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VENDOR SEMINAR:

New Developments for the Analysis of MOSH/MOAH and 3MCPD in Food

Development & Advances for MOSH MOAH Analytics

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Saturated and aromatic hydrocarbons, the so-called "MOSH MOAH contaminants", have been the focus of sustained public interest for some time. These contaminants are now considered undesirable in food, consumer goods and cosmetics. As a result, a relevant analytical test point has been established and manifested. The basic method for this was published in 2017 in the form of EN method 16995. With this method, it is possible to analyse MOSH/MOAH in vegetable oils and foods based on vegetable oils with the LOQ of 10 mg/kg. In the last two years new methods have been established (DGF C-VI 22 (20)), EN 16995 Version 2022). With these methods, an LOQ of 1 mg/kg can be achieved, but some manual sample prep is needed to achieve this LOQs. In the session an optimized, automated workflow is presented, which allows to reach this LOQs in an automated way. Using a new version of epoxidation this workflow gives especially for samples with high interferences (Palmoil, Coconutoil) better results.

New developments for the Analysis of 3MCPD in Food

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For the analysis of 3MCPD in edible oil and fat are different methods available. Some of these methods are easy to automate. To automate the method developed by SGS, Hamburg, (3in1) is more challenging, because it requires storing the sample for a long time at -22°C which requires special hardware. The lecture shows the experimental setup, some real data achieved with an automated system for this method and a comparison of the different methods. It also shows some data for a method which analyses free MCPD instead of MCPD esters and gives an overview of new methods which have been established in China.