Toxic Equivalency Quotients for Dixoin-Furan (DF) and Co-planar Polychlorinated Biphenyl (PCB) congeners.

Congener: On of a number of molecular configurations of Chlorines on DF or PCB molecules. Xxx possible congeners for DFs, 209 possible congeners for PCBs.

Co-planar: Phenol is a flat ring structure molecule. When two phenols are linked (Biphenyl), they can either both be flat in the same plane (co-planar) or 90º relative to each other. The co-planar PCBs tend to have higher toxicity, and are considered "Dioxin-like" in their effects.

Toxicity equivalency Factor (TEF): each congener of DF or PCB potentially has different toxicity based on its configuration. The most toxic is given a value of 1. Other less toxic congeners are given a proportionally less toxic factor. The currently used values were adjusted in 2005: http://www.who.int/ipcs/assessment/tef_values.pdf.

Toxic Equivalency Quotient (TEQ): Any given sample will be a mixture of the various congeners at various concentrations. The concentration of selected DF and PCB congeners are multiplied by each respective TEF value, and all TEF adjusted concentrations are added to get the total toxicity for a sample, or the TEQ. A TEQ can be the sum of DF congener values (TEQ_{DF}), the TEQ of the PCB values (TEQ_{P}), or the sume of DF and PCB values (TEQ_{DFP}). The US EPA TEQ_{DFP} screening value for recreational fisher fish consumption is 0.26 ng/kg tissue.