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A review on natural lip salve

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ABSTRACT

Cosmetics are prepared and used for a long time. Cosmetics have been a daily essential need. There are many varieties in the preparation and use of cosmetics such as foundations, skin cleansers, lotions, and lipsticks, etc. Under lip applications, there is a broad spectrum like lipsticks, lip liners, lip gloss, lip salve (lip salve), etc. Salves are generally accustomed to increase the beauty of lips while protecting them. To promote and maintain healthy lips naturally lip salve is used. Many methods have been employed for the preparation of lip salve. These methods increase their organoleptic properties. Nowadays, products which are naturally derived or having natural constituents are mostly preferred. This work focuses on, natural constituents accustomed to formulating lip salve. In this review, essential constituents used for natural salve preparation with its benefits is done. The preparation of natural lip salve is done using naturally occurring base, naturally derived oils, and naturally occurring coloring agents and naturally derived flavoring agents. This is evaluated for parameters like its resistance to variations in temperature, acceptable flavor, its smooth texture throughout and adherence, etc.

Keywords— Cosmetics, Lips, Natural lip salve, Natural constituent

1. INTRODUCTION

Today Cosmetics has a very crucial role in the life of most of the people. Rather today's style is going green in most of the industries which include the cosmetics industry as well. The natural choices preferred are food that is naturally produced, medicines that are herbal and also there is much demand in the vegetables that are organically grown. Hence in personal care also, using cosmetics which are naturally derived have been increased nowadays. [1].

Today herbal or natural extracts which are used in cosmetics for skin care and hair-care are in much demand as people trust and rely on them [3-5].

Various formulations include herbal or natural constituents. It indicates safety when compared to products derived synthetically which may have many ill effects on the health of humans [3-7]. To apply color to the lips is the age-old method which is followed to increase the beauty and provide glamorous touch to the lips while protecting them. There is a wide range of shades of color, texture, and shine in the lip formulations. Under lip formulations, there is lip gloss, lip salve, lipstick marketed in various shades. In this paper study of the natural lip, salve is done by studying the natural lip salve constituents, the significance of natural components along with formulation and evaluation of natural lip salve. It is evaluated for its organoleptic properties like color, odor, spreading ability, melting point, and product consistency [8-10]. The quality of the product can be determined by its color. Freshness also can be found out depending on the color, this means the color is one of the important parameters for evaluation. However, Natural colors are nontoxic when compared to synthetic colors [10].

2. APPLICATION OF LIP SALVE

Lip salve is a formulation that is used for lips to avoid them from dehydrating and guard lips when exposed to extreme climatic conditions [12]. To moisturize and relieve cracked and dehydrated lips, to avert inflammation, and condition that causes painful swelling and cold sores application of lip salve are done. The skin on lips significantly is more vulnerable thus has a thin skin and therefore they're typically the first to present signs of xerotes.

Lip salves which are commercially available have compositions of a base which includes a combination of wax and oil, or a combination of wax, petroleum jelly and oil [24]. Petroleum jelly creates an illusion of moisturized and hydrated skin, while in actual it suffocates the pores on the lips. It can hardly seal the barrier so the moisture doesn't leave the skin [25]. Hence use of wax and oil is more preferable in the base. The oil allows the lip salve to be transferred or applied to the lips, and was not only contributes to the structure of the stick but also it provides the benefit of forming a protective layer when applied to the lips [24].

Lip salves formulations that are synthetically processed are presently existing in the numerous forms in the market from the companies like, Nivea, Himalaya, etc. The literature of cosmetics has limited data on formulation like lip salves, though data associated with lipsticks are available as it is alike lip salve. As it is said similar, organoleptic properties and stability studies such as resistance to various different temperature, acceptable flavor, oily nature, smooth texture throughout the use, adherence, etc. are the parameters which are studied for lip salve [11]. Lip salve shouldn't be thought-about similar to the lip gloss, as lip salve can be a unisex product. Salve produced synthetically contains camphor, cetyl alcohol, jelly, lanolin, paraffin, and wax along with other constituents which are colorants, essence, scent, carbolic acid and sunscreens [12]

Balancing the concentration of the major constituents which includes kinds of butter, oils, waxes and different excipients is very essential and necessary in the formulation of the lip salve [12]. Today people are more aware of their skincare routine. For the younger looking skin and its appearance they use skin care products and seek different beauty treatments. But taking care of lips is largely forgotten as the major focus is being given to healthy skin. To promote healthy lips natural lip salves are used as they provide a natural way to maintain and protect lips [12]. As salves are applied on lips, it is inevitable that it is usually unknowingly consumed and therefore it is very important that people using it should have a very keen look at the constituents used in the formulation of the lip salve. The colors or dyes which are synthetically produced are harmful to consumers on eating it away. [13]

3. BENEFITS OF NATURAL LIP SALVE

- (a) Lip salves help to protect lips by providing natural health and beauty to the lips.
- (b) It is a unisex product as both females as well as males can use it to protect the lips.
- (c) Use of natural lip salve cures stomatitis, relieves cracks and moisturizes dehydrated lips.
- (d) As the product is made of natural constituents, when brought in the contact of the skin it won't cause any irritation or dryness of the skin of lips as well the skin around the lips.
- (e) It protects lips from adverse environmental factors [12, 14-18].

4. CONSTITUENTS USED IN NATURAL LIP SALVE FORMULATION

Lip salves contain four different basic constituents which when combined together forms a complete lip salve product. They are base, oil, coloring agent and flavoring agent.

5. NATURALLY OCCURRING BASES

In the manufacturing of skin care goods and beauty products, wax plays the role of an important group of constituents. Usually, more preferably, it is used in the preparation of candles and has an essential role in industries like food, cosmetics, and pharmaceutical as thickeners. When the wax is compared with fats, it is stiffer, little unctuous and much fragile. It has the property of water resistance, oxidization resistance, and bacterial resistance. Waxes are classified as follows:

- (a) Animal Waxes consists of Beeswax, lanolin.
- (b) Plant Waxes consists of plant-derived waxes like Carnauba, candelilla, jojoba;
- (c) Mineral Waxes extracted from minerals like Ozokerite, paraffin, microcrystalline,
- (d) Synthetic Waxes include waxes like Polyethylene, carbowax, acrawax, stearon.

Beeswax, carnauba wax and candelilla wax are the most widely used waxes in the field of cosmetics [14]. Ester of fatty acid and higher alcohol is termed as wax and therefore oil of jojoba is considered to be wax and not oil. Characterization of waxes can be done with having a melting point ranging from (50-100°C). Beeswax is considered to be a good emollient and therefore it is the most often used wax. Natural waxes have a higher melting point, this makes them more stable and hence used for dry products e.g. lip salve [14]

5.1 Examples of naturally occurring Bases

Cocca butter, Bees Wax, Shea Wax, Shea butter, White Beeswax, Yellow Beeswax, Carnauba wax, Candelilla wax, Mango butter, Avocado butter Olive wax, Jojoba wax, Olive butter, Sweet Almond butter, Sweet almond wax, Raspberry butter. [12, 14-16]

6. NATURALLY DERIVED OILS

Physical forms of oils and fats are totally different, generally, fats are considered to be solid at room temperature. Oils as well as fats are glycerol esters composed of glycerol and fatty acids and can also be termed as triglycerides.

Determination of the stability and property of the oil can be done depending on its saturated and unsaturated forms. Oils those have saturated fatty acids (lauric, myristic, palmitic and stearic acids) consists of coconut oil, cottonseed oil, and palm oil. Oils those have unsaturated fatty acids (oleic, arachidonic, linoleic acid) are canola oil, olive oil, corn oil, almond oil, safflower oil, castor oil, and avocado oil. Oils that are more stable in condition and do not become rancid as easily as unsaturated oils are termed to be saturated oils. On the other hand, oils which are considered to be smoother, less greasy, and better absorbed by the skin are termed to be unsaturated oils. Natural butters are one of the best ointments and thickeners. Depending on the category they have numerous properties like antioxidant and calming properties. These properties are there in natural butters like shea and avocado butter because of the phenolic compounds in them. [14and15].

Waxes need to be properly blended with the oils for giving an appropriate film which can be applied on to the skin of the lips. [15]. Sunflower oil or olive oil is being used for providing natural glow [14]. Oil which is widely used in salves is castor oil as it has many beneficial properties. Castor oil which is refined is odorless, has good color and also is tasteless. It also is termed to be one of the best plasticizing agent [16].

For preventing lips from dehydrating and for keeping the skin of lips soft Jojoba oil is one of the most preferred oils. For moisturizing and good conditioning of the lips, the wolfberry seed oil is renowned. For retaining natural moistness of lips, rosehip oil is preferred. As antioxidant has an important part in the formulation of the salve, Vitamin E can be used as one of the best antioxidant. Also, the cinnamon essential oil has these anti-oxidant properties. For revitalizing of the skin peppermint essential oil is preferred. For calming and moisturizing of skin of lips lavender essential oil is used. Oil which is light and refreshing for dry lips is grapefruit essential oil [11-12]. The oil that has a characteristic odor and which is pale yellow in color is almond oil which has great emollient properties [15].

6.1 Examples of naturally derived Oils

Coconut oil, Olive oil, Almond Oil, Vitamin E oil, Peanut Oil, Tea tree oil, Glycerin, Castor oil, Jojoba oil, Corn oil, Arachis oil, Lemon oil, Avocado oil, Sesame oil, Sunflower oil, Grape seed oil. [3, 12, 14-16]

7. NATURALLY OCCURRING COLORING AGENT

For a good appearance of a cosmetic product, coloring agents are mainly used [14, 21-23]. Three major senses which are sight, touch and smell of a person contribute to buying a product as these are main organoleptic properties. Hence the product is firstly judged by its appearance where the color of the cosmetic formulation is the first thing which attracts the people [15]. There should be no physiological activity and it should have nontoxic nature when the color is derived from the natural source. Light, tropical temperatures, hydrolysis, and micro-organisms should not affect the naturally derived colorant. Also on storage, they should be stable. [20-23]. After addition of oxidizing, reducing agents the naturally obtained colorant should not be affected. Naturally, derived colorants should not have unpleasant taste and odor and should be available easily and also should not be expensive [20-23]. Natural colorants are obtained from vegetables, fruits, and flowers like beetroot, saffron, etc. The coloring agent majorly present in saffron is crocin, it is a powder which is yellow in color, which is water soluble and easily available in nature. [15].

7.1 Examples of naturally occurring coloring agent

Beetroot, Pomegranate, Marigold, Tomato, Jabul, Watermelon, Honey, Saffron, Turmeric, Capsicum, Cherry, Orange, Strawberry, Mango, Carrot, Lemon. [12, 14-18]

8. NATURALLY DERIVED FLAVORING AGENTS

The ingredient that irritates or are toxic should not be added in Lip salve as a flavoring agent. Better taste and good odor should be the characteristics properties of the flavoring agent as it should nullify the strong unpleasant odor of the base [15]. They are one of the very important and essential constituents in the formulation of the lip salve as they overpower the smell of the base which usually is very unpleasant. The concentration range of flavoring agent used in the formulation is usually of 2-4% of the total formulation. Flavoring Agents should have properties like stability and compatibility with other constituents of the lip salve. Flavors of fruits are usually mostly preferred in the formulations of lip salves because this flavor of fruits is usually familiar and also available in edible forms [16]. Flavors of fruits that are mostly used are apricot, strawberry, raspberry, cherry, honey, etc. Honey can be added as one of the flavorings agents which are naturally derived and also has the property of preservation of food. [17].

8.1 Examples of naturally derived flavoring agent

Strawberry, Honey, Orange, Saffron (Kesar), Raspberry, Vanilla, Mango, Rose, Sandalwood, Jasmine, Cherry, Apple, Lemon, Apricot, Rosemary, Pineapple. [13-16, 20]

9. METHOD OF LIP SALVE FORMULATION

This is a general procedure for preparation of lip salve. Naturally occurring and derived constituents which are required for the formulation mentioned above are taken. The first step is to weigh the proper amount of constituents required for the formulation. Then, melt the amount of waxes weighed, which is taken as a base of the formulation in hot water bath in order with constant stirring until it completely melts [21]. Then depending on the solubility of the coloring agent it is mixed with oil or water and is added to the prepared formulation of the waxes and mixed well continuously until the stable colored formulation is formed. After this step addition of flavoring agents as per the requirement is done. Agents like honey can also be added which can increase the flavor while acting as a natural preservative. This mixture is continuously stirred until a homogenous mixture is formed. This formulation should be filled in the empty molds of lip salve containers and allow them to cool for achieving the cooled molds of salve [21 and 22].

10. EVALUATION PARAMETERS OF THE LIP SALVE FORMULATION

The performance of the lip salve formulation depends on the quality of lip salve formulation. Hence for the evaluation of this formulation, there are many evaluation parameters. These parameters play a very important role in maintaining the stability, uniformity, and purity of the formulation. Evaluation parameters which assess the formulation of the lip salve products are an odor, color, and texture. These are the important parameters as they contribute to the appearance of the formulation which plays a very essential role when a person wants to buy the product. [14].

The odor of the formulation can be evaluated on the basis of feedback which can be taken from the group of evaluators. Appearance can be evaluated and characterized by visualizing it under 10x magnification of the microscope. At room temperature,

the formulation of the lip salve is applied on the glass slide to observe how uniformly it spreads without fragmental deformation, this process is studied for evaluating the parameter called as spreading ability. By capillary drop method, the melting point of the formulation is evaluated. The product should be kept continuously under observation for at least 90 days to check if there is a growth of any microbes, formation of crystals on the surface. It should be kept in different temperatures for studying the temperature variation test. It should also be evaluated for aging stability. The formulation can be evaluated for flavor stability as well. Skin irritation test is performed for checking if the formulation irritates the skin [15].

11. CONCLUSION

The cosmetics industry is increasing day by day due to products that are available in the market. These Products increase the beauty and hence are majorly in demand. In this review, the formulation of lip salve and advantages of natural lip salve using naturally occurring constituents is made. In this study evaluation parameters are also studied. Therefore, it can be concluded that the literature survey has been done on the naturally occurring base, oils, coloring agent and flavorings agents which are required in the formulation of the natural lip salve.

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