

Triclosan effects on marine sediment dwelling organisms. Kay T. Ho, Monique M. Perron, Mark G. Cantwell, Robert M. Burgess, Marguerite C. Pelletier

Triclosan, (5-chloro-2-(2,4-dichlorophenoxy)phenol) is an antibacterial compound widely used since the 1970s. Currently it is found in many consumer products including soaps, shampoos, deodorants, and toothpastes. In addition, it is commonly infused in many plastic toys and kitchenware that are marketed as anti-bacterial. It is acutely toxic to a number of aquatic organisms and has recently been shown to accumulate and persist in sediments; however, few tests have been performed on sediment dwelling organisms. Ninety six-hour water-only triclosan exposures resulted in LC50s of 97 and 98 ug/l for the sediment dwelling organisms *Ampelisca abdita* (amphipods) and *Americamysis bahia* (mysids) respectively. Seven-day whole sediment toxicity tests resulted in LC50s of 35 and 30 mg/kg for amphipods and mysids respectively. Further results from experiments on food and sediment triclosan pathways will be discussed.

Purpose statement

The objective of this research is to determine the effects of an widely used, emerging antibacterial compound, Triclosan, on marine sediment dwelling organisms.

Key words: Triclosan; antibacterial; sediment: amphipod; mysid; toxicity