

**FORMULATION AND EVALUATION OF HERBAL LIPSTICK FROM
POMEGRANATE AND BEETROOT FRUIT**

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ABSTRACT

Cosmetics are one product that human civilization uses often without thinking about the harmful impacts it may have. Women use synthetic cosmetics a lot these days, which can be bad for their complexion and general health. an alternative, herbal cosmetics can be employed. To stop aging of the skin. In this work, we present a formula for herbal lipstick that uses the pigment from several important medicinal plants. For this dish, we've selected certain ingredients like pomegranate fruit, beetroot fruit, and a few flavoring and essence components. Herbal lipsticks are made from these plants and come in a range of concentrations, melting points, surface flaws, ageing stability, fragrance stability, skin irritation, and so on. Based on these variables, it was determined that this herbal lipstick formulation had minimal to no adverse effects and the strongest local effect on the lips.

Keywords: *Cosmetics, synthetics, lipsticks, pomegranate, beetroot.*

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INTRODUCTION

Cosmetics are compounds that improve skin appearance and hygiene. Herbal cosmetics are a wonderful gift from nature, and demand for them is growing worldwide. You can find a variety of herbal products to suit your needs for your beauty routine. The personal healthcare system has a problem in the repercussions of synthetic drugs. Consequently, more people are deciding to use herbal medicines. The market has a large selection of colors. This is evident from the fact that hundreds of color variations of lipstick are being produced to satisfy the increasing demand. Both the variety of colors and textures available, as well as the use of cosmetics, have grown in recent years. Women sometimes eat food with lipstick, which implies that potentially toxic coloring pigments were also consumed with the meal and could have negative consequences.⁽¹⁾ The development of herbal lipsticks was a response to this problem. These days, our culture welcomes Most popular are herbal cosmetics. Herbal cosmetics are the most often used product in comparison to commercial cosmetics. As we can see, there are very few or no negative effects from using herbal cosmetics. Beetroot fruit and pomegranate pigment are being used to make lipstick. Pink and dark pink are made from pomegranates and beetroot fruit, respectively. One ingredient in herbal lipstick that is good for lips is lemon. In addition to vitamin E tablets, juice is utilized as an antioxidant. To be deemed perfect, lipsticks should not irritate or be harmful, they should be stable both chemically and physically, and they should not have any grit in them. The many benefits of the herbs used Anti-inflammatory, antiseptic, antibacterial, antioxidant, and moisturizing properties in cosmetic formulations. Therefore, compared to store-bought cosmetics, herbal lipsticks are safer and more effective. It's a cosmetic Item designed to enhance women's beauty. Natural lipsticks are applied to the lips to give them a lovely color, texture, and shielding. The constituents of lipstick, a cosmetic product, include oils, waxes, pigments and dyes, alcohol and aroma, preservatives and antioxidants, colors, and surfactants. It's a cosmetic Item designed to enhance women's beauty. Natural lipsticks are applied to the lips to give them a lovely color, texture, and shielding. Preservatives and antioxidants, oils, oils, pigments and dyes, alcohol and scent, colors, and surfactants are all Components of lipstick, a type of cosmetic. These lipstick formulas don't damage our lips and have no unfavorable side effects. Lip creases and folds are smoothed out, and the color and shine of the lips alter. One of the most popular cosmetics items is available in a range of packaging, styles, and patterns. Given its many advantages, lipstick ought to be used to avoid dry and cracked lips. It makes our smile better and hydrates our lips.^(2,3)

ADVANTAGES OF HERBAL LIPSTICK

Herbal lipsticks often boast natural ingredients like plant oils, waxes, and extracts, which can offer several benefits:

Natural Ingredients

Herbal lipsticks are typically free from synthetic chemicals, making them gentler on the skin, especially for those with sensitive skin or allergies.

Moisturizing

Many herbal lipsticks contain nourishing oils like jojoba, coconut, or avocado oil, which help keep lips hydrated and smooth.

Antioxidant Properties

Ingredients like vitamin E, green tea extract, or grape seed extract found in herbal lipsticks can provide antioxidant benefits, protecting lips from environmental damage.

Environmentally Friendly

Herbal lipsticks often prioritize sustainability and eco-friendliness, using biodegradable or renewable ingredients and minimizing environmental impact. ^(4,5)

DISADVANTAGE OF HERBAL LIPSTICK

Limited Color Range.

Shorter Shelf Life.

Less Long-Lasting.

Potential Allergens ⁽⁶⁾

QUALITIES OF HERBAL LIPSTICK

Characteristics that define the perfect lipstick

Easy and intuitive to use.

Not annoying or toxic.

It should have been required to be flexible.

It should last a very long time.

The luster and color must be eye-catching.

Needs to keep its smooth, glossy appearance while being stored. ^(7,8)

PRODUCING COLOR PIGMENTS**MAKING OF COLOUR PIGMENT FROM POMEGRANATE**

The pomegranate pigment manufacturing technique First, wash and peel the pomegranate. Pomegranate seeds were then combined.

Get Juice from Pomegranates. Let the juice boil for a few more minutes. Add 1 tablespoon of ghee after that.

MAKING OF COLOUR PIGMENT FROM BEETROOT

To make a color pigment from beetroot, you can follow these steps:

Select and Prepare the Beetroot: Choose fresh beetroot that is firm and free from blemishes. Wash the beetroot thoroughly to remove any dirt or debris.

Extract the Color: Peel the beetroot and cut it into small pieces. Place the beetroot pieces in a blender or food processor and blend until you have a smooth puree.

Strain the Puree: Pour the beetroot puree through a fine mesh strainer or cheesecloth to separate the liquid from the pulp. Squeeze the pulp to extract as much liquid as possible.

Reduce the Liquid: Transfer the beetroot liquid to a small saucepan and heat it over low to medium heat. Allow the liquid to simmer and reduce, stirring occasionally, until it thickens and becomes more concentrated.

Cool and Store: Once the beetroot liquid has reduced to a desired consistency, remove it from the heat and let it cool. Transfer the color pigment to a small container or jar for storage.

Use the Color Pigment: You can use the beetroot color pigment in various ways, such as adding it to homemade lip balms, lipsticks, or other cosmetic products to impart a natural pink or red hue. ⁽¹²⁾

FORMULATION TABLE

Sr. No.	Ingredients	Quality gives	Uses
1	Carnauba wax	5 gm	Base
2	Bees wax	5 gm	Thickening agent
3	Castor oil	25 ml	Moisturizing agent
4	Liquid paraffin	1 ml	Lubricant
5	Acacia	1 gm	Binder
6	Vanilla essence	qs	Flavouring agent
7	Pomegranate juice	1.5 ml	Colouring agent
8	Beetroot juice	1.5 ml	Colouring agent

Table No.1: Formulation table**Figure No.1: Herbal lipstick****CARNAUBA WAX**

Carnauba wax is a common ingredient in lipstick formulations due to its natural properties that help provide structure, shine, and durability to the product. It is often used as a thickening agent and helps give lipstick a smooth and glossy finish. Carnauba wax also helps lipstick adhere to the lips and provides a protective barrier. Additionally, its high melting point helps the lipstick maintain its shape in various temperatures.

**Figure No.2: Carnauba wax**

CASTOR OIL

Castor oil is a common ingredient in lipstick formulations due to its moisturizing and conditioning properties. It helps to keep the lips hydrated and smooth, preventing them from drying out. Castor oil also acts as a binding agent, helping to hold the other ingredients together in the lipstick formula. Additionally, it can give lipstick a glossy finish and improve its spreadability on the lips.



Figure No.3: Castor oil

VANILLA ESSENCE

Vanilla essence, also known as vanilla extract, is a common flavoring agent used in a variety of food and beverage products. It is derived from vanilla beans and is known for its sweet and aromatic flavor profile. Vanilla essence is often used in baking, cooking, and confectionery to add a rich and distinctive vanilla taste to dishes. It can also be used in beverages, such as coffee or cocktails, to enhance their flavor.

LEMON JUICE

Everyone wishes they had plump, pink lips. It not only improves your appearance but also demonstrates the health of your lips. Chapped lips are unsightly and may even bleed in more extreme cases. Many individuals are concerned about chapped or highly pigmented lips, but there are a few simple remedies that will just lighten and give your lips a pinkish color.

POMEGRANATE JUICE

Natural oils, such as pomegranate seed oil, are commonly used in pomegranate lipstick and can help moisturize and nourish chapped lips. By preventing dry or cracked skin, this can help preserve your lips' suppleness and softness.



Figure No.4: Pomegranate juice

ANTIOXIDANT PROPERTIES

Among the many antioxidants included in pomegranates are polyphenols and vitamin C. These antioxidants can help protect the lips from environmental damage such as UV rays and free radicals, which can speed up the aging process and dryness of the lips. ⁽¹³⁾

BEETROOT JUICE

Beetroot juice is a natural ingredient that is used in lipstick formulations to provide a natural red or pink tint to the product. It can be used as a natural dye to add color to lipsticks without the need for synthetic dyes or chemicals. Additionally, beetroot juice is known for its antioxidant properties and may offer some skincare benefits when applied to the lips. However, it's important to note that using beetroot juice in lipstick formulations may require additional stabilizers or preservatives to ensure the product's stability and shelf life.

LIQUID PARAFFIN

Liquid paraffin, also known as mineral oil, is a common ingredient in lipstick formulations. It is often used as a moisturizing agent and emollient to help soften and hydrate the lips. Liquid paraffin forms a protective barrier on the lips, helping to lock in moisture and prevent dryness. While liquid paraffin is generally considered safe for use in cosmetics, some people may prefer to avoid it due to concerns about its origins as a petroleum-derived ingredient. If you have any specific preferences or concerns about the ingredients in your lipstick, it's always a good idea to check the product label or consult with a dermatologist. Overall, liquid paraffin can be a beneficial ingredient in lipstick formulations, providing moisturizing and smoothing properties to help keep your lips looking and feeling their best.

PROCEDURE

Cleanse and disinfect the lipstick mold. Use detergent and water (if necessary).

Use liquid paraffin to lubricate it, then place it on ice with its bottom facing up to remove any remaining oil. As well as for lowering lipstick mold.

Weigh the beeswax and carnauba wax, transfer it to a porcelain dish, and then submerge it in a water bath to let the waxes to melt and blend thoroughly. (Beeswax, castor oil, and carnauba wax)

Include acacia in the mixture that has already melted. And give it a good swirl.

Fill lipstick mold with lemon juice, vanilla essence, red dragon fruit pigment, and pomegranate pigment.

After adding more of these to the lipstick mold's cavities until they are overfilled, the mold is set on ice for 30 minutes. After the lipstick has set, use a knife or other blade and an open mouth to cut or scrape off excess mold. Place each lipstick tube inside the designated lipstick container. ⁽¹⁴⁾



Figure No.5: Preparation of lipstick

EVALUATION CRITERIA

Herbal lipstick must maintain a consistent quality; thus, the product was evaluated for things like melting point, breaking point, force of application, and imperfections on the surface.

Features of an organoleptic

Organoleptic characteristics of the produced herbal lipsticks, such as color, scent, and texture, were evaluated.

pH of natural lipstick

All formulae were in the neighborhood of 7, meaning they shouldn't cause any irritation to the lips. ⁽¹⁵⁾

Melting boiling point

The melting point indicates the safe storage limit, thus figuring it out is essential.

The melting point of the lipstick formulation was found using the capillary tube method. The product was initially observed slowly melting after the capillary was filled and stored in the capillary equipment.

Breaking point

Testing at the breaking point was done to see how long lipstick would last. The lipstick was held horizontally in a socket one inch from the support's edge. At predetermined intervals of 30 seconds, the weight was progressively increased by a predetermined quantity (10 gm), and the weight at which breakdowns were judged to demand to breaking point. ⁽¹⁶⁾

Force of application

It is to be utilized for the application force to be measured compared. A 1-inch square was coated entirely with lipstick placed at a 45° angle on a coarse brown paper piece that was kept on shadow graph balance. The force being exerted is shown by the pressure reading.

Unusual skin conditions

This was inspected for surface imperfections, such as the lack of surface crystal formation and contamination by fungi and mold, among other things.

Check for irritated skin

Apply for 10 min on skin then after see results.

Stability of Perfume

The formulation of the herbal lipstick was tested and the smell was recorded after 30 days.

Properties of thixotropic

It is a thixotropic quality indicator and is with the aid of a penetrometer. At 25°C, a typical needle with a specified diameter can pass through for 5 seconds while carrying a 50-gram load. ⁽¹⁷⁾

RESULTS

Evaluation results of herbal lipstick

Sr No.	Evaluation Parameter	F1	F2
1	Colour	Baby Pink	Faint Pink
2	Texture	Smooth	Smooth
3	Odour	Aromatic	Aromatic
4	pH	5.4	5.4
5	Skin irritation test	No	No
6	Melting point	46	50
7	Force of application	Smooth	Smooth
8	Solubility test	Soluble in alcohol	Soluble in alcohol
9	Breaking point	29 gm	29 gm
10	Perfume stability	Easy	Good

Table No.2: Evaluation test

DISCUSSION

A range of natural substances were employed to make natural lipsticks with a natural colorant made from red dragon and herbal pomegranate fruits. The effect of these compounds on other formulation assessment criteria was also investigated. After testing the created lipsticks, a natural herbal mixture proved to be the most effective. The current investigation thus showed that this herbal lipstick formulation had the greatest local effect on the lips and had minimal, if any, negative effects. Before being sold, lipsticks in particular—which are put on delicate lips—must pass an irritating test. Using these, the current study's formulation and assessment of herbal-infused lipstick aimed to provide a product with fewer side effects.

CONCLUSION

Natural lipstick soothes, moisturizes, and lessens inflammation to promote recovery. In this experiment, the color pigments from the pomegranate were successfully extracted. The extra pigments found in red dragon fruit are used to make pink paints. Collecting the colored pigments was successful. According to the results of the current experiment, this herbal lipstick recipe outperforms lipstick available in stores. The herbal lipstick's natural colorants are superior to those that are promoted and provide fewer side effects.

CONFLICTS OF INTEREST

Nil.

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