BIOLGICAL EFFECTS OF EXPOSURE TO WATER SOLUBLE FRACTIONS (WSFs) OF OIL

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Abstract

Water soluble fractions of oils (WSFs) constitute a wide range of potentially toxic compounds. A major problem has been to characterize the constituents of WSF, but naphthalenes, phenanthrenes and phenols are present. In addition, in some oils up to 60% of WSFs are present as unresolved complex mixture (UCM), and studies have shown both that some monoaromatic UCM-constituents are both accumulating in and causing toxic effects to marine organisms. In the present work Total WSF was generated and tested for toxicity on both Zebrafish (Danio rerio) and the copepod Calanus finmarchicus. Further fractionation of WSF was conducted, and 14 different fractions were tested for toxicity in a rainbow trout (Oncorhyncus mykiss) hepatocyte cultures.

References