FORMULATION AND EVALUATION OF SCRUBBING SOAP

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ABSTRACT

Scrubbing Soap are the agents which are use to remove the dead cell from skin, pigmentation and blackheads, white heads and make skin glowing, smooth, soft and healthy.Scrubbing soap can be directly applied onto the skin by gently massage is recommended on application of the scrubbing soap which helps to improve blood circulation and increase oxygen supply to all surface of the skin. Due to some environmental factors many people face some problem like pigmentation and uneven skin tone.Solution for this problem is use of scrubbing soap which consist ingredients which increases cleansing, softening, moisturizing, fairness of skin. In this preparation walnut shell, Himalayan pink salt and poppy seeds are use as main active ingredients. Other ingredients like glycerine base ,essential oil and rose petals are use in the formulation. Thus, the developed formulation can be used as an effective scrubbing soap for using it to bear a healthy and glowing skin.

Key words: *Pigmentation, blackheads, whiteheads, dead cells etc.*

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1. INTRODUCTION

Cosmetics are defined as the products used for the purposes of cleansing, beautifying, promoting attractiveness or alternating the appearance.From the ancient time, different ingredients are used for cleaning and beautifying the skin. Face skin is the major part of the body, which indicates the health of an individual but our body also need to exfoliate the skin. Generally, skins are of three types; dry skin, oily skin, and sensitive skin. The people with dry skin must use body scrub which contains hydrating ingredients and moisturizer. Gentle scrubs should be used for sensitive skin. For those who are having oily skin, it is essential to get a scrub that exfoliates deeply to prevent the pores from clogging and also to balance the skin's oil production. Exfoliation refers to the removal of old skin cells from the body's surface. Generally the scrub is in the form of semisolid dosage form or in powder form but apart from face many people scrub their whole body for beautification . But these semisolid preparation required in large quantity so with the aim to prepare these scrub in a soap form i.e scrubbing soap for whole body.

❖ **Advantages of Scrubbing Soap:**

1. Body scrubs remove dead skin cells,
2. They allow your skin to absorb moisturizer better. By doing dead skin cell buildup, any moisturizer applied afterward will soak into the skin more thoroughly.
3. They unclog pores and prevent ingrown hairs.
4. They leave your skin smoother and more even.

❖ **Disadvantages of Scrubbing Soap:**

1. Hard scrubbing motions and hard scrubbing chemicals may cause skin irritation including redness, inflammation.
2. Over scrubbing can result in open pores which are exposed to pollution and UV rays at the same time.

2. MATERIALS AND METHODS

Table-1 List of Ingredients

Srno.	Ingredients	Scientific name	Uses
1	**Walnut shell** 	*Juglans*	Walnuts have Vitamin E and Vitamin B5 that helps in tightening the pores and brightening the skin. The Vitamin B5 present in walnuts works to get rid of tan and dark spots, improving skin complexion and making the skin glow. Vitamin E repairs skin, keeping it healthy and soft.
2	**Himalayan pink salt** 	*Pink Halite or Mineral Halite*	Himalayan salt can be used in a number of different ways to benefit the skin. It can be used as an exfoliant, cleanser, or toner. It is also believed to help improve circulation and detoxify the skin.
3	**Poppy seeds** 	*Papaver somniferum*	Poppy seeds being a powerhouse of antioxidants and essential nutrients reduce skin inflammation,scalp infections and promotes overall skin and hair health. The high amount of linoleic acid in poppy makes it extremely effective in treating eczema, burns and itching.
4	**Glycerine cubes** 	-	Acts as an effective moisturiser to increase skin hydration, relieve dryness, and refresh the skin's surface.Cleanses and tones.Locks in moisture. Helps to target spots and blemishes.Suitable for all skin types.
5	**Essential oil** 	-	Lemon oil is used for a variety of skin conditions , including acne. It can also clarify your skin, gently exfoliating dead skin cells that so often become trapped in hair follicle and pores

6	**Rose petals** 	**-**	Rose petals can be used to lighten the skin pigmentation, too.

Formulation table

Sr.no	Ingredients	F1	F2	F3
1.	Walnut shell	5gm	8gm	7gm
2.	Himalayan pink salt	7gm	5gm	5gm
3.	Poppy seeds	5gm	5gm	7gm
4.	Glycerine	50gm	50gm	50gm
5.	Essential oil	10-15drops	7-8 drops	7-8 drops
6.	Rose petals	Qs	Rose petal extract	Qs

3. METHOD OF PREPARATION

1. **Weighing and measuring the raw material:** Measure and weigh all the ingredients like Himalayan pink salt, poppy seeds ,walnut shell,glycerine cubes,essential oil,and rose petals on weighing balance.

Fig -1 Ingredients

2. **Griding and shifting:**The walnut shell and the poppy seeds are grind in a motor and pestle.After that all the powder crystal are passed through the sieve no. 60 and all uniform size crystal particles was taken.

3. **Preparing the base :** The glycerine base (100 gm)was cut into the small piece and then put into the beaker for double boiling method and heat the glycerine cubes until its completely melt.

Fig -2 Preparation of base

4. **Adding of raw materials:** After the glycerine cubes was completely melt then add the ingredients one by one and stir the solution.

Fig-3 Prepared solution of soap

5. **Consisteny:**Once the desire consistency acquired the turn of the flame and wait for 1-2 min at normal room temperature.

6. **Measuring and pouring:**Once the desired consistency is remove the solution is pour into the moulds.

7. **Cooling :** The moulds are kept at room temperature for 30 min.then remove the soap from the moulds.

4. EVALUATION

The prepared scrub was evaluated for appearance, PH, consistency, spreadability, viscosity,irritability,washability,extrudability,grittiness,foamability,patch test, stability study.

1.Appearance: The prepared scrub was evaluated for its colour and odour.

2.PH: Ph of the scrub was evaluated by using ph paper .small amount of scrubs applied on ph paper.

3.Consistency: It was found to be solid visual observation.

4.Irritability:Small amount of scrubbing soap was applied on skin and kept for few min. To be non irritant.

5.Washability:The scrubbing soap was applied over the skin and was washed with water. formulation on applied on skin was easily removed by washing with water tested manually.

6.Grittiness: This test is checked for the presence of any gritty particle by applying it on the skin.

7.Foamability: Small amount of formulation was taken in a measuring cylinder and water in it and shake for 10 times and note the final volume.

Fig-4 Foamabilty

8.Patch test: Patch testing is well established method for diagnosing the hypersensitivity as well as to determine the potential of the substance to cause allergic reaction on skin. In patch test reaction of formulation on skin is observed in 2-3 days.

Fig-5 Patch test

9.Stability Study: Stability of the formulation is check by placing the scrubig soap in a container on room temperature for one month.

5. RESULT& DISCUSSION

Sr no.	Evaluation parameters	F1	F2	F3
1	Colour	Yellow	Green	Red
2	Odour	Lemon	Lemon	Lavender
3	State	Solid	solid	Solid
4	PH	6.2	6.8	8.5
5	Foamability	Less foam produce	Foam upto 78ml after 10times shaken	Foam volume upto 70ml after 10 times shaken
6	Grittiness	Consist of gritty particles	Few gritty particles	Few gritty particles of poppy seeds and walnut shell
7	Washability	Easily washable	Easily washable	Easily washable after use
8	Irritability	No irritancy	No irritancy	No irritancy show after use
9	Stability	Solidify without mould	Not stable	Stable at room temperature

6. CONCLUSION

The scrubbing soap was prepared and evaluated. The main aim of these project is to remove the pigmentation and dead cells from the skin and help to make skin glowing.The above evaluation test show that the scrubbing soap are non irritant and having the gritty particles which help to remove the dead cells from the skin.The chemical constituents in these scrubbing soap help to make skin glowing**.**

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