

Formulation and Evaluation of Natural Beetroot Lipbalm

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ABSTRACT :-

A wax-like substance known as lip balm or lip salve is applied topically to the lips to hydrate and soothe chapped or dry lips. Lips, angular cheilitis, stomatitis, or cold sores. Beeswax or carnauba wax, among other ingredients, cetyl alcohol, lanolin, paraffin, and petrolatum are frequently found in lip balm. Ingredients. Some varieties include phenol, salicylic acid, sunscreen, flavors, fragrances, dyes, and flavors. Natural ingredient lip balm was designed, created, and improved in quality for use in tropical climates. Studied. Beeswax (2.15 g), almond oil (5 mL), and virgin coconut oil (VCO) (5 mL) were used to make lip balm for this study. 1 mL of distilled water and 2.5 mL of honey. The lip balm was made using a homogeneous mixing technique. To create a lip balm with a uniform texture and no harmful ingredients, the impact of temperature was also studied from 25 to 100 °C. The measurements were made using criteria like formulation, chemical stability, pH, melting point, and irritation tests. Best lip balm items that are appropriate for use in tropical climates. By putting lip balm on a glass slide, the lip balm formulation was evaluated. Lip balms have a melting point of and a pH of 5.6. The temperature reached 65 °C. According to the results of the irritation test, there was no reaction from the lip balm to erythema, papules, or edema. Proving that it's okay to touch the lips' skin. The formulation and composition of lip balms for tropic to cool can use the natural ingredients from this study, which is the study's final conclusion. Regions. Lip balm's main function is to provide an occlusive layer on the lip surface that seals in moisture and safeguards lips. Due to exposure from outside. By removing moisture from the skin, wind, cold temperatures, and dry air all have a drying effect. Within the body. The thin skin on the lips makes them particularly vulnerable, and as a result, they frequently show symptoms first. The dryness.

Keywords :- Beetroot ,stability , studies ,lipbalm , lipcare



INTRODUCTION :-

A wax-like substance known as lip balm or lip salve is typically applied to the lips to moisturize and treat chapped or dry lips, angular cheilitis, stomatitis, or cold sores. Beeswax or carnauba wax, camphor, cetyl alcohol, lanolin, paraffin, and petrolatum are among the ingredients that are frequently found in lip balm.

Lip balm is a product applied to the lips to prevent drying out while outdoors in the wind and sun. Usually, lip balm is produced using petroleum. To prevent sunburn on the lips, some types of lip balm also contain sunscreen. In tubes, lip balm is sold. And little pots with screw-on lids. Due to the fact that the chilly winter winds can dry out a person's lips, lip balm is frequently used during this time. Having "chapped" lips is the condition of having lips that are sore and cracked.

What is the lip balm's past?

Even though earwax may have been the original source of lip balm, Charles Browne Fleet began marketing it in the 1880s. More than 40 years.

Lydia Maria Child suggested using earwax as a remedy for chapped lips before Fleet commercialized lip balm.

In her wildly popular book *The American*.

Beetroot's botanical name is beetroot.

1. Beet is one of the four cultivated varieties of the plant *Beta vulgaris*, also known as beetroot, common beet, or garden beet. Grown for its edible taproot and leaves, which are members of the amaranth family (Amaranthaceae).

2. As a side dish, beetroot is frequently roasted or boiled. They are frequently canned whole or in pieces. Usually pickled, spiced, or served with a sweet-and-sour sauce.

3. Garden beet leaves can be eaten fresh or cooked like spinach if picked young. Riboflavin can be found in abundance in beetroots. The antioxidant betain, as well as folate, manganese, and.

Why do people use lip balm?

All lip balms, including those referred to as salves or butters, are meant to keep lips protected. They have a moisturizing component in them, like.

(such as lanolin, shea butter, petroleum jelly, or shea butter) that stops water loss. Lip balm is made with wax to help it adhere to lips.



Nomenclature:

Kingdom: Plantae

Clade: Tracheophytes

Clade: Angiosperms

Clade: Eudicots

Order: Caryophyllales

Family: Amaranthaceae

Genus: Beta

Species: Vulgaris

ROLE OF INGREDIENTS :-

Beet Root :-

Beetroot for Lips is really good. It is an amazing ingredient that brightens your lips. Beetroot lip balm lightens your dark lips and also nourishes them, thereby making them pink. It gives your lips a natural pink tint and heals lip lines and pigmentation on the lips.



Coconut oil:-

Remedy for dry and chapped lips: Beetroot extracts, coconut oil and essential oils blend give you heals dry and chapped lips. Balances lip colour: This beetroot lip balm is loaded with natural ingredients which gently heal cracked peeling lips leaving it rosy pink.

Bees wax :-

Beeswax seals in moisture and protects against dryness. Beeswax has anti-inflammatory properties that can help to soothe chapped or irritated lips. Beeswax can help to create a barrier between the lips and the environment, making it ideal for use in windy or cold weather conditions.



Vitamin E :-

Along with Beetroot Extracts, Vitamin E and Avocado Oil boosts hydration and moisture to your dry, chapped and cracked lips. This Beetroot lip balm is lightweight and gives extra soft, smooth and plumpy lips throughout the day



Coco Butter :-

Beetroot Lip Balm for Moisturization, Dry & Chapped Lips with Cocoa Butter Beetroot, Cocoa Butter



Chemical Constituents:

Beetroot contains a variety of biologically active phytochemicals, such as betalains (such as betacyanins and betaxanthins), flavonoids, polyphenols, saponins, and inorganic nitrate (NO₃). It also contains a wealth of different minerals, including potassium, sodium, phosphorous, calcium, magnesium, copper, iron, and zinc.

Ingredients	Quality	Source
Beetroot	60ml juice	Plant beetroot
Coconut oil	30 gm	Coconut meat or dried coconut meat is called copra
Beeswax	5.5 gm	Bee's hives by honey bees Amellifera
Vitamin E	3capsule	Sunflower,soya,corn,olive oil.
Cicoa butter	5.5 gm	Cocoa beans

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DIY
Beetroot Lip Balm
(Soft & Pink lips)



Preparation process:.

1. We need pure beetroot to make this lip balm. Then use a grater with tiny holes to grate it. Squeeze the juice after grating.

By means of a cheese cloth.

2. Take 60 milliliters of beet juice. Juice should be mixed with 30g of coconut oil. Light the mixture on fire. Mix occasionally, of course.

3. Reduce the heat to low once we see the beet juice beginning to caramelize to prevent burning.

4. At this point, extinguish the flame and immediately transfer the mixture to a beaker or other heat-resistant vessel.

5. Beeswax and cocoa butter, 50.5 gm total, should be added. Then use the double boiling technique to melt the wax and butter.

6. Remove from water bath once wax and butter have melted, then allow to slightly cool.

7. Add the vitamin E capsule once it has cooled off and stir briefly.

8. The mixture should then be refrigerated for 30 minutes to solidify.

9. After 30 minutes, stir thoroughly until the mixture is smooth. Transfer it into a spick-and-span container once it has thoroughly blended.

10. This can be utilized as a lipstick alternative as well as a lip balm. To use this lip balm, make sure your hands are clean.

Lip balm evaluation:

Texture:.

On the AMETEK Brookfield CT-3 Texture Analyzer's base, a sample of the lip balm formulation was placed. Cylindrical probe (TA39).

Being the most appropriate probe for cosmetics, it was attached to the load cell.

Colour:.

Using a Konica Minolta CR-400 chroma meter, the color analysis of lip balms was assessed. There are three on this chroma meter.

Indicators that affect the test sample's brightness, redness, and yellowness.

PH:.

The pH of every lip balm formulation used in this study was measured using a pH meter with the model number HI-2211-01. It was a pH meter.

Before continuing to measure the lip balm's pH, it was calibrated using a buffer solution. The sample of lip balm had a pH of.

Measured and noted.

Greasiness:.

The amount of oil in the lip balm formulation was determined by looking at the results of a greasiness test.

4 grams of lip balm were used in this study, and the sample was left at room temperature for 24 hours after being placed on the filter paper.

Testing for stability:.

Three top formulations that displayed values for all physicochemical properties that were closest to those of the commercial lip balm were chosen.

For their stability, and examined.

For four weeks, lip balms underwent a stability test to determine how long they would last in two different locations.

(Room temperature is 27 °C, and the chiller is 4 °C). The additional physical and chemical tests, such as pH, color, and texture.

Every week of the lip balm's stability test period was conducted.

Formulated and store-bought lip balm comparison.

For this study, all lip balm formulations were tested for texture, color, pH, and greasiness. The commercial lip balm was also.

To compare the value with the expressed lip balm values, all criteria were tested and measured. Physicochemical characteristics of.

To determine the best beetroot-based lip balm formulation, commercial lip balm was used as a standard.

The best method for using lip balm is as follows:.

First, remove the container's lid.

You only need to raise the balm by about half a centimeter if it is in a tube. Apply a pea-sized amount to your if it's in a container.

Finger.

Step two: Apply to the lower lip.

Simply along the outside, apply the balm to your bottom lip.

Apply to top lip in third step.

Just along the outer edge of your top lip, apply the balm.

Rub your lips collectively in step four.

Your upper and lower lips should be rubbed together. This aids in applying the balm evenly throughout your entire mouth



Conclusion:

The formulation displayed the same level of stability whether it was stored at room temperature or in the refrigerator. Behaviour. Spreadability was deemed to be "Good" and the organoleptic characteristics were stable. Keeping things. Was deemed sufficient in these circumstances because the product's functionality was preserved. The lip balm made with natural ingredients demonstrated an appropriate melting point during the stability test. (averaging 64 °C). The spreadability test indicates that the oven storage condition (40°C–2°C) is not appropriate. Recommended due to decreased product functionality compared to the standard stability test. It was .It was determined that natural lip balm is safe to use and that this particular combination is superior. Choice in lip balm formulation. By changing the excipients or adding new excipient combinations. Can lead to the creation of a new formulation with improved and different qualities. According to recent studies, it was. The formulation should continue to be stable, as predicted.

As a result, and discussion.

Some lip balm sticks provide complete coverage with just one rub, while others require several. There are some sticks that seem to last forever. Others are quickly depleted. These are significant lip balm characteristics that are challenging to measure with household tools. The reason why. They are difficult to quantify scientifically because they vary depending on how you apply your lip balm: whether you press firmly or gently on your stick. Or how quickly or slowly you stroke your lips. In this experiment, the yield at various pressures will be compared. Do your best. It is best to maintain a constant rubbing speed as well. The best formulations were found after each lip balm's physicochemical characteristics were examined. The association between. Ingredients (factors) and responses (results; physicochemical properties) had been researched. The results indicated that each ingredient has an impact. Properties of the lip balm's physicochemical composition. Additionally, the stability evaluation for 4 of the best formulations was done. Weeks to observe if the lip balm changes at all. Nearly similar physicochemical properties were produced by the top three formulations.

Compared to commercial lip balm, the values (hardness, color, pH, and greasiness) were higher. The color, pH, and grease-factor of the best. Lip balm prices fell in the middle of the range for retail lip balm prices. All lip balms were placed in a room for the four-week stability assessment. Hardness, pH, color, and spreadability were all within normal ranges. Lip balm was applied to a glass slide in order to test the lip balm's formulation. Lip balm has a pH of 5.6 and a melting point of 65 °C. Obtained. According to the results of the irritation test, the lip balm is because it didn't react to erythema, papules, or edema. Secure for the lips' skin. Last but not least, lip balms can be made with the natural ingredients used in this study. For tropical to chilly areas.

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