

Acute Oral Toxicity and Brine Shrimp Lethality of *Elaeis guineensis* Jacq., (Oil Palm Leaf) Methanol Extract

Type:

Article

Abstract:

Elaeis guineensis (Arecaceae) is widely used in West African traditional medicine for treating various ailments. An evaluation on the toxicity of extracts of this plant is crucial to support the therapeutic claims. The acute oral toxicity and brine shrimp lethality of a methanolic extract of this plant was tested. Oral administration of crude extract at the highest dose of 5,000 mg/kg resulted in no mortalities or evidence of adverse effects, implying that *E. guineensis* is nontoxic. Normal behavioral pattern, clinical signs and histology of vital organs confirm this evidence. The *E. guineensis* extracts screened for toxicity against brine shrimp had 50% lethal concentration (LC(50)) values of more than 1.0 mg/mL (9.00 and 3.87 mg/mL, at 6 and 24 h, respectively), confirming that the extract was not toxic. Maximum mortalities occurred at 100 mg/mL concentration while the least mortalities happened to be at 0.195 mg/mL concentration. The results of both tests confirm that *E. guineensis* is nontoxic and hence safe for commercial utilization.

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