



Dermal acute toxicity of *Cyperus articulatus* var. *nodosus* essential oil and hydrolate from Santarém-Pará

Inês R. Machado¹, Michelly R. Arévalo¹, Amanda S. Silva¹, Leopoldo C. Baratto¹,
Ronald Santo Silva², Lauro E. S. Barata¹

¹ P&DBIO - Lab. P&D de Produtos Naturais Bioativos, Universidade Federal do Oeste do Pará- Pará, Brazil

² Fundação Oswaldo Cruz, Fiocruz- Rio de Janeiro, Brazil
inesuenf@yahoo.com.br

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Priprioca (*Cyperus articulatus* var. *nodosus* Lin.; Cyperaceae) is a tuber that exhales an aroma traditionally used in baths and preparation of handmade perfumes in Amazon Rainforest. Essential oil (EO) has wet wood, green and spicy notes and it is used in the production of fine perfumes of Natura S/A. In our research group, (P&DBIO) *priprioca* has been target of multidisciplinary studies involving agronomical, chemical and biological areas. The plant was cultivated in a hectare in West region of Pará State (Santarém-Brazil), and the EO was extracted in laboratorial, pilot and industrial scales with yield approximately of 0.5%, as well an hydrolate (HD) was obtained as a sub product. These studies aimed the formulation of cosmetics using these raw materials. EO and sub products could present side effects as contact allergic dermatitis, photosensitivity, neurotoxicity and carcinogenicity. That is the reason to study the dermic absorption and toxicity of *priprioca* EO and HD *in vivo*. In the primary cutaneous irritation assay were used twelve rabbits New Zealand breed, male or female, healthy and body weight higher than 2.0 kg for each treatment. Six rabbits were used for both treatment, EO and HD. Animals were kept in individual cages with constant temperature and were trichotomized in two areas in dorsal region 24 h prior the beginning of the assay. A volume of 0.5 ml of EO or HD was applied in one side of the trichotomized area, while the other one was used as control. After treatment each area was covered with gauze and both EO and HD remained in contact with the skin for a period of at least 4 h. After this period, the semi-occlusive patch was removed to collect the residue of the product. The readings were done between 24 and 72 h and the values were registered measuring the skin edema of the test area with a pachymeter and calculating with a formula. The grade of intensity of cutaneous reaction was based on Draize method. The arithmetic averages of the readings were calculated. The value found for Index of Primary Cutaneous Irritation (PCI) of *C. articulatus* var. *nodosus* EO classified it as moderated irritant, while PCI for HD was considered not irritant.

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