


PFAS In Air

Testing per- and polyfluoroalkyl
substances





Per - and Polyfluoroalkyl Substances (PFAS)

Air Testing

SGS Australia now offers specialised testing for a range of PFAS compounds in air. With our method it is possible to sample airborne PFAS for personal exposure monitoring, to determine ambient concentrations or even to assess the concentrations of volatile PFAS in soil vapour.

What is PFAS?

PFAS (Perfluoroalkyl and Polyfluoroalkyl Substances) are a broad family of chemical compounds which have been used in fire fighting foams, manufacturing processes and consumer products such as non-stick cookware for decades. The long-term effects of these compounds in the environment and on human health has attracted increasing attention from regulatory bodies in recent years.

Our PFAS services help you protect the environment, safeguard health and comply with evolving regulations with accurate and precise measurement of the potential for contamination.

PFAS in Air

Volatile and air-mobile PFAS have until recently been overlooked as a species of concern, due to the limited knowledge of how these compounds behave in air and the lack of techniques available for PFAS in air analysis. However, interest in how these PFAS might spread via the air has grown rapidly due to stringent regulations and public health concerns.

Sampling, Handling & Analysis

Air samples are collected at high volumes (>100 L) on sorbent tubes using a calibrated pump and flow meter. These tubes are then sealed and returned to the laboratory for analysis by a validated gas-chromatography-mass spectrometry (GC-MS) method.

The high volumes enable detection of PFAS at the typically low concentrations found in air. The robustness of the tube sampling method has been proven for volatile organic compounds by methods such as USEPA TO-17.

Sorbents have been selected to have a high affinity and very low breakthrough volume for PFAS compounds.

The full list of PFAS species that we can detect in air is available on the next page.

Why choose SGS?

Drawing on our unparalleled experience, we offer a one-stop-shop for fast and accurate collection, storage and analysis of PFAS and emerging contaminants samples. We ensure a high level of control over the entire sampling process in order to deliver high quality results.



SGS

Detectable PFAS Species

Up to 17 species of PFAS can be detected using our method at low-nanogram levels according to the table below.

If you require testing for additional volatile PFAS species not included below contact an SGS representative to discuss your requirements.

Analyte	Abbreviation	CAS #	Detection Limit (ng/tube)
1H,1H,2H,2H-Perfluorohexan-1-ol	4:2 FTOH	2043-47-2	5
1H,1H,2H,2H-Perfluoro-1-octanol	6:2 FTOH	647-42-7	5
1H,1H,2H,2H-Perfluoro-1-decanol	8:2 FTOH	678-39-7	5
2,2,3,3,4,4,4-Heptafluoro-1-butanol	3:1 FTOH	375-01-9	5
3,3,4,4,4-Pentafluoro-1-butanol	2:2 FTOH	54949-74-5	5
1H,1H,2H,2H-Perfluorodecyl acrylate	8:2 FTAc	27905-45-9	5
Heptafluorobutyric acid	PFBA	375-22-4	5
Perfluoropentanoic acid	PFPeA	2706-90-3	5
Undecafluorohexanoic acid	PFHxA	307-24-4	5
Perfluoroheptanoic acid	PFHpA	375-85-9	5
Perfluorooctanoic acid	PFOA	335-67-1	5
Perfluorononanoic acid	PFNA	375-95-1	5
Perfluorodecanoic acid	PFDA	335-76-2	5
Perfluoroundecanoic acid	PFUdA	2058-94-8	5
Perfluorododecanoic acid	PFDoA	307-55-1	5
Perfluorotridecanoic acid	PFTrDA	276-745-2	5
Perfluorotetradecanoic acid	PFTeDA	376-06-7	5

We are SGS – the world's leading testing, inspection and certification company. We are recognised as the global benchmark for sustainability quality and integrity. Our 97,000 employees operate a network of 2,500 offices and laboratories, working together to enable a better, safer and more interconnected world.

Connect with SGS



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WHEN YOU NEED TO BE SURE

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