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BIOAPLICATIONS OF COPAIBA OIL

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Copaifera, a genus of large trees, is abundant in various Brazilian states, primarily in the Amazon forest, and can also be found in the Atlantic forest and Cerrado biomes. It is distributed in South American countries and West African regions such as the Congo, Cameroon, Guinea, and Angola. The most common species in Brazil include *Copaifera officinalis* L., *Copaifera guianensis* Desf., *Copaifera reticulata* Ducke, *Copaifera multijuga* Hayne, *Copaifera confertiflora* Bth., *Copaifera langsdorffii* Desf., *Copaifera cariacea* Mart., and *Copaifera cearensis* Huber ex Ducke. The use of copaiba remains almost ubiquitous in Amazonian communities. It is one of the region's most commonly used and well-known medicinal plants. Copaiba oil extraction from the forest tree is a common activity among the indigenous people of the Amazon. Copaiba oil is derived from the oleoresins produced in the trunks of Copaifera (Fabaceae) species. It is a prominent phytotherapeutic agent widely utilized by Amazonian populations. It presents a unique flavor profile and nutritional benefits, offering opportunities for innovation in food preparation and culinary artistry. The oil-rich composition of terpenes and other bioactive compounds presents a wide array of potential health benefits. Moreover, its rich composition of bioactive compounds, such as β-caryophyllene, lends itself to therapeutic applications, including anti-inflammatory, wound-healer, anti-tumor, gastric protector, antimicrobial, and analgesic properties. Copaiba oil holds promise for various therapeutic applications, including skincare, pain management, and immune support. This summary elucidates methodologies for optimizing Copaiba oil extraction and extraction techniques to preserve its bioactivity and ensure safety for consumption and therapeutic use. Furthermore, it explores the significance of sustainable sourcing practices to maintain the ecological balance and long-term viability of Copaiba oil production.

Referências bibliográficas

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