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A REVIEW ON HERBAL LIP BALM IN NATURAL COSMETICS- ITS FORMULATION AND EVALUATION

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ABSTRACT

From the ancient times, there has been a huge demand for cosmetics preservatives and heavy metals are two of the dangerous ingredients found in daily lip care cosmetics. The current lip balm formula enhances facial features and adds a glamorous touch to cosmetics. By coloring lips and preserving their softness, herbal lip balm enhances their appearance and supports healthy lips. Most of cosmetic products have held significant demand with growing shift towards natural formulations in recent years. The proposed natural lip balm can be created using plantbased oils, extracts, natural colorants and flavoring agents. These formulations can be evaluated based on their stability under temperature changes appealing flavor, smooth application, good adherence and ease of removal. The formulation and evaluation of herbal lip balm by using natural herbs like rose oils, beeswax, shea butter, vitamin E, beetroot. Rose oil nourishes and softens lips naturally. The herbal lip Balm which possesses anti- inflammatory properties and heal chapped lips was formulated and evaluation. This formulation applied on the lips to prevent drying and protect against adverse factors of the environment. Lip balm prepared from herbal ingredients could be a better helper for treatment of various lip issues. These

products/ingredients align with the growing consumer preference for organic and eco-friendly skin care solutions. The lip balm was produced by homogenous mixing. The lip balm, was characterized for physical stability, pH, melting point, and spread ability. The pH was found to be 5.5 to 6.5 and the melting point was found to be 63 to 65°C. After carrying out stability tests at room temperature (25.0–3.0°C) and in a refrigerator (4.0–2.0°C), it was demonstrated that the manufactured lip balm was uniform in nature and could be applied flawlessly without any deformation.

KEYWORDS: Beetroot, Natural lip balm, lip moistures, Beeswax, Essential oils, Spread ability, Homogenous, herbal lip balm.

INTRODUCTION

Organic words are an indication of safety as opposed to artificial words, which are harmful to human health. Cosmetics with physiologically active ingredients, sometimes known as "cosmeceuticals," are supposed to provide therapeutic or drug-like benefits. These chemicals have healing properties that show up as beneficial topical effects and provide protection from worsening skin problems.

The goal of the current research was to develop an organic lipstick with fewer negative consequences. Lip balms are products that are used to moisturize lips rather than to accentuate them. They create an oily layer that is pliable, sticky, and moisture-resistant. Typically, they don't contain dye. Herbal lip balm is a type of lip balm made from natural herbs and ingredients. It is designed to moisturize and protect the lips, while also providing additional benefits from the herbs used. Some common herbs used in herbal lip balms include chamomile, lavender, peppermint, calendula, and aloe vera. These herbs are chosen for their soothing and moisturizing properties, as well as their ability to help heal and protect the skin. In addition to the herbs used, herbal lip balm typically contains a combination of oils and waxes, such as olive oil, coconut oil, beeswax, and shea butter. These ingredients work together to create a nourishing and protective barrier on the lips.

Herbal lip balm can be a great choice for those who are looking for a natural and gentle way to care for their lips. It can be especially beneficial for those with dry, chapped, or sensitive lips. Many people also appreciate the pleasant scent and flavour of herbal lip balms, which can come from the natural herbs and essential oils used.

It is important to note that while herbal lip balm is generally considered safe and gentle, it is still important to do your research and make sure the herbs used are safe for use on the skin. Some herbs can cause allergic reactions or irritation, so it is best to test a small amount on the skin before using a new recipe. Lips are different from skin structure.

The top corneum layer of skin typically includes 15–16 layers, primarily for protective purposes. In contrast, compared to the average facial skin, the top corneum layer of the lips has only about 3–4 layers and is extremely thin. There are hardly many melanin cells in the lip skin. Because of this, blood vessels can be seen more clearly through the skin of the lips, giving them a wonderful pink hue. The skin on the lips lacks sweat glands and hair follicles. As a result, it lacks the bodily oils and sweat that would normally shield it from the environment.

LIP BALM

Lip balm is a cosmetic product similar to lip stick. They are used to prevent lip dryness and protect against hazardous environmental factors. This work involved the production of a lip balm by formulated with natural or herbal raw materials. Checking of stability test of lip balm are Melting point, evaluation of organoleptic characteristics like colour, odour and appearance and functionality evaluation. 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 cold sores on the affected lips.

The important of the key components are butters, oils, and waxes, must be balanced for creating the lip balms.

Characteristic of lip balm

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

Application of Natural Lip Balm

- Natural Lip balms are the product that applied onto the lips to avoid dryness and protect against adverse environmental factors.
- Numerous lip balms of chemical origin are currently available in the market.
- Natural Lip balm is a product. It is intended for use by both men and women.
- To produce lip balms, it is necessary to balance the concentration of the main ingredients including butters, oils and waxes and other excipients.
- Lip balms are often eaten away by the user and hence it is imperative that health regulators have a microscopic look at the ingredients that go in to the lip balm.

Advantages of Natural Lip Balm

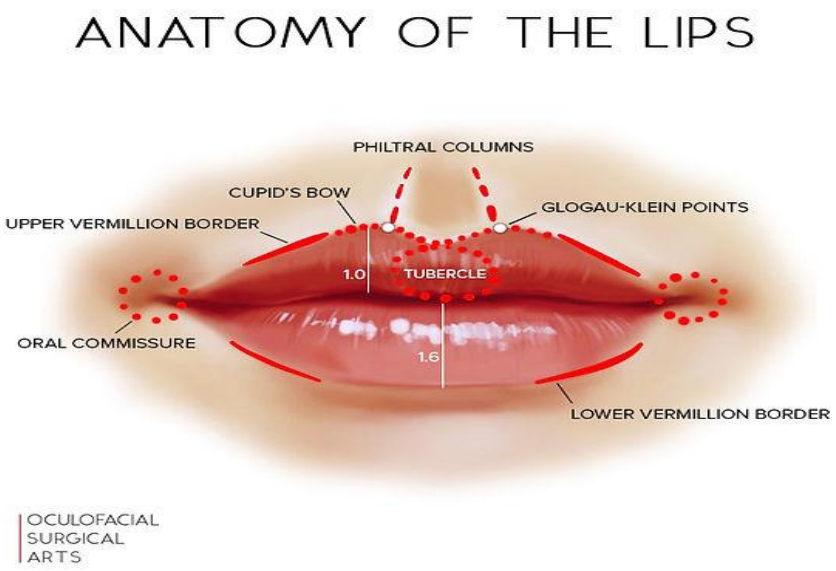
- Lip balms help to protect the natural health and beauty of the lips.
- Sun block lip balms are proved to prevent ultraviolet rays from hurting the lips.
- They are not gender specific products and both men and women can use them.
- Lip balm products help to protect lips affected by cold sores, chapping and dryness.
- Contact of the product with the skin will not cause a sensation of friction or dryness, and should allow the forming of a homogeneous layer over the lips in order to protect the labial mucous susceptible to environmental factors such as UV radiation, dryness and pollution.
- It refreshed, renewed and also addresses lip-related symptoms resulting from cold, flu and allergies.
- The use of natural lip cosmetic to treat the appearance of the face and condition of the skin.

LIP ANATOMY

Lips are soft, pliable anatomical structures that form the mouth margins of most vertebrates. They are composed of a surface epidermis (skin), connective tissue, and a muscle layer (in

typical mammals). Hair, sweat glands, and sebaceous (oil) glands are all found in the outer skin of a man. The lips' edges, known as the vermilion border, are covered with reddish skin and densely packed with sensitive nerve endings. The reddish skin serves as a transition layer between the hair-bearing tissue on the outside and the mucous membrane on the inside. A moist mucous membrane lines the inside of the lips.

The inner surface of newborn infants is significantly thicker, with sebaceous glands and minute projections known as papillae. These structural adaptations appear to aid the sucking process. The orbicular is iris muscle, which encircles the opening, supplies the majority of the substance to each lip. This muscle, along with others that radiate out into the cheeks, allows the lips to be shaped and expressed in a variety of ways.



PROBLEMS RELATED TO LIPS

The lips may be impacted by a number of conditions or issues. The following are some typical lip-related issues:

Dry lips: When the lips lose moisture and become dried, dry lips develop. Environmental variables like low temperatures, dry air, or very frequent lip-licking can all contribute to this. Lips that are dry can feel tight, split, and even peel.

Chapped Lips: A more extreme form of dryness, chapped lips can be painful, uncomfortable, and even bleed. Long-term dryness, sun exposure, wind exposure, or severe weather can all lead to chapped lips.

Fever Blisters: Also known as cold sores, fever blisters are tiny, uncomfortable, fluid-filled blisters that develop on or around the lips. The herpes simplex virus is the culprit behind them, and are highly contagious. Cold sores can be recurrent and tend to flare up during periods of stress or illness.

Angular cheilitis: An inflammation and cracking of the mouth's corners are symptoms of the illness known as angular cheilitis. It may result from conditions including bacterial or yeast infections, poor nutrition, or protracted moisture exposure.

Lip infections: Bacteria, viruses, or fungus can cause an infection on the lips. Swelling, redness, discomfort, and the development of pus-filled blisters or sores are all signs of infection.

Allergic responses: Some people may experience allergic responses to certain components in food, cosmetics, or lip care products. Swelling, itching, redness, and even lip blistering are all symptoms of allergic responses.

Lip discoloration: Numerous factors, such as sun exposure, smoking, some medicines, or underlying medical disorders, can cause changes in lip color. Lips might seem darker in this condition.

Types of lip balm

There are 7 kinds of lip balms to choose from

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. Users use tinted lip balm to moisturize their lips as well as to give them a brilliant wash of colour. Just apply the coloured lip balm directly to the lips to use it.

2. Medicated Lip Balm: 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.

3. 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 flavours. 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.

4. 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.

5. SPF Lip Balm: The SPF lip balm are a kind of lip balm which contains ingredients that protect the lips from the harmful effects of the Sun rays. The SPF lip balm functions like a sunscreen to protect the lips from sun damage, burning, and even skin cancer. If the user is skin conscious and is avoiding the harmful effects of the sun, then this lip balm is the perfect thing to use on a day's out.

6. Plumping Lip Balm: The plumping lip balm is a kind of lip balm that doesn't just moisturize the lips, but also makes the lips look more rounder. Plumping lip balms is made to give protection to the lips, but at the same time it has special ingredients to make the lips look fuller.

7. CBD or Hemp Oil Lip Balm: Cannabidiol (CBD) or hemp oil lip balm are a kind of lip balm that contains CBD oil or hemp oil. Hemp oil is from the hemp plant which is an excellent moisturizer for the lips, while the CBD oil is an active compound of cannabinoids which has anti-inflammatory benefits. The lip balm will act as an anti-oxidant to the lips to help sooth dry and heal chapped lip.

FORMULATION

Ingredients	Biological action in the preparation	Amount used in the preparation
Beeswax	Base	4g
Shea butter	Humectant	2.5g
Rose oil	Perfume	0.25ml
Beetroot powder	Colouring agent	0.5g
Vitamin E	Preservative	0.15ml
Aloe vera	Anti inflammatory	4%
Rose Infused oil	API	2.6ml

STEPS INVOLVED IN PREPARTION OF NATURAL LIP BALM

1. A water bath is kept on the burner and is filled with water for boiling.
2. Bees wax filled in china dish is kept on the boiling water.

3. The beeswax is heated till it melts properly.

4. To the molten beeswax, shea butter and vitamin E and aloe vera are added and is made homogeneous with slow stirring with glass rod.

5. In the mixture rose infused oil is added and mixed properly.

6. After homogeneous mixture is obtained, colouring agent and perfume is added.

7. The mixture is poured in the container.

8. Then the mixture is cooled in the ice bath or dried in the sunlight.

EVALUATION OF LIPBALM

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.

A. TEXTURE The formula lip balm sample is placed on slide. Texture analysis of Lip balm has been recorded by organoleptic evaluation.

B. COLOUR: Lip balm colour analysis was evaluated. The three readings that contribute to the brightness, redness of the sample being examined.

C. ODOUR: The pleasant odour is present due to the presence of Rose oil.

D. GREASINESS (APPEARANCE): The oil test was reviewed to determine the amount of oil in a formulated lip balm. In this study 1 gram of lip balm was placed on filter paper and the sample was left at room temperature for 24hours.

2. pH

One gram of the preparation is dispersed in 25 ml of distilled water. The pH of the preparation was determined using a pH meter pre-calibrated with standard buffer solutions (pH 4, 7 and10). The measurement was performed three times.

3. MELTING POINT

The melting point was determined using a Melting Point instrument. Briefly, one end of the capillary tube was sealed; formula is fed from one end into the capillary to a certain height. The capillary is introduced into the melting point apparatus and the temperature at which the molten mass is recorded.

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.

5. STABILITY TEST

The formulation of the lip balm has been evaluated for stability for 30 days under various temperature conditions mainly room temperature (25°C), higher temperatures in the oven (40°C) and refrigerator (5°C). Characteristics such as organoleptic properties and Spreadability were evaluated on days 7, 15, and 30.

a. Preliminary Stability Test

Formula evaluated on preliminary stability tests including physical properties (colour, odour and appearance) and flow testing. Since this formula does not cause any physical or balance changes, it has been tested for normal stability.

b. Normal Stability Study

An amount of 25 g of the substance has been prepared for routine stability testing, where the physical properties (colour, odour, and appearance), flow ability and the melting point was evaluated for 5 days at room temperature. Samples are well preserved.

CONCLUSION

Whether the formulation was kept at ambient temperature or in a refrigerator, it demonstrated the same stability behavior. It was determined that the spreadability was "good" and that the organoleptic characteristics were stable. Storage under these conditions was deemed sufficient because the product's functionality was maintained. With a sufficient melting temperature (mean of 63°C), the lip balm made from natural ingredients passed the stability test.

Therefore, it may result in the study being conducted on natural lip balm goods showing a significant future market for cosmetic products. It was found that natural ingredients are safe to use in lip balm and are a superior alternative for the composition of lip balm. Excipients can be altered or combined in unusual ways to produce a brand-new formulation with superior quality. The current research indicates that the formulation will not change.

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