Residues of Mineral Oil and Synthetic Hydrocarbons in Food

28 and 29 March 2017
Dusseldorf/Germany

Highlights

Production, composition, qualities and uses
- Lubricants, microcrystalline and paraffin waxes and white oils
- Use, regulation and quality criteria

Analytics
- Quantification by on-line HPLC-GC FID
- Long chain n-paraffins and epoxidation of olefins
- Comprehensive two-dimensional GCxGC MS/FID
- Transport and storage without mineral oil
- Evaluation strategies for functional barriers

Toxicology
- Critical toxicological endpoints
- EFSA project „Bioaccumulation and toxicity of mineral oil hydrocarbons in rats“ – The outcome and what this might mean for humans

Regulatory framework
- Evolution of the German regulation on MOH
- EU-monitoring

Strategies for solving the problems
- Importance for food industry to identify the source of contamination
- The MOSH/MOAH issue from the perspective of a vegetable oil supplier
- Minimisation of MOSH/MOAH in foods – Successful outcome of 3 years of research

The Experts

Maurus Biedermann Official Food Control Authority of the Canton of Zurich
Rainer Brandsch MDCTec Systems
Dirk F. Danneels European Wax Federation (EWF)
Konrad Grob Official Food Control Authority of the Canton of Zurich
Rüdiger Helling Saxon State Ministry for Social Affairs and Consumer Protection
Nicole Hellwig German Federal Institute for Risk Assessment (BfR)
Nils Hinrichsen ADM Research
Florence Lacoste French Institute of Fats and Oils (ITERG)
Martin Lommatzsch Laboratory Lommatzsch
Reinhard Matissek Food Chemistry Institute (LCI) of the Association of the German Confectionary Industry (BDSI)
Dieter Schrenk University of Kaiserslautern
Thomas Simat Technische Universität Dresden (TUD)
Lionel Spack Nestlé Suisse
Malene Teller Blume Coop Denmark
Matthias Wolfschmidt foodwatch
Tuesday, 28 March 2017

8.30 Registration and coffee

9.00 Welcome speech by Akademie Fresenius and the Chair
Dieter Schrenk, University of Kaiserslautern, Germany

9.10 Mineral oils and hydrocarbons? Their production, composition, qualities and uses
- Manufacturing process of lubricants, microcrystalline and paraffin waxes and white oils
- Substance compositions and their chemical structures, differences and similarities between waxes and oils
- Waxes and oils: Why are they used, how are they regulated, and what are the relevant quality criteria when they are used as food or food contact additives?
Dirk F. Danneels, European Wax Federation, Belgium

9.40 Questions and answers

9.50 Quantification and characterisation of mineral oil and synthetic hydrocarbons
- Quantification by on-line HPLC-GC FID
- Enrichment and removal of long chain n-paraffins; epoxidation of olefins
- Characterisation of the MOSH and MOAH fraction by comprehensive two-dimensional GCxGC MS/FID
Maurus Biedermann, Official Food Control Authority of the Canton of Zurich, Switzerland

10.20 Questions and answers
10.30 Coffee break

11.00 Analysis of synthetic hydrocarbons from polyolefins and adhesives
- Analysis of raw materials and final products
- Group-type identification of oligomers
- Migration into food
Martin Lommatzsch, Laboratory Lommatzsch, Germany

11.30 Questions and answers

11.40 Current regulatory framework and where to go – Challenges and ideas
- Applicable rules for contaminants and food contact materials
- Evolution of the German Regulation on MOH
- EU-monitoring
- Challenges and limitations
Rüdiger Helling, Saxon State Ministry for Social Affairs and Consumer Protection, Germany

12.10 Questions and answers

12.20 Panel discussion

13.00 Lunch

14.30 Transport and storage without mineral oil
Thomas Simat, Technische Universität Dresden (TUD), Germany

15.00 Questions and answers

15.10 Evaluation strategies for functional barriers
- Different approaches
- Strengths and weaknesses
- Decision tree for practical implementation
Rainer Brandsch, MDCTec Systems, Germany

15.40 Questions and answers
15.50 Coffee break

16.20 Toxicology of mineral oils
- Overview of the toxicology of mineral oil hydrocarbons
- Critical toxicological endpoints and open questions in this respect
Nicole Hellwig, Federal Institute for Risk Assessment (BfR), Germany

16.50 Questions and answers

17.00 Outcome of the EFSA project „Bioaccumulation and toxicity of mineral oil hydrocarbons in rats“ and what this might mean for humans
Konrad Grob, Official Food Control Authority of the Canton of Zurich, Switzerland

17.30 Questions and answers
**Wednesday, 29 March 2017**

8.30 Welcoming speech by the Chair
Reinhard Matissek, Food Chemistry Institute (LCI) of the Association of the German Confectionary Industry (BDSI), Germany

8.40 Standardisation work with CEN for the determination of MOSH and MOAH in vegetable oils
Florence Lacoste, Institute of Fats and Oils (ITERG), France

9.10 Questions and answers

9.20 MOSH/MOAH – From toxic packaging to “clean” food: foodwatch’s campaign in France, Germany and The Netherlands
- Why we need legal obligations for functional barriers?
- “Clean” food: mandatory maximum residues of MOSH/MOAH in foodstuff
- Need for legal action (national / EU-level) instead of self-commitments
Matthias Wolfschmidt, foodwatch, Germany

9.50 Questions and answers

10.00 How does a big retail business identify and deal with challenges and responsibility with regard to harmful chemicals in food packaging?
- What to do when legislation does not cover the risk today?
- Focus: BPA, PFC’s and mineral oil in food packaging
- Examples of business cases
- Drivers and challenges
Malene Teller Blume, Coop Denmark

10.30 Questions and answers
10.40 Coffee break

11.10 Importance for food industry to identify the source of food contamination by mineral oils
- Good manufacturing practice
- Source identification/profiling
- Mitigation
- Supply chain involvement
Lionel Spack, Nestlé Suisse, Switzerland

11.40 Questions and answers

11.50 The MOSH/MOAH issue from the perspective of a vegetable oil supplier
- What are the potential sources for mineral oil contaminations in the supply chain of vegetable oils and fats?
- Which oils/fats are problematic, which ones are not?
- How quickly can the problem be solved?
Nils Hinrichsen, ADM Research, Germany

12.20 Questions and answers

12.30 Minimisation of MOSH/MOAH in foods – Successful outcome of 3 years of research
- What is an “unresolved complex mixture” (hump) in chromatography?
- Discovery of the various potential sources of entry
- Contents in various raw materials – Overview
- A new toolbox can help the food industry to minimise MOSH/MOAH entries
- The masterplan
Reinhard Matissek

13.00 Questions and answers

13.10 Panel discussion
14.10 Final remarks by the Chair, lunch and end of the conference
The Experts

Maurus Biedermann is a Chemical Analyst and the Laboratory Head at the Official Food Control Authority of the Canton of Zurich. He has 30 years of experience in food analysis and was involved in the development of large volume on-column GC injection and the on-line coupling of HPLC with GC.

Rainer Brandsch is a Chemist and an internationally recognized expert in migration modelling and compliance evaluation of food contact materials and founder of the companies MDCTec Systems GmbH (IT Solutions) and MDCTec Services GmbH (Compliance Management).

Dirk F. Danneel was retired in 2015 and spent most of his career in the chemical industry, the last 25 years with the Honeywell’s „Performance Materials and Technologies” business. Since 2006 he was leading globally all Honeywell’s REACH related activities. In 2009 he took on the role of Secretary General for the European Wax Federation.

Konrad Grob is a Chemical Analyst at the Official Food Control Authority of the Canton of Zurich in Switzerland and member of EFSA’s CEF Panel.

Rüdiger Helling has worked as Head of the Food Contact Materials and Consumer Goods Section at the Saxon State Laboratory for Public and Veterinary Health for 14 years and is a member of several scientific advisory committees. In his actual position as Head of Division at the Saxon State Ministry for Social Affairs and Consumer Protection he is responsible for the whole diversity of not only contaminants in food.

Nicole Hellwig is Scientist in the Unit “Safety of Food Contact Materials” in the Department “Chemicals and Product Safety” at the BfR in Berlin and has been working in the risk assessment of food contact materials since 2009.

Nils Hinrichsen is a Food Chemist. He has been working in oils and fats research since 1999 and with ADM in the Oils and Fats Research Center in Hamburg since 2008. He has been involved in many field, experimental and modelling studies within the scope of PhD projects, contract research for government, industry, NGOs, and various EU Framework projects.

Florence Lacoste is the Head of Analysis & Expertise Department at ITERG (Institute of Fats and Oils) in Pessac and the Leader of the CEN-Project on the “Determination of MOSH and MOAH with on-line HPLC-GC-FID analysis in vegetable oils.”

Martin Lommatzsch has founded Laboratory Lommatzsch in 2016 offering consulting, analytical support and research projects with focus on food contact materials. He was PhD student of the Technische Universität Dresden, Chair of the Food Science and Food Contact Materials, in cooperation with the Kantonales Labor Zurich, G&G Department, from 2012 to 2015.

Reinhard Matissk is a Professor, the Head of Institute and Director at the LCI of the BDSI, Cologne/ Germany. He is a member of several national and international scientific panels and institutions.

Dieter Schrenk has been a Professor for Food Chemistry and Environmental Toxicology at the University of Kaiserslautern since 1996. In 2005 he took on the full professorship for Food Chemistry and Toxicology.

Thomas Simat has been a Professor and the Chair of Food Science and FCM at the Technische Universität Dresden (TUD) with research on FCM since 2003. He is member of the ‘BfR Committee on Consumer Products’ and the ‘GDCh Working Group Consumer Products’.

Lionel Spack is a Senior Expert for Food Contact Materials at Nestlé in the Nestlé Quality Assurance Center (NQAC) supporting the Zone EMENA (Europe, Middle East, North Africa), Earlier he was a Packaging QA specialist at the Nestlé Research Center. He is involved in ILSI, Schweizerische Verpackungsinstitute- Joint Industry Group, Food Drink Europe- Printing Inks Joint Task Force.

Malene Teller Blume has been working in Coop DK for more than 15 years and is responsible for Coop’s Quality and Safety programme for nonfood consumer products. She is responsible for Coop’s Chemical Strategy and therefore closely involved with chemicals in consumer goods.

Matthias Wolfschmidt has been the Head of Campaigns at foodwatch in Berlin since 2002. Since 2005 he has also been Deputy Managing Director. He is responsible for foodwatch’s campaign on MOSH/MOAH in France, Germany and The Netherlands.
About

Who do you meet?

Groups that should take part:
Managing directors, boards of directors, managers, consultants and scientists in the fields of:
• Analysis
• Quality assurance & control
• Product safety
• Raw material control
• Regulatory affairs & support
• Research & development
• Toxicology

Sectors that should take part:
• Food and drink industry
• Food trade
• Packaging industry
• Food inspection offices
• Laboratories
• Research institutes
• Authorities
• Professional associations

Trade Exhibition

Our conference provides you with the opportunity of presenting your company in a trade display. Present your products and services and reach out to your specific target groups. We would be happy to provide you with information on all the various options available – from displaying product information to an exhibition stand – with no further obligation on your part.
Use the attached fax reply sheet to request our information material. Or simply call us. We would be more than pleased to assist you personally.

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The Organiser

For over 20 years, Akademie Fresenius has been your partner for practice-orientated training on all the latest topics surrounding the safety and quality of food, consumer goods and chemical products along the whole production chain. Our portfolio not only includes international conferences but also offers national trade meetings, intensive practical seminars and training in small work groups.

Our events are designed to promote an active exchange amongst our participants and offer the perfect platform for bringing the industry, the scientific sector, the authorities and the consulting field together. Excellent service, all-inclusive. Our wide-ranging advanced training opportunities contribute to giving our customers the competitive edge in all quality assurance, risk assessment, legal, production and technical questions.

Akademie Fresenius is a joint venture between Cognos, one of the largest private and independent education groups in Germany, and SGS Institut Fresenius, one of the leading German providers of chemical laboratory analysis.

You can find details on upcoming and new events at www.akademie-fresenius.com

Do you have any questions?

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### Participation

- I would like to take part in the International Fresenius Conference „Residues of Mineral Oil and Synthetic Hydrocarbons in Food“, 28 and 29 March 2017 in Dusseldorf/Germany. Fee: € 1,795.00 plus VAT.
- I am a representative of an authority or a public university and therefore eligible for a reduced fee of € 795.00 plus VAT per person (please provide evidence). The reduced fee cannot be combined with other rebates.
- I would like to take part in the evening event on 28 March 2017 (included in the above price).

### Event Documentation

- Unfortunately, I am unable to attend. Please send me the complete documentation for € 295.00 plus VAT.

### Trade Exhibition

- Please send me information on available options for trade exhibition and presenting product information.

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**Registration**

By web  www.akademie-fresenius.com/2381

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**Your order number / Cost unit (if required)**

**Your VAT ID No. (for registrations from EU countries except Germany)**

**Date**  **Signature**

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**Venue/Event Hotel**

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We have reserved a limited number of rooms for our participants at reduced rates at the hotel. These rooms can be booked up to 8 weeks prior to the start of the event. Please book early and directly through the hotel quoting “Fresenius” as reference.