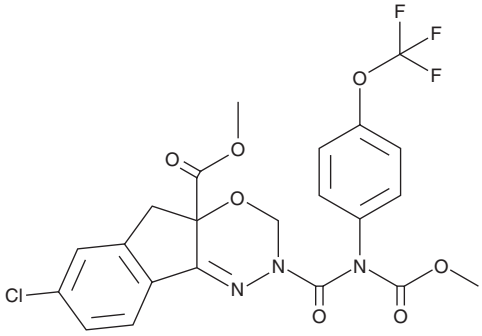
PRODUCT INFORMATION

(±)-Indoxacarb

Item No. 29165

CAS Registry No.:	144171-61-9
Formal Name:	7-chloro-2,5-dihydro-2-[[(methoxycarbonyl)[4-(trifluoromethoxy)phenyl]amino]carbonyl]-indeno[1,2-e][1,3,4]oxadiazine-4a(3H)-carboxylic acid, methyl ester
Synonyms:	DPX-JW062, DPX-MP062
MF:	$C_{22}H_{17}ClF_3N_3O_7$
FW:	527.8
Purity:	≥95%
UV/Vis.:	λ_{max}: 226, 285, 311 nm
Supplied as:	A crystalline 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

(±)-Indoxacarb is supplied as a crystalline solid. A stock solution may be made by dissolving the (±)-indoxacarb in the solvent of choice, which should be purged with an inert gas. (±)-Indoxacarb is soluble in ethanol.

Description

(±)-Indoxacarb is a broad-spectrum oxadiazine insecticide.[1] It is metabolized *in vivo* to its active N-decarbomethoxyllated metabolite DCJW. Topical administration of (±)-indoxacarb is lethal to *S. frugiperda*, *H. virescens*, *L. lineolaris*, *N. cincticeps*, *N. lugens*, *L. decemlineata*, *A. grandis*, and *M. domestica* (LD_{50}s = 0.03, 0.44, 1.6, 0.72, >7.8, 2.81, 6.45, and 15 ng/mg, respectively). It suppresses voltage-gated sodium channel currents in rat dorsal root ganglion neurons in a concentration-dependent manner.[2] Formulations containing (±)-indoxacarb have been used to control various insect pests in tea farming.[3]

References

1. Wing, K.D., Sacher, M., Kagaya, Y., *et al.* Bioactivation and mode of action of the oxadiazine indoxacarb in insects. *Crop Prot.* **19(8-10)**, 537-545 (2000).
2. Nagata, K., Ikeda, T., Honda, H., *et al.* Suppression of voltage-gated sodium currents by the dihydropyrazole insecticide, DPX-JW062 in rat dorsal root ganglion neurons. *J. Pesticide Sci.* **23(1)**, 62-64 (1998).
3. Zhang, X., Luo, F., Lou, Z., *et al.* Simultaneous and enantioselective determination of *cis*-epoxiconazole and indoxacarb residues in various teas, tea infusion and soil samples by chiral high performance liquid chromatography coupled with tandem quadrupole-time-of-flight mass spectrometry. *J. Chromatogr. A* **1359**, 212-223 (2014).

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