3 4 <sup>Pr</sup>Credelio<sup>™</sup> CAT

5 (lotilaner chewable tablets)

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### 7 FOR VETERINARY USE ONLY

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### DESCRIPTION 9

CREDELIO CAT (lotilaner) is an oral, once-a-month, flavoured chewable tablet for cats 10

<sup>Pr</sup>Credelio<sup>™</sup>CAT

Package Insert

- and kittens. CREDELIO CAT are white to beige round biconvex chewable tablets with 11
- brownish spots and beveled edges. The chemical composition and structure are as 12
- follows: 5-[(5S)-4,5-dihydro-5-(3,4,5-trichlorophenyl)-5-(trifluoromethyl)-3-isoxazolyl]-3-13
- methyl-N-[2-oxo-2-[(2,2,2-trifluoroethyl)amino]ethyl]- 2-thiophenecarboxamide. 14
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### THERAPEUTIC CLASSIFICATION 18

Lotilaner is an ectoparasiticide belonging to the isoxazoline class of parasiticides. 19

### 20 INDICATIONS 21

- 22 CREDELIO CAT is indicated for:
- 1) The treatment and prevention of flea infestations (*Ctenocephalides felis*) for one 23 month in cats and kittens 8 weeks of age and older, weighing 0.9 kg or greater, 24 25
  - and as part of a treatment strategy for the control of flea allergy dermatitis (FAD).
    - 2) The treatment and control of *Ixodes scapularis* (black-legged or deer tick) infestations for one month in cats and kittens 6 months of age and older.
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### DOSAGE AND ADMINISTRATION 29

CREDELIO CAT chewable tablets are given orally once a month with a dosage of 6 - 24 30

- 31 mg lotilaner/kg bodyweight.
- Use the table below to find the right dose for the cat's weight. 32
- Administer CREDELIO CAT with food or after a meal. 33
- 34

### **Dosage Schedule** 35

Body Weight Ranges (kg)	Lotilaner Content per Tablet (mg)	Tablets to be Administered
0.9 to 2.0	12	One
>2.0 to 8.0	48	One
>8.0	Administer the appropriate combination of tablets	

- Canada has highly variable distribution and abundance of fleas and ticks due to climate 37
- variations across the country. Consequently, a comprehensive plan, based on regional 38
- risk assessment, is recommended to determine an appropriate duration of treatment. 39
- 40

#### Flea Treatment and Prevention 41

Treatment with CREDELIO CAT may begin at any time of the year, preferably starting 42

- one month before fleas become active and continuing monthly through the end of flea 43 season.
- 44
- 45

To minimize the likelihood of flea re-infestation, it is important to treat all animals within 46 a household with an approved flea protection product. 47

48

#### 49 Tick Treatment and Control

Treatment with CREDELIO CAT may begin at any time of year and continuing monthly 50

- through the end of tick season. 51
- 52

55

### 53 CONTRAINDICATIONS

There are no known contraindications for the use of CREDELIO CAT. 54

### 56 CAUTIONS

- 57 Lotilaner is a member of the isoxazoline class. This class has been associated with
- neurological adverse reactions including tremors, ataxia, and seizures. Seizures have 58
- been reported in cats receiving isoxazoline class drugs, even in cats without a history of 59
- seizures. Use with caution in cats with a history of seizures or neurological disorders. 60
- 61

62 Safety and efficacy have been studied in cats aged 8 weeks and older with a body weight of 0.7 kg or more. Therefore, use of CREDELIO CAT in kittens younger than 8 63 weeks of age or less than 0.7 kg of body weight should be based on a benefit-risk 64

- assessment by the veterinarian. 65
- 66

The safe use of CREDELIO CAT in breeding, pregnant or lactating cats has not been 67 evaluated. 68

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### WARNINGS 70

Wash hands after handling the product. Keep out of reach of children. 71

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### **ADVERSE REACTIONS** 73

- Although all adverse reactions are not reported, the following information is based on 74
- 75 voluntary post-approval drug experience reporting. It is generally recognized that this
- results in significant under-reporting. The adverse events listed here reflect reporting 76
- and not necessarily causality. Adverse events are listed by body system, in decreasing 77
- order of frequency: Skin and appendages disorders: pruritus; Behavioural disorders: 78
- hyperactivity; Systemic disorders: lethargy, anorexia; Respiratory disorders: tachypnea; 79
- Digestive tract disorders: emesis and Neurological disorders: ataxia. 80

81

For Adverse Reactions reported in a U.S. field study, see SAFETY section, Table 1. 82

- 83
- To report suspected adverse drug events or for technical assistance, contact Elanco Canada Limited at 1-800-265-5475.
- 86

# 87 PHARMACOLOGY

## 88 Mode of Action

- 89 Lotilaner inhibits insect and acarine gamma-aminobutyric acid (GABA)-gated chloride
- 90 channels. This inhibition blocks the transfer of chloride ions across cell membranes,
- 91 which results in uncontrolled neuromuscular activity leading to death of insects and
- acarines. Lotilaner has selective activity on insects and acarines GABA receptors
- 93 *versus* mammalian GABA receptors.
- 94

# 95 Pharmacokinetics

- 96 Following oral administration at 6 mg/kg (minimum recommended dose) in a pivotal
- 97 pharmacokinetic study, lotilaner showed a dose-normalized (to 1 mg/kg) Cmax of 403
- ng/mL, Tmax of 0.17 days (4 hours) and a half-life of 33.6 days. The bioavailability was
- 106% in the fed group and was 8.4% in the fasted group. Due to reduced drug
- bioavailability in the fasted state, CREDELIO CAT must be administered with a meal or
- 101 within 30 minutes after feeding.
- 102

103 Following oral administration of 26 mg/kg in a margin-of-safety study, peak lotilaner

- 104 concentrations were achieved in most cats at the 24-hour sampling point. Cats 3
- 105 months of age had a shorter elimination half-life (average of 7.5 days) than at 7 months
- of age (average of 32 days). Blood concentrations of lotilaner confirmed systemic
- 107 exposure in all cats treated with the drug, although the exposure was less than
- 108 proportional with increasing doses. Accumulation was observed for lotilaner as for other
- 109 isoxazolines and was not associated with clinical effects.
- 110

# 111 SAFETY

- In a margin of safety study, CREDELIO CAT was administered orally to 24 (8
- cats/group) 8-week-old cats at 1, 3 and 5X the maximum dose of 26 mg/kg every 28
- days for eight consecutive monthly doses. The 8 cats in the control group (0X) were
- 115 untreated.
- 116

117 There were no clinically-relevant, treatment-related effects in the daily clinical

- observations, food consumption (wet), coagulation, clinical chemistry or urinalysis
- parameters, ophthalmoscopic, and physical and neurological examinations, gross
- examinations, microscopic observations or organ weights. Food consumption (dry food)
- 121 was reduced in male cats in all treated groups compared to control correlating with a
- body weight decrease in the males treated at 3X only. This was considered most likely
- incidental to treatment since it was not seen at the higher doses in males or in females
- 124 at any dose level. Upon hematology analysis, mild statistically significant decreases in
- neutrophils were observed in male and female at multiple time points (Day 8 through
- 126 223) at all dose levels in comparison with control, concluded not adverse as lacking
- consistency over time and in both genders.
- 128

- 129 In a well-controlled U.S. field study, which included 341 cats (228 cats treated with
- 130 CREDELIO CAT and 113 cats treated with a topical active control), there were no
- 131 serious adverse reactions related to the treatment.
- 132

Adverse Reaction (AR)	CREDELIO CAT Group: Number (and Percent) of Cats with the AR (n=228)	Active Control Group: Number (and Percent) of Cats with the AR (n=113)
Weight Loss	5 (2.2%)	2 (1.8%)
Tachypnea	3 (1.3%)	0 (0.0%)
Vomiting	3 (1.3%)	1 (0.9%)
Diarrhea	2 (0.9%)	0 (0.0%)
Anorexia	2 (0.9%)	0 (0.0%)
Elevated blood urea nitrogen (BUN)*	2 (0.9%)	0 (0.0%)

## 133Table 1: Cats with Adverse Reactions in the Field Study

<sup>\*</sup>During the study two geriatric cats developed mildly elevated blood urea nitrogen (BUN) (42 to

135 58 mg/dL; reference range: 14 to 36 mg/dL). One of these cats, which had suspected pre-

136 existing kidney disease, also developed a mildly elevated serum creatinine (2.5 mg/dL;

reference range: 0.6 to 2.4 mg/dL), which returned to normal by the end of the study.

138

## 139 EFFICACY

140 In a well-controlled laboratory study, CREDELIO CAT began to kill fleas six hours after

administration, with greater than 98% of fleas killed within 12 hours after administration.

142 In a well-controlled laboratory study, CREDELIO CAT demonstrated 100%

- effectiveness against adult fleas 24 hours after administration or infestation for 36 days.
- In a 90-day well-controlled U.S. field study conducted in cats with existing flea
- infestations of varying severity, the efficacy of CREDELIO CAT against fleas (evaluated
- on Days 30, 60 and 90 compared to baseline) was 98.5%,100% and 100%,
- respectively. Cats with clinical signs of flea allergy dermatitis showed a significant
- improvement in erythema, papules, scaling, alopecia, dermatitis/pyodermatitis, and
- 150 pruritus as a direct result of eliminating fleas.
- 151

In a well-controlled laboratory study, CREDELIO CAT killed fleas before they could lay
 eggs, thus preventing subsequent flea infestations after the start of treatment of existing
 flea infestations for 30 days.

- 155
- In two well-controlled laboratory studies, CREDELIO CAT demonstrated an efficacy of
  ≥97% against *Ixodes scapularis* ticks 72 hours after administration or infestation for 31
  days.
- 159

## 160 **Palatability**

- 161 In the U.S. field study, owners were able to administer 99.5% of CREDELIO CAT
- 162 monthly doses over three consecutive months. Out of the 648 doses administered to
- 163 225 cats 21.1% of doses were voluntarily consumed (*i.e.* when offered by hand, on the
- 164 floor or in an empty bowl), 25.8% of doses were voluntarily consumed when offered with

- 165 food, and 52.6% of doses required placement of the chewable tablet in the back of the
- 166 cat's mouth. Owners were unable to administer CREDELIO CAT for 0.5% of doses.
- 167

## 168 **STORAGE CONDITIONS**

- 169 Store between 15°C and 25°C. Excursions permitted between 5°C and 40°C.
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# 171 HOW SUPPLIED

- 172 The product is available in two strengths: 12 mg and 48 mg lotilaner per tablet. Each
- chewable tablet strength is in colour-coded packages of 1, 3 or 6 flavoured chewabletablets. Not all package sizes may be marketed.
- 175

# 176 MANUFACTURED FOR

- 177 Elanco Canada Limited
- 178 1919 Minnesota Court, Suite 401
- 179 Mississauga, Ontario L5N 0C9
- 180

## 181 **DATE: March 2022**

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