



International Akademie Fresenius Conference

Microplastics

Regulatory Changes and Risk Assessment for Intentionally Added Microplastics

21 and 22 April 2020
in Dusseldorf/Germany

Highlights

Regulatory Changes

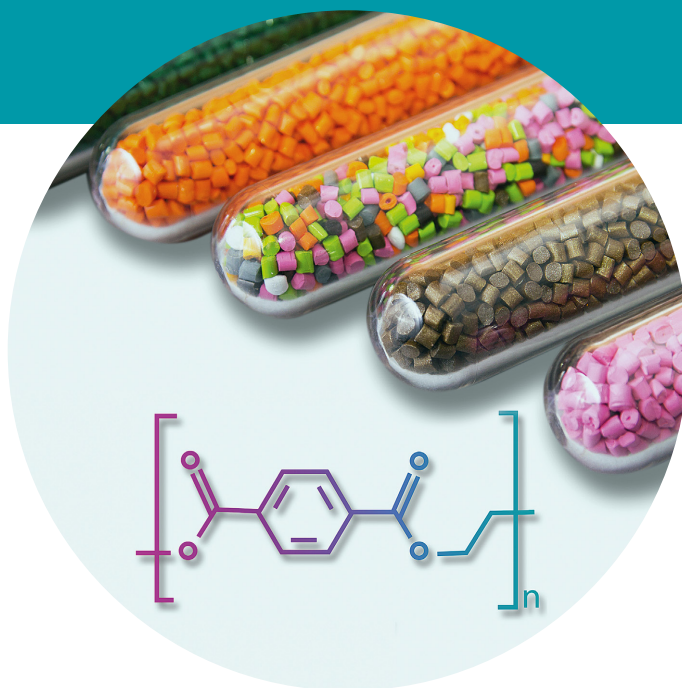
- European Commission: Update on microplastics and the EU Plastics Strategy
- ECHA: REACH restriction of intentionally added microplastics – status update
- Practical evidence for in favor of discussing a refinement of the new legal framework: The example of polyethylene wax
- Cefic perspective on the expected regulatory changes
- Industry perspective on ECHA's restriction proposal: The implications for polymer dispersions and their down-stream industrial uses
- Intentionally added microplastics in agricultural products

Risk Assessment

- The German BfR on microplastics in food: Oral uptake, toxicology and initial aspects of risk assessment
- Modeling the flows of microplastic to the environment
- Transferring microplastic fate and effects knowledge from the environment to human health
- Understanding microplastic exposure and hazard in a global context

Proactive Solutions

- Microplastic to microfibers – How to achieve zero leakage to the environment



The Experts

Seema Agarwal University of Bayreuth | **Annika Batel** BASF | **Valentina Bertato** European Commission | **Andy Booth** Sintef | **Jürgen Fischer** German Environment Agency | **Alice Horton** National Oceanography Centre | **Martin Klatt** BASF | **Christian Laforsch** University of Bayreuth | **Alfonso Lampen** The German Federal Institute for Risk Assessment (BfR) | **Alexander Lichtblau** Clariant Produkte | **Thomas Müller-Kirschbaum** Henkel | **Bernd Nowack** Swiss Federal Laboratories for Materials Science and Technology (EMPA) | **Blanca Serrano** The European Chemical Industry Council (Cefic) | **Peter Simpson** European Chemicals Agency (ECHA) | **Yvonne C.M. Staal** National Institute for Public Health and the Environment (RIVM) | **Karen Thorpe** Fera Science

The Programme

Get-together on Monday, 20 April 2020

Will you arrive on Monday?
Come into the hotel bar at 8 p.m. and meet other participants and experts in a relaxed atmosphere.

Tuesday, 21 April 2020

8.30 Registration and coffee

9.00 **Welcome address by the organisers and introduction by the Chair**

Martin Klatt, BASF, Germany

Regulatory Changes

9.10 **REACH restriction of intentionally added microplastics – status update and refinements to the proposal made during the Opinion-making process**

Peter Simpson, European Chemicals Agency (ECHA), Finland

9.35 **Cefic perspective on the Opinion**

- General position on the restriction
- Considerations on the definition
- Challenges ahead

Blanca Serrano, European Chemical Industry Council (Cefic), Belgium

10.00 **NGO perspective on how to regulate microplastics**

Jeroen Dagevos, Plastic Soup Foundation, The Netherlands

10.25 Coffee break

10.55 **Practical evidence for a necessary refinement of the new legal framework for (intentionally added) microplastics: The example of polyethylene wax**

- Homogeneous grouping – prerequisite for solid scientific judgement
- Thresholds on continuous proper functions

Alexander Lichtblau, Clariant, Germany

11.20 **Industry perspective on ECHA's restriction proposal: The implications for polymer dispersions and their down-stream industrial uses**

- General overview of concerns and major implications for industry
- Impact of microplastic restrictions on the dispersion industry and its down-stream industry
- Suggestions for improvement

Martin Klatt, BASF, Germany

11.45 **Intentionally added microplastics in agricultural products**

- Polymers vs microplastics in agricultural products
- Relevance of microplastics in agricultural products
- Difficulties and impact of the restriction on the agro industry

Annika Batel, BASF, Germany

12.10 Panel discussion

12.40 Lunch

Risk Assessment

14.00 **Human health effects of microplastics**

- How to address and test the toxicity of microplastics?

Yvonne C.M. Staal, National Institute for Public Health and the Environment (RIVM), The Netherlands

14.25 **Microplastics in food: Oral uptake, toxicology and initial aspects of risk assessment**

Alfonso Lampen, The German Federal Institute for Risk Assessment (BfR), Germany

14.50 **Transferring microplastic fate and effects knowledge from the environment to human health**

- Environmental research as lead for our current understanding of microplastic fate and effects;
- Transferability to human health research
- Nanoplastic and plastic additive chemicals as most significant sources of risk from plastic
- Learning from the nanosafety and chemical risk assessment: How to avoid re-inventing the wheel?

Andy Booth, Sintef, Norway

15.15 Panel discussion

15.45 Coffee break

Environmental Risk Assessment

16.15 **Modeling the flows of macro- and microplastics to the environment**

- Release modeling based on material flow analysis
- Polymer-specific approach including tyre-wear particles
- Spatially-resolved and dynamic modeling

Bernd Nowack, Swiss Federal Laboratories for Materials Testing and Research (EMPA), Switzerland

16.40 **Microbes and microplastics: Influence of the biofilm on ecotoxicology**

- How does the microbial colonisation of microplastics influence bioavailability?
- Does the presence of a microbial biofilm increase the health risk of ingesting microplastics?
- Should ecotoxicological investigations be conducted using aged (microbially colonised) microplastics rather than pristine?

Karen Thorpe, Fera Science, United Kingdom


17.05 **Questions and Answers**

17.25 **End of first day**

18.30 **Departure time for the evening event**



As always, you are most welcome to attend our evening event. At the end of the first conference day, Akademie Fresenius invites you to a leisurely evening, which will take us to a lovely location in Dusseldorf for a dinner visit. Please join us to continue the day's interesting discussions in a relaxed and leisurely atmosphere. Don't miss out on this opportunity!

 **Wednesday, 22 April 2020**

9.00 **Welcome address by the Chair**

Christian Laforsch, University of Bayreuth, Germany

Keynote: Regulatory Developments in the EU

9.10 **Update from the Commission: Microplastics and the EU Plastics Strategy**

- The decision-making process for intentionally added microplastics: Status update
- General initiatives on microplastics in the EU Plastics Strategy

Valentina Bertato, European Commission, Belgium

9.35 **Questions and answers**

Environmental Risk Assessment

9.55 **The challenge of understanding microplastic exposure and hazard in a global context**

- Why are microplastics such a complex issue?
- What influences the fate and transport of microplastics within the environment?
- Are some microplastics more harmful than others?
- What research is needed to understand the risks posed by microplastics?

Alice Horton, National Oceanography Centre, United Kingdom

10.20 **Challenges in the environmental risk assessment of microplastics and regulatory implications: Perspective of the German REACH Competent Authority**

- Current standards defined by different legislations
- Existing test systems – are those applicable for polymere based particles?
- Threshold criteria for chemicals – are these also applicable for microplastics?
- Restriction of intentionally added microplastics – for which reasons the precautionary principle needs to be applied?

Jürgen Fischer, German Environment Agency, Germany

10.45 **Coffee break**

11.15 **Microplastics as stressors in different ecosystems**

Christian Laforsch, University of Bayreuth, Germany

11.40 **Panel discussion**

Proactive Solutions

12.10 **The role of biodegradable polymers in a microplastic free environment**

Seema Agarwal, University of Bayreuth, Germany

12.35 **Microplastic to microfibers - how to achieve zero leakage to the environment**

- Definition of microplastic / origin and sources
- What the consumer goods industry is already doing and what the next steps are
- Microfibers: leakage via textile washing
- Recent research and how to reduce pollution further

Thomas Müller-Kirschbaum, Henkel, Germany

13.00 **Questions and answers, closing remarks**

13.30 **Lunch and end of the conference**



Information available online at:
www.akademie-fresenius.com/2729

The Experts

Seema Agarwal is Academic Director and Professor at the University of Bayreuth. She is a Chemist with specialisation in macromolecular chemistry with research interests in synthesis of functional speciality polymers, bioplastics, smart materials, processing methods and nano-structures.

Annika Batel completed her PhD and PostDoc in microplastics research at the University of Heidelberg and is now employed as Aquatic Ecotoxicologist at the agricultural research centre of BASF.



Valentina Bertato has been working at the European Commission since 2011 dealing mainly with chemicals policy, first in DG GROW and since 2017, in DG ENV. She is currently



focusing on REACH restrictions for environmental risks (including microplastics) and on international work on chemicals. Her background is in environmental chemistry.

Andy Booth (PhD) is a Senior Researcher in environmental chemistry at the Environment and New Resources Department at SINTEF Ocean, Norway. His research work focuses on the environmental fate and effects of anthropogenic pollutants in natural systems, with a focus on emerging pollutants, nanomaterials and microplastics. He has participated in many national and international level research projects.

Jeroen Dagevos is currently the Head of Programmes at the Plastic Soup Foundation. He is strongly involved in the "beat the microbead" campaign and has been the



engaged in driving forward European policy measures for the regulation of intentionally added microplastics for more than 10 years.

Jürgen Fischer obtained his PhD in agricultural chemistry and joined the Germany Environment Agency (UBA) in 1997. Between 2000 and 2016 he was a member of the UBA's biocides group. Since 2016 he has been responsible for the assessment of the environmental exposure and fate of chemicals in the context of the REACH legislation.



Alice Horton is an anthropogenic Contaminant Scientist working at the National Oceanography Centre, UK. She has been active in the field of microplastics research since 2014.



Her research focuses especially on microplastics within the aquatic environment, including their sources, fate and ecological effects.

Martin Klatt (PhD) is active at BASF in the fields of product stewardship and research since 1995 in various positions. Currently, he is leading the product stewardship group of dispersions and resins Europe at BASF and represents BASF in various associations. He is currently the chairman of the EPDLA (European Polymer Dispersion and Latex Association).



Christian Laforsch is a Professor for animal ecology at the University of Bayreuth, which he joined in 2012. Since 2015, he has also been acting as Vice President for research and early-career scholars at his University. His research interest lies within the field of zoology and evolutionary ecology, targeting especially the phenomenon of phenotypic plasticity and animal adaption to changing biotic and abiotic environmental factors.



Alfonso Lampen is the Head of the Department 'Food Safety' at the German Federal Institute for Risk Assessment (BfR) in Berlin and a Professor at the School of Veterinary Medicine Hannover.



Thomas Müller-Kirschbaum joined Henkel more than 30 years ago, after his study of physics, chemistry and environmental technology. He is currently the Head of the global R&D Laundry and Home Care. As Co-chair of the Henkel Sustainability Council, he is responsible for the company's sustainability strategy and its implementation. He also acts as expert and advisor for several institutions like the Alliance to end plastic waste, the Fraunhofer Competence Cluster for Circular Plastic Economy and the circular economy initiative of the German government.



Alexander Lichtblau holds a PhD in chemistry. He has been working at Clariant, in product stewardship for more than 10 years. For the last 8 years he has taken over roles in business unit key contact managing and monitoring of any product stewardship related topics for and in a business unit. He has previously worked in the additives business for 14 years.



Bernd Nowack holds a PhD in environmental sciences and is currently leading the „Environmental Risk Assessment and Management“ group at EMPA, the Swiss Federal Laboratories for Materials Science and Technology. He is also an adjunct professor at ETH Zurich. His current research deals with the environmental risks of engineered nanomaterials, nanobiomaterials and microplastics.

Blanca Serrano is currently the Director of Product Stewardship at the European Council of the Chemical Industry (Cefic) dealing with issues related to nanomaterials, microplastics and the Classification, Labelling and Packaging Regulation (CLP). She joined Cefic in 2015 and has extensive experience in chemical regulatory affairs from her previous role as Product Stewardship Coordinator in FEIQUE, the Spanish Chemical Industry Association.

Peter Simpson is a Senior Scientific Officer at the European Chemicals Agency (ECHA) in Helsinki. He is an Environmental Toxicologist and works on the risk management of hazardous chemicals under the EU's REACH regulation. For the past two years, he has managed ECHA's work on an EU restriction of 'intentionally added microplastics'.



Yvonne C.M. Staal is an inhalation toxicologist at the Dutch National Institute for Public Health and the Environment (RIVM) and has a PhD in toxicogenomics. She works on the development and implementation of animal-free methods and molecular approaches to understand the toxicity based on mechanism of action.



Karen Thorpe (PhD) is an Aquatic Ecotoxicologist at Fera Science. Her research is primarily focused on understanding the effects of exposure to novel environmental pollutants (including microplastics) on aquatic organisms, and the development of test methods to identify and quantify the effects of harmful pollutants. She is particularly interested in how interactions between environmental stressors influence fish health.

About

Who do you meet?

Professionals working in the fields of:

- Product stewardship
- Regulatory affairs
- Registration and authorisation
- Ecotoxicology
- Hazard, exposure and risk assessment
- Research and development
- Scientific advisory

Sectors that should take part:

- Agrochemical industry
- Chemical industry (producers of polymers)
- Cosmetics industry
- Personal care industry
- Paints, waxes and polishes industry
- Food industry
- Research institutes
- Authorities
- Scientific consultancies
- 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 25 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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DIE AKADEMIE
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Participation

- I would like to take part in the International Akademie Fresenius Conference “Microplastics – Regulatory Changes and Risk Assessment for Intentionally Added Microplastics”, 21 and 22 April 2020 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 (please provide evidence). The reduced fee cannot be combined with other rebates.
- I would like to take part in the evening event on 21 April 2020 (included in the above price).

Your Account Number (if available)

Title / First name / Name

Position

Department

Phone / Fax

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Company (complete company name including legal form)

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ZIP-code / City / Country

Your order number / Cost unit (if required)

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

Date Signature

Billing Address (only if different from the above address)

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 information.

Terms of Participation and Purchase

The registration fee includes the event participation, event documentation, lunch, coffee breaks, beverages as well as the evening event. You will receive written confirmation of your registration. Upon receiving our invoice, please transfer the amount due without further deductions before the event begins.

The price of the event documentation includes a hard copy of the documentation as well as an access code to the secure Akademie Fresenius download area. Both the documents and the secure access code will be dispatched around two weeks after the event and as soon as advance payment has been received.

Group Reductions

For joint bookings received from one company we grant a 15% discount from the third participant onwards.

Terms of Cancellation

Written cancellations or transfers will be accepted free of charge up to four weeks prior to the start of the event. After this date and up to a week prior to the start of the event we will reimburse 50% of the registration fee. We cannot, unfortunately, provide refunds for later cancellations. Please note that you can name a substitute free of charge at any time.

General Terms and Conditions

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Venue

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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 six weeks prior to the start of the event. Please book early and directly through the hotel quoting “Akademie Fresenius” as reference.