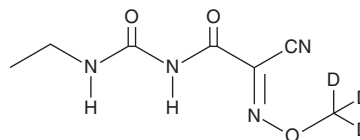


PRODUCT INFORMATION



Cymoxanil-d₃ Item No. 27840

CAS Registry No.: 2140803-92-3
Formal Name: (E)-2-(3-ethylureido)-N-(methoxy-d₃)-2-oxoacetimidoyl cyanide
Synonym: 1-(2-Cyano-2-methoxy-d₃-iminoacetyl)-3-ethylurea
MF: C₇H₇D₃N₄O₃
FW: 201.2
Chemical Purity: ≥98% (Cymoxanil)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₃); ≤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

Cymoxanil-d₃ is intended for use as an internal standard for the quantification of cymoxanil (Item No. 24232) 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).

Cymoxanil-d₃ is supplied as a solid. A stock solution may be made by dissolving the cymoxanil-d₃ in the solvent of choice, which should be purged with an inert gas. Cymoxanil-d₃ is slightly soluble in chloroform and methanol.

Description

Cymoxanil is a cyanoacetamide fungicide.^{1,2} It inhibits the mycelial growth of 12 isolates of *P. infestans* with EC₅₀ values of 0.27-0.57 µg/ml.³ Cymoxanil (5-100 mg/L) inhibits the growth of several strains of *S. cerevisiae* (IC₅₀s = 8-25 mg/L) but not *S. pombe*, *K. marxianus*, *P. anomala*, or *C. utilis*.⁴ A spray application of cymoxanil (1 mg/ml) one day after inoculation of potato leaves with *P. infestans* and cucumber leaves with *P. cubensis* reduces blighted leaves by 79 and 60%, respectively.¹ It is toxic to rats with an acute LD₅₀ value of 3.8 mmol/kg.⁵ Formulations containing cymoxanil have been used to prevent fungal growth on crops and treat late potato blight in agriculture.

References

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2. Baude, F.J. and Cupery, W.E. 2-Alkoxyimino-N-carbamoyl-2-cyanoacetamide-containing fungicide compositions. *du Pont de Nemours, E. I., and Co., USA NL7607185A* (1975).
3. Rekanović, E., Potočnik, I., Milijašević-Marčić, S., et al. Toxicity of metalaxyl, azoxystrobin, dimethomorph, cymoxanil, zoxamide and mancozeb to *Phytophthora infestans* isolates from Serbia. *J. Environ. Sci. Health B*. **47(5)**, 403-409 (2012).
4. Ribeiro, I.C., Veríssimo, I., Moniz, L., et al. Yeasts as a model for assessing the toxicity of the fungicides Penconazol, Cymoxanil and Dichlofluanid. *Chemosphere* **41(10)**, 1637-1642 (2000).
5. Hamadache, M., Benkortbi, O., Hanini, S., et al. A quantitative structure activity relationship for acute oral toxicity of pesticides on rats: Validation, domain of application and prediction. *J. Hazard. Mater.* **303**, 28-40 (2016).

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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