# **PRODUCT** INFORMATION



## Afoxolaner

Item No. 33317

CAS Registry No.:	1093861-60-9	
Formal Name:	4-[5-[3-chloro-5-(trifluoromethyl)	
	phenyl]-4,5-dihydro-	
	5-(trifluoromethyl)-3-	
	isoxazolyl]-N-[2-oxo-2-[(2,2,2-	
	trifluoroethyl)amino]ethyl]-1-	$F_{N} \rightarrow N$
	naphthalenecarboxamide	
MF:	$C_{26}H_{17}CIF_9N_3O_3$	
FW:	625.9	F   H O
Purity:	≥98%	F
UV/Vis.:	λ <sub>max</sub> : 212, 221 nm	
Supplied as:	A crystalline solid	H F
Storage:	-20°C	$\sim$
Stability:	≥4 years	
Information represents the product expectitions. Batch expectitic analytical results are provided on each cartificate of analytic		

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#### Laboratory Procedures

Afoxolaner is supplied as a crystalline solid. A stock solution may be made by dissolving the afoxolaner in the solvent of choice, which should be purged with an inert gas. Afoxolaner is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of afoxolaner in these solvents is approximately 30 mg/ml.

### Description

Afoxolaner is an isoxazoline insecticide and acaricide.<sup>1</sup> It is a GABA receptor antagonist that inhibits GABA-induced currents in P. americana thoracic neurons (IC50 = 10.8 nM). It induces mortality in 100% of C. felis after 24 and 48 hours when used at concentrations of 0.32 and 0.16  $\mu$ g/ml in an artificial membrane blood feeding device. Afoxolaner (2.5 mg/kg) eradicates C. felis infestation in dogs for up to 42 days and D. variabilis infestation for up to 30 days.

#### Reference

1. Shoop, W.L., Hartline, E.J., Gould, B.R., et al. Discovery and mode of action of afoxolaner, a new isoxazoline parasiticide for dogs. Vet. Parasitol. 201(3-4), 179-189 (2014).

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.

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