



USEtox[®] – Scientific consensus for human toxicity & ecotoxicity characterization

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IOMC GFC IP2 Workshop

24/26 Feb 2025, Paris

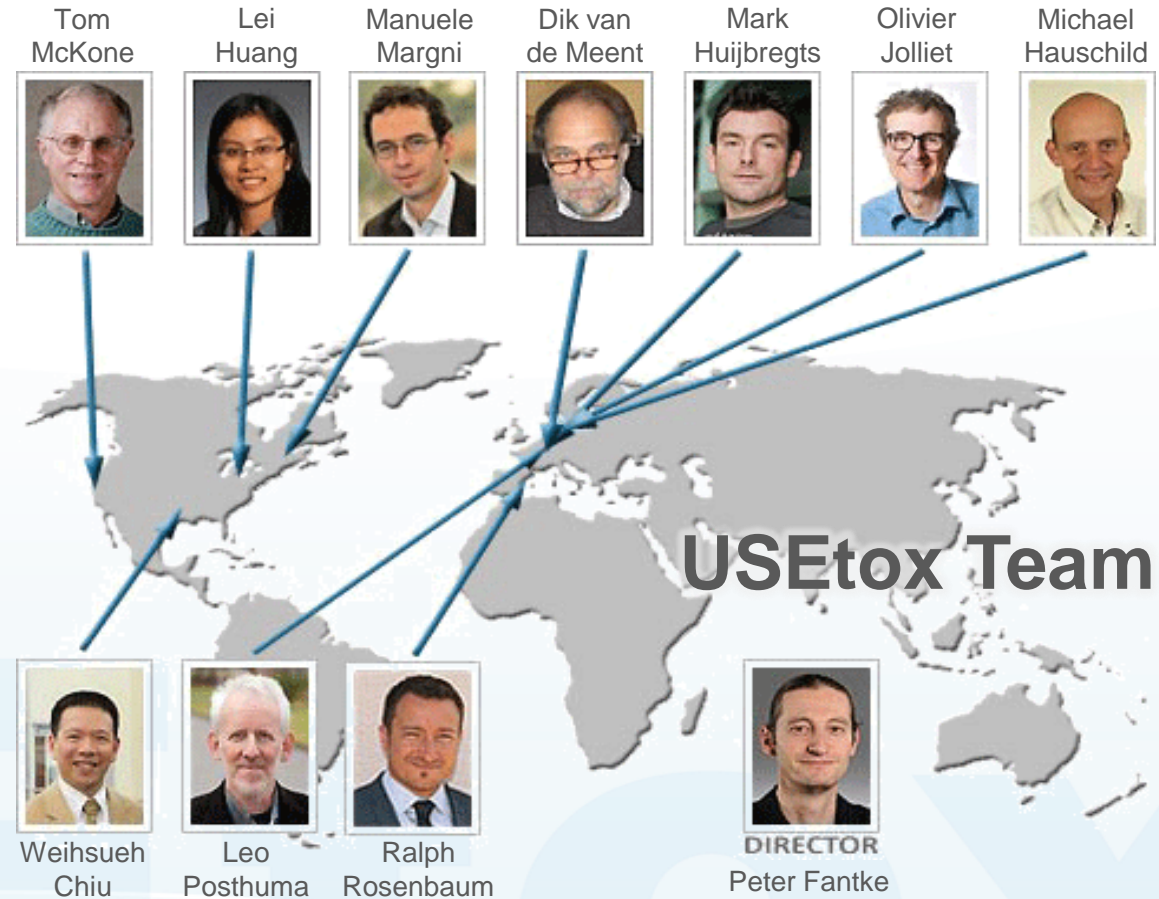
USEtox – Scientific consensus



- ✓ UNEP/SETAC **scientific consensus model**
- ✓ Characterizes **human toxicity & ecotoxicity impacts** of chemicals
- ✓ Considers **emissions over entire life cycle**

Used in:

- ✓ **Life cycle assessment**
- ✓ **Chemical substitution**
- ✓ **Prioritization**
- ✓ **Exposure & risk screening**
- ✓ **Chemical footprinting**



<https://usetox.org>

USEtox – Impact Pathway Framework



Emission Environmental Fate Exposure Toxicity effects



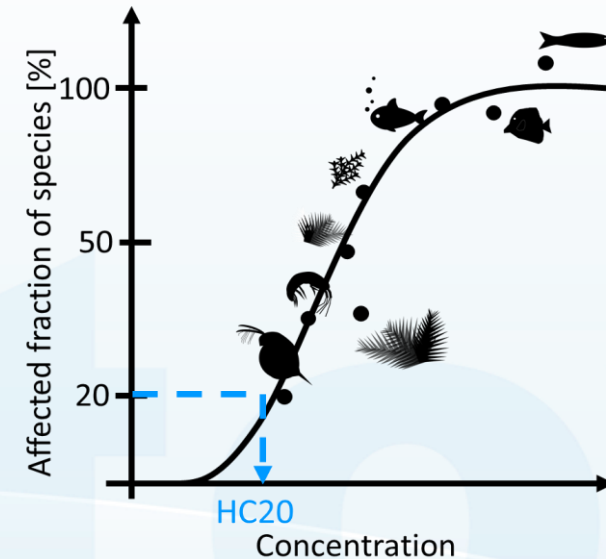
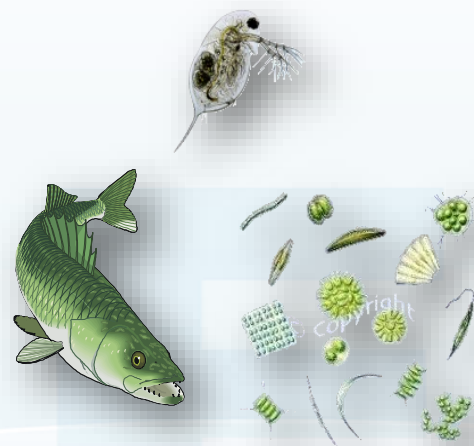
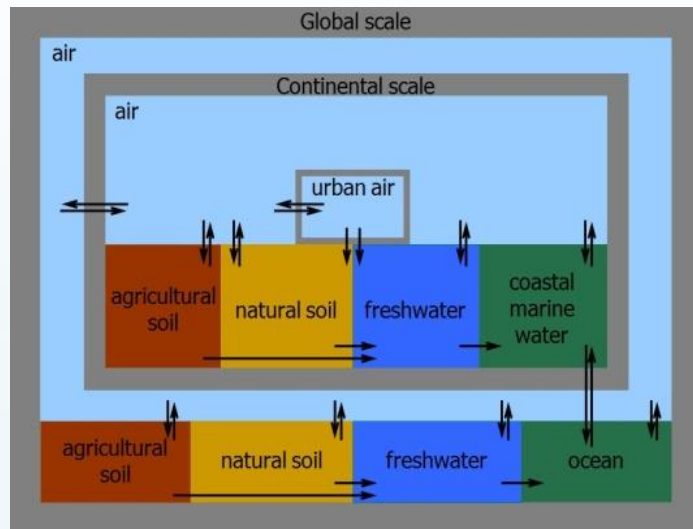
Fate factor



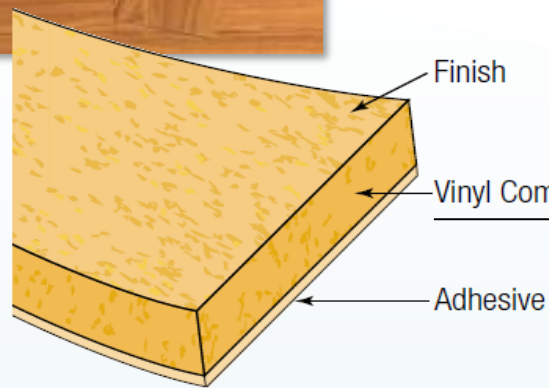
Exposure factor



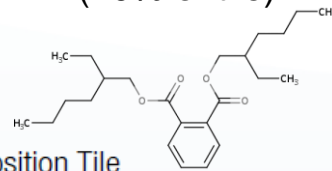
Effect factor



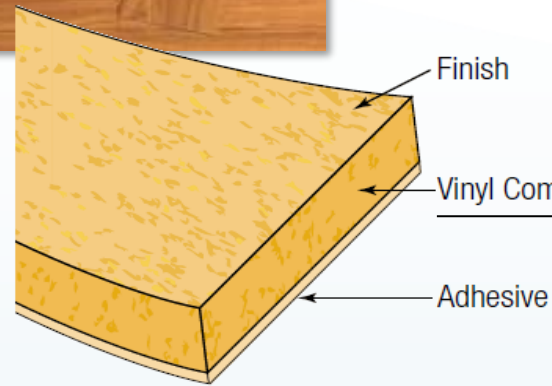
USEtox for Chemical Substitution



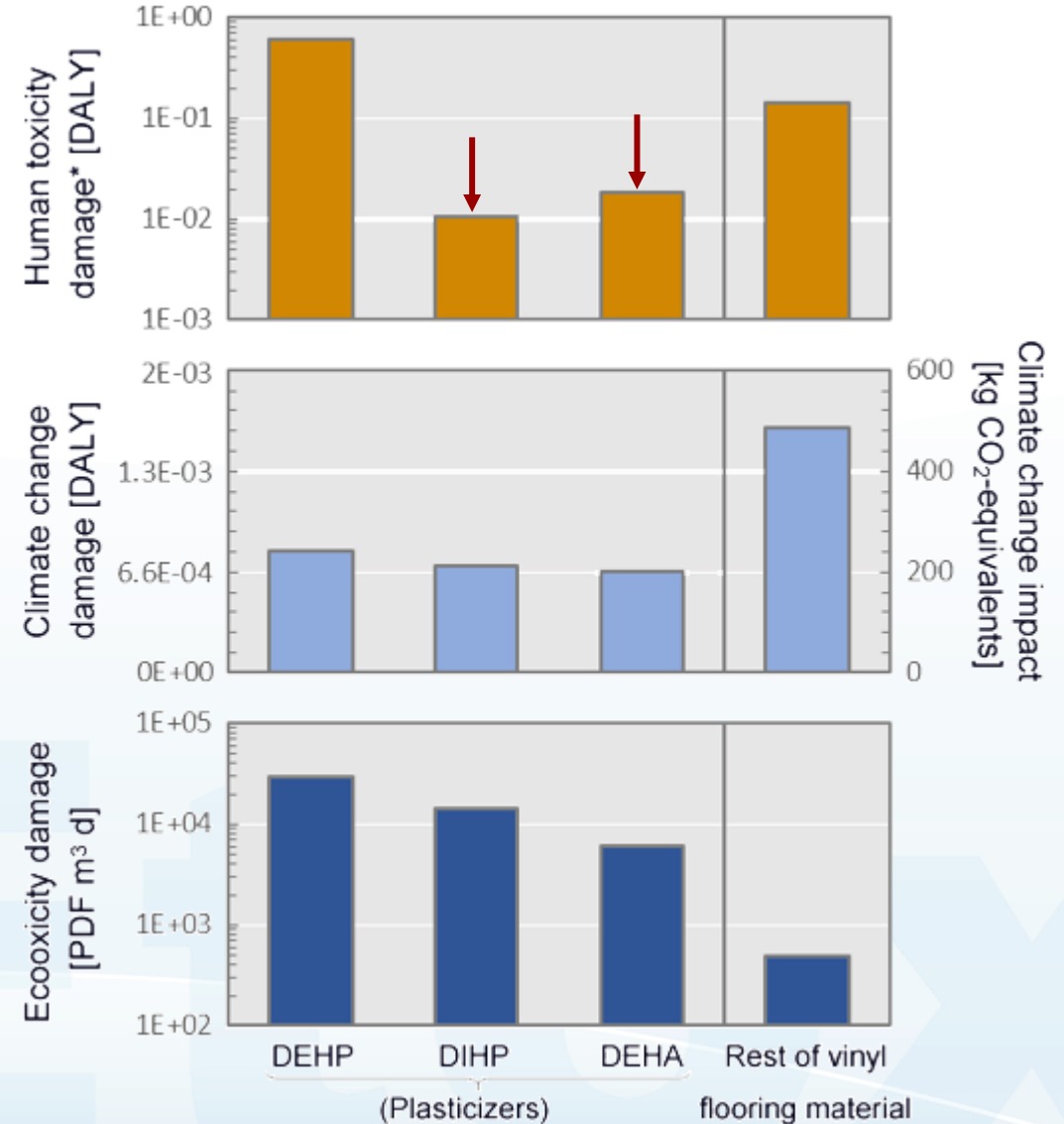
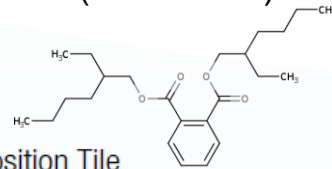
Chemical of concern:
DEHP plasticizer
(20% of tile)



USEtox for Chemical Substitution



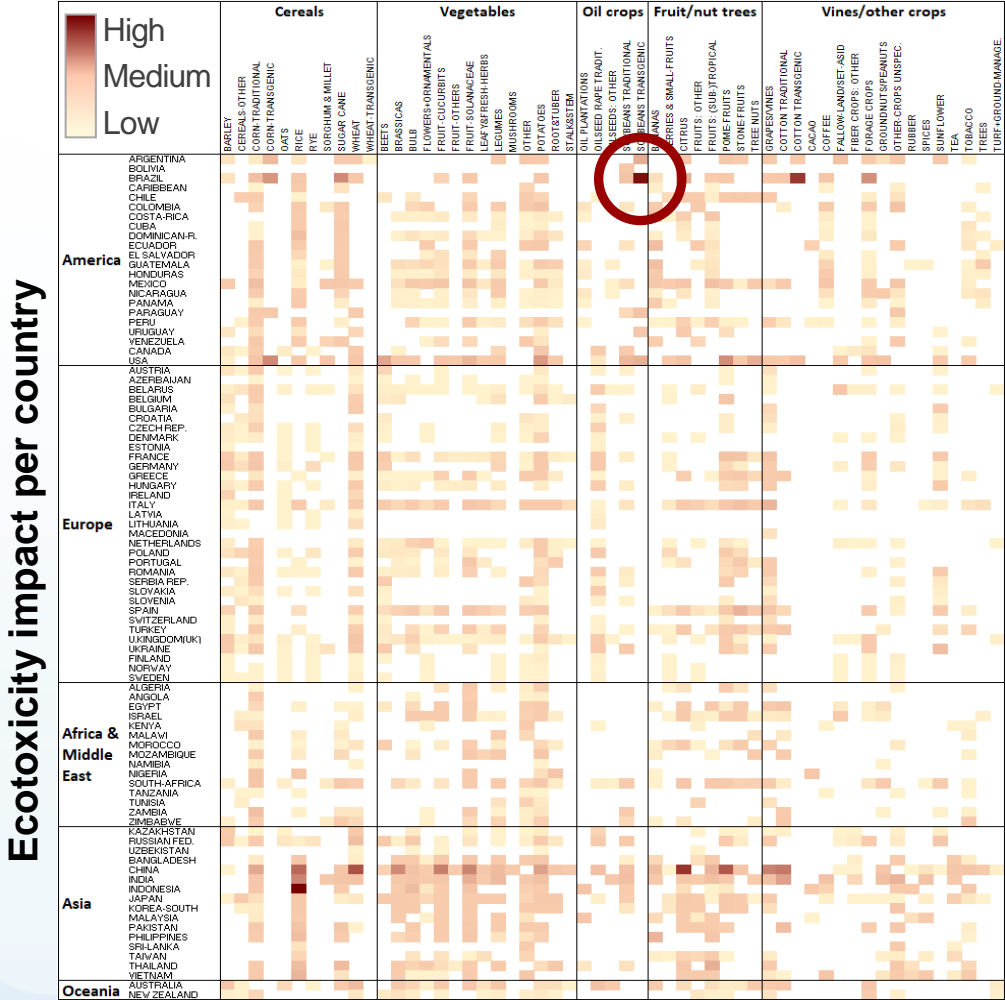
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USEtox for Footprinting & Prioritization



Ecotoxicity impact per crop type



USEtox for Footprinting & Prioritization



Ecotoxicity impact per crop type

