



# PREPARATION AND EVALUATION OF HERBAL LIP BALM

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**Abstract:** The lip-care products for everyday use contain 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 the lips and add a 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 the use of enormous chemical ingredients, which have various side effects. Hence, an attempt has been made to study the natural ingredients that are used to formulate the natural lip balm. The natural lip balm can be made using naturally occurring bases, oils, colours, and flavours etc. Organic lip balm nourishes the lips, helps to get hydrated, and protects the lips, was affected by the dryness. Organic lip balm can be a better option for the treatment of various lip issues. Beetroot lip balm was found to possess antioxidant activity.

**Keywords:** Lip Balm, Natural, Honey, Almond Oil, Organic Lip Balm, Antioxidant Activity.

## INTRODUCTION

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 colours which are toxic. Often the lip balm is eaten by the user, thus it becomes major issue for health regulator. Cosmeceuticals are the ingredients that have medicinal properties that benefits topical action and also provide protection against degenerative skin condition. The present work was carried out by using these ingredients that have less side effects. Products used to protect lips rather than to decorate them are well known as lip balms. They form an adherent, moisture resistant film of oily substances. Usually without any dye. Beeswax is a natural compound secreted by female bees that is often used in cosmetics, particularly lip balm. 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. Vitamin E is an antioxidant and a natural conditioner. Vitamin E helps to maintain the soft, youthful texture of the lips by reducing the signs of aging. 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 sunburnt lips. Honey have anti-inflammatory, antioxidants & Antimicrobial properties that make the lips soft, supple and improve the elasticity of the skin.

## ❖ LIP BALM

Lip balm is a cosmetic product that both men and women use to keep their lips healthy. It is used to preserve the shape and appearance of the lips and guard against sores and colds. sores on the affected lips. The concentration of the key components, such as butters, oils, and waxes must be balanced while creating lip balms.

### ❖ Advantages

1. Moisturize your lips.
2. Heal chapped lips.
3. Improves lip texture
4. Protecting
5. Toxin-free
6. Environmentally friendly
7. Gives a natural shine
8. Heals the skin
9. Nourishing

### ❖ Disadvantages

1. Lip balm made of low-quality ingredients can harm lips seriously.
2. Low-quality lip balm dries the lips instead of moisturizing them.
3. Lip balm addiction is another disadvantage usually seen in it.
4. Natural oils have other disadvantages, such as being greasier and having less spreading ability.

## ❖ Ingredients



### 1. Bees Wax

#### ❖ Uses :

1. It is mainly used as an emulsifier and emollient in cosmetics and as a fragrance in soaps and perfumes.
2. Beeswax is very moisturizing and can help protect the lips from the harmful rays of the sun and has a pleasant smell.
3. Beeswax acts as a natural emulsifier.
4. Research has also discovered that beeswax contains a small amount of natural anti-bacterial agents.
5. This is especially helpful for individuals who have excessively dry and cracked lips.
6. These anti-bacterial agents can help prevent the painful inflammation that comes with an infection.



**2. Coconut Oil (Cocos nucifera)**

❖ **Uses:**

1. Coconut oil is mostly used for moisturizing.
2. This makes it great for treating chapped lips.
3. Your lips are especially sensitive to moisture loss since their skin is thin and they are more exposed to the weather than other parts of your skin.
4. It immediately absorbs into the skin, leaving it soft and luminous.



**3. Almond Oil (Prunus amygdalus Dulcis)**

❖ **Uses:**

1. Almond oil penetrates deep into skin tissues and moisturizes lips with its fatty acids.
2. Almond oil's anti-inflammatory qualities alleviate pain from chapped and sunburned lips.
3. Almond oil has anti-inflammatory qualities that reduce inflammation.
4. It infuses antioxidants into the lips, preventing wrinkles and other forms of skin damage.

**4. Rose Water**

❖ **Uses :**

1. lip balm with natural rose water prevents your lips during all the seasons from bursting and injuries.
2. It deep hydrates and provides them with a shine and gentle and mild aroma.
3. Vitamin E, blocks the activity of the free radical.



4. Also used as natural preservative.

### 5. Glycerin



#### ❖ Uses :

1. Glycerine helps keep the lips soft and moisturised.
2. It helps with the healing of chapped and dry lips.
3. This ingredient can be an excellent addition to your winter skincare routine.
4. It helps make lips pink and supple.

### 6. Vitamin - E

#### ❖ Uses :

- 1) Vitamin E is an anti-oxidant and a natural conditioner.
- 2) Vitamin E helps to maintain the soft, youthful texture of the lips by reducing the signs of aging.
- 3) Topical vitamin E oil can be used to relieve chapped, dry lips.
- 4) vitamin E promotes cell turnover and regeneration, using it on dry lips brings new cells to the surface faster.
- 5) The thick and oily consistency of vitamin E oil can also prevent further irritation

## 7. Honey

## ❖ Uses :

- 1) Honey is good for chapped lips and dry lips.
- 2) It has antimicrobial property.
- 3) It has anti-inflammatory property.
- 4) It also have wound healing properties .

## ❖ FORMULATION OF HERBAL LIP BALM

## Formula For 11 Gram Lip Balm



Sr No	Name Of Ingredients	Quantity
1	Bees Wax	2.5 gm
2	Coconut Oil	2.5 gm
3	Almond Oil	2.5 gm

4	Honey	2.5 gm
5	Vitamin E	300 mg
6	Glycerin	q. s.
7	Rose water	q.s.

## ❖ PROCEDURE

- 1) Weigh all the excipients according to formula.
- 2) Add bees wax and almond oil in a beaker and melt it in heating mental at 55 °C – 60 °C.
- 3) Add all other ingredients like vitamin E, rose water, Coconut oil & honey & mix vigorously.
- 4) Mixture was stirred continuously till homogenous mixture was obtained.
- 5) The mixture was poured into the container and let it to be air dried at room temperature.
- 6) Before pouring the mixture in lip balm mould, on the mould applying glycerin with the help of cotton, put the filled mould into ice bath for 10 min.

## ❖ EVALUATION PARAMETERS

**1) Organoleptic Properties :-** The formulation was studied for physical Appearance, colour and odour. These Characteristics were evaluated by physical Observation. Texture and homogeneity were tested by pressing a small quantity of the Formulation between the thumb and index finger. The presence of coarse particles and Consistency were used to evaluate the texture and homogeneity of the formulations. Skin feel (including stiffness, greasiness, and grittiness) was also evaluated.

**2) Melting Point :-** The sample of lip balm is taken in a glass capillary whose one end was sealed by flame. The capillary containing drug dipped in liquid paraffin inside the melting point apparatus. Melting was determined and melting point was reported.

**3) Measurement pH :-** The pH of lip balm was determined in order to investigate the possibility of any side effects. The pH study was carried out by dissolving 1gm of sample into 100 ml water. The pH measurement was done using pH meter. pH of lip was near to neutral.

**4) Spreadability Test :-** Spreadability is determined using a slide. The formulation is sandwiched between two blades and a load is applied; the recipe has been spread on the slides. Visual observations were made regarding the uniformity of the layer formation. For this test, the following criteria have been established:

G – Good: homogenous

I – Moderate homogeneity; leaves few stops

B – Bad: uneven(20)

**5) Skin Irritation Test :-** This is done by applying the product as a patch to the skin for 30 minutes and observing for a reaction of: N – No reaction

R – Skin redness I – Irritation or itching

6) **Stability Test :-** The formulation of the lip balm has been evaluated for stability for 30 days under various temperature conditions mainly room temperature ( $25\pm 2^\circ\text{C}$ ), higher temperatures in the oven ( $40\pm 2^\circ\text{C}$ ) and refrigerator ( $5\pm 2^\circ\text{C}$ ). Characteristics such as organoleptic properties and Spreadability were evaluate done, days 7, 15, and 30.

## ❖ RESULTS & DISSCUSION

### 1) Organoleptic Properties

Sr .No	Parameter	Observation
1	Colour	White
2	Appearance	Excellent, Smooth
3	Odour	Pleasant

### 2) Test of Spreadability:

Sr No	Parameter	Observation
1	Spreadability	Good / Uniform

### 3) Measurement of pH:

Sr No	Parameter	Observation
1	pH	7.82

### 4) Stability Studies:

Parameters	Temperature Condition		
	$25. \pm 2.0^\circ\text{C}$	$40 \pm 2.0^\circ\text{C}$	$5 \pm 2.0^\circ\text{C}$
Colour	White	White	White
Odour	Pleasant	Pleasant	Pleasant

Melting Point	66°C	67°C	69°C
Spreadability	Good	Good	Good
pH	7.50	7.70	7.82

### 5) Skin Irritation Test :

Sr No	Parameter	Observation
1	Skin Irritation	No Irritation Occures

### 6) Melting Point :

Sr No	Parameter	Observation
1	Melting Point	68°C- 69°C

## ❖ CONCLUSION

Herbal lip balm overcome the side effects of the synthetic lip balm. Mainly, rose water used as a flavouring agent, vitamin E capsule used as an antioxidant & honey used as softening agent.

Almond oil & coconut oil was used as moisturizing agent. The effects of these ingredients on physicochemical properties such as organoleptic characteristics, melting point, consistency and spreadability on formulation were studied.

It can be concluded that lip balm formulation was successfully prepared by using these natural additives. Results of various tests implied that the formulation passed various tests physicochemical tests and safe to use. Based on stability data, the storage condition for the formulation is at room temperature.

In the current formulation, beeswax was used as a base, in the future; it can be replaced with a natural base like Shea butter, paraffin wax, etc.

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