

**MICROSCOPIC EVALUATION OF LEAVES OF *MEMECYLON UMBELLATUM* BURM**

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**ABSTRACT**

**Objective:** Aim of present work is to perform the microscopic evaluation, physicochemical analysis and to explore the morphology parameters of *Memecylon umbellatum* Burm leaves.

**Methods:** Fresh and dried and desiccated powdered leaf samples was studies for its morphology, microscopy, organoleptic characters and an assortment of other WHO recommended methods for standardisation.

**Results:** The microscopy revealed the dorsiventral nature of the leaf. Mid rib showed presence of non lignified phloem, lignified xylem with well defined xylem fibers, vessels and parenchyma. Presence of Phloecentric Vascular bundles surrounded by endodermis and crystal sheath. Well defined patches of collenchyma were observed above and below the vascular bundles in the mid rib area. Trichomes are mostly absent and stomata (anomocytic) were observed on both epidermal surfaces.

**Conclusions:** It can be concluded that the Microscopic analysis and pharmacognostic parameters can serve as tool for developing standards for proper authentication, quality and purity of *Memecylon umbellatum* Burm leaves.

**Keywords:** *Memecylon umbellatum*, Microscopic evaluation, Stomatal index, Palisade ratio

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