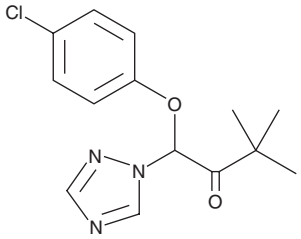
PRODUCT INFORMATION

Triadimefon

Item No. 18714

CAS Registry No.:	43121-43-3
Formal Name:	1-(4-chlorophenoxy)-3,3-dimethyl-1-(1H-1,2,4-triazol-1-yl)-2-butanone
Synonyms:	BAY 6681F, BAY-MED 6447, NSC 303303, Triadimeform
MF:	$C_{14}H_{16}ClN_3O_2$
FW:	293.8
Purity:	≥98%
UV/Vis.:	λ_{max}: 223 nm
Supplied as:	A crystalline 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

Triadimefon is supplied as a crystalline solid. A stock solution may be made by dissolving the triadimefon in the solvent of choice, which should be purged with an inert gas. Triadimefon is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of triadimefon in these solvents is approximately 10 mg/ml in ethanol and 30 mg/ml in DMSO and DMF.

Triadimefon is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, triadimefon should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Triadimefon has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Triadimefon is a triazole fungicide used to control powdery mildew, rusts, and other fungal pests on grains, fruit and vegetable crops, turf, shrubs, and trees.[1] It inhibits lanosterol 14α-demethylase, interfering with oxidative demethylation reactions in the ergosterol biosynthesis pathway of fungi, and also blocks gibberellin biosynthesis.[1] Formulations containing triadimefon have been used in the control of fungi in agriculture.

Reference

1. Asami, T., Mizutani, M., Shimada, U., *et al.* Triadimefon, a fungicidal triazole-type P450 inhibitor, induces brassinosteroid deficiency-like phenotypes in plants and binds to DWF4 protein in the brassinosteroid biosynthesis pathway. *Biochem. J.* **369 (Pt 1)**, 71-76 (2003).

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