

“Formulation and Evaluation of Cosmeceuticals Lipstick from Product Fixed Oil of Moringa Leaves Linn”

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Date of Submission: 10-06-2024

Date of Acceptance: 20-06-2024

ABSTRACT:

The main objective of this work is to formulate and evaluate herbal lipstick from beetroot as a natural coloring matter to avoid the side effects of synthetic formulations. Studies stated that herbal lipstick can be successfully formulated using different natural ingredients, such as Bees wax, Castor oil, Moringa leave soil, beetroot powder, and Vanilla Essence.

Beetroot extract and carrot juices are used as a coloring agent. These are better options compared to synthetic coloring agents which may cause different and hazardous side effects.⁽¹⁾

Prepared herbal lipstick were evaluated for different evaluation test such as color, texture, pH, melting point, breaking point, skin irritation, spread ability test and stability test. After completion of all evaluation tests, it was seen that lipstick was stable, easily spreadable, and causes no irritation after application on skin. It was not easily breakable.

It has Reddish pink color which has more demand and having pH 6.5 having sweet odour because of Vanilla Essence. Melting point is 65°C.

Results showed that different evaluation parameters of prepared herbal lipstick were resembled with standard values. Study revealed that, natural edible colouring matter may be the better option for preparation of herbal lipsticks.

KEYWORD: Moringa leaves oil, herbal lipstick, beetroot extract.

I. INTRODUCTION:

According to D & C Act 1940 and the Rule in 1945 “Cosmetic is define as the means any article intended to be rubbed, poured, sprinkle do sprayed on, or introduced into, or otherwise applied to, the human body or any part thereof for cleansing, beautifying, promoting attractiveness, or altering the appearance.”⁽²⁾

Ancient Sumerian and Indus Valley men and women were possibly the first to invent and apply lipstick, about 5,000 years ago. Sumerians crushed gemstones and used them to decorate their faces, mainly on the lips and around the eyes. Egyptians like Cleopatra crushed bugs (carmine) to create a

color of red on their lips. Women in the ancient Valley civilization have used rectangular pieces of ochre with beveled ends as lipstick.⁽²⁾

Cosmetics in Lip Care are the products which are used to decorate the lips and prevents the various problems of lips such as drying, chapped lips, etc. They enhance the beauty of lips as well as overall Makeup of Womens.⁽³⁾

Examples:-Lipstick, Lipbam, Lipliner, Lipgloss, etc.

Lipstick defined as dispersion of the colouring matter in a base consisting of a suitable blend of oils, fats and waxes with suitable perfumes and flavor smoulded in the form of sticks to impart attractive gloss and colour, when applied on lips.⁽³⁾

There are five types of lipstick – moisturizing, satin, liquid, matte, creamy. In early 2019, before the COVID-19 pandemic, trend of liquid lipstick was changed from the liquid matte lipstick to semi-matte or glossy finish. However, the COVID-19 pandemic markedly reduced the popularity of lipsticks since people usually do not apply lipstick under facial mask.⁽⁴⁾

Herbal Lipstick is a cosmetic product containing pigments, oils, fragrance, preservatives, colors, texture and protection to the lips. It is made up of Natural Ingredients such as White Bees Wax, Castor oil, Etc.⁽⁴⁾

Herbal Lipstick should have properties such as smoothness and easy to apply, non-irritant and non-toxic, long lasting affect, Shing and smooth appearance. Herbal lipstick should have advantages such as Reduce Heavy Metal Exposure; Lower the Risk of Allergy, Kinder to the Environment. Herbal lipstick having uses such as enhances the appearance of the lips, improve appearance, look attractive and protection of lips for many types damaging UV rays etc.⁽⁴⁾

II. MATERIALS AND METHODOLOGY

Materials:

Moringa Leaves Oil, **Chemicals used-** Bees wax SD, Fine Carnauba wax SD Fine

White soft paraffin SD Fine, Castor oil SD Fine, Coconut oil SD Fine, Almond oil Dabur India, Olive oil Sengae Biochem, Essential oil Grasee International, Rose essence Jamson, Vanilla essence Jamson, Strawberry essence, Jamson

All other reagents and solvents were used of analytical grade and used without any further chemical modification. Instruments used are Weighing balance

Shimadzu Corporation Japan, PH meter Elico, Electric water bath ,Poly Science Ltd, Melting points apparatus Esico.⁽⁵⁾

Extraction of Beetroot Extract:-

- a) Beetroot is washed and dried for 10min.
- b) After drying, it is chopped by using knife and keeps for drying in sunlight for 2-3 day.
- c) After complete drying, grind the chopped and dried beetroot in grinder and make it as a fine powder.
- d) Now it is ready for use in the preparation of lipstick.
- e) Fine powder does not causes any type of clumps in the formulation.⁽⁵⁾

4) Formulation Table for Moringa Leaves linn Herbal Lipstick⁽⁵⁾ -

Sr.no.	Ingredients	Quantity	Role/Uses
1)	Castor oil	6 ml	Emollient/ Blending agent
2)	White Bees Wax	12gm	Base
3)	Moringa Leaves Oil	5 ml	API/Antioxidant
4)	Cetyl Alcohol	1gm	Binder
5)	Petroleum Jelly	1gm	Moisturizing Agent
6)	Beetroort Extract	Q.S	Coloring Agent
7)	Vanilla Essence	Q.S	Flavoring Agent

5) Preparation of Herbal Lipstick⁽⁵⁾-

Weight accurately all the ingredients as mentioned in above table.



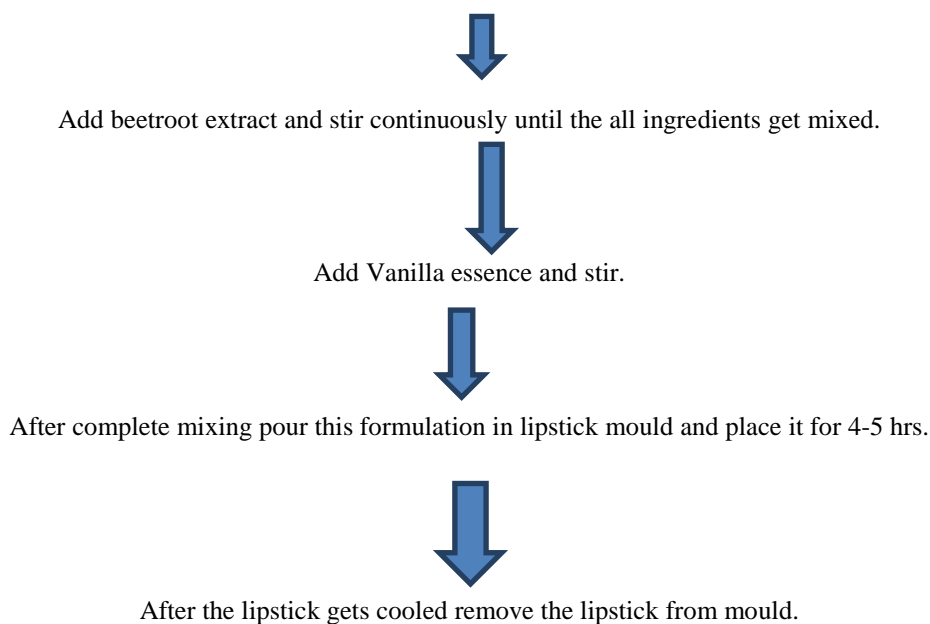
Take White Bess Wax in porcelain dish and melt it by using water bath.



Add Castor oil and Cetyl Alcohol in the melted bees wax in same porcelain dish.



Add Moringa leaves oil and petroleum jelly and stir continuously by using lass rod.



Evaluation of Lipstick:

Evaluation of lipstick is carried out by using various tests.

1. **Class A-** Organoleptic Properties Test (Color, Odour, Texture, etc)
2. **Class B-** Physicochemical Properties Test (Melting Point, pH)
3. **Class C-** 1) Solubility Test 2) Spreadability Test
4. **Class D-** Skin Irritation Test
5. **Class E-** Stability Test
6. **Class F-** Breaking Point Test

1. **Class A- Organoleptic Properties** Colour and Texture: Formulated lipsticks were checked for colour, glossy and smooth texture.⁽⁷⁾

2. Class B-Physicochemical Properties Test:-

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. The melting point of formulated lipstick was determined by capillary tube method. Approximately 50 mg of lipstick sample was taken and melted 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.⁽⁸⁾

pH: The pH of formulated herbal lipsticks was

determined using digital pH meter.⁽⁸⁾

3. **Class C-** 1) Solubility Test 2) Spreadability Test
Solubility Testing- The formulated lipstick is dissolved in various solvents such as water, ethanol, methanol, ether, etc. to observe solubility.

Spreadability Testing : The formulated lipstick is applied on the glass slide by using another glass slides to observe uniformity of lipstick protective layer and whether the stick fragmented, deformed, or broke during the application.⁽⁹⁾

4. **Class D-** Skin Irritation Test- Formulated lipstick is applied over the skin and leave it for 10 min.^(9,10)

5. **Class E-** Prepared herbal lipsticks were stored at refrigerator temperature (4°C), room temperature (20-25°C) and high temperature (30-40°C) for 1h. Various parameters such as bleeding, streaking, cratering and blooming were observed.^(9,10)

6. **Class F-** Breaking Point Test- This test was carried out to find out the value of maximum load that lipstick can withstand before it break. This test gives strength of lipstick. Prepared herbal lipstick was held horizontally in a socket 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.^(9,10)

III. RESULT

Sr.no.	Description	Name of test	Reported Value	Experimental Value	Remark
1)	Class A	Organoleptic Properties			
		Color	Reddish Pink	Reddish Pink	Passed
		Odour	Sweet	Sweet	Passed
		Texture	Smooth	Smooth	Passed
2)	Class B	Physicochemical Properties			
		Melting Point	65°C	65°C	passed
		pH	6-7	6.5	Passed
3)	Class C	Solubility Test	Insoluble in ethanol, methanol, water, but soluble in chloroform.	Soluble in chloroform only.	Passed
		Spreadability Test	Easily Spreadable without any clumps formation.	Easily Spreadable without any clumps formation.	Passed
4)	Class D	Skin Irritation Test	No Irritation	No Irritation	Passed
5)	Class E	Stability Test	Stable	Stable	Passed
6)	Class F	Breaking Point Test	The lipstick doesn't break easily but when it gets overloaded it breaks.	The lipstick doesn't break easily but when it gets overloaded it breaks.	Passed

After completion of all evaluation tests, It is stable, easily spreadable, and causes no irritation after application on skin. It is not easily breakable but after application of extra force it will break.^(11,12)

It has Reddish pink color which has more demand and having pH 6.5 having sweet odour because of Vanilla Essence. Melting point is 65°C. As compared with the Marketed lipstick, it is well prepared and chemical free. So it is Good for use. Finally after result of all tests, it is said that lipstick is well prepared.⁽¹³⁾

IV. DISCUSSION -

Cosmetics with natural ingredients are believed to be safer than chemical-based cosmetics;

in addition, natural cosmetics have the ability to protect the skin from Ultra Violet rays.

This research aimed to formulate and evaluate herbal lipsticks made from the standardized carotenoid extract of beetroots (*Beta vulgaris*) with castor oil base variations completed with an irritation test. The present study formulation and evaluation of lipstick containing herbal ingredients was aimed to manufacture a lipstick containing herbal ingredients to minimize the side effects over the synthetic ones⁽¹⁵⁾.

V. CONCLUSION-

Studies concluded that herbal lipstick can be successfully formulated using different natural ingredients, such as Bees wax, Castor oil, Moringa

leaves oil, beetroot powder, and Vanilla Essence.

Beetroot extract and carrot juice is used as coloring agent. These are better options compared to synthetic coloring agents which may cause different and hazardous side effects.

An herbal lipstick is used to rejuvenate the lip muscles, maintain the elasticity of the skin, remove adhered dirt particles and improve blood circulation. The benefits of herbal-based cosmetics are their nontoxic nature. It nourishes the lips. 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 lips. They restore the natural shine of the lips in the optimum period.

Frequent uses of herbal lipstick improve lip texture and give attractive color. Pollution and harsh climates badly affect the lips and these effects can be countered by the regular usage of herbal lipstick.

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