



ORION  
SCHOLAR JOURNALS

# International Journal of Scientific Research Updates

Journal homepage: <https://orionjournals.com/ijsru/>

ISSN: 2783-0160 (Online)



(RESEARCH ARTICLE)



## Formulation and evaluation of herbal makeup primer

Najeebullah<sup>1</sup>, Shashank Tiwari<sup>2,\*</sup> and Abdul Aleem<sup>1</sup>

<sup>1</sup> Lucknow Model College of Pharmacy, Lucknow, India.

<sup>2</sup> Academics & Research, Lucknow Model College of Pharmacy, Lucknow, India.

International Journal of Scientific Research Updates, 2024, 08(02), 060–066

Publication history: Received on 03 September 2024; revised on 15 October 2024; accepted on 17 October 2024

Article DOI: <https://doi.org/10.53430/ijsru.2024.8.2.0057>

### Abstract

The burgeoning interest in natural and sustainable beauty products has driven the development of herbal makeup primers, which combine cosmetic functionality with the benefits of botanical ingredients. This abstract explores the formulation, efficacy, and advantages of herbal makeup primers. Unlike traditional primers that often rely on synthetic chemicals, herbal primers leverage plant-based extracts known for their skin-enhancing properties, such as aloe vera and orange oil. These ingredients offer soothing, anti-inflammatory, and antioxidant benefits that can improve skin texture and promote a healthier complexion. The formulation of herbal makeup primers typically includes a blend of herbal extracts, essential oils, and natural emulsifiers. These components work synergistically to create a smooth base for makeup application while also addressing skin concerns such as redness, dryness, and uneven tone. Clinical and consumer studies suggest that herbal primers can enhance makeup longevity and performance, while simultaneously contributing to overall skin health. In summary, herbal makeup primers represent a significant advancement in cosmetics science by integrating the therapeutic benefits of herbal ingredients into everyday beauty routines. Their growing popularity underscores a shift towards more eco-friendly and skin-conscious beauty solutions, aligning with consumer demand for products that offer both cosmetic and therapeutic benefits. Future research and development in this field are likely to expand the range of available formulations and further validate the efficacy of these natural alternatives.

**Keywords:** Orange Oil; Aloe Vera; Makeup Primer; Anti-inflammatory; Anti-Oxidant; Synergism

### 1. Introduction

Herbal makeup primers are cosmetic products designed to create a smooth base for makeup application while incorporating natural, plant-based ingredients. Unlike traditional primers, which may contain synthetic chemicals, herbal primers utilize extracts from herbs, flowers, and other natural sources. These ingredients often provide additional skincare benefits, such as hydration, soothing effects, or antioxidant protection. By blending makeup preparation with natural skincare, herbal primers aim to enhance makeup longevity and improve skin health simultaneously. They are appealing to those seeking a more natural or holistic approach to their beauty routine. The natural ingredients and skin-benefiting properties of herbal makeup primers have made them more and more popular in recent years. To reduce pores, produce a smooth canvas, and extend the wear of cosmetics, primer is applied before foundation. Herbal makeup primers are made with natural elements that are proven to be nutritious and skin-loving, such as oils and plant-based extracts, as opposed to conventional primers that could contain synthetic chemicals. Formulated with botanical extracts and herbal components, herbal makeup primer is a natural substitute for conventional makeup primers. It acts as a foundation for makeup application, smoothing the skin's surface, reducing the visibility of pores, and improving the complexion's evenness. In general, herbal makeup primers promote both aesthetic and skincare benefits by providing a mild and botanical method of priming the skin for makeup application. Herbal makeup primers represent a fusion of traditional beauty practices and modern cosmetic science. As an essential

\* Corresponding author: Shashank Tiwari.

step in many makeup routines, these primers are formulated to prepare the skin by creating an even surface, minimizing the appearance of pores, and enhancing the longevity of makeup. These natural ingredients are known for their various skin benefits. For instance, aloe Vera offers soothing and hydrating properties, while orange oil provides antioxidant protection against environmental stressors. Herbal primers often aim to be gentle on the skin, making them suitable for those with sensitive or reactive skin types.



**Figure 1** Make up primer

### **1.1. Herbal Make Up Primers Serve Several Purposes:**

#### *1.1.1. Smoothness Skin Texture*

They create a smooth canvas for makeup application by filling in fine lines, pores, and other imperfections, resulting in a more even and flawless makeup finish.



**Figure 2** Smoothness Skin Texture

#### *1.1.2. Increases Makeup Longevity*

By providing a barrier between the skin and makeup, herbal primers help to extend the wear-time of makeup, preventing it from fading, creasing, or smudging throughout the day.

#### *1.1.3. Hydrates and Nourishes*

Herbal ingredients like aloe Vera, green tea extract, and chamomile soothe and hydrate the skin, promoting a healthy complexion and preventing dryness.

#### *1.1.4. Non-Irritating*

Since herbal makeup primers are made from natural ingredients, they are often gentles on sensitive skin and less likely to cause irritation or allergic reactions compared to primers containing synthetic chemicals.

### **1.2. Types of Primer**

#### *1.2.1. Gel Primer*

Gel Primers are ideal for dry skin as the purpose of this primer is to keep the skin hydrated and give a smooth finish. Now a days you get hyaluronic acid and antioxidants in gel primers for more effective results.



**Figure 3** Gel Primer

### 1.2.2. Tinted Primer:

This type of primer can be either gel or liquid form with a touch of tint. Tinted primers are used for having sheer coverage on skin that hides fine lines and wrinkles on the face.

### 1.2.3. Cream-based Primer

The texture of this primer will be creamy works perfectly to give better coverage and blends well while giving you the one shade with better pigmentation than tinted ones.

### 1.2.4. Eye Primer

There's also a primer for eyes, as eye makeup requires a special application to get it done properly. This primer helps in the color correction of eyelids before applying makeup.

### 1.2.5. Lip Primer

Our lips lose their natural color with time and become pale; to curb this problem, lip primer or lip liner is applied to prepare the base of applying lipstick. This in turn helps lipstick to stay for a long time and brings the pigment of the shade at best.

---

## 2. Materials and methods

Experimental Requirements: - Heating Mantle, Weighing balance, orange oil, Aloe Vera, Carbopol, Glycerin, Tween 20, Kaolin, Methanol, Propyl paraben.

### 2.1. Materials

#### 2.1.1. Botanical Extracts

Aloe Vera Extract: Known for its soothing and moisturizing properties.

#### 2.1.2. Base Ingredients

- Emulsifiers: Such as Carbopol and Tween 20 to stabilize the formulation and blend oil and water components.
- Carrier Oils: Orange oil, which provides hydration and enhances the spread ability of the primer.
- Kaolin: Used to create a smooth texture and improve the primer's ability to minimize the appearance of pores.
- Preservatives: Such as natural preservatives (e.g., Propylparaben) to ensure product stability and longevity.

#### 2.1.3. Solvents and Bases

- Distilled Water: The primary solvent for dissolving extracts and mixing ingredients.
- Glycerin: A humectant that helps retain moisture in the skin.
- Methanol: Methanol is primarily used in industrial applications, such as solvents for extraction processes.

### 2.2. Methods

#### 2.2.1. Preparation of Botanical Extracts

Extract active ingredients from dried herbs and orange peel using a suitable solvent (e.g., Methanol) through Decoction techniques.

Filter the extract to remove solid residues and concentrate the liquid to the desired potency.

#### 2.2.2. Formulation of the Primer

- Phase 1: Oil Phase Preparation

Heat carrier oils and natural emulsifiers to a temperature of 70-75°C to melt and blend them thoroughly.

Incorporate kaolin into the oil phase to achieve the desired texture.

- Phase 2: Water Phase Preparation

Heat distilled water and glycerin to 70-75°C.

Slowly add botanical extracts to the water phase while stirring to ensure even distribution.

- Phase 3: Emulsification

Slowly combine the oil phase and water phase under continuous stirring until a uniform emulsion is achieved.

Use a high-shear mixer if necessary to ensure stability and a smooth texture.

### 2.2.3. Incorporation of Additives

After cooling the emulsion to around 40°C, blend in essential oils and any additional preservatives.

Stir thoroughly to ensure that additives are well integrated into the primer.

### 2.2.4. Packaging

Package the primer in air-tight containers to preserve the integrity of botanical extracts and maintain product stability.

Label the product with usage instructions, ingredient list, and any necessary precautions.

By following these materials and methods, a well-balanced herbal makeup primer can be formulated, offering both cosmetic benefits and skin-enhancing properties derived from natural sources.

## 2.3. Formulation of herbal make up primer

**Table 1** Ingredients & their quantity for Makeup Primer

S.n.	Ingredients	Quantity
1	Orange Oil	2ml
2	Aloe Vera	10ml
3	Carbopol	1gm
4	Glycerine	0.5ml
5	Tween20	1ml
6	Kaolin	5gm
7	Methanol	5gm
8	Propyl paraben	0.5gm

### 2.3.1. Procedure:

In a clean beaker, 10 ml of Aloe Vera is combined with 1 gm of Carbopol, and the mixture is stirred thoroughly until fully blended. To this mixture, 0.5 ml of glycerin is added and stirred until evenly distributed. Next, 1 ml of Tween 20 is incorporated, followed by the gradual addition of 5 gm of kaolin, stirring continuously to prevent the formation of clumps. Afterward, 5 ml of methanol and 0.5 gm of propyl paraben, which acts as a preservative, are introduced. Finally, 2 ml of orange oil, the active pharmaceutical ingredient (API) in the formulation, is added while stirring continuously to ensure a smooth, creamy consistency is achieved, avoiding any clumping.

## 2.4. Evaluation parameter of herbal make up primer

The various factors and tests required for the new formulation were assessed in relation to the prepared primer. The product's safety and quality were validated by these assessments. Numerous evaluation parameters have been completed and compared to standard standards.

#### *2.4.1. Organoleptic properties*

When dryness, wetness, and stale-fresh factors are to be taken into account, organoleptic properties refer to the characteristics of primer or other substances as perceived by the senses, such as color, sight, smell, homogeneity, and touch. The prepared formulation, as shown in Table, underwent an organoleptic evaluation, which provided information on its color, odor, appearance, texture, and other aspects. It was determined to be agreeable, smooth, and suitable.

#### *2.4.2. Solubility*

The degree of solute dissolution in a solvent, measured in grams per liter of solvent, is what creates a solution. One fluid's (liquid or gas') solubility in another might be partial (oil and water dissolve only slightly) or complete (completely miscible; methanol and water, for example). I tested the produced compositions' solubility in lipophilic and hydrophilic solvents.

#### *2.4.3. Wetness (moisturizing property)*

The quality of being submerged or saturated in liquid, such as water. In doing so, I examined each formulation's moisturizing capabilities.

#### *2.4.4. pH test*

The general pH of most of the primer is seven (7.0). So they are mostly neutral, but also it depends on the fragrance because if they use acid ingredients to give a smell, like lemon orange, or even flowers, this makes the primer more.

#### *2.4.5. Irritancy test*

Fragrance sensitivity can be defined as irritation or adverse reaction to chemicals in a primer or other cosmetic products such as foundation and cosmetics. Sensitivity and strong odors can make those who are allergic to these products severely ill.

#### *2.4.6. Absorption*

The absorption of primer into the skin depends upon its physicochemical properties, the manner in which it is presented to the skin (i.e., the "vehicle" in which it is applied), the "skin environment", and the duration of exposure.

#### *2.4.7. Fragrance longevity*

Longevity refers to how long a fragrance can last on your skin.

---

### **3. Results and discussions**

#### **3.1. Color**

The herbal makeup primer exhibited an orange-yellow hue, which aligns with the ingredients used, such as orange oil. The vibrant color adds a visual appeal to the product, and is likely to be associated with natural formulations by consumers.

#### **3.2. Odor**

The primer had a distinct orange fragrance, which is both refreshing and characteristic of the orange oil used. This natural citrus scent adds to the product's appeal, making it pleasant for users, particularly those who prefer herbal or fruity fragrances.

#### **3.3. Homogeneity**

The formulation was found to be homogenous, indicating a uniform mixture of ingredients without phase separation. This is a critical factor for ensuring consistent application and stability of the product over time.

#### **3.4. pH**

The pH value of the primer was measured at 7.0, which is neutral. This makes it ideal for skincare products as it maintains the skin's natural balance, reducing the likelihood of irritation or discomfort.

### 3.5. Absorption

The primer absorbed into the skin within 12 seconds, which is a favorable result. Fast absorption is crucial for makeup primers as it allows users to quickly move on to the next step of their makeup routine without waiting for the product to dry.

### 3.6. Skin Irritancy:

No skin irritancy was observed during the testing phase. This result is particularly important as it demonstrates the product's suitability for sensitive skin and supports the claim of using natural, gentle ingredients.

**Table 2** Result & its parameters

S.No.	Parameter	Result
1	Color	Orange yellow
2	Odor	Orange
3	Homogeneity	Homogenous
4	pH	7.0
5	Absorption	12 second
6	Skin irritancy	No

## 4. Conclusion

In conclusion, the development of the herbal makeup primer and its evaluation offer a novel approach to the creation of cosmetic products, which is in line with the rising demand from consumers for sustainable and natural beauty products. Throughout the process, a variety of herbal extracts and components were carefully chosen and combined to produce a primer that provides skincare advantages in addition to acting as a foundation for makeup application. Each ingredient's qualities were carefully considered during the formulation process to ensure that the herbal makeup primer would work well together and effectively to achieve the intended skincare and cosmetic results. We were able to develop a primer that not only improves the endurance and adherence of makeup but also nourishes and protects the skin by utilizing the power of herbs that are recognized for their hydrating, calming, and antioxidant qualities. We made sure the herbal makeup primer fulfilled the highest standards of quality, safety, and performance through stringent evaluation and testing procedures, such as stability testing, skin compatibility testing, and efficacy assessments. The outcomes of these assessments have confirmed the primer's efficacy and compatibility for a variety of skin types, including sensitive skin, and have reinforced its promise as an inclusive and adaptable beauty product.

## Compliance with ethical standards

### *Disclosure of conflict of interest*

No conflict of interest to be disclosed.

## References

- [1] Shaikh, S., & Jadhav, K. (2020). Herbal Cosmetics: A Review. *Research Journal of Topical and Cosmetic Sciences*, 11(1), 1-6.
- [2] Barel, A. O., Paye, M., & Maibach, H. I. (2014). *Handbook of Cosmetic Science and Technology*. CRC Press.
- [3] Mishra, A., Verma, R., & Jha, S. (2013). Formulation and Evaluation of Herbal Cosmetics Containing Curcuma longa and Aloe vera Extract. *International Journal of Pharmaceutical Sciences and Research*, 4(6), 2346-2349.
- [4] Tiwari, S., & Talreja, M. S. (2020). A concept of nanotechnology in cosmetics: a complete overview. *Adalya J*, 9(11), 14-23.
- [5] Kaur, I. P., & Agrawal, R. (2007). Role of Novel Delivery Systems in Herbal Cosmetics. *Indian Journal of Pharmacology*, 39(4), 160-163.

- [6] Sharma, P. P. (2005). *Cosmetics: Formulation, Manufacturing, and Quality Control*. Vandana Publications.
- [7] Tiwari, S., Talreja, M. S., & Pandey, M. S. (2020). A review on use of novel drug delivery systems in herbal medicines. *Science and Engineering Journal*, 24(8), 190-197.
- [8] Bedi, M. K., & Shenefelt, P. D. (2002). Herbal Therapy in Dermatology. *Archives of Dermatology*, 138(2), 232-242.
- [9] Vyas, P. (2010). Formulation and Evaluation of Herbal Cream Containing Curcuma longa and Tamarindus indica Extracts for Anti-aging Activity. *International Journal of Research in Pharmaceutical and Biomedical Sciences*, 1(1), 55-61.
- [10] Mithal, B. M., & Saha, R. N. (2000). *A Handbook of Cosmetics*. Vallabh Prakashan.
- [11] Puri, H. S. (2002). *Rasayana: Ayurvedic Herbs for Longevity and Rejuvenation*. CRC Press.
- [12] Anuradha, K. P., & Karthikeyan, K. (2013). Herbal Cosmetics and Cosmeceuticals: A Review. *Asian Journal of Pharmaceutical and Clinical Research*, 6(3), 1-8.
- [13] Tiwari, R., & Shukla, A. (2016). Herbal Cosmetics: The Emerging Trends in Skin Care Industry. *International Journal of Green Pharmacy*, 10(2), 81-84.
- [14] Rieger, M. M. (2000). *Harry's Cosmeticology*. Chemical Publishing Co.
- [15] Lodén, M., & Maibach, H. I. (2012). *Treatment of Dry Skin Syndrome: The Art and Science of Moisturizers*. Springer.
- [16] Talreja, S., & Tiwari, S. (2024). Revelation the sea's secret: Seaweed's rise as a potent cosmetic ingredient.
- [17] Singh, R., & Sharma, A. (2013). Herbal Cosmetics: Trends in Skin Care Formulation Using Natural Ingredients. *International Journal of Research in Cosmetic Science*, 3(1), 1-6.
- [18] Brummer, R. (2006). *Rheology Essentials of Cosmetic and Food Emulsions*. Springer.
- [19] Sahu, P., & Singh, S. (2012). Herbal Cosmetics: The Next Generation of Beauty Products. *Journal of Natural Products and Resources*, 1(1), 23-29.
- [20] Mishra, Sunil, Shashank Tiwari, Sushil Kumar Pal, and Prabha Shukla. "Formulation And Evaluation of Herbal Face Mask Sheet.
- [21] Arora, R., & Sharma, A. (2011). *Cosmeceuticals and Herbal Drugs: Practical Applications*. CBS Publishers & Distributors.
- [22] Kapoor, V. P., & Singh, P. (2010). Herbal Cosmetics: Current Status and Future Prospects. *Journal of Medicinal Plants Research*, 4(6), 354-361.
- [23] Najeebullah, Shashank Tiwari, Harsh Rajpoot, Formulation and Evaluation of Herbal Makeup Remover Oil, *Int. J. of Pharm. Sci.*, 2024, Vol 2, Issue 9, 295-306. <https://doi.org/10.5281/zenodo.13695536>
- [24] Ansel, H. C., & Allen, L. V. (2004). *Pharmaceutical Dosage Forms and Drug Delivery Systems*. Lippincott Williams & Wilkins.
- [25] Rawlings, A. V., & Harding, C. R. (2004). Moisturization and Skin Barrier Function. *Dermatologic Therapy*, 17(1), 43-48.