From Scalp to Strand: An Integrated Approach to Hair Growth, Scalp Health and Aromatic Care

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Abstract:

Hair and scalp condition is influenced by follicular biology, scalp-barrier homeostasis and the physical performance of topical care products. This study aimed to develop and physically characterize an aromatic hair-oil prototype integrating Maracuja (Passiflora edulis) seed oil, Ceramide NP and a peptide ingredient. Two prototypes were prepared with different active levels: C1 contained 5.0% Maracuja oil, 0.1% Ceramide NP and 0.5% acetyl hexapeptide-8, whereas C2 contained 10.0%, 0.5% and 1.0%, respectively. The oil phase also incorporated sunflower, sweet almond, argan, jojoba and amla oils, with lavender and chamomile essential oils for aromatic character. Following raw-material checks, oil-phase preparation, blending, aromatic addition and homogenization, the prototypes were assessed for appearance, colour, odour, homogeneity, spreadability and Ford Cup B flow time. The reported observations described a pale-yellow to slightly brownish product, a pleasant lavender–chamomile aroma, good visual homogeneity and qualitative spreadability; flow time was approximately 10–12 s. During the reported six-month observation period (March–August 2026), physical properties remained acceptable overall, although a slight colour change was noted. C2, containing the higher levels of the three highlighted ingredients, was selected as the preferred prototype for further development. These preliminary findings support the feasibility of an integrated botanical-lipid, barrier-supportive and peptide-containing hair-oil concept. Further work should include documented replicate measurements, confirmation of ingredient specifications, packaging compatibility, defined stability time points and appropriate scalp-tolerability and hair-fibre assessments. The present physical evaluation does not establish clinical hair-growth efficacy.

Keywords:

Aromatic hair oil, Ceramide NP, hair and scalp care, Maracuja oil, peptide.