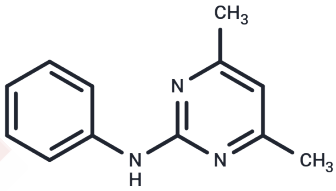
Data Sheet (Cat.No.T37071)

TargetMol

Pyrimethanil

Chemical Properties



CAS No. : 53112-28-0

Formula: C12H13N3

Molecular Weight: 199.25

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Pyrimethanil is a strobilurin fungicide belonging to the anilinopyrimidine class. Pyrimethanil is a broad-spectrum contact fungicide for the control of Botrytis spp. on a wide variety of crops. Pyrimethanil inhibits the biosynthesis of methionine and other amino acids in Botrytis cinerea.
Targets(IC50)	Antifungal
In vitro	Pyrimethanil(3 days) decreased polygalacturonase, cellulase, proteinase and laccase activities. Pyrimethanil resulted in 50% reduction (IC50) in total enzyme activities such as polygalacturonase, cellulase and proteinase(IC50 = approximately 2.5 μM), and laccase (IC50 = 1.0 μM)[3].

Solubility Information

Solubility	DMSO: 60 mg/mL (301.13 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2.5 mg/mL (12.55 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	5.0188 mL	25.0941 mL	50.1882 mL
5 mM	1.0038 mL	5.0188 mL	10.0376 mL
10 mM	0.5019 mL	2.5094 mL	5.0188 mL
50 mM	0.1004 mL	0.5019 mL	1.0038 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

L Kanetis, et al. Characterization of genetic and biochemical mechanisms of fludioxonil and pyrimethanil resistance in field isolates of Penicillium digitatum. Phytopathology
Richard J. Milling, et al. Mode of action of the anilino-pyrimidine fungicide pyrimethanil. 2. Effects on enzyme secretion in Botrytis cinerea. Volume45, Issue1, September 1995.
Salvatore D'Aquino, et al. Residue levels and effectiveness of pyrimethanil vs imazalil when using heated postharvest dip treatments for control of Penicillium decay on citrus fruit. J Agric Food Chem. 2006 Jun 28;54(13): 4721-6.
Petr Masner, et al. Possible methionine biosynthesis inhibition by pyrimidinamine fungicides. Pesticide Science