

## PHYSICOCHEMICAL AND PHYTOCHEMICAL ANALYSIS OF *KAMPILLAKADI* OIL

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*Kampillakadi thaila* is a traditional Ayurveda oil formulation in wound care, as cited in the Charaka Samhita *Chikitsasthana* twenty fifth chapter. This study make bridge the classical Ayurvedic perspective with modern scientific parameters by analyzing the physicochemical and phytochemical characteristics of the formulation. The oil was prepared following the *Snehapaka vidhi* (oil preparation method) in Sharangdhara Samhita, incorporating 18 herbal components, with *Mallotus philippensis muell.* Processed in a sesame oil base. The formulation was evaluated through various physicochemical tests. The oil showed a refractive index of 75%, pH of 5.0, specific gravity of 0.8951, and density of 895.1 kg/m<sup>3</sup>. Its viscosity value 44.87 Pa-s. These collectively support the oil's stability and appropriateness for external use. Organoleptically, the oil exhibited a characteristic brownish-red color, a pleasant herbal aroma, and a smooth, oily consistency. Phytochemical analysis revealed the presence of key bioactive groups including tannins, flavonoids, saponins, terpenoids, and alkaloids. These compounds have anti- inflammation modulation, and antioxidant activity. Chromatographic profiling via TLC and HPTLC, highlighting the oil's complex and potent phytochemical matrix. Used N butanol, Chlorafom, Toluin (1:1:1) (v/v) for TLC jar. TLC plate was observed under UV (366nm) using the cabinet. From the Ayurveda side, the formulation expresses predominant *Tikta* (bitter), *Katu* (pungent), and *Kashaya* (astringent) *rasa*, along with *Laghu* and *Ruksha guna*. It is categorized under *Ushna* (hot) *viryas* and exhibits a *Katu* (pungent) *vipaka* attributes traditionally associated with wound cleaning, infection control, and tissue regeneration effects. At finally this study helped to make a relation in Ayurveda knowledge and modern knowledge for this oil formation. Such integrative approaches are essential for promoting evidence-based use and broader acceptance of Ayurveda formulations in modern clinical contexts.

**Keywords:** Ayurveda, *Kampillaka*, Wound healing, *Mallotus philippensis*