LKT Laboratories, Inc.

Imazalil

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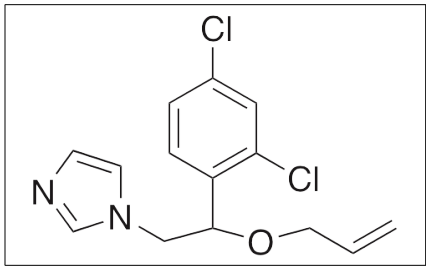
Product Information

Product ID I5072
CAS No. 35554-44-0
Chemical Name (+/-)-allyl 1-(2,4-dichlorophenyl)-2-imidazol-1-ylether ester

Synonym Enilconazole

Formula $C_{14}H_{14}Cl_2N_2O$
Formula Wt. 297.18
Melting Point 50°C
Purity ≥95%, titration; ≥70%, HPLC
Solubility 1400 mg/L H2O



Bulk quanitites available upon request

Product ID	Size
I5072	5 g
I5072	10 g
I5072	100 g

Store Temp Ambient
Ship Temp Ambient

Description Imazalil is a triazole fungicide used in veterinary medicine. Imazalil exhibits antifungal activity through inhibition of sterol 14-α demethylase, preventing ergosterol biosynthesis and cell wall formation. Imazalil also inhibits androgen receptors and aromatase through a mixed competitive/noncompetitive mode in vitro. This compound exhibits teratogenic effects on vertebrate development, affecting genes involved in retinoic acid signaling and altering neural differentiation in the nervous system.

References

Orton F, Rosivatz E, Scholze M, et al. Competitive androgen receptor antagonism as a factor determining the predictability of cumulative antiandrogenic effects of widely used pesticides. Environ Health Perspect. 2012 Nov;120(11):1578-84. PMID: 23008280.

Sun X, Wang J, Feng D, et al. PdCYP51B, a new putative sterol 14α-demethylase gene of Penicillium digitatum involved in resistance to imazalil and other fungicides inhibiting ergosterol synthesis. Appl Microbiol Biotechnol. 2011 Aug;91(4):1107-19. PMID: 21637936.

Zega G, De Bernardi F, Groppelli S, et al. Effects of the azole fungicide Imazalil on the development of the ascidian Ciona intestinalis (Chordata, Tunicata): morphological and molecular characterization of the induced phenotype. Aquat Toxicol. 2009 Feb 19;91(3):255-61. PMID: 19124165.

Sanderson JT, Boerma J, Lansbergen GW, et al. Induction and inhibition of aromatase (CYP19) activity by various classes of pesticides in H295R human adrenocortical carcinoma cells. Toxicol Appl Pharmacol. 2002 Jul 1;182(1):44-54. PMID: 12127262.