



Formulation and Evaluation of Herbal Lipstick from Selenicereus Dragon Fruit

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ABSTRACT

The definition of a cosmetic is any substance used to clean and beautify the skin. There are a ton of beauty products on the market, including eye liner, mascara, kajal, and lipstick. Women's lives were significantly impacted by herbal cosmetics since they enhance their natural beauty. The herbal product is on the cutting edge of fashion and beauty trends. A lipstick is a type of cosmetic that gives the lips color and texture. It is made of pigments, oils, waxes, and emollients. It is the most popular cosmetic used by ladies to give their lips a lovely color and appearance. It comes in a range of colors and forms, including liquid and stick, on the market. Lipstick with synthetic colorants is really bad for our skin because they are composed of dangerous chemicals. It causes a plethora of issues, including dermatitis, allergies, nausea, and lip dryness. Lipstick is a type of cosmetic that gives lips color, texture, and protection by combining pigment, wax, and emollients. All of the natural lipstick's ingredients are safe to use and organic. The vitamin from herbs that maintains healthy lips Because herbal lipsticks are composed of natural components or nutrients, they have few adverse effects and are safe to use while maintaining the health of your lips. Using herbal color extracts from various herbal sources might help lessen the adverse effects. The background, varieties, formulation process, various color pigment extractions, natural oils, bases, flavors, physical assessment, quality control of lipsticks in industries, molding, and lipstick flaws were all covered in this review.

Key words: herbal, cosmetic, lipstick, herbal cosmetic, herbal lipstick

INTRODUCTION

- The world cosmetics arises from a Greek word Kosmetics which means to adorn. Since that time any material used for beautification or improvement of appearance is known as cosmetic. The cosmetics in general are external parts of the body. In other words they may be applied to skin, hair and nails for the purpose of covering, colouring, softening, cleansing, nourishing, waving, setting, modification, preservation, removal and protection.
- The word cosmetic is defined as substance which is beautify and hygiene the skin
- 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.^[1]
- Cosmetics include skin care creams, lotions, powders, eye and facial make-up, permanent waves, colored contact lenses, hair colors, hair sprays, and gels, deodorants, infant products, bath oils, bubble baths, bath salts, butters, and many other types of cosmetics in both developing and developed countries
- 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 used to nourish our lips in winter. Dry lips and black lips problems also treated by these ingredients

Now day's herbal cosmetics are popular and are favored over chemicals, as the

products afford nutrients to the body, boost health and are free from synthetic chemicals and have no side effects. In earlier times, herbs were used for both medicinal purposes as well as for beautification, fresh and dried form these are the two forms of herbal can be used by mashing or directly applying to the body with or without using other ingredients, but herbal cosmetics cannot products composed of plant materials in totality or cosmetic base containing plant materials like extracts, tinctures, distillates etc^[3]

The cosmetics may be classified in to 4 main

- a. Cosmetics for skin
- b. Cosmetics for hair
- c. Cosmetics for nails
- d. Cosmetics for hygiene (dental, bathing etc)

SKIN CARE PRODUCT:

- Skin is largest organ of the human body. It protects against external environment microbes, sunlight and chemicals and regulates temperature and fluid balance.
- Skin consists of epidermis, dermis and subcutaneous layers. The dermis is made up of connective tissue 'consisting of elastin and collagen fibers, abundance of blood vessels and specialized nerve endings. Epidermis has two layers mainly the stratum germinativum and the stratum corneum. (the outermost horny layer).
- Herbal cosmetics are formulated with the purpose to protect the skin against endogenous and exogenous harmful agents and maintain homeostasis.^[4]
- Herbal cosmetics are formulated with the composition closely related to human sebum. It has high amount of phospholipids. These phospholipids maintain skin hydration; act as antioxidant, anti-inflammatory agent and have natural sun-blocking effects
- They also contains polysaccharides, complex sugars and starch derivatives which acts as emollient. Various seed oils or fixed oils used in herbal cosmetics are rich in fatty acids and triglycerides.
- Fixed oils maintain skin hydration, has antiaging, anti-inflammatory antimicrobial and antifungal properties. Tannins present in plant provide astringent effect and maintain skin tone.

LIPSTICK:

- **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

Different Lip Problems:

- ✓ Lip problems include lip dryness, cracking, pain, numbness, sores and swelling. There are many causes of lip symptoms; they range from mild to serious. The duration and course of lip symptoms vary widely, depending on the cause.
- ✓ Lip Problems occurs as a result of injury, such as biting lips, burning them with hot food. Even a common infection can cause lip symptoms. Diseases or conditions that affect the nerves and muscles, including nerve damage or neuropathy, can be associated with symptoms that involve the lips.^[5]
- ✓ Lip symptoms may also be the result of cold and dry weather, infection, nutritional deficiencies, or medication side effects. Suitable drug candidates for medicated lipsticks are locally acting on the lips, soothing, anti-irritant agent, skin protectant, keratolytic agent, steroids, antibiotics, and anti-inflammatory agent

HERBAL LIPSTICK

- Now-a-days herbal extracts are used in the cosmetic preparations for augmenting beauty and attractiveness.
- Herbal cosmetics are classified on the basis of dosage form like cream, powder, soaps, solutions, etc. and according to part or organ of the body to be applied for like; cosmetics for skin, hair, nail, teeth and mouth etc. Creams are semisolid emulsions intended for application to the skin or mucous membrane.
- Lipstick formulations are most widely used to enhance the beauty of lips and to add glamour touch to the makeup. Lipsticks are cosmetic formulations for the modification or accentuation of lip color and are prepared by molding a dispersion of colors in a waxy base, in the form

of stick/crayon. Any preparations used in beauty treatments for lip make-up also known as sticks or more commonly known in beauty treatments by the name of lipsticks. When these preparations contain herbal ingredients, they are also known as herbal lipsticks

- Herbal lipsticks having minimum side effects, as it is made up of natural ingredients or nutrients, so it is safe to use that keep lips healthy. So ethanolic flower extract of Brassica Oleraceae were mark as ingredients for formation of herbal lipstick Among comparing the review on herbal lipstick, one more showing that anthocyanin pigment obtained from Rosa Kordessii and also lipstick was prepared by natural edible coloring agent like cinnamon bark powder, turmeric powder, and cocoa powder as a coloring agent¹⁶

IDEAL CHARACTERISTICS OF HERBAL LIPSTICKS:

- It is smooth and easy to apply
- It is non-irritant and non-toxic.
- It's have required plasticity, different odour, color, texture and packaging etc
- It is stable in shelf-life time and it is free from bloom and sweating during storage of lipstick.
- It should be free from contamination.
- It should be free from gritty particles.
- It should be long lasting.
- It should not melt or harden within a reasonable variation of climatic temperature^[7,8]

BENEFITS OF HERBAL LIPSTICKS:

- Safe to use.
- Natural in nature.
- Affordable and non-expensive.
- Variety of products.
- No side effects.
- Not tested on animals.
- Free from hazardous chemicals

GENERAL INGREDIENTS USED IN THE PREPARATION OF HERBAL LIPSTICK:

1) BEES WAX:

Introduction: Beeswax is a product made from the honeycomb of the honeybee and other honeybee and other bees. Beeswax is used for high cholesterol, pain, fungal skin infection, and other conditions It used cosmetically to hydrates, conditions, soothes, and calms the skin. It repairs damage, promotes the skin's regeneration, diminishes the appearance of the sign of aging, soothes itchiness and irritation, and create a hydrating, long-lasting protective barrier against environmental pollutants^[20].

Biological source: Obtained from the honey comb of the bees *Apis mellifera* and other species of *Apis* belonging family *apidae*.

Uses:

- Used in cosmetics for preparation of lipsticks and face creams. Preparation of ointments.
- It is also used in preparation of lip balms It is used as lubricant for old furniture joints.
- 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.

2) PARAFFIN WAX

Introduction: Paraffin is a soft white solid wax made from petroleum. It is used in many fields such as foodstuff and in the manufacture of candles. It is used in cosmetics in makeup products such as mascara or lipstick but also in many body care products. Liquid paraffin is a hydrating and cleansing agent. Hence, it is used as one of the ingredients of after wax wipes.^[21]

Biological source: Paraffin wax is obtained from the following: Coal Petroleum, Oil shale

Uses:

- Paraffin wax is used to make candles. It is also used as an additive in food items. It is used as a glossing, stiffening and hardening agent in lipstick.
- It is used in crayons. It is used for beauty and personal care.
- It is used in many cosmetic and personal care products like lipstick, lotion, creams.
- It is reduced friction on the skin.
- It is used as an emollient.
- It helps to restore the skin's smoothness, softness and flexibility.

CASTOR OIL:

Introduction: It is rich in the mono unsaturated fatty acid ricinoleic acid, a known humectant. Humectant helps retain skin moisture by preventing water loss through the outer layer of your skin. Because of these qualities, castor oil can be applied to lips and skin, either on its own or as an ingredient, to promote hydration.^[22]

Biological source: Castor oil also called as Ricinus oil, non-volatile fatty oil obtained from the seeds of castor bean, Ricinus communis.

Uses:

- Castor oil has various types of uses such as medicinal, pharmaceutical and industrial uses. as an additive in foods, medications, and skin care products, as well as an industrial lubricant and biodiesel fuel component. **ORANGE ESSENCE:**

Introduction: It keeps your lips from getting cracked and also helps in skin lightening. Orange essential oil contains limonene, which is natural and anti-inflammatory that helps heal dry, cracked lips. The orange is also refreshing on the lips.^[23]

Uses:

- It will help you in getting rid of dark patches around your mouth to quickly if used regularly.
- Best for dry lip and its 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 is used to prevent colds.
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VANILLA ESSENCE:

Introduction: Vanilla flavour oil is high in vitamin E and natural oil, which acts as a protective lubricant on your lips and nourishes them by locking in moisture. You can use vanilla oil which isn't a true essential oil.^[24]

Uses:

- Vanilla has anti-inflammatory properties,
- Vanilla can help to soothe and calm irritated skin. Anti-bacterial.
- Vanilla has been used to reduce skin infections and in wound healing

LEMON JUICE:

Introduction: Lemon is known as to be a bleaching agent and it acts as an effective remedy to treat dark lips. Apply freshly squeezed lemon juice to your lips and massage them gently. The citric acid in lemon juice helps to lighten the dark shade of lips, in turn, making your lips look pink. It plays an important role in skin care routine. It can prevent blemishes and blackheads. It also reduces the size of skin pores, making your skin look clear, smooth, and fresh. It also has astringent properties.^[25]

Biological source: It is obtained from the lemon which is species of evergreen flowering plant belonging to the family Rutaceae.

Uses:

- Lighten skin Detox skin and hair. Prevent acne
- It acts as antibacterial, anti-inflammatory
- It also acts as anti-oxidant. It helps to reduce cholesterol.

TURMERIC POWDER:

Introduction: Turmeric powder is a bright yellow powder made from the dried turmeric rhizomes. While its slightly peppery and warm flavour; vibrant colour and preservatives properties make it a great culinary ingredient, the presence of 'curcumin' make it a suitable for cosmetic and medicinal purpose too.

Biological source: It is obtained from the *Curcuma longa*, a rhizomatous herbaceous perennial plant belonging to the ginger family Zingiberaceae.

Uses:

- It heals acne. Lightens hyperpigmentation.
- Reduce dark circles.
- Prevent premature aging.

DRAGON FRUIT:

Botanical name : *Selenicereus* Dragon fruit, *Selenicereus*

Biological Source:- Pitaya (Family Cactaceae, *Hylocereus undatus* Haw.) Pitaya or the dragon fruit is believed to be an origin of Mexico and Central and South America. Today, this fruit is widely cultivated and has gained popularity in Thailand, Malaysia, Indonesia, China, Vietnam, Taiwan, Bangladesh, and Australia^[26]

BOTONICAL CLASSIFICATION:

- **Kingdom :** Plantae
- **Division :** Magnoliophyta
- **Class :** Liliopsida
- **Subclass :** Lillidae
- **Order :** Lillidae
- **Family :** Lillidae
- **Genus :** *Hylocereus*
- **Species :** *Hylocereus*

**FORMULATION TABLE:**

Sr. No	INGREDIENTS	ROLE	QUANTITY TAKEN
1	CASTOR OIL	Blending Agent	9ml
2	PARAFFIN WAX	Glossy And Hardness	10gm
3	BEEES WAX	Glossy And Hardness	15gm
4	DRAGON FRUIT EXTRACT	Colouring Agent	5gm
5	TURMERIC POWDER	Melanin Inhibitor	6gm
6	LEMON JUICE	Antioxidant	Q.S
7	ORANGE ESSENCE	Flavouring Agent	Q.S
8	VANILLA ESSENCE	Preservative	Q.S

**EVALUATION TEST FOR HERBAL LIPSTICK:**

Organoleptic properties:

Formulated lipstick was checked for colour, odour and texture. These Characteristics were evaluated by physical Observation.



Fig. No.14 Organoleptic Properties

Melting Point:-

In a glass capillary tube open at both ends, 10 mm of a lipstick sample is introduced and then placed into an outer capillary filled with water. The latter is acting as a temperature-controlled water bath.^[33]

Surface abnormalities:

These studies were conducted formulation of herbal lipstick to detect the presence of crystals on the surfaces of the prepared herbal lipsticks

3.Sensitive Skin:

This is done by applying the product as a patch to the skin for 30 minutes and observing for a reaction

N-No reaction

R-Skin redness

I-Irritation or itching

Sensitive Skin

Spreadability:

Applying the formulated lipstick on Hand and observed with fragmentation and deformation or breaking during application and compared with standard formulation^[34,35]



Spreadability

pH: The pH of formulated herbal lipstick was determined using pH Paper . Deep the pH Paper In Formulated Lipstick Preparation And Examine The Result



pH

Skin irritation test:

It is carried out by applying product on the skin for 10 min.

Time duration:

Lipstick are apply on skin and observed the time duration of lipstick stay on skin.^[36,37]



Time Duration

RESULTS

Sr. No	EVALUATION PARAMETER	INFERENCE
1	Colour	Pink to Red
2	Texture	Smooth
3	Odour	Aromatic
4	PH	6 To 6.5
5	Skin Irritation	No
6	Melting Point	60-65*c
7	Spreadability	Easily

CONCLUSION

According to a study, a variety of natural components, including castor oil, beeswax, paraffin wax, orange and vanilla essences, dragon fruit peel extract, lemon juice, and turmeric powder, can be successfully used to create herbal lipstick. After evaluating the manufactured lipsticks, the current investigation revealed that the herbal lipstick formulation had low or no side effects. As a result, consumers could use the herbal lipstick effects safely and effectively, resulting in the maximum local effect on their

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