



## Research Article

**Formulation and Evaluation of Herbal Lipstick of Beetroot Powder**

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*Keywords:*Herbal Lipsticks,  
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Evaluation.**ABSTRACT**

In the recent times, lipsticks have been under the scanner of many health watchers' lipsticks are often swallowed away by the users and hence it is imperative that health regulators have a microscopic look at the ingredients has go into the lipstick. The dyes that contribute to the color of the lipstick are dangerous to humans on consumption. Lipstick is generally accepted as an essential and leading make-up device available in variety of luster and texture. It is composed mainly of an oil-wax base, stiff enough to form a stick with a staining dye dissolved or dispersed in oil, and pigment suspended there in suitably performed and flavored, moulded and enclosed in a case. Lipstick imparts attractive color, glossy appearance to lips, accentuating good point and distinguishing the defects. It also prevents cracking of lips which lead to bacterial infection. It also provides emollient action on lips. Due to various adverse effects of available synthetic preparations, the present study was performed to formulate about F1 to F6 formulations and evaluate all the six formulations of herbal lipstick, as herbals are less prone to side effects, and due to usage of natural ingredients various adverse effects of the available synthetic preparations. The present study was performed without side effects and can be extensively used by the women with satisfaction.

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**INTRODUCTION**

The word cosmetic is defined as substance which is beautified and hygiene the skin. Herbal cosmetics have a growing demand worldwide and it is an invaluable gift of nature. There is a wide range of herbal products to satisfy the beauty regime. The drawback of the personal healthcare system is the side effects of synthetic preparation. Hence, people are opting for herbal medicine [1].

There is evidence of highly advanced ideas of self-beautification and a large array of various cosmetics usage both by men and women, in ancient India. Many of these practices were subtly interwoven with the season (Sanskrit: Rutus) and the normal rituals of life. The use of herbal cosmetics has increased too many folds in personal care system and there is a great demand for herbal cosmetics. All this has happened due to excessive usage of synthetic

products. Herbal cosmetics have an increasing demand in the world market and are invaluable gift of nature. There are wide ranges of herbals cosmetic products to satisfy beauty regime, adding herbal in cosmetic is very safe for skin.

The word herbal is a symbol of safety in contrast to a synthetic one which has adverse effects on human health. Herbal preparations have become among consumers as they represent fastest growing segment to heal various ailments. Large numbers in personal health care system turn to herbal medicine due to increase side effects of the available synthetic preparation [2].

Lipsticks colour the lips and protect them from the external environment. 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.

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This function adds on to the existing role of lipsticks, which provide moisture and emollient action to prevent cracking and chapping of the lips [3].

Recently, the use of herbs in the production of cosmeceuticals products for personal care has been on the rise [4]. Herbal cosmetics, also known as natural cosmetics, are the modern trend which encircles both health and beauty care [5]. These products are experiencing more demand in the market, as nowadays most people prefer natural over chemical products [6]. Natural cosmetics not only provide satisfaction, as these products are free from synthetic chemicals and have relatively fewer side effects, but also supply the body with nutrients and enhance health of a person [7].

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 [8, 9]. 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 [10, 11].

### Benefits of Herbal Lipsticks

1. Safe to use.
2. Natural in nature.
3. Affordable and non-expensive.
4. Variety of products.
5. No side effects.
6. Not tested on animals.
7. Free from hazardous chemicals.

### MATERIAL AND METHODS

#### Material

Following excipient was utilized for the formulation and herbal lipstick.

**Table 1:** List of Ingredient and its Role

Sr. No.	Ingredient	Merk	Role
1	Bees Wax	Lab Fine Chem Industries	Thickening Agent
2	Paraffin Wax	Merck Pvt Lim.Siv Sagar Estate 'A'	Base
3	Carnuba Wax	Merck Pvt Lim.Siv Sagar Estate 'A'	Additive
4	Beetroot	Cocal Natural	Coloring Agent
5	Castor Oil	Veechem Laboratories	Glossy Effect
6	Coconut Oil	Parasut Pvt Lim.	Antibacterial
7	Orange Oil	Lab Fine Chem Industries	Perfuming Agent
8	Lanolin	Lab Fine Chem Industries	Pigment Dispersant
9	Isopropyl Myristste	Lab Fine Chem Industries	Emollient
10	Propylene Glycol	Lab Fine Chem Industries	To Increase Moisture Retention In Skin
11	Vanilla Essence	Mc Cormick	Preservative

**Table 2:** Formulation of Herbal Lipstick of Beetroot Powder

Sr. No.	Ingredients	F1 (%)	F2 (%)	F3 (%)	F4 (%)	F5 (%)	F6 (%)
1	Bees wax	20	20	20	18	25	18
2	Paraffin wax	20	18	15	10	10	10
3	Beetroot Powder	30	25	25	20	20	20
4	Acacia	10	10	10	10	10	10
5	Castor oil	40	40	40	20	17.5	27.5
6	Coconut oil	10	10	10	10	10	10
7	Carnuba wax	3	3	3	3	3	3
8	Lanoline	5	5	5	5	5	5
9	Propylene Glycol	10	10	10	10	10	10
10	Isopropyl Myristate	2	2	2	2	2	2
11	Vanilla Essence	qs	qs	qs	qs	qs	qs

### Method of Preparation

Required quantities of castor oil, coconut oil and propylene glycol were weighed and heat it up to 70°C. Then take bees wax, paraffin wax and carnuba wax in separate porceline dish and melt it at 70°C and mix the above mixture. Prepared the mixture of beetroot powder, lanoline and orange oil and mixed into above mixture and pass the all mixture from sieve no 22. Then add weighed quantity of isopropyl myristate, vanilla essence in filtered mixture. Then this solution is added to moulds. After solidification, it was separated from the moulds and fitted in lipstick case.

### Evaluation of Herbal Lipstick <sup>[12, 13]</sup>

- 1. Color:** Lip colors are products that apply color, texture, and/or shine to the lips using a brush or other applicator. Lip colors contain ingredients that apply color to the lips in a precise and controlled manner. Lip colors can also have multifunctional benefits, such as moisturizing, or may even include sunscreen for SPF protection. Lip color product safety is established by the selection of ingredients that are safe and suitable for this intended use and purpose.
- 2. 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 and keep in the capillary apparatus and firstly observed the product was slowly-slowly melted. After sometimes observation product was completely melted. The above procedure was done in 3 times and the melting point ratio was observed in all formulations.

- 3. Breaking Point:** Breaking point was done to determine the strength of lipstick. The 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.
- 4. PH:** The pH of formulated herbal lipstick was determined using pH meter.
- 5. Skin Irritation Test:** It is carried out by applying the product on the skin for 10 min.
- 6. Perfume Stability:** The formulation herbal lipstick was tested after 30 days, to record fragrance.
- 7. Surface Anomalies:** This was studied for the surface defects, such as no formation of crystals on surfaces, no contamination by moulds, fungi etc.
- 8. Aging Stability:** The product was stored in 40°C for 1 hr. various parameters such as bleeding, crystallization of on surface and ease of application were observed.

### RESULT AND DISCUSSION

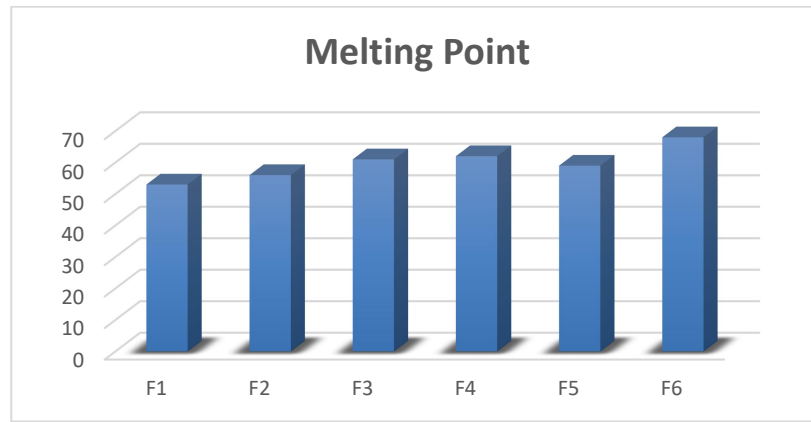
- 1. Color:** The prepared formulation was evaluated and it was found that the, all batches shows that best texture, colour and shine (Table 3).
- 2. Melting Point:** Melting point of all formulation was found to be in the range of 53±1°C to 68±3°C. Show the good melting point (Table 4, Fig. 1).

**Table 3:** Results of Evaluation Parameters

Evaluation Parameter	Formulations					
	F1	F2	F3	F4	F5	F6
<b>Color</b>	Brown	Brown	Brown	Brown	Brown	Brown
<b>Odour</b>	Aromatic	Aromatic	Aromatic	Aromatic	Aromatic	Aromatic
<b>Texture</b>	Smooth	Smooth	Smooth	Smooth	Smooth	Smooth

**Table 4:** Melting point of Formulations

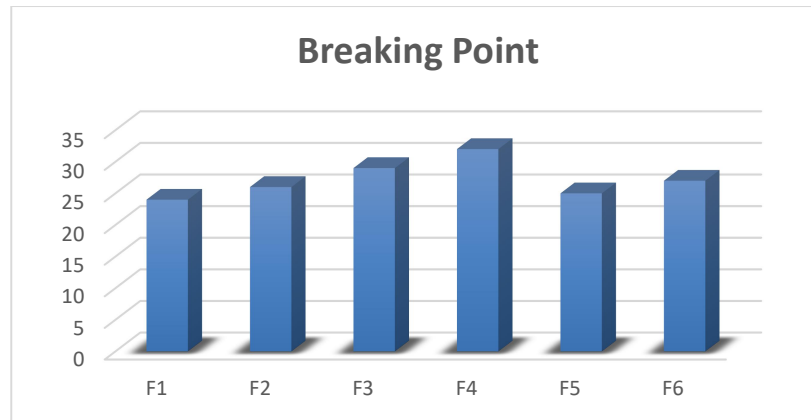
Formulation	F1	F2	F3	F4	F5	F6
<b>Melting Point (°C)</b>	53±1	56±7	61±5	62 ±4	59±5	68±3



**Figure 1:** Melting point of Formulation

**Table 5:** Breaking point of Formulations

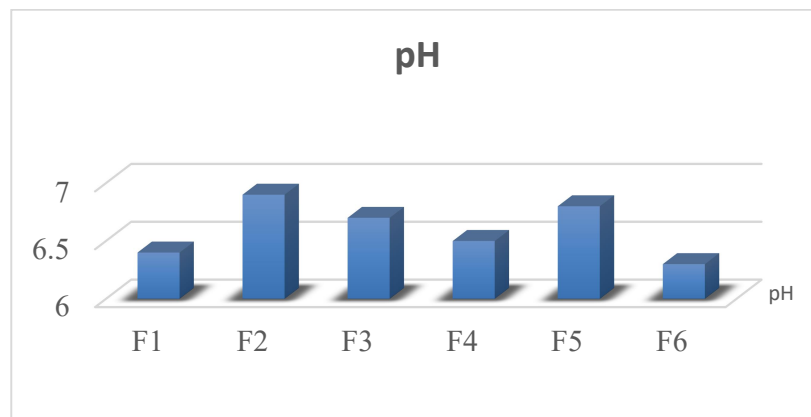
Formulation	F1	F2	F3	F4	F5	F6
Breaking Point	24	26	29	32	25	27



**Figure 2:** Breaking point of Formulation

**Table 6:** pH of Formulations

Formulation	F1	F2	F3	F4	F5	F6
pH	6.4 ± 0.3	6.9 ± 0.2	6.7 ± 0.1	6.5 ± 0.3	6.8 ± 0.2	6.3 ± 0.2



**Figure 3:** pH of Formulation

- 3. Breaking Point:** Breaking point was found to be in the range of 23 to 28 (Table 5, Fig. 2).
- 4. pH:** pH of all formulation was found to be in the range of 6.3±0.3 to 6.9 ± 0.2 (Table 6, Fig. 3).
- 5. Skin Irritation Test:** None of the formulations has produced any skin irritation.
- 6. Perfume Stability:** Perfume stability of all formulation is mentioned in below Table 7.

**Table 7:** Perfume Stability of Formulations

Formulation	F1	F2	F3	F4	F5	F6
pH	+++	++	+	+++	+++	++

(+++ : Excellent, ++ : Good, + : Average)

- 7. Surface Anomalies:** Surface anomalies were not found in any formulation (Table 8).

**Table 8:** Surface Anomalies of Formulations

Formulation	F1	F2	F3	F4	F5	F6
pH	No defect	No defect	No defect	No defect	No defect	No defect

- 8. Aging Stability:** Aging stability was smooth for both formulations.

## CONCLUSION

In the present work, containing herbal ingredients was prepared successfully according to the given formulations. Lipstick containing herbal ingredients was successfully formulated by using six different formulations (F1 – F6). Among all the six formulations, F4 formulations exhibited good results. F4 formulation lipstick containing herbal ingredients was found to be in compliance with all the evaluations tests. Likewise, even all the other formulations also exhibited satisfactory results, but when compared with all the formulations F4 formulation exhibited good results regarding all the aspects.

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