



Formulation And Evaluation Of Herbal Lipbalm From Pineapple

Jiya R. Kawale*, Chetankumar G. Borkar, Tulsidas P. Nimbekar

Shri. Laxmanrao Mankar Institute of Pharmacy Amgaon, Gondia, Maharashtra 441902.

ABSTRACT

The formulation and evaluation of natural lip balm with pineapple juice with the main ingredients and with other ingredients are glycerins, vit E oil, almond oil, bees wax, and petroleum jelly. Formulated the natural ingredients with the blends of herbs. Lip balm is the one of the use cosmetics. Herbals lip balm provides a holistic approach to the Lip care. Lip balm is the waxy substance that is applied to the lips for moisturizing and softening of the lips. The product help to hydrates and shield the lips from the environmental stressors, while its soothing properties calm and comfort the lips from the dryness and irritation. It also reduce the pain occurs with chapped and heal lips. Subsequently, the physical, chemical, and sensory aspects of the lip balm formulation are evaluated. The overall quality and consumer attractiveness of the product are assessed by analyzing various parameters, including color, pH, texture, fragrance, and moisturizing efficacy. Ultimately, the research seeks to offer a viable alternative to conventional lip balms, promoting both health-conscious and eco-friendly beauty solutions.

KEYWORDS; Pineapple, Herbal Lip Balm, Natural Ingredients, Antioxidants, Hydrated, Cosmetics, Nourishment, Moisturizing.

INTRODUCTION

Cosmetics play a significance role in current life. The use of herbals cosmetics are increased in personal care system. The herbal cosmetics product has pharmacological properties such as antimicrobial, anti-inflammatory and cytotoxic effects. Natural lip balm is a natural and nourishing product designed to moisturize, smooth, dry, chapped and cracked lips. Blend of herbs, essential oil, and natural ingredients. Herbal lip balm offers an approach to lip care. Herbal lip balm provides a gentle and effective solution for lip

care; unlike conventional lip balm that may contain harsh chemicals and artificial ingredients. It is use to preserve lips hydration and appearance, maintains the softness and smoothens the lips. Some types of lip balm includes sunscreen to protect from sunburn. Lip balms come into tubes and small pots with screw on lids.

CHARACTERISTICS OF LIP BALM

- 1) Resistance to temperature variation
- 2) Pleasant flavor
- 3) Smoothness during application
- 4) Innocuousness
- 5) Easy intentional removal

APPLICATION OF LIP BALM

- 1) Lip balm helps to moisturize and hydrates dry, chapped lips.
- 2) Lip balm provides a protective barrier against environmental stressors like wind, cold weather and dry air.
- 3) Lip balm can help to sooth and calm irritated lips.

TYPES OF LIPBALM

1. Tinted lip balm

A type of lip balm used to hydrate and colorize the lips called tinted. If the user doesn't want to wear a heavy coat of lipstick, tinted lip balms are a perfect alternative. You can wear tinted lip balm year round.

2. Medicated lip balm

This lip balm usually made prescribed by dermatologists in Medication for chapped lips and other conditions regarding the lips. Contain active ingredients with medicinal properties, designed to provide therapeutic benefits.

3. Floured lip balm

Flavored lip balms are lip balms that are added with flavor such as vanilla, strawberry and many more fruit flavors. Lip balm is design to moisturize and protect the lips while providing a pleasant flavor experience.

4. SPF lip balm

SPF lip balm is a type of lip balm that contains sun protection factor, which help to protect the lips from the sun's ultraviolet rays. SPF lip balm help to prevent sunburn on the lips, which can be painful and increased the risk of skin care.

5. Plumping lip balm

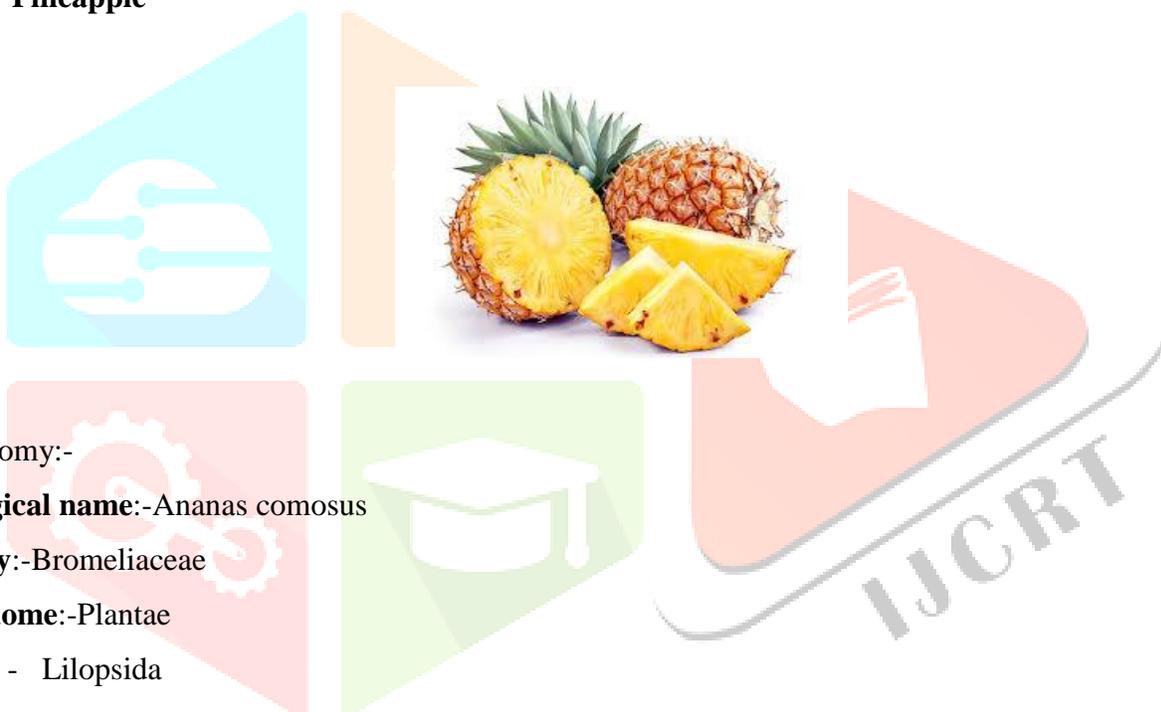
Plumping lip balm is type of lip balm that contains ingredients designed to help plump and volumize the lips, making them appear fuller and more defined. The plumping lip balm is essential to users who want to achieve a plumper lip without doing any surgical procedures.

6. Hemp oil lip balm

Hemp oil lip balm is a type of lip balm that contains hemp oil as primary ingredients. Hemp oil is derived from the plant hemp and it rich in nutrients and antioxidants.

Contents of Lip Balm

- **Pineapple**



Taxonomy:-

Biological name:-Ananas comosus

Family:-Bromeliaceae

Kingdome:-Plantae

Class: - Lilopsida

Genus: - Ananas

Species: - A comosus

Synonyms: - Ananas, Guyana, pine

Biological source: - Ananas comosus to the plant species that produce s the pineapple fruit.

Chemical constituents

Vitamin C: A powerful antioxidant that supports immune function and collagen production. Manganese: A mineral that plays a role in bone health, wound healing, and metabolism. Other vitamins and minerals: Pineapple also contains other vitamins and minerals like vitamin A, potassium, and copper. Flavonoids: Plant compounds that have antioxidant and anti-inflammatory properties. Phenolic acids: Antioxidants that can help to protect against oxidative stress and inflammation.

USES

- Anti-inflammatory properties:
- Digestive health
- Antioxidant properties
- Pineapple extracts are sometimes used in skincare products

- **Pineapple Juice:-**

It is rich in vitamin c which contains antioxidant properties. Pineapple juice is mainly rich in water content makes great ingredient for hydrating and moisturizing the lips.



Fig.1. Pineapple juice

- **Petroleum jelly**

It helps to moisturize and heal the cracked and chapped lips with its carbinogenic ingredients. It works by sealing in natural lip moisture which can prevent further moisture loss. Petroleum jelly can be common base ingredients in a lip providing the necessary consistency texture for easy application and long lasting moisture .



Petroleum jelly

- **Bees wax**

It is natural thickening agent widely used in the preparation of lip balms for its moisturizing and protective properties, giving them the creamy and smooth texture. Typically, beeswax is used in makeup products because it is a natural emulsifier. It is natural and non toxic ingredients that is suitable for sensitive skin. It increases the thickness of solid products like lipstick, giving them structure, and the keep them solid for smooth application.



Bess wax

- **Vitamin E capsule**

Vitamin E helps lock in moisture, keeping lips hydrated and soft. It may help soothe and repair dry, chapped lips. Antioxidant properties can help shield lips from damage caused by free radical. It can also help to close up the painful cracks in the skin that are caused by dryness and cold weather. It contains the preservative properties for treating wrinkles and fine lines.



Vitamine capsule

- **Almond oil**

It have the soothing properties which makes it a great ingredient for lip balms designed to calm and comfort dry, chapped lips. Antioxidants that prevent wrinkles and other types of skin damage are infused into the lips. The anti-inflammatory property of almond oil reduces and pain associated with chapped and sun burnt lips. It helps lock in moisture keeping lips hydrated and soft.



Almond oil

- **Glycerin**

It helps to retain the moisture in lips to keep it hydrated and soft. It help to maintain the lips sooth and clam dry, chapped lips. It has humectants properties can help to protect the lips from the environmental stressors.



Glycerin

FORMULATION OF LIP BALM

INGREDIENTS	QUANTITY	USES
Pineapple Juice	4ml	Flavoring agent
Petroleum Jelly	6gm	Base
Bess Wax	2gm	Emollient
Vitamin E Capsule	2 cap	Preservative
Almond Oil	3ml	Hydrating agent
Glycerin	2ml	Moisturizing agent

FORMULATION PROCESS

- Weigh the all ingredient
- Melt the bees wax and petroleum jelly in water bath on temp.71°c-82°c. Stir the mixture continuously
- Add almond oil and vitamin-E oil, after then add the pineapple juice in the mixture, add the glycerin for the better consistency.
- Heat the combined mixture for around 3-5 min, stirring occasionally until the bees wax is fully melted and mixture is smooth,
- Pour the mixture in the container then let the prepared formulation to cool down and set properly.
- This may take several hours or overnight.

EVALUATION PARAMETERS

1. Melting Point:

For melting point, the sample of lip balm was taken in a glass capillary whose one end was sealed by flame. The capillary containing drug was dipped in liquid paraffin inside the melting point apparatus which was equipped with magnetic stirring facility.

2. Organoleptic properties

The lip balm was studied for the basic organoleptic characters such as color, odor, taste and appearance.

3. Test of spreadability:

The product was applied (at room temperature) repeatedly onto a glass slide to visually observe the uniformity in the formation of the protective layer and whether the stick fragmented, deformed or broke during application.

For this test, the following criteria have been established:

G – Good: homogenous

I – Moderate homogeneity; leaves few stops

B – Bad: uneven

4. pH measurement:

The pH study was carried out by dissolving 1gm of sample into 100 ml water. The pH measurement was done using pH paper.

IDEAL CHARACTERISTICS OF HERBAL LIP BALM

1. It is smooth
2. Easy to apply.
3. It is non-irritant and non-toxic.
4. It is stable in shelf-life time and it is free from bloom and sweating during storage of lip balm.
5. It should be clean and free from contamination.

Advantages of Natural Lip Balm

- Lip balms help to protect the natural health and beauty of the lips.
- Nourishes and hydrates lips
- Sun block lip balms are proved to prevent ultraviolet rays from hurting the lips.
- They are not gender specific products and both men and women can use them.
- Protects against environmental stressors

- Reduces irritation and inflammation.

Disadvantages of Natural Lip Balm

- Low-quality ingredients can harm lips.
- Homemade lip balms may not last as long.
- Some commercial products prioritize beauty over health and skin softness
- Natural colors and flavors can be difficult to obtain and stabilize.

RESULTS AND DISCUSSION

Evaluation parameters	Result
Color	Yellow
Odor	Pleasant
Appearance	Smooth
Melting point	60 C – 65 C
Spreadability	Good
pH	6.1

CONCLUSION

The present study aimed to create a lip balm with as many natural elements as feasible. The main coloring and flavoring ingredients were pineapple extract, vitamin E capsules, and almond oil. Almond oil served as the moisturizing agent. Researchers looked examined how these components affected the formulation's physical features, including spread ability, uniformity, and organoleptic characteristics. It may be said that using these natural components helped create a great lip balm composition.

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