Alfa Chemistry Provides Laboratory Microplastics Analysis for Identification and Measurement of Microplastics in Water

By using advanced techniques, Alfa Chemistry can provide comprehensive data on microplastics composition, size distribution, and abundance in various samples.

Microplastics Testing

Alfa Chemistry-Reliable Supplier of Various Chemicals

NY, NEW YORK, UNITED STATES, September 21, 2023 / EINPresswire.com/ -- Microplastic pollution has become a significant environmental concern in recent years. As a trusted third party testing laboratory, Alfa Chemistry recently launched comprehensive microplastics testing solutions to aid in the detection and quantification of these pervasive pollutants, especially in various water samples.

Plastic does not biodegrade, so over time it breaks down into smaller and smaller fragments. These tiny plastic particles, which are less than five millimeters in size, can be found in a variety of sources, including personal care products, synthetic clothing, and even in our food chain. The long-term effects of microplastics on both human health and the ecosystem remain largely unknown. Therefore, it is crucial to develop robust testing methods to better understand their prevalence and potential risks.

“Combining state-of-the-art technologies and advanced testing techniques, our laboratory performs microplastic analysis services to identify and quantify these tiny plastic particles,” said the Marketing Chief of Alfa Chemistry. “Our team employs a range of analytical methods, including optical microscopy, infrared microscopy, Raman microscopy, and scanning electron

microscopy/EDX, to ensure accurate and reliable results."

By leveraging these cutting-edge techniques, Alfa Chemistry can provide comprehensive data on microplastics composition, size distribution, and abundance in various samples. Samples like tap water, drinking water, honey, salt, drinks, beer, and spirits are all subject to the microplastics analysis.

The first step in the analysis process is the sample preparation. Alfa Chemistry's team of experts carefully prepares the samples to ensure representative testing. Depending on the type of sample, different techniques such as filtration or digestion are used to concentrate the microplastics for easier detection and measurement.

Once the samples are prepared, the laboratory utilizes microscopy techniques to visually identify and characterize microplastics. Optical microscopy can be used to identify and measure larger microplastics, while scanning electron microscopy (SEM) is employed to visualize smaller particles with higher resolution. These microscopic techniques enable the team to determine the size, shape, and color of the microplastics present.

To further enhance the accuracy and reliability of the analysis, spectroscopic techniques such as Fourier-transform infrared spectroscopy (FTIR) and Raman spectroscopy are utilized. These techniques help in the identification of the polymer composition of the microplastics, providing insights into the sources and types of plastic pollution present.

Additionally, chromatographic methods, including gas chromatography-mass spectrometry (GC-MS) and liquid chromatography-mass spectrometry (LC-MS), are used to separate and quantify the microplastics in complex samples. These methods help in determining the concentration of microplastics and identifying specific additives or contaminants that may be present.

As concern about microplastics in water has increased dramatically in recent decades, Alfa Chemistry has made it a top priority to test and analyze the presence of microplastics in water. Meanwhile, Alfa Chemistry also provides analysis of chemicals such as dioxins, pesticide residues, heavy metals and semi-volatile organic compounds in a typical water analysis project.

Below are Alfa Chemistry's main microplastics testing capabilities:

Quantification of microplastics in water, soil or sludge
Analysis of Microplastics in Clean Water Samples
Microplastics Analysis in Typical Wastewater Samples
Microplastics on Filters

"By offering comprehensive testing solutions, we are well prepared to help our customers, whether they are researchers, environmentalists or regulators, gain a better understanding of the environmental impact of microplastics and develop effective mitigation strategies

accordingly," the Chief further added.

For more information, please visit the website https://www.alfachemic.com/testinglab/services/microplastics-testing.html.

About
The last decade has seen an increase in environmental awareness. Accurate detection and measurement of microplastics can help assess their potential risks and develop sustainable solutions to mitigate their impact on the environment. Alfa Chemistry is a reliable partner to industry, offering innovative and sustainable solutions to meet evolving needs.

Tylor
Alfa Chemistry
email us here
Visit us on social media:
Facebook
Twitter
LinkedIn
YouTube
