

Module 5, Basic Toxicology

The importance of understanding how chemicals impact human health

28 February and 1 March 2022, 09:15 – 12:45 GMT
This training will be delivered, live, online

Toxicology is full of different terms and acronyms such as LD50, LC50, local versus systemic toxicity, STOT etc. But what do they mean and why do we need to understand them?

To enable the chemical industry to take a responsible position in the care of workers and consumers, it is important for those involved to have a basic understanding of the basic principles of human toxicology.

This training is intended for those working within the chemical industry who need an introduction to the potential hazards of materials to humans and of the concepts of regulatory test methods leading to a classification regarding health effects.

Attendance on this series of modules will ensure that your SDSs meet the increasing expectations of both your customers and the regulators. Numbers on the course are restricted to enable an informal atmosphere that encourages discussion and time is made available for shorter group exercises.

Topics covered include:

- What is toxicology? Definition, as well as brief discussion of the different disciplines involved
- Basic terms (and acronyms); LD50, LC50, CMR, STOT
- Animal testing, examples of different studies (sub-acute, acute, sub-chronic, chronic)
- Systemic versus local effects
- Examples of known mechanisms behind toxicological effects
- An introduction to testing and assessment strategies for eye and skin irritation
- Understanding of Section 11 of the SDS

SAMPLE PROGRAMME

Session 1

- Introduction to toxicology
- Basic terms (acute vs chronic)
- Introduction to toxicology testing

Session 2

- Skin irritation/corrosion
- Testing in vitro and in vivo
- Eye irritation/serious eye damage
- Extreme pH
- Testing and assessment strategy
- Irritation to respiratory tract

Session 3

- Allergy
- Case study
- The immune system
- Testing in vivo and in vitro
- Exercise sensitisation

Session 4

- Acute toxicity and testing
- Exercises acute toxicity
- STOT SE

Session 5

- STOT RE toxicity and testing
- Exercise STOT RE

Session 6

- CMR
- Mutagenicity introduction and testing
- Carcinogenicity introduction and testing
- Reproduction toxicity introduction and testing
- Exercise reproduction toxicity



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Advanced Toxicology – Module 11

Module 5 introduces delegates to the area of toxicology, more in-depth discussion of the requirements for Section 11 of the SDS will take place in [Module 11 – Advanced Toxicology](#). In addition, topics like adverse outcome pathway (AOP) will be introduced. For details of all courses and dates please see www.chcs.org.uk/chemical-hazards-training.

Module Tutor

This module will be presented by toxicologist Annette Dock. Annette has over twenty-five years' experience in chemical regulation and assisting companies with compliance. Annette has worked for central authorities in Sweden (National Food Agency, Swedish Work Environment Authority and Swedish Chemicals Agency) before setting up her own business working as an independent consultant.

Deputy Module Tutor

Lennart Dock studied chemistry and microbiology at Stockholm University and received a PhD in toxicology from Karolinska Institutet (KI) in 1982. After research work at the Department of Toxicology and the Institute of Environmental Medicine he joined the Swedish Chemicals Agency (KemI) in 2002. He worked as a senior adviser at the international unit until 1 July 2021. He managed KemI's international training programme in preventive chemicals control and was the head of the Swedish delegation at the UN Sub-Committee of Experts on the GHS. He served as an adviser to the Swedish government during the EU council negotiations on the CLP regulation. After retirement he continues to work for the agency on an hourly basis.

Post Brexit

The departure of the UK from the EU does not impact either the importance of a basic knowledge in the area of toxicology, the SDS or the legal requirements. The formatting and content of the SDS follows the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) as implemented in the UK.

Module Presentation

We will deliver this training using an online system, which we have used successfully for other CHCS events and training. There is no charge to delegates for using the software. The licence cost is borne by CHCS.

The sessions will run live and delegates can interact with the tutor and other delegates using their device microphone. The tutor will use a PowerPoint presentation, just as they would in face-to-face training. We will provide you with copies of the presentation and all other supporting documentation in advance of the training, by email. We will provide you with a document giving more details about using the software plus some tips for getting the best out of the day.

Comments From Past Delegates

"The training was aimed correctly in terms of difficulty. It was enjoyable with plenty of examples."

"The leaders were engaging and kept the presentations easily digestible. Good dynamic. Exercises were challenging in a good way, working in groups gave lots of opportunity to discuss and work way through."

"Nice introduction to toxicology with interesting case studies"

"Including the glossary of terms is very helpful!"

Please complete the online Registration Form at www.chcs.org.uk/event-4486410. Courses are only available to CHCS Members. If you are not an existing member and would like to join, again, the process is simple and you can complete our online Membership Registration form at: [Join CHCS](#).

Our training courses are £275.00 (+VAT). However, we offer a **discounted price** of only £250 (+VAT) which expires 6 weeks before the date of the course. Please see the online event for more details.

Your Attention Is Drawn To These Conditions

Delegates can be substituted at any time, subject to payment of membership fee if applicable. However, once booked, the full fee is payable. As this is a limited space training event refunds can only be made if CHCS is notified in advance and is able to successfully re-offer the place to another delegate.

CHCS reserves the right to alter or cancel the programme due to circumstances beyond our control. If CHCS cancels, then refunds will be made.