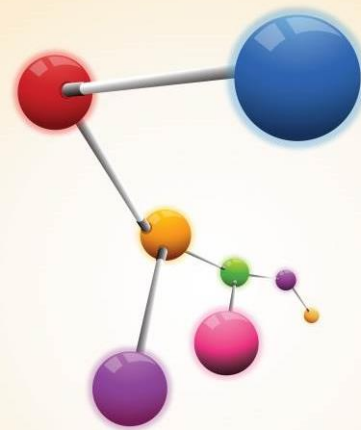


Threshold of Toxicological Concern Task Force

ABOUT THE TASK FORCE

The Threshold of Toxicological Concern (TTC) concept is a pragmatic but conservative science-based tool to help regulators and industry assess potential health risk from substances when specific toxicological data are not yet available. The use of the TTC principle enables to: 1) recognise that exposures lower than the TTC levels do not pose safety concerns; 2) reduce the use of laboratory animals; 3) make better use of financial and human resources in both industry and governments; and 4) apply a practical risk assessment tool that is needed to address low level exposures as more and more sensitive analytical techniques become available.



WHAT'S NEW?

The task force contributed to European Union funded project **COSMOS**.

PRESENTATION on 'TTC – Overview of Ongoing Scientific Developments' at EUROTOX 2016 (4-7 September 2016, Seville, Spain). The presentation provided an overview of several ongoing scientific activities by ILSI Europe and other organisations to advance the TTC concept.

PRESENTATION for the TTC symposium at the International Society of Exposure Science Conference (9-13 October 2016, Utrecht, Netherlands). The symposium highlighted the suitability of the TTC concept to assess potential health risks by substances and mixtures detected in the environment and in humans.

ACTIVITIES

Is the 0.15 µg/day Tier of the Threshold of Toxicological Concern (TTC) still appropriate?

The TTC-based exposure limit of 0.15 µg/day is based on an evaluation of the Cancer Potency Database (CPDB) that includes information from carcinogenicity studies of over 700 chemicals. The expert group examines whether the TTC exposure limit of 0.15 µg/day for DNA-reactive

substances is still appropriate when account is taken of the mode of action (e.g. mutagenic or not) and knowledge on human relevance. The project describes a science-based and pragmatic approach to strengthening the scientific underpinnings of the cancer-based TTC tier.

Uncertainty in Risk Assessment: A Comparison of TTC versus Chemical-Specific Approaches *New*

This activity plans to provide a differentiated review and comparison of quantitative and qualitative uncertainties associated with different steps of 1) data generation in toxicological studies and No Observed Adverse Effect Level / Benchmark Dose, Lower

Confidence Limit derivation; 2) assumptions made in risk assessment based on specific data; 3) derivation of thresholds from large groups of substances, i.e. TTC; and 4) derivation of thresholds from small groups of substances.

Threshold of Toxicological Concern Task Force

MEMBER COMPANIES

- BASF SE
- Dow Europe
- DSM
- Givaudan International
- Pierre Fabre Dermo-Cosmétique
- Procter & Gamble
- Südzucker Group
- The Coca-Cola Company
- WALA Heilmittel

ACTIVITIES (CTD)

Carcinogen Dose-Response Database for Threshold of Toxicological Concern - Funded by CEFIC-LRI

This activity is funded by the European Chemical Industry Council Long-range Research Initiative (CEFIC-LRI). Building on the evaluation of the Cancer Potency Database (CPDB) by the ILSI Europe CPDB Expert Group, the project aims to generate a fully-

curated, quality-controlled and publically-available database on genotoxic and non-genotoxic carcinogens. The novel database will form the basis of analysis of TTC distributions for cancer thresholds.

RECENT PUBLICATIONS

F.M. Williams, H. Rothe, G. Barrett, A. Chiodini, J. Whyte, M.T.D. Cronin, N.A. Monteiro-Riviere, J. Plautz, C. Roper, J. Westerhout, C. Yang, R.H. Guy. **Assessing the safety of cosmetic chemicals: Consideration of a flux decision tree to predict dermally delivered systemic dose for comparison with oral TTC (Threshold of Toxicological Concern).** *Regulatory Toxicology and Pharmacology* 2016;76:174-186

I. Dewhurst and A.G. Renwick. **Evaluation of the Threshold of Toxicological Concern (TTC) – Challenges and Approaches.** *Regulatory Toxicology and Pharmacology* 2013;(1):168-177.

All publications commissioned by this task force are available on our website: www.ils.eu.

For more information on ILSI Europe's activities, don't forget to follow us on Twitter @ILSI_Europe and connect with us on LinkedIn.

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