NFFOODS Spectrum
perspectives on food technologies & business
ASIA

Milestoneâ??s ETHOS UP performs metals testing of food for high volume labs

16 July 2020 | News

Demand for trace metals analysis in the food industry is rapidly increasing due to stricter food regulations that are now in place, including the Food Safety Modernization Act. ICP has been the standard for metals analysis for food, but as demand for lower levels of detection grows, the industry is experiencing a seismic shift to ICP-MS. This transition is placing increased emphasis on the sample preparation method employed.



ETHOS UP presents advanced microwave digestion performance for high-food volume in the lab which can enable high-throughput, quality metals testing of various food samples using the Milestone ETHOS UP with MAXI-24 HP

Demand for trace metals analysis in the food industry is rapidly increasing due to stricter food regulations that are now in place, including the Food Safety Modernization Act. ICP has been the standard for metals analysis for food, but as demand for lower levels of detection grows, the industry is experiencing a seismic shift to ICP-MS. This transition is placing increased emphasis on the sample preparation method employed.

Traditional sample preparation techniques for food include hot block digestion, closed vessel microwave digestion, and ashing, each of which poses different challenges.

Hot block digestions suffer from long digestions, airborne contamination, poor digestion quality, and poor recovery of volatile compounds. Closed vessel microwave digestion has proven to be an effective technique with fast, complete digestions, a clean environment, and full recovery of volatile compounds.

The reactivity of the samples that food laboratories encounter varies greatly, as do the temperatures required for complete digestion. Analysts have always chosen between rotors that either delivered high throughput or high performance.

Milestone’s ETHOS UP equipped with MAXI-24 High Performance (HP) rotor delivers both the digestion performance and throughput requirements that food testing and related industry labs require. It delivers both high-throughput and high temperature/pressure capability in a single, easy-to-use solution. This results in high-quality data and more profitable runs, all

without compromising performance. The design of the MAXI-24 HP allows for up to 24 samples to be processed simultaneously and achieve temperatures and pressures not possible with traditional high throughput rotors. To provide these enhanced capabilities, the MAXI-24 HP was designed with thicker high-purity TFM vessels and caps, and rugged PEEK shields.

The ETHOS UP with MAXI-24 HP successfully digestes a variety of food matrices, ensuring superior digestion quality and reliable results. It's configuration provides a complete solution for food testing and related industry laboratories, delivering the high performance and throughput these labs require.

Source: ETHOSUP –MAXI-24 HP