Comparative analysis of the essential oils from leaves and branches of five varieties of *Aniba rosaedodora* (rosewood) employed in the industry

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The genus *Aniba* has 44 species, taxonomically divided in two groups, *affinis* and *guianensis*. Inside the *guianensis* group, there are four subgroups such as the *panurensis* (14 species) in which the *Aniba rosaeodora* species is part (1,2). Morphologically, these species can be differentiated by characteristics of the flowers and also, some times, by the fruits. However, the recurrent overlap of the floral morphology makes impossible the taxonomic analysis. *Aniba rosaeodora* stands out mainly on the perfume industry and also it was targeted of intense exploration for the essential oil commercialization. The objective of this project was to evaluate the composition differences of the essential oil on five rosewood varieties commercially used. Magaldi Company located in Maués, Amazon, Brazil, gently provided the samples of leaves and branches, in July 2015. Approximately 30 g of dry leaves, fresh leaves and dry branches were submitted to hydrodistillation separately in a modified Clevenger-type apparatus for 4 h each. The oils were analysed by GC/FID in a Shimadzu GC-2010 system, with a DB-5 fused silica capillary columns (30 m X 0.25 mm X 0.25 µm). Helium was used as carrier gas for GC/FID, with a flow rate of 1.0 mL min^{-1}. Oven temperature was raised from 60 to 180 °C at 3 °C min^{-1} and later from 180 to 290 °C at 20 °C min^{-1}. The comparison between the chromatograms and literature data allowed to classify the samples in two groups. The major characteristic of the first group was the higher concentration of linalool (63.1 – 84.9 %). The second group was marked by the presence of two major substances: linalool (35.6 – 52.7 %) and caryophyllene oxide (9.4 – 38.5 %). Other minority substances were detected in both groups, characterizing the rosewood oils, as the presence of caryophyllene, pinene and selinene. The fresh and dry leaves of the five varieties showed similar chromatographic profiles. The dry branches profile of the second variety analysed showed a higher number of substances when compared with the other samples.

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