

Formulation And Evaluation of Herbal Lipstick By Using As Sambucus Colouring Pigment

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Abstract- *The objectives of this work is to formulate and evaluate an herbal face pack for cosmetic purpose from herbal ingredients like Bees Wax, paraffin wax, Olive oil, Kokum Butter, Soap Nut, Elderberry, Rose Essence, Orange Essence, Green Tea, vanilla Essence were procured from the local market and were prepared by simple Molding method and were evaluated by Physical appearance, pH parameter, Skin irritation test, Perfume stability, Melting point, Breaking point, Force of application, Surface anomalies, Perfume stability, Aging stability Solubility test, Skin irritation, Thixotrophy character. Herbal products are medicines derived from plants. They are used as supplements to improve health and wellbeing, and may be used for other therapeutic purposes. Herbal products are available as tablets, capsules, powders, extracts, teas, shampoos, Lipsticks and so on has become more popular among the consumer herbal medicines represent the fastest growing segment to heal the various ailments. Herbal medicines are thought to be safe as it is natural, but in fact it can cause serious adverse effects and interaction with other drugs and supplements. In present days the use of such products has increased and choice of shades of color, texture and luster have been changed and become wider. This can be observed from the fact that lipsticks are marketed in hundred of shades of colours to satisfy the demand of women. The present investigation was done to formulate herbal lipstick, since lipsticks are one of the key cosmetics to be used by the women. Attempt was also made to evaluate the formulated herbal lipstick. Due to various adverse effects of available synthetic preparation the present work was conceived by us to formulate an herbal lipstick having minimal or no side effects.*

Keywords- Herbal Cosmetics, Olive oil, Paraffin wax, Elderberry, Bees wax, Shikakai.

I. INTRODUCTION

Cosmetics include skin care creams, lotions, powders, perfumes, lipsticks, fingernail and toe nail polish, eye and facial make up, coloured contact lenses, hair colours,

hair sprays, gels, deodorants, baby products, bubble bath, bath salts and many more products are in great demand in both developing and developed countries. The herbs used in cosmetic preparation have varieties of properties like antioxidant, anti-inflammatory, antiseptic and antibacterial etc. These herbal products claim to have no side effects, commonly seen with products containing synthetic agents. The literature in Ayurveda, especially Charak Samhita, stated numerous medicinal plants in Varnya kashaya. The herbs like Chandan, Haldi, Khas, Nagkshara, Manjistha, Yastimadhu are used to obtain glowing complexion and Arusa, Amala, Bavchi, Guduchi, Chakrad are mentioned as Kustaharan^{1,2}. The word herbal is a symbol of safety in contrast to the synthetic one which has adverse effects on human health. Herbal preparations viz., herbal tablets, herbal tonics, herbal paste, herbal shampoo, herbal sindur, herbal contraceptives and herbal lipstick has become popular among the consumer herbal medicines represent the fastest growing segment to heal the various ailments. Coloring lips in an ancient practice date back to prehistoric period. In present days the use of product has increased and choice of shades of colors textures, lustrous, have been changed and become wider. Lipsticks are one of the cosmetic products that primarily contain oils, waxes, emollients and pigments that are applied to the lips for colour, texture and protection to the lips. The pigments often used in lipsticks are synthetic chemicals which sometimes become a source of heavy metals. The amount of these heavy metals may be quite small, but their presence in the cosmetic formulation can lead to hazardous conditions because the heavy metals are absorbed through the skin and raises concerns about the safety of a cosmetic product.^[3] Lipstick provide hydration as it has ingredients like Aloe Vera and/or vitamin E. Lipstick defines your lips and brightens your smile, provided you choose the right shade. Wearing a lipstick can complete your look, whether it is about looking more credible at a professional setting or more sexy for a date night. Women who wear lipstick feel more confident and powerful. As a matter of fact, they are usually perceived by others as being more attractive, and in control. Lipstick is also a mood enhancer, which lifts our spirits during tough

times. It instantly makes us feel empowered. Lipsticks speak a lot about one's personality. While most of us (I am sure you all would agree) will have dozens of lip colours, there will be 3-4 pet colours most used and easily worn almost everywhere. Lipstick if chosen correctly can enhance your complexion. First, it is important to understand your skin undertone, whether it's cool or warm or neutral.[4] Lipsticks used to impart an attractive color & glossy moisture appearance to the lips. Although the name originally applied to the baton (stick) of material, within a tubular container, usually around 10mm in diameter and 50mm in length the term has now generally transposed to the material itself, regardless of method of application.[5,6]

Characteristics of Lipsticks-

- It should make the lips soft.
- It should be non-irritating to the skin of lips.
- It should be free from blemishes on the surface such as large air holes, sweating, blooming, laddering or cracking, a smooth and shiny appearance.
- It should have high retention of color intensity without any change in shade.
- It should be completely free from grittiness.
- The container should operate easily.
- Non-drying, long last effect.
- Shiny & smooth appearance, Pleasant odor & flavor.
- It should be free from sweating.
- A suitable degree of firmness during reasonable variations of climatic temperature.
- Retain plasticity without any tendency to dry-out or crumble.[7-10]

II. MATERIALS & METHODS

Materials

Olive Oil, Paraffin wax, Bees wax, Elderberry, Soap Nut, Rose Essence and Orange Essence, Green Tea are the various materials which are used in a current investigation. Following method was adopted during the course of present investigation [11,12]

Selection of herbs

The various herbs used in present formulation of herbal lipsticks were selected on the basis of literature survey [12-14]

Methods of Preparations-[5, 6]

- i. Color Grinding

- ii. Melting and Mixing
- iii. Molding
- iv. Flaming
- v. Packaging

1. Color Grinding- Pigments and dyes are available in amorphous form. So we have to convert into powder form. Equipment used for grinding are

- i. Roller mill
- ii. Colloidal mill

2. Mixing and melting- First the raw materials like solvents, oils and waxy material are melted in separate stainless steel container. The solvents and oils are mixed with color pigments. Then the mixture is passed through roller mill grinding the pigments to avoid grainy feel in lipsticks. After the pigment mass is grounded and mixed it is added to hot wax until uniform color and consistency is obtained.

3. MOLDING- Once the lipstick mass is mixed and free of air; it is ready to be poured in tubes. The melted mass is dispensed into a mold, which consists of bottom portion of metal and a shaping tube. Lipstick is poured upside down so that bottom of tube is at top of mold. Any excess material is scrapped out. The lipstick is cooled and separated from mold and bottom of tube is sealed. The lipstick is passed through flaming test to seal the pinholes and to give finish to the product.

4. LABELLING AND PACKAGING- The lipstick is retracted and tube is capped. The lipstick is ready for labeling and packaging.

III. FORMULATION OF HERBAL LIPSTICK [9-10]

The herbal lipstick was formulated as per general method of normal lipstick formulation

The ingredients used in the formulation of an herbal lipstick are: Olive oil, Bees wax, Paraffin wax, Elderberry, Soap Nut, Green tea, Rose Essence, Orange Essence and vanilla Essence.

Preparation of Extracts- Dried Green Tea Leaves was defatted with petroleum ether and extracted with ethanol-water (7:3) by maceration for 72 h. The Elderberries were extracted with methanol by maceration for 72 h.

All the ingredients were mixed in a definite ratio by melting paraffin wax and bees wax at a low flame and then moulded in a suitable mold (Moulding method) to formulate three formulations [F1 to F4]



Table 1: Ingredients with their prescribed quantities in the formulation of herbal lipsticks

Sr. No.	Ingredients	Importance	Quantity (gram)			
			F1	F2	F3	F4
1.	Olive oil	Blending agent	16	12	14	10
2.	Paraffin wax	Glossy & hardness	28	29	26	27
3.	Bees wax	Glossy & hardness	36	37	36	35
4.	Elderberry (Sambucus)	Colouring agent	05	07	07	06
5.	Soap nuts	Surfactant	12	13	15	14
6.	Green tea	Antioxidant	1.5	1.5	2.0	2.0
7.	Rose Essence	Flavouring agent	0.1	0.1	0.5	0.5
8.	Orange Essence	Flavouring agent	0.1	0.1	0.5	0.5
9.	Vanilla essence	Preservative	q.s.	q.s.	q.s.	q.s.

Evaluation of Herbal Lipstick: [15,16,17]

It is very essential to maintain a uniform standard for herbal lipstick, keeping this view in mind the formulated lipstick was evaluated on the parameters such as Physical appearance, Melting point, Breaking point, Force of application, Surface anomalies etc.

Physical appearance

The lipsticks were evaluated for color and uniformity of color distribution.

pH parameter - The pH of formulated herbal lipstick was determined using pH meter.

Skin irritation test - It is carried out by applying product on the skin for 10 min.

Melting point - Determination of melting point is important as it is an indication of the limit of safe storage. The melting point of formulated lipstick was determined by capillary tube method the capillary was filled, kept in the capillary apparatus and firstly observed the product was slowly-slowly melted. After sometimes was observed the product was completely melted. The above procedure was done in 3 times and the melting point ratio was observed in different-different formulation.

Breaking point - Breaking point was done to determine the strength of lipstick 9. The lipstick was held horizontally in a socket ½ inch away from the edge of support. The weight was gradually increased by a specific value (10 gm) at specific interval of 30 second and weight at which breaks was considered as the breaking point.

Force of application- It is test for comparative measurement of the force to be applied for application. A piece of coarse brown paper can be kept on a shadow graph balance and lipstick can be applied at 45° angle to cover a 1 sq. inch area until fully covered. The pressure reading is an indication of force of application.

Perfume stability -the formulation herbal lipstick was tested after 30 days, to record the fragrance.

Surface anomalies- This was studied by the surface defects, such as no formation crystals on surfaces, no contamination by moulds, fungi etc.

Aging stability -The product was stored in 40°C at 1 hr. various parameters such as bleeding, crystallization of on surface and ease of application were observed.

Solubility test -The formulation herbal lipstick was dissolved in various solvents to observe the solubility.

Skin irritation test - It is carried out by applying product on the skin for 10 min.

Perfume stability -the formulation herbal lipstick was tested after 30 days, to record the fragrance.

Thixotropy character - It is 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 50 gm load at 25°C. The depth of penetration was a measurement of the thixotropic structure of lipstick.

Table 2: Evaluation of Formulated Herbal Lipsticks

Sr. No.	Evaluation Parameters	Inferences			
		F1	F2	F3	F4
1	Color	Purplish	Redish Purple	Purplish	RedishPurple
2	pH	6.4	6.2	6.3	6.0
3	Skin Irritation Test	No	No	No	No
4	Melting Point	63-64oc	61-62oc	61-63oc	60-62oc
5	Breaking Point	24	21	23	22
6	Force of Application	Easy	Good	Good	Good
7	Perfume Stability	+++	++	+++	++
8	Surface Anomalies	No Defect	No Defect	No Defect	No Defect
9	Aging Stability	Smooth	Smooth	Smooth	Smooth
10	Solubility	Chloroform	Chloroform	Chloroform	Chloroform
11	Thixotropy character	9	5	6	8

IV. RESULTS AND DISCUSSION

The present work formulation and evaluation of herbal lipsticks was aimed to formulate a lipstick using herbal ingredients with a hope to minimize the side effects as produced by the available synthetic ones [18]. Four different lipstick formulations (F1-F4) were prepared using varying proportions of the selected ingredients. The proportion of different ingredients used is presented in Table 1. Among all the prepared formulations, it was observed that the formulations F1 and F3 were good enough to meet the general characteristics for ideal lipsticks. However formulations F2 and F4 showed poor pigmentation after application. Hence, from present investigation it was concluded that this formulated herbal lipstick has better option to women with minimal side effects though a detailed clinical trials may be done to access the formulation for better efficacy.

V. ACKNOWLEDGEMENT

The authors are thankful to the Management and Principal of K.T. Patil College of pharmacy Osmanabad for providing us necessary facilities in the college.

VI. CONCLUSION

The formulation F3 was found to be the best and more stable among all the three herbal formulation of lipsticks as per the outcomes of evaluations tests.

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