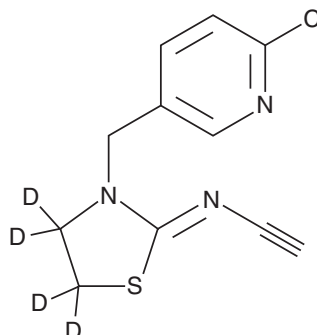


PRODUCT INFORMATION



Thiacloprid-d₄ Item No. 39573

CAS Registry No.: 1793071-39-2
Formal Name: N-[3-[(6-chloro-3-pyridinyl)methyl]-2-thiazolidinylidene-4,4,5,5-d₄]-cyanamide
MF: C₁₀H₅ClD₄N₄S
FW: 256.7
Chemical Purity: ≥98% (Thiacloprid)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₄); ≤1% d₀
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Thiacloprid-d₄ is intended for use as an internal standard for the quantification of thiacloprid (Item No. 25824) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

Thiacloprid-d₄ is supplied as a solid. A stock solution may be made by dissolving the thiacloprid-d₄ in the solvent of choice, which should be purged with an inert gas. Thiacloprid-d₄ is slightly soluble in chloroform, dichloromethane, and methanol (warmed).

Description

Thiacloprid is a neonicotinoid insecticide.¹ It is an antagonist of nicotinic acetylcholine receptors (nAChRs; IC₅₀ = 2.7 nM for the *D. melanogaster* enzyme). Thiacloprid is lethal to *D. melanogaster* (LD₅₀ = 0.03 mg/kg). It eliminates aphids on apple tree leaves in field studies when applied at a concentration of 0.0072% AI/L.² Thiacloprid is toxic to mice (LD₅₀ = 28 mg/kg).¹

References

1. Tomizawa, M., Lee, D.L., and Casida, J.E. Neonicotinoid insecticides: Molecular features conferring selectivity for insect versus mammalian nicotinic receptors. *J. Agric. Food Chem.* **48**(12), 6016-6024 (2000).
2. Elbert, A., Erdelen, C., Kuhnhold, J., et al. Thiacloprid, a novel neonicotinoid insecticide for foliar application. *Proc. Brighton Crop. Prot. Conf. - Pests and Diseases* **1**, 21-26 (2000).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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