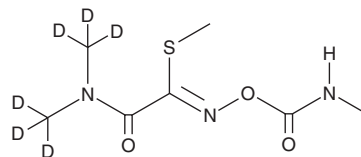


PRODUCT INFORMATION



Oxamyl-d₆ Item No. 39031

CAS Registry No.: 2470229-60-6
Formal Name: 2-(dimethyl-d₃-amino)-N-[[[(methylamino)carbonyl]oxy]-2-oxo-ethanimidothioic acid, methyl ester
MF: C₇H₇D₆N₃O₃S
FW: 225.3
Chemical Purity: ≥95% (Oxamyl)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₆); ≤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

Oxamyl-d₆ is intended for use as an internal standard for the quantification of oxamyl (Item No. 25609) 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).

Oxamyl-d₆ is supplied as a solid. A stock solution may be made by dissolving the oxamyl-d₆ in the solvent of choice, which should be purged with an inert gas. Oxamyl-d₆ is slightly soluble in chloroform and methanol.

Description

Oxamyl is a carbamate pesticide and an inhibitor of acetylcholinesterase (AChE; IC₅₀ = 1.67 μM for the *C. gigas* enzyme).¹ It is nematocidal, decreasing the number of *P. penetrans* and *M. hapla* per gram of alfalfa (*M. sativa*) root when applied to seeds at a concentration of 50 mg/ml.² Oxamyl (50 and 100 μg/ml) is also toxic to citrus nematode (*T. semipenetrans*) larvae.³ *In vivo*, oxamyl (2.1 and 3.5 mg/kg) inhibits plasma and brain AChE, as well as liver glucose-6-phosphatase and mitochondrial complex II, also known as succinate dehydrogenase, and reduces body weight gain in rats.⁴ Formulations containing oxamyl have been used to control nematode infestation of field crops.

References

1. Anguiano, G.A., Amador, A., Moreno-Legorreta, M., *et al.* Effects of exposure to oxamyl, carbofuran, dichlorvos, and lindane on acetylcholinesterase activity in the gills of the Pacific oyster *Crassostrea gigas*. *Environ. Toxicol.* **25**(4), 327-332 (2010).
2. Townshend, J.L. and Chiba, M. Control of *Pratylenchus penetrans* and *Meloidogyne hapla* and yield response of alfalfa due to oxamyl seed treatments. *J. Nematol.* **19**(4), 454-458 (1987).
3. Baines, R.C. and Small, R.H. Effects of oxamyl on the citrus nematode, *Tylenchulus semipenetrans*, and on infection of sweet orange. *J. Nematol.* **8**(2), 122-130 (1976).
4. Fayez, V. and Kilgore, W.W. Acute toxic effects of oxamyl in the rat. *Fundam. Appl. Toxicol.* **18**(1), 155-159 (1992).

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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