

PRODUCT INFORMATION



N-ethyl Perfluorooctanesulfonamide

Item No. 37263

CAS Registry No.: 4151-50-2

Formal Name: N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptafluoro-1-octanesulfonamide

Synonyms: N-ethyl FOSA, N-ethyl PFOSA

MF: $C_{10}H_6F_{17}NO_2S$

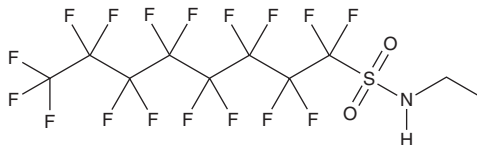
FW: 527.2

Purity: $\geq 85\%$

Supplied as: A solid

Storage: $-20^{\circ}C$

Stability: ≥ 4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

N-ethyl Perfluorooctanesulfonamide (N-ethyl FOSA) is supplied as a solid. A stock solution may be made by dissolving the N-ethyl FOSA in the solvent of choice, which should be purged with an inert gas. N-ethyl FOSA is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of N-ethyl FOSA in these solvents is approximately 10 mg/ml.

Description

N-ethyl FOSA is a perfluoroalkyl substance (PFAS) and an insecticide.^{1,2} It decreases the coupling efficiency, increases the rate of state four respiration, and uncouples mitochondrial oxidative phosphorylation in rat liver mitochondria when used at a concentration of $6.25 \mu M$.³ N-ethyl FOSA reduces foraging activity of leaf-cutting ants (*A. lundii*) and reduces colony survival when applied in colonies as a 0.3% bait.² It has been found in human blood and Arctic air samples.^{1,4}

References

1. Liu, D., Tang, B., Nie, S., *et al.* Distribution of per- and poly-fluoroalkyl substances and their precursors in human blood. *J. Hazard. Mater.* **441**, 129908 (2023).
2. Sabattini, J.A., Zancunio, J.C., and Lemes, P.G. Chemical control of *Acromyrmex lundii* (Hymenoptera: Formicidae) in anthropic ecosystems. *Pest. Manag. Sci.* **78(7)**, 3155-3163 (2022).
3. Starkov, A.A. and Wallace, K.B. Structural determinants of fluorochemical-induced mitochondrial dysfunction. *Toxicol. Sci.* **66(2)**, 244-252 (2002).
4. Stock, N.L., Furdui, V.I., Muir, D.C.G., *et al.* Perfluoroalkyl contaminants in the Canadian Arctic: Evidence of atmospheric transport and local contamination. *Environ. Sci. Technol.* **41(10)**, 3529-3536 (2007).

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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