

Product Data Sheet

Product Name: Flonicamid

Cat. No.: GC47354

Chemical Properties

Cas. No. 158062-67-0

SMILES O=C(NCC#N)C1=C(C(F)(F)F)C=CN=C1

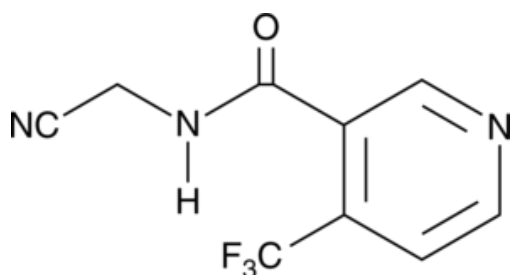
Formula C9H6F3N3O M.Wt 229.2

Solubility DMSO : 100 mg/mL (436.38 mM; Need ultrasonic) 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

Flonicamid is a pyridinecarboxamide insecticide.¹ It inhibits the brown planthopper (*N. lugens*) inward-rectifying potassium channel $K_{ir}1$ ($IC_{50} = 0.64 \mu M$). Flonicamid (100 $\mu g/ml$) inhibits aphid (*M. persicae*) salivation and sap ingestion during feeding on Japanese radish leaves.² It induces toxicity in the aphid species *A. gossypii*, *R. padi*, *S. graminum*, and *L. erysimi* (LC_{50} s = 0.64, 0.74, 0.78, and 2.01 $\mu g/ml$, respectively) and rats ($LD_{50} = \geq 844 mg/kg$).^{3,2} Formulations containing flonicamid have been used for the control of pest insects in agriculture.

1. Ren, M., Niu, J., Hu, B., et al. Block of K_{ir} channels by flonicamid disrupts salivary and renal excretion of insect pests. *Insect Biochem. Mol. Biol.* 99:17-26 (2018) 2. Morita, M., Ueda, T., Yoneda, T., et al. Flonicamid, a novel insecticide with a rapid inhibitory effect on aphid feeding. *Pest. Manag.*

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

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Sci.63(10)969-973(2007) 3.Morita, M., Yoneda, T., and Akiyoshi, N.Research and development of a novel insecticide, flonicamidJ. Pestic. Sci.39(3)179-180(2014)

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