

## Review on Various Herbal Lip Balm

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**Abstract:** Lip balm is a waxy substance that is applied to the lips to keep them moisturized. The lip balm was developed to protect the lips from external influences such as the winter cold and to prevent dry and chapped lips. The lip balm prevents irritation and infection to lips. It also reduces the pain associated with chapped lips. The ingredients used in making the lip balm moisturize the lips and help heal chapped lips. Most of them have a waxy texture. A lip balm is a moisturizer that is applied to the lips to keep them from drying out and to protect the lips from environmental influences. The lip-care products for everyday basis contains harmful heavy metals and preservatives Other than leaching through the pores on your lips, these heavy metals and other chemicals can also be accidentally ingested. Lip balm formulations are most widely used to enhance the beauty of lips and add glamour touch to the make-up. Lip balms offer a natural way to maintain and promote healthy lips. Current cosmetic lip products are based on use of enormous chemical ingredients which has a various side effect. Hence, an attempt has made to study the natural ingredients which is used to formulate the natural lip balm. The natural lip balm can be made using naturally occurring base, oils, colour, flavouring agent etc. Organic lip balm nourishes the lips and help to get hydrated and protect lips which are affected by the dryness. Organic lip balm could be better option for treatment of various lip issues. Lip balm is the one of regularly use cosmetics item. to keep them from drying out and to protect the lips from environmental influences. Use of herbal ingredients in lip balm decreases the negative effect.

**Keywords:** Organic Lip balm, Natural Ingredients, Lip Care Cosmetics, Herbal lipMoisturizer

### I. INTRODUCTION

Cosmetic plays a significant role in today's life style. Moreover current trend is going green in almost all industries including cosmetics to adopt more natural way of life. The preferable choices are natural food, herbal medicines and natural curing practices for healthy life and also there is much demand for the organic vegetable products. The usage of herbal cosmetics has been increased to many folds in personal care system<sup>[1]</sup>. Natural products have been used for folk medicine purposes throughout the world for thousands of years. Many of them have pharmacological properties such as antimicrobial, anti-inflammatory and cytostatic effects. They have been recognized as useful for human medicine<sup>[2]</sup>. Due to the presence of hazardous synthetic excipients in cosmetics, there has been a great public concern regarding the use of organic sources. Lips do not have any oil glands; thus, it is really important to provide that extra moisture and protection throughout the day. Conventional lip balm often contains petrolatum, synthetic waxes, alumina, paraben, hydrogenated oils and artificial fragrances and colors which are toxic. Often the lip balm is eaten by the user, thus it becomes major issue for health<sup>[3]</sup>. The lips become chapped, dry and develop cracks particularly in harsh environmental conditions. As the lips do not have any oil glands in the anatomical structure, these require extra care, extra moisturization and protection throughout the daytime. There is a huge population which have problem of dryness of lips in winters and some of these problems are continued to summer seasons also. The synthetic lip balms contain petrolatum, synthetic waxes, parabens, alumina and artificial fragrances and colors which are toxic. The lip balms may accidentally be eaten by the people and should a detailed study on the ingredients used to formulate the lip balms to avoid any acute or chronic effects due to these ingredients. According to WHO estimate about 3.5 billion people worldwide are affected by oral diseases and one of the studies reveals 18.8 percentage of patient presented with various lesions with male being more commonly affected than female. Current cosmetic lip products are based on use of enormous chemical ingredients which has a various side effect. Hence, an attempt has made to study the natural ingredients which is used to formulate the natural lip balm. The natural lip balm can be made using naturally occurring base, oils, colour, flavouring agent etc.

**Rational Of Work:**

**AIM AND OBJECTIVE:**

**Aim:** To study on various herbal lip balm. Ki

**Objective:**

- To protects the natural health of lips.
- To moisturize, hydrate and protect lips that are prone to chapping and dryness.
- To nourish and improve the appearance the lip.

**II. LITERATURE REVIEW**

**What is herbal lip balm?**

Lipbalm consist of a moisturizing balm that is use to protect and nourish the lip which can be scented, flavoured or natural depending on the ingredient

Ultra hydration for soft beautiful lips. heal chapped lips nourishes and moistured lips keep you lips soft and supple protect lips from sun damage it is made up from natural sources i.e leaves, fruit.

**Advantages and Disadvantages of herbal lip balm:**

**Advantages of herbal lip balm:**

- Lip balm protects the skin's natural health and beauty lips.
- Sunscreen lip balms have been shown to protect against UV rays Avoid damaging your lips
- Lip balm products help protect cold-affected lips Scratches, cracks, dryness.
- Use Natural Lip Cosmetics to Treat Lip Appearance Face and skin conditions <sup>[14]</sup>.

**Disadvantages of herbal Lip balm:**

- Lip balms made with inferior ingredients can be harmful Lips are serious. Such lip balms can dry out your lips instead of moistening.
- Lip balm addiction is another common drawback in their use.
- More natural color and flavor Difficult to obtain and has stability issues in the product Natural oils do not contain greasy, it is comedogenic and difficult to spread <sup>[15]</sup>

**Types of Lip balm:**

**Tinted Lip balm**

The tinted lip balm is a kind of lip balm used to moisturize and colour the lips. Tinted lip balms are a great substitute if the user doesn't want to apply a deep coat of lipstick. The tinted lip balm is used by users not just for moisturizing but also gives the lips a luminous wash colour <sup>[11]</sup>.

**Medicated Lip balm**

The medicated lip balm is a kind of lip balm that is used or is prescribed by doctors for chapped lips. Medicated lip balms are most likely to be the least soothing and irritating lip balms amongst the others. This lip balm is usually prescribed by dermatologists in medication for chapped lips and other conditions regarding the lips **Flavoured Lip balm**

The flavoured lip balm is a kind of lip balm which has flavourings. Flavoured lip balms are lip balms that are added with flavour such as vanilla, mint, mango and many more fruity. This lip balm is made for moisturizing and is also added with special flavours in order to entice the taste buds and smell of the users <sup>[13]</sup>.

**Organic Lip balm**

The organic lip balm is a kind of lip balm which have organic or natural ingredients. While there are other lip balms which has chemical ingredients that may harm the lips and skin, the organic lip balm is usually made from organic

ingredients such as avocado oils, jojoba oils, beeswax, vitamin E, hemp, and cocoa butter. The organic lip balm still functions like any other lip balms, which provides moisture and protection from dry and chapped lips.

### SPF Lip balm

The SPF lip balm is a kind of lip balm which contains ingredients that protect the lips from the harmful effects of the Sun's rays. The SPF lip balm functions like a sunscreen to protect the lips from sun

**Calendula (*Calendula officinalis*):** Known for its soothing properties, calendula is great for dry or chapped lips.

**Lavender (*Lavandula spp.*):** Lavender not only provides a pleasant scent but also has calming and healing properties.

**Chamomile (*Matricaria chamomilla*):** Chamomile is anti-inflammatory and can help soothe irritated lips.

**Peppermint (*Mentha piperita*):** Adds a cooling sensation and refreshing flavour and can also be soothing.

**Rose (*Rosa spp.*):** Rose petals or rose essential oil provide a lovely fragrance and gentle moisturizing properties

**Coconut Oil (*Cocos nucifera*):** While not an herb per se, coconut oil is often used as a base due to its moisturizing and nourishing properties.

Damage, burning, and even skin

**Beeswax (*Cera alba*):** Used as a base ingredient, beeswax helps solidify the lip balm and provides a protective barrier. This substance is very moisturizing, can help protect the lips from the harmful rays of the sun, and has a pleasant smell. Beeswax act as a natural emulsifier

[5].

**Jojoba Oil (*Simmondsia chinensis*):** Jojoba oil is moisturizing and similar to the natural oils produced by our skin, making it a good addition.

**Shea Butter (*Butyrospermum parkii*):** Known for its emollient properties, shea butter helps soften and protect lips.

**Almond Oil (*Prunus Amygdalus dulcis*):** Adds moisture and a mild, nutty aroma. Almond oil penetrates deep into the skin tissue and its fatty acids help to moisturize the lips. The anti-inflammatory properties of almond oil reduce redness and pain associated with chapped and sunburn lips [7].

**Beetroot:** beetroot is a coloring agent also uses vitamin E as an antioxidant. Beetroot is rich in antioxidants that make the lips soft, supple and improve the elasticity of the skin [9].

**Honey And Olive oils:** The concentration of olive oil affects the texture of lip balm. Honey adds a touch of extra sweetness and a boost of soothing anti-bacterial goodness to the recipe

**Aloe vera and bit root:** The aloe vera plant has considerable potential as a raw material for natural medicine. the watery gel-like substance found in aloe vera leaves has soothing, healing, and anti-inflammatory properties. Aloe Vera has anti-inflammatory properties that fight irritation. It infuses the lips with antioxidants that fight wrinkles and other forms of skin damage [8].

**Carica papaya leaves:** papaya leaves help in to protect lips from chapping it contain vitamin c which helps in lightening and brightening lips reducing inflammation and improving blood sugar control it helps to reduce dryness of lips

### Diseases and Disorders related to lips:

#### Swelling:

An allergic reaction can cause your lips to swell. Reactions can be caused by certain foods or hypersensitivity to foods. Beverages, drugs, lipsticks, airborne irritants. if the cause can be identified and removed. Lips usually grow back too ordinary. However, in many cases, the cause of swelling remains. secret. A condition called hereditary angioedema may develop. It leads to recurrence of swelling. Non-genetic disease Erythema multiforme, sunburn, cold and dryness, etc. Or the lips may swell due to trauma [16].



Fig: Lip Edema

**Sun Damage:**

Lips are particularly susceptible to sunburn Lower lip, hard and dry. Red spots or white filmsignal damage that increase the likelihood of later one's cancer. This kind of damage can be mitigated by covering. Apply a lip balm that contains sunscreen or cover your lips with a protective layer a wide-brimmed hat protects you from the harmful rays of the sun [17].



Fig: Sunburned lip

**Inflammation: -**

If your lips are inflamed (cheilitis), sore corners of the mouth, irritability, redness, Crackedand scaly. Cheilitis can be caused by a deficiency Dietary vitamin B2. In some people, swelling and small blisters appear within minutes of applying lip balm. There can be redness,scaling or dryness, and an itch. The allergic reaction can spread to the face and neck and usually lasts as long as you continue to use the lip balm. Avoid lip balms that containmenthol, camphor, phenol or any sort of alcohol. These ingredients may provide an immediate cooling sensation but can irritate the skin. In some cases they even remove the outer layers of skin leaving your lips unprotected and susceptible to environmental hazards.



Fig: Cheilitis lip

**Scratches:**

Sore bumps or hard edges of the lips It may be a type of skin cancer. Other injuries may occur Symptoms of other diseases such as B. Herpes Labialis Simplex virus infection or syphilis. Others, Keratoacanthoma, no known cause. If you have a superficial paper cut or shaving nick, dabbing on lip balm will help relieve pain by blocking air from open nerves. Ifwax-based, the lip balm will also help slow bleeding. Lip balms containing ingredients like phenol, menthol and salicylic acid actually make your lips drier. So you apply more, and it becomes a vicious. Some of these products

also cause a tingling feeling when you apply them. This either causes irritation or removes outer layers of the skin, like an exfoliant



Fig: Chapped lip

### Applications of Herbal Lip Balms

#### 1. Moisturization:

Herbal lip balms often contain ingredients like shea butter, coconut oil, and beeswax, which provide deep hydration and prevent dryness.

#### 2. Protection:

Ingredients such as natural oils (e.g., jojoba oil, olive oil) form a barrier against environmental factors like wind and sun.

#### 3. Healing:

Herbal lip balms with calendula, chamomile, or vitamin E promote healing of chapped or cracked lips.

#### 4. Anti-inflammatory Properties:

Ingredients like aloe vera and green tea extract help reduce inflammation and soothe irritated lips.

#### 5. Antioxidant Effects:

Herbal lip balms often include botanical extracts rich in antioxidants, which protect the lips from oxidative stress.

#### 6. Natural Fragrance and Flavour:

Essential oils like peppermint or lavender are often added for their pleasant aroma and flavour, enhancing user experience.

#### 7. Skin Repair:

Herbal formulations may support skin regeneration, helping to restore the natural barrier of the lips.

### Adverse Effects of Herbal Lip Balms

1. Allergic Reactions: Some individuals may develop allergic reactions to ingredients commonly found in herbal lip balms, such as essential oils or natural fragrances. Symptoms can include rashes, swelling, and itching [39].

2. Skin Irritation: Ingredients such as beeswax and various botanical extracts may irritate sensitive skin, leading to redness or discomfort.[40]

3. Contact Dermatitis: Some users may experience contact dermatitis due to specific ingredients, causing inflammation and pain.[41]

4. Photosensitivity: Certain natural ingredients may increase sensitivity to sunlight, potentially resulting in sunburns or skin damage [42].

### Evaluation Parameters

#### 1. Organoleptic Properties

The formulation was examined for its physical attributes, including appearance, color, and scent, assessed through direct observation. To evaluate texture and homogeneity, a small amount of the formulation was pressed between the thumb and index finger. The presence of any coarse particles and the overall consistency were key factors in assessing texture and homogeneity. Additionally, skin feel encompassing stiffness, greasiness, and grittiness—was evaluated.[23]

## 2. pH

To determine the pH of the formulation, one gram was dissolved in 25 ml of distilled water. A calibrated pH meter (Mettler Toledo) was used for measurement, utilizing standard buffer solutions with pH values of 4, 7, and 10. Each measurement was conducted in triplicate.[24]

## 3. Melting Point

The melting point was measured using a melting point apparatus (Veego, India). The procedure involved sealing one end of a capillary tube and filling it with the formulation to a specific height. The capillary was then placed in the apparatus, and the temperature at which the formulation melted was recorded.[23]

## 4. Test for Spreadability

Spreadability was assessed using glass slides. The formulation was placed between two slides, and a weight was applied to spread it evenly. Visual observations were made to evaluate the uniformity of the layer formed. The following criteria were established for assessment [24]:

- G - Good: uniform
- I – Intermediate: slight discontinuities
- B - Bad: non-uniform

## 5. Skin Sensitivity

Skin sensitivity was tested by applying the product as a patch for 30 minutes, followed by observation for any reactions, categorized as follows:

- N - No reaction
- R – Redness
- I - Irritation or itching

## 1. Stability Test

The stability of the lip balm formulation was evaluated over a 30-day period under various temperature conditions: room temperature ( $25 \pm 2^\circ\text{C}$ ), elevated temperature in an oven ( $40 \pm 2^\circ\text{C}$ ), and refrigeration ( $5 \pm 2^\circ\text{C}$ ). Organoleptic properties and spreadability were assessed on the 7th, 15th, and 30th days.[25]

## Important Research:

1. Zhou, Y., Lee, T., & Chen et al. (2023): The analytical methodologies discussed in the present review are crucial in bridging the molecular and microstructure understanding to the pragmatic realm of product performance in the cosmetics industry. The ability to meticulously analyze and interpret the composition, microscopic and macroscopic properties, and rheological aspects of cosmetic formulations, the so-called meta-analysis, is essential for the formulation of products that have the desired properties, are safe, and consumer-friendly
2. Mitra, S., Singh, P., & Ghosh, et al. (2022): The growing trend towards natural personal care products has led to increased interest in herbal lip balms. Consumers are increasingly looking for safe, effective, and environmentally friendly alternatives to conventional lip care products. Examined various natural ingredients like beeswax and shea butter in herbal lip balm formulations, noting their moisturizing properties and skin compatibility. Highlighted the benefits of using oils such as coconut and olive oil in lip balms, emphasizing their hydrating and soothing effects on chapped lips.
3. Jones, M., & Green, S. et al. (2021): emphasized the presence of hazardous synthetic excipients in cosmetics, there has been a great public concern regarding the use of organic sources. Lips do not have any oil glands; thus, it is really important to provide that extra moisture and protection throughout the day. Cosmeceuticals are the ingredients that have medicinal properties that benefit topical action and also provide protection against degenerative skin condition.
4. Bhalekar, M., Chavan, R., & Bhise, et al. (2020): the lip balm is a cosmetic product similar to lipstick which is used to prevent lip dryness and protect against hazardous environmental factors. The production of a lip balm by formulated with natural or herbal raw materials and the checking of various test. Natural Lip balms preparations applied on the lips to avoid dryness and protect against adverse environmental pollutant. Natural Lip balm helps to maintain and promote healthy lips.

5. Duan, H., Liu, J., & Wang, X. et.al (2020): emphasized the lipbalm formulation makes face attractive and give a glamour touch to makeup. Herbal lip balm gives attractiveness to lips by coloring and also maintains its softness, also promote healthy lips. Current cosmetic lip products are based on use of enormous chemical ingredients with various side effects. Lip balms are not gender specific products and both men and women can use them.

## II. FUTURE SCOPE

### • Future Scope of Herbal Lip Balm for Health

#### 1. Health Benefits of Herbal Ingredients:

**Moisturization:** Natural oils and butters like shea butter and coconut oil are effective moisturizers. A study found that natural lip balms significantly reduce moisture loss. **Soothing Properties:** Herbal ingredients such as calendula and chamomile possess anti-inflammatory properties that can soothe irritated lips (Duan et al., 2020) [26].

#### 2. Consumer Health Awareness

With increasing awareness of synthetic chemicals in personal care, consumers are gravitating toward natural products. A study on consumer preferences indicated a strong desire for herbal formulations in lip care [27].

#### 3. Focus on Skin Health

Herbal lip balms can address specific conditions, like chapped lips and sunburn. Research shows that certain herbal extracts can aid in skin repair and protection [28].

#### 4. Personalized Wellness

Custom formulations targeting specific health needs, like hydration or sun protection, are gaining popularity. A survey indicated a growing consumer interest in personalized skincare products [29].

#### 5. Sustainability and Ethical Sourcing - Health-conscious consumers often prefer sustainably sourced ingredients.

Research highlights the importance of ethical sourcing in consumer decision-making [30].

### Future Market Scope for Herbal Lip Balm

#### 1. Rising Demand for Natural Products

Consumers are increasingly seeking products that are free from synthetic ingredients and harsh chemicals. This trend is driven by a growing awareness of the potential health risks associated with synthetic personal care products [32].

#### 2. Health and Wellness Awareness

There is a growing emphasis on health and wellness, leading consumers to prefer herbal and organic products that offer therapeutic benefits. Herbal lip balms often contain nourishing ingredients like shea butter, coconut oil, and various botanical extract [33]

#### 3. Sustainability and Eco-Friendliness

Sustainability is a major concern for modern consumers. Brands that prioritize eco-friendly packaging and sustainably sourced ingredients are likely to attract more customers. Herbal lip balms made from biodegradable materials align well with this trend [34]

#### 4. Innovative Product Formulations

The development of innovative formulations that combine multiple benefits (e.g., moisturizing, SPF protection, and anti-aging properties) can enhance the appeal of herbal lip balms. This innovation can attract a broader customer base [35]

#### 5. Expanding E-Commerce Channels

The rise of e-commerce platforms is facilitating easier access to herbal products, including lip balms. Online shopping provides consumers with a wider selection and the convenience of home delivery [36]

#### 1. Targeting Niche Markets

There is potential for targeting niche markets, such as vegan, cruelty-free, or Ayurvedic products. Catering to specific consumer preferences can help brands stand out in a crowded marketplace [37].

#### 2. Global Market Expansion

The herbal lip balm market is not limited to specific regions; growing awareness in emerging markets (e.g., Asia-Pacific, Latin America) presents significant opportunities for expansion.[38]

### III. CONCLUSION

Herbal lip balms represent a significant shift in consumer preferences toward natural and effective skincare solutions. With a composition rich in nourishing oils, natural waxes, and beneficial herbal extracts, these products provide effective moisturization, protection, and healing for the lips. Research highlights the efficacy of ingredients such as shea butter, aloe vera, and honey, which offer both therapeutic benefits and enhance user experience. The growing demand for herbal lip balms is driven by increasing awareness of the potential risks associated with synthetic ingredients, alongside a desire for sustainable and ethical product options. Consumer trust is further strengthened through transparency regarding ingredient sourcing and formulation practices.

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