DIE AKADEMIE FRESENIUS

Where Experts Meet!

Online Training

Chemistry Basics for Regulatory Professionals

11 and 12 February 2027, Online



Chemistry is at the heart of regulatory science. Whether working with **REACH chemicals, biocides** or **plant protection products,** regulatory professionals routinely encounter information on substance identity, composition, physicochemical properties, stability and transformation. **Understanding the chemistry behind these data is essential for interpreting them correctly.**

This training provides a practical foundation in chemistry specifically tailored to regulatory professionals. The course focuses on the concepts needed to understand how a substance's structure and composition determine its properties and behaviour.

The overall aim is to provide participants with a **chemical toolkit** that helps them understand, question and interpret the data they encounter in regulatory dossiers.

No prior chemistry expertise is required; however, a basic familiarity with the chemical regulatory environment will be beneficial.

"Nothing in life is to be feared, it is only to be understood." Marie Curie

Learning Objectives

- Learn the fundamental chemistry concepts behind substance identity, composition and physicochemical properties
- Understand how chemical structure determines the properties, behaviour and fate of substances
- Explore how chemistry data are generated, assessed and used in regulatory dossiers under REACH, BPR and PPP legislation

Participation Fee

€ 895.00 plus VAT

The Expert

Inge Huygens, ARCHE Consulting

INSTITUT FRESENIUS

SGS

Timings are in Central European Time CET.

Thursday, 11 February 2027

Morning Session | 09:00 – 13:30 CET

From Atoms to Chemical Behaviour: The Chemical Toolkit

- Atomic structure and the periodic table
- Chemical bonding: ionic, covalent and metallic bonds
- Polarity and molecular structure
- Intermolecular interactions and their influence on chemical behaviour

Substance and Mixture Identity

- Substances vs. mixtures, including formulated products
- Substance identity: mono-constituent, multi-constituent and UVCB substances
- The role and significance of impurities
- Inorganic substances versus organic substances: key organic functional groups

From Structure to Properties

- Understanding physicochemical properties based on molecular structure and intermolecular forces (e.g. vapour pressure, solubility, log Kow, melting/boiling point)
- Physical behaviour of chemicals and formulations in practice: how liquids flow and spread, particles settle and mixtures separate during handling, application and storage
- How physicochemical properties influence formulation design and physical product stability

Friday, 12 February 2027

Morning Session | 09:00 – 13:30 CET

Chemical Form, Equilibria and Environmental Distribution

- Acids and bases: understanding pH and pKa
- Salts and ionisation processes
- Equilibria and their influence on solubility, partitioning and adsorption
- Distribution between air, water, soil/sediment and biota

Chemical Reactivity and Stability

- Basic principles of chemical reactions and reaction mechanisms
- Key reaction types (e.g. hydrolysis, oxidation-reduction)
- Reaction energetics and kinetics
- Chemical and thermal stability/decomposition

From Chemical Properties to Regulatory Endpoints

- Physicochemical data requirements under REACH, BPR and PPP
- Common test methods for physicochemical properties
- Data generation and gap-filling approaches: measured data, literature values, QSARs and read-across

Book now

Information available online at: **www.akademie-fresenius.com/4186**

Registration

By web **www.akademie-fresenius.com/4186**
By email **registration@akademie-fresenius.com**

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DIE AKADEMIE FRESENIUS

Participation Fee:

€ 895.00 plus VAT

Representatives of an authority or a public university are eligible for a reduced fee of **€ 595.00 plus VAT** per person (please provide evidence). The reduced fee cannot be combined with other rebates.

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Book now

Do you have any questions?



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Who will benefit from this training?

Professionals working in:

- Regulatory affairs
- Product stewardship
- Product compliance
- Chemical safety and risk assessment
- Research and development (R&D)

Sectors that should take part:

- Chemical industry
- Biocides industry
- Agrochemical industry
- Consultancies, CROs and industry associations

The Organisers

For more than 30 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 Carl Remigius Fresenius Education Group, 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

How will this online training work?

Our online training will be live – with interactive participation – and will be held in the English language. The training will be conducted using the meeting tool Zoom. Prior to the training, we will provide you with your login details, which will allow you to participate and ask questions from your preferred location. Simply log in on the day of the training – and away you go!

Terms of Participation and Purchase: The registration fee includes the participation in the online event and the event documentation for download. You will receive written confirmation of your registration. Upon receiving our invoice, please transfer the amount due without further deductions before the event begins.

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

Terms of Cancellation: Cancellations or rebookings to another event are possible in writing without giving reasons and free of charge up to one week before the start of the online event. In the event of later cancellations or non-login to the online event, no participation fees can be refunded. In this case, however, you will receive access to the documentation download after the event. Please note that you can name a substitute participant 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. By registering for this online event, you consent to our occasionally contacting you by mail, email or phone in order to provide you with further information from our company. You can, of course, withdraw your consent whenever you wish. During this online event, image and sound content is transmitted, which may originate from the speakers and from the participants. By registering, you agree that this content may be transmitted within the virtual event space. All participants are prohibited from recording this content. Further information can be found at: www.akademie-fresenius.com/dataprotection.

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