

# Formulation and Evaluation of Herbal Face Pack

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## Abstract:

The goal of this work is to create and assess a herbal face pack for cosmetic use using natural ingredients from the local market, including multani mitti, turmeric, aloe vera, sandalwood, lemon peel, rose petal powder, manjistha, lodhra, and gramme flour. These ingredients were dried, powdered, then passed through sieve 120, mixed geometrically, and evaluated for their organoleptic and physico-chemical, general powder, microscopical characters, The mixed dry powder exhibited satisfactory flow characteristics, making it appropriate for a face pack. The powder's particle size was determined to be 21.5 - 2.10 m. The mixed dry powder's microscopical characteristics were observed. Herbal face packs or masks are applied to the face to increase blood flow, revitalise the muscles, preserve the suppleness of the skin, and clean out skin pores. Herbal cosmetics have the benefit of being nontoxic, reducing allergic responses, and containing substances that have a long history of being effective. Therefore, in the current work, we discovered favourable qualities for face packs, and more optimisation studies are needed on this study to uncover the beneficial uses of face packs for human usage as cosmetics.

**Key words:** Face Pack, Cosmetics, Natural, Standardization, Formulation, Evaluation

## Introduction :

Cosmetics are items that are applied to the skin to cleanse, beautify, enhance attractiveness, or change the appearance. Different herbs have been utilised for managing, cleansing, and adorning them since ancient times. The largest area of the body that reveals one's health is the skin on the face. The herbal paste known as "mukha lepa" is utilised as a face therapeutic in ayurveda. This herbal paste is used to the face to cure pigmentation, scars, markings, and acne. The smooth powder that is applied to the face is called a face pack. These treatments are applied to the face as pastes or liquids, let to dry, and then set to produce a film that provides tightness, skin-strengthening and purifying effects<sup>1</sup>. To enable all the water to drain, they are often kept on the skin for fifteen to thirty minutes. After this time, the resultant film compresses, hardens, and may be readily removed. The tightness and warming sensation brought on by application the colloidal and adsorption clays utilised in these preparations remove the grease and debris from the skin of the face, producing the invigorating sensation of a renewed face<sup>2</sup>. Skin impurities and accumulated dirt are also eliminated when the applied face pack is ultimately removed. Herbal face masks improve skin's radiance and suppleness. By applying herbal face packs in accordance with the needs of our skin, we may maximise their advantages. These face packs improve skin radiance and are the greatest ayurvedic remedy for boosting fairness. One of the most traditional and attractive ways to cleanse the skin is using facepacks<sup>3</sup>. Ayurveda describes a variety of face packs with nourishing, healing, cleansing, and antiseptic effects. For more affordable options with no negative side effects, try herbal face packs. The topic of the current study

is the creation and assessment of a homemade herbal face pack for glowing skin utilising multani mitti, turmeric, and sandalwood. Rosepetals and oats majistha orangepeel<sup>4</sup>.

**Ingredients:**

The current's ingredients were bought from a nearby market and ground up for usage. Details of the study on plant materials are provided below. Information about the Below are some of the plants that are used to make face packs<sup>5</sup>.

**Table 1: Ingredients used for preparation of face pack**

S.N.	Name	Biological name	Quantity
1	Multani mitti	Fuller’s Earth	50 gm
2	Sandalwood	Santalum album	20gm
3	Lemon zest	Citrus lemon	15gm
4	Rose patel	Rose canina	5gm
5	Pomegranate peels	Punica granatum	5gm
6	Oats	Avena savita	2.5gm
7	Turmeric	Curcuma longa	2.5gm

**Role of ingredients:**

**Multani mitti:**

Multani Mitti benefits skin in a variety of ways, including reducing pore size, eliminating blackheads and whiteheads, fading freckles, easing sunburns, and more. As they contain beneficial nutrients, they also cleanse the skin, enhance the complexion, reduce blemishes and acne, and give the skin a glowing appearance. Multani mitti is great for inflamed and irritated skin and will help to make your skin radiant. Magnesium chloride is abundant in Multani mitti<sup>6</sup>.



**Figure 1 – Multani mitti**

**Sandalwood:**

Both tanning and ageing are prevented by sandalwood. Sandalwood shields the skin from the damaging effects of environmental pollution and keeps the skin healthy. fair, cool, and in good shape. Sandalwood is beneficial. An Ayurvedic herb with antibacterial qualities is used to treat different skin issues and fade scars<sup>7</sup>.



**Figure 2 - Sandalwood**

**Turmeric:**

Turmeric possesses anti-allergic and anti-inflammatory properties. It aids in wound healing and is the best blood purifier. It has the best blood-purifying properties, hence it is utilised in any illnesses with blood impurities as their cause. Haridra is a skin rejuvenator and revitalizer that slows down the appearance of wrinkles<sup>8</sup>.



**Figure 3 - Turmeric**

**Lemon zest :**

Lemons have a high Vitamin C concentration, which helps to brighten skin tone and erase dark spots brought on by sun exposure. It shields the skin from oxidative damage. Hydration and oxidative stress in the skin<sup>9</sup>.



**Figure 4 – Lemon zest**

**Rose petals:**

Vitamins K, C, and B, as well as the antibacterial characteristics of rose petals, are abundant in rose petal powder. Antioxidants are also present in good amounts<sup>10</sup>.



**Figure 5 – Rose petal**

**Oats:**

Ground oatmeal can be used as an exfoliator to remove grime, oil and dead skin cells. People frequently use it as a home cure for dry, itchy, or irritated skin since it can moisturise and relieve inflammation. Typically, doctors advise patients to use colloidal oatmeal on their skin<sup>11</sup>.



**Figure 6 - Oats**

**Pomegranate peels:**

Pomegranates are highly efficient against the bacteria that causes acne since they naturally contain anti-microbial compounds from vitamin C, which also helps to reduce outbreaks. Additionally, pomegranates' ability to stimulate collagen aids oily skin's rapid acne recovery<sup>12</sup>.



**Figure 7 - Pomegranate**

**Material and Method :**

The precise amount of components was weighed, and sieve 100 was used to create a fine powder. Then, for uniform mixing, all of the constituents were geometrically combined using the serial dilution method.

Then, a self-sealing polyethylene bag containing the prepared face pack was sealed, bag, labelled, and used for additional research<sup>13</sup>.

**Procedure of face pack application:**

Rose water should be added to the face pack powder after it has been prepared in accordance with the instructions. Apply the mixture evenly on the facial skin. Cover up the imperfections and acne places too. Keep in place for 20 to 25 minutes to allow for thorough drying before washing with cold water<sup>14</sup>.

**Evaluation of face pack:****Organoleptic evolution:**

Its nature, colour, odour, feel, and consistency are organoleptic factors that were personally assessed for their physical characteristics<sup>15</sup>.

**Physical evolution:**

The microscope approach was used to measure the particle size. The Angle of Repose via funnel method was used to assess the flow characteristics of the dry powder in mixed form. method, tap density by tapping method, and bulk density<sup>16</sup>.

**Physicochemical evaluation:**

Ash content was measured using an incinerator, pH was determined using a pH metre, and drying loss was also measured.

**Irritancy test:**

Mark a 1-square-centimeter area on the left dorsal surface. A specific amount of prepared face packs were applied to the designated region, and the application time was recorded. Irritancy, Erythema and edoema were monitored for any presence at regular intervals for up to 24 hours and reported<sup>17</sup>.

**Stability studies:**

The developed formulation underwent a one-month period of storage at various temperatures as part of a stability test. The sealed glass vials of the formulations were assessed for physical characteristics such as colour, odour, pH, consistency, and feel while being stored at various temperatures, including room temperature, 35° and 40°C<sup>18</sup>.

**Result and discussion:****Organoleptic evaluation :**

Face pack was constructed and assessed for Organoleptic indicators revealed Free-flowing characteristics could be seen in the flow property parameter. The shade formulation had a faint golden tint. As cosmetic compositions, the aroma of the finished products was well-tolerated and appealing. Smoothness and Texture were acceptable and desirable for cosmetic compositions<sup>19</sup>.



**Table 2: Organoleptic properties**

S.N.	Parameters	Observation
1	Appearance	Powder (Free flowing)
2	Colour	Slight yellow
3	Odour	Slight
4	Texture	Fine
5	Smoothness	Smooth

**Irritancy evaluation :**

Results of the irritancy test were displayed. During irritancy testing, the formulation did not cause any irritation, redness, edoema, or inflammation. Such a formulation is suitable for skin usage<sup>20</sup>.

**Table 3: Irritancy test**

S.N.	Parameter	Observation
1	Irritant	No irritation
2	Erythema	No irritation
3	Edema	No irritation

**Physicochemical evaluation and physical evaluation:**

The formulations had particles that ranged in size from 22.3 to 2.25 m. The formulation's pH was quite close to neutral. Ash content and moisture content were within acceptable ranges<sup>21</sup>.

**Table 4: Physicochemical and Physical evaluation**

S.N.	Parameter	Observation
1	Particle size	21.5 ± 2.10
2	Ash value	94 ± 0.412
3	pH	7.2 ± 2.5
4	Loss on drying	3.10

**Stability studies:**

The stability analyses revealed that a formulation held at 40°C experienced a modest change in pH, but that formulations stored at ambient temperature and at 35°C did not experience any alterations. There At the other stability criteria listed that were displayed in Table 5, there was no change in colour or smell<sup>22,23</sup>.

**Table 5 : Parameter of stability studies**

S.N.	Parameter	Room temprature	35±0.50C	40±0.50C
1	Colour	No change	No change	No change
2	Odour	No change	No change	No change
3	pH	6.86 ± 0.21	6.85 ± 0.11	6.78 ± 0.31
4	Texture	Fine	Fine	Fine
5	Smoothness	Smooth	Smooth	Smooth

**Conclusion:**

Currently, people seek non-side effect treatments for a variety of skin issues. Natural substances made it possible to create cosmetics without any negative outcome. The use of herbal face packs is regarded as a dependable and effective method of improving skin appearance. This makes the current work a very decent attempt at creating a herbal face pack using readily available components like multani mitti, turmeric, aloe vera, sandalwood, lemon peel, rose petal powder, manjistha, lodhra, and gramme flour. The created formulation is said to have had properties of a typical cosmeceutical's formulation or skincare product, including being physicochemically and microbiologically stable.

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