

Product Data Sheet

Product Name: Fenoxycarb

Cat. No.: GC47338

Chemical Properties

Cas. No. 72490-01-8

SMILES O=C(OCC)NCCOC(C=C1)=CC=C1OC2=CC=CC=C2

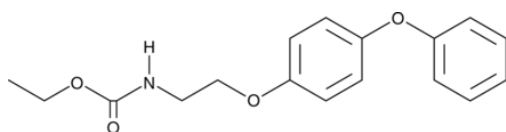
Formula C17H19NO4 M.Wt 301.3

Solubility DMSO : 8.33 mg/mL (27.64 mM); ultrasonic and warming and heat to 60°C) Storage Store at -20°C

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure



Background

Fenoxycarb is a non-neurotoxic carbamate insecticide that acts as an insect growth regulator *via* juvenile hormone-like activity.¹ It inhibits terminal development of first instar and newly transformed second instar nymphs of Florida red scale (*C. aonidum*) when used at a concentration of 0.0125% AI.² Fenoxycarb (5 and 10 mg AI/colony) reduces the colony size index of laboratory colonies of red imported fire ants (*S. invicta*) by 93.6 to 95.9% at 8 weeks post-treatment.³ It is toxic to *D. magna* (LC₅₀ = 0.5 mg a.s./L) and fish including *O. mykiss*, *L. macrochirus*, *C. carpio*, *I. punctatus*, and *C. variegatus* (LC₅₀s = 0.66-1.5 mg a.s./L), but is not toxic to rats (LD₅₀ = >10,000 mg/kg).⁴ Fenoxycarb is also an antagonist of $\alpha 4\beta 40$ -, $\alpha 4\beta 2$ -, $\alpha 3\beta 4$ -, and $\alpha 3\beta 2$ -containing rat nicotinic acetylcholine receptors (nAChRs; IC₅₀s = 3, 2.4, 1.8, and 7.6 μ M, respectively) but not rat brain acetylcholinesterase (AChE; IC₅₀ = >1,000 μ M).⁵

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

Product Data Sheet

1.Grenier, S., and Grenier, A.M.Fenoxycarb, a fairly new insect growth regulator: A review of its effects on insectsAnn. Appl. Biol.122(2)369-403(1993) 2.Peleg, B.A.Effect of a new insect growth regulator, RO 13-5223, on hymenopterous parasites of scale insectsPhytoparasitica10(1)27-31(1983) 3.Banks, W.A., Williams, D.F., and Lofgren, C.S.Effectiveness of fenoxycarb for control of red imported fire ants (Hymenoptera: Formicidae)J. Econ. Entomol.81(1)83-87(1988) 4.Authority, E.F.S.Conclusion on the peer review of the pesticide risk assessment of the active substance fenoxycarbEFSA J.8(12)1779(2010) 5.Smulders, C.J., Bueters, T.J., Van Kleef, R.G., et al.Selective effects of carbamate pesticides on rat neuronal nicotinic acetylcholine receptors and rat brain acetylcholinesteraseToxicol. Appl. Pharmacol.193(2)139-146(2003)

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA