

UPTAKE AND ELIMINATION OF ENDOSULFAN BY ZEBRA FISH. Toledo, M.C.F., Jonsson, C.M. University of Campinas, Campinas, SP, Brazil

Endosulfan has been used as an insecticide for the protection of various crops and the control of mosquito larva in many countries. Although regarded as non persistent in the environment, endosulfan has demonstrated high acute toxicity to several fish species. This experiment was conducted to investigate, in a semi-static bioassay, the bioaccumulation and elimination of endosulfan in zebra fish (Brachydanio rerio). The pesticide mean concentration in water was 0.3 µg/l and the level of endosulfan residues (α- + β-isomers + endosulfan sulfate) in the exposed fish at day 21st was  $0.808 \pm 0.116$  µg/g b.w., as determined by GLC using EC detector. The estimated value of bioconcentration factor was  $2,650 \pm 441$ , the total endosulfan residues being eliminated with biological half-life of 4 days. Histopathological studies showed predominant lipid accumulation in the liver and necrotic focus in the gills of exposed fish.