(12) PATENT APPLICATION PUBLICATION

## (19) INDIA

(22) Date of filing of Application :03/04/2024

## (54) Title of the invention : FORMULATION OF 4% AQUEOUS EXTRACT OF MYSURU VARIETY OF PIPER BETLE.L LEAF MOUTHWASH

## (57) Abstract :

ABSTRACT FORMULATION OF 4% AQUEOUS EXTRACT OF MYSURU VARIETY OF PIPER BETLE.L LEAF

MOUTHWASH The invention discloses a process for preparing a therapeutic mouthwash comprising 4% aqueous extract of Mysuru variety of Piper betle L. leaf. The method involves procuring Piper betle leaves, washing, shade drying, powdering, extracting the leaf powder using a hydro- alcoholic solvent, filtering, decolorizing, removing alcohol and diluting the extract to 4% concentration based on evaluation of optimal antimicrobial activity. The mouthwash formulation comprises the 4% aqueous leaf extract along with 1% sodium benzoate, 1% aspartame, 0.5% peppermint oil and 0.1% Apple green synthetic food color as excipients, made up to 1000 ml volume with ultrapure water. The alcohol-free formulation with 100% food grade ingredients is safe for diabetics. The invention also provides methods for: treating chronic periodontitis using this mouthwash as adjunct to ultrasonic scaling; evaluating its anti-inflammatory, anti-plaque and antioxidant efficacy in comparison with 0.2% chlorhexidine and placebo mouthwashes; and assessing its bacteriostatic effect against periodontal pathogens. Overall, the 4% Piper betle leaf extract mouthwash demonstrates significant efficacy against plaque, gingival inflammation and salivary oxidative stress, comparable to standard chlorhexidine mouthwash. The invention thus provides promising results as an adjuvant along with mechanical debridement to treat periodontitis.

No. of Pages : 42 No. of Claims : 10