PRODUCT INFORMATION



Acequinocyl-d₂₅

Item No. 39589

CAS Registry No.:	2469735-25-7	
Formal Name:	2-(acetyloxy)-3-(dodecyl-d ₂₅)-1,4-	
	naphthalenedione	
Synonyms:	AKD-2023-d ₂₅ , DPX-3792-d ₂₅	
MF:	$C_{24}H_7D_{25}O_4$	
FW:	409.7	
Chemical Purity:	≥98% (Acequinocyl)	
Deuterium		
Incorporation:	\geq 99% deuterated forms (d ₁ -d ₂₅); \leq 1% d ₀	
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

Acequinocyl-d₂₅ is intended for use as an internal standard for the quantification of acequinocyl 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).

Acequinocyl- d_{25} is supplied as a solid. A stock solution may be made by dissolving the acequinocyl- d_{25} in the solvent of choice, which should be purged with an inert gas. Acequinocyl-d₂₅ is slightly soluble in chloroform and methanol (warmed).

Description

Acequinocyl is a naphthoquinone acaricide.¹ Weekly application of acequinocyl (0.03 kg AI/100 L) to strawberry plants reduces seasonal averages of the number of T. urticae mites and mite eggs on plant leaflets. It is not toxic to rats or mice when administered orally ($LD_{50}s = >5,000 \text{ mg/kg}$) but is toxic to rats when administered via inhalation (LD₅₀ = >0.84 mg/L).² Formulations containing acequinocyl have been used to control mite populations in agriculture.

References

- 1. Schuster, D.J., Price, J.F., Howard, C.M., et al. Twospotted spider mites: Control on strawberry with organotin, naphthoquinone, and cyclopropane acaricides. J. Econ. Entomol. 72(3), 360-361 (1979).
- 2. Registration & Regulatory Affairs Group, Development Department., Agro-Kanesho Co., Ltd. Summary of toxicological studies on acequinocyl. J. Pestic. Sci. 26(4), 433-438 (2001).

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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