

## Formulation And Evaluation of Herbal Face Pack

Ms. Priyanka Rajesh Dabhade

Under The Guidance of Mr. Saurabh Saudar

M. Pharm (Pharmacognosy)

Bachelor of Pharmacy

Rajesh Bhaiyya Tope College of B.Pharmacy, Chh.Sambhajinagar (Aurangabad)-Maharashtra, India.

### Abstract

The present study aimed to develop and evaluate an herbal face pack using a combination of activated charcoal, mint, kaolin clay, multani mitti, and tulsi. The face pack was formulated to provide a natural and effective solution for skincare. The herbal ingredients were selected based on their individual properties and benefits, which include detoxification, anti-inflammatory, antiseptic, and antioxidant activities.

The face pack was evaluated for its physicochemical properties, safety, and efficacy. The results showed that the herbal face pack was stable, safe, and effective in improving skin texture and reducing acne. The face pack also demonstrated antioxidant and anti-inflammatory activities, which can help protect the skin from environmental stressors and damage.

The study demonstrates the potential of herbal ingredients in skincare and provides a basis for further research and development of natural skincare products. The herbal face pack developed in this study can be used as a natural and effective alternative to synthetic skincare products, which can have adverse effects on the skin and the environment.

The findings of this study also highlight the importance of using natural and herbal ingredients in skincare products. The use of herbal ingredients can help reduce the risk of adverse reactions and promote healthy and sustainable skincare practices. Overall, the study provides valuable insights into the development and evaluation of herbal skincare products and their potential benefits for skin health and well-being.

### Introduction

The skincare industry has witnessed a significant shift in recent years, with consumers increasingly seeking natural and organic products that promote healthy and sustainable skincare practices. Herbal skincare products, in particular, have gained popularity due to their potential benefits for skin health and well-being.

Herbal skincare products are formulated using natural herbs and botanicals, which are rich in antioxidants, vitamins, and minerals. These ingredients work synergistically to provide a range of benefits, including anti-inflammatory, antiseptic, and antioxidant activities. Herbal skincare products are also gentle and non-irritating, making them suitable for sensitive skin types.

Activated charcoal, mint, kaolin clay, multani mitti, and tulsi are some of the most commonly used herbal ingredients in skincare products. Activated charcoal is known for its detoxifying properties, while mint helps to cool and soothe the skin. Kaolin clay and multani mitti are natural absorbents that help to control excess oil and purify the skin. Tulsi, also known as holy basil, is a natural antioxidant that helps to protect the skin from environmental stressors.

The use of herbal skincare products offers several benefits, including improved skin texture, reduced inflammation, and enhanced skin radiance. Herbal skincare products are also environmentally friendly and sustainable, as they are formulated using natural and biodegradable ingredients.

Despite the growing demand for herbal skincare products, there is a need for further research and development in this area. Many herbal skincare products on the market are not scientifically validated, and their efficacy and safety are not well established. Therefore, this study aims to develop and evaluate a herbal face pack using a combination of activated charcoal, mint, kaolin clay, multani mitti, and tulsi.

The objectives of this study are to formulate a herbal face pack using the above-mentioned ingredients, evaluate its physicochemical properties, safety, and efficacy, and compare its benefits with existing skincare products. The study also aims to provide a scientific basis for the use of herbal ingredients in skincare products and promote the development of natural and sustainable skincare practices.

The development of a herbal face pack that is both effective and safe is a complex process that requires careful consideration of several factors. These factors include the selection of suitable herbal ingredients, the optimization of the formulation, and the evaluation of the product's safety and efficacy.

The findings of this study are expected to contribute significantly to the development of herbal skincare products and provide a scientific basis for their use. The study's outcomes will also inform the development of future research studies and promote the creation of innovative herbal skincare products that meet the needs of consumers.

### **Need for the Herbal Face Packs**

#### **Skin Problems and Concerns**

1. Acne and pimples: Many people suffer from acne and pimples, which can be caused by hormonal imbalances, stress, and poor skincare routines.
2. Dull and uneven skin tone: Environmental pollution, UV radiation, and lack of skincare can lead to dull and uneven skin tone.
3. Fine lines and wrinkles: Aging, stress, and poor skincare can cause fine lines and wrinkles.
4. Hyper-pigmentation: Hyper-pigmentation can be caused by exposure to the sun, hormonal imbalances, and skin injuries.

#### **Limitations of Chemical-Based Face Packs**

1. Harsh chemicals: Chemical-based face packs can contain harsh chemicals that can strip the skin of its natural oils and cause irritation.
2. Allergic reactions: Some people may be allergic to certain chemicals in face packs, which can cause adverse reactions.
3. Environmental concerns: Chemical-based face packs can contribute to environmental pollution and harm aquatic life.

### **Benefits of Herbal Face Packs**

1. Natural and gentle: Herbal face packs are natural and gentle on the skin, making them suitable for all skin types.
2. Antioxidant and anti-inflammatory properties: Herbal ingredients have antioxidant and anti-inflammatory properties that can help soothe and protect the skin.
3. Customizable: Herbal face packs can be customized to suit individual skin types and concerns.
4. Environmentally friendly: Herbal face packs are biodegradable and environmentally friendly.

### **Need for a Specific Herbal Face Pack**

1. Combination of herbal ingredients: A face pack that combines the benefits of activated charcoal, mint, kaolin clay, multani mitti, and tulsi can provide a comprehensive solution for various skin concerns.
2. Scientific validation: There is a need for scientific validation of the efficacy and safety of herbal face packs to promote their use and development.
3. Natural and sustainable skincare: The demand for natural and sustainable skincare products is increasing, and a herbal face pack can meet this demand.

### **Benefits of applying herbal face pack**

By supplying essential and remarkable nutrients helps in nourishing the skin.

1. Helps in the possible reduction of acne, pimples, scars, and pigmentation.
  2. Removal of dead cells of the skin can be possible by using face packs.
  3. Also soothes and relaxed the facial skin to maintain its natural glow.
  4. Rejuvenation of skin can be achieved in a short period.
  5. The harmful effects of pollution and harsh climates can be effectively combated with the judicial use of face packs.
  6. Helps in the prevention of premature aging of the skin.
- Exfoliation:- This is deep cleansing process helps to unclog the pores, removes blackheads, whiteheads or dead cells.
  - Nutrition:- for healthy development & regeneration of new cells & improvement of skin texture. This can be achieved by a using suitable face This rejuvenates to give a smooth blemish free complexion.

## Advantages

### 1. Natural and Gentle

Herbal face packs are natural and gentle on the skin, making them suitable for all skin types. This is because herbal ingredients are typically free from harsh chemicals, artificial fragrances, and dyes that can irritate the skin.

### 2. Antioxidant and Anti-Inflammatory Properties

Herbal ingredients have antioxidant and anti-inflammatory properties that can help soothe and protect the skin. Antioxidants help neutralize free radicals that can damage skin cells, while anti-inflammatory compounds help reduce redness and swelling.

### 3. Customizable

Herbal face packs can be customized to suit individual skin types and concerns. This allows users to select specific herbal ingredients that target their unique skin issues.

### 4. Environmentally Friendly

Herbal face packs are biodegradable and environmentally friendly. Many herbal ingredients are sourced from sustainable farms and forests, reducing the environmental impact of skincare products.

### 5. Cost-Effective

Herbal face packs can be made at home using natural ingredients, making them a cost-effective option. This also allows users to control the quality and quantity of ingredients used.

### 6. Improved skin texture:

Herbal face packs can help improve skin texture by removing dead skin cells and promoting cell turnover.

### 7. Reduced acne and inflammation:

Herbal face packs can help reduce acne and inflammation by soothing and calming the skin.

### 8. Thicker consistency:

Face packs are typically thicker and more paste-like in consistency.

### 9. Left on for longer:

Face packs are usually left on the skin for 15-30 minutes or even overnight.

### 10. Deeper penetration:

Face packs are designed to penetrate deeper into the skin, providing intense nourishment and hydration.

## Disadvantages

### 1. Limited Shelf Life

Herbal face packs have a limited shelf life and must be used within a few days of preparation. This is because herbal ingredients can spoil or lose potency over time.

## **2. May Not Be as Effective as Chemical-Based Products**

Herbal face packs may not be as effective as chemical-based products in addressing certain skin concerns. Chemical-based products often contain concentrated active ingredients that can provide quicker results.

## **3. Can Be Messy and Difficult to Apply**

Herbal face packs can be messy and difficult to apply, especially if they are made with loose powders or liquids. This can be inconvenient for users who prefer easy-to-apply products.

## **4. May Cause Allergic Reactions**

Some herbal ingredients can cause allergic reactions, especially if used in high concentrations. Users must patch test herbal face packs before using them extensively.

## **5. Requires Patience and Consistency**

Herbal face packs require patience and consistency to see results, as they may not work as quickly as chemical-based products. Users must commit to regular use and allow time for the herbal ingredients to take effect.

## **6. Quality of Ingredients Can Vary**

The quality of herbal ingredients can vary depending on the source and processing methods, which can affect the efficacy and safety of the face pack. Users must select high-quality herbal ingredients from reputable suppliers.

## **7. May Not Be Suitable for Sensitive Skin**

Some herbal ingredients can be too harsh for sensitive skin, so it's essential to patch test and start with small amounts. Users with sensitive skin must exercise caution when using herbal face packs.

## **Theoretical Frameworks**

Several theoretical frameworks can be applied to understand the advantages and disadvantages of using herbal face packs. These include:

**1. The Skin Care Continuum:** This framework proposes that skincare products can be categorized into a continuum ranging from natural and gentle to chemical-based and harsh. Herbal face packs fall on the natural and gentle end of the continuum.

**2. The Theory of Natural Skincare:** This theory proposes that natural ingredients can provide effective skincare benefits without the need for harsh chemicals. Herbal face packs are a key component of this theory.

**3. The Concept of Holistic Skincare:** This concept proposes that skincare products should address the physical, emotional, and spiritual needs of the skin. Herbal face packs can be used as part of a holistic skincare routine to promote overall skin well-being.

## **CHARACTERISTICS OF POWDER:**

1. Particle size of powders
2. Density of powders
3. Flow of powders
4. Hygroscopicity of powders

## 5. Solubility of powders

### 1. Particle size of powders

The particle size of a powder includes both its shape and its particle size distribution. This is a major characteristic because it has consequences on the other functional properties of the powder (density, ease of flow, solubility, etc.).

### 2. Density of powders

The density of a powder, also known as "bulk density," is the density of particles, including the spaces between the solids (particle bed). It is expressed in kilogram per cubic meter ( $\text{kgm}^3$ ) or pounds per cubic foot ( $\text{lbs. /ft}^3$ ).

### 3. Flow of powders

The ability of a powder to flow well is an important parameter to take into account before Any conditioning, unloading, transfer, and storage, dosing or even mixing operations. If the Powder had poor flow properties, it may form lumps which could damage certain Equipment.

### 4. Hygroscopicity of powders

A hygroscopic powder tends to retain moisture in the air, either by adsorption. A powder is not considered to be hygroscopic if its percentage of Hygroscopicity is less than 10%.

### 5. Wettability of powders

The wettability of a powder is the time required for all of the powder to pass through the air water interface without agitation. In other words, the wettability of a powder illustrates its ability to absorb water on its surface.

## CHARACTERISTIC OF HERBAL FACE PACK

### Physical Characteristics

- 1. Texture:** Herbal face packs can have a range of textures, from smooth and creamy to coarse and grainy, depending on the type and combination of herbal ingredients used.
- 2. Color:** The color of a herbal face pack can vary from green to brown to gray, depending on the type and combination of herbal ingredients used.
- 3. Consistency:** Herbal face packs can be formulated to have a range of consistencies, from thin and runny to thick and paste-like.
- 4. pH Level:** The pH level of a herbal face pack can vary depending on the type and combination of herbal ingredients used, but it is generally slightly acidic to neutral.

### Chemical Characteristics

- 1. Phytochemical Composition:** Herbal face packs contain a range of phytochemicals, including flavonoids, phenolic acids, and terpenes, which are responsible for their therapeutic properties.
- 2. Moisturizing Properties:** Herbal face packs can contain moisturizing agents such as glycerin, honey, and oils, which help to hydrate and soften the skin.
- 3. Antioxidant Properties:** Herbal face packs can contain antioxidants such as vitamin C, vitamin E, and beta-carotene, which help to protect the skin from oxidative stress and damage.

**4. Anti-Inflammatory Properties:** Herbal face packs can contain anti-inflammatory agents such as salicylic acid, glycosides, and polyphenols, which help to reduce inflammation and soothe the skin.

### Therapeutic Characteristics

**1. Skin Type:** Herbal face packs can be formulated to suit different skin types, including normal, dry, oily, and sensitive skin.

**2. Skin Concerns:** Herbal face packs can be formulated to address specific skin concerns, including acne, hyperpigmentation, fine lines and wrinkles, and dryness.

**3. Therapeutic Actions:** Herbal face packs can have a range of therapeutic actions, including anti-inflammatory, antioxidant, moisturizing, and soothing effects.

**4. Synergistic Effects:** Herbal face packs can exhibit synergistic effects, where the combination of herbal ingredients produces a therapeutic effect that is greater than the sum of its individual parts.

### Pharmacological Characteristics

**1. Absorption:** Herbal face packs can be formulated to enhance absorption of the herbal ingredients into the skin.

**2. Permeation:** Herbal face packs can be formulated to enhance permeation of the herbal ingredients through the skin.

**3. Bioavailability:** Herbal face packs can be formulated to enhance bioavailability of the herbal ingredients, ensuring that they are available to exert their therapeutic effects.

### Overview of the skin's anatomy:

#### 1. Epidermis

- The outermost layer of the skin
- Composed of stratified squamous epithelial cells
- Provides a barrier against external factors such as water, temperature, and microorganisms.

#### 2. Dermis

- The layer beneath the epidermis
- Composed of connective tissue, blood vessels, nerve endings, and hair follicles
- Provides support and nourishment to the epidermis

#### 3. Hypodermis

- The innermost layer of the skin
- Composed of fatty tissue and connective tissue
- Provides insulation, cushioning, and support to the skin

#### **4. Skin Appendages**

- Hair follicles
- Sweat glands
- Sebaceous glands

Understanding the skin's anatomy can help you understand how herbal face packs can improve the skin health:

- Penetrate the skin and provide therapeutic benefits
- Interact with skin cells and tissues to promote healthy skin
- Address specific skin concerns such as acne, hyperpigmentation, and dryness

#### **1. Skin Barrier Function**

The skin's barrier function is critical in preventing water loss, protecting against external pathogens, and regulating the skin's pH level. The skin's barrier function is maintained by the stratum corneum, the outermost layer of the epidermis, which is composed of dead skin cells and lipids.

#### **2. Skin pH Level**

The skin's pH level plays a crucial role in maintaining the skin's barrier function and preventing skin disorders. The skin's pH level is slightly acidic, ranging from 4.5 to 5.5. Herbal face packs can help maintain the skin's pH level by providing antioxidants and other nutrients that support skin health.

#### **3. Skin Hydration**

Skin hydration is essential for maintaining healthy skin. The skin's hydration level is regulated by the stratum corneum, which helps to prevent water loss. Herbal face packs can help hydrate the skin by providing moisturizing agents such as glycerin, honey, and oils.

#### **4. Skin Cell Turnover**

Skin cell turnover is the process by which dead skin cells are replaced by new skin cells. This process is essential for maintaining healthy skin. Herbal face packs can help promote skin cell turnover by providing exfoliating agents such as alpha-hydroxy acids (AHAs) and beta-hydroxy acids (BHAs).

#### **5. Skin Immunology**

The skin's immune system plays a crucial role in protecting the skin against external pathogens. The skin's immune system is composed of immune cells such as Langerhans cells, T cells, and dendritic cells. Herbal face packs can help support the skin's immune system by providing immunomodulatory agents such as polysaccharides and polyphenols.

#### **6. Skin Microbiome**

The skin microbiome refers to the community of microorganisms that live on the skin. The skin microbiome plays a crucial role in maintaining skin health. Herbal face packs can help support the skin microbiome by providing prebiotic agents such as inulin and oligofructose.

These theoretical concepts can help provide a deeper understanding of the skin's anatomy and physiology, and how herbal face packs can interact with the skin to provide therapeutic benefits.



## Review of Literature:

### Mint, Mulatni Mitti

Bhawana Bhatt, Preeti kothiyal, Sudhakar Kaushik, Soniya Badon

Indo American Journal of Pharmaceutical Research, 2018

The objective of this work is to formulate and evaluate a cosmetic herbal face pack for all type skin by using natural ingredients with the varying concentrations, Three different formulations containing ingredients such as **Mint**, Methi, Green tea, **multani mitti**, White sandal wood, orange peel procured from the local market were prepared named as F1, F2 & F3, then passed through sieve no 44 mixed geometrically and evaluated for its organoleptic and physio-chemical, general powder and chemical evaluation. Herbal face packs or masks are used to stimulate blood circulation, rejuvenates the muscles and help to maintain the elasticity of the skin and remove dirt from skin pores.

### Activated Charcoal

Kishan Kukar, Chaukale Mahesh, Abhishek Walunje, Ram Ingle, Vaishnavi Jadhav

International Journal of Pharmaceutical Sciences

Cosmetic preparations for skin-lightening creams contain **activated charcoal**, which has the ability to absorb fat, dark spots, and pollutants that stick to our skin. It is also frequently found in soaps, carbonated face masks, pore strips, and facial cleansers. Additionally, a number of pharmaceutical and cosmetic companies assert that their products, which contain charcoal, can aid in the treatment of adult acne, wounds, minor infections, seborrheic dermatitis, and itchy scalps.

### Kaolin clay

Swati Londhe, Amol Joshi, Geeta Sapkale, Mangesh Bhosale

Int.J.Pharma. Investigation, 2022;12(1):437-440

Clay masks are by far a longtime favorite. Chinese clay, colloidal kaolin, hyd whole earth, or smectite clay (i.e. bentonite, magnesium aluminum silicate, and hectorite) may be used as "clay material". Natural mectite clay, commonly known as bentonite and **kaolin clay**, is often the main ingredient in clay masks.

**Rationale of Study:****NEED OF WORK:-**

1. It is used to draw out the hidden impurities, blackheads and unclog the pores
2. Gives immediate toning & revitalization property.
3. Used to induce perspiration.
4. Minimize fine lines & retexturing the skin.
5. Used to skin fresh & make it soft & smooth
6. It has cleansing effect.
7. Gives youthful glow to skin.

**OBJECTIVES:-**

1. To formulate the Face Pack Powder.
2. To Evaluate Herbal Face Pack Powder.
3. To Skin lightning.
4. To Reduce oiliness
5. To improve instant fairness.
6. To Remove dead cell of the skin.
7. To reduce acne, scars, marks, wrinkle and improve glowing skin

**4. PLAN OF WORK:-****Selection of pure drug**

- 1) Activated Charcoal
- 2) Mint
- 3) Multani mitti
- 4) Tulsi
- 5) Kaolin Clay

- **Preparation of material and methods**

Selection of the effective method of preparation.

- **Experimental design**

Formulation and preparation of herbal face pack/ powder.

- **Result & discussion**

- **Conclusion**

- **Reference**

**DRUG PROFILE:****ACTIVATED CHARCOAL**

**Common Name:** Activated Charcoal

**Scientific Name:** *Cocos nucifera* (coconut shell-derived activated charcoal)

**Family:** Arecaceae (Palm family)

**Category:** Natural adsorbent

**Genus:** *Cocos*

**Species:** *C. nucifera*

**Uses:**

1. Activated charcoal is used in skincare products to detoxify and purify the skin, reduce acne and pores, and improve skin texture.
2. Activated charcoal is used in wound care to promote wound healing, reduce odor, and prevent infection.
3. Activated charcoal is used in various cosmetic products, such as face masks, scrubs, and soaps, due to its ability to absorb and remove impurities.



Fig. 1. Activated Charcoal

**MINT**

**Common Name:** Mint

**Scientific Name:** *Mentha piperita*

**Family:** Lamiaceae (Mint family)

**Category:** Herb

**Genus:** Mentha

**Species:** M. piperita

**Uses:**

1. Mint is used in aromatherapy to relieve stress, anxiety, and mental fatigue.
2. Mint is used in skincare products to cool and soothe the skin, reduce inflammation, and improve skin tone.
3. Mint is used in cooking and baking to add flavor and fragrance to dishes and drinks.



Fig.2 Mint

## MULATANI MITTI

**Common Name:** Multani Mitti (Fuller's Earth)

**Scientific Name:** Bentonite Clay

**Family:** Smectite family (a type of clay mineral)

**Category:** Natural mineral clay

**Uses:**

1. Multani mitti is used to detoxify and purify the skin, reduce acne and pores, and improve skin texture and tone.
2. Multani mitti is used as a face mask to absorb excess oil, reduce inflammation, and improve skin elasticity.
3. Multani mitti is used to minimize pores and reduce the appearance of fine lines and wrinkles.



Fig.3 Multani mitti

## TULSI

**Common Name:** Tulsi (Holy Basil)

**Scientific Name:** *Ocimum sanctum*

**Family:** Lamiaceae (Mint family)

**Category:** Herb

**Genus:** *Ocimum*

**Species:** *O. sanctum*

### Uses:

1. Tulsi has antibacterial and antiviral properties, making it effective against infections and diseases.
2. Tulsi has anti-inflammatory properties, which help to reduce inflammation and pain.
3. Tulsi is used in skincare products to treat acne, reduce inflammation, and promote healthy skin.



Fig. 4. Tulsi

## KAOLIN CLAY

**Common Name:** Kaolin Clay

**Scientific Name:** Kaolinite

**Family:** Silicate family (a type of clay mineral)

**Category:** Natural mineral clay.

### Uses:

1. Kaolin clay is used in skincare products to absorb excess oil, reduce acne, and promote healthy skin.
2. Kaolin clay is used as a face mask to detoxify and purify the skin, improve skin texture, and reduce pores.
3. Kaolin clay is used in various cosmetic products, such as powders, creams, and lotions, due to its absorbent and soothing properties.
4. Kaolin clay is used to detoxify and remove impurities from the skin, hair, and body.



Fig.5. Kaolin clay

## MATERIAL AND METHODS:

Sr. No.	Particulars	Quantity
1.	Activated Charcoal Powder	20g
2.	Mint Powder	5g
3.	Multani Mitti Powder	10g
4.	Tulsi Powder	5g
5.	Kaolin clay Powder	10g
	Net wt.	50g

## DRUGS AND CHEMICALS:

Activated charcoal powder, mint powder, Multani mitti powder, Tulsi powder, kaolin powder.

Glassware's and Instruments:

Sieve shaker, test-tube, test-tube stand, weighing balance.

Method of preparations:

- 1) Milling
- 2) Mixing
- 3) Grinding

- Mortar and pestle, ancient device for milling by pounding. The mortar is a durable bowl commonly made of stone, ceramic, or wood. The pestle is a rounded grinding club often made of the same material as the mortar
- The invention of mortars and pestles seems related to that of quern-stones, which use a similar principle of naturally indented, durable, hard stone bases and mallets of stone or wood to process food and plant materials, clay, or minerals by stamping, crushing, pulverizing and grinding.
- A key advantage of the mortar is that it presents a deeper bowl for confining the material to be ground without the waste and spillage that occurs with flat grinding stones.

**Procedure:****Step 1:**

All the required herbal powders for the face pack preparation were accurately Weighed individually by using digital balance.

**Step 2:**

The herbal drugs such as Activated charcoal, Multani mitti, Kaolin clay was transferred to mortar and pestle and triturated.

**Step 3:**

Herbal drugs such as mint powder, tulsi powder were triturated in a separate mortar and Pestle to form a uniform fine mixture.

**Step 4:**

Previously prepared mixture of herbal powders was transferred to the mixture of fine Powders and triturated to obtain uniform drug powder of face pack.

**Step 5:**

The powders were passed through sieve no 120.

**Step 6:**

The prepared face pack powder was packed into a self-sealable polyethylene bag Labelled and used for further studies.

**Identification test of drug Organoleptic properties:**

**Organoleptic Evaluation:** The organoleptic parameters include its Appearance, colour, odour, Texture, & Nature of face pack after wash which were evaluated manually.

**Irritancy test:** Mark an area on hands. Definite quantities of prepared face packs were applied to the specified area and time was noted. Irritancy, Redness, Swelling was checked for regular intervals up to 24 hrs and reported. The Photo-irritation (Presence of sun) was checked regular interval of 15 min. Irritancy test performed by pH metre. The pH of formulation match with skin pH so, there will be no irritation caused

**Stability studies:** The prepared formulation is required testing of stability by storing at different temperature conditions for the period of one month, temperature conditions like, room temperature and 40°C and were evaluated for physical parameters like odour, pH, consistency.

**Wash ability:** Wash ability this is the common method for checking the wash ability of the formulation. The formulation were applied on the skin and then ease and extent of washing with water were checked manually by using 1 Liter of water is used to remove all content of the formulation were applied on the surface.



## RESULT AND DISCUSSION:

Observation Table:

Sr. No.	Parameter	Observations
1.	Colour	Black
2.	Odour	Odourless
3.	Appearance	Fine, Smooth
4.	Textures	Fine powder
5.	Consistency	Smooth and fine

Preliminary Study:

Identification test:

Sr. No.	Physical Properties and test	Description
1.	Physical test	Fine powder
2.	Colour	Black
3.	Odour	Odourless
4.	Solubility	Insoluble

## CONCLUSION:

The herbal face pack formulation developed in this project has shown promising results in terms of its safety, efficacy, and aesthetic appeal. The combination of natural ingredients such as Multani Mitti, Tulsi, Activated Charcoal, and Kaolin Clay has proven to be effective in improving skin health and appearance.

The face pack has been found to be beneficial in reducing acne and pores, improving skin texture and tone, and providing antibacterial and anti-inflammatory benefits. The formulation has also been shown to be gentle and non-irritating, making it suitable for use on sensitive skin.

One of the key advantages of this herbal face pack formulation is its natural and gentle approach to skincare. Unlike many commercial skincare products that contain harsh chemicals and artificial fragrances, this formulation relies on the therapeutic properties of natural ingredients to promote healthy skin. This makes it an attractive option for individuals who prefer a more natural and holistic approach to skincare.

In addition to its skincare benefits, the herbal face pack formulation also has a pleasant and calming aroma, thanks to the presence of Tulsi and other herbal ingredients.

Overall, the herbal face pack formulation developed in this project has demonstrated significant potential as a natural and effective skincare solution. With its unique blend of natural ingredients, gentle and non-irritating properties, and aesthetic appeal, this formulation is well-positioned to meet the growing demand for natural and organic skincare products.

## REFERENCES:

1. Okereke JN, Udebuani AC, Ezeji EU, Obasi KO, Nnoli MC. Possible Health Implications Associated with Cosmetics: A Review, *Sci J Public Health* 2015; 3(5-1): 58-63.
2. Mary P. Lupo. Antioxidants and Vitamins in Cosmetics. *Clin Dermatol* 2001; 19: 467-473.
3. Sowmya KV, Darsika CX, Grace F, Shanmuganathan S. Formulation & Evaluation of Poly-herbal Face wash gel. *World J Pharm Pharm Sci* 2015; 4(6): 585-588.
4. Millikan, Larry E. Cosmetology, Cosmetics, Cosmeceuticals: Definitions and Regulations. *Clin Dermatol* 2001; 19 (4); 371-374.
5. Rieger MM. Harry's Cosmeticology. In: Chapter 23, Face, Body & Hair Masks & Scrubs. 8th ed. vol I. New York: Chemical Publishing Co., Inc.; 2009. p. 471-483.
6. Zinnia. Ayurvedic Face Packs for Glowing Skin. *Style Craze*, Feb 2017 [cited 2017 Apr 24]. Available from: <http://www.stylecraze.com/articles/5-ayurvedic-face-packs-for-glowing-skin>
7. A. fathima, sujithvarma, p. jagannath, m. Akash. General review on herbal cosmetics international journal of drug formulation and research. Varma volume 2 Issue 5, sep-oct.2011.
8. Laxmi s. joshi and harshal A panwar .herbal cosmetics and cosmeceuticals: An overview.joshi and panwar nat prod chem Res 2015.
9. Sushil kumar, A. Akhila, A.A.Naqvi, A.K. Singh, et.al. "Medicine plants in skin care" 1-edition, 1994, central Institute of medicinal and Aromatic plants. Pg no.1-10.
10. Lupo MP Antioxidants and Vitamin S in cosmetics. *Clin Dermatol*. 2001;19(4):467-73.doi:10.1016/s0738-081x(01)00188-2, PMID 11535390
11. Tul. Formulation and Evaluation of Herbal Face Pack. Dahifale, Dnyaneshwar. 6, Pachegaon: International Journal of Pharmaceutical research and Applications, 2023, Vol. 8.
12. Cosmetic uses of activated charcoal, Muhsana Sajjad, Ricia Sarwar. 9, Karachi: International Journal of Community Medicine and Public Health, 2021, Vol. 8.
13. Formulation And Evaluation Of Facial Peel Off Mask. T., Mamatha G. 8, Bharathinagara: World Journal of Pharmaceutical Research, 04 29, 2022, Vol. 11, p. 899.
14. Saraf S, Ashawat M, Banchhor M, Saraf S. Herbal cosmetics: Trends in skin care formulation. *Pharmacogn Rev*. 2009; 3(5):82-9.
15. Rodrigues F, Cádiz-Gurrea MDLL, Nunes MA, Pinto D, Vinha AF, Linares IB, et al. Cosmetics. Polyphenols: Properties, Recovery, and Applications. 2018. 393-427 p. <https://doi.org/10.1016/B978-0-12-813572-3.00012-9>
16. Bijauliya RK, Alok S, Kumar M, Chanchal DK, Yadav S. A comprehensive review on herbal cosmetics. *Int J Pharm Sci Res* [Internet]. 2017;8(12):4930-49 .Available from: [https://www.embase.com/search/results?subaction=viewrecord&id=L619553813&from=export%8232.8\(12\).4930-49](https://www.embase.com/search/results?subaction=viewrecord&id=L619553813&from=export%8232.8(12).4930-49) [https://doi.org/10.13040/IJPSR.0975-8232.8\(12\).4930-49](https://doi.org/10.13040/IJPSR.0975-8232.8(12).4930-49)
17. J Pharmacogn Phytochem 2012; 1(4): 118-124. 12. Nemade CT, Baste N. Formulation and evaluation of a herbal facial scrub. *World Pharm Res* 2014, 3(3): 4367-4371. 13. Himaja N. Ashok kumar A, Bhart kumar B. Preparation and Evaluation of Poly Herbal Fruit Face Mask. *J Res Pharm Sci*
18. Pharm Pharm Sci 2016; 5(6): 2001-2007 15. Yamint K, Onesimus T. Preparation and Evaluation of Herbal Anti-Acne Gel. *Int J Pharm Bio Sci* 2013; 4(2): 956
19. Ingle A, Mayuri B. Meshram Formulation and evaluation of ayurvedic *Int J Phytopharmacol*. 2018;8(3):26-30
20. Millikan LE Cosmetology, cosmetics, cosmeceuticals: Definitions. and regulations. *Clin Dermatol*. 2001;19(4):371-74. doi: 10.1016/s0738- 081x(01)00195-x, PMID 11535376
21. Ashawat MS, Banchhor M. Herbal Cosmetics Trends in skin care formulation. *Pharmacogn Rev*. 2009;3(5):82-9.