

FORMULATION AND EVALUATION OF HERBAL EXFOLIATOR

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ABSTRACT

Objective: The primary goal of the exploration study was to formulate a herbal exfoliator utilizing natural ingredients incorporated into a gel. The utilization of natural ingredients utilized in the formulation to stay healthy skin and of good appearance, to battle against skin break out, wrinkles and furthermore to control secretion of oil. Natural cosmeceuticals normally contain the plant parts which utilizes as antimicrobial, antioxidant and anti aging properties. Herbal beauty care products have less or no side effects consequently utilization of herbal beauty care products get expanded. **Method:** In this preparation, turmeric was used to exfoliating activity, sandalwood was a natural ingredient used for lightens the skin and for glowing skin, gram flour

also used as active ingredients for exfoliation. Other ingredients used in this formulation include neutralizer, moisturizer, surfactants, gelling agent and preservatives was used.

Result: The formulated herbal exfoliator was evaluated using various parameters such as Appearance, Consistency, pH, Absorptivity Spreadability, washability, irritability and Test for microbial growth was found to be satisfied with all parameters. **Conclusion:** The application of herbal exfoliator which helps to improve blood circulation and increases oxygen supply to all surface of the skin. The developed formulation can be used as an effective exfoliator for a healthy and glowing skin.

KEYWORDS: Herbal exfoliator, Turmeric powder, Sandalwood powder.

INTRODUCTION

The word beauty care products is gotten from Greek word "kosomos" characterize as articles expected to be scoured, poured, sprinkled or showered or acquaint into or generally applied with human body or any piece of the body. Herbal Exfoliator are a fundamental piece of skin

schedule. Herbal exfoliator is a restorative item that contains somewhat unpleasant materials that can eliminate dead skin cells.^[15] It is typically a cream-based item that contain little exfoliation pieces that when massage across the skin assist with smoothing the skin by genuinely lifting of dry, dead skin cells. This unbiased exfoliant supports eliminating debasements, impurities, toxins and abundance oil.^[1] This flexible mix can be utilized as facial clean or a facial cover. Blend in with water or a herbal infusion, apply to the face and delicately wash off. Your skin makes certain to feel gentler, softer, cleaner and refreshed.^[27] Skin becomes dull, non sparkling because of different causes and these can really be overcome with the use of exfoliator. Two sorts of exfoliator are being utilized on the skin, for example, facial exfoliator and body exfoliator. Exfoliator can be utilized on a skin. Skin is characterized into three kinds like dry skin, oily skin, and sensitive skin. On routine use of exfoliator, skin become glowing and smoother since dead skin cells are eliminate consequently uncovering new skin cells. Exfoliator can be directly applied on to the skin or can be applied by using with cosmetic pads. Delicate back rub or massage is suggested on use of the exfoliator gel which assists with further developing blood circulation and increases oxygen supply to all surface of the skin.^[3,14] Herbal Exfoliator is the restorative item which scrubs, exfoliates the skin of the body and gives solid and healthy complexation. Despite skin type, consistently we ought to choose an exfoliator which isn't destructive however delicate to the skin. The harsh ones can cause more damage than great to the skin. For oily skin type, Gel based exfoliator is liked. For dry skin type, cream based exfoliator is helpful. For sensitive skin, exfoliators with very delicate granules are having great outcomes. An ideal exfoliator is accepted to have the properties like it should be non harmful, have little coarse particles, gentle grating, non irritating, non sticky, ready to eliminate dead skin cells.^[2]

Exfoliation

The healthy skin is everyday exfoliation and hydration. The climatic condition clogs the skin pores with dirt and toxins and our internal body excretion mechanism to dispose of its toxic parts of metabolism through similar pores. This prompts develop of dead skin cells. Day to day exfoliation with a delicate, rich herbal exfoliator speeds up new cell age while diminishing the surface development of dead skin cells. Consistently the skin is presented to unsafe beams from daylight and assault by free-radicals. These day to day attacks might escalate melanin development and damage cells, so it speeding up then process of skin darkening and maturing. Herbal skin exfoliation is a significant piece of general skin maintenance. It smoothes and synthetically balances the skin, unclogs pores and stimulates

new cells development, diminishing imperfections or blemishes, discoloration and wrinkles which helps the skin stays sound spotless and healthy clean, hydrated and flaw free.^[20]

Plant material

The powders of turmeric, sandalwood and gram flour were procured in the month of February from the ayurvedic shop in Malapuram district.

Other ingredients such as Methyl paraben, Sodium Lauryl Sulfate, Propylene Glycol, Carbopol 940 and Rosewater were collected from the store of Jamia Salafiya Pharmacy College.

Preparation of formulation

Weighed accurately required quantity of active ingredients such as turmeric powder, sandal wood powder and gram flour. Kept on hot air oven for 20 minutes at 70°C. Other ingredients were weighed separately such as preservatives, moisturizer, surfactants, neutralizer, gelling agent, foaming agent etc. Methyl paraben dissolved in a beaker containing water. Carbopol 940 was added and stirred constantly for few minutes to form gel. Sodium lauryl sulfate was dissolved separately with water and was added in to the above gel. Then propylene glycol was added. The turmeric powder, sandal wood powder and gram flour was triturate well with a mortar and pestle. The above gel was added to this mixture to get the herbal exfoliator. Rose water is used as vehicle in this preparation.



Figure 8: Preparation of herbal exfoliator.

Formula of herbal exfoliator

S. No	Name of ingredients	Category	Quantity(20 g)
1	Turmeric powder	Exfoliant	5 g
2	Sandalwood powder	Lighten skin tone	5 g
3	Gram flour	Exfoliant	5 g
4	Methyl paraben	Preservative	0.5 g

5	Carbopol 940	Gelling agent	0.5 g
6	Sodium lauryl sulfate	Foaming agent	0.1 g
7	Propylene Glycol	Moisturizer	2 ml
8	Rose Water	Vehicle	Q.S.

Evaluation parameters for herbal exfoliator

S. no.	Parameters	Standard observations	sample observations
1	Color	yellow	Yellowish brown
2	Odor	characteristics odor	Characteristics odor
3	Consistency	Good	Good
4	Ph	Range:5.7-7.0	6.2
5	Absorptivity	0.5g – 1.0 g	0.5g
6	Washability	Easily washable	Easily washable
7	Irritability	Non-irritant	Non-irritant
8	Test for microbial growth	No microbial growth	No microbial growth

RESULT AND DISCUSSION

1. Physical evaluation

Physical evaluation such as color, odor were detected manually. The color was found to be yellowish brown in color and odor was found to be characteristics.

2. Consistency

The consistency of prepared herbal exfoliator was found to be semisolid with the visual observation.



Figure 9: Consistency of formulation.

3. pH

pH of prepared herbal exfoliator was evaluated. Small quantity of herbal exfoliator was applied on pH meter and it was found to be 6.2.

4. Absorptivity

The absorptivity of prepared herbal exfoliator was evaluated. 1g of herbal exfoliator was weighed and applied on the small area of the skin and after 1 hour take the weight of the exfoliator. Calculate the different weight (initial weight- final weight).

Weight 1 = 1g

Weight 2 = 0.5g

Absorptivity = Initial weight – Final weight

= 1 – 0.5

= 0.5g

The absorptivity of prepared herbal exfoliator was found to be 0.5g



Figure 10: Absorptivity.

5. Irritability

Irritability of prepared herbal exfoliator was evaluated. Small amount of exfoliator was applied on the small area of the skin and kept for few minutes. The prepared formulation was showing no irritation, no redness and no inflammation during studies. So that the prepared formulation is safe to use.

6. Washability

The washability of prepared herbal exfoliator was evaluated. Small amount of exfoliator was applied over the small area of the skin and rinsed off. So that it was easily washable after application on skin and washed to a greater extend.

7. Test for microbial growth

The test for microbial growth of prepared herbal exfoliator was evaluated. Agar media was prepared and then the formulated exfoliator was inoculated in to it by agar well diffusion method .Then the plate was placed in the incubator and were incubated in 37⁰C for 24 hours.

After the incubated period, the plates were taken out and the microbial growths were checked.

There were no signs of microbial growth after 24 hrs of incubation at 37⁰C and the prepared formulation was found to be microbial free.

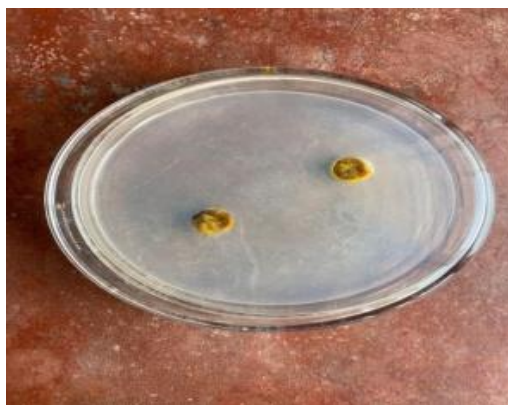


Figure 11: Before incubation.



Figure 12: After incubation.

CONCLUSION

The present study attempted to make a herbal exfoliator using suitable base to form gel. The developed formulation can be used as an effective exfoliator for using it to bear a healthy and glowing skin. It is concluded that new formulation of herbal exfoliator can be safe to use and scrubbing/cleansing agent showing good effects and as mostly ingredients are natural ingredients so chances for side effects are less. It can be used for any type of skin i.e. normal, oily and dry. The utilization of the natural exfoliator which assists with further developing blood flow and increases oxygen supply to all surfaces of the skin. It gives best outcomes and makes the skin glowing and healthy.

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