



## A REVIEW ON COSMETIC HERBAL FACE PACK FOR GLOWING SKIN

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### ABSTRACT :

In contemporary society, there is a growing demand for effective treatments for various dermatological issues that do not produce adverse side effects. The utilization of herbal components has paved the way for the development of cosmetics that are free from harmful effects. Herbal face packs are regarded as a sustainable and effective method for enhancing skin appearance. Therefore, this study represents a commendable effort to create a herbal face pack using naturally sourced ingredients such as multani mitti, turmeric, aloe vera, sandalwood, orange peel, neem, and nutmeg. The findings indicate that the formulated product demonstrated both physico-chemical and microbiological stability, exhibiting the qualities characteristic of a standard cosmeceutical formulation for skincare.

**KEYWORDS:** Skincare, Multani Mitti, Cosmeceuticals, Microbiologically Stable, Sustainable.

### INTRODUCTION :

Cosmetics are products available in the market designed to enhance the skin's appearance through cleansing and beautification, thereby promoting attractiveness. Historically, various herbs have been utilized for cleansing and beautifying purposes. The skin of the face is a significant indicator of an individual's overall health, comprising components such as amino acids, lipids, and carbohydrates. Consequently, maintaining a balanced diet is essential for achieving clear, radiant, and healthy skin. In the practice of Ayurveda, a herbal formulation known as "mukha lepa" is employed as a facial treatment. This herbal paste is applied to the face to address issues such as acne, pimples, scars, and pigmentation.

### MATERIALS AND METHODS :

All the natural materials used in the present study I.E., multanimitti, turmeric, Aloe Vera sandal wood, orange peel, neem and Nutmeg were purchased from local market (dgadu Teli Chandwadkar, Nashik), in a form of dried powder.

**MULTANI MITTI:** - Multani mitti benefits the skin through various mechanisms, including the reduction of pore size, the elimination of blackheads and whiteheads, the fading of freckles, and the alleviation of sunburn. Additionally, it acts as a cleansing agent, enhances blood circulation, improves complexion, diminishes acne and blemishes, and imparts a radiant glow to the skin, owing to its rich nutrient content.

**TURMERIC:** - Turmeric is predominantly utilized for its skin-rejuvenating properties. It helps to postpone the appearance of aging signs, such as wrinkles, while also exhibiting various beneficial characteristics, including antibacterial, antiseptic, and anti-inflammatory effects. Additionally, it serves as an excellent blood purifier. Its efficacy in treating acne can be attributed to its antiseptic and antibacterial properties, which combat pimple outbreaks and contribute to a more youthful complexion. Furthermore, turmeric aids in diminishing oil production by the sebaceous glands.

**ALOE VERA:** - Aloe vera serves as an excellent moisturizer for the skin, effectively rejuvenating and hydrating it. This natural substance helps maintain a fresh appearance of the skin at all times. Additionally, aloe vera possesses antimicrobial properties, contributing to its beneficial effects on skin health.

**SANDAL WOOD:** - Sandalwood possesses properties that combat tanning and the signs of aging. Additionally, it benefits the skin through various mechanisms, including a toning effect, emollient characteristics, antibacterial qualities, and a cooling astringent effect, as well as soothing and healing attributes.

**ORANGE PEEL:** - Orange is a type of citrus fruit that is rich in various nutrients, including vitamin C, calcium, potassium, and magnesium. It plays a significant role in protecting the skin from damage caused by free radicals. Additionally, it contributes to skin hydration and helps mitigate oxidative stress. Furthermore, oranges possess properties that promote a radiant complexion and can aid in addressing issues such as acne, blemishes, wrinkles, and signs of aging.

**NEEM:** - Neem possesses anti-inflammatory and antiseptic properties, making it particularly advantageous for individuals with oily and acne-prone skin. The efficacy in combating acne can be attributed to the antimicrobial, anti-inflammatory, and antioxidant activities exhibited by its various chemical components.

**NUTMEG:** - Nutmeg is extensively recognized for its analgesic, anti-inflammatory, antiseptic, and antibacterial properties. It contributes to the reduction of wrinkles, fine lines, and various other indicators of aging. Additionally, it aids in diminishing the appearance of acne scars, making them less prominent.

**METHODS OF PREPARATION:** - Four different formulations were prepared with different concentrations of ingredients labeled as F1, F2, F3, and F4 concentration of each in gradient was mentioned in Table 1. The accurate quantity ingredients were weighed and ground in to fine powder by using sieve No. 120. Then the all ingredients were mixed geometrically by serial diluting method for uniform mixing. Then the prepared face pack was packed in to a self-sealable polyethylene bag, labeled and used for further studies,

### PROCEDURE OF FACE PACK APPLICATION: -

To begin, measure an appropriate amount of the prepared face pack powder into a bowl and incorporate rose water to achieve a uniform mixture. Ensure thorough blending before applying the mixture to the facial skin, paying particular attention to areas affected by acne and blemishes. Allow the application to remain undisturbed until it is completely dry, which typically takes between 20 to 25 minutes, after which rinse the face with cold water.

**Table 1: Formulation of Face Pack**

S. No.	Name of Ingredients	Scientific Name	Quantity of sample for 100g			
			F1	F2	F3	F4
1	Multani Mitti	Calcium Bentonite	25	30	35	15
2	Turmeric	Curcuma longa	20	5	10	20
3	Aloe vera	Aloe barbadensis	10	15	10	20
4	Sandal wood	Santalim alba	25	25	20	25
5	Orange peel	Citrus reticulate	10	12	6	5
6	Neem	Azadirachta indica	3	8	15	10
7	Nutmeg	Myristica fragras	7	5	4	5

**TABLE 2: ORGANOLEPTIC PROPERTIES**

S. No.	Parameters	Observation			
		F1	F2	F3	F4
1	Appearance	Powder (Free Flowing)	Powder (Free flowing )	Powder (Free Flowing)	Powder (Free Flowing)
2	Color	Slight yellow	Slight yellow	Slight yellow	Slight yellow
3	Odor	Slight	Slight	Slight	Slight
4	Texture	Fine	Fine	Fine	Fine
5	smoothness	Smooth	Smooth	Smooth	Smooth

**TABLE 3 PHYSICAL PARAMETER AND PHYSICOCHEMICAL EVALUATION**

S. No.	Evaluation	Formulations				Observation
		F1	F2	F3	F4	
1	Irritant	+	NIL	+	+	-No irritation
2	Erythem	NIL	NIL	NIL	NIL	-No irritation
3	Edema	NIL	NIL	NIL	NIL	-No irritation

**TABLE 4: IRRITANCY TEST**

S. No.	Parameters	Observations			
		F1	F2	F3	F4
1	Particle size(um)	26.4+5.44	22.5+2.85	24.8+4.36	25.2+5.21
2	Ash content	93+0.732	87+0.859	92+0.556	95+0.462
3	PH	7.66+0.13	6.65+0.1	6.79+0.16	6.88+0.1
4	Loss on drying	3.33	3	4	3.67

**TABLE 5 : PARAMETERS OF STABILITY STUDIES OF FORMULATION F2**

S. No.	Parameters	Observation of ( formulations F2 )		
		Room Temperature		40±0.5°C
1	Color	No Change	No Change	No Change
2	Odour	No Change	No Change	Slightly change
3	PH	6.65 + 0.167	6.65+0.11	6.72+0.21
4	Texture	Fine	Fine	Fine
5	Smoothness	Smooth	Smooth	Smooth

**TABLE 6: MICROBIAL LOAD OF FORMULATION F2**

S. No.	Test	Observation
1	Total viable count ( CFU/ g )	867
2	Gram negative Pathogens, Pseudomonas (E.coli, Salmonella , pseudomonas	Absent

## RESULT AND DISCUSSION :

### PHYSICAL PARAMETERS

The different formulation of face pack was prepared and evaluated for physical parameters showed in the Table 2. The flow property parameter showed free flowing properties. The colors of formulations were different due to variation in composition of contents. Formulation F1, F2 and F4 were slightly yellowish in appearance and formulation F3 showed as greenish yellow. The odor of prepared formulations was good acceptable which is desirable as cosmetic formulations. The particle size of formulations was in the range of 22.5±2.85µm to 26.4±5.44 µm (Figure 1). The pH of all formulations lied near to neutral range i.e. in the range of 6 to 7 pH. (Figure 2). The ash content and moisture content was within limit (Table 3).

### IRRITANCY TEST

The results of irritancy test were shown in Table 4. The formulations F1, F3 and F4 showed mild irritation because of presence of turmeric powder 21. The formulations which was prepared by lowering the concentration of turmeric i.e. formulations F2 showed no redness, edema, Inflammation imitation during irritancy studies. This formulation is safe to use for skin.

### STABILITY STUDIES

The stability studies showed a slight change is pH of formulation which was stored at 40°C and no changes were observed at room temperature and at 35°C (Figure 3). The odour of formulation was slightly changed after on month of stability studies at 40°C and there was no change in color and odour at other mentioned conditions of stability which were showed in Table 5.

### DETERMINATION OF MICROBIAL LOAD

The microbial load showed the Total Viable Count (867CFU/g), and the test for presence of gram negative pathogens such as E. coli. Salmonella and pseudomonas absent per gram showed in Table 6.

The Formulation F2 was found to be a good in physical parameters. Free from skin irritation and maintained its consistency even after stressed storage conditions. It is suggested that the prepared formulation was physio-chemically and microbiologically stable, and possessed characteristics of a standard cosmeceuticals formulation for skincare.

## CONCLUSION :

In present time there is a growing demand for effective treatments for various skin conditions that do not produce adverse side effects. The utilization of herbal components has paved the way for the development of cosmetics that are free from harmful effects. Herbal face packs are regarded as a sustainable and effective method for enhancing skin appearance. Therefore, this study represents a commendable effort to create a herbal face pack using naturally sourced ingredients such as multani mitti, turmeric, aloe vera, sandalwood, orange peel, neem, and nutmeg. The findings indicate that the formulated product demonstrated both physico-chemical and microbiological stability, exhibiting the qualities characteristic of a standard cosmeceutical formulation intended for skincare.

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