Perfluoroalkyl Standards

RTI International can provide mass-labeled perfluoroalkylsulfonates or sulfonamides by custom synthesis or, in the case of perfluorooctanesulfonate (PFOS), from stock. These compounds are labeled with oxygen-18. Mass-labeled PFOS is a standard for the quantitation of environmental PFOS.

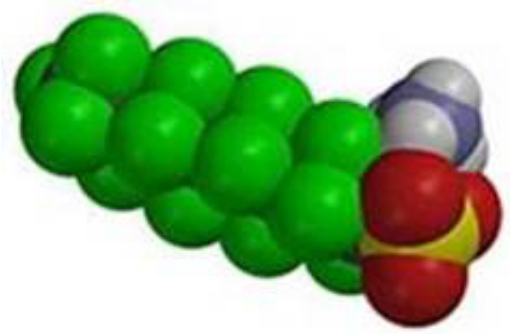
Ordering Information

A minimum order of $600 for PFOS and $500 for perfluorooctanesulfonamide (PFOSA) is required. Overseas shipping costs are paid by the recipient.

[$^{18}O_2$]-Ammonium Perfluorooctanesulfonate (Oxygen-18 Mass-Labeled PFOS)

The chemical formula of oxygen-18 mass-labeled PFOS is $CF_3 - CF_2 - CF_2 - CF_2 - CF_2 - CF_2 - CF_2 - CF_2 - S^{18}O_2O^{-+}NH_4$

The isotope incorporation of oxygen-18 mass-labeled PFOS is typically >90% $^{18}O_2$, ~9%$^{18}O_1$, and ~0.5% $^{18}O_0$.



Mass-labeled PFOS as the ammonium salt is the quantitation standard of choice for the determination of environmental PFOS. This oxygen-18 mass-labeled standard affords a four mass unit separation from the unlabeled analyte with a minimal level of unlabeled PFOS. It offers special advantages in quadrupole mass spectrometric analyses because both the parent ion (mass-to-charge ratio, m/e 503) and the daughter ion (m/e 103) retain the label for unambiguous quantitation. The >99% chemical purity of the standard is determined by high-performance liquid chromatography with mass spectrometry and evaporative light scattering detection.

This PFOS standard is prepared from telomer-derived intermediates and, therefore, has a linear perfluorooctyl chain in contrast to mixed straight and branched chains derived from electrochemical fluorination. The oxygen-18 label is resistant to exchange in aqueous media consistent with the behavior of sulfonic acids as a class.

	Total Amount	0.1 mg/1.0 mL methanol/ampule solution
Oxygen-18 mass-labeled PFOS	0.1 mg	$200

More Information

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Perfluoroalkyl Standards Price List

[$^{18}O_2$]-Perfluorooctanesulfonamide (Oxygen-18 Mass-Labeled PFOSA)

The chemical formula of oxygen-18 mass-labeled PFOSA is $CF_3 - CF_2 - CF_2 - CF_2 - CF_2 - CF_2 - CF_2 - CF_2 - S^{18}O_2NH_2$

The isotope incorporation of oxygen-18 mass-labeled PFOSA is typically >93% $^{18}O_2$, ~6%$^{18}O_1$, and ~0.6% $^{18}O_0$.

Oxygen-18 mass-labeled PFOSA at >99% purity is supplied as a 0.1 mg/1.0 mL methanol/ampule solution at $500 each when in stock. When not in stock, it can be provided by custom synthesis at $55,000/11 mg for a minimum synthesis.

	Total Amount	0.1 mg/1.0 mL methanol/ampule solution
Oxygen-18 mass-labeled PFOSA at >99%	0.1 mg	$500
Custom synthesis	11 mg	$55,000

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More Information

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