

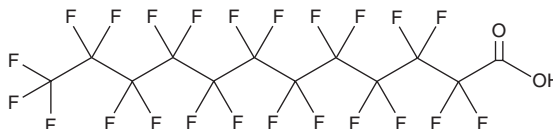
PRODUCT INFORMATION



Perfluorododecanoic Acid

Item No. 37245

CAS Registry No.: 307-55-1
Formal Name: 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-tricosafuoro-dodecanoic acid
Synonyms: PFDoA, PFDoDA
MF: $C_{12}HF_{23}O_2$
FW: 614.1
Purity: $\geq 90\%$
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

Perfluorododecanoic acid (PFDoA) is supplied as a solid. A stock solution may be made by dissolving the PFDoA in the solvent of choice, which should be purged with an inert gas. PFDoA is soluble in the organic solvent ethanol. The solubility of PFDoA in ethanol is approximately 20 mg/ml.

Description

PFDoA is a perfluoroalkyl substance (PFAS). It decreases the viability of PC12 cells when used at a concentration of 100 μM .¹ PFDoA (100 μM) also increases reactive oxygen species (ROS) and malondialdehyde (MDA) levels and reduces the mitochondrial membrane potential in PC12 cells. Prenatal exposure to PFDoA is negatively associated with head circumference, and maternal serum levels are positively associated with gestational diabetes.^{2,3} It has been found in lake trout (*S. namaycush*).⁴

References

1. Fang, X., Zhang, X., and Li, H. Oxidative stress and mitochondrial membrane potential are involved in the cytotoxicity of perfluorododecanoic acid to neurons. *Toxicol. Ind. Health* **36(11)**, 892-897 (2020).
2. Gui, S.Y., Chen, Y.-N., Wu, K.-J., et al. Association between exposure to per- and polyfluoroalkyl substances and birth outcomes: A systematic review and meta-analysis. *Front. Public Health* **10**, 855348 (2022).
3. Xu, C., Zhang, L., Zhou, Q., et al. Exposure to per- and polyfluoroalkyl substances as a risk factor for gestational diabetes mellitus through interference with glucose homeostasis. *Sci. Total Environ.* **838(Pt 4)**, 156561 (2022).
4. Furdui, V.I., Stock, N.L., Ellis, D.A., et al. Spatial distribution of perfluoroalkyl contaminants in lake trout from the Great Lakes. *Environ. Sci. Technol.* **41(5)**, 1554-1559 (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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