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Design and Development of Herbal Face Pack (HFP) from Medicinal Plant

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Abstract: ***The objective this work is to formulate and evaluate a polyherbal face pack (HFP) for cosmetic purpose from herbal ingredients. Use of synthetic surface active agents like sodium lauryl sulphate (SLS) has been found to show adverse actions on the skin like irritation and inflammation and there's a higher rate of contact allergy to it[(9)]. Soapnut extracts is traditionally used in household remedies and is documented to have beneficial effects on skin. Hence the objective of the work was to formulate a HFP replacing SLS by Sapindus mukorossi.***
Keywords: Herbal pack, Sapindus mukorossi, medicinal plant.

I. INTRODUCTION

Cosmetics are defined as the products used for the purposes of cleansing, beautifying, or alternating the appearance[1]. From the ancient time, different herbs are used for cleaning & beautifying. Face skin is the major part of the body, which indicates the health of an individual.

Herbal face packs are nowadays being used on a large scale, due to the various benefits of them over chemical based packs. They are non-toxic, non-allergic and non-habit forming. They are natural in every aspect, having larger shelf lives. They have no added preservatives. They can be easily formulated and stored over a larger span of time. Present research article deals with the formulation and evaluation of cosmetic herbal face pack made from natural constituents.

A. Objective

The objective of this work is to formulate and evaluate a polyherbal face pack for cosmetic purpose from herbal ingredients. Multani mitti, sandal wood powder, turmeric, mango ginger, rose petals were procured from the local market and were dried, powdered, homemade gram flour then passed through sieve no. 100, mixed geometrically and evaluated for its organoleptic and physico-chemical, general powder, microscopical characters.

Table 1: Formulation of Herbal Face Pack

Sr. No.	Name of Ingredients	Scientific Name	Quantity of sample for 100g
1	Multani mitti,	Calcium bentonite	15
2	Sandal wood	Santalum alba	15
3	Turmeric	Curuma longa	15
4	Mango ginger	Curcuma amada	05
5	Rose petals	Rosa canina	05
6	Soapnut	Sapindus mukorossi	10
7	Gram flour	Cicer arietinum	10

Table 2: Organoleptic Properties

Sr. No.	Parameters	Observation
1	Appearance	Powder (Free Flowing)
2	Colour	Slight Yellow
3	Odour	Slight
4	Texture	Fine
5	Smoothness	Smooth

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Table 3: Parameters of Stability studies of Formulation

Sr. No.	Parameters	Observation R.T.	Observation 35±0.5^{0}C
1	Colour	No Change	No Change
2	Odour	No Change	No Change
3	pH	6.88 ± 0.18	6.86 ± 0.19
4	Texture	Fine	Fine
5	Smoothness	Smooth	Smooth

B. Irritancy Test

Mark an area (1sq.cm) on the dorsal surface of the left hand. Definite quantities of prepared face packs were applied to the specified area and time was noted. Irritancy, redness, and swelling were checked and reported for regular intervals up to 24 hours if any.

Table 4: Irritancy evaluation

Sr. No.	Parameters	Observation
1	Irritation	-
2	Redness	-
3	Swelling	-

C. Stability Test

Stability testing of the prepared formulation was conducted by storing at different temperature conditions.

D. Procedure Of Face Pack Application

Take prepared face pack powder in a bowl as per the requirement and add rose water to mix. Mix well and apply over the facial skin. Cover the acne and blemishes spots too. Kept as it is for complete drying for 15 to 20 min and then wash with water.

The details of the constituents used for the formulation of face pack are mentioned below;

1) *Multani Mitti (Calcium bentonite):* Multani mitti helps skin by different ways like diminishing pore sizes, removing blackheads and whiteheads fading freckles, soothing sunburns, cleansing skin, improving blood circulation, complexion, reducing acne and blemishes and gives a glowing effect to a skin as they contain healthy nutrients. Multani mitti is rich magnesium chloride.[3]
2) *Turmeric (Curuma longa)* Turmeric is mainly used to rejuvenate the skin. It delays the signs of aging like wrinkles and also possesses other properties like antibacterial, antiseptic and anti-inflammatory. It is best source of blood purifier. It is effective in treatment of acne due to its antiseptic and antibacterial properties that fight pimples and breakouts to provide a youthful glow to your skin. It also reduces the oil secretion by the sebaceous glands.[4]
3) *Sandal wood (Santalum alba):* Sandalwood has an anti-tanning and anti-aging property. It also helps skin in many ways like toning effect, emollient, antibacterial properties, cooling astringent property, soothing and healing property[5].
4) *Soap nut (sapindus mukorossi):* It is used in ayurvedic medicine for treatment of eczema, psoriasis, and for removing tan, oily (whitening effects) secretions and freckles from the skin and is hypo-allergenic.[6]
5) Gram flour: Treat acne, removes tan, blemishes on skin removes oil and dirt from skin.[7]
6) *Ambe halad:* It is used for fairness, and treat acne & boils, also remove scars, marks and keeps away wrinkle.[8]



Fig. 1 Herbal Pack Formulation



100 mesh size sieve

II. RESULT AND DISCUSSION

From the above observations, it has been notified that since the formulation is made up of naturally occurring dried herbal ingredients, there are almost negligible chances of the deterioration of the formulation. The formulation was kept for one month at room temperature to observe the changes in its color, odor, texture and appearance. The pH was also noticed before and after one month. The formulation was found to be stable. It can be easily used at any temperature, at any place.

III. CONCLUSION

1) The benefits of this herbal based face pack is its nontoxic nature, free from chemicals. This face pack supplies vital nourishment to the skin.

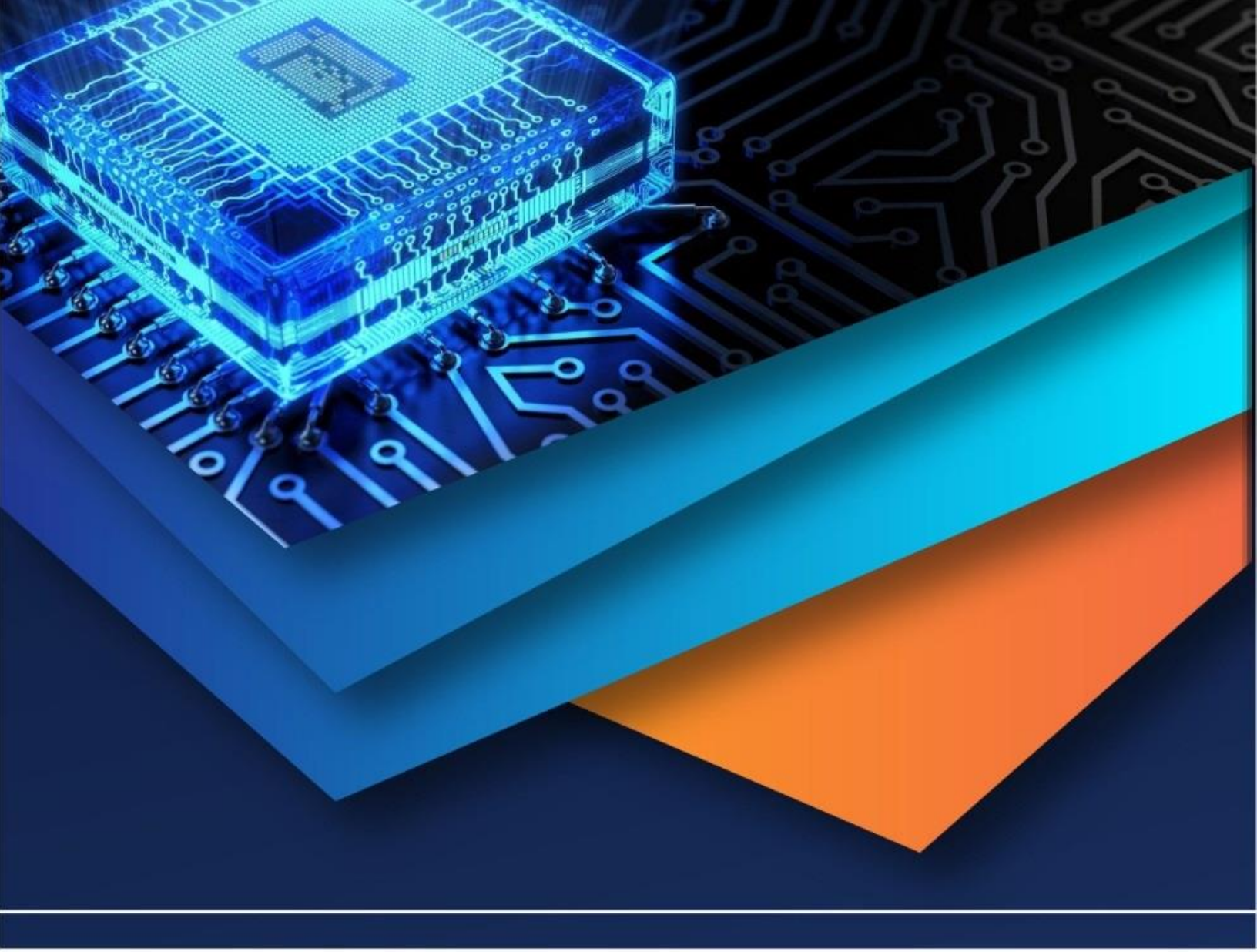
2) Herbal face packs are considered as sustaining and efficient way to maintain and improve the appearance of skin. Thus, in the present work, it is a very good attempt to formulate the herbal face pack containing naturally available ingredients like Soap nut, multani mitti, sandalwood powder, gram flour, turmeric/mango ginger.

3) Irritancy test showed the negative. Thus, in the present work, we formulated a pack, which can be easily made with handy ingredients. It showed all the benefits of a face pack and further optimization studies are required on its various parameters to find its useful benefits and commercialization.

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