

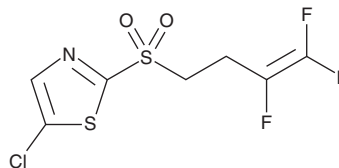
PRODUCT INFORMATION



Fluensulfone

Item No. 21554

CAS Registry No.: 318290-98-1
Formal Name: 5-chloro-2-[(3,4,4-trifluoro-3-buten-1-yl)sulfonyl]-thiazole
MF: C₇H₅ClF₃NO₂S₂
FW: 291.7
Purity: ≥98%
UV/Vis.: λ_{max}: 225, 271 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

Fluensulfone is supplied as a crystalline solid. A stock solution may be made by dissolving the fluensulfone in the solvent of choice. Fluensulfone is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of fluensulfone in these solvents is approximately 30 mg/ml.

Description

Fluensulfone is a fluoroalkenyl nematicide that inhibits mobility of *P. penetrans*, *P. thornei*, and *X. index* migratory nematodes when used at a concentration of 4 mg/L.¹ It reduces the number of *P. penetrans* and *P. thornei* nematodes in soil when applied at a concentration of 2 mg/L before planting crops. Fluensulfone (1,200 mg/kg) is metabolized by the murine-specific cytochrome P450 (CYP) isoform Cyp2f2 in mouse lung club cells and induces species-specific bronchiolar hyperplasias in mice.² Formulations containing fluensulfone have been used to control nematode populations in agriculture.

References

1. Oka, Y. Nematicidal activity of fluensulfone against some migratory nematodes under laboratory conditions. *Pest Manag. Sci.* **70(12)**, 1850-1858 (2014).
2. Strupp, C., Banas, D.A., Cohen, S.M., *et al.* Relationship of metabolism and cell proliferation to the mode of action of fluensulfone-induced mouse lung tumors: Analysis of their human relevance using the IPCS framework. *Toxicol. Sci.* **128(1)**, 284-294 (2012).

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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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM