

Product Data Sheet

Product Name: Propoxur-d3

Cat. No.: GC91190

Chemical Properties

Cas. No. 1219798-56-7

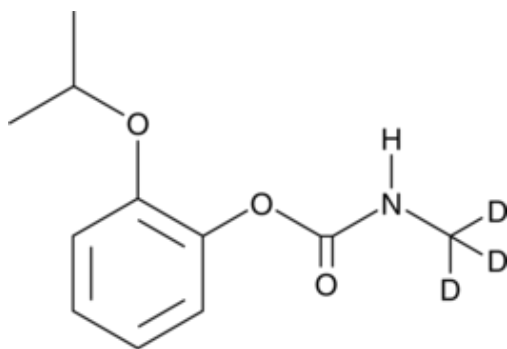
Formula $C_{11}H_{12}D_3NO_3$ M.Wt 212.3

Solubility DMSO: sparingly soluble, Methanol: slightly soluble 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

Propoxur-d₃ is intended for use as an internal standard for the quantification of propoxur by GC- or LC-MS. Propoxur is a carbamate insecticide, an inhibitor of acetylcholinesterase ($IC_{50} = 4.3 \mu M$), and an antagonist of $\alpha 4\beta 4$ subunit-containing nicotinic acetylcholine receptors ($IC_{50} = 165 \mu M$ for the rat receptor).^{1,2} It is lethal to German cockroaches (*B. germanica*) with LD_{50} values of 2.45, 4.73, and 1.06 μg per insect for newly emerged males, newly emerged females, and 4-week-old nymphs, respectively. Propoxur induces lactate dehydrogenase (LDH) release from, and inhibits the growth of, flounder gill cells (IC_{50} s = 86.59 and 89.96 $\mu g/ml$, respectively) via induction of necrosis.³ It also induces yolk sac and pericardial edema in zebrafish embryos when used at concentrations of 100 and 200 $\mu g/ml$. Propoxur (8.3 mg/kg) inhibits rat blood and brain cholinesterase, decreases

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

ambulation and rearing in an open field test, and increases latency to escape foot shock after an audio stimulus in the two-way active avoidance box in rats.⁴ Formulations containing propoxur have been used in the control of insects in agriculture, as well as residential areas.

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