

# Risk assessment for biocides

Part 1: Environmental Risk Assessment

Part 2: Human Health Risk Assessment

## About the event:

The environmental risk assessment (ERA) and human health risk assessment (HHRA) for biocides are an important part of the dossier for active substance approval as well as for biocidal product authorisation. In the changing landscape of the regulatory requirements for ERA and HHRA it becomes more and more challenging for industry to stay up-to-date and to meet constantly rising standards.

This training course offers two days of intensive training, providing a comprehensive overview of ERA and HHRA. The training course is designed for environmental and human health risk assessors and regulators from industry, authorities and consultancies. Both days consist of a theoretical and a practical session. In the theoretical sessions, the essential principles of an ERA or a HHRA are demonstrated, while in the practical sessions, the participants learn how to use software tools and models. Participants can attend either day or both days.

On day one, participants will be introduced to the key principles of ERA – from basic aspects to more complex issues. They will become familiar with relevant input parameters, different emission pathways and product types. They will also get to know available guidance documents. In the practical part, participants will learn how to estimate emissions and exposure to the environment, either using the software tool EUSES or generated EXCEL-sheets. At the end of the day the participants will gain a complex idea of ERA, having developed understanding which parameters might influence the results of the environmental risk assessment and which refinement options can help get a safe ERA.

Day two is focused on HHRA including livestock exposure (LE) and dietary risk assessment (DRA). The requirements for HHRA are constantly changing and getting increasingly complex which raises the bar for passing the HHRA. While new guidance has been published during the past years, guidance is still lacking the description of major uses in several product types. This applies especially to LE and DRA, but also to the assessment of disinfection by-products. The aim of this course is to familiarise participants with the key concepts of HHRA, starting with the very basics and ending up with non-standard assessments. The participants will learn to use TNsG, BEAT or generic models as well as the software tools ConsExpo, ART and RISKofDERM to estimate exposure for different types of substances, intended uses and product types.

## Expert trainers:

### Michael Schweitzer

Senior Manager Regulatory Affairs Biocides  
Environmental Risk Assessments & Modelling  
**SCC Scientific Consulting Company GmbH**

### Katja Ribbers

Assistant Manager Regulatory Affairs  
Environmental Risk Assessments & Modelling  
**SCC Scientific Consulting Company GmbH**

### Maren Lillich

Assistant Manager Regulatory Affairs Biocides  
Toxicology, Human Health Risk Assessments  
**SCC Scientific Consulting Company GmbH**

### Katharina Gläser

Assistant Manager Regulatory Affairs Biocides  
Toxicology, Human Health Risk Assessment  
**SCC Scientific Consulting Company GmbH**

## This training course is organised in partnership with SCC Scientific Consulting Company GmbH



SCC is a privately owned and independent scientific consulting company, which has been supporting its global customers in the regulatory affairs business for almost 30 years. The Biocides business unit was established in 2000 and since then has successfully submitted and defended a multitude of BPD Annex I dossiers and prepared numerous product dossiers both under the BPD and BPR. With hands-on experience and detailed knowledge of the regulatory environment, we provide the Biocides industry with full-scale services, ranging from the development of the appropriate dossier strategy and identification of data gaps, through performance of exposure and risk assessments, study monitoring, to dossier submission, follow-up and defence.

## Part 1: Environmental Risk Assessment - Tuesday 4 September 2018

### 08:30 Registration

### 09:00 Overview on ERA

- Input parameter for ERA
- Emission pathways into environment
- Definitions (emission estimation, exposure and effect assessment, risk characterisation)

### 09:15 Guidance documents

- ECHA guidance documents (Vol. IV, Part A&B):
  - Information requirements (Part A)
  - Introduction in Part B (i.e. input parameter and PEC-calculations)
- TAB August 2017 (agreed changes or amendments for the ERA)
- ESDs for the different Product Types (PT)

### 09:45 Tools and models

- Introduction of EUSES2.1.2
- EXCEL-sheets as an alternative

#### Training Session: EUSES2.1.2

- Introduction of EUSES2.1.2 and creation of training file

### 10:15 Refreshments

### 10:30 Follow-up of the training session for EUSES2.1.2

### 11:30 Emission estimation

- Definition of intended uses
- Life cycle stages to be assessed: formulation, application, service-life
- Selection of the relevant emission scenarios
- Tonnage based / consumption based approaches

### Training session: emission estimation

- Example calculation with EXCEL-sheets or EUSES2.1.2 for 2-3 scenarios in different PTs (e.g. disinfectants: PT1-4, preservatives: PT6-10 and insecticide: PT18 or repellent: PT19)

### 12:30 Lunch

### 13:30 Follow up of the training session for emission estimation

### 14:00 Exposure estimation (calculation of PEC-values)

- Emission via sewage treatment plant (STP):
  - calculation of PEC-values for STP, surface water, sediment, soil
- Release to soil:
  - after application of slurry/manure on grassland or arable land (e.g. PT3/PT18)
  - after leaching from treated surface (e.g. PT7-PT10)
- Calculation of PEC for groundwater

### Training session: exposure estimation

- Example calculations with EUSES2.1.2 and EXCEL-sheets

### 15:30 Refreshments

### 15:45 Follow up of the training session for exposure estimation

### Effect assessment and Risk characterisation

- effect assessment: PNEC derivation with EUSES and equilibrium partitioning method for sediment and soil
- environmental risk characterisation

### 16:30 Q&A session

### 17:00 Close

## Trainers:

### Michael Schweitzer

Senior Manager Regulatory Affairs Biocides  
Environmental Risk Assessments & Modelling  
**SCC Scientific Consulting Company GmbH**

Michael Schweitzer is a geographer and environmental scientist. He has worked for over 9 years in the biocides department of SCC GmbH as an expert for the environmental risk assessments of biocidal active substances and products, including groundwater assessments using FOCUS models. Over the years he has gained experience in nearly all product types.

### Katja Ribbers

Assistant Manager Regulatory Affairs  
Environmental Risk Assessments & Modelling  
**SCC Scientific Consulting Company GmbH**

Katja Ribbers graduated in environmental sciences from Bielefeld University and Giessen University. She gained practical experience as a chemical laboratory technician and student assistant in the field of environmental analytics. After her graduation, she joined the Biocides Business Unit at SCC GmbH where she has meanwhile acquired substantial experience in the emission estimation and risk characterization of biocidal products with particular focus on disinfectants and wood preservatives.

## Part 2: Human Health Risk Assessment - Thursday 5 September 2018

08:30 Registration

09:00 HHRA basics: How to get started

- Definition of intended uses, relevant paths of exposure
- Different types of active substances
- Systemic vs. local assessment
- (Semi-)quantitative vs. qualitative assessment

09:30 Overview on relevant guidance documents

- ECHA Guidance on the BPR, Volume III, Assessment & Evaluation (Parts B + C)
- Biocides Human Health Exposure Methodology, HEAdhoc Recommendations, HEEG Opinions, TAB
- ConsExpo Fact Sheets
- ARTFood, DRAWG guidance
- Guidance on Substances of Concern
- ECHA Guidance on the BPR, Volume V, Guidance on Disinfection by-Products
- ECHA template for Product Assessment Report

10:15 Refreshments

10:30 Models to estimate exposure

- TNsG models (2002, 2007), User Guidance (2002)
- BEAT
- ConsExpo
- ART
- Generic models
- RISKofDERM
- BfR Livestock Exposure Calculator
- BfR Calculator for estimating transfer of biocide residues into foods (non-prof. uses)

11:30 Worker exposure assessment

- Deriving scenarios from intended uses
- Selection of relevant models
- Refinement options

Training session: exposure assessment

Example calculation for worker exposure for different substance types, intended uses and product types

12:30 Lunch

13:30 Follow-up Training session: exposure assessment

Example calculation for worker exposure for different substance types, intended uses and product types

14:30 Effect assessment and risk characterisation

- Deduction of systemic and local reference values
- Risk characterisation for human health

15:30 Refreshments

15:45 Livestock exposure and dietary risk assessment

- Deriving scenarios from intended uses
- Selection of relevant models and approaches
- Refinement options
- Example calculation for livestock and dietary exposure for different substance types, intended uses and product types

16:30 Q&A session

17:00 Close

## Trainers:

### Maren Lillich

Assistant Manager Regulatory Affairs Biocides  
Toxicology, Human Health Risk Assessments  
**SCC Scientific Consulting Company GmbH**

Maren Lillich is a biochemist by training and acquired a PhD in toxicology at Ulm University as a student of the International Graduate School in Molecular Medicine. After her PhD, she joined the Center for Thrombosis and Hemostasis in Mainz as a postdoctoral fellow. She has participated in the further education program for toxicology of the DGPT (German Society of Pharmacology and Toxicology) since 2011. In spring 2016, Maren joined the biocides team at SCC Scientific Consulting Company as an expert for human health risk assessments, toxicology and classification and labelling.

### Katharina Gläser

Assistant Manager Regulatory Affairs Biocides  
Toxicology, Human Health Risk Assessment  
**SCC Scientific Consulting Company GmbH**

Katharina Gläser graduated in biomedical engineering and acquired a PhD in toxicology at the University of Würzburg, with main focus on genotoxicity. She is a member of the German Society of Pharmacology and Toxicology (DGPT) and participates in the further education program for expert toxicologists. In 2016, Katharina joined the Biocides Business Unit at SCC GmbH as an expert for human health risk assessment, toxicology and classification & labelling for various active substances and biocidal products.

## Prices

One-day workshop - 4 September 2018	- €850 (+VAT)
One-day workshop -5 September 2018	- €850 (+VAT)
Attend both days	- €1650 (+VAT)
Subscribers take an additional €50 off the price	

## Venue

### Le Châtelain Brussels Hotel

Rue du Châtelain 17  
1000 Brussels - Belgium

#### PHONE:

Tel: +32 (0)2 646 00 55

Fax: +32 (0)2 646 00 88

Email: [info@le-chatelain.com](mailto:info@le-chatelain.com)

*We have arranged a special bedroom rate for delegate participants at the Le Châtelain Brussels Hotel, if booked before 6th June. Participants will be sent a link for booking hotel accommodation directly with the hotel.*

## Three ways to register

 [www.chemicalwatch.com/risk-assessment-biocides](http://www.chemicalwatch.com/risk-assessment-biocides)

 [events@chemicalwatch.com](mailto:events@chemicalwatch.com)

 +44(0)1743 818 293

## Event times

### 4 September 2018

08:30-17:00

### 5 September 2018

08:30-17:00

CW+ **ChemicalRiskManager** | eLearning

# The Practical Guide to Ecotoxicology and the Environment

15 information-packed modules that give you a solid understanding of ecotoxicology

Covering: Aquatic, terrestrial, vertebrate & invertebrate toxicity | Indirect exposure to humans via the environment | Environmental risk assessment | Environmental exposure assessment | Different testing strategies | and more



Start the course today: [www.chemicalwatch.com/ecotox-elearning](http://www.chemicalwatch.com/ecotox-elearning)