

Product Data Sheet

Product Name: Carbaryl-d7

Cat. No.: GC91344

Chemical Properties

Cas. No. 362049-56-7

Formula $C_{12}H_4D_7NO_2$

M.Wt 208.3

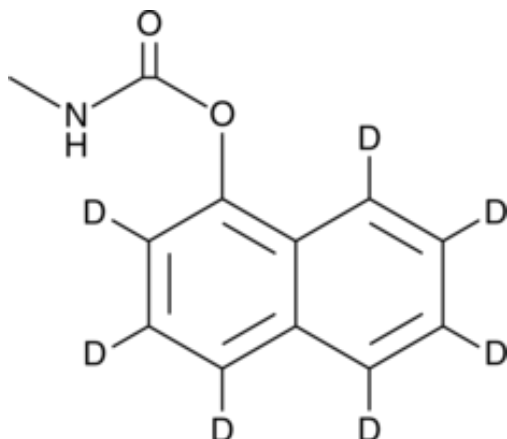
Solubility Chloroform: Slightly soluble, Ethyl Acetate: Slightly soluble, Methanol: Slightly soluble

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

Carbaryl-d7 is intended for use as an internal standard for the quantification of carbaryl by GC- or LC-MS. Carbaryl is a carbamate insecticide.¹ It is an inhibitor of acetylcholinesterase (AChE; IC₅₀ = 13.6 nM for the mosquito enzyme). Carbaryl is toxic to fourth instar mosquito larvae (LC₅₀ = 0.83 ppm) and tobacco budworms (LD₅₀ = 0.3 mg/g).^{2,3} In vivo, carbaryl (30 mg/kg per day) increases the serum levels of IL-4 and IL-10 and decreases serum levels of IL-2, IFN-γ, IL-1β, and TNF-α, spleen and thymus weight, as well as increased lymphocyte proliferation induced by concanavalin A, in rats.⁴ Formulations containing carbaryl have been used to control insects in agriculture.

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

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