

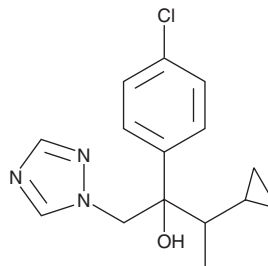
PRODUCT INFORMATION



Cyproconazole

Item No. 32947

CAS Registry No.: 94361-06-5
Formal Name: α -(4-chlorophenyl)- α -(1-cyclopropylethyl)-1H-1,2,4-triazole-1-ethanol
Synonym: SAN 619F
MF: C₁₅H₁₈ClN₃O
FW: 291.8
Purity: \geq 98% (mixture of isomers)
UV/Vis.: λ_{max} : 221 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: \geq 4 years



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

Laboratory Procedures

Cyproconazole is supplied as a crystalline solid. A stock solution may be made by dissolving the cyproconazole in the solvent of choice, which should be purged with an inert gas. Cyproconazole is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of cyproconazole in these solvents is approximately 1 mg/ml in ethanol and approximately 30 mg/ml in DMSO and DMF.

Cyproconazole is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, cyproconazole should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Cyproconazole has a solubility of approximately 0.16 mg/ml in a 1:5 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Cyproconazole is a triazole fungicide.¹ It reduces mycelial growth of *A. mellea* on grapevine roots. Cyproconazole also reduces defoliation of rose plants induced by the plant pathogenic fungus *D. rosae*.² It is lethal to the freshwater invertebrates *C. riparius* and *D. tigrina* (LC₅₀s = 17.46 and 47.38 mg/L, respectively, in tank water).³ Cyproconazole induces liver hypertrophy and fat vacuolation, as well as induces hepatocellular adenoma and carcinoma formation, in mice.⁴ Formulations containing cyproconazole have been used as fungicides in agricultural settings.

References

1. Aguín, O., Mansilla, J.P., and Sainz, M.J. *In vitro* selection of an effective fungicide against *Armillaria mellea* and control of white root rot of grapevine in the field. *Pest. Manag. Sci.* **62**(3), 223-228 (2006).
2. Bowen, K.L. and Roark, R.S. Management of black spot of rose with winter fungicide treatment. *Plant Dis.* **85**(4), 393-398 (2001).
3. Saraiva, A.S., Sarmento, R.A., Golovko, O., et al. Lethal and sub-lethal effects of cyproconazole on freshwater organisms: A case study with *Chironomus riparius* and *Dugesia tigrina*. *Environ. Sci. Pollut. Res. Int.* **25**(12), 12169-12176 (2018).
4. Peffer, R.C., Moggs, J.G., Pastoor, T., et al. Mouse liver effects of cyproconazole, a triazole fungicide: Role of the constitutive androstane receptor. *Toxicol. Sci.* **99**(1), 315-325 (2007).

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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