

# Evaluation of Exposure to Mixed Solvents by Analyzing Their Metabolites and Solvents in Urine

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## Abstract

The effect of exposure to solvent mixtures on metabolism are reviewed and tolerable biological levels resulting from exposure, with their ranges, are described. The inhibitory effect of each solvent depends on its metabolic pathway and on the degree of exposure. When exposure to solvent mixtures has no or only a minimum effect on biological levels of exposure indicators, the biological hazard index proposed is useful as an indicator for tolerable exposure. The confidence and predictive limits of the biological hazard index are also discussed. When the urinary metabolites of some of the solvents in a solvent mixture are determined in exposed workers and others are not, a procedure is described to estimate the metabolite levels of the unmeasured solvents. When exposure affects biological level of exposure indicators by the interaction of solvent mixtures, a method for estimating the biological hazard index using adjustment factor "f" is described.

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