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1 A review of monitoring methods for triclosan and its occurrence in aquatic  
2 environments

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9 HIGHLIGHTS:

- 10 • Triclosan is a widely used biocide which has been detected globally in surface  
11 waters.
- 12 • Methods for the analysis of triclosan in water samples are reviewed.
- 13 • Linear ranges and detection limits of methods based on chromatography-mass  
14 spectrometry, electrochemistry, capillary zone electrophoresis and  
15 spectrophotometry are compared.

16 ABSTRACT

17 Triclosan is a phenyl ether with broad spectrum antimicrobial action which is employed in a  
18 great number of everyday household and personal care products including plastics, fabrics,  
19 soaps, deodorants, toothpaste, and cosmetics. There is serious concern, however, regarding  
20 this widespread use in terms of the potential environmental impacts of triclosan. Triclosan may  
21 enter the aquatic environment via numerous pathways including discharge of effluents from  
22 industries and wastewater treatment plants. To date, however, a comprehensive review of the  
23 determination of triclosan in aquatic environments has been not reported. Herein, we review the  
24 environmental concentration of triclosan in aquatic systems globally, as well as its stability and  
25 toxicity. The wide variety of monitoring methods utilized for the determination of triclosan are

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