SpERCs - Specific Environmental Release Categories

The European Crop Protection Association (ECPA) has developed Specific Environmental Release Categories (SpERCs) for the environmental exposure assessment of substances used as co-formulants in plant protection products. The ECPA SpERCs cover the conditions of outdoor and indoor use of a co-formulant in plant protection products by professionals and consumers. The background documentation of the ECPA SpERCs is currently in preparation and will be published in the near future.

The ECPA SpERCs and associated release factors were developed for use solely with REACH nested multimedia mass balance models (“EU TGD based models”), as part of the regional scale assessments, whereby emissions from all uses are considered. Use of the ECPA SpERCs allows the co-formulant emissions from plant protection products to be fully accounted for in the risk assessment of other uses, as well as to consider the contribution from those uses in the plant protection product use.

The EU TGD based models are mass balance (“tonnage”) based and the key assumption at the local scale is that release to water will be via an industrial waste water or municipal sewage treatment plant before release to a river. Direct releases to surface water may be assumed, but direct releases to agricultural soil are not considered and are in fact outside the scope of the EU TGD. As a consequence, the default local exposure assessment approach based on EU TGD does not take account of uses where substances may be directly applied onto agricultural soil, or where other direct emissions to surface water may take place.

The LET (Local Environment Tool) approach developed by ECPA is a standalone replacement for the local scale nested box in the models based on the EU TGD. Boundary concentrations should be calculated using the ECPA SpERC (e.g. in EUSES, ECETOC TRA, CHESAR) and
manually imported into the LET. The local scale concentrations should then be calculated using the LET.

A short webinar explaining the tools and approach developed for co-formulants used in plant protection products is available: [http://training.ecpa.eu/webinars/reach/](http://training.ecpa.eu/webinars/reach/).

The LET tool, and a detailed description of the model and guidance on its use in the local assessment, is available in a guidance document published on the ECPA webpage at: [http://www.ecpa.eu/industry-resources/reach-registration-evaluation-authorisation-and-restriction-chemicals](http://www.ecpa.eu/industry-resources/reach-registration-evaluation-authorisation-and-restriction-chemicals).

**Anticipated work-flow for environmental risk assessment**

The foreseen workflow for the use of ECPA SpERCs consists of five steps:

1. **Enter the generic exposure scenarios for co-formulant use in the CSR**
2. **Add the ECPA SpERCs to the finalised environmental risk assessment in ECETOC TRA or EUSES and calculate PEC\(_{\text{regional}}\)**
3. **Transfer PEC\(_{\text{regional}}\) to ECPA LET for local assessment and calculate PEC\(_{\text{local}}\)**
4. **Add LET output to the contributing scenarios in CSR**
5. **Communicate maximum safe application rate (kg/ha) as conditions of safe use on the co-formulant eSDS**

It is anticipated that the assessor calculates the regional environmental concentrations (PEC\(_{\text{regional}}\)) in a suitable tool (e.g. Chesar, EUSES, ECETOC TRA), by using the ECPA SpERCs and associated release factors. The calculated PEC\(_{\text{regional}}\) are then transferred into the ECPA LET and used as the regional background concentrations in the calculation of the local predicted environmental concentrations (PEC\(_{\text{local}}\)). The LET also calculates the safe co-formulant application rate (in kg/ha). The outputs of the ECPA LET, i.e. PEC\(_{\text{local}}\), are then transferred to the respective contributing scenarios in the CSR. The safe co-formulant application rate (in kg/ha) should be communicated in the supply chain as the safe operational conditions on the co-formulant extended Safety Data Sheet (eSDS).

The order of the workflow is slightly different for use of the ECPA LET with Chesar, and more details on this will be communicated along with the release of the Chesar 3.3 use map file.