

TOXICITY OF ESSENTIAL OIL *CROTON ZEHNTNERI* AND YOUR CHEMICAL COMPOUNDS BY BIOASSAY IN ARTEMIA SP.

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The toxicity bioassay in *Artemia* sp. has intention to monitor the fitochemistry study of the extracts of plants searching bioactives substances. The essentials oils were extracted of the leaves from *Croton zehntneri*, collected at schedules 5, 9, 13, 18, 21h, after seven days drying, by steam distillation apparatus, having yield at 9h-1,96%, 13h-1,86%, 18h-1,48%, 21h-2,26%. These compounds were identified using a mass spectral library search and [¹³C]-nuclear magnetic resonance spectroscopy. The mains compounds observed in these oils were anetol and estragole. The artemia cysts were hatched in salt water (32 ‰). After 48h, the oils were prepared with Tween 80 1%, is a hydrophilic nonionic surfactant soluble in water. Then, the artemias, in fase metanauplio (II to III), were posts in three replicates in dosages 1, 3, 10, 30, 100, 300, 1000µL/ml. Has been made also the test for anetol, determining your lethal dosage(LD₅₀). The mortality analyses of the artemias were made after 24h and then the statistical analyses of the data were done using SPSS 8.0 software package. The LD₅₀ at schedules 5h(13,80-14,71µL/ml), 9h-(15,46-17,41µL/ml), 13h-(14,47-14,74µL/ml), 18h-(12,01-12,95µL/ml), 21h-(12,42-12,52µL/ml) e LD₅₀ anetol-results not concluded. The toxicity of essentials oils extracted from plant is related to its mains compounds.

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Key words: *Croton zehntneri*, anetol, toxicity, *Artemia* sp.