

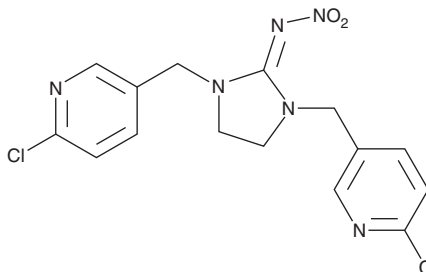
PRODUCT INFORMATION



Imidacloprid Impurity 1

Item No. 37382

CAS Registry No.: 105828-41-9
Formal Name: 1,3-bis[(6-chloro-3-pyridinyl)methyl]-N-nitro-2-imidazolidinimine
MF: C₁₅H₁₄Cl₂N₆O₂
FW: 381.2
Purity: ≥98%
UV/Vis.: λ_{max}: 214, 268 nm
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

Imidacloprid impurity 1 is supplied as a solid. A stock solution may be made by dissolving the imidacloprid impurity 1 in the solvent of choice, which should be purged with an inert gas. Imidacloprid impurity 1 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of imidacloprid impurity 1 in these solvents is approximately 16 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of imidacloprid impurity 1 can be prepared by directly dissolving the solid in aqueous buffers. The solubility of imidacloprid impurity 1 in PBS (pH 7.2) is approximately 0.16 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Imidacloprid impurity 1 is a potential impurity in commercial preparations of the neonicotinoid insecticide imidacloprid.¹

Reference

1. Tian, J., and Rustum, A. Development and validation of a stability-indicating reversed-phase UPLC-UV method for the assay of imidacloprid and estimation of its related compounds. *J. Chromatogr. Sci.* **56**(2), 131-138 (2018).

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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