

PFAS FREQUENTLY ASKED QUESTIONS

FACT SHEET - 2018

WHAT ARE PFAS?

PFAS compounds are a large group of man-made fluorine-containing chemicals with unique properties that make materials to which they are applied stain and stick resistant. PFAS chemicals are used to repel oil and water from clothing, carpeting, and furniture, in food packaging and on non-stick cookware surfaces. These chemicals are very resistant to breakdown; they also migrate easily and concentrate in the food chain. As a result, they may be found throughout the environment in groundwater, surface water, soil, and air, as well as in food.

WHY IS PFAS SUCH A LARGE CONCERN?

Due to their persistence in the environment, PFAS concentrations have been found in human blood samples worldwide. Human exposure to PFAS is mainly by ingestion of contaminated food or water. Some of these compounds are not metabolized, bind to proteins and are detected in blood, liver and kidneys.

Some studies have shown possible health effects including: an increase in cholesterol; an increase in uric acid; thyroid disease; testicular and kidney cancer, pregnancy complications, including hypertension, diabetes and a decrease in birth weight; effects on the immune system and more.

WHY SO MANY DIFFERENT NAMES?

Scientists and experts in the field refer to the same chemicals by different names. PFCs is referring to a group of toxic chemicals that include PFOA and PFOS



and other per-fluoroalkyl substances. EPA is now trying to use “per- and polyfluoroalkyl substances (PFASs)” rather than “perfluorinated chemicals (PFCs)” consistently to collectively describe PFOA, PFOS and the other chemicals in this group.

WHEN SHOULD SAMPLING OF PFAS BE CONSIDERED?

PFAS sampling should be considered at locations where certain activities have occurred or where related wastes have been disposed. These include: facilities where PFAS has been manufactured (i.e. textile, carpet manufactures), landfills where leaching of PFAS from disposal of products that contain PFAS, former or current DoD sites where there has been use of AFFF, airport hangers and other

facilities that store firefighting foams, firefighting training areas, crash sites (including aircraft and motor vehicle sites), metal coating and plating facilities, water treatment systems and receiving water bodies and large rail yards.

ARE THERE ANY FEDERAL DRINKING WATER STANDARDS ESTABLISHED FOR PFOA AND PFOS?

Though there is no federal drinking water standards established for PFOA and PFOS. In 2016, the EPA released Drinking Water Health Advisories of 70 parts per trillion to protect Americans from adverse health effects caused by a lifetime of exposure to PFOA and PFOS in drinking water. The EPA is also currently collecting data to determine whether or not a Maximum Contaminant Level (MCL)

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is warranted under the Safe Drinking Water Act. Some states have issued state guidelines for specific PFAS compounds in both water and soil.

WHY SGS?

SGS is the world's leading inspection, verification, testing and certification company. Recognized as the global benchmark for quality and integrity, we employ over 85,000 people and operate a network of more than 800 offices around the world.

WHAT SETS SGS'S SERVICES APART IN OUR PFAS TESTING PROGRAMS?

SGS North America has extensive PFAS testing experience, delivering sample analysis with higher degrees of positive identification and accurate quantification. We routinely process thousands of samples per year for various PFAS methods across multiple matrices.

WHAT ARE SGS'S CAPABILITIES IN REGARDS TO PFAS TESTING?

SGS provides the widest range testing capacity of any commercial lab. SGS holds multiple accreditations for PFAS tests, including DoD, ELAP, NELAC, ISO 17025. We have multiple LC/MS/MS instruments available for PFAS analysis and routinely processes thousands of samples per year for various PFAS methods across multiple matrices including water, soil, sediments, air tissue, blood and serum. Parameters reported include PFOA/PFOS, as well as 24 additional PFCs.

DO WE APPROACH A JOB DIFFERENTLY IF WE ARE TESTING FOR PFAS?

SGS understands the unique challenges when testing for PFAS due to cross contamination and low detection limits. Best practices have been developed for the collection and analysis of environmental samples. Emphasis is placed on the field technician's clothing,

personal care products, PPE, sampling bottles, equipment and sampling technique to minimize background PFAS levels. This is significant due to the persistent use of these chemicals in common consumer products.

HOW DO WE HANDLE QUALITY CONTROL IN TESTING FOR PFAS?

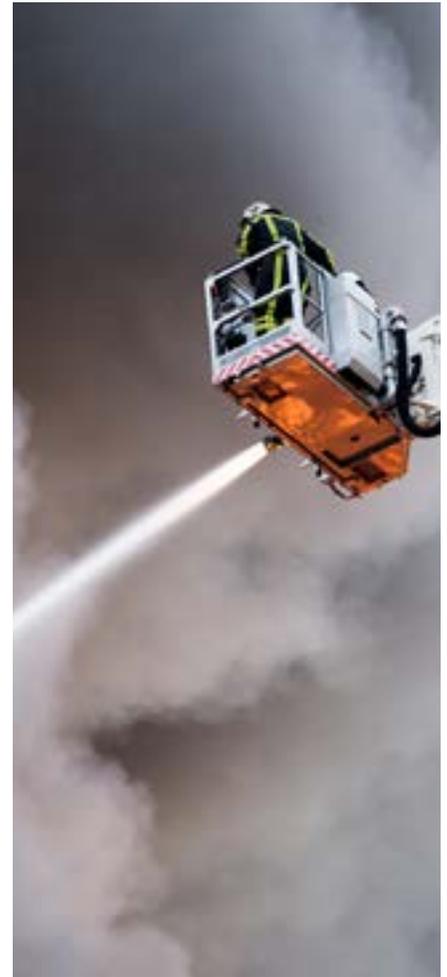
Quality control is especially important in testing for PFAS due to the potential for cross contamination and low detection limits. A comprehensive Quality Assurance program is integrated into all phases of the analytical procedures, from sample receipt to report generation and review. The laboratory regularly analyzes proficiency samples. Internal audits are performed annually, and external audits are performed by clients and certification bodies on an on-going basis.

WHAT IS THE TOTAL OXIDZABLE PRECURSORS (TOP) SCREENING PROCESS?

The TOP screening process transforms PFAS precursors in a sample to a measurable and identifiable perfluorinated Carboxylic acid. This procedure allows for measuring PFAS compounds that could be converted to terminal PFCAs and PFASs over time. This will provide a better understanding in exposing potential contamination sources.

HOW CAN I LEARN MORE?

If you have any additional questions please contact your sales person, PM or email us at PFAS@sgs.com for more information.



SGS is the world's leading inspection, verification, testing and certification company. SGS is recognized as the global benchmark for quality and integrity. With more than 95,000 employees, SGS operates a network of over 2,400 offices and laboratories around the world.

FOR ADDITIONAL INFORMATION PLEASE CONTACT YOUR LOCAL SGS REPRESENTATIVE AT +1 800 329 0204, PFAS.EXPERT@SGS.COM OR VISIT WWW.SGS-EHSUSA.COM/PFAS