

CaribFerm™ Pequi Oil – Fermentation Powered Skin Rejuvenation

CARIBBEAN NATURAL PRODUCTS

www.caribnaturalproducts.com

PRODUCT/SERVICE BACKGROUND INFORMATION

Fermentation has been used for centuries to transform natural ingredients into valuable compounds for hair and skin care. This process can enhance the availability of beneficial components, including amino acids, vitamins, antioxidants, and other bioactive substances. Fermented ingredients help support skin hydration, reinforce the skin barrier, improve texture, and promote a healthy-looking complexion. CaribFerm™ Pequi Oil is produced through an innovative fermentation process using naturally occurring surface microorganisms associated with *Caryocar brasiliense*. The result is a distinctive ingredient rich in functional and bioactive compounds, offering exciting potential for innovative hair and skin care formulations.

WHAT IS THE COMPANY INTRODUCING TO THE MARKET/INDUSTRY?

CaribFerm™ Pequi Oil is produced by fermenting Pequi macerate and oil. The entire plant (fruit, leaves and stem) and naturally occurring surface microorganisms are used in the process. Using its natural microbiome, precious nutrients and bioactive substances such as naturally occurring retinoids, antioxidants, and quinone are made more bioavailable. CaribFerm™ Pequi Oil offers retinol-like benefits without showing sensitizing effects such as irritation, keratitis and photosensitivity. It binds to the RXR receptor and inhibits collagenase and metalloproteinases expression, while stimulating collagen type 1 and glycosaminoglycans synthesis. This helps to promote the appearance of youthful, radiant skin.

HOW WILL THIS NEW PRODUCT/SERVICE IMPACT THE INDUSTRY (BENEFITS)?

Fermentation improves the bioavailability of active compounds in the final raw material. In CaribFerm™ Pequi Oil, this process boosts several key compounds:

- **Retinol:** Known to stimulate Type I collagen and glycosaminoglycan synthesis, supporting skin firmness and hydration.
- **Retinoic Acid:** Plays an important role in regulating epidermal cell proliferation and differentiation, supporting skin renewal.
- **Coenzyme Q10:** A powerful antioxidant that supports mitochondrial energy production and helps protect skin cells against oxidative stress.

In addition, CaribFerm™ Pequi Oil offers an impressive fatty acid profile that helps support skin barrier function and maintain the scalp's natural lipid barrier.

Combining fermentation-enhanced bioactives with beneficial fatty acids, CaribFerm™ Pequi Oil offers exciting opportunities for effective, sustainable skincare and haircare formulations that

support long-term skin and scalp health while meeting growing consumer demand for science-backed, nature-inspired ingredients.