



# FORMULATION AND EVALUATION OF SCRUB SOAP

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## Abstract:

The main objective of the present research was to develop a herbal scrub incorporated into a gel formulation. This approach utilizes natural ingredients to address issues such as acne, wrinkle reduction, and oil regulation, commonly referred to as natural or herbal cosmetics. Typically, these products contain plant-derived materials known for their antimicrobial, antioxidant, and anti-aging effects. They are regarded as the safest option for daily use due to their lack of side effects, in contrast to cosmeceuticals, which influence the biological functions of the skin. The formulation included Rice Powder, Potato Powder, Red Lentil, Aloe Vera, and Honey. The gel was evaluated based on several parameters, including appearance, pH, viscosity, stability, and washability. Cosmetics have been utilized for centuries to enhance beauty and promote skin health. Ayurvedic cosmetics, or herbal cosmetics.

**Keywords:** Pigmentation, Blackheads, Whiteheads, Dead Cells, Antimicrobial, Hand sanitizer.

## Introduction:

Skin is crucial for all healthcare professionals to possess fundamental knowledge regarding the structure and function of human skin. Skin is also referred to as the cutaneous membrane. In adults, the skin has a surface area that ranges from 1.2 to 2.2 m<sup>2</sup>. There are two types of skin: hair-bearing skin, which covers much of the body, and hairless skin, such as that found on the palms of the hands and the soles of the feet.[1] The skin is the most exposed part of the body to sunlight, environmental pollution, and also provides some protection against pathogens. The term 'cosmetic' is derived from Greek, signifying 'to adorn', which pertains to the embellishment of individuals or objects. It is defined as a substance that interacts with various parts of the human body, such as the skin, hair, nails, lips, teeth, and mucous membranes. Cosmetic products serve to enhance or modify the external appearance of the body and can also conceal body odors. They play a role in protecting the skin and promoting its health. Typically, cosmetics are external formulations applied to the surface of the peels use by the ingredients orang oil, orang peel powder, potato Powder, Aloevera, soap base,

rice powder, etc. Utilizing a facial scrub soap can enhance your skin's appearance, making it feel beautiful, youthful, and soft, while also imparting a radiant glow. In contrast to standard soap or cleanser, a facial scrub incorporates tiny particles, beads, or chemicals to eliminate old skin cells, paving the way for new ones in a process referred to as exfoliation. Facial scrub soap is quite simple to use; select a neutral or chemical scrub appropriate for your skin, massage it onto damp skin for one minute, and then rinse thoroughly. This process should be repeated once or twice a week. Given its numerous advantages, incorporating a facial scrub soap into your weekly skincare regimen is beneficial. Exfoliation entails the removal of the oldest dead skin cells from the outermost layer of the skin. It is a fundamental aspect of all facials, including microdermabrasion and chemical peels.

## Drug profile:

### 1 ALOVERA GEL:

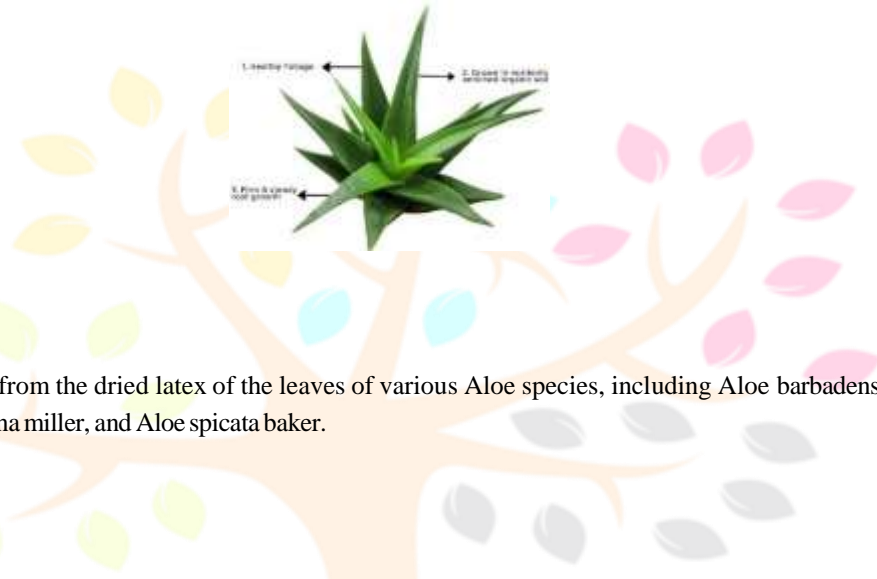


Figure no 3. Alovera gel

Botanical Name: Aloe barbadensis

Biological Source: Aloe is derived from the dried latex of the leaves of various Aloe species, including Aloe barbadensis miller, Aloe ferox miller, Aloe perryi baker, Aloe africana miller, and Aloe spicata baker.

Family: Liliaceae

Commonly Used Parts: Leaves

Geographical Source: Aloe is native to Eastern and Southern Africa and is cultivated in regions such as Cape Colony, Zanzibar, and the Island of Socotra. It is also grown in the Caribbean Islands, Europe, and various areas of India, particularly in the North West Himalaya region.

## Vitamin E Capsules:

Characteristics: Revitalizes and hydrates dry skin, provides moisture, counters early signs of aging, diminishes dark spots, and functions as a cleansing agent.

Figure no 4. Vitamin e capsule



Uses: Restores hydration to dry skin, moisturizes, reverses early aging, lightens dark spots, acts as a cleaning agent, and helps prevent wrinkles.

### **Red Lentil:**

Botanical Classification: *Vicia lens*, commonly referred to as *lens culinaris*.

Biological Origin: The lentil is a diminutive legume seed classified under the *lens culinaris* species. Family: Fabaceae and Papilionaceae.



Figure no 5. Red lentil

### **Soap base:**

Glycerine soap bases are transparent and rich in glycerine, functioning as an effective moisturizer that improves skin hydration, reduces dryness, rejuvenates the skin's surface, preserves moisture, and is suitable for all skin types.



Figure no 6. soap Base

### **Orange peel powder:**

Orange peel powder is effective in regulating excess oil on the skin, a frequent contributor to acne. Its anti-inflammatory characteristics can alleviate skin irritation and diminish redness linked to acne. Additionally, it aids in unclogging pores, thereby preventing future breakouts. Furthermore, orange peel powder possesses antioxidant properties that combat aging, assist in the removal of scars and blemishes, and may enhance collagen production, resulting in firmer, more youthful skin. It serves not only as a remedy for inflammation caused by pimples or acne but also addresses various skin conditions, providing relief to your skin.



Figure no 7. Orange peel powder

### Potato powder:

The Solanaceae family, commonly known as nightshades, includes potato powder, which possesses properties that may diminish melanin production, resulting in a lighter and more radiant complexion. Additionally, it aids in the reduction of acne scars and other imperfections, promoting a more uniform skin tone. Furthermore, potato powder is recognized for its anti-aging benefits.



Figure no 8. Potato powder

### HONEY:

Synonyms: Madhu, Madh, Mel, Purified Honey.

Biological Source: Honey is a thick and sweet substance that is collected and stored in honeycombs by various bee species, including *Apis mellifera*, *Apis dorsata*, *Apis florea*, *Apis indica*, and other *Apis* species, all of which belong to the family Apidae (Order: Hymenoptera).

Geographical Source: Honey is plentiful in regions such as Africa India, Jamaica, Australia, California, Chile, Great Britain, and New Zealand.



Figure no 9. Honey

### Orange oil:

Orange essential oil enhances skin tone: Rich in Vitamin C, orange oil effectively brightens the skin by controlling melanin production. It diminishes dark spots and pigmentation, leading to a more radiant complexion.



Figure no 10. Orange oil

### **Rice powder:**

Rice powder provides numerous advantages for the skin, such as exfoliation, oil regulation, anti-inflammatory properties, and skin brightening. Additionally, it aids in diminishing the visibility of dark spots, evening out skin tone, and offering protection against sun damage.



Figure no 11. Rice powder

### **Method of preparation:**

Preparing the soap base:

Glycerine base (50 gm) was cut into small pieces and then placed into a beaker for the double boiling method. Heat the glycerine cubes until they are completely melted.



Figure no 12. Preparing the Soap base

Incorporation of Raw Material :-After the glycerine cubes have completely melted, add the ingredients individually and stir the mixture.



Consistency :-Once the desired consistency is achieved, turn off the heat, then incorporate Almond Oil for fragrance and allow it to sit for 1-2 minutes at room temperature.

Cooling :

Moulds should be left at room temperature for 30 minutes before removing the soap from the.



Figure no 13. scrub soap

### Formulation Table:

Sr. No	Drug	Quantity (50gm)	Properties
1.	Rice powder	1gm	Exfoliating
2.	Potato powder	1gm	Lightening
3.	Aloevera	1ml	Moisturizing
4.	Lemon juice	1ml	Remove pigmentation
5.	Honey	2ml	Humectant
6.	Red lentil	1gm	Clearance
7.	Orange peel powder	2gm	Brightening
8.	Orange oil	Fragrance (1.2 drop)	Good fragrance
9.	Vitamin e capsule	1	Antioxidant
10.	Soap base	40gm	Natural humectant

### Evaluation parameters of the Herbal Scrub Soap:

Colour: The product's colour is assessed visually. It was observed to be pinkish in hue.

Odour: The formulation's odour is evaluated through olfactory assessment. It was determined to have a characteristic scent.

pH: The gel's pH was measured using a digital pH meter. The exfoliant's pH value was found to be 7.1, which is deemed acceptable to minimize

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the risk of skin irritation upon application.

**Consistency:** The resultant product was identified as semisolid.

**Washability:** A small sample was applied externally to the skin's surface and subsequently rinsed under running water. It was found to be easily washable.

**Viscosity:** The formulation's viscosity was assessed using a Brookfield viscometer. A 5g sample was placed in the viscometer's sample holder and allowed to settle for 5 minutes, after which the viscosity was measured at a rotational speed of 50 rpm at room temperature.

## RESULTS:

The herbal scrub soap underwent preparation and evaluation. The herbal facial scrub soap, developed in the laboratory, was assessed against various parameters including appearance, pH, viscosity, spreadability, washability, and irritability, and was found to meet all necessary characterization criteria. Consequently, the formulated product can serve as an effective scrub for achieving healthy and radiant skin. It comprised potato powder, orange peel powder, and red lentil, which work to lighten skin tone, diminish dark spots, and cleanse oil and dust particles, respectively. The rice powder acted as a natural agent for exfoliating dead skin cells, providing scrubbing properties, and enhancing

Observation	Properties
Colour	Colourless
Order	Orderless
Washability	Easily washable
PH	6
Irritability	No irritation

## CONCLUSION:

The scrubbing soap has been formulated and assessed. The primary objective of this project is to eliminate pigmentation and dead skin cells, thereby promoting a radiant complexion. The evaluation tests conducted indicate that the scrubbing soap is non-irritating and contains gritty particles that effectively aid in the removal of dead skin cells. The chemical components present in this scrubbing soap contribute to enhancing skin luminosity. This soap has been prepared and evaluated with the same goals in mind: to remove pigmentation and dead cells from the skin while facilitating a glowing appearance. The evaluation tests confirm that the scrubbing soap is non-irritating and contains gritty particles that assist in the removal of dead skin cells. The chemical constituents in this scrubbing soap are beneficial for achieving a glowing complexion. Additionally, this soap exhibits superior antifungal properties due to the inclusion

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