY™ (selamectin)

Distributed by:
Virbac AH, Inc.
P.O. Box 162059
Fort Worth, TX 76161

Approved by FDA under ANADA # 200-670

SENERGY™

LA13661

PRODUCT INSERTS/DISCLOSURES

Virbac

STELFONTA®

(tigilanol tiglate injection)

1 mg/mL

For intratumoral injection in dogs only
Antineoplastic
Single use vial

WARNING: SEVERE WOUND FORMATION IN HUMANS; EXTENSIVE WOUND FORMATION, MAST CELL DEGRANULATION, AND DEATH IN DOGS DUE TO MAST CELL DEGRANULATION

Human Safety

- **Accidental self-injection of STELFONTA® may cause severe wound formation. To decrease the risk of accidental self-injection, sedation of the dog may be necessary (see Dosage and Administration, Human Warnings and Adverse Reactions).**

Dog Safety

- **Always administer a corticosteroid (e.g. prednisone or prednisolone), an H1 receptor blocking agent (e.g. diphenhydramine), and an H2 receptor blocking agent (e.g. famotidine) when treating with STELFONTA to decrease the potential for severe systemic adverse reactions, including death, from mast cell degranulation (see Contraindications and Dosage and Administration).**
- **Do not inject STELFONTA into subcutaneous mast cell tumors located above the elbow or hock (e.g. on the body, head, or neck). This may result in accumulation of necrotic debris in the subcutaneous space increasing the risk of systemic adverse reactions, including death, from mast cell degranulation (see Contraindications, Warnings and Adverse Events).**
- **Treatment with STELFONTA has been associated with cellulitis and severe tissue sloughing extending away from the treated site resulting in extensive wounds that require additional treatment and prolonged recovery times (see Warnings, Precautions and Adverse Events).**

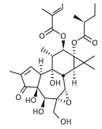
CAUTION

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

DESCRIPTION

The active ingredient for tigilanol tiglate injection is a phorbol ester that activates alpha, beta I, beta II, and gamma isoforms of protein kinase C. The chemical name is (4S,5S,6R,7S,8R,9R,10S,11R,12R,13S,14R)-12-[(2E)-2-methylbut-2-enoatyl-13-[(2S)-2-methylbutyroyl]-6,7-epoxy-4,5,9,12,13,20-hexahydroxy-1-tigliaen-3-one. The molecular formula is C30H42O10 and its molecular weight is 562.65 g mol^{-1}. Each mL of STELFONTA contains 1 mg tigilanol tiglate and sterile water for injection (60% v/v), propylene glycol (40% v/v), sodium acetate (<0.1% w/v), and glacial acetic acid (<0.1% w/v).

The chemical structure for tigilanol tiglate is:



INDICATION

STELFONTA injection is indicated for use in dogs for the treatment of:

- non-metastatic cutaneous mast cell tumors
- non-metastatic subcutaneous mast cell tumors located at or distal to the elbow or the hock

DOSAGE AND ADMINISTRATION

ALWAYS PROVIDE THE CLIENT INFORMATION SHEET TO THE DOG OWNER BEFORE DOSE ADMINISTRATION.

Concomitant medications

Administer the following medications to decrease the potential for severe systemic adverse reactions from mast cell degranulation:

- **Corticosteroid (e.g. oral prednisone or prednisolone at anti-inflammatory dose):** Start medication 2 days prior to STELFONTA treatment and continue for 8 days post-treatment (10 days total).
- **H1 receptor blocking agent (e.g. oral diphenhydramine):** Start medication on the day of STELFONTA treatment and continue for a total of 8 days.
- **H2 receptor blocking agent (e.g. oral famotidine):** Start medication on the day of STELFONTA treatment and continue for a total of 8 days.

Dosing Instructions

Administer STELFONTA as an intratumoral injection at a dose of 0.5 mL per cm^3 of tumor volume, as determined by the following calculations:

- **Determine the Tumor Volume in cm^3:**
  0.5 x [length (cm) x width (cm) x height (cm)]
- Confirm the Tumor Volume does not exceed 10 cm^3. Do not use STELFONTA if tumor volume is >10 cm^3.
- **Calculate the Dose Volume (mL) of STELFONTA to inject:**
  Tumor Volume x 0.5 mL
- Confirm the dose of STELFONTA does not exceed 0.25 mL/kg body weight.
- Do not exceed 5 mL per dog, regardless of tumor volume or body weight.
- The minimum dose of STELFONTA is 0.1 mL, regardless of tumor volume or body weight. If the calculated dose is <0.1 mL, administer 0.1 mL.

Administration of STELFONTA:

Sedation may be necessary to safely and accurately administer STELFONTA to decrease the chance of accidental self-injection. Wear gloves, eye protection, and lab coat or gown in the preparation and administration of STELFONTA. Care should be taken to restrict injections to the tumor only. STELFONTA should not be injected into the margins, beyond the periphery, or deep to the tumor.

- Shave the tumor site. Avoid manipulation of the tumor.
- Draw the calculated volume of STELFONTA into a sterile Luer-lock syringe with a 23 gauge needle.
- Identify an appropriate injection point on the edge of the tumor. See Figure 1. Insertion of the needle depends on the tumor's location, form, and appearance. If a tumor protrudes above the surface of the skin, insert the needle at an oblique angle of approximately 45°.
- Insert and embed the needle in the tumor through a single injection site and draw the syringe plunger back slightly to ensure STELFONTA is not injected into a blood vessel. While applying even pressure on the syringe plunger, move the needle back and forth in a fanning manner to inject STELFONTA into the tumor. See Figure 1. The drug should fully perfuse the entire tumor.
- When the total dose of STELFONTA has been administered, pause to allow tissue dispersion before removing the needle from the tumor. Pull back on the syringe plunger to create a small negative pressure before removing the needle to minimize leakage from the injection site.
- After the needle is withdrawn, apply light pressure for 30 seconds over the needle exit hole using a gloved finger. If leakage does occur, rinse injection site with saline to wash STELFONTA from the skin surface. Do not re-administer.
- To minimize risk of accidental self-injection, do not recap the needle. Dispose of the needle and syringe.

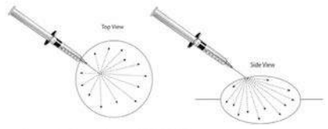


Figure 1: Dispersion of STELFONTA throughout the tumor.

CONTRAINDICATIONS

Do not inject STELFONTA into subcutaneous mast cell tumors located above the elbow or hock (e.g. on the body, head, or neck). This may result in accumulation of necrotic debris in the subcutaneous space increasing the risk of systemic adverse reactions, including death, from mast cell degranulation (see **Adverse Reactions**).

WARNINGS

Human Safety

NOT FOR USE IN HUMANS. KEEP THIS AND ALL MEDICATIONS OUT OF REACH OF CHILDREN.

Caution is required during treatment to avoid accidental self-injection. Dogs undergoing treatment with STELFONTA should be adequately restrained and sedation used if necessary. Use a Luer-lock syringe to administer STELFONTA. Do not recap the needle. Accidental self-injection may result in local inflammatory reactions, including swelling, redness and severe wound formation. In case of accidental self-injection, immediately rinse the area with water, seek medical advice immediately, and show the package insert to the physician.

Wear personal protective equipment consisting of disposable gloves, protective eye wear, and a lab coat or gown when handling STELFONTA. STELFONTA is an irritant and accidental exposure to skin, eye, or by ingestion should be avoided. In case of dermal or ocular exposure, repeatedly wash the exposed skin or eye with water. If wearing contacts, rinse the eyes first then remove contacts and continue to rinse with water. If symptoms such as local signs of redness and swelling occur, or if there has been ingestion, seek the advice of a physician and show them the package insert.

Limited data is available on the potential teratogenic effects of STELFONTA. Therefore, STELFONTA should not be administered by women who are pregnant or planning to become pregnant.

People with known hypersensitivity to tigilanol tiglate or to any of the excipients should avoid contact with STELFONTA.

Animal Safety

Dogs should be monitored during and for 5-7 days after intratumoral treatment with STELFONTA for signs of systemic mast cell degranulation such as vomiting, diarrhea, lethargy, anorexia/hyporexia, altered breathing, hypotension, urticaria, edema at or away from the treated site, or bruising at or away from the treated site. If signs are observed, appropriate treatment should be started immediately.

Always administer the recommended concomitant medications (corticosteroids, H1, and H2 receptor blocking agents) with STELFONTA. Death has occurred following mast cell degranulation when these concomitant medications were not administered according to this Package Insert (see **Dosage and Administration** and **Adverse Reactions**).

STELFONTA can induce a substantial local inflammatory reaction which may result in pain, bruising, and swelling. During this time, an analgesic may be needed in addition to the use of corticosteroids and both H1 and H2 receptor blocking agents.

Treatment with STELFONTA causes tumor necrosis which is part of the mechanism of action of the drug. Bruising, heat, pain, and swelling may begin at the site within 2 hours of treatment. By day 7 after treatment, wound formation including full thickness dermal necrosis with exudate, peripheral tissue edema, erythema, skin discoloration, tissue sloughing, and necrotic eschar may occur.

In addition to tumor necrosis, treatment with STELFONTA has been associated with cellulitis and severe tissue sloughing extending away from the treated site resulting in extensive wounds (see **Adverse Reactions**).

Do not inject STELFONTA into normal subcutaneous tissue or adjacent tissues (e.g. beyond tumor margins) because severe edema, erythema and necrosis of the injected tissue may occur.

PRECAUTIONS

STELFONTA has not been evaluated in dogs with signs of systemic disease due to the mast cell tumor(s).

STELFONTA is not intended for the treatment of metastatic mast cell tumors.

The safe and effective use of STELFONTA has not been evaluated for simultaneous treatment of more than one mast cell tumor.

The safe and effective use of STELFONTA has not been evaluated in dogs with a mast cell tumor volume >10 cm^3.

Use STELFONTA with caution in tumors located within mucocutaneous regions (e.g., eyelids, vulva, prepuce, and anus) as tumor necrosis could cause a change in morphology of the mucocutaneous region resulting in loss of functional integrity.

Use STELFONTA with caution in mast cell tumors with significant ulceration as leakage of the drug from the ulcerated area may occur following treatment potentially reducing effectiveness.

The safe use of STELFONTA has not been evaluated in dogs with concurrent diseases that may result in delayed wound healing.

After treatment with STELFONTA, dogs may require additional care of the treated site to aid in the healing process. An Elizabethan collar or a non-constricting dry gauze bandage may be needed to prevent the dog from self-traumatizing the treated site.

After treatment with STELFONTA, separation from other household animals may be necessary to prevent grooming and trauma to the treated site.

The safe use of STELFONTA under conditions of use has not been evaluated in dogs younger than 3.5 years old.

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

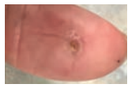
ADVERSE REACTIONS

Human Exposure

There was one human exposure during the field study where the veterinarian had a needle stick injury to the thumb at completion of tumor treatment and was injected with an unknown amount of STELFONTA. The incident resulted in pain and necrosis of the center of the thumb at the point of needle stick. The wound healed over a period of three months. See Pictures 1 and 2 below. A separate needle stick injury was reported with a maximum potential dose of 0.1 mL tigilanol tiglate into the distal extremity of the left index finger, resulting in a localized burning sensation, local inflammation, bruising, muscular pain up the left arm, and localized tissue necrosis. Muscular pain resolved in the first 12-24 hours and the wound healed in 8 weeks. There have been other needle stick injuries reported, with at least one injection into a thumb, with minimal (stinging, pain, and swelling) to no adverse events associated with these accidental self-injections.

Picture 1. Thirteen days after self-injection

Picture 2. Seventy-four days after self-injection



Field Study

In a well-controlled, multi-center, randomized, double-masked field study evaluating the effectiveness and safety of STELFONTA for the treatment of cutaneous and subcutaneous mast cell tumors in dogs, 117 dogs treated with STELFONTA and 42 dogs receiving sham treatment (untreated control) were evaluated for safety. Eighty-one dogs were treated with STELFONTA on Day 0. Thirty-six previously untreated control dogs were treated with STELFONTA on Day 30. In addition, 18 dogs treated with STELFONTA on Day 0 had the same tumor re-treated with STELFONTA on Day 30 due to incomplete response. The most common adverse reactions included wound formation, injection site pain, lameness in the treated limb, vomiting, diarrhea, and hypoalbuminemia. Wound formation, vomiting, and diarrhea were mainly observed within the first 7 to 10 days after treatment. Injection site pain and lameness in the treated leg were mainly observed within the first 2 days after treatment. Hypoalbuminemia was mainly observed within the first 28 days after treatment. All dogs received concomitant medications as noted in the Effectiveness section. The adverse reactions during the study are summarized in Table 2 below.

Table 2: Adverse Reactions During the Field Study

Adverse Reaction	STELFONTA 1st Treatment (n = 117)	STELFONTA 2nd Treatment (n = 18)	UNTREATED CONTROL (n = 42)
Wound formation	110 (94.0%)	12 (66.7%)	3 (7.1%)
Injection site pain	61 (52.1%)	7 (38.9%)	1 (2.4%)
Lameness in treated limb	29 (24.8%)	2 (11.1%)	1 (2.4%)
Vomiting	24 (20.5%)	3 (16.7%)	4 (9.5%)
Diarrhea	24 (20.5%)	3 (16.7%)	2 (4.8%)
Hypoalbuminemia[a]	21 (18.0%)	2 (11.1%)	1 (2.4%)
Injection site bruising/ erythema/edema/ irritation	20 (17.1%)	3 (16.7%)	1 (2.4%)
Anorexia	14 (12.0%)	2 (11.1%)	3 (7.1%)
Regional lymph node swelling/enlargement	13 (11.1%)	1 (5.6%)	1 (2.4%)
Tachycardia	12 (10.3%)	0 (0.0%)	1 (2.4%)
Weight loss	12 (10.3%)	3 (16.7%)	5 (11.9%)
Cystitis	10 (8.6%)	1 (5.6%)	2 (4.8%)
Dermatitis	9 (7.7%)	1 (5.6%)	1 (2.4%)
Personality/behavior change	8 (6.8%)	0 (0.0%)	2 (4.8%)
Infection at injection site	8 (6.8%)	0 (0.0%)	0 (0.0%)
Tachypnea	7 (6.0%)	2 (11.1%)	1 (2.4%)
Pruritus	6 (5.1%)	3 (16.7%)	2 (4.8%)
Lethargy/Depression	6 (5.1%)	1 (5.6%)	1 (2.4%)
Pyrexia	3 (2.6%)	2 (11.1%)	0 (0.0%)

[a] There was a statistically significant decrease in albumin and albumin/globulin ratios at Day 7 in the STELFONTA group compared to the control group. The hypoalbuminemia ranged from 2.0 to 2.6 g/dL (reference range 2.7-3.9 g/dL).

Note: If an animal experienced the same adverse reaction more than once, only the highest grade was tabulated.

Adverse reactions were graded using the Veterinary Co-operative Oncology Group – Common Terminology Criteria for Adverse Events (VCOG-CTCAE).[1] Most adverse reactions were Grade 1 (mild) or 2 (moderate). Grade 3 (severe) and 4 (life-threatening) adverse reactions in dogs treated with STELFONTA included: lameness in the treated limb (6 dogs), injection site pain (4 dogs), wound formation (3 dogs), lethargy/depression (3 dogs), anorexia (2 dogs), infection at injection site (1 dog), pruritis (1 dog), and tachycardia (1 dog).

Adverse reactions associated with use of the required concomitant corticosteroids were similarly reported in STELFONTA and untreated control dogs and included elevated alkaline phosphatase, polyuria, and polydipsia.

Wound Formation

Tumor observations were conducted at 2, 4, 8, and 24 hours and 4 days after treatment. The 81 dogs treated with STELFONTA on Day 0 were reported most frequently with swelling, bruising, pain and heat at all tumor observation timepoints. The following were reported at 24 hours post treatment:

- Swelling: 97.5% (79/81 dogs)
- Bruising: 91.4% (74/81 dogs)
- Pain: 69.1% (56/81 dogs)
- Heat: 53.1% (43/81 dogs)

At 24 hours post treatment, intact skin was reported in 71.6% (58/81 dogs) of STELFONTA® (tigilanol tiglate injection) treated dogs. On Day 4 intact skin was reported in 17.3% (14/81 dogs) of STELFONTA treated dogs. On Day 4, the following observations were reported with the highest frequency:

- Necrosis: 55.6% (45/81 dogs)
- Crater pockets: 37.0% (30/81 dogs)
- Exudate: 37.0% (30/81 dogs)
- Eschar: 28.4% (23/81 dogs)
- Ulceration: 11.1% (9/81 dogs)

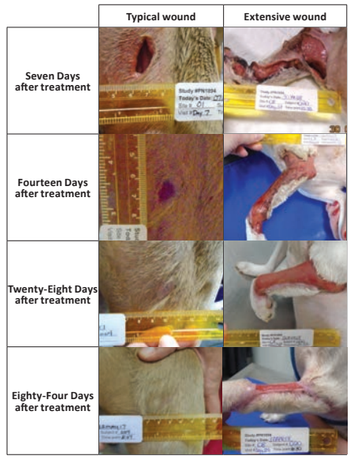
A wound healing assessment was performed on the effectiveness dataset which included 80 dogs in the STELFONTA group and 38 dogs in the untreated control group. Wounds developed in 92.5% (74/80) of STELFONTA treated dogs and 2.6% (1/38) of untreated control dogs by Day 7. On Day 28, the presence of wounds was 40% (32/80) in the STELFONTA group and 2.6% (1/38) in the untreated control group. On Day 42 and Day 84, the presence of wounds was 27.1% (16/59) and 1.8% (1/57), respectively, in the STELFONTA group.

Exudate from the treated site including serous, serosanguinous, sanguineous, seropurulent, and purulent discharges were seen mainly on Day 7 and to a lesser extent on Day 14. Sloughing of the treated site was observed from Day 7 to Day 42, with decreasing frequency after Day 7. Peripheral pitting or non-pitting edema and erythema of the surrounding area were observed from Day 7 to Day 28, with decreasing intensity and frequency after Day 7. Necrotic eschar and epithelialization of the treated site was observed from Day 7 to Day 84, with decreasing frequency after Day 14. Granulation or hyper-granulation of the treated site was observed from Day 7 to Day 84, with decreasing frequency after Day 14.

The average wound size at Day 7 for a STELFONTA treated dog was 3.3 cm x 2.4 cm (original average tumor size 1.9 x 1.6 x 0.9 cm). On Day 28, the average wound size was 2.0 x 1.4 cm.

The largest total wound for a STELFONTA treated dog was reported seven days after treatment. The treated tumor was located on the left caudal stifle and the original tumor size measured 2.4 x 2.1 x 1.4 cm. The wound area initially consisted of three individual wounds recorded on the treated limb (both medial and lateral sides): 7.5 x 4.5 cm, 7.0 x 3.5 cm, and 11.5 x 7.0 cm. The wounds had reduced to 3.5 x 1.4 cm, 3.9 x 1.5 cm, and 9.7 x 4.3 cm 28 days after treatment, and 0.5 x 0.7 cm and 2.5 x 2.9 cm 42 days after treatment and were no longer present at 84 days after treatment.

One dog treated with STELFONTA was reported with an extensive wound formation (wound size 25.0 x 9.5 cm) with severe tissue slough (Grade 3) nine days after treatment of a mast cell tumor on the left metacarpal area (original tumor size 2.5 x 1.9 x 1.3 cm). The wound extended proximally up the leg to the shoulder and required bandaging of the leg and antibiotics. Scar contracture formed, requiring treatment under sedation to release the scar tissue. Clinical pathology abnormalities included elevated band neutrophils, anemia, and hypoalbuminemia. The wound had not fully healed by the end of the study 89 days after treatment. See pictures below comparing progression of this extensive wound formation versus commonly observed wound progression.



One dog treated with STELFONTA was reported with a bacterial infection and cellulitis in the right rear leg 9 days after treatment of a mast cell tumor on the right rear paw. There was bruising of the upper thigh and necrotic skin on the caudal right thigh and cranial aspect of the hock. Bloody discharge under the necrotic tissue revealed rod bacteria and toxic neutrophils. The dog was treated with intravenous fluids and antibiotics.

Systemic Mast Cell Degranulation and Death

Two dogs from two separate pilot studies died from a suspected mast cell degranulation reaction. Both dogs were treated with STELFONTA for a subcutaneous mast cell tumor located above the hock and did not receive the concomitant medications as prescribed.

In a pilot field study, one dog with a large (10 cm^3) subcutaneous mast cell tumor on the right hip was treated with STELFONTA. The dog had a partial Response Evaluation Criteria in Solid Tumors Guideline (RECIST)[2] response to the initial STELFONTA injection and was re-treated with STELFONTA, 30 days following the initial injection. The patient did not receive any of the recommended concomitant medications of prednisolone, chlorpheniramine and famotidine from 24 hours after the second STELFONTA injection. On Day 2 following the second STELFONTA injection, the dog became anorexic, painful, and lethargic and had marked swelling of the right hind limb extending to the chest with hemorrhagic, ruptured blisters near the hock joint. Blood work showed anemia, hypoproteinemia, liver enzyme elevations, and white blood cell changes (leukocytosis, neutrophilia, monocytosis, and thrombocytopenia). The dog was hospitalized, received a blood transfusion, and was administered intravenous fluids, prednisolone, chlorpheniramine and tramadol. Pitting edema progressed to the neck by four days following treatment. Despite supportive care, the dog died five days following treatment likely due to degranulation of the mast cell tumor and internal necrotic discharge of the tumor.

In a separate pilot field study, one dog with a moderate (2.53 cm^3) subcutaneous mast cell tumor on the left caudal hindlimb was treated with STELFONTA. The dog was treated with chlorpheniramine and meloxicam on treatment day (Day 0) and Day 1 only. The dog did not receive further concomitant medication. On Day 3 the dog was lethargic and there was significant edema at the injection site. While intravenous fluid and antibiotic therapy was initiated on Day 3, the dog rapidly deteriorated and died on the following day likely due to degranulation of the mast cell tumor. Pathology findings included widespread cellulitis, panniculitis (likely of bacterial origin), and septic peritonitis.

To report suspected adverse reactions, to obtain a Safety Data Sheet (SDS), or for technical assistance, call 800-338-3659. For additional information about adverse drug experience reporting for animal drugs, contact the FDA at 1-888-FDA-VETS or www.fda.gov/reportanimalae.

INFORMATION FOR DOG OWNERS

Owners should be given the Client Information Sheet to read before STELFONTA is administered and should be advised to observe their dog for potential side effects, including signs of degranulation and excessive wound formation, as described in the sheet. Advise dog owners about possible adverse reactions, when to contact a veterinarian, and how to care for the treated tumor site.

Some discharge from the site following treatment is expected. The site can be cleaned with warm water as necessary. Advise owners to wear disposable gloves when cleaning the area.

CLINICAL PHARMACOLOGY

Mechanism of Action

In non-clinical pharmacology studies, tigilanol tiglate has been shown to have three inter-related effects that are responsible for its anti-tumor effectiveness. The first effect is to cause oncolysis of tumor cells that are in direct contact with tigilanol tiglate. The oncolysis occurs within the first hours following treatment and results from the disruption of mitochondrial functioning. Secondly, at the same time, tigilanol tiglate activates a protein kinase C (PKC) signaling cascade which propagates throughout the tumor, resulting in an acute inflammatory response with swelling and erythema extending to the tumor margins and immediate surroundings. This inflammatory response is normal and necessarily contributes to the activity of tigilanol tiglate by (a) restricting blood and oxygen supply to the tumor (causing localized hypoxia) and (b) recruiting and activating innate immune cells (principally neutrophils and macrophages), which then target the tumor and release reactive oxygen species, proteases, and cytokines that function in an antimicrobial role. This acute inflammatory response generally resolves within 48 to 96 hours. The third component of the antitumor activity of tigilanol tiglate is associated with direct effects of the drug in increased permeability of the tumor vasculature (via activation of the Beta-II isoform of PKC) leading to tumor vascular destruction. The resulting outcome is tumor destruction with a deficit or wound remaining where the tumor was located. Complete healing of the resulting wound following tumor destruction by STELFONTA is typically within 6 weeks.

Pharmacokinetics

Pharmacokinetic properties of STELFONTA were evaluated in a pilot study monitoring systemic levels following intratumoral injection, with a dose delivered according to the size of the mast cell tumor. A dose of 0.5 mg/cm^3 (0.5 mL/cm^3) was used in dogs with tumor volumes ranging from 0.1 to 6.8 cm^3 resulting in doses ranging from 0.002 mg/kg to 0.145 mg/kg and total doses ranging from 0.05 mg to 3.4 mg per dog. A total of 6 cutaneous and 5 subcutaneous mast cell tumors were treated in 10 dogs (one dog had two tumors treated consecutively). The following range of pharmacokinetic parameters were determined for STELFONTA in plasma: 1) elimination half-life ($t_{1/2}$): 2.85 to 36.87 hours; 2) maximum plasma concentration (C_{max}): 0.356 ng/mL to 13.8 ng/mL; and 3) area under the plasma concentration time-curve to the last quantifiable plasma concentration (AUC_{last}): 2.25 h*ng/mL to 31.24 h*ng/mL. There was no relationship between drug exposure (C_{max} and AUC_{last}) with tumor location (cutaneous or subcutaneous) or with total dose. In an evaluation of the pharmacokinetic data from the 5 dogs with cutaneous tumors, dose levels ranged from 0.002 mg/kg to 0.145 mg/kg. The highest C_{max} was 11.1 ng/mL and the highest AUC_{last} was 31.24 h*ng/mL at a dose of 0.125 mg/kg. For the other 5 dogs with subcutaneous tumors, doses ranged from 0.049 mg/kg to 0.094 mg/kg. The highest Cmax was 13.8 ng/mL and the highest AUC_{last} was 30.81 h*ng/mL at a dose of 0.094 mg/kg.

EFFECTIVENESS

The effectiveness of STELFONTA was evaluated in a well-controlled, multi-center, randomized, double-masked, field study in client-owned dogs. Enrolled dogs had non-metastatic World Health Organization stages Ia (one tumor confined to the dermis, without regional lymph node involvement) and IIIa (multiple dermal tumors; large infiltrating tumors without regional lymph node involvement) mast cell tumors that were (i) cutaneous, or (ii) subcutaneous and located at or distal to the elbow or the hock). A total of 123 client-owned dogs with a mast cell tumor measuring less than or equal to 10 cm^3 were randomized to treatment with a single injection of STELFONTA (n=81) or untreated control (n=42). On the day of treatment, the average tumor volume was 1.7 cm^3 (range 0.1 to 9.8 cm^3).

A total of 118 dogs were included in the effectiveness analysis; 80 dogs were in the STELFONTA group and 38 dogs were in the untreated control group. Response to treatment was evaluated using the RECIST[2], where complete response (CR) is resolution of the target tumor, partial response (PR) is at least a 30% decrease in the longest diameter of target tumor, stable disease (SD) is a decrease of less than 30% or increase of less than 20% of the longest diameter of the target tumor, and progressive disease (PD) is greater than a 20% increase in the longest diameter of the target tumor.

The primary effectiveness variable compared CR rates of the target tumor between groups 28 days after treatment. At 28 days after treatment, a statistically significantly greater proportion of dogs in the STELFONTA treated group (60/80; 75%) achieved CR compared to dogs in the untreated control group (2/38; 5.3%) (p<0.0001). An objective tumor response (CR + PR) was observed in 64/80 (80%) of the STELFONTA treated dogs. Of the 60 dogs in the STELFONTA group that experienced CR at Day 28, response assessment was conducted for 59 dogs at Day 42 and for 57 dogs at Day 84. At Day 42, 59/59 (100%) were disease-free at the injection site, and at Day 84, 55/57 (96%) were disease-free at the injection site.

For all dogs, corticosteroids (prednisone or prednisolone) were initiated 2 days prior to treatment at a dose of 0.5 mg/kg orally twice daily and continued for 7 days total (2 days before, on the day of treatment and 4 days after treatment), then 0.5 mg/kg once daily for an additional 3 days. An H1 receptor blocking agent (diphenhydramine [2 mg/kg orally twice daily]) and H2 receptor blocking agent (famotidine [0.5 mg/kg orally twice daily]) were initiated on the day of treatment and continued for 7 days.

Other medications prescribed based on veterinary discretion included antibiotics, analgesics, and sedatives. The majority of antibiotics were used to treat injection site infections. The majority of analgesics were used to treat tumor pain and were mainly initiated on the day of or day after treatment. Sedatives were used for treatment administration, conducting diagnostics, anxiety, and temperament issues.

Quality of Life (QoL)[3] was assessed by owners throughout the study and the mean scores for the QoL assessment was similar between the STELFONTA and untreated control groups at all time points.

Eighteen of the 20 STELFONTA treated dogs without CR received a second treatment. Twenty-eight days following the second treatment, CR was observed in 8/18 (44.4%) of these dogs. Forty-two days following the second treatment, CR was observed in 7/18 (38.9%) of treated dogs.

TARGET ANIMAL SAFETY

The margin of safety and toxicity of STELFONTA was evaluated in one laboratory safety study and one laboratory cardiovascular study utilizing final market formulation, and one pilot field study that used non-commercial formulation.

Laboratory Safety Study

In a 4-week laboratory safety study, 48 healthy Beagle dogs 6 to 8 months old were administered STELFONTA intravenously over a 15-minute infusion once a week for four weeks on Days 1, 8, 15, and 22, at doses of 0, 0.025, 0.05, or 0.075 mg/kg body weight (ranges between 0.02-0.036, 0.039-0.056, and 0.06-0.08 mg/kg, respectively due to dosing variability). Control dogs (0 mg/kg) received a vehicle control at a volume equal to the 0.075 mg/kg dose. The intravenous route was chosen for this study because subcutaneous injection was too toxic and intratumoral administration was not possible.

There were twelve dogs per group (6 male, 6 female). Four dogs/sex/group were necropsied two days following the last dose and two dogs/sex/group were necropsied following a 2-week recovery period.

All dogs survived the study, and there were no STELFONTA-related effects on body weight, body temperature, ophthalmic exam, electrocardiographic parameters, and organ weights.

The following were observed only in dogs in the groups administered STELFONTA: decreased food consumption from Days 22-29, vomiting/retching during infusion or immediately post-infusion, wound formation at the infusion site after the second or third dose, decrease in activity sporadically throughout the study, and elevations in alanine aminotransferase on Day 23.

The following were observed in all groups, including vehicle control and increased in a dose dependent manner: limited use of the leg that received the infusion occurred soon after dosing, weakness after the first dose, salivation and infusion site edema and erythema increased in frequency and severity throughout the study, and tremors occurred immediately post-infusion and increased in severity with dose.

Vomiting, retching, or tremors were typically transient and resolved within 1 hour of dosing while salivation also typically resolved within 4 hours.

Loose feces were observed in all groups in a non-dose dependent manner. Polydipsia occurred in the control, 0.05 and 0.075 mg/kg groups. Trending towards decreasing hematocrit (but still within reference intervals) was observed in all groups. One dog in the 0.05 mg/kg group was mildly anemic during recovery. Monocytosis and elevated fibrinogen were seen on Days 2 and 23 in a dose-dependent manner.

Gross pathology findings at the infusion site included inflammation, redness, and thickening of the skin. Correlative histopathology findings of the infusion site included hemorrhage, edema, inflammation, mixed cell infiltration, fibrosis, and chronic organizing thrombosis. Only one of the recovery dogs had changes at the infusion site consisting of proliferation of the intima. One dog in the 0.075 mg/kg group had a severe wound, confirmed on histopathology as ulcerative inflammation and severe necrosis with bacteria present. Gross pathology findings also included red, mottled, firm, and enlarged lymph nodes in all dose groups, including recovery dogs, confirmed on histopathology as inflammation, lymphoid hypercellularity, hemorrhage, and sinus histiocytosis. Pituitary cysts were observed in 7 dogs in all STELFONTA treated groups. One dog each from the 0.075 mg/kg group was observed to have kidney tubular vacuolation, dilation of the ventricles of the brain, and chronic inflammation of both the left thigh skeletal muscle and left sciatic nerve.

Laboratory Cardiovascular Study

In a 12-day laboratory cardiovascular study, 4 healthy male conscious telemeterized Beagle dogs approximately 2-4 years old were administered STELFONTA as a single intravenous infusion. Treatment consisted of four groups: vehicle control and STELFONTA at doses of 0.01, 0.025 and 0.075 mg/kg body weight. All four dogs received all treatments with at least a 3-day wash-out period.

All dogs survived the study and there were no STELFONTA-related effects on body temperatures, blood pressure, or electrocardiograms. The following were observed only after administration of STELFONTA in all dose groups: salivation, vocalization, incoordination, tremors, red feces, and decreased feces output. Retching, vomiting, incoordination, and changes in activity levels (increased and decreased) occurred in the 0.075 mg/kg group only. Tachycardia was seen for the first 2.5 hours after the 0.075 mg/kg dose only. The following were observed after administration of control or STELFONTA: excessive panting, decreased appetite, and limited usage/swelling of leg or paw. All dogs lost weight during the study. Clinical signs resolved around 4 hours post dosing.

Pilot Field Study

In a 28-day unmasked field study, 10 client-owned dogs, 6-14 years old were administered tigilanol tiglate (non-commercial formulation) once as an intratumoral injection at a dose of 0.5 mg tigilanol tiglate per cubic centimeter (cm^3) of tumor volume, not exceeding 0.25 mg/kg body weight (maximum dose of 5 mg). One dog was enrolled a second time to treat a second mast cell tumor after successful treatment of the first tumor. See pharmacokinetic results from this study under **Clinical Pharmacology**.

The most common observations after tigilanol tiglate administration were injection site reactions including necrosis, swelling (localized edema and edema extending well beyond the tumor injection site), pain, restlessness, inflammation, erythema, bleeding ulceration/bruising/discoloration, sloughing of tissue, open wound, mild drainage, malodor, and presence of granulation tissue. Three dogs experienced dermatitis with or without skin necrosis in a region nearby but distinct from the tumor injection site. One dog experienced non-weight bearing lameness, muscle atrophy and enlarged popliteal lymph node. One dog vomited after administration. Three dogs required longer healing times beyond 28 days, with the longest requiring 5 months. Hypoalbuminemia was observed in 5 dogs with hypoproteinemia observed in 1 of these 5 dogs on Day 7 and was resolved by Day 28.

STORAGE INFORMATION

Store STELFONTA vials refrigerated at 2°C to 8°C (35°F to 46°F).

Do not freeze.

Keep the vial in the carton at all times to protect the vial from light.

For single use only.

Dispose of any unused product in accordance with disposal for routine medical waste.

HOW SUPPLIED

STELFONTA is supplied as a sterile, colorless liquid in a 5 mL clear, single-use glass vial containing 2 mL of STELFONTA at a concentration of 1 mg/mL tigilanol tiglate in sterile water for injection.

REFERENCES

1. Veterinary Cooperative Oncology Group – common terminology criteria for adverse events (VCOG-CTCAE) following chemotherapy or biologic antineoplastic therapy in dogs and cats v1.1. *Vet Compar Oncol*. 20 Jul 2011.
2. Eisenhauer EA, Therase P, Bogaerts J, Schwartz LH, Sargent D, Ford R, Dancey J, Arbuck S, Gwyther S, Mooney M, Rubinstein L, Shankar L, Dodd L, Kaplan R, Lacombe D, Verweij J. New response evaluation criteria in solid tumors: revised RECIST guideline (version 1.1), *Eur J Cancer.* 2009; 45(2):228-247.
3. Lynch S, Savary-Bataille K, Leeuw B, Argyle DJ. Development of a questionnaire assessing health-related quality-of-life in dogs and cats with cancer. *Vet Compar Oncol*. 2011; 9 (3):172-82.

Approved by FDA under NADA # 141-541

Distributed by Virbac AH, Inc.

P.O Box 162059,
Fort Worth, Texas 76161.
Tel. 1-800-338-3659

Version date: August 2020
PC5111A
A-IN-001.01

PRODUCT INSERTS/DISCLOSURES

LEGAL STATUS - In order to be legally marketed, a new animal drug intended for a minor species must be Approved, Conditionally Approved, or Indexed by the Food and Drug Administration. THIS PRODUCT IS INDEXED - MIF # 900-013. Extra-label use is prohibited. FOR USE IN FERRETS ONLY
This product is not to be used in animals intended for use as food for humans or food-producing animals.

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

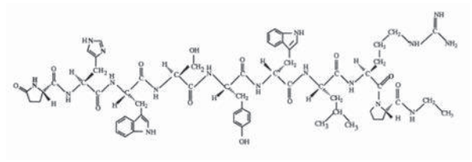
Suprelorin® F

(DESLORELIN ACETATE) 4.7 mg Implant

DESCRIPTION

Suprelorin® F (4.7 mg) Implant is a synthetic GnRH analogue (deslorelin acetate) in a biocompatible, slow release subcutaneous implant. The implant is a solid, opaque, white to pale yellow cylinder, 2.3 mm x 12.5 mm in length and weighing 50 mg. The **Suprelorin® F** (4.7 mg) Implant comes pre-loaded in an implanting needle. Each implant contains 4.7 mg deslorelin (as deslorelin acetate) in an inert matrix.

Chemical Structure – Deslorelin acetate



[(6-D-tryptophan-9-(N-ethyl-L-prolinamide)-10-deglycinamide]GnRH

INDICATIONS

Suprelorin® F (4.7 mg) Implant is indicated for the management of adrenal gland cortical disease in the male and female domestic ferret.

DOSAGE AND ADMINISTRATION

The recommended dosage is one, 4.7 mg implant per ferret every 12 months. Appropriate clinical monitoring is suggested to determine that the symptoms of adrenal disease are being adequately controlled.

Do not use if the foil pouch is damaged.

Remove Luer Lock cap from the implanting needle. Attach the actuator syringe to the implanter using the luer lock connection. One implant should be implanting needle subcutaneously at the dorsal aspect of the base of the neck. Administer only one implant per ferret. Select the implant site by locating the area of the back midway between the shoulder blades. It is not necessary to prepare the implantation site. If the hair is long, a small section may be clipped if required. Lift the loose skin between the shoulder blades. Insert the entire length of the needle subcutaneously. Fully depress the actuator syringe plunger. Press the skin at the insertion site as the needle is slowly withdrawn, and maintain pressure for 30 seconds. Examine the implanting needle to verify that the implant has not remained within the needle, and that the blue plastic spacer is visible at the tip of the needle. It may be possible to palpate the implant *in situ*. The biocompatible implant does not require removal. Wash hands after use.

Repeat treatment every 12 months to maintain efficacy. Appropriate endocrine testing and clinical monitoring should be performed at appropriate intervals to monitor the response to therapy.

CONTRAINDICATIONS

Do not use this product in ferrets with known hypersensitivity to deslorelin acetate or other synthetic hormones.

HUMAN SAFETY WARNINGS

KEEP OUT OF REACH OF CHILDREN. DO NOT HANDLE THIS PRODUCT IF YOU ARE PREGNANT OR NURSING OR SUSPECT YOU MAY BE PREGNANT. Accidental administration may lead to a disruption of the menstrual cycle. Avoid direct skin contact with the implant; if skin contact occurs, wash the affected area immediately with soap and water. The use of gloves is advised. As with all injectable drugs causing profound physiological effects, routine precautions should be employed by practitioners when handling and using Suprelorin® F (4.7 mg) Implant to prevent accidental injection. In case of accidental human injection, a physician should be consulted and the implant should be removed.

PRECAUTION

Do not use in animals intended for breeding. The safe use of this product has not been evaluated in pregnant or lactating ferrets.

ADVERSE REACTIONS

It is possible that treated ferrets will exhibit signs of soreness and swelling at the implantation site which should resolve over one or two weeks. Undesirable histology at the site of implantation has not been reported in other species (canine). Other reported side effects include: weight gain, lethargy and failure to respond to therapy.

To report suspected adverse drug events, please call Virbac at 800-338-3659. For additional information about adverse drug experience reporting for animal drugs, contact the FDA at 1-888-FDA-VETS or www.fda.gov/reportanimalae.

PHARMACOLOGY

Suprelorin® F (4.7 mg) Implant is a controlled release implant containing the GnRH agonist deslorelin. Deslorelin acetate suppresses the reproductive endocrine system, preventing production of pituitary and gonadal hormones. Deslorelin acetate has not been shown to reduce the size of adrenal tumors and is not considered curative.

DISPOSAL

Each implanting needle (sterile) is a single use device. Used needles should immediately be placed in a designated and appropriately labeled "sharps" container. Each actuator syringe (non-sterile) is a multi-use device and should be saved for future use with the remaining implant(s) in the carton. Unused implants should be disposed of in accordance with local environmental requirements.

STORAGE

Store at temperatures between 2˚ and 8˚ C (36˚ and 46˚ F).
Do not freeze.

HOW SUPPLIED

Five (5) or two (2) implants pre-loaded in implanting needles and individually packaged per carton.

For technical assistance, to request an SDS, or to report suspected adverse drug events, please call Virbac at 1-800-338-3659.

Manufactured for:
Virbac AH, Inc.
P.O. Box 162059
Fort Worth, TX 76161

Product of Australia MIF 900-013

Revision 11/2020
L-2000-F-US-3

Human Warning:
Keep this and all medication out of reach of children. To obtain product information, including a Safety Data Sheet (SDS), call 1-800-338-3659.
301796 - 03

Virbantel® Flavored Chewables

Package contents: bottle of 50 flavored chewables

Drug Facts

Active Ingredients (in each chewable):
pyrantel pamoate (30 mg) and praziquantel (30 mg)

If you notice these signs, contact a veterinarian.

Directions:
Each flavored chewable contains 30 mg of pyrantel pamoate and 30 mg of praziquantel. The dose for each drug is 2.27 mg per pound of body weight (5 mg/kg). Please refer to the following dosing table for help finding the right dose for your dog.

VIRBANTEL® Flavored Chewables Dosing Table

Dog Weight / Number of Chewables
6.0 to 12 pounds: 1 Chewable
12.1 to 25 pounds: 2 Chewables
More than 25 pounds: Use 114 mg size.

Purpose: De-wormer for Small Dogs and Puppies Only (6.0 to 25 pounds).

Uses: For the treatment and control of:
- Roundworms (*Toxocara canis, Toxascaris leonina*)
- Hookworms (*Ancylostoma caninum, Ancylostoma braziliense*, and *Uncinaria stenocephala*)
- Tapeworms (*Dipylidium caninum, Taenia pisiformis*)

Human Warning:
Keep this and all medication out of the reach of children. To obtain product information, including a Safety Data Sheet (SDS), call 1-800-338-3659.

- You should weigh your dog to make sure you are giving the right dose.
- Watch your dog for a few minutes after dosing to make sure the chewable is not rejected.
- **VIRBANTEL** Flavored Chewables are palatable if offered by hand. If your dog does not voluntarily eat the chewable, you can hide the chewable in a small amount of food or place it in the back of the dog's mouth for forced swallowing.
- Make sure that the dog eats the complete dose.

Other Information:
Recommended De-Worming Schedule:
Consult your veterinarian for assistance in the diagnosis, treatment, and control of parasitism. De-worming schedules may vary depending on the climate where you live and the activity of your dog.

Re-treatment: Re-treatment of your dog may be necessary as determined by laboratory fecal examination and/or if your dog is living where re-infections are likely to occur. Consult your veterinarian for assistance in the diagnosis and prevention of re-infection. In case of re-infection with tapeworms (*Dipylidium caninum*), consult your veterinarian for advice on how to remove fleas from the dog and the environment.

When Using This Product:
- Consult your veterinarian for assistance in the diagnosis, treatment, and control of parasitism.
- Do not de-worm a dog or puppy that is sick. Consult a veterinarian for diagnosis of the illness.
- **VIRBANTEL** Flavored Chewables are safe for use in puppies 12 weeks or older and adult dogs. Safety in breeding dogs and pregnant bitches has not been tested.

You May Notice:
Vomiting, loose stools (with or without blood) and decreased activity following treatment. If you notice these signs, contact a veterinarian for diagnosis of the illness.

Manufactured by:
Virbac AH, Inc.
Fort Worth, TX 76137
Storage: Store at controlled room temperature of 59 - 86˚F (15 - 30˚C).

Questions? Comments?
To report a suspected adverse reaction, call 1-800-338-3659.

02/19 301798 - 03

Approved by FDA under NADA # 141-261

Virbantel® Flavored Chewables

Package contents: bottle of 50 flavored chewables

Drug Facts

Active Ingredients (in each chewable):
pyrantel pamoate (114 mg) and praziquantel (114 mg)

Purpose: De-wormer for Medium and Large Dogs Only (Greater than 25 pounds).

Uses: For the treatment and control of:
- Roundworms (*Toxocara canis, Toxascaris leonina*)
- Hookworms (*Ancylostoma caninum, Ancylostoma braziliense*, and *Uncinaria stenocephala*)
- Tapeworms (*Dipylidium caninum, Taenia pisiformis*)

- You should weigh your dog to make sure you are giving the right dose.
- VIRBANTEL Flavored Chewables are palatable if offered by hand. If your dog does not voluntarily eat the chewable, you can hide the chewable in a small amount of food or place it in the back of the dog's mouth for forced swallowing.
- Make sure that the dog eats the complete dose.
- Watch your dog for a few minutes after dosing to make sure the chewable is not rejected.

When Using This Product:
- Consult your veterinarian for assistance in the diagnosis, treatment, and control of parasitism.
- Do not de-worm a dog or puppy that is sick. Consult a veterinarian for diagnosis of the illness.
- **VIRBANTEL** Flavored Chewables are safe for use in puppies 12 weeks or older and adult dogs. Safety in breeding dogs and pregnant bitches has not been tested.

You May Notice:
Vomiting, loose stools (with or without blood) and decreased activity following treatment. If you notice these signs, contact a veterinarian.

Human Warning:
Keep this and all medication out of the reach of children. To obtain product information, including a Safety Data Sheet (SDS), call 1-800-338-3659.

Other Information:
Recommended De-Worming Schedule:
Consult your veterinarian for assistance in the diagnosis, treatment, and control of parasitism. De-worming schedules may vary depending on the climate where you live and the activity of your dog.

Re-treatment: Re-treatment of your dog may be necessary as determined by laboratory fecal examination and/or if your dog is living where re-infections are likely to occur. Consult your veterinarian for assistance in the diagnosis and prevention of re-infection. In case of re-infection with tapeworms (*Dipylidium caninum*), consult your veterinarian for advice on how to remove fleas from the dog and the environment.

Directions: Each flavored chewable contains 114 mg of pyrantel pamoate and 114 mg of praziquantel. The dose for each drug is 2.27 mg per pound of body weight (5 mg/kg). Please refer to the following dosing table for help finding the right dose for your dog.

VIRBANTEL Flavored Chewables Dosing Table

Dog Weight	Number of Chewables
6.0 to 25 pounds	Use the 30 mg size.
25.1 to 50 pounds	1
50.1 to 100 pounds	2
100.1 to 150 pounds	3
150.1 to 200 pounds	4

Manufactured by:
Virbac AH, Inc.
Fort Worth, TX 76137

Storage:
Store at controlled room temperature of 59 - 86˚F (15 - 30˚C).

Questions? Comments?
To report a suspected adverse reaction, call 1-800-338-3659.

2/2019 301799-03

Approved by FDA under NADA # 141-261

Every pet, everywhere, deserves a life of care. That's why we created The Every Pet Project. Each month Virbac will donate $2,500 to **2 animal charities** — organizations that work hard to make sure pets are cared for and get the protection they need for a happy, healthy life.

Nominate

Visit The Every Pet Project and submit your nomination for the charity you want to win. Each month Virbac will conduct a random drawing. It's up to you to nominate the charities **you want to win.**

Gallery of Goodwill

Share photos or videos of your pets in The Every Pet Project online gallery, then watch as our animal-loving community grows bigger every day.

Spread the Word

Share your nomination story using **#EveryPetProject,** and let us know what your favorite charity means to you and the pets in your community.

March 2022

Shaping the future of animal health