Product Data Sheet

Chlorothalonil-13C2

Cat. No.:HY-N6625SCAS No.:2767332-24-9Molecular Formula: $C_6^{13}C_2Cl_4N_2$

Molecular Weight: 267.9

Target: Fungal

Pathway: Anti-infection

Storage: Please store the product under the recommended conditions in the Certificate of

Analysis.

BIOLOGICAL ACTIVITY

Description	Chlorothalonil- 13 C ₂ is the 13 C-labeled Chlorothalonil. Chlorothalonil is a broad spectrum fungicide and is effective in protecting plants against fungal diseases caused mainly by Phytophthora infestans and Alternaria solani. Chlorothalonil is used for controlling of fungal foliar diseases of vegetables and crops[1][2].
In Vitro	Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs ^[3] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Pengfei Zhang, et al. Low Dose Chlorothalonil Impairs Mouse Spermatogenesis Through the Intertwining of Estrogen Receptor Pathways With Histone and DNA Methylation. Chemosphere. 2019 Sep;230:384-395.
- [2]. Małgorzata Baćmaga, et al. The Influence of Chlorothalonil on the Activity of Soil Microorganisms and Enzymes. Ecotoxicology. 2018 Nov;27(9):1188-1202.
- [3]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019;53(2):211-223.

Caution: Product has not been fully validated for medical applications. For research use only.

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