TOXICITY TEST LC50 WASTE OF SPENT BLEACHING EARTH TO AQUATIC LIFE IN WATER

ABSTRACT

Bleaching earth is usually used in bleaching process Crude Palm Oil (CPO). Materials that have lost power pemucat adsorption becomes waste Spent Bleaching Earth (SBE)-containing oil. SBE disposal into water bodies has the potential to cause pollution. To minimize the effect of SBE and as a basis for prevention of deterioration of water quality necessary tests involving aquatic biota. This study aims to determine the LC50 value SBE waste on aquatic biota biota and determine which is more sensitive to waste SBE.

Test animals used tilapia (*Oreochromis niloticus*), guppies (*Poecilia reticulata*), and catfish (*Clarias batrachus*). Stages of research include acclimatization, range-finding test, and acute toxicity test for 96 hours.

Based on the analysis and calculation of LC50 with the Litchfield-Wilcoxon method (LW), LC50 values tilapia (*Oreochromis niloticus*) spent bleaching earth waste was 73% ± 1.5. LC50 values catfish (*Clarias batrachus*) was 76% ± 0.8. Guppy fish LC50 value is not found. Based on the analysis, biota are more sensitive to the presence of SBE is a waste tilapia (*Oreochromis niloticus*) with the LC50 value of 73% ± 1.5.

Key words: Toxicity test, LC50, Spent Bleaching Earth, aquatic life