



2nd International Fresenius MIXTOX Conference

Toxicity of Chemical Mixtures: Risk, Hazard and Exposure Assessment

8 and 9 June 2017
in Cologne/Germany

Highlights

EU Guidance

- Risk management: Cumulative risk assessment for dietary risk assessment of pesticides (DG SANCO)
- European Commission's (DG ENV) perspective on mixture toxicity
- The European Commission's Joint Research Centre on mixture toxicity

Latest from regulators and industry

- Cumulative risk assessment of regulated substances – dietary exposure and non-dietary exposure
- Cumulative risk assessment of pesticides for operator and worker risk assessment
- Environmental risk assessment and mixture toxicity for biocides and pesticides
- ECHA's current activities regarding mixture toxicity for REACH chemicals and biocides
- EFSA's vision of harmonisation of ERA and human toxicology

Testing approaches and international research projects

- Update on the EuroMix project
- The WHO Framework: Implications for combined exposures assessment
- Update on EDC-MixRisk project
- A perspective on cumulative risk assessment that is protective of human health yet resource-efficient



The Experts

Åke Bergman Swedish Toxicology Sciences Research Center / Karolinska Institutet | Alan R. Boobis Imperial College London | Stephanie Bopp European Commission Joint Research Centre | Helen Clayton European Commission | Simon Gutierrez European Chemicals Agency (ECHA) | Mick Hamer Syngenta | Christer Hogstrand King's College London/EFSA MixRisk Working Group | Susanne Hougaard Bennekou Danish Environmental Protection Agency (EPA) | Anja Kehrer German Federal Environment Agency (UBA) | Jacob van Klaveren Dutch National Institute for Public Health and the Environment (RIVM), The Netherlands | Peter Korytar European Commission | Erik Lebret Dutch National Institute for Public Health and the Environment (RIVM) | Eeva Leinala The Organisation for Economic Cooperation and Development (OECD) | Philip Marx-Stölting German Federal Institute for Risk Assessment (BfR) | Bette Meek University of Ottawa | Tina Mehta Dow AgroSciences | Stephanie Melching-Kollmuss BASF | Alistair Morriss Dow AgroSciences | Leo Posthuma Dutch National Institute for Public Health and the Environment (RIVM) | Veerle Vanheusden European Commission | Martin Wilks Swiss Centre for Applied Human Toxicology

The Programme

Get-Together on Wednesday, 7 June 2017

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

Thursday, 8 June 2017

8.00 Registration and coffee

8.30 Welcome address by the Akademie Fresenius and introduction by the Chair

Tina Mehta, Dow AgroSciences/ECPA Toxicology Expert Group (TEG), United Kingdom

Cumulative Risk Assessment – Dietary Exposure

8.40 Regulatory perspective on cumulative dietary risk assessment of pesticides

Philip Marx-Stölting, Federal Institute for Risk Assessment (BfR), Germany

9.05 Industry perspective on cumulative risk assessment for dietary risk assessment of pesticides

- Results of a re-assessment of the thyroid and the nervous system: CAGs proposed by EFSA
- Elements of potency of adverse effects and realistic and likely exposures of pesticides need to be considered for cumulative risk assessment
- First outline of an industry-sponsored scientific project on manageable cumulative risk assessment

Stephanie Melching-Kollmuss, BASF/ ECPC Working Group on Cumulative Risk Assessment, Germany

9.30 Cumulative risk assessment for dietary exposure to pesticides residues – state of play on the implementation in European decision making.

Veerle Vanheusden, European Commission, Belgium

9.55 Panel discussion

10.25 Coffee break

Cumulative Risk Assessment – Non-dietary Exposure

10.55 Non-dietary cumulative risk assessment – where to start?

- The topic of non-dietary cumulative risk assessment is highly complex and needs to be addressed but how?
- An agronomic based approach has been developed to provide a realistic assessment arena

- The approach is presented and future work/refinement discussed

Alistair Morriss, Dow AgroSciences, United Kingdom

11.20 Member State perspective on cumulative risk assessment of pesticides for non-dietary risk assessment

- What do we do now and is that enough?
- What does the data tell us so far and what do we still require? Which tools are available?
- Further challenges and opportunities?

Susanne Hougaard Bennekou, Danish Environmental Protection Agency (EPA), Denmark

11.45 Panel discussion

12.15 Lunch

Environmental Risk Assessment and Mixture Toxicity

13.15 EFSA's vision of harmonisation of ERA and human toxicology

Christer Hogstrand, King's College London/EFSA MixRisk Working Group, United Kingdom

13.40 Mapping the environmental risks of pesticides: Present and future

- Assessing aggregate exposures from different applications
- Assessing combined risks on different non-target organisms for multiple applications
- Assessing the overall environmental impact of pesticides

Representative of EFSA, European Food Safety Authority (EFSA), Italy

14.05 Short break

14.20 Joint contribution: European Commission (DG ENV) perspective on mixture toxicity

- Update on mixtures work across the Commission
- Investigating the possibility of regulating mixture toxicity in surface waters

Helen Clayton / Peter Korytar, European Commission, Belgium

15.00 Mixture toxicity and ecological risk assessment of plant protection products

- Regulatory requirements and guidance for risk assessment
- Testing requirements – what do we need to test and why? Is it effective? Are we missing anything?

Mick Hamer, Syngenta, United Kingdom

15.25 Panel discussion

15.55 Coffee break

16.25 **The SETAC Pellston workshop on simplifying environmental mixtures: Pareto-type prioritisations of impacted sites and risky compounds**

Leo Posthuma, National Institute for Public Health and the Environment (RIVM), The Netherlands

16.50 **Overview: ECHA's current activities regarding mixture toxicity for REACH chemicals and biocides**

Simon Gutierrez, European Chemicals Agency (ECHA), Finland

17.15 **Environmental risk assessment of biocides: Current development of guidance on mixture toxicity and substances of concern**

Anja Kehrer, Federal Environment Agency (UBA), Germany

17.40 **Panel discussion**

18.10 **End of the first day**

19.10 **Departure time for the evening event**



At the end of the first conference day, Akademie Fresenius invites you to a leisurely evening in Cologne. After a short city walking tour, we will have dinner at a traditional brewpub with local beer. Don't miss out on this opportunity!

Friday, 9 June 2017

8.30 **Welcome address by the Chair**

Martin Wilks, Swiss Centre for Applied Human Toxicology, Switzerland

Testing Approaches and Research Projects

8.40 **How can mixture testing refine future European risk assessment? The EuroMix project**

- State of the art European mixture risk assessment
- EuroMix test strategy
- How test results can be linked to future risk assessment

Jacob van Klaveren, National Institute for Public Health and the Environment (RIVM), The Netherlands

9.05 **The WHO Combined Exposures Framework: Implications for assessment and application**

- Recent experience with the WHO Framework on Combined Exposures

- An example of practical application in the development of guidelines
- Discussion of the implications

Bette Meek, University of Ottawa, Canada

9.30 **EDC-MixRisk – a novel approach for assessing EDCs**

- Epidemiology in two child cohorts, one in Sweden, one in Germany
- Experimental systems
- Risk assessment and societal impact

Åke Bergman, Swedish Toxicology Sciences Research Center / Karolinska Institutet, Sweden

9.55 **The European Human Biomonitoring Initiative HBM4EU – an outlook**

Erik Lebret, National Institute for Public Health and the Environment (RIVM), The Netherlands

10.20 **Panel discussion**

10.50 **Coffee break**

11.20 **A perspective on cumulative risk assessment that is protective of human health yet resource efficient**

- Problem formulation
- Tiered approaches
- Basis for grouping chemicals
- Use of information on AOPs

Alan R. Boobis, Imperial College London, Division of Medicine, United Kingdom

11.45 **Update on the OECD's Combined Exposure Project**

- Brief overview of OECD's hazard assessment programme activities
- Combined Exposure Project
- Considerations for problem formulation and scoping, hazard, exposure and risk assessment

Eeva Leinala, The Organisation for Economic Co-operation and Development (OECD), France

12.10 **Current approaches and future perspectives for the hazard and risk assessment of chemical mixtures**

- Current practices in assessing mixtures: lessons learned from existing case studies and an expert survey
- Use of novel tools for the hazard assessment of mixtures

Stephanie Bopp, EU Commission's Joint Research Centre (JRC), Italy

12.35 **Panel discussion**

13.05 **Final remarks**

13.35 **Lunch and end of the conference**



Information available online at:
www.akademie-fresenius.com/2441

The Experts

Åke Bergman is Executive Director of Swetox Research Center and the Head of Unit of Toxicology Sciences at Karolinska Institutet. He is a professor in Environmental

Chemistry at Stockholm University and has served at numerous national and international expert groups and panels.

Alan R. Boobis is Professor of Biochemical Pharmacology at Imperial College London and Director of the Toxicology Unit. He is also chair/member of the FAO/WHO Joint

Meeting on Pesticide Residues, the Joint FAO/WHO Expert Committee on Food Additives and chairs the UK Committee on Toxicity.

Stephanie Bopp (PhD) works as Scientific Officer at the European Commission Joint Research Centre (JRC), where she is leading the activities on the assessment of chemical mixtures.

Helen Clayton has been a Policy Officer in DG ENV for 8 years. She is responsible for implementing the Water Framework Directive within the DG's 'Water unit'. She is leading ENV's work with DG SANTE on the Commission's approach to pharmaceuticals in the environment.

Simon Gutierrez is an Ecotoxicologist by training with more than 10 years of experience in the field of ecotoxicology, ERA and regulatory issues. He is currently Team Leader of the environmental team in the biocides unit in ECHA.

Mick Hamer has almost 40 years' experience working for Syngenta and its legacy companies in the field of ecotoxicology, environmental fate and risk assessment. He is member of the CEFIC Mixtures industry ad-hoc team (MIAT) and organizer of the 2015 SETAC Pellston workshop.

Christer Hogstrand is a Professor at the Diabetes & Nutritional Sciences Division at King's College London. He has been involved in 12 EFSA working groups and is presently chairing three, including the one on chemical mixtures.

Susanne Hougaard Bennekou is a Regulatory Toxicologist in the Pesticide Division of the Danish EPA. She is Vice-Chair of EFSA's PPR panel and is currently involved in developing

the EFSA guidance document for Harmonisation of risk assessment methodologies for human health and ERA combined exposure to multiple chemicals.

Anja Kehrer works as a Scientific Officer at the German Environment Agency (UBA), where she is responsible for the environmental risk assessment of biocidal

active substances and products in the context of the directive 98/8/EC and regulation 528/2012.

Jacob van Klaveren has worked for RIVM as Senior Scientific Advisor since 2010. He is currently in charge of coordinating the EFSA-RIVM partnership on the follow-up

ACROPOLIS and the H2020 EuroMix project. Since 2016, Jacob is a guest professor at the Danish Technical University.

Peter Korytar is an Analytical Chemistry. At the EU commission's DG Environment's Sustainable Chemicals Unit, his team is in charge of policy development areas such as endocrine disruptors and chemical mixtures.

Erik Le Bret is Chief Science Officer for „Integrated Risk Assessment“ at RIVM. As endowed professor, he also works for the Institute for Risk Assessment Sciences at Utrecht University. Currently he is a board member of the European Bio-monitoring initiative HBM4EU.

Eeva Leinala is a Principal Administrator in the Environment Health and Safety Division of the OECD, where she advances projects related to risk assessment and risk reduction of chemicals. She is the Principal Administration for both the Hazard Assessment Programme and the Risk Reduction Programme.

Philip Marx-Stölting holds a PhD in biochemistry/toxicology. He is currently employed at the German Federal Institute for Risk Assessment (BfR) as a Toxicologist in the pesticides safety department and Head of the BfR working group on endocrine disruptors.

Bette Meek has a background in toxicology and is currently the Associate Director of Chemical Risk Assessment at the McLaughlin Centre for Risk Science, University of Ottawa.

Tina Mehta has worked for Dow AgroSciences for 15 years in Human Health Assessment and is currently the EMEA/APAC Toxicology/ Risk Assessment Leader. She is also the EU leader for dietary risk assessment and global focal point for cumulative risk assessment.

Stephanie Melching-Kollmuss has been working as European and Global Regulatory Toxicologist for PPPs at BASF since 2006. She continues to be involved in ECETOC and Cefic LRI projects. She is member of ECPA working groups on cumulative risk assessment.

Alistair Morris is a Risk Assessor, in the Human Health Assessment team at Dow AgroSciences in UK since 2010. Prior to this he worked in contract research organisations for 8 years specialising in operator exposure studies as well as residue and environmental fate studies.

Leo Posthuma is a Senior Scientist at RIVM's Centre for Sustainability, Environment and Health and a registered EUROTOX toxicologist. Since 2016 he has been a Professor for "Sustainability and Environmental Risks" at Radboud University Nijmegen.

Veerle Vanheusden is a policy officer for Pesticides and Biocides in DG SANTE. Her areas of activity include legislation for cumulative risk assessment of pesticides residues, pesticides residues monitoring and reviewing maximum residue levels.

Martin Wilks is a Medical Toxicologist and Risk Assessment expert with more than 25 years of experience. He is Director of the Swiss Centre for Applied Human Toxicology (SCAHT) and Adjunct Professor at the Medical Faculty of the University of Geneva.

About

Who do you meet?

Groups that should take part:

Professionals working in the fields of

- Ecotoxicology/Environment
- Toxicology
- Hazard, exposure and risk assessment for human health and the environment
- Field studies
- Modelling
- Regulatory affairs
- Registration

Sectors that should take part:

- Agrochemical industry
- Biocidal products producers
- Chemical industry
- Research institutes
- Authorities (registration and control authorities)
- Scientific consulting in the area of (eco-)toxicology as well as environmental fate and behaviour
- 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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Registration

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Participation

- I would like to take part in the 2nd International Fresenius MIXTOX Conference "Toxicity of Chemical Mixtures: Risk, Hazard and Exposure Assessment", 8 and 9 June 2017 in Cologne/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 8 June 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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Position

Department

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Company (complete company name including legal form)

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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)

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

By registering, you agree to our General Terms and Conditions as well as to our Privacy Policy. You can find our GTC on the internet (www.akademie-fresenius.com/general-terms) or receive them on request.

Personal Data

The Akademie Fresenius will keep your data for the purpose of organising this event. We will under no circumstances use your data for commercial trade purposes. In signing this form you consent to our occasionally contacting you by mail, email, fax or phone (please strike through if unwanted) in order to provide you with further information from our company. You can, of course, withdraw your consent whenever you wish. Occasionally we go around taking photos at our events. These are then published anonymously on our website. Further information can be found at: www.akademie-fresenius.com/dataprotection.

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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 6 weeks prior to the start of the event. Please book early and directly through the hotel quoting "Fresenius" as reference.