A REVIEW ARTICAL ON HERBAL LIPSTICK

FORMULATION EVALUATION OF HERBAL LIPSTICK FROM THE EXTRACTION OF PAPAYA

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ABSTRACT

Cosmetics have become one of the daily necessary of all groups in society every year they introduced various cosmetic products with latest trend nowadays there is a many more harmful cosmetic products are available in market. For overcome these problems these present research gives information about herbal lipstick. Lipstick is one the beauty product and lipstick is used for the purpose of improve appearance, looking attractive and protecting of lips for damaging UVrays of shades and from like liquid as well as sticks. Lipstick contains synthetic colours it is made up ok harmful chemicals and it leads to very harmful for our skin. Herbal lipstick is gaining popularity because natural cosmetics are safe it is easy to handle by women this product has increased and there are different shades of colour, texture in market more than hundreds of shades are available to satisfy the women needs herbal lipsticks are minimum side effects. This review mainly focuses on natural ingredients, formulations, extraction, defects in lipstick. Also, we have to focus evolution parameters like melting point, breaking point, smoothness, PH parameters.

KEYWORDS:

- Cosmetics, Herbal lipstick, Formulation, Evaluation, Colour, Ingredients,

side effect, safe.

INTRODUCTION

A. According to D & C Act in 1940

Any article intended to be rubbed, poured, sprinkled or sprayed on or introduced to or applied to any part of human body for cleansing, beautifying, promoting, attractiveness or altering the appearance and includes any article intended for use as component of cosmetics.

Included in this definition are products such as skin moisturizers, perfumes, lipsticks, fingernail polishes, eye and facial makeup preparations, shampoos, permanent waves, hair colours, toothpastes, and deodorants, as well as any material intended for use as a component of a cosmetic product.

B. Characteristics of Herbal Lipstick

1) long lasting effect

2) Stable physically and chemically

3) Shining and smooth appearance

4) Make lipstick soft

C. Lipstick Cosmetic

Formulation is used to protect the lips from sun damage and pollution and also increase the beauty of lips. It is too easy to handle in my generation women. Recently the use of botanicals in cosmetics have increased mainly due to the mild action and non-toxic nature. In cosmetics, both natural and Phyto-ingredients are used. Natural products include oils, extracts, secretions etc. Phyto-ingredients include pure constituents obtained by various process. Herbal cosmetics played an important role in women's life because the cosmetic produce increases the beauty of them. The products used by herbal properties are lipstick, talcum powder, Kajal, liner etc. The herbal product reaches the high trend in n beauty &fashion. Natural herbal product has many pharmacological effects like antimicrobial, anti-inflammatory, crystallin effect these properties are useful for humans.in these preparations and evaluation of natural lipstick it has incredible value and demand also .it also use to nourish our lips in winter. Dry lips and black lips problems also treat by these ingredients.

The herbal products are safest without any side effects.in these preparations we are studied about the evolutionary properties of herbal lipstick [(1)].

DEFINITION:

Lipstick is a cosmetic product containing pigments, oils, waxes, and emollients that applies colour and texture to the lips. It is most widely used cosmetic item by the women to give an attractive colour and appearance to the lips. There are many varieties of lipstick. Lippy is a common British word for lipstick.

• These are usually manufactured as moulded sticks and consists of coloring pigment dissolved in fatty base containing wax [(2)].

Merits of Natural Lipsticks over existing Synthetic ones

❖Herbal dyes are non-toxic, highly lipophilic, antioxidant and anti-microbial anti-inflammatory and are used for leukoderma especially on the lips.

❖Colorant has different original colors from purplish red, ruby red, beetroot purple, dark violet, pastel red, red pale, red purplish, rose red, deep magenta, dark purple, orange, violet deep.

❖In these colors, with different combinations, other shades can be found.

❖Colour can be changed to different colors with organic and inorganic acid and bases.

Ingredients

General requirements [(3,45)]

S.no	Ingredients	Quantity	Roles
1	Bees Wax	14g	Thickening Agents
2	White soft paraffin	6g	Base
3	Olive Oil	5ml	Moisturizing Agent
4	Pigment	1g	Binder
5	Acacia	1g	Additive
6	Orange Juice	1ml	Antioxidant
7	Vitamin E	1ml	Antioxidant
8	Papaya essence	1ml	Colouring Agent
9	Perfume	q. s.	Flavouring Agent

Table. (1)

Uses of Ingredients

1) BEES WAX:

- It is thickening agent.
- Bees wax in used in lip-balm, lip-gloss and hand creams.
- Bees wax can help to the lips.
- Bees wax help retain moisturizing skin.
- Bees wax is widely used in cosmetic product.

Figure(A) .Bees wax

2) White soft paraffin:

- It is used in many cosmetic and personal care product like lipstick, lotion, creams.
- It is reduced friction on the skin.
- It is used as emollient.
- It is helps to restore the skin’s smoothness, softness and flexibility.

Figure(B). White soft paraffin

3) Olive Oil:

- Its soft supple lips.
- It is used superior hydration.
- Its relief from cracked and chapped lips.
- It gives natural SPF Protection.

Figure(c). Olive Oil

4) Pigment:

- Inorganic pigment used in lipstick.
- It is used as a binder.
- It gives clear gloss to lips.

Figure(D). Pigment

5) Acacia:

- It is emulsifying and a suspending agent.
- It's increasing the viscosity of lipstick.
- Preventing the colour from lightening.
- It's used to demulcent.
- Maintenance the thickness of lipstick.

Figure(E). Acacia

6) Orange Juice:

- Best for dry lip and it's universal shade.
- Used to healthy lip and prevent the cell damage.
- It's reduced the inflammation.
- It has to fight the urge to smear.
- It used to prevent colds.

•To use the smoothness of lip.

Figure(F). Orange Juice

7) Vitamin E:

- Vitamin E can be incorporated into nearly anything, even lipsticks and mascaras.
- Because it is a universally beneficial ingredient, it is hard to find products that do not contain this good- for your product.
- Vitamin e is the ingredient of herbal lipstick.
- Used to preventing and treating fine lines and wrinkles.
- It making lips softer.

Figure(G). Vitamin E

8) Papaya Essence:

- It is used in an ingredient of herbal lipstick.
- The role of papaya essence is flavouring agent.
- It is the natural of lipstick.
- It gives the different colour and flavour of herbal lipstick.
- It softens the lips, nourishes and protects them against environmental impact.

Figure(H). Papaya Essence

9) Perfume:

- It is used as fragrance.
- It is used to create a more natural aroma.
- It is used to give the pleasant scent.

Figure(I). Perfume

FORMULATION METHOD

The herbal lipstick was formulated as per general method of lipstick formulation. In brief, all hard and soft waxes were melted in China dish on water bath or heating Mantle with decreasing order of their melting point. Concentrated colouring's pigment was mixed and Castor oil heated, both phases were mixed at some temperature. Rose oil, Lemon juice, eugenol, shikia powder, vanilla essences were added at 400 c, then mixture was poured into lipstick mould in excess amount and mould were kept on ice bath. After solidification surplus amount was scrapped with blade, lipsticks were removed from mould and flamed. prepared lipsticks were fitted in lipsticks container and used for further evaluation [6].

Manufacturing of lipsticks [7,8]:

Involves 4 distinct operations:

1) Colour dispersion

2) Mixing

3) Moulding

4) Flaming

Colour dispersion

- Agglomerates of colour pigments broken down and mixed with oil.
- If a solvent is used for the preparation of solution of bromo acids, it is prepared and set aside.

- Lake colours when used are dispersed in suitable amount of oil to make a paste. This paste can be passed through triple roller mills.
- The colour mix is then mixed with bromo acid mixture.
- Lower melting point waxes melted and added to the colour mix. Then additives are dissolved in remaining oil and mixed
- But higher melting point waxes are melted at the end.
- The mixture should be finally milled.
- Triple roller mill is used for colour dispersion.

Figure: 1(A) Triple roller mill.

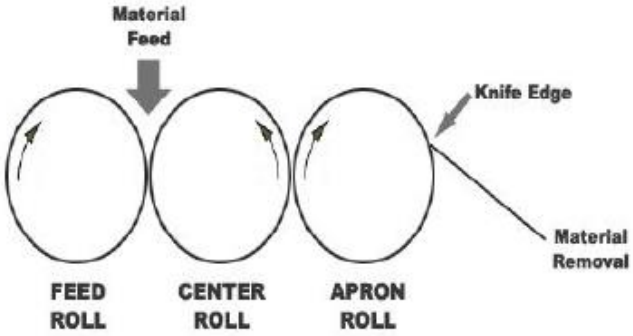


Figure:1(B) Triple roller mill (side view)

Mixing

- After milling, the material is transferred to a steam-jacketed kettle and is heated.
- Over-heating and rapid mixing should be avoided.
- After the mixture is melted completely and blended, perfume is added and blended thoroughly.
- Next the molten mixture is strained through fine mesh screen and transferred to moulds or storage containers.
- If the material is to be stored for a longer period, storage containers should be inert.
- SS steam jacketed kettle is used for mixing.

Figure:2: Stainless steel steam jacketed kettle.

Moulding:

- For moulding, operation moulds are used.
- Moulds are made up of metals like brass, aluminium.
- Molten lipstick mixture is run on the seat of the mould and the speed of pouring should be appropriate.
- The moulds are allowed to stand without movement until surplus material has congealed over the surface.
- The surplus material is then scraped off and moulds are transferred to chilled metallic plates.
- Over-cooling should be avoided.
- Then moulds are unclamped and lipsticks are pushed out.
- When large production is required, semi-automatic or automatic moulding machines are used for this operation.

Figure:3(A)-Filling of moulds

Figure:3(B):lipsticks ready to place in container

Figure:3(C)- Lipsticks

Flaming:

- The sticks are inserted in lipstick containers and the free end is reheated for a very short time.
- This makes the surface of the stick smooth and glossy.
- This process is usually done by passing the lipstick through gas flame.
- Finally, the stick and containers are examined for visual defects.

Figure:4-lipstick after flaming process and burner used.

Formulation and Evaluation of Herbal Lipstick from the Extract of Papaya

The pigments used in lipstick formulation include Synthetic as well as Natural. In current scenario lipsticks create of much health-related problem because of their harmful chemical. It also becomes the lips blackish in colour. It is very dangerous to consume this kind of synthetic dye by the user. It may cause cancer in a very severe form. Because of this kind of adverse effect in the present investigation we can formulate an herbal lipstick from papaya extract which may create very less or zero side effects [(9)].

Papaya (Carica papaya L.) is widely cultivated in tropical and subtropical environments. The two major papaya fruit flesh colours, red and yellow. High level of lycopene contains in Red-fleshed papaya fruit contain high levels of lycopene, whereas yellow-fleshed fruit contains minimal level [(10-13)].

Papaya Fruit

MATERIALS AND METHODS

Papaya used in formulation of herbal lipstick was collected in the months of March 2019 from the local market of Ujjain district.

Extraction of lycopene from papaya

Materials Required

1. Red-fleshed papaya
2. Acetone
3. Petroleum Ether
4. Magnesium Sulphate
5. Whatman Filter Paper

Procedure

Peel of the ripe papaya and make paste using mixture grinder. 100 gm of papaya paste was weighed and to these 125ml of acetone was mixed. Allow to stand for 3-4 mins to remove water. The mixture was filtered by using Whatman Filter paper. The filtrate was collected and squeezed by using a filter paper to dehydrate the paste. Now 125 ml of petroleum ether and magnesium sulphate was added to the filtrate and the content was stirred well for 3-4mins. Again, it was filtered by using Whatman Filter paper. Finally, the lycopene extract was filtered, collected and allowed to evaporate.

Method of preparation

Herbal lipstick was prepared by melting the bees wax, butter, coconut oil, and olive oil in porcelain dish on water bath with decreasing order of their melting point. Mixed colouring matter with Castor

oil and heated. Mixed both the phases at the same temperature.

Defects in lipsticks [14,15]

Formulation related problems:

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

- Bleeding: This refers to the separation of coloured 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 homogeneous after congealing and setting but instead has a multi-layered appearance.

- Deformation: This is a moulding problem where the shape of the lipstick looks deformed. It is noticeableand appears on both sides of the lipstick.

- Cratering: This appears in split moulding and it shows up flaming when the stick develops dimples.

- Mushy failure: This is a problem in which the central core of the lipstick lacks structure and breaks.

Quality Control of Lipsticks [16-19]

Quality control Procedures are Strict since the Product must meet Food and Drug Administration (FDA) Standards. Lipstick is the only cosmetic ingested, and because of these strict controls on ingredients as well as the manufacturing process is imposed. Lipstick is mixed and processed in a controlled environment so it will be free of Contamination. Incoming material is tested to ensure that it meets the required specification. Samples of every batch produced are saved and stored at room temperature for the life of the product.

Colour control of lipstick is critical and one only has to see the range of colours available from a manufacturer to be aware of this. Colorimetric equipment is used to provide some numerical way to control the shades of lipstick. This equipment gives a numerical reading of the shade when mixed, so it can identically match the remaining lipsticks.

There are two special tests for lipstick that are heat and rupture tests. In the heat test, the lipstick is placed in the extended position in a holder and left at a constant temperature over of oven 130 °F (540 °C) for 24 h. There should be no drooping or distortion of the lipstick. In the Rupture test,

the lipstick is placed in two holders, in the extended position. Weight is added to the holder on the lipstick Portion at 30 s intervals until the lipstick ruptures. The pressure required to rupture the lipstick is then checked against the manufacture's Standards. Since there are no industry standards for these tests, each manufacturer sets its Parameters.

Evaluation of Herbal Lipstick [20-23]

Colour and Texture: Formulated lipsticks were checked for colour, glossy and smooth texture.

pH: The pH of the herbal lipsticks was determined using digital pH meter.

Determination of Melting Point: Determination of melting point is an important parameter for lipstick formulation; as it is an indication of the limit of safe storage. It was determined by capillary tube method. Melt approximately 50mg sample of lipstick and filled into glass capillary tube opened at both ends. Capillary was cooled with ice for 2h and fastened with thermometer. Thermometer with capillary was deep in the beaker containing full of water which was placed on heating plate with magnetic stirrer. Heating and stirring was started slowly at fixed speed. The temperature at which material moves along the capillary tube was considered as melting point.

Breaking Point: This test was carried out to find out the value of maximum load that lipstick can withstand before it breaks. This test gives strength of lipstick. It was checked by held lipstick horizontally in a socket inch away from the edge of support. Gradually the weight increases by a specific value 10gm at specific interval of 30 secs. The weight at which breaks was considered as the breaking point.

Softening Point: Lipstick should be able to withstand range of conditions to which it will be subjected in the consumer's handbag. It should be resistant to varying temperature conditions and be just as easy to apply in hot and as in cold weather. Softening point of lipstick was determined by Ring and Ball method.

Surface anomalies: Surface defect like formation of crystals on surface, contamination by moulds, fungi, formation of wrinkles, exudation of liquid substances and of solid fatty substances, etc. were studied

Aging stability: In this test prepared lipstick was stored at three different temperatures i.e. refrigerator temperature (4oC), room temperature (20-25oC) and high temperature (30-40oC) for 1h. After 1h various parameters such as bleeding, streaking, catering and blooming was observed.

Perfume stability: The prepared herbal formulation was tested after 30 days, to record perfume stability.

Force of application: It tests the relative strength of the application. A piece of dark brown paper kept in the balance of the shadow graph and lipstick was placed at an angle of 45º to cover an area of 1 sq. M. Inch until completely covered. Pressure reading is an indicator of working capacity.

The basic requirements for a good lipstick are:[24]

1) The lipstick shall be firm but not brittle in texture.

2) It shall have an attractive appearance, pleasant taste and feel on the lips and shall be reasonably free from sweating, bloom and rancidity.

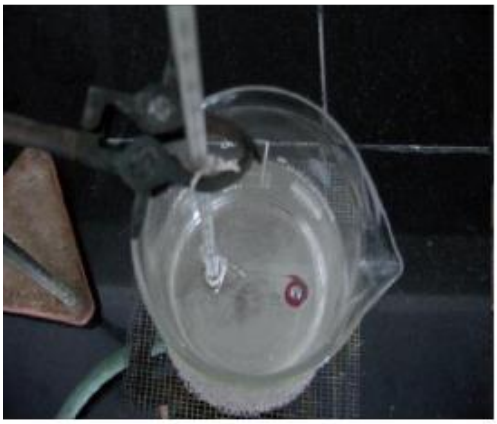
Tests:

1) Appearance: it should be attractive

2) Softening point: Methods for evaluation of lipstick

Apparatus used:

- Flat bottom tube: 12cm long and 2.5 cm in diameter
- Thermometer: accurate to 0.1 C.



(A) Beaker with thermometer inserted.

(B) Flat bottom tube

Procedure:

- Place the lipstick with protruded salve in the flat bottom tube. Fix the thermometer through a cork in such a way that the bulb of the thermometer just touches the lipstick salve. Insert this arrangement into a 1litre beaker filled with water to a level 1cm above the upper tip of the lipstick salve. Slowly heat the water while stirring so that temperature rises at a rate not exceeding 2°C per min.

- When the temperature reaches about 45°C, raise the temperature at the rate of 1° C per min. Constantly watch the lipstick salve.

- Record the temperature when the salve starts bending and losing its shape

- Colour: In this colour imparting on the lip surface is observed
- Film: Type of film formed is observed
- Spread ability: spread ability of formulation is observed.

RESULTS AND DISCUSSION

In the last few decades, the use of cosmetics has been tremendously increased, and the chemical involved for formulating these cosmetics causes hazards to user health. However, the aim of present research work was formulation and evaluation of herbal lipstick, with a goal to minimize the side effects of the available synthetic lipstick in the market. Hence, from the result obtained in the present investigation shows that the herbal formulation has a better option with minimum side effects though detailed clinical trials may be done to access the formulation for better efficacy.

CONCLUSION

Study concluded that herbal lipstick can be successfully formulated using different natural ingredients such as white bees wax, butter, castor oil, coconut oil, olive oil, vanilla & rose essence, papaya extract and lemon. It is also concluded the use of natural colorants in lipstick formulation having very less or no side effect. Thus, the prepared lipstick can take safe and effective after thorough clinical trials.

An herbal lipstick is used to rejuvenate the lips muscles maintain the elasticity of the skin, remove adhered dirt particles and improve the blood circulation. The benefits of Herbal based cosmetics are their nontoxic nature.

It nourishes the lip skin. This lipstick supplies vital nourishment to the lip. It helps in the elimination of wrinkles, cracking, dryness and folds on lips. Lipstick exfoliates little and provides a soothing, calming and cooling effect on the lip. They restore the natural shine of lip in the optimum time period. Frequent Uses of natural lip improve lip texture and Attractive colour. Pollution and harsh climates badly affect the lip and these effects can be countered by the regular usage of Herbal lipstick. They help to retain the elasticity of lip cells, thereby controlling premature aging of the lips.

Wrinkles, Fine lines, can be effectively controlled by using natural lips. In this work, we found excellent properties of the herbal lipstick and further studies are needed to be performed to ascertain more useful benefits of herbal lipstick as cosmetics. Natural remedies are accepted nowadays with open hands as they are safer with fewer side effects than the chemical-based products. Herbal formulations are required in large amounts to fulfil the needs of the growing world market. It is an effective attempt to formulate the herbal lipstick containing different natural nutrients.

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