

Milestone's UltraWAVE Increases Productivity and Safety for Product Testing Lab



Customer Eurofins Scientific is the leader in food and pharmaceutical product testing. They also specialize in environmental laboratory services, and they are one of the global market leaders in agro-science, genomics and central laboratory services. Eurofins has more than 190 laboratories across 36 countries that perform state-of-the-art analytical techniques to support its clients' quality and safety standards.



Challenge At the Trace Element Laboratory in Auckland, New Zealand, Eurofins performed digestions using a heating block and perchloric acid. This approach was not only time consuming, but the large volumes of perchloric acid also posed a serious health and safety risk.

Solution The lab purchased Milestone's UltraWAVE microwave digestion system as an alternative to the heating block. The UltraWAVE performed complete digestions of the lab's samples, increasing throughput while removing the health and safety risk.

Background:

Siddharth Kinare is an analyst at Eurofins' Trace Element Laboratory in Auckland, New Zealand. The lab's services include testing water, air, soil, waste and other products to assess their quality and impact on health and the environment. All digestions were performed using a heating block and perchloric acid. In order to improve the quality of digestion and throughput, the lab looked to an alternative solution to the heating block.

The Eurofins group owns multiple UltraWAVE units in their other locations around the world. After Milestone product specialists presented the UltraWAVE to the Auckland lab, they evaluated this as an impressive piece of technology and decided to purchase the unit.

Their Story

Application:

Our UltraWAVE is used to digest environmental samples, such as plants and soils. We will soon also use it to digest food samples and dairy products. All samples are placed into borosilicate or quartz vials, depending on the elements of interest and their concentrations. We use a single method for all of our samples.



The following is the method that we use for all types of matrices:

- Sample amount: 0.5 g
- Acid: 4-5 mL of Nitric Acid.

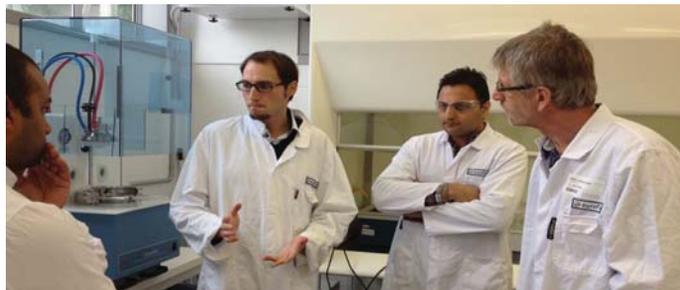
The microwave program used for our samples includes a heating time of 30 minutes at 180°C and a cooling/ pressure releasing time of 15 minutes.

Benefits of the UltraWAVE:

The UltraWAVE always performs according to our expectations. The cycles done with the UltraWAVE give us complete digestions, clear solutions and full recovery of the target elements. ***“The UltraWAVE has offered great benefits, such as fast digestion, high quality and better utilization of our time for other analysis.”***

Future Plans

At the Eurofins Auckland Laboratory, all of our digestion methods will be moved to the UltraWAVE, which is much quicker and safer than the heating block. We are close to completing the validation of the methods into the UltraWAVE and plan to invest in a second unit when sample volumes permit. ***“We expect our productivity to increase once we start using the UltraWAVE for all our samples. It is very easy to use and extremely time efficient and safe.”***



“By using the UltraWAVE, our digestion times will significantly decrease, which will give us a better turnaround time.”

– Siddharth Kinare, Analyst, Eurofins Auckland Lab

About Milestone

With over 50 patents and more than 18,000 instruments installed in laboratories around the world, Milestone has been widely recognized as the global leader in metals prep technology for the past 26 years. Committed to providing safe, reliable and flexible platforms to enhance your lab's productivity, customers worldwide look to Milestone for their metals digestion, organic extractions, mercury analysis and clean chemistry processing needs.

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