

ANNEX 1: SENSITIVITY ANALYSIS WITH LOG POW AND WATER SOLUBILITY AS VARYING FACTORS

This section of the report is let for information as a log Kow has been experimentally estimated (Jakupca, 2007) and will be kept for risk assessment.

There is a lack of valid or relevant information for the determination of two key parameters for the environmental exposure assessment, i.e. Kow and water solubility. In the first case, only QSARs calculations are available and are performed outside the validity domain of the models. For the latter, although some works were undertaken for the refinement of the detection limit, only a limit value is available for the solubility of TNPP in water : <0.05 mg/L (this value still need to be confirmed and validated).

Consequently and in order to observe the influence of these parameters on the exposure assessment for different environmental compartments, a sensitivity analysis has been made. The range of values used for this analysis is 6-20 for log Kow and 3.10^{-16} - 5.10^{-2} mg/L for water solubility.

Results for a generic exposure scenario are presented hereafter.

Exposure in freshwater (or marine water)

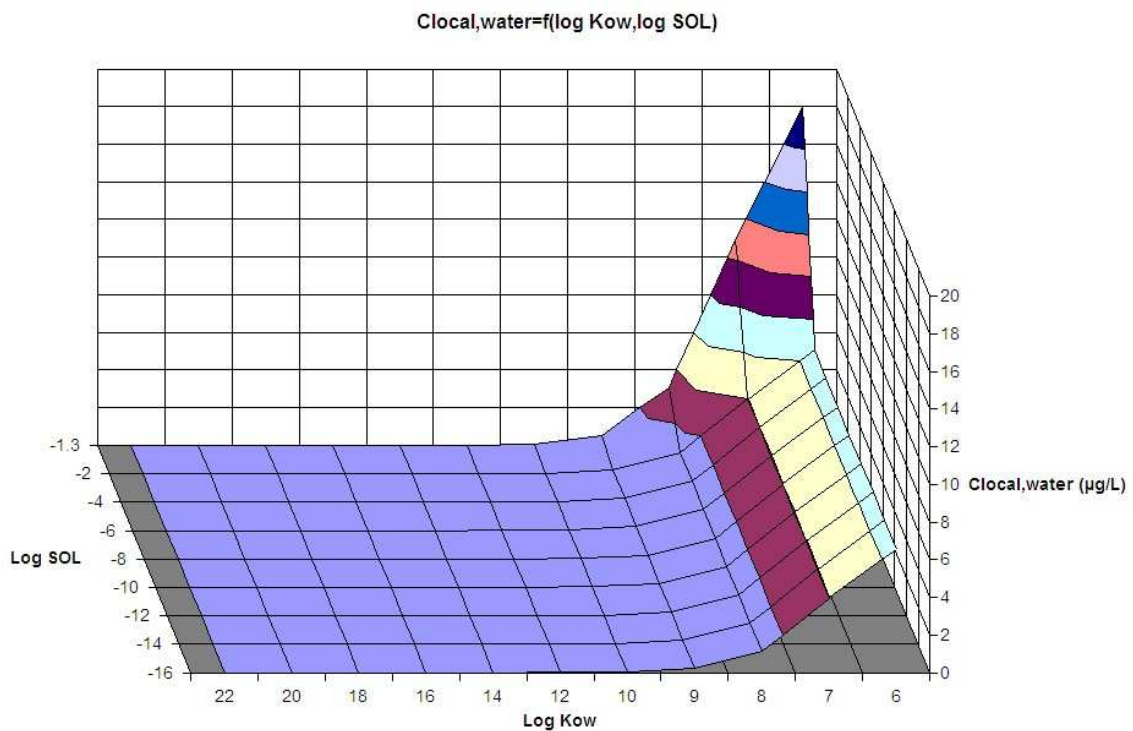


Figure 1: local concentrations in water as a function of Kow and water solubility

Exposure in freshwater sediments (or marine sediments)

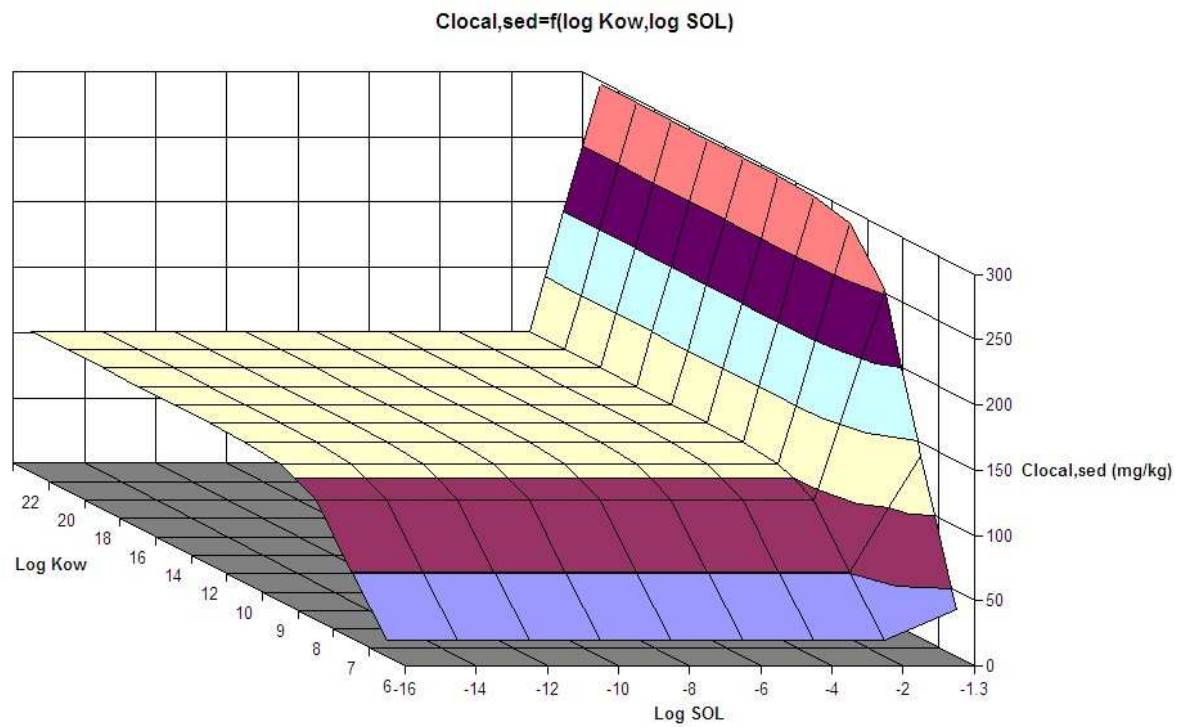


Figure 2: local concentrations in sediment as a function of Kow and water solubility

Exposure in soil

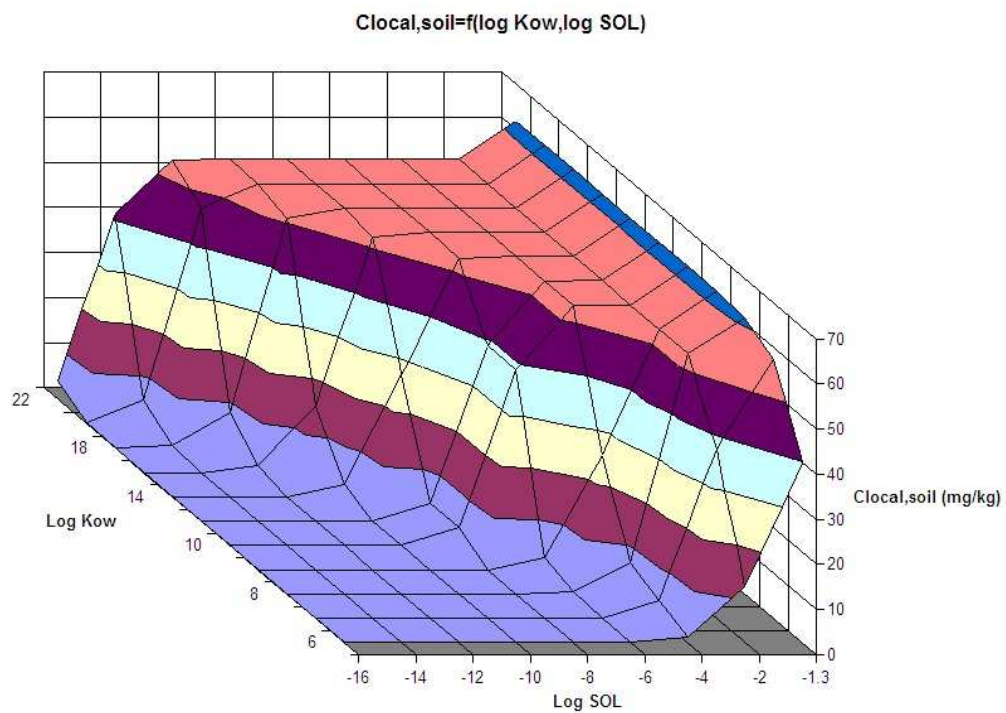


Figure 3: local concentrations in soil as a function of Kow and water solubility