

Eco-friendly Formulation and Evaluation of a Polyherbal Hair Oil: A Holistic Approach Towards Sustainable Hair Care [†]

Tosha Gor ¹, Dipak Kumar Mahida ², Rakesh Rawal ¹, Ankita Patel ², Nidhi Gondaliya ^{1,*}

¹ Department of Life Science, Gujarat University, Ahmedabad, India; toshagor98@gmail.com (T.G.); rakeshmrawal@gmail.com (R.R.); nidhi13285gondaliya@gmail.com (N.G.);

² Department of Biochemistry and Forensic Science, Gujarat University, Ahmedabad, India; dipakkumar.mahida@gmail.com (D.M.); anki.patel122@gmail.com (A.P.);

* nidhi13285gondaliya@gmail.com (N.G.);

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Abstract: The escalating environmental concerns associated with synthetic cosmetics have prompted a paradigm shift towards herbal formulations. This study delves into the formulation and assessment of polyherbal hair oil, leveraging eco-friendly ingredients believed to enhance hair growth and mitigate hair loss. The preference for herbal cosmetics stems from their reputed lower side effects and heightened safety profile. The primary objective is to investigate the environmental sustainability and efficacy of polyherbal hair oil in promoting hair health and addressing common issues like hair loss and dryness. The study comprehensively evaluates the formulated hair oil through parameters such as pH, organoleptic properties, sensitivity, saponification value, acid value, viscosity, and phytochemical screening. Also, a primary skin irritation test was conducted. Ingredients utilized in the formulation were selected based on their potential to provide essential nutrients, maintain sebaceous gland function, and promote natural hair growth. Results of the study indicate that the herbal oil not only met rigorous safety standards but also demonstrated notable benefits, including improved hair growth and enhancement of hair luster. The study underscores the importance of herbal cosmetics in addressing common hair problems, providing evidence of their efficacy. In conclusion, this research underscores the significance of herbal cosmetics, emphasizing their pivotal role in the hair care industry's sustainable future. The eco-friendly ingredients employed in this study, rich in vitamins, antioxidants, terpenoids, and essential oils, offer an effective, safe, and environmentally conscious solution to prevalent hair issues. The study advocates for the integration of herbal formulations in the broader context of environmental toxicology, promoting a shift towards sustainable and eco-friendly practices in personal care.

Keywords: cosmetics; hair oil; formulation; hair care; green chemistry.

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Conflicts of Interest

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