
PATENTED TECHNOLOGY LICENSING PROPOSAL
ORAL CARE COMPOSITION FOR TREATING ORAL FUNGAL INFECTIONS

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TECHNICAL FIELD OF INVENTION

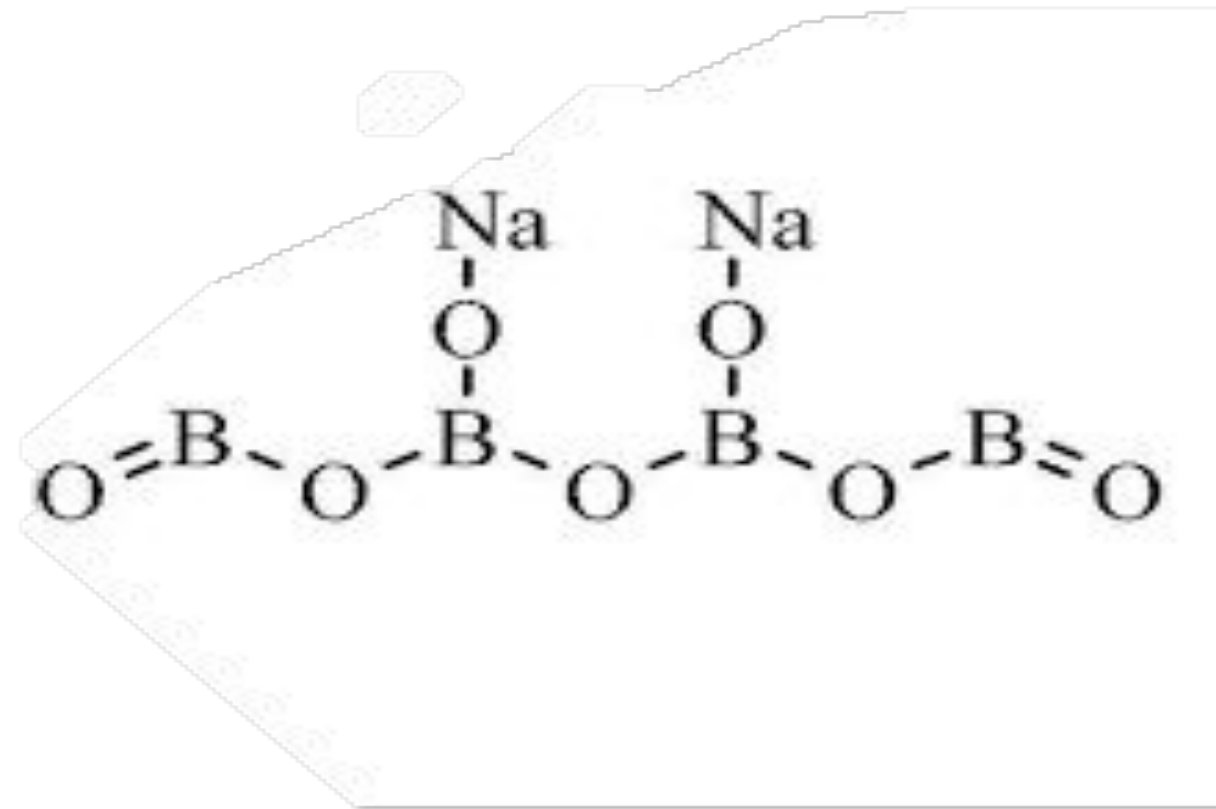
The present invention relates to an oral care composition with Sodium Biborate as the active ingredient for the treatment of anti-fungal infection such as oral candidiasis or oral thrush oropharyngeal candidiasis, moniliasis, candida stomatitis etc.

PATENT STATUS

Patent No: 368075 (India)

Title: AN ORAL CARE COMPOSITION FOR THE TREATMENT OF ANTI-FUNGAL INFECTION.

Date of Grant: May 31, 2021



BACKGROUND

Candida is dimorphic fungus present as normal flora of human and animal. This fungus may change into opportunistic pathogen in immunocompromised patients (HIV, TB and cancer etc), Other factors are extremes of age, pregnancy, the use of birth control, nutritional diseases and organ transplantation. The prevalence of oral candidiasis has been reported to range from 20- 75%.

Certain class of drugs, such as azole, polyene etc. has been used in the treatment, prophylaxis and maintenance therapy for *candidiasis*. With the rising frequency and spectrum of fungal infections, increasing reports of resistance to antifungal agents, decreasing efficacy or available drugs and higher costs associated with such treatment, there is a growing call for better drugs for the treatment of fungal infections, particularly oral fungal infections. Currently, chlorohexidine is one drug prescribed by medical practitioners/ dentists for treating oral fungal infections, however, chlorohexidine can't be used for a prolonged period since it causes yellowing of teeth.

This patented composition provides one such solution to such an overarching problem, without the problem/ side-effects associated with current treatments.

INTRODUCTION

This patented oral care composition is useful for treatment of oral candidiasis or oral thrush, denture stomatitis, gingivitis, angular chelitis caused *Candida albicans*. This is a herbal composition, that is, an ayurvedic medicine and is found to have no or negligible side effects. The composition has Sodium baborate as active agent along with other additives and excipients.

The effective amount of Sodium baborate is in the range of 0.1 to 0.001 gm/ml as active ingredient of the mouthwash.

Sodium baborate is also known as 'tankana' in Indian vernacular language and is chemically composed of boric acid and soda $[\text{Na}_2\text{B}_4\text{O}_7 \cdot 10\text{H}_2\text{O}]$

ADVANTAGES AND COMPARISON OVER EXISTING DRUGS

Antifungal drugs such as Fluconazole, Polyene Amphotericin B, and these agents suffer from a number of limitations that can lead to complications, for example, dose-limiting nephrotoxicity associated with Amphotericin B, rapid development of resistance to flucytosine, drug-drug interactions, fungistatic but not the fungicidal mode of action and resistance to the azoles.

Another advantage with our product is that saliva secretion is maintained throughout the course of the treatment.

The comparison between our product and Market Product. The mouth wash used in market is of Chlorohexidine.

S No	Product Specification	Chlorohexidine	Our Product
1	Antiseptic	Yes	Yes
2	Anti inflammation	Yes	Yes
3	Anti bacterial	Yes	Yes
4	Anti fungal	No	Yes
5	Peridontitis	No	Yes
6	Saliva Secretion	No effect	Saliva secretion
7	Anti Candida activity	No	Yes
8	Toxicity	Non Toxic	Non Toxic

PREPRATION OF ORAL CARE PRODUCT

Purification of Tankana (Sodium Biborate)

- Raw Tankana is made into powder
- Powder heated at 80°C, then 160°C until water is completely evaporated
- Finally, Tankanais obtained as a white coloured puffy light substance

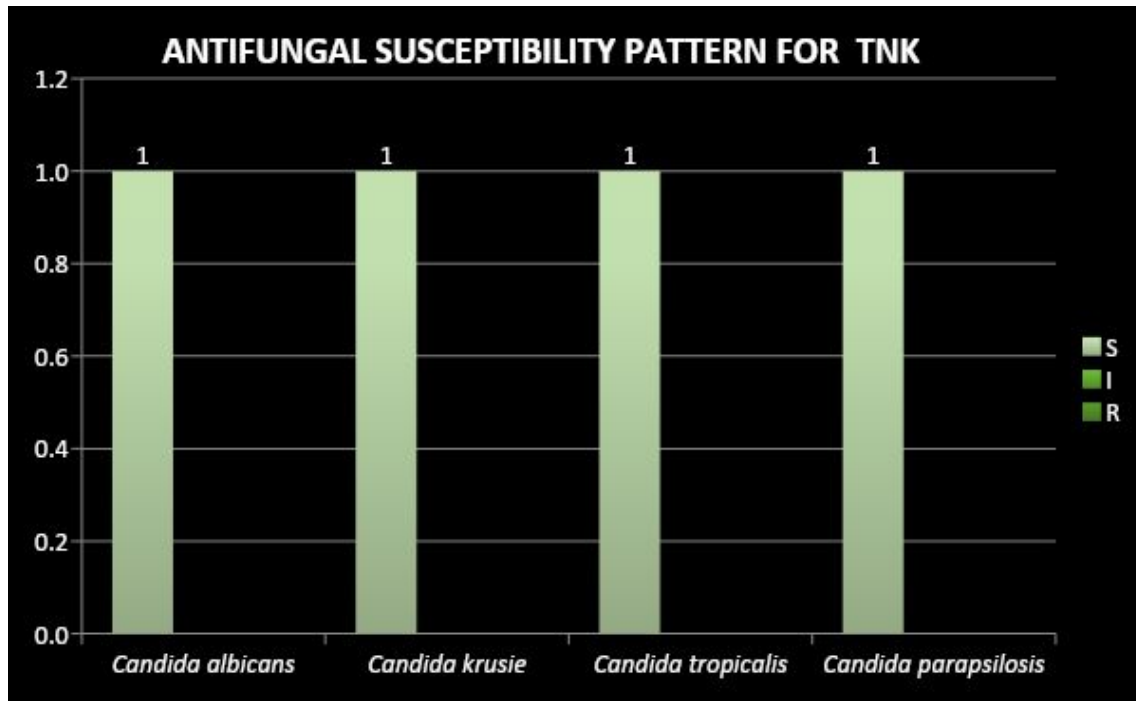
Preparation of mouthwash

- Sodium baborate is added in a mixture of:
- Glycerin, Xanthan gum, Sodium lauryl sulphate, silica, Titanium dioxide, sodium saccharin, flavour and water
- 0.01gm/ml concentration of Sodium baborate is desired

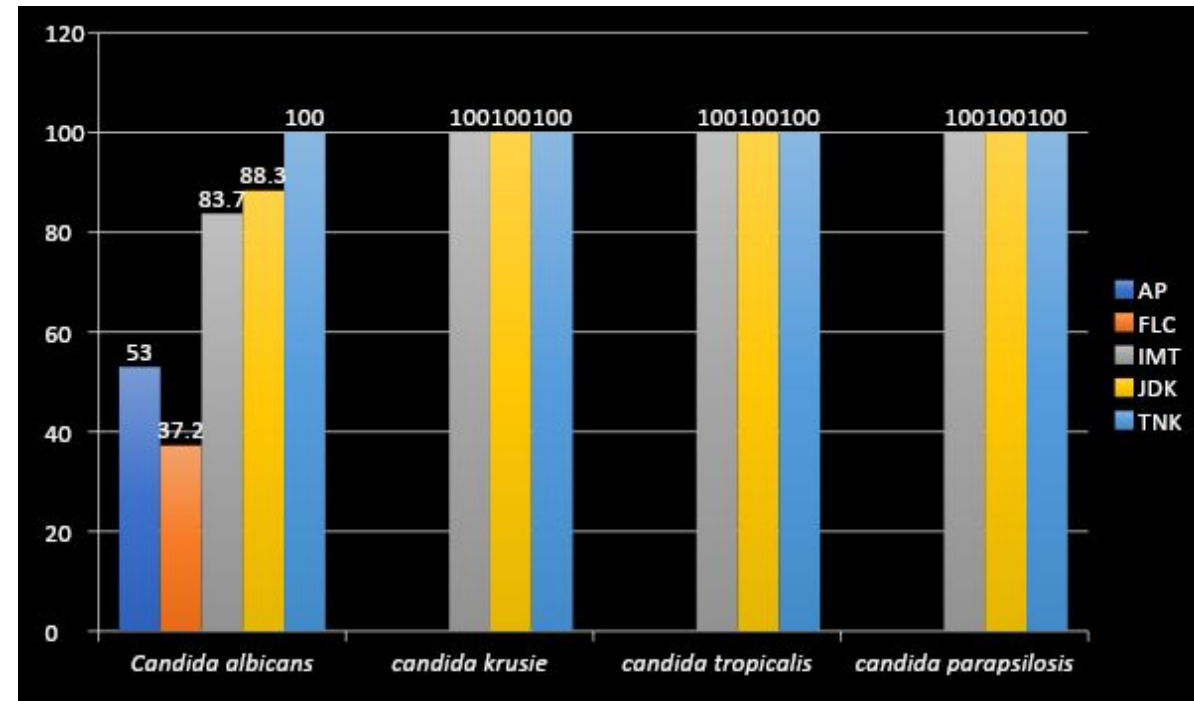
Preparation of toothpaste

- Sodium baborate is added in a mixture of:
- Aluminium trihydrate, sorbitol syrup (70% solution), Guar gum, Xanthan gum, saccharin, monosodium phosphate, sodium monofluorophosphate, formalin, titanium dioxide, sodium lauryl sulphate, sodium polyphosphate, flavour and water
- 0.01gm/ml concentration of Sodium baborate is desired

Interpretation of antifungal susceptibility testing for Tankan(TNK)



Comparison of percentage of sensitivity of candida species for Ayurvedic drugs and allopathic drugs.



EXPECTATIONS

- Inventor/ Patentee seeks alliance with potential entities to license this technology, including patents.
- Inventor/ Patentee is looking to sell/ assign this technology, including patents to any entity.
- Further collaboration on this technology, including for further research, product development etc.

CONTACT DETAILS

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