

PHYTOCHEMICAL AND ACUTE TOXICITY STUDIES OF THE AQUEOUS AND METHANOL EXTRACTS OF *EMILIA COCCINEA* (SIMS) G. DON

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Abstract: *Emilia coccinea* serves various indigenous medicinal uses in traditional settings without much consideration about the possible adverse effects of the consumption of its crude extracts. The present study examined the possible acute toxic effects of the oral administration of the aqueous and methanol extracts of *E. coccinea* leaves in mice. Graded doses (1, 2, 4, 6 and 8 g/kg) of the extracts were administered to 6 groups of mice and their responses observed for 2 hrs and 24 hrs for behavioural changes and mortality respectively. The results showed that the administration of a single dose of the extracts did not produce any harmful effect or death in the animals and the mice had no negative behavioural changes. The LD₅₀ was found to be greater than 8 g/kg since up to this dose no death was recorded. There was no significant change (P>0.05) in the mean body weight of the test and control mice. The phytochemical screening using qualitative standards revealed the presence of alkaloids, flavonoids, cardiac glycosides and terpenoids in both extracts. The results of this study suggest that the aqueous and methanol extracts of the leaf of *E. coccinea* can be considered safe within the administered doses.

Keywords: Acute toxicity, Aqueous, Methanol extracts, *Emilia coccinea*, Ethnomedicine and Phytochemistry

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