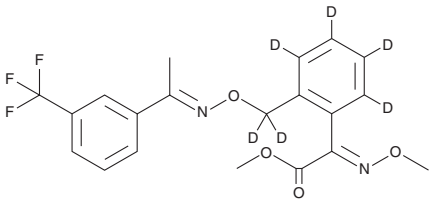
PRODUCT INFORMATION

Trifloxystrobin-d_6

Item No. 39591

Formal Name: methyl (E)-2-(methoxyimino)-2-(2-(((((E)-1-(3-(trifluoromethyl)phenyl)ethylidene)amino)oxy)methyl-d_2)phenyl-3,4,5,6-d_4)acetate
MF: $C_{20}H_{13}D_6F_3N_2O_4$
FW: 414.4
Chemical Purity: ≥95% (Trifloxystrobin)
Deuterium Incorporation: ≥99% deuterated forms (d_1-d_6); ≤1% d_0
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years
Special Conditions: Hygroscopic



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

Laboratory Procedures

Trifloxystrobin-d_6 is intended for use as an internal standard for the quantification of trifloxystrobin (Item No. 25825) 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).

Trifloxystrobin-d_6 is supplied as a solid. A stock solution may be made by dissolving the trifloxystrobin-d_6 in the solvent of choice, which should be purged with an inert gas. Trifloxystrobin-d_6 is slightly soluble in chloroform and methanol.

Description

Trifloxystrobin is a fungicide.[1,2] It inhibits the growth of *R. solani* isolates from sugar beet crops (EC_{50}s = 0.14-823.54 µg/ml).[1] Trifloxystrobin (100-1,000 ppm) inhibits mycelial growth of *C. gloeosporioides* when used in combination with tebuconazole (Item No. 24052).[2] It is toxic to various aquatic species, including *R. arenarum*, *P. santafecinus*, *E. bicolor*, and *L. latrans* tadpoles (LC_{50}s = 0.22, 0.14, 0.1, and 0.26 mg/L, respectively).[3] It also reduces mobility of tadpoles and decreases predation of trifloxystrobin-exposed, but not non-exposed, tadpoles by eels. Formulations containing trifloxystrobin have been used in the control of fungi in agriculture and aquatic areas.

References

1. Arabiat, S. and Khan, M. Sensitivity of *Rhizoctonia solani* AG-2-2 from sugar beet to fungicides. *Plant Dis.* **100(12)**, 2427-2433 (2016).
2. Dev, D. and Narendrappa, T. *In vitro* evaluation of fungicides against *Colletotrichum gloeosporioides* (Penz.) Penz and Sacc. causing anthracnose of pomegranate (*Punica granatum* L.). *J. Appl. Nat. Sci.* **8(4)**, 2268-2272 (2017).
3. Junges, C.M., Peltzer, P.M., Lajmanovich, R.C., *et al.* Toxicity of the fungicide trifloxystrobin on tadpoles and its effect on fish-tadpole interaction. *Chemosphere* **87(11)**, 1348-1354 (2012).

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