



## Research Article

# Formulation And Evaluation Of Herbal Face Mask Sheet

Sunil Mishra<sup>1</sup>, Shashank Tiwari\*<sup>2</sup>, Sushil Kumar Pal<sup>1</sup>, Prabha Shukla<sup>3</sup>

<sup>1</sup>Assistant Professor, Lucknow Model College of Pharmacy, Lucknow

<sup>2</sup>Director (Academics & Research), Lucknow Model College of Pharmacy, Lucknow

<sup>3</sup>Student, Lucknow Model College of Pharmacy, Lucknow

### ARTICLE INFO

Received: 29 Aug 2024

Accepted: 02 Sep 2024

Published: 03 Sep 2024

#### Keywords:

Face sheet mask,  
herbal ingredients,  
hydrate, moisturize

#### DOI:

10.5281/zenodo.13645851

### ABSTRACT

The aim of this project is to develop and test a herbal face mask prepared from herbal substances as a cosmetic preparation. Cosmetics are composed of mixtures of chemical compounds derived from either natural sources or synthetically created ones. They can be used to cleanse or protect the body and skin. Cosmetics are designed to enhance or alter one's appearance (makeup), can be used to conceal blemishes, enhance one's natural features. They have gained popularity in the international marketplace due to their natural beauty benefits and lack of side effects. Herbal cosmetics, such as face sheet masks, are formulated using various herbal ingredients (Dragon fruit, Carrot, Tulsi, Rosemary oil, Vitamin E oil, Aloe vera, Rose water) to provide defined cosmetic benefits. Natural extracts of this face sheet mask have several functions such as antioxidants, anti-aging, anti-inflammatory, antibacterial. Herbal face masks assist to promote blood circulation, revitalize the skin, retain its suppleness, and eliminate debris from the pores. Herbal cosmetics have the benefit of being non-toxic, reducing allergic responses, and many components having a long history of usage. The goal of this work is to assess the study of herbal extract finishing on face sheet masks and their qualities. Face masks trap moisture in the skin, creating a film that helps hydrate, moisturize, dry, or exfoliate the skin. They can be used for acne treatment, vitamin C for fine lines, or retinoid for dark spots. Sheet masks, made from materials like microfibers or cellulose, are inexpensive and effective for hydrating the skin, removing excess oils and impurities, and improving pores' appearance.

### INTRODUCTION

Cosmetics is a Greek phrase which means 'adorn' (addition of something ornamental to someone or a thing). Food and Drug & Cosmetics act defines cosmetics as articles meant to be rubbed, poured,

springled or sprayed on, or changing the look. Cosmetics encompass pores and skin care creams, lotions, powders, perfumes, lipsticks, fingernail and toenail polish, eye and facial makeup, colored

\*Corresponding Author: Shashank Tiwari

Address: Director (Academics & Research), Lucknow Model College of Pharmacy, Lucknow

Email ✉: [shashank6889@gmail.com](mailto:shashank6889@gmail.com)

Relevant conflicts of interest/financial disclosures: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.



touch lenses, hair colors, hair sprays, toddler cosmetics have developing call for within side the international marketplace and are a useful present of nature. There are a huge variety of natural beauty merchandise to meet your beauty regime. Herbal cosmetics (Saundarya Prasadak) allow every individual to feel beautiful & healthy about themselves. They are referred to as beauty products which are formulated by using various herbal ingredients to provide defined cosmetic benefits. Indian herbs and their significance are popular worldwide. An herbal cosmetic has a growing demand in the world market and is an invaluable gift of nature. The mask traps the moisture or ingredient in the skin and creates film that helps to either hydrate, moisturize, dry or exfoliate the skin depending on the ingredients used and its purpose. Therefore, face masks allow ingredients to penetrate better into your skin in a short amount of time. Whether it's salicylic acid for acne, vitamin C for fine lines or retinoid for brightening dark spots, a face mask can offer a more concentrated dose and more intense version of its ingredients compared to other forms of applications.

### **HERBAL SHEET MASK**

Sheet masks, have been around for a long time and the benefits of using them are almost immeasurable. These masks can be used to hydrate the skin, to remove excess oils and impurities, and to improve the appearance of pores. Materials like microfibers or cellulose are used in making the sheet mask. These facial sheet masks are inexpensive so that every individuals can afford it and use easily. These are also pocket friendly so that one can avoid spending much time at spa and also in buying high expensive cosmetics. Due to the awareness of the environmental damage caused by industrialization, a trend has developed to use products with natural ingredients. Natural extracts are multi-functional and act as antioxidants to create pharmaceutical products.

### **Concept of Beauty in Ayurveda**

Beauty is the desire of every individual to give pleasure to the sense. Beauty is not always related to women rather men are more beauty consciousness as the evolution shows male animals are more beautiful. Some are beauty by birth and some are want to become beautiful. The concept of using herbs for beautification is well defined in Ayurveda. The cosmetic According to maharishi ayurveda, "Radiant Skin nourishes the internal functions responsible for building new skin cells, including liver function, pure blood, the temperature and healthy glow of the skin, moisture balance for supple skin, and efficient digestion and nutrition. Radiant Skin tablets are especially helpful for Pitta and Kapha skin types." Ayurveda decides the beauty by Sara (Structural dominance), Prakriti (Body constitution) Sanhanana (Body density), Pramana (Measurement), Twaka (Skin complexion), and Dirghayu Lakshana (Signs of long life).

### **SELECTING THE RIGHT FACE MASK SHEET**

With a sea of different types of face masks out there, choosing the perfect one can seem daunting. To make an informed decision, consider your skin type and what results you want to achieve.

Here are some common types of sheet masks to help you navigate your options:

#### **Hydrating Sheet Masks:**

If your skin craves moisture, these masks offer a deep hydration boost.

#### **Anti-Aging Sheet Masks:**

Combat signs of aging with masks often containing ingredients like collagen and peptides.

#### **Brightening Sheet Masks:**

Achieve a radiant complexion with brightening sheet masks enriched with ingredients like vitamin C.

#### **Soothing Sheet Masks**

Sensitive skin? Soothing sheet masks provide relief from redness and irritation.



### **Acne-Fighting Sheet Masks:**

Say goodbye to breakouts with masks that often contain salicylic acid. The most “important function of the epidermis is protection against external stimuli such as dehydration, UV light and other physical factors, as well as chemical factors.” Biological functions of the skin include protection, thermoregulation, sensory perception, and absorption. Skincare products are designed to improve your skin's health, while cosmetic products are only meant to cover up flaws or blemishes. In order to achieve healthy skin, you need to use both types of products.

### **Advantages of Herbal Mask Sheet**

#### **1. Thorough Cleansing**

By removing dirt, oil, makeup, and other impurities from your skin's surface, cleansing each day does assist to keep your skin clean, but did you know that using a mask properly elevates the cleansing process to a whole new level? Only a quality facial mask can assist in removing pollutants that are buried beneath the epidermis' outermost layers.

#### **2. Removes Impurities**

The ability to feel pampered like you're at a spa without leaving the comfort of your home is another advantage of wearing a face mask. It can help lessen the indications of aging.

#### **3. Unclogs Pores**

Using a mask that contains Salicylic and Adaptogen can help to eliminate dirt and soak up extra oil. Additionally, it will assist in removing the accumulation of dead skin cells that develop on the skin. Your pores will appear smaller and tighter. Unsavory substances get stuck in your pores and push all the way down, where bacteria might grow.

#### **4. Promotes Healthy Skin**

Masks can help stimulate blood circulation, particularly ones that have tingling mint in the

composition. The removal of the mask and the drying and hardening of the mask on your skin cause the blood vessels in your skin to dilate. This guarantees an improvement in skin tone overall.

### **BENEFITS OF HERBAL MASK SHEET**

Sheet masks are one of the quickest and easiest ways to give your skin that instant glow. Drenched in serum, sheet masks help your skin in more ways than one. Sheet masks offer a variety of different benefits based on the type of sheet mask you use. Whether your skin is oily or dry or somewhere in the middle, there is a sheet mask out there for every skin type.

#### **1. Hydration**

The harsh sun, dry winds, and cold air-conditioned rooms can dehydrate your skin making it feel dry and less supple. Dry skin needs deep hydration to restore its moisture levels and bring back the elasticity of the skin. There are so many benefits of sheet masks for dry skin. For example, the pomegranate serum sheet mask will restore your skin's moisture and leave your skin feeling hydrated and plump.

#### **2. Detox**

Your skin is subjected to grime, sebum, sweat, makeup, and other harsh environmental elements on an everyday basis. These toxins make their way deep into the skin and can clog your pores.

#### **3. Brighten**

Dust, pollution, and stress are some of the factors that cause your skin to look dull and worn out over time. Your skin loses its natural glow and luminosity and looks lacklustre. You can try the vitamin c serum sheet mask to brighten your skin. Infused with lemon and vitamin C.

### **MATERIALS AND METHODS OF PREPARATION**

#### **Instrument and its role/uses**

Various type of instrument used in preparation of Herbal Bath Bomb listed below:



**Table 1: List of Instruments**

Sr. No.	INTRUMENTS	ROLE/USES
1	Heating mantle	Heating
2	Weight balance	Weight
3	pH meter	Measurement of pH

**Material and its role/importance**

Various ingredients used in the preparation of Herbal Bath Bomb listed below:

**Table 2: List of Ingredients**

Sr. No	MATERIAL/INGREDIENS
1	Dragon fruit
2	Carrot
3	Aloe-vera Gel
4	Vitamin-E
5	Rosemary Essential oil
6	Rose Water
7	Tulsi
8	Clove oil
9	Glycerine

**Application of API**

**1. Dragon Fruit:**

**Biological source –**

The dragon fruit (Hylocereus undatus) is a tropical fruit that belongs to the climbing cacti (Cactaceae) family

**Uses –**

The vitamins in dragon fruit also help protect your skin from sun damage, since vitamin C and E help minimize the damage caused by harmful UV rays. the skin a healthy, youthful appearance.



**Fig.1: Dragon fruit**

**2. Carrot:**

**Biological source –**

Domestic carrots originated in Central Asia and wild carrots are indigenous to Europe etc.

**Uses –**

Vitamin C in carrots is also important for its skin health-promoting benefits. It helps the body make collagen, a protein that supports skin structure, elasticity, strength, and cell turnover. It also protects the skin from UV damage.



**Fig.2: Carrot**

**Application of Excepients:**

**1. Aloe vera:**

Biological source – Dried latex of leaves of it also known as cape aloe belong to the family- Liliaceae

Uses: Its anti-inflammatory properties can reduce pain, swelling, and soreness of wounds or injuries, it can speed up wound healing time and limits scarring and it can also reduces the healing time of first-degree and second-degree burns.



**Fig.3: Aloe vera**

## 2. Rose Water:

### Biological source –

It consists of the fresh plant of *Rosa Rubiginosa*, belonging to family Rosaceae.

### Uses –

It help regenerate skin tissues and delay the signs of aging.



**Fig.4: Rose water**

## 3. Tulsi Leaves:

### Biological source –

It consists of dried plants of *Ocimum Sanctum L* belonging to family Lamiaceae.

### Uses –

Tulsi fights acne and pimples due to its anti-bacterial and anti-fungal properties and it also soothes skin irritation.



**Fig.5: Tulsi leaves**

## 4. Rose Oil:

### Biological source –

Rose oil is obtained from the petals of difference *Rosa* species especially *Rosa centifolia L.* and *Rosa Damascena Mill.*

### Uses –

Rose oil has antiseptic, bactericidal and anti-inflammatory properties, it can be a very valuable remedy for inflammation and irritation, including eczema and allergic rashes. Soothes irritated skin, Hydrates & Nourishes the skin prevents early signs of ageing.



**Fig.6: Rose oil**

## 5. Glycerine:

Glycerine is a type of carbohydrate known as a sugar alcohol or a polyol. This odorless liquid has a sweet taste and a syrupy consistency. While glycerin occurs naturally in plants through the fermentation of sugars, most of the glycerin nowadays is produced from the hydrolysis of fats and oils.

### Uses

Glycerin is a skin product that traps moisture, giving it a youthful glow, reduces wrinkles, keeps skin soft and smooth, and improves skin function, helping to slow down aging.



**Fig.7: Glycerin**

## 6. Vitamin E:

Vitamin E is a group of eight fat soluble compounds that include four tocopherols and four tocotrienols. Vitamin E deficiency, which is rare and usually due to an underlying problem with digesting dietary fat rather than from a diet low in vitamin E, can cause nerve problems.

### Uses



Vitamin E have antioxidant properties protect skin from pollution and sun damage, promoting balance and wrinkle prevention. It also helps make skin firm and elastic, thereby reducing the appearance of wrinkles.



Fig.8: Vitamin E

### 7. Rosemary essential oil:

**Biological source –**

Rose oil is obtained from the leaves of *Salvia rosmarinus* belonging to family Lamiaceae.

**PROCESS OF MATERIAL PREPARATION:**

#### 1. Aloe-vera Gel

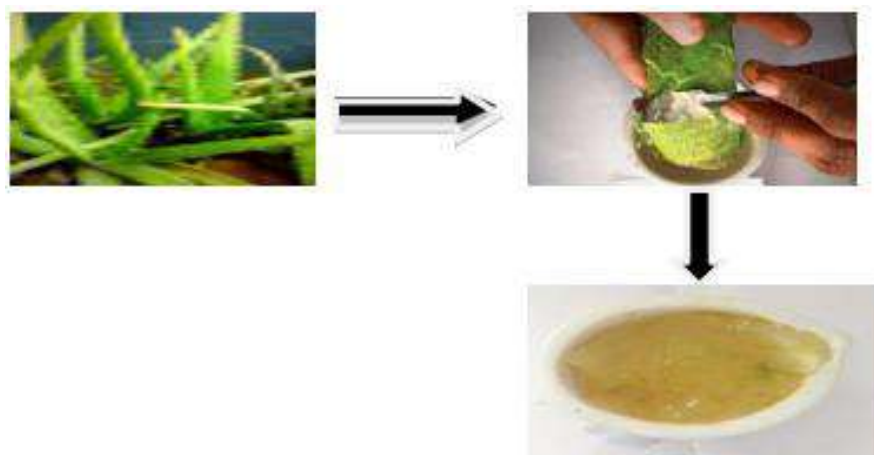


Fig.10 Aloe vera gel

#### 2. Extraction of Tulsi leaves –

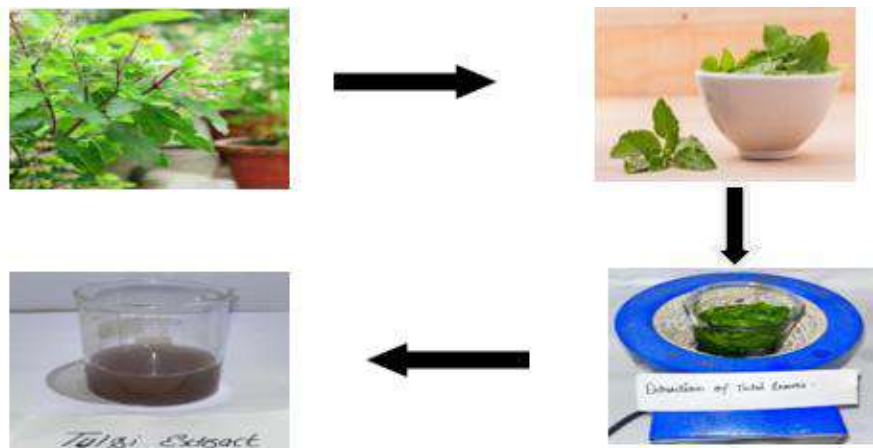


Fig.11 Extraction of Tulsi leaves

### Uses

Used in aromatherapy, Rosemary Oil helps reduce stress levels and nervous tension, boost mental activity, encourage clarity and insight, relieve fatigue, and support respiratory function.



Fig.9: Rosemary essential oil

### 3. Extraction of Dragon fruit peel –



Fig12: Extraction of Dragan fruit



Fig.13: Extraction of Carrot

### 4 Extraction of Carrot –



### FORMULATION OF HERBAL FACE MASK SHEET

We prepared two types of Face mask sheet:

- Face mask sheet F-1
- Face mask sheet F-2

#### Formulation of Herbal Face Mask Sheet F-1

Table no. 3 Formulation table of Herbal Sheet Face Mask F-1

S.no	Name of Ingredients	Quantity (ml/gm)
1.	Dragon fruit	9ml
2.	Aloe vera gel	3gm
3.	Rose water	2ml
4.	Glycerine	3ml
5.	Vitamin E	2gm
6.	Rose oil	2ml

#### PROCEDURE: FOR FORMULATION F-1

##### Mixture (A)

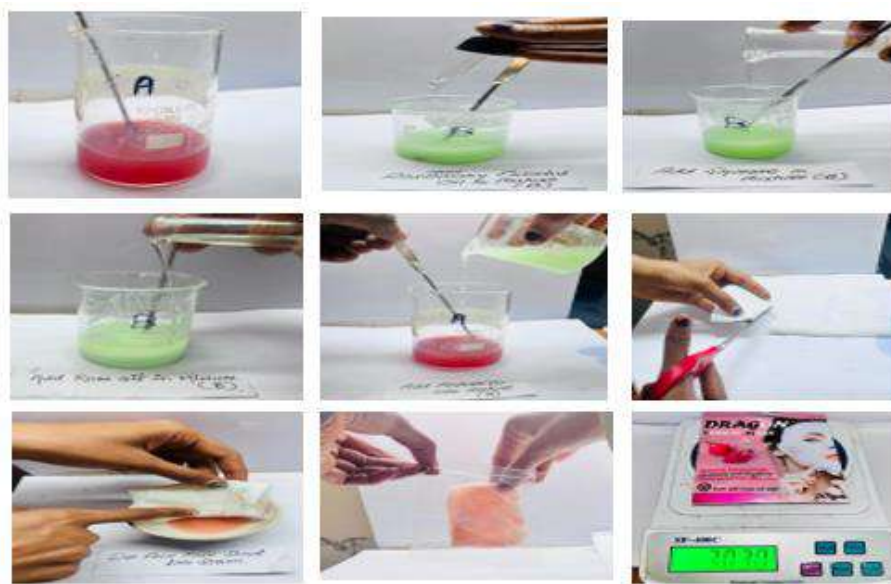
Take extraction of dragon fruit (9 ml) into the beaker.

##### Mixture (B)

Weigh all ingredients (Aloe-vera gel, Rose water, Rose oil, Glycerin, Vitamin-E) and mix them in a beaker

##### Final Steps

- Pour the mixture B into mixture A very slowly and mix it well to make the serum
- Then dip a mask sheet into serum.
- Pack a face mask sheet in the air tight polybag with lable
- Herbal face mask sheet was ready to apply



**Fig.14 Preparation of Herbal Sheet Face Mask F1.**

**Formulation of Herbal Face Mask Sheet F-2**

**Table no. 4 Formulation table of Herbal Sheet Face Mask F-2**

Sr. No.	Name of Ingredients	Quantity (ml/gm)
1.	Carrot	9ml
2.	Aloe vera gel	3gm
3.	Glycerine	3ml
4.	Vitamin – E	2gm
5.	Tulsi	7ml
6.	Clove oil	2ml

**PROCEDURE: FOR FORMULATION F-2**

**Mixture (A)**

Take extraction of Carrot (9 ml) into the beaker.

**Mixture (B)**

Weigh all ingredients (Aloe-vera gel, Tulsi extract, Clove oil, Glycerin, Vitamin-E) and mix them in a beaker

**Final Steps**

- Pour the mixture B into mixture A very slowly and mix it well to make the serum
- Then dip a mask sheet into serum.
- Pack a face mask sheet in the air tight polybag with label
- Herbal face mask sheet was ready to apply





**Fig.15: Preparation of Herbal Face Mask Sheet F-2**

## EVALUATION PARAMETERS

### 1. Organoleptic property.

The organoleptic test is carried out to see the physical appearance of the essence by observing

changes in the shape, smell and colour of the essence that has been made before and during cycling test.



**Fig.16: Organoleptic test of sample formulation 1 and formulation 2**

### 2. pH determination

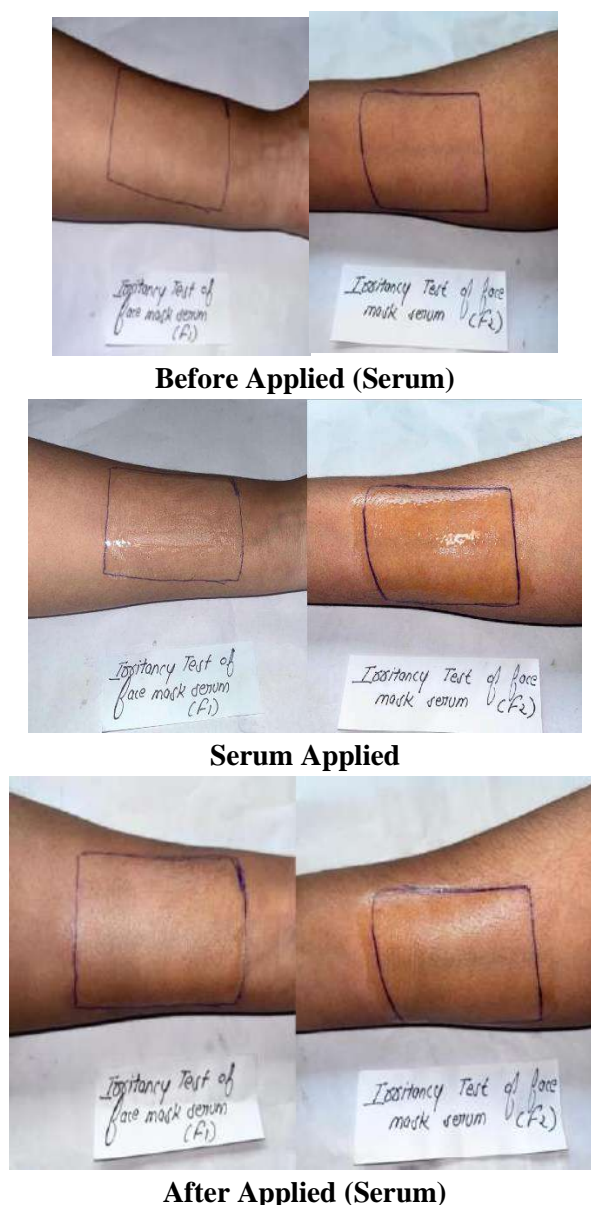
Determination of the pH of preparation is done by using a pH meter. The pH test was carried out before and during cycling test.



**Fig.17: pH Determination**

### 3. Irritability.

A small amount of serum was applied on the skin and kept it for few minutes and found to be non-irritated.



**Fig.18: Irritation test of sample formulation 1 and formulation 2**

#### 4. Determination of Homogeneity.

This test was carried out using 2 object glass, 2-3 drops of the preparation are smeared on a piece of object glass covered by another glass. The preparation must show a homogeneous arrangement and no coarse grains are visible. This homogeneity test was carried out before and during cycling test

#### 5. Spreadability test

The Spreadability of serum is crucial for its behavior on the skin. A small sample was placed

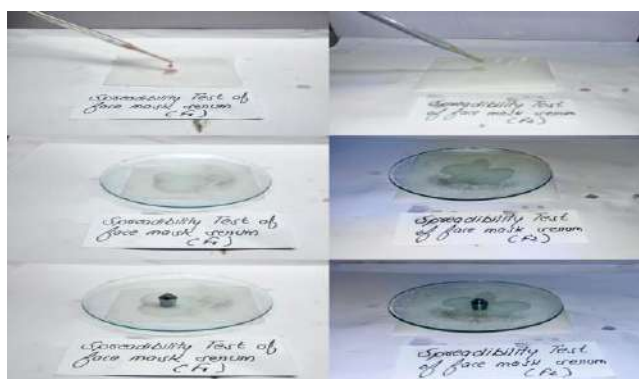
on a watch glass, and another glass was placed above it. A 100 g weight was placed on the watch glass. The time it took for the liquid to spread was measured, which was found to be 4 cm in 60 seconds It was calculated by using following formula:

$$S = m \times l / t$$

S= Spreadability m=Weight placed on slide

l=Length of the glass slide

t= Time taken in second



**Fig.19: Spreadability test of samples**

## RESULTS AND DISCUSSION

The Composition of Herbal Sheet Face Mask formulated in the laboratory was found to be compared with various parameters such as appearance, color,

odor and pH, consistency, spreadability, irritancy, homogeneity. Thus, the developed formulation can be used as an effective cosmetic.

**Table no. 5 Evaluation parameter of Herbal Face Mask Sheet**

Sr. No.	Parameter	Formulation 1 [F1]
1.	Colour	Pinky-bliss
2.	Odor	Aroma
3.	Consistency	Liquid
4.	pH	5.3
5.	Irritability	Non irritant
6.	Homogeneity	Good

## CONCLUSION

The conclusion of this study was concluded that the prepared herbal face sheet mask having no or minimum side effects. The API used in the preparation of Herbal face sheet mask is Dragon fruit and Carrot which is used as Anti-aging. All two prepared formulations shows good properties like moisturizing, and hydrate the skin, possess aroma. In this research it was also found that it provides a guideline on the effect of ingredient towards the physical properties and consumer acceptance of the Face sheet mask formulation. Hence, the use of natural ingredients is a step towards healthy cosmetics and can be widely utilized with great pleasure. The prepared Herbal face sheet mask was evaluated by the different parameters such as Organoleptic, Irritability, Spreadability, Homogeneity, pH. After completing this it was concluded that the observed reaction matched with the predicted reaction.

When the face sheet mask was applied on the face there was instant glow on the face, Among the different types of masks available, the sheet mask appears to be the most attractive due to its ease of application, high efficacy, and visible instant results, so we can use this special serum sheet mask to get rid from wrinkles and skin-aging. Furthermore, Sheet masks for dry skin are also constructed of materials such as synthetic fibers, which are incredibly absorbent and can easily contain large quantities of water. The study revealed that the face mask sheet is very effective in improving skin hydration and skin radiance, encouraging an even skin tone, reducing skin pigmentation and promote young looking skin, reducing the signs of aging.

## REFERENCES

1. Jugale P, Kadam A, et al. Preparation and Evaluation of Antifungal Bath Bomb of Ethanolic Extract of Betel Leaves, SGVU

- Journal of Pharmaceutical Research and education, 2020; 5(1): 465-470.
2. Kumar B. Sunil et al., IJSRR 2018, 7(3), 1968-1972, The Rapeutic Properties of Red Sandal Wood- A Review, IJSRR, 7(3) July – Sep., 2018.
  3. Nohynek GJ, Antignac E, Re T, Toutain H. Safety assessment of personal care products/cosmetics and their ingredients. *Toxicol Appl Pharmacol.* 2010;243(2):239–259
  4. Reveny J, Surjanto, Tanuwijaya J, Lois C, "Formulation of aloe juice (Aloe vera (L) burm.f.) sheet mask as anti-aging" *International Journal of PharmTech Research*, 2016; 9(7):105-111. 2
  5. Dewi RR, "Formulation of Cream Preparations from Lady Finger Extract (Abelmoschus esculentus (L.) Moench) as Anti-Aging" Thesis. University of North Sumatra; 2019
  6. Delviana, "Antioxidant Activity Of Ethanol Extract Of Lady Finger Leaves Abelmoschus esculentus Moench.)" *Child development*, 2008; 72: 20-22.
  7. Feringo T, "Analysis of water content, ash content, acid insoluble ash content and fat content in snacks at the Medan Research and Nurussakinah et al *Journal of Drug Delivery & Therapeutics.* 2022; 12(3):14-19 ISSN: 2250-1177 [19] CODEN (USA): JDDTAO
  8. Industrial Standardization", Thesis, University of North Sumatra, 2019.
  9. Dhobale SM, Kolhe SS, Darekar PP, Dere TR, Date SH, Poja V, Badhe PV, "Extraction, Characterization and Evaluation of Okara Mucilage" *Journal of Drug Delivery and Therapeutics*, 2019; 9(3):325-328
  10. Leny, Fitri K, Marantina R, et al., "The Moisturizing Sheet Mask Formulation of Black Soybean (Glycine soja) Ethanolic Extract" *International Journal of Advanced Science and Technology*, 2020; 29(4):9045-9051.
  11. Iskandar B. Karsono. Silalahi J. Preparation of Spray Nanoemulsion and Cream Containing Vitamin E as Anti-Aging Product Tested in Vitro and in Vivo Method 2016; 9(6):307-315.
  12. Leny, Karsono, Harahap U, "Comparison of Vitamin C (Magnesium Ascorbyl Phosphate) Formulation in Nanoemulsion Spray and Cream as Anti-aging" *International Journal of PharmTech Research*, 2016; 9(9):399-407.
  13. Aramo "Skin and Hair Diagnosis System" Sungnam: Aram Huvis Korea Ltd., 2012:1-10.
  14. .Reveny J, Surjanto, Tanuwijaya J, Lois C, "Formulation of aloe juice (Aloe vera (L) burm.f.) sheet mask as anti-aging" *International Journal of PharmTech Research*, 2016; 9(7):105 111.
  15. V. Lobo, Patil A., Phatak A., and Chandra N. "Free Radicals, Antioxidants and Functional Foods: Impact on Human Health" *Pharmacogn Rev.*, vol. 4, no. 8, (2010), pp.118–26.
  16. B. K. Armstrong, and Kricker A., "The Epidemiology of UV Induced Skin Cancer", *J Photochem Photobiol B Biol.*, vol. 63, no. 1-3, (2001).
  17. E. Birben, Sahiner U. M, Sackesen C., Erzurum S., and Kalayci O., "Oxidative Stress and Antioxidant Defense", *World Allergy Organ J.*, vol. 5, no. 1, (2012),
  18. M. Astuti, A. Meliala, Dalais F. S., and Wahlqvist M. L., "Tempe, a Nutritious and Healthy Food from Indonesia", *Asia Pac J Clin Nutr.*, vol. 9, no. 4, (2000).
  - a. L. S. Hutabarat, Greenfield H., and Mulhollan M., "Isoflavones and Coumestrol in Soybeans and Soybean Products from Australia and Indonesia", *J Food Compos Anal.*, vol, 14, no. 1, (2001), pp. 43–58.



19. Tiwari, S., & Talreja, M. S. (2020). A concept of nanotechnology in cosmetics: a complete overview. *Adalya J*, 9(11), 14-23
20. D. E. Lee, Lee K. W., Byun S., Jung S. K., Song N., Lim S. H., Heo Y. S., Kim J. E., Kang N. J., Kim B. Y., Bowden G. T., Bode A. M., Lee H. J., and Dong Z., "7,3',4 Trihydroxyisoflavone, a Metabolite of the Soy Isoflavone Daidzein Suppresses Ultraviolet B-Induced Skin Cancer by Targeting Cot and MKK4", *J Biol Chem.*, vol. 286, no. 16, (2011).
21. H. S. Chiang, Wu W. B., Fang J. Y., Chen B. H., Kao T. H., and Chen Y.T., "UVB Protective Effects of Isoflavone Extracts from Soybean Cake in Human Keratinocytes", *Int J Mol Sci.*, vol. 8, no. 7, (2007).
22. F. R. Zakaria, Firdaus D. P. R., and Yuliana N. D., "Konsumsi Tahu Kedelai Hitam Untuk Memperbaiki Nilai SOT/SGPT dan Aktivitas Antioksidan Plasma Penderita Diabetes Tipe 2", *Pangan.*, vol. 25, no. 2, (2016).
23. B. Xu., and Chang S. K. C., "Total Phenolic, Phenolic Acids, Isoflavones, and Anthocyanins and Antioxidant Properties of Yellow and Black Soybeans as Affected by Thermal Processing", *J Agric Food Chem.*, vol. 56, no. 16, (2008), pp. 7165–75.
24. Talreja, S., & Tiwari, S. (2021). Concept of Health Across Different Ages: A Review. *Asian Journal of Pharmaceutical Research and Development*, 9(2), 53-56
25. K. Ganesan, and Xu B., "A Critical Review on Polyphenols and Health Benefits of Black Soybeans", *Nutrients.*, vol. 9, no. 5, (2017).
26. C. R. Correa, Li L., Aldini G., Carini M., Oliver Chen C. Y., and Chun H. K., "Composition and Stability of Phytochemicals in Five Varieties of Black Soybeans (*Glycine max*)", *Food Chem.*, vol. 123, no. 4, (2010), pp. 1176–84.
27. P. Morganti, Morganti G., Chen H., Gagliardini A., "Beauty Mask: Market and Environment", *J Clin Cosmet Dermatology*, vol. 3, no. 2, (2019).
28. M. A. Nilforoushzadeh, Amirkhani M. A., Zarrintaj P., Salehi M. A., Mehrabi T., and Alavi S., "Skin Care and Rejuvenation by Cosmeceutical Facial Mask", *J Cosmet Dermatol.*, vol. 17, no. 5, (2018), pp. 693–702.
29. E. R. Wikantyasning, Nurhakimah U. F., Sula R. D., and Astuti K. F., "Optimasi Formulasi Esens Sheet Mask Kombinasi Ekstrak Spirulina platensis dan Nanopartikel Bentonit dengan Metode Simplex Lattice Design", *Pharmacon J Farm Indones.*, vol. 16, no. 1, (2019), pp. 18–27.
30. N. N. Azwanida. "A Review on the Extraction Methods Use in Medicinal Plants, Principle, Strength and Limitation", *Med Aromat Plants.*, vol. 4, no. 196, (2015), pp. 412– 2167.
31. C. K. Zhoh, Lee M. H., Kim I. Y., and Shin J. Y., "Skin Improvement Effect of Mask Pack with Snail Fermented Extracts", *J Korean Oil Chem Soc.*, vil. 33, no. 1, (2016), pp.30–40.
32. M. N. Padamwar, Pawar A. P., Daithankar A. V., and Mahadik K. R., "Silk Sericin as a Moisturizer: An In Vivo Study", *J Cosmet Dermatol.*, vol 4, no. 4, (2005), pp. 250–7.
33. D. Kasei, "Asian Trend and Formula", Daito Kasei Kogyo CO.LTD, Tokyo, (2015).
34. M. A Volkert, and Klein B. P., "Protein Dispersibility and Emulsion Characteristics of Four Soy Products", *J Food Sci.*, vol. 44, no. 1, (1979), pp. 93–6.
35. B. Algiert-Zielińska, Batory M., Skubalski J., and Rotsztejn H., "Evaluation of the Relation between Lipid Coat, Transepidermal Water Loss, and Skin pH", *Int J Dermatol.*, vol. 56, no. 11, (2017), pp. 1192–7.
36. J. Medina, De Brugerolle De Fraissinette A., Chibout S. D., Kolopp M., Kammermann R, and Burtin P., "Use of Human Skin Equivalent

- Apligraf for In Vitro Assessment of Cumulative Skin Irritation Potential of Topical Products", *Toxicol Appl Pharmacol.*, vol.164, no. 1, (2000), pp. 38–45.
37. L. P. Bernhofer, Seiberg M., and Martin K. M., "The Influence of the Response of Skin Equivalent Systems to Topically Applied Consumer Products by Epithelial-Mesenchymal Interactions", *Toxicol Vitr.*, vol. 13, no. 2, (1999), pp. 219–29.
38. E. Schnetz, Diepgen T. L., Elsner P., Frosch P. J., Klotz A. J., and Kresken J.,
39. "Multicentre Study for the Development of an In Vivo Model to Evaluate the Influence of Topical Formulations on Irritation", *Contact Dermatitis*, vol. 42, no. 6, (2000).
40. J. Mierziak, Kostyn K., and Kulma A., "Flavonoids as Important Molecules of Plant Interactions with the Environment", *Molecules*, vol. 19, no. 10, (2014).
41. M. Y. Juan, and Chou C. C., "Enhancement of Antioxidant Activity, Total Phenolic and Flavonoid Content of Black Soybeans by Solid State Fermentation with *Bacillus subtilis* BCRC 14715", *Food Microbiol.*, vol. 27, no. 5, (2010), pp. 586–91.
42. R. Takahashi, Ohmori R., Kiyose C., Momiyama Y., Ohsuzu F., and Kondo K., "Antioxidant Activities of Black and Yellow Soybeans Against Low Density Lipoprotein Oxidation", *J Agric Food Chem.*, vol. 53, no. 11, (2005), pp. 4578–82.

**HOW TO CITE:** Sunil Mishra , Shashank Tiwari , Sushil Kumar Pal , Prabha Shukla , Formulation And Evaluation Of Herbal Face Mask Sheet, *Int. J. of Pharm. Sci.*, 2024, Vol 2, Issue 9, 147-160. <https://doi.org/10.5281/zenodo.13645851>

