



HERBAL LIPSTICK – AN UPDATED OVERVIEW

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ABSTRACT

Lipstick is the cosmetic used to colour the lips. It enhances the appearance of the lips. Lipstick is used for the purpose to improve appearance, look attractive and protection of lips for many types damaging UV rays etc. Herbal Lipstick is a cosmetic product containing pigments, oils, fragrance, preservatives, colors, texture and protection to the lips. It has become an almost universal constituent of ladies' handbags. Moist lips, dry lips, shiny lips, smooth lips, all are simple matters of cosmetic application Herbal lipsticks are gaining popularity because natural cosmetics are safe. In market hundreds of shades of colors are available to satisfy the demand by the women's in form like liquid as well as stick on lips. Herbal lipsticks having minimum side effects. It contains natural ingredients or nutrients it is safe to use that keep lips healthy. Lipstick containing synthetic colorants which are made up of harmful chemicals and it is very harmful for our skin. Continuous use for long time of synthetic colours may cause serious health problems like skin discoloration, lip cancer, skin irritation, etc. Lipstick demonstrate many types of negative effect like- allergy, nausea, dermatitis, and drying of the lips and more serve/used even fatal. So, the demand of the cosmetics containing herbal ingredients increased universally because it is safe. This review paper is about the overview on herbal lipstick which includes advantages, anatomy of lips, ideal characters, formulation defects and evaluation.

Keywords

Natural, Herbal, Color, Ingredients, Lipstick, Formulation, side effect, Herbal lipstick, evaluation.

INTRODUCTION

Cosmetic means any article intended to be sprayed poured rubbed or sprinkled on, or introduced into or any parts for cleansing, beautifying, promoting attractiveness or altering the appearances. Cosmetics are the substance use to alter of appearance or fragrance of human body. Lipstick are most widely used cosmetic added in the make up to enhance the beauty of lips.

A good lipstick should have persuading characteristics and be acceptable to consumer, such as having a suitable texture and antioxidant properties. Bases, oils, emollient and colorant are among the variety of components that contribute to properties of fine lipstick. Texture, melting point and hardness of lipstick are the dominant characteristics that are modified by varying the ratio of component that are used in the formulation.^[1] Colorant or pigment are the component that play an important role in the lipstick formulation as it determines the aesthetic value of lipstick. Colorant can be from synthetic and natural sources. Synthetic colors are manufactured chemically. The synthetic dyes that contribute the color to the lipstick are dangerous to human on consumption and may cause adverse effect such as allergy, dermatitis, skin discoloration, drying of lips, etc. In some cases they can be carcinogenic and even fatal. This limitation thus leads the use of natural colorants in production of lipstick. Natural colors are extracted from natural sources such as plants, insects, and algae.^[2]



Figure 1 – shades of lipsticks

Cosmetic word is obtained from the Greek word “kosmetikos” which means the power, arrange and skill in decorating.^[3] Herbal cosmetics are the cosmetics in which one or more herbal ingredients are used to form base.^[3;4] Phytochemicals are the substances which present in the herbal cosmetics. This influences the functions of the skin and provides necessary nutrients for healthy glowing skin or hair^[5]. Many colors and types of lipstick exist. Now a day’s the demand of herbal cosmetics in the world market are growing and are inevitable gifts of nature. There are a wide range of herbal cosmetic products to satisfy the needs of women for beautifying purpose. In contrast to the synthetic one the herbal cosmetics are safe on human health.^[6] Natural colours are extracted from natural sources such as plants, insects, algae.^[2]

Many colors and types of lipstick exist. Some lipsticks are also lip balms, to add both color and hydration^[7;8].

However, current lip care products not only emphasize aesthetic value but also preferably have added medicinal value to the lip of consumers. This led to the emergence in the market of medicated lipsticks with active medicinal ingredients. The medicated lipsticks may provide protection against infections of bacteria due to the presence of an active medicinal ingredient in the formulation. This function adds on to the existing role of lipsticks, which provide moisture and emollient action to prevent cracking and chapping of the lips^[9].

Recently, the use of herbs in the production of cosmeceuticals products for personal care has been on the rise^[12]. Herbal cosmetics, also known as natural cosmetics, are the modern trend which encircles both health and beauty care^[13].

On some occasions, regular usage of synthetic products that contain ingredient such as lead, petrolatum, and phthalates may be harmful to consumers. These products may cause lip irritations and dry, chapped lips and can lead to health problem such as allergies, asthma, and cancer^[14;15]. The habits of licking lips or eating and drinking while wearing lipstick can worsen the problems. Due to chronic exposure and their neurotoxic nature, harmful chemicals such as lead in lipsticks should not be ignored^[11;16].

IDEAL CHARACTERISTICS

1. It should give shiny and smooth appearance free from sweating
2. It should be non-irritant and non-toxic to the lips
3. It should not dry on storage
4. The container should operate easily
5. It should impart uniform colour to the area of application
6. It should be free from gritty particles
7. It should not melt or harden within reasonable variation of climatic temperature.^[17;18]

ADVANTAGES OF HERBAL LIPSTICK OVER SYNTHETIC LIPSTICKS

- The ingredient in the natural lipstick is all natural and is safe to use.
- They also contain natural nutrient that keep lips healthy.
- They have fewer or no aspect impacts.
- They are non-toxic, highly lipophilic, anti-oxidants, anti-microbial, anti-inflammatory, and are used in leucoderma of lips.
- Extensive range of color to choose from.
- Colorants has different original shades of color from purplish red, ruby red, beetroot purple, dark violet, pastel red, pale red, purplish red, rose red, deep magenta, dark purple, orange, deep violet.
- Different combination and shades can be obtained from these colors.
- By adding organic and inorganic acids and bases color may be changed to different shades.^[19]

ANATOMY OF LIPS

Lips are soft, movable body part at the mouth of humans and helps for the intake of food and speech. “Labium superius ores” and “Labium inferiors ores”, are the upper and lower lips respectively. The meeting point where the lips joint the surrounding skin of smooth area is the vermilion border and reddish area within the border is called the vermilion zone. Cupid’s bow is the vermilion border of upper lips. The fleshy protuberance located in the center of the upper lip is a tubercle.^[20] known by various terms including the procheilon (also spelled prochilon), the "tuberculum labiisuperioris", and the "labial tubercle".

The skin of the lip, with three to five cellular layers, is very thin compared to typical face skin, which has up to 16 layers. With light skin color, the lip skin contains fewer melanocytes (cells which produce melanin pigment, which give skin its color). Because of this, the blood vessels appear through the skin of the lips, which leads to their notable red coloring. With darker skin color this effect is less prominent, as in this case the skin of the lips contains more melanin and thus is visually darker. The skin of the lip forms the border between the exterior skin of the face, and the interior mucous membrane of the inside of the mouth.

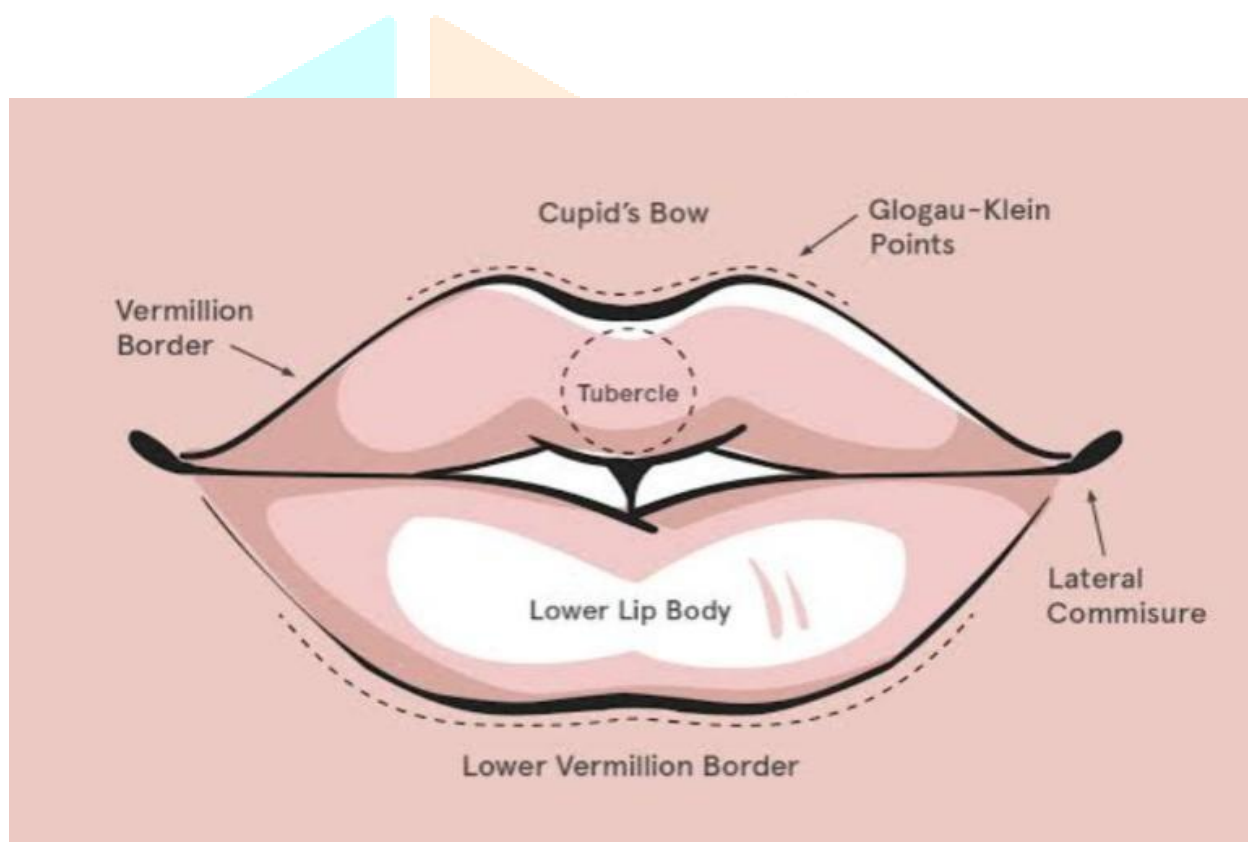


Figure 2 : Anatomy of lips

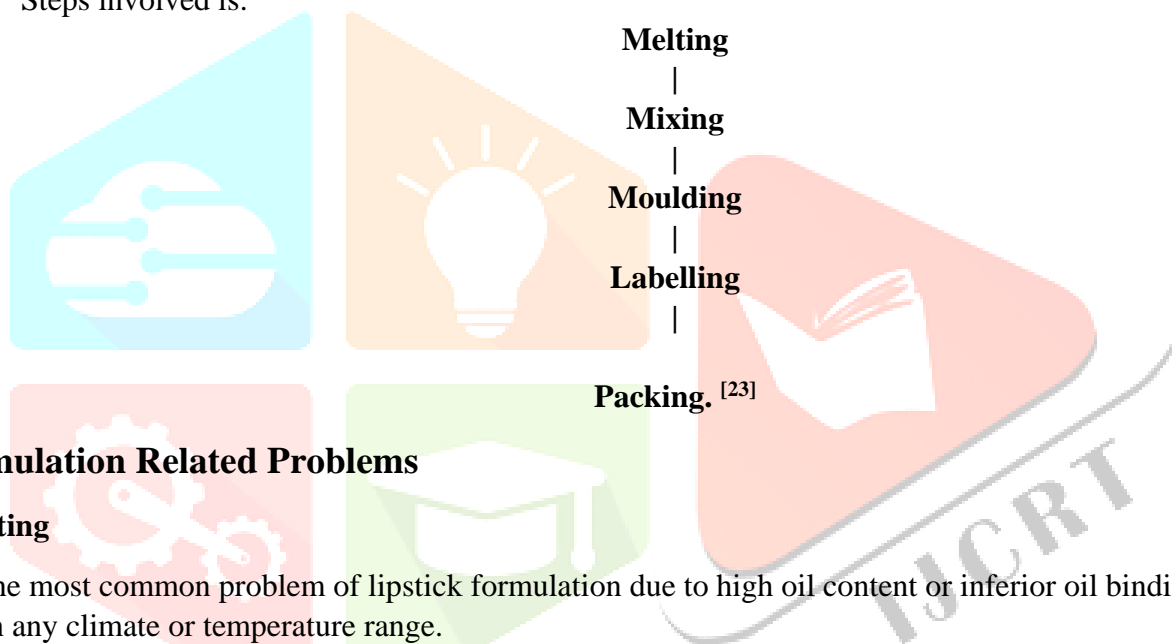
The upper lip covers the anterior surface of the body of the maxilla. Its upper half is of usual skin color and has a depression at its center, directly under the nasal septum, called the philtrum, which is Latin for lower nose, while its lower half is a markedly different, red-colored skin tone more similar to the color of the inside of the mouth, and the term vermilion refers to the colored portion of either the upper or lower lip. It is raised by the levator labiisuperioris and is connected to the lower lip by the thin lining of the lip itself, which can be seen by opening your mouth wide in front of a mirror.

Thinning of the vermilion of the upper lip and flattening of the philtrum are two of the facial characteristics of fetal alcohol syndrome, a lifelong disability caused by the consumption of alcohol during pregnancy.^[21]

METHOD OF PREPARATION

- First, melt and mix the raw ingredients for the separately according to their melting point.
- Heat the solvents, oils, waxes in separate stainless steel or ceramic containers.
- Then mix solvent and liquid with the colour pigments.
- Mix the pigment mass with the hot wax.
- Then pour this into tubing moulds, cool, and separate the lipstick from the mould and fit it in the lipstick case.^[22]

Steps involved is:



Formulation Related Problems

Sweating

It is the most common problem of lipstick formulation due to high oil content or inferior oil binding. It may rise in any climate or temperature range.

Bleeding

This refers to the separation of colored liquids from the waxy base.

Streaking

A thin line or band of a different colour or a substance appears on the finished product.

Moulding Related Problems

Laddering

Lipstick does not look smooth or homogenous after congealing and setting but instead has a multi-layered appearance.

Deformation

This is a molding problem where the shape of the lipstick looks deformed. It is noticeable and appears on both sides of the lipstick.

Cratering

This appears in split moulding and it shows up flaming when stick develops dimples.

Mushy Failure

This is a problem in which the central core of the lipstick lacks structure and breaks.^[4]

EVALUATION OF LIPSTICK

Melting point:

It is determined using capillary tube method . Take both ends open glass capillary tubes. Introduce into each of 5 capillary tubes a sufficient amount of the lipstick, about 10mm high and allow the tubes to stand for the appropriate time and at the prescribed temperature in capillary tube is taken as the melting point. Repeat the operation 3 times using other 4 capillary tubes and calculate the result.

Breaking point:

weight at which breaks Breaking point test is to determine the strength of lipstick. Place lipstick horizontally in a socket inch away from the edge of support. Increased the weight by a specific is considered as the breaking point.^[24]

Force of Application:

It is test for determine the force to be applied for application. Keep a piece of coarse brown paper on a shadow graph balance and apply lipstick at 45*c angle to cover a 1 sq. Inch area until fully covered. The pressure leading is an indication of force of application.

Penetrometer test :

Penetration on several points on the surface of the lipstick was determined and the average of all such determinations reported in micrometer. The penetrometer needle was adjusted so that it just sits on the surface of the molded lipstick rod .The needle attachment was released and the penetrating reading was recorded.

Microbial testing:

Contamination from raw materials, moulds, storage kettles or lipstick container can lead to microbial growth. The test consist of plating a known mass of the sample on two selected culture media specifically suitable for the growth of bacteria fungi incubating them for a specified period to permit the development of visual colonies for counting. The limit is, not more than 100 µo/gm.

Rancidity:

Rancidification is the decomposition of fats, oils and other lipids by hydrolysis or oxidation. It leads to obnoxious odour, bad taste & sticky product & sometimes change of colour of the product. Testing of rancidity can be done by determining its peroxide number^[23].

Surface anomalies:

This test is for determining the surface defects, such as no formation crystals on surfaces, no contamination by molds, fungi etc.

Aging stability:

Store the product in 40*c for 1 hour and observing the various parameters such as application characteristics, crystallization of wax on surface and oil bleeds.^[25]

Solubility test:

Dissolve the lipstick in different solvents and observe the solubility in each solvent.

PH parameters:

Determine the PH of the lipstick by using PH meter.

Skin irritation test:

Apply the lipstick on the skin for 10min and observe.

Perfume stability:

Perfume stability can also be assessed by storing lipstick in oven at 40*c and by making periodic comparison of perfume with fresh lipstick.^[26]

Thixotrophy character:

It is the indication of thixotropic quality and was done by using penetrometer. A standard needle of specific diameter was allowed to penetrate for 5 seconds under a 50gm load at 25*c. The depth of penetration was a measurement of the thixotropic structure of lipstick.

CONCLUSION

This review provides information on overview Of herbal lipstick .It has minimal or no side effects. Herbal Lipstick is prepared by using different natural ingredients . Hence, the use of natural colour is step towards healthy cosmetics and which can be widely utilised by the women with great pleasure. Improvement in the builder of applicators and metal tubes decreased the cost of cosmetics. This combined with new fangled acceptance by the general population caused wide spread use and popularity to increase.

REFERENCES

- [1] Deshmukh S, M Chavan, Sutar M, Singh S.; Preparation and evaluation of natural lipstick from bixaorenella seeds.; International Journal of Pharma and Biosciences.2013.
- [2] Azwanida N, Hui M S, Afandi A, Mohamed S, Zulhisyam A K, Ayob A, Rusli N, Rasat M S M; Color stability evaluation of pigment extracted from hylocereus polyrhizus, clitorea ternatae and pandanus amaryllifolius as cosmetic colorants and premarket survey on customer acceptance on natural cosmetic product. Journal of Tropical Resources and Sustainable Sciences.2015; 3:61-67.
- [3] Kumar Sumit, Swarankar Vivek, Sharma Sujata, Baldi Ashish, Herbal Cosmetics: Used for Skin and Hair December, Inventi Rapid: Cosmeceuticals,2012; 4: 1-8.
- [4] Nanda S, Nanda A, Khar RK, Cosmetic technology, 1st edition, Birla Publication Pvt. Ltd New Delhi (India), 2007; 330-53.

- [5] Larsson SC, Naslund I, Rutegård J, Wolk A, Vitamin A, retinol, and carotenoids and the risk of gastric cancer: a prospective cohort study, *Am. J. Clin. Nutr.*, 2007; 85(2): 497–503.
- [6] Sunil R, Shekhar T C, Ashutosh B. Formulation and evaluation of a herbal lipstick: A new approach. *International Journal of Pharmaceutical Erudition*, 2013; 3(1): 26-30.
- [7] Kaul S, Dwivedi S. Indigenous ayurvedik knowledge of some species in the treatment of human disease and disorders. *Inter J Pharm and Life Sci* 2010; 1 (1):44-49
- [8] Dwivedi S, Dwivedi A, Dwivedi SN. Folklore uses of some plants by the tribal are of Madhya Pradesh with special reference to their conservation. *Ethno botanical Leaflets*. 2008; 12: 74 1-743.
- [9] Afandi, A.S.R.U.L.; Lazim, A.M.; Azwanida, N.N.; Bakar, M.A.; Airianah, O.B.; Fazry, S. Antibacterial properties of crude aqueous *Hylocereus polyrhizus* peel extracts in lipstick formulation against gram-positive and negative bacteria. *Malaysian Appl. Biol.* 2017,46, 29–34.
- [10] Ghongade, K.; Bodake, V.; Badadare, S.; Magdum, M.; Gawande, N.; Kate, S.; Waghmare, K. Formulation and Evaluation of some Cosmetic preparations using novel natural colorant from *Ixora coccinea*. *Asian J. Res. Pharm. Sci.* 2021, 11, 22–28.
- [11] Lwin, T.; Myint, C.; Win, H.; Oo, W.; Chit, K. Formulation and evaluation of lipstick with betacyanin pigment of *hylocereus polyrhizus* (Red Dragon Fruit). *J. Cosmet. Dermatol. Sci. Appl.* 2020, 10, 212.
- [12] Ghongade, K.; Bodake, V.; Badadare, S.; Magdum, M.; Gawande, N.; Kate, S.; Waghmare, K. Formulation and Evaluation of some Cosmetic preparations using novel natural colorant from *Ixora coccinea*. *Asian J. Res. Pharm. Sci.* 2021, 11, 22–28. [CrossRef]
- [13] Mahanthesh, M.C.; Manjappa, A.S.; Shinde, M.V.; Sherikar, A.S.; Disouza, J.I.; Namrata, B.U.; Ajija, W.C. Design, development and assessment of herbal lipstick from natural pigments. *Int. J. Pharm. Sci. Rev. Res.* 2020, 61, 59–64.
- [14] Yusof, A.A.B.; Ajit, A.B.; Sulaiman, A.Z.; Naila, A. Production of lip balm from stingless bee honey. *Maldives Natl. J. Res.* 2018, 6,57–72.
- [15] Malvandi, H.; Sancholi, F. Assessments of some metals contamination in lipsticks and their associated health risks to lipstick consumers in Iran. *Environ. Monit. Assess.* 2018, 190, 1–8. [CrossRef]
- [16] Łodyga-Chruścińska, E.; Sykuła, A.; Więdołocha, M. Hidden metals in several brands of lipstick and face powder present on polish market. *Cosmetics* 2018, 5, 57. [CrossRef]
- [17] Rajesh Kumar Nema, Kamal Singh Rathore, Bal Krishna Dubey. *Text of cosmetics*. 1st ed. New Delhi (India): CBS Publishers & Distributors, 2009; 69-81.
- [18] Nema RK, Rathore KS, Dubey BK, *Text of cosmetics*, 1st Edition, CBS Publishers, New Delhi (India), 2009; 69-81.
- [19] Kurthika S V, Ram S S, Ahmed S A, Sadiq S, Mallick S D, Sree T R.; Formulation and evaluation of natural lipstick from colored pigments of *beta vulgaris* taproot. *Research reviews: Journal of Pharmacy and Pharmaceutical Scirnces*.2014;3(3):65-71.
- [20] Lips antomy. A [Online]. 2009 February 6 [cited 2010 December 8]; Available from:URL:<https://www.britannica.com/science/lips>
- [21] Munmun, Dr. Foutszoglou, Mulliken J B (1), Pensler JM, 2016.
- [22] Dr Kasture, Gokhale S B, Parakh S R, Hasan S A. *Textbook of practical pharmaceutics*.16th ed.Pune (India):NiraliPrakashan, 2008; 33-35.

[23] <https://www.slideshare.net/mobile/harikrishna659/lipstick-69337464>

[24] Mishra P, Dwivedi S. Formulation and evaluation of lipstick containing herbal ingredient. Asian Journal of Medical and pharmaceutical Researches.2012; 2 (3):58-60.

[25] Avinash M D, Hari A M, Pradeep N S. Herbal lipstick formulation. A new approach. International Journal of Research in Ayurveda & Pharmacy.2011; 2(6):1795-97.

[26] Swati D, Manisha S, Sonia S, Pavankumar K M, Dhiraj P, Ganesh N. Formulation and evaluation of natural lipstick prepared from bixaorellana seeds and beta vulgaris root extract and the comparative study International Journal of Pharmacy and Pharmaceutical sciences.2013;5(4):68- 70.

