Date of Approval: January 13, 2026

FREEDOM OF INFORMATION (FOI) SUMMARY

SUPPLEMENTAL NEW ANIMAL DRUG APPLICATION (NADA)

NADA 141-518

BRAVECTO® PLUS

(fluralaner and moxidectin topical solution)

Cats

This supplement provides for the addition of the indication for the treatment and control of *Amblyomma maculatum* (Gulf Coast tick) infestations for 2 months in cats and kittens 6 months of age and older and weighing 2.6 pounds or greater.

Sponsored by:

Intervet, Inc.

Executive Summary

BRAVECTO® PLUS (fluralaner and moxidectin topical solution) is approved for the treatment and control of *Amblyomma maculatum* (Gulf Coast tick) infestations for 2 months in cats and kittens 6 months of age and older and weighing 2.6 pounds or greater.

BRAVECTO® PLUS is already approved to prevent heartworm disease caused by *Dirofilaria immitis*; treat infections with intestinal roundworms (*Toxocara cati*) and hookworms (*Ancylostoma tubaeforme*); kill adult fleas (*Ctenocephalides felis*); treat and prevent flea infestations; and treat and control *Ixodes scapularis* (black-legged tick), *Haemaphysalis longicornis* (Asian longhorned tick), and *Dermacentor variabilis* (American dog tick) infestations for 2 months in cats and kittens 6 months of age and older and weighing 2.6 pounds or greater.

Safety and Effectiveness

The sponsor conducted two laboratory studies to show that BRAVECTO® PLUS is effective against *A. maculatum* tick infestations in cats. In each study, cats were experimentally infested with viable, unfed, adult ticks on Day -2 and then monthly for 3 months. On Day 0, cats in the treatment group were given BRAVECTO® PLUS and cats in the control group were sham-dosed (same dosing procedures as the treatment group, but no topical solution was administered). Tick counts were performed on Day 3 (72 hours after treatment) and 72 hours after each monthly infestation.

In both studies, BRAVECTO® PLUS was 100% effective at controlling *A. maculatum* tick infestations (reducing the number of live ticks) for 2 months, while cats in the untreated control group remained infested with live ticks at each tick count.

BRAVECTO® PLUS was also effective in treating *A. maculatum* tick infestations. Compared to cats in the untreated control group, treated cats had a higher number of dead ticks for at least 2 months. No adverse reactions were reported in cats in the treatment group in either study.

The FOI Summary for the original approval of BRAVECTO® PLUS, dated November 14, 2019, contains a summary of target animal safety studies for cats.

Conclusions

Based on the data submitted by the sponsor for the approval of BRAVECTO® PLUS, the Food and Drug Administration (FDA) determined that the drug is safe and effective when used according to the labeling.

Table of Contents

I. GENERAL INFORMATION

A. File Number

NADA 141-518

B. Sponsor

Intervet, Inc.
126 E Lincoln Ave.
Rahway, NJ 07065

Drug Labeler Code: 000061

C. Proprietary Name

BRAVECTO® PLUS

D. Drug Product Established Name

fluralaner and moxidectin topical solution

E. Pharmacological Category

Antiparasitic

F. Dosage Form

Solution

G. Amount of Active Ingredient

Each milliliter contains 280 mg of fluralaner and 14 mg of moxidectin.

H. How Supplied

BRAVECTO® PLUS is available in three tube sizes to treat cats ranging in weight from 2.6 lb – 27.5 lb (1.2 kg to 12.5 kg). Each tube is packaged individually in a pouch. Product may be supplied in 1 or 2 tubes per carton.

I. Dispensing Status

Prescription (Rx)

J. Dosage Regimen

BRAVECTO® PLUS should be administered topically as a single dose every 2 months according to the **Dosage Schedule** below to provide a minimum dose of 18.2 mg/lb (40 mg/kg) fluralaner and 0.9 mg/lb (2 mg/kg) moxidectin.

For prevention of heartworm disease, BRAVECTO® PLUS should be administered at 2-month intervals. BRAVECTO® PLUS may be administered year-round without interruption or at a minimum should be administered at 2-month intervals beginning

at the cat's first seasonal exposure to mosquitoes and continuing until the cat's last seasonal exposure to mosquitoes. If a dose is missed and a 2-month interval between doses is exceeded, administer BRAVECTO® PLUS immediately and resume the dosing every 2 months.

When replacing a monthly heartworm preventative product, the first dose of BRAVECTO® PLUS should be given within one month of the last dose of the former medication.

Dosing Schedule:

Body Weight Ranges (lb)	Fluralaner content (mg/tube)	Moxidectin content (mg/tube)	Tubes Administered
2.6 – 6.2	112.5	5.6	One
>6.2 – 13.8	250	12.5	One
>13.8 – 27.5*	500	25	One

*Cats over 27.5 lb should be administered the appropriate combination of tubes.

K. Route of Administration

Topical

L. Species/Class

Cats

M. Indication

BRAVECTO® PLUS is indicated for the prevention of heartworm disease caused by *Dirofilaria immitis* and for the treatment of infections with intestinal roundworm (*Toxocara cati*; 4th stage larvae, immature adults and adults) and hookworm (*Ancylostoma tubaeforme*; 4th stage larvae, immature adults and adults). BRAVECTO® PLUS kills adult fleas and is indicated for the treatment and prevention of flea infestations (*Ctenocephalides felis*) and the treatment and control of tick infestations [*Ixodes scapularis* (black-legged tick), *Dermacentor variabilis* (American dog tick), *Haemaphysalis longicornis* (Asian longhorned tick), and *Amblyomma maculatum* (Gulf Coast tick)] for 2 months in cats and kittens 6 months of age and older and weighing 2.6 lb or greater.

N. Effect of Supplement

This supplement provides for the addition of the indication for the treatment and control of *Amblyomma maculatum* (Gulf Coast tick) infestations for 2 months in cats and kittens 6 months of age and older and weighing 2.6 pounds or greater.

II. EFFECTIVENESS

The effectiveness of BRAVECTO® PLUS against *Amblyomma maculatum* was demonstrated in two well-controlled laboratory studies. These studies demonstrated that BRAVECTO® PLUS is effective for the treatment and control of *Amblyomma maculatum* (Gulf Coast tick) infestations for 2 months in cats and kittens 6 months of age and older and weighing 2.6 pounds or greater.

A. Dosage Characterization

This supplemental approval does not change the previously approved dosage of 18.2 mg/lb (40 mg/kg) fluralaner and 0.9 mg/lb (2 mg/kg) moxidectin given every 2 months as a single topical application. The FOI Summary for the original approval of NADA 141-518 dated November 14, 2019, contains dosage characterization information for cats.

B. Substantial Evidence

1. Laboratory Dose Confirmation Study

   Title: Evaluation of the Effectiveness of BRAVECTO® PLUS (fluralaner + moxidectin topical solution) against Experimental Infestations of *Amblyomma maculatum* in Cats. (Study No. S19171-00)

   Study Dates: May 13, 2020 to March 28, 2025

   Study Location: Waverly, NY

   Study Design:

   Objective: To confirm the effectiveness of BRAVECTO® PLUS at the recommended minimum dose (40 mg/kg fluralaner) for the treatment and control of *A. maculatum* infestations on cats.

   Study Animals: Twenty healthy cats (domestic shorthair; 13 males and 7 females), 1.4 to 3.5 years of age, and 2.3 to 5.9 kg body weight.

   Experimental Design: Prior to allocation to treatment groups on Day -3, an initial *A. maculatum* infestation and count was conducted to evaluate susceptibility of each cat to experimental infestation (host suitability). Cats were randomly assigned to the untreated control group (10 cats) or the BRAVECTO® PLUS group (10 cats). The study was conducted in accordance with Good Clinical Practice (GCP) guidelines.

   Drug administration was on Day 0. Tick infestations were conducted on Days -2, 28, 58, and 88. At each infestation, each cat was infested with approximately 50 adult, unfed *A. maculatum* ticks (25 male and 25 female). To prevent grooming, Elizabethan collars were placed on cats prior to each infestation and, with the exception of the Day -2 infestation, remained on until tick counts were completed. Following the Day -2 infestation, the collars were removed on Day 0 prior to treatment to prevent the collars from interfering with the topical product. Tick counts were conducted on Day 3, 72 hours after drug administration, and on Days 31, 61, and 91, 72 hours after infestation. Ticks were not returned to the cats after counting.

   Drug Administration: On Day 0, BRAVECTO® PLUS was applied to 10 cats in the treatment group at doses as close as possible to 40 mg/kg fluralaner and 2 mg/kg moxidectin. Fluralaner doses ranged from 39.8 mg/kg to 41.0 mg/kg per cat and moxidectin was administered at 2.0 mg/kg. Hair at the administration site

was parted, and the topical solution was applied to the skin in one spot at the base of the skull. Cats in the control group were sham treated.

Measurements and Observations: The primary variable for effectiveness was the counts of live ticks collected from the cats. At tick counts on Days 3, 31, 61, and 91, ticks were removed, and the numbers of live and dead ticks were recorded. General health observations were conducted on Day 0 at 1, 3, and 6 hours following drug administration and once daily thereafter. Treatment site observations were conducted on Days 1, 2, 3, 7, and 14. Cats were weighed on Day -2 for dose calculations. Tick counts and health observations were conducted by individuals masked to treatment.

Statistical Methods: A linear mixed model analysis with treatment group as a fixed effect was used to analyze live tick counts at each evaluation time point. The test of treatment effect was performed at a two-sided 5% significance level. Percent effectiveness against the control group was calculated based on least squares means.

Results: On Days 31, 61, and 91, at least 8 cats in the control group had an adequate infestation, defined as at least 13 live *A. maculatum* ticks (25% of the infestations of 50 ticks per cat). On Day 3, only 4 of the 10 control cats were adequately infested. The inadequate infestation was attributed to removal of the Elizabethan collars on Day 0, which enabled cats to groom and remove ticks prior to the Day 3 tick count. Due to the inadequate infestation, the Day 3 tick counts were considered invalid and not included in the determination of effectiveness.

The BRAVECTO® PLUS group had a greater than 98% reduction in live *A. maculatum* tick counts at 72 hours following infestation on Days 31, 61, and 91 (infestation on Day 88). On Days 31, 61, and 91 following infestation, live tick counts for the BRAVECTO® PLUS group were significantly different ($p<0.0001$) from the control group.

Table II.1: Study S19171-00; *A. maculatum* Live Tick Count Results

Day for Tick Counts	Untreated Control Group Live Tick Counts*	BRAVECTO® PLUS Group Live Tick Counts*	Percent Effectiveness
31	25.6	0.0	100
61	25.4	0.0	100
91	28.2	0.3	98.9

*Tick counts are arithmetic least squares means. Percent effectiveness is based on least squares means.

On all count days following drug administration, dead tick counts for the BRAVECTO® PLUS group were higher than those of the control group.

Table II.2: Study S19171-00; *A. maculatum* Dead Tick Count Results

Day for Tick Counts	Untreated Control Group Dead Tick Counts*	BRAVECTO® PLUS Group Dead Tick Counts*
31	0.2	9.6
61	0.0	10.7
91	0.3	12.4

*Tick counts are arithmetic means.

Adverse Reactions: No adverse reactions were reported in this study.

Conclusion: This study demonstrated the effectiveness of BRAVECTO® PLUS for the control (reduced live ticks) and treatment (increased dead ticks) of *A. maculatum* from Days 31 to 91 when assessed 72 hours after infestation.

2. Laboratory Dose Confirmation Study

Title: Evaluation of the Effectiveness of BRAVECTO® PLUS (fluralaner + moxidectin topical solution) against Experimental Infestations of *Amblyomma maculatum* in Cats. (Study No. S19172-00)

Study Dates: April 15, 2020 to July 21, 2023

Study Location: Turlock, CA

Study Design:

Objective: To confirm the effectiveness of BRAVECTO® PLUS at the recommended minimum dose (40 mg/kg fluralaner and 2 mg/kg moxidectin) for the treatment and control of *A. maculatum* infestations on cats.

Study Animals: Twenty healthy cats (domestic shorthair; 4 males and 16 females), 2.9 to 10.8 years of age, and 2.3 to 5.4 kg body weight.

Experimental Design: Prior to allocation to treatment groups on Day -4, an initial *A. maculatum* infestation and count was conducted to evaluate susceptibility of each cat to experimental infestation (host suitability). Cats were randomly assigned to the untreated control group (10 cats) or the BRAVECTO® PLUS group (10 cats). The study was conducted in accordance with GCP guidelines.

Drug administration was on Day 0. Tick infestations were conducted on Days -2, 28, 58, and 88. At each infestation, each cat was infested with approximately 50 adult, unfed *A. maculatum* ticks (25 males and 25 female). To prevent grooming, Elizabethan collars were placed on cats prior to each infestation and, with the exception of the Day -2 infestation, remained on until tick counts were completed. Following the Day -2 infestation, the collars were removed on Day 0 prior to treatment to prevent the collars from interfering with the topical product. Tick counts were conducted on Day 3, 72 hours after drug administration, and on Days 31, 61, and 91, 72 hours after infestation. Ticks were not returned to the cats after counting.

Drug Administration: On Day 0, BRAVECTO® PLUS was applied to 10 cats at doses as close as possible to 40 mg/kg fluralaner and 2 mg/kg moxidectin.

Fluralaner doses ranged from 39.7 mg/kg to 40.3 mg/kg per cat and moxidectin was administered at 2.0 mg/kg. Hair at the administration site was parted, and the topical solution was applied to the skin in one spot at the base of the skull. Cats in the control group were sham treated.

Measurements and Observations: The primary variable for effectiveness was the counts of live ticks collected from the cats. At tick counts on Days 3, 31, 61, and 91, ticks were removed, and the numbers of live and dead ticks were recorded. General health observations were conducted on Day 0 at 1, 3, and 6 hours following drug administration and once daily thereafter. Treatment site observations were conducted on Days 1, 2, 3, 7, and 14. Cats were weighed on Day -2 for dose calculations. Tick counts and health observations were conducted by individuals masked to treatment.

Statistical Methods: A linear mixed model analysis with treatment group as a fixed effect was used to analyze live tick counts at each evaluation time point. The test of treatment effect was performed at a two-sided 5% significance level. Percent effectiveness against the control group was calculated based on least squares means.

Results: At each tick count day, at least 9 of the 10 cats in the control group had an adequate infestation, defined as at least 13 live *A. maculatum* ticks (25% of the infestations of 50 ticks per cat).

The BRAVECTO® PLUS group had 100% reduction in live *A. maculatum* tick counts at 72 hours following infestation for 61 days. On Days 3, 31, and 61 (infestation on Day 58), following drug administration, live tick counts for the BRAVECTO® PLUS group were significantly different ($p<0.0001$) from the control group.

Table II.3: Study S19172-00; *A. maculatum* Live Tick Count Results

Day for Tick Counts	Untreated Control Group Live Tick Counts*	BRAVECTO® PLUS Group Live Tick Counts*	Percent Effectiveness
3	22.9	0.0	100
31	29.5	0.0	100
61	28.2	0.0	100
91	22.7	4.5	80.2

* Tick counts are arithmetic least squares means. Percent effectiveness is based on least squares means.

On all count days following drug administration, dead tick counts for the BRAVECTO® PLUS group were higher than those of the control group.

Table II.4: Study S19172-00; *A. maculatum* Dead Tick Count Results

Day for Tick Counts	Untreated Control Group Dead Tick Counts*	BRAVECTO® PLUS Group Dead Tick Counts*
3	0.0	3.4
31	0.0	16.0
61	0.0	13.5
91	0.0	4.1

*Tick counts are arithmetic means.

Adverse Reactions: No adverse reactions were reported in this study.

Conclusions: This study demonstrated the effectiveness of BRAVECTO® PLUS for the control (reduced live ticks) and treatment (increased dead ticks) of *A. maculatum* for 61 days when assessed 72 hours after drug administration or infestation. BRAVECTO® PLUS did not demonstrate adequate (≥90%) effectiveness against *A. maculatum* when assessed 72 hours after infestation for 91 days.

III. TARGET ANIMAL SAFETY

FDA did not require target animal safety studies for this supplemental approval. The FOI Summary for the original approval of NADA 141-518 dated November 14, 2019, contains a summary of target animal safety studies for cats.

IV. HUMAN FOOD SAFETY

This drug is intended for use in cats. Because this new animal drug is not intended for use in food-producing animals, FDA did not require data pertaining to drug residues in food (i.e., human food safety) for approval of this NADA.

V. USER SAFETY

The product labeling contains the following information regarding safety to humans handling, administering, or exposed to BRAVECTO® PLUS:

Human Warnings:

Not for human use. Keep this and all drugs out of the reach of children.

Do not contact or allow children to contact the application site until 2 hours post application.

Keep the product in the original packaging until use in order to prevent children from getting direct access to the product. Do not eat, drink or smoke while handling the product. Avoid contact with skin and eyes. If contact with eyes occurs, then flush eyes slowly and gently with water. **If wearing contact lenses, eyes should be rinsed first, then remove contact lenses and continue rinsing, then seek medical advice immediately. Wash hands and contacted skin thoroughly with soap and water immediately after use of the product. If the product accidentally contacts skin and a sticky residue persists after washing, rubbing alcohol (70% isopropyl alcohol) can be applied to the area to remove the residue.**

The product is highly flammable. Keep away from heat, sparks, open flame or other sources of ignition.

VI. AGENCY CONCLUSIONS

The data submitted in support of this NADA satisfy the requirements of section 512 of the Federal Food, Drug, and Cosmetic Act (FD&C Act) and 21 CFR part 514. The data demonstrate that BRAVECTO® PLUS, when used according to the label, is safe and effective for the effect of supplement in the General Information Section above.

A. Marketing Status

This product may be dispensed only by or on the lawful order of a licensed veterinarian (Rx marketing status). Adequate directions for lay use cannot be written because professional expertise and proper diagnosis are required to determine the existence of heartworm infections and to monitor the safe use of the product.

B. Exclusivity

This supplemental approval for BRAVECTO® PLUS qualifies for THREE years of marketing exclusivity under section 512(c)(2)(F)(iii) of the FD&C Act because the supplemental application included effectiveness studies. This exclusivity begins as of the date of our approval letter and only applies to the indication for the treatment and control of *Amblyomma maculatum* (Gulf Coast tick) infestations for 2 months in cats and kittens 6 months of age and older and weighing 2.6 pounds or greater.

C. Supplemental Applications

This supplement is a Category II supplement as defined in (21 CFR 514.106(b)(2)). This supplemental approval did not require a reevaluation of certain safety or effectiveness data in the application.

D. Patent Information

For current information on patents, see the Green Book Reports in the Animal Drugs @ FDA database.