



## Free Radical Scavenging and Anti-Edematogenic Activities of Essential Oil Obtained from *Trichilia silvatica* DC. (Meliaceae) Leaves

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**SUMMARY.** The present study was focused in evaluating the chemical composition, the anti-edematogenic and antioxidant activities of essential oil obtained from *Trichilia silvatica* (EOTS) leaves. The EOTS was extracted by hydrodistillation and their analyses were performed by GC/MS. The main compounds identified in the EOTS were sesquiterpenes. Furthermore, the EOTS exhibited antioxidant and *in vivo* anti-inflammatory activity. The oral administration of EOTS (100 and 300 mg/kg), significantly inhibited the carrageenan (Cg) induced rat paw edema. The observed inhibitions were  $54 \pm 7$  and  $49 \pm 6$  % (100 mg/kg) for EOTS and  $68 \pm 6$  % and  $66 \pm 11$  % for dexamethasone after 2 and 4 h after Cg-injection, respectively. In conclusion, the present work showed for the first time, that the anti-inflammatory effects of essential oil seem to be mainly associated with the high levels of sesquiterpene in the leaves of this plant.

**KEY WORDS:** Antioxidant activity, Anti-edematogenic activity, Essential oil, *Trichilia silvatica*.

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