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# **Formulation and Evaluation of Polyherbal Scrub**

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Abstract: The main purpose of our research was to produce gelled Polyherbal scrubs. In the daily lives of women and men, cosmetics play a role in changing the appearance of the skin. Most cosmetics on the market dry when applied to the skin, remove darkening after use and shorten the lifespan of skin problems such as acne and redness. The solution to this problem is to use an exfoliating gel once or twice a week. All of these are herbal ingredients that enhance skin cleansing, softness, moisturization and impartiality. Plant-based cosmeceuticals usually contain some of the plants with antibacterial, antioxidant, and anti-aging properties. The active ingredients used in this formulation are green tea, aloe vera gel, rice flour, sandalwood flour, casturihardi, almond oil, mint, saffron carrot juice, orange peel powder and coffee. Other ingredients such as methylparaben, triethanolamine, etc. were added to the gel along with sodium lauryl sulfate. The resulting gel was evaluated for various parameters such as appearance, pH, viscosity, spreadability, detergency, and hypersensitivity, and was found to be sufficient for all required characterization. Therefore, the developed formulation can be used as an effective exfoliating agent to maintain healthy and shiny skin.

Keywords: Polyherbal, Antioxidant, Antimicrobial, Anti- Aging, Herbal cosmetics

#### I. INTRODUCTION

Cosmetics are described as the goods used for the Cleansing, beautifying, selling elegance or alternating the appearance. Herbal cosmetics are organized via way of means of the affiliation of bioactive components and pharmaceutical merchandise. The presence of range of photochemical and botanicals withinside the natural merchandise have twin significance, one which they're used as cosmetics for frame care and some other that photochemical enhance the organic capabilities of human frame clearly outcomes in wholesome skin.

Since ancient times, various herbs have been used for purification, beautification and nutrition. The skin on the face is the largest part of the body that indicates human health. Skin care is very important to keep it healthy and fresh. There are numerous skin care products on the market.

Skin care is at the crossroads of cosmetology and dermatology, but unlike dermatology, skin care does not require a doctor every time. In general, there are three types of skins. Dry skin, oily skin, sensitive skin. If you have dry skin, you need to use a facial scrub that contains moisturizing ingredients, and a moisturizer is essential after using the scrub. If you have sensitive skin, please use a gentle scrub. For oily skin, it is important to obtain an exfoliating agent that removes dead skin cells deeply to prevent clogging of pores and balance the oil production of the skin. After using a facial scrub a couple of times a week, you can use a light facial oil. Regardless of the type of skin, we should always choose a non-harmful but skin- friendly scrub. Harsh things can be more harmful than good to the skin. Gel-based scrubs are preferred for oily skin.

Cream-based scrubs are useful for dry skin. For sensitive skin, peeling with soft granules will give good results. A gentle massage is recommended when applying the peeling gel. This helps improve blood circulation and promote oxygenation of all skin surfaces.

During gelation, swelling occurs as a result of solvent penetration, the polymer network stretches to retain its shape and entangle the drug particles inside. Since the gel is in the form of a solution, a specific concentration of polymer is required to increase its viscosity.

Benefits of Scrubbing for skin:

1. For A Squeaky Clean Skin: Scrubbing gives you clean skin, free from dirt, oil, and sweat. Actually, the bottles of cleansing milk, face wash and facial cleansers cannot pull out all the dust that accumulates in the pores of your skin. Scrubbing does this job successfully.

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- 2. Frees Your Skin from Flakes: Flaky skin gives rise to dry patches. It allows dead cells accumulate over time. Scrubbing your skin can help you deal with flaky skin effectively.
- **3.** Helps in Removing Dead Cells: Dead cells make your skin look dull and tired. Scrub them off with a gentle scrub.
- 4. Adds Glow to Skin: Exfoliation can actually make your skin glow.
- 5. Removes Dark Patches: Use of scrub twice a week to get results. It is especially effective on knuckles, elbows and knees.
- 6. Removes Acne Scars: Exfoliation helps in doing away with acne scars.
- 7. Prevents Ingrown Hair: Ingrown hair is a perennial problem and scrubbing is the solution to prevent this problem.
- **8.** For Smooth Skin: Smooth skin is the key to a more beautiful you. The scrub will not only make your skin look flawlessly smooth, but will also make it soft and well-nourished.
- 9. Improves The Texture of Your Skin: Scrubbing your skin gives you clean and smooth skin with an improved texture.
- **10.** Promotes Clear Complexion: As soon as the flakes, dead cells, blemishes and accumulated impurities are done away. The scrub has natural skin whitening ingredient; the effect is even better.

# 1.1 Uses

It improves pores and skin tone and texture. Every day, lifeless pores and skin cells, dust and oil building up at the floor of your pores and skin, that can depart it feeling and searching stupid and dry.

- 1. It unclogs pores.
- 2. It enables fade spots and scars.
- 3. It enables your pores and skin care take in faster.
- 4. Enables combat symptoms and symptoms of ageing.
- 5. Removes lifeless pores and skin cells .
- 6. Reduce Acne scars.

# 1.2 Aim and Objective

Aim:

Formulation and evaluation of Polyherbal Facial scrub.

# **Objectives:**

- To formulate polyherbal facial scrub by using ingredients such as Aloe Vera gel, Rice powder, sandalwood powder, Saffron, Kasturi haldi, Almond oil, Orange peel powder, Mint, Hibiscus leaves etc.
- Evaluation of polyherbal facial scrub test such as Appearance, pH, consistency, Spreadability, extrudability, viscosity, irritability, washability, grittiness, formability Patch test, stability studies etc.
- To explore the many aspects of the rich traditional Indian herbal medicine.
- To explore the many aspects of the rich traditional Indian herbal medicine.
- To apply knowledge gained during the course in evaluating the usefulness of herbal formulas

# 1.3 Plan of Work

Literature Review Methods and materials List of ingredients. Excipients profile Composition of profile Evaluation Test Evaluation parameters

# II. MATERIAL AND METHOD

# 2.1 Material

All ingredients were powdered and sieved with # 1 sieve. 120. Then they were packed in a well-sealed, moisture-proof container. Table 1 shows the various ingredients and their main uses.

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#### Preparation of Extract

The extract became organized with the aid of using bloodless maceration process. All the lively ingredients (turmeric, cinnamon, aloe vera, activated charcoal, honey, inexperienced tea, lemon juice, onion, coconut oil) have been floor and stored in water for seventy two hours. This became dried and stored in desiccator for similarly process.

#### Preparation of Gel

Weigh sodium Lauryl sulfate, dissolve it in water, and add this solution to potato starch used as a gelling agent. Add the extract prepared above to this and stir for 5 minutes. Add walnut shell microbeads to this mixture to add graininess to the gel.

#### 2.2 Evaluation Test

Color: The color of the face wash gel was checked visually.

Odour: The formulation was evaluated for its odour by smelling it.

pH: 1% solution of our sample was measured by using a digital pH meter at constant temperature.

**Consistency:** It was tested manually.

**Spreadability:** Two slides are taken and herbal sample was placed on one slide. Other slide was placed on the first slide. 100 g of weight was kept on the slides so that it spreads as a thin layer. Weight was been eliminated much high than the prisons. Next weight of 20 g was kept on the upper slide. Spreadability was calculated by using the following formula,  $S=M\times L/T$ 

Where, S- Spreadability; M- Weight tied to the upper slide (20 g); Length of the glass (6.5 cm); Time in sec.

**Viscosity:** Brookfield viscometer was used to measure the viscosity of our sample. Viscosity of sample and water were taken in poise.

Washability: Formulations when applied on the skin can be easily removed by washing with water were tested manually.

Grittiness: The product was checked for the presence of any gritty particles by applying it on the skin.

Foamability: Small amount of gel was taken in a beaker containing water. Initial volume was noted; beaker was shaken for 10 times and noted the final volume.

Grittiness: The formulation was checked for the presence of any gritty particles by applying it on the skin.

**Patch test:** Patch testing is well established method for diagnosing the hypersensitivity as well as to determine the potential of a specific substance to cause the allergic action on patient skin. In patch test a small area of skin is exposed to those chemicals in dilute form whose specific effect on skin is to be studied. In patch test reaction of formulation on skin is observed in 2-3 days.

**Stability studies:** The stability of the formulation was tested by filling the scrub in plastic containers and placing it in humidity chamber at 45°C and 75% relative humidity

# 2.3 Result and Discussion

1) Colour : Green 2) Odour : Characteristics 3) Consistency : Good 4) pH : 7.0 5) Viscosity : 1.4580 poise 6) Spreadability : 6.72g cm/sec 7) Washability : Easily Washable 8)Grittiness : Small gritty particles 9) Foam ability : Foam volume !00ml at 5 minutes 10) Irritability : Non irritant 11) Extrudability : Easily Extruded

#### **III. CONCLUSION**

The present study was attempted to prepare a polyherbal scrub. The Prepared scrub was evaluated using parameters and was found to be satisfied for the application on the skin to make it healthy and glowing without any side effects.

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