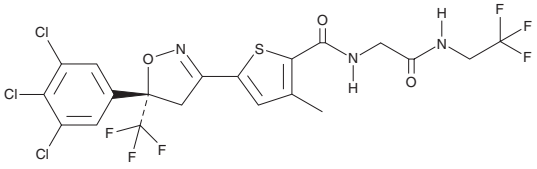
PRODUCT INFORMATION

Lotilaner

Item No. 46179

CAS Registry No.: 1369852-71-0
Formal Name: 5-[(5S)-4,5-dihydro-5-(3,4,5-trichlorophenyl)-5-(trifluoromethyl)-3-isoxazolyl]-3-methyl-N-[2-oxo-2-[(2,2,2-trifluoroethyl)amino]ethyl]-2-thiophenecarboxamide
MF: $C_{20}H_{14}Cl_3F_6N_3O_3S$
FW: 596.8
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Lotilaner is supplied as a solid. A stock solution may be made by dissolving the lotilaner in the solvent of choice, which should be purged with an inert gas. Lotilaner is soluble (≥10 mg/ml) in ethanol and DMSO.

Description

Lotilaner is an isoxazoline ectoparasiticide.[1,2] It is an antagonist of insect GABA-gated chloride channels (IC_{50} = 23.84 nM for the *D. melanogaster* channel) and is selective for insect channels over dog $\alpha_1\beta_2\gamma_2$ $GABA_A$ receptors at 10,000 nM.[1] Lotilaner (20 mg/kg, p.o.) completely eliminates *D. variabilis*, *R. sanguineus*, *A. americanum*, and *I. scapularis* tick infestations in dogs after 48 hours.[2] Formulations containing lotilaner have been used in the treatment of *Demodex* blepharitis and as veterinary anti-ectoparasitics.

References

1. Rufener, L., Danelli, V., Bertrand, D., *et al.* The novel isoxazoline ectoparasiticide lotilaner (Credelio™): A non-competitive antagonist specific to invertebrates γ-aminobutyric acid-gated chloride channels (GABACls). *Parasit. Vectors* **10(1)**, 530 (2017).
2. Murphy, M., Garcia, R., Karadzovska, D., *et al.* Laboratory evaluations of the immediate and sustained efficacy of lotilaner (Credelio™) against four common species of ticks affecting dogs in North America. *Parasit. Vectors* **10(1)**, 523 (2017).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent *via* email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 08/13/2026

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM