

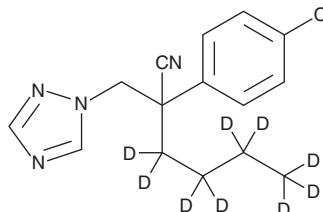
PRODUCT INFORMATION



Myclobutanil-d₉

Item No. 39263

Formal Name: 2-((1H-1,2,4-triazol-1-yl)methyl)-
2-(4-chlorophenyl)hexanenitrile-
3,3,4,4,5,5,6,6,6-d₉
MF: C₁₅H₈D₉CIN₄
FW: 297.8
Chemical Purity: ≥98% (Myclobutanil)
Deuterium
Incorporation: ≥99% deuterated forms (d₁-d₉); ≤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

Myclobutanil-d₉ is intended for use as an internal standard for the quantification of myclobutanil (Item No. 24100) 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).

Myclobutanil-d₉ is supplied as a solid. A stock solution may be made by dissolving the myclobutanil-d₉ in the solvent of choice, which should be purged with an inert gas. Myclobutanil-d₉ is slightly soluble in chloroform, DMSO and methanol.

Description

Myclobutanil is a triazole fungicide.¹ It is active against the plant pathogenic fungus *U. avenae* (ED₅₀ = 45 mg/ml) that is sensitive to the triazole fungicide triadimefon (Item No. 18714) but not four triadimefon-resistant strains (ED₅₀s = >1,000 mg/ml). Myclobutanil (2.52 and 45 µg/ml, respectively) reduces the number and severity of powdery mildew colonies on apple seedling leaves in greenhouse and field studies.² It reduces body weight and male breeding performance, as well as increases offspring deaths, liver and testis weight, anogenital distance, and serum testosterone levels, in male offspring when administered to pregnant rat dams at a dose of 2,000 ppm.³ Formulations containing myclobutanil have been used as fungicides against plant pathogenic fungi in residential, aquatic, and agricultural settings.

References

1. Köller, W. and Wubbe, J.P. Variable resistance factors of fungicides acting as sterol demethylation inhibitors. *Pestic. Sci.* **26**(2), 133-145 (1989).
2. Sholberg, P.L. and Haag, P. Control of apple powdery mildew (*Podosphaera leucotricha*) in British Columbia by demethylation-inhibiting fungicides. *Can. Plant Dis. Surv.* **74**(1), 5-11 (1994).
3. Geotz, A.K., Ren, H., Schmid, J.E., et al. Disruption of testosterone homeostasis as a mode of action for the reproductive toxicity of triazole fungicides in the male rat. *Toxicol. Sci.* **95**(1), 227-239 (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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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM