

ASSESSMENT OF MUTAGENICITY OF SIMULATED IN VITRO SPILLED DIESEL OIL EFFLUENTS BY AMES TESTS

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The contamination of the aquatic environments by oil and derivatives spillages has been estimated in million of metric tons per year, which is due principally to tanker accidents, and photochemical processes may also be important to the subsequent biological consumption of oil. This work used Ames test methodology to analyze the mutagenic potential of diesel oil effluents contaminated *in vitro*. The water samples utilized in all experiments were obtained of the spilled oil simulation with 5 ml of petroleum was floated over 20 ml of distilled water (4:1) in aquarium of glass of 100L. Shortly 15L of water samples obtaining by tap in the base of the aquarium avoiding the emulsified effluents of the contact oil-water. All brute contaminated water samples resulting significant mutagenic activity ($p=0.05$) when submitted to the Ames assays without rat liver S9 homogenate activation by four tester strains (TA97a, TA98, TA100 and TA102) from related to the negative control. However, in TA97a strain so elevated concentration of contaminated water samples demonstrated significant mutagenicity by T-test. These obtained data suggest that these *in vitro* contaminated effluents with diesel oil (simulated), submitted to dark and solar irradiation are mutagenic being very important the control of environmental discards.

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Key words: Ames (Microsome-Salmonella) test, mutagenicity, oil effluents, spilled oil simulation.