

# 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<sub>22</sub>H<sub>17</sub>ClF<sub>3</sub>N<sub>3</sub>O<sub>7</sub>

**FW:** 527.8

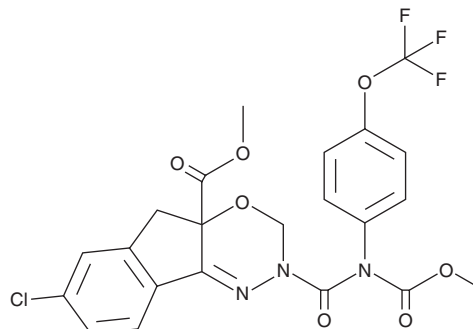
**Purity:** ≥95%

**UV/Vis.:** λ<sub>max</sub>: 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.<sup>1</sup> It is metabolized *in vivo* to its active N-decarbomethoxylated 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<sub>50</sub>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.<sup>2</sup> Formulations containing (±)-indoxacarb have been used to control various insect pests in tea farming.<sup>3</sup>

### 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).

#### 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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