



REVIEW ON LIP BALM USING HERBAL RESOURCES

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ABSTRACT :

Cosmetics have always been popular throughout history, but lately, there's been a shift towards natural products. Among these, lip balms stand out as a favorite for enhancing and beautifying our lips. They add a lovely touch to our makeup while providing a natural way to keep our lips healthy.

Coloring lips is an ancient tradition that aims to enhance their beauty and brighten our overall appearance. However, many current lip products contain harmful chemicals that can lead to adverse effects. This concern has sparked a growing interest in natural ingredients for crafting lip balms.

This article explores the natural components used in lip balm formulations. Our recent research focuses on creating lip balms with the highest possible amount of natural ingredients and assessing their effectiveness. Key ingredients we studied include beetroot extract, cocoa powder, almond oil, and vitamin E.

We examined various properties such as color, aroma, texture, spreadability, melting point, pH, and stability. The results showed that our formulation had a vibrant red hue from the beetroot pigments, a delightful cocoa flavor, a consistent texture, and excellent spreadability.

INTRODUCTION :

Cosmetics is play important role in modern lifestyle . There is a growing trend across many industries towards more sustainable and eco-friendly options, and the beauty sector is no exception. People are increasingly seeking out cosmetics that align with a natural lifestyle, reflecting their preference for organic foods and herbal remedies. This shift extends to various natural healing practices aimed at promoting overall health.

The rise in demand for organic produce parallels the increased interest in herbal cosmetics, which have expanded significantly within personal care routines. These natural products, rooted in centuries of traditional medicine, are used globally for their beneficial properties. Many herbal ingredients boast pharmacological benefits such as antibacterial, anti-inflammatory, and cytostatic effects, making them valuable in human health applications.

Herbal cosmetic extracts for skin and hair care have gained immense popularity, thanks to their reliability and effectiveness. With a wide range of formulations available, consumers now have numerous options to choose from that fit their desire for authenticity and natural wellness.

The main ingredients of Lip Balm

- Beeswax
- Beet root powder
- Coco Powder , Shea Butter
- Almond oil
- petroleum jelly
- Vitamin E Capsule
- Aloe vera Gel
- Honey
- Chamomile , Green Tea

Anatomy of Lips

External Structure:

1. Vermilion Border: The defined, outer edge of your lips.
2. Cupid's Bow: The distinctive curve of the upper lip.
3. Labial Commissures: The intersection where the lips gather
4. Oral Fissure: The space between the lips.

Muscles:

1. Orbicularis Oris: A muscle that encircles the mouth, essential for lip movement.
2. Zygomaticus Major: The muscle that contributes to the Cupid's bow formation.
3. Levator Labii Superioris: This muscle lifts the upper lip.
4. Depressor Labii Inferioris: Responsible for lowering the lower lip.

Internal Structure:

1. 9. Mucous Membrane: The lining that covers the inner surface of the lips.
2. 10. Labial Glands: These glands produce mucin, which helps keep the lips lubricated.
3. 11. Blood Vessels: They deliver oxygen and nutrients to maintain healthy lips.

Nerve Supply:

1. 12. Trigeminal Nerve (CN V): This nerve provides sensory information to the lips.
2. 13. Facial Nerve (CN VII): Responsible for controlling lip movements.

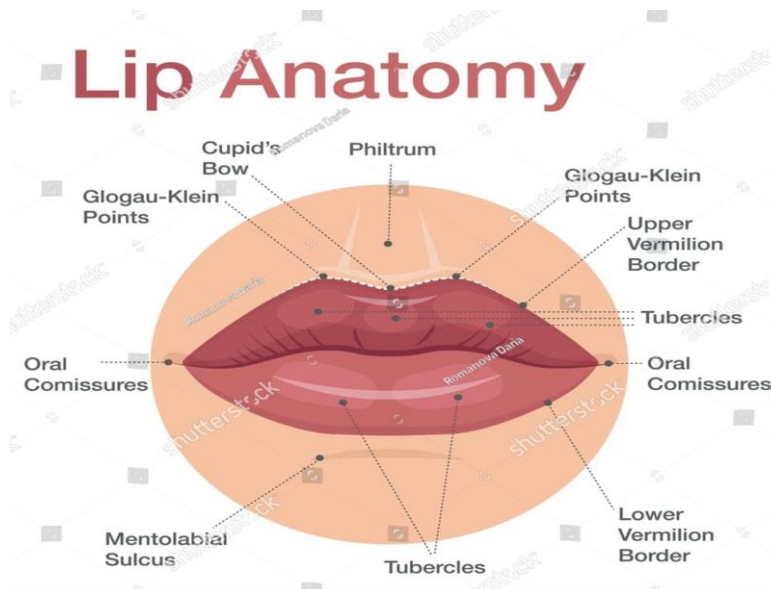
Blood Supply:

1. 14. Superior Labial Artery: Supplies blood to the upper lip.
2. 15. Inferior Labial Artery: Supplies blood to the lower lip.

Lymphatic Drainage:

1. 16. Submandibular Lymph Nodes: These nodes drain lymph from the lower lip.
2. 17. Submental Lymph Nodes: They drain lymph from the upper lip.

A solid understanding of lip anatomy is crucial for a range of medical and cosmetic procedures, including lip fillers, lifts, and cleft lip repairs

**Lip disorders :****Congenital Lip Disorders**

1. Cleft Lip: This is a birth defect where there's a split in the upper lip.
2. Cleft Palate: A condition marked by a split occurring in the roof of the mouth.
3. Microstomia: A rare congenital disorder leading to a smaller-than-normal mouth and lips.

Infectious Lip Disorders

1. Cold Sores (Herpes Simplex): A viral infection resulting in painful blisters on the lips.
2. Angular Cheilitis: An inflammation and cracking at the corners of the mouth, often due to a fungal or bacterial infection.
3. Impetigo: A bacterial infection that produces red sores on the lips and surrounding areas of skin.

Inflammatory Lip Disorders

1. Cheilitis: This refers to inflammation of the lips, frequently triggered by dryness, cold weather, or allergies.
2. Eczematous Cheilitis: A specific kind of cheilitis presenting with dry, scaly, and itchy lips.
3. Actinic Cheilitis: A precancerous condition due to extended sun exposure, causing dry, scaly, and discolored lips.

Neoplastic Lip Disorders

1. Lip Cancer: A form of cancer that manifests on the lips, often linked to prolonged sun exposure or tobacco usage.
2. Mucocele: A benign cystic lesion appearing on the lips or within the mouth.

Other Lip Disorders

1. Lip Dryness: A prevalent issue characterized by dry, chapped, or cracked lips.
2. Lip Swelling: Involves swollen or inflamed lips, which can result from allergies, injuries, or infections.
3. Vitiligo: A condition noted for the presence of white patches on the skin, including on the lips.

Preparation of lip blam

- **Combine oils and waxes:** Combine 30g of almond oil and 80g of shea butter with these 50g of beeswax into a double boiler. Melt the mixture and mix thoroughly. Once mixed, allow it to cool and thicken. **Mix Lecithin and Aloe Vera:** Heat 1oz of lecithin and 1oz of aloe vera gel to make a thick lotion mixture. **Make infusions with herbs & Tea:** Combine a half cup of dried herbs with 1 cup of water and leave it to soak. After that, take one cup of chamomile tea bags, one cup of calendula flowers, and one cup of green tea. Finally, add a cup of sugar or honey and mix all ingredients together. **Mix With Oil Mixture:** Add the herb mixture into the melted oil mixture. Finally, add the aloe vera and lecithin mixture together with a few drops of beetroot powder for coloring. Pour the above mixture into containers or lip balm tubes, and place it in the refrigerator or cold place until further use.

List of Natural Ingredients

Base	Oil	Colouringagents	Flavouring agents	Antioxidant
Bees wax	Coconutoil	Beetroot	Orange	Aloe vera
Whitebeeswax	Oliveoil	Saffron	Vanilla	Greentea
Coccabutter	Almondoil	Honey	Mango	Rosemary
Candelillawax	Sunfloweroil	Cherry	Honey	Blueberry
Olivewax	Castoroil	Carrot	Cherry	Grapeseed

1. Base :

Wax is manufactured through production of items related to skin care and cosmetics. Their application is diverse amongst various industries. product. Most prominent of these includes candles. Food, cosmetics, and other necessities find them useful Also, the pharmaceutical industry uses it to help with the stability of the emulsion. Wax is chemically complex and is a combination of hydrocarbon chains and Fatty acid with an ester. Wax, in contrast to fat, is tougher, less oily, and crumble easily. They are quite water, oxidation, and bacterial resistant.

2. Oils :

Room temperature has a characteristic whereby certain properties of oils are solid, which is the underlying chemical structure of both fats and oils that Glycerol Esters from Glycerol and Fats Acid, the two also share some likeness being known as a triglyceride. A fatty acid can be classified into saturated or unsaturated Determining the stability and properties of oil. Saturated points include high lauric, myristic, palmitic stearic acid. All of these are found in coconut oil and cotton seed oil. Furthermore, high oil content oils have a characteristic where a majority of unsaturated fatty acid is present. This can be exemplified by oleic acid, arachidonic acids, and even linoleic acids which can be found in rapeseed and olive oils.

3. Colouring Agent :

For centuries, the most notable use of colour has been in cosmetics as humans basically have an innate urge to buy a cosmetic item and feel its appeal first through color, the sense of color reigns supreme among the other senses. Thus, it could be stated that color is one of the vital components of a cosmetic formulation At the cosmetic formulation level the pigment need to be compatible with other ingredients and medicament. It has to have no adverse odor or color and has to be widely and economically sourced. Natural colorants include those derived from beet root; saffron and turmeric. This plant is perennial and is primarily grown in Kashmir, India.

4. Flavouring Agent:

Flavouring agents play a crucial role in enhancing our sensory experience by balancing the four fundamental taste sensations. Flavour itself is a complex interplay of taste, touch, smell, sight, and sound, shaped by various physiochemical and physiological responses that affect how we perceive different substances. In the formulation of lip balm, it's vital that the flavours used do not contain any irritating or toxic components. They should not only taste pleasant but also effectively mask any unpleasant fatty odours that may arise from the base ingredients.

A harmonious flavour profile is essential; thus, the added flavours should be subtle enough not to overpower or clash with any other components used in the lip balm. Fruit-based fragrances have been promoted for their appeal, and it's worth considering the inclusion of edible options. Popular choices include apricot, strawberry, cherry, and honey, the latter of which also serves as a natural preservative.

5. Antioxident:

Antioxidants in Cosmetics: Nowadays, many cosmetic products prominently feature antioxidants as key ingredients. These compounds are essential because oxidation reactions can create free radicals, which trigger chain reactions that harm skin cells. An increased presence of free radicals can lead to issues such as wrinkles, photoaging, and dryness. It's well-established that plants produce natural antioxidant compounds that help mitigate oxidative stress caused by sun exposure and oxygen. As a result, cosmetic formulations often incorporate a variety of plant extracts, including aloe vera, green tea, rosemary, grape seed, and blueberry, to harness their protective benefits.

Bees Wax:



BeesWax

Synonyms: ceraalba, ceraflava.

Biological Source : Beeswax is the refined wax obtained from the honeycombs of the , Apis Mellifera, Linn

Family : Apidae.

Chemical Constituents : Beeswax comprises myricin, which is a form of melissyl palmitate, with a melting point of 64°C. When myricyl palmitate undergoes saponification, it releases free cerotic acid (C₂₆H₅₂O₂) and myricyl alcohol (C₃₀H₆₁OH). Additionally, melissic acid, some unsaturated acids from the oleic series, ceryl alcohol, and about 12 to 13% higher hydrocarbons can be found.

Uses : Beeswax is commonly utilized in creating ointments, plasters, and polishes.

AloeVera:



AloeVera

Synonyms : Aloe, Mussabar, AloeForex.

Biological Source : This substance includes both dried and fresh mucilage from Aloe Vera.

Family : Asphodelaceae, Liliaceae.

Chemical Constituents : It contains anthraquinones such as rhein, aloin, and emodin, as well as minerals and mucilage. Mucilage itself is a polysaccharide made up of salts of poly uronic acid.

Uses : 1) Enhances flexibility 2) Commonly used in conjunction with carminatives 3) Helps to alleviate eczema 4) Aids in reducing signs of aging and wrinkles.

Beet Root:**BeetRoot**

Synonyms : Sugar beet, chukandar, spinach beet.

Biological sources : This plant is made up of fresh beta vulgaris.

Family : Chenopodiaceae.

Chemical Constituents : Includes red betalain, beta xanthines, kaempferol glycoside, and betaine.

Uses : 1) May assist in balancing energy intake.

2) Can help reduce tan.

Honey :**Honey**

Synonyms : Madhu, madh, mel, purified honey

Biological Source : Honey is a thick, sweet substance produced and stored in the honeycomb by various species of bees, including *Apis mellifera*, *Apis dorsata*, *Apis florea*, *Apis indica*, and others from the *Apis* family (Apidae).

Family : Apidae.

Chemical Constituents : Honey typically comprises 14–24% moisture, 23–36% dextrose, 30–47% levulose (fructose), 0.4–6% sucrose, 0–7% dextrins and gums, and 0.1–0.8% ash. Additionally, it contains trace amounts of essential oils, beeswax, pollen grains, formic acid, acetic acid, succinic acid, maltose, dextrin, coloring pigments, vitamins, and a variety of enzymes.

Uses : 1) Honey is effective for treating burns and wounds.

2) It serves as a key ingredient in natural cough syrups.

3) It aids in improving digestion.

Almond Oil :**Almond Oil**

synonyms : Mandel, Knackmandel, Almendro

biological source : Almond oil is a stable oil derived from pressing the seeds of *Prunus amygdalus* (Rosaceae) var. *dulcis* (sweet almonds) or *P. amygdalus* var. *amara* (bitter almonds).

Chemical composition : Both sweet and bitter almond varieties contain approximately 40-55% fixed oil, 20% proteins, as well as mucilage and emulsin. Bitter almonds also include 2.5-4.0% of the colorless crystalline cyanogenetic glycoside known as amygdalin.

Uses : Expressed almond oil serves as an emollient and is commonly found in cosmetic products. It is utilized as a laxative, skin softener, in the manufacture of personal care items, and as a medium for oily injections. Additionally, the volatile almond oils act as flavoring agents.

Advantages of lip balm

1. Lip balms serve as a shield, preserving the natural beauty and health of your lips.
2. These products are fantastic for soothing and protecting lips that are prone to cold sores, chapping, and dryness.
3. Opt for sunblock lip balms, as they effectively guard against harmful UV rays that can damage your lips.
4. The best part? Lip balms are for everyone—both men and women can enjoy their soothing benefits

Disadvantages of lip balm

1. Common ingredients often found in natural lip balms.
2. A notable downside is the potential for lip balm addiction, which can develop with frequent use.
3. While natural oils are popular, they come with drawbacks such as being greasier, possibly comedogenic, and having a lower spreadability.
4. Lip balms made from low-quality ingredients can seriously damage lips, leading to dryness rather than providing the moisture they promise.
5. Obtaining naturally derived colors and flavors can be challenging, and they often face stability issues within the products.

Precautions:

1. Before using the product, do a patch test
2. Please refrain from use if you are allergic to any of the ingredients.
3. Please keep this product away from children
4. Store in cool and dry place

Application of lip balm :

For prevention Lip balms are applied to the lips. Dry and protect from harmful environmental influences. There are many chemically derived lip balms on the market today. Available on the market from companies such as The Body Shop, Nivea, Himalaya, Blistex, etc. Cosmetic Literature Reports Data on this type of formulation are limited, but there are references Related to lipstick because it resembles the shape of cosmetics for lip balm. This similarity extends to sensory properties Stability requirements such as temperature tolerance change, pleasant taste, harmlessness, smoothness Easy application, adhesion, and deliberate removal.

Evaluation Parameters for Lip Balm:**Physical Parameters:**

1. Texture: Smoothness, consistency, and spreadability.

2. Appearance: Color, clarity, and uniformity.
3. Odor: Pleasantness and intensity.
4. Melting Point: Stability and consistency.
5. Viscosity: Flowability and ease of application.

Performance Parameters:

1. Moisturizing Ability: Hydration and lip softening.
2. Protection: Barrier formation and environmental protection.
3. Soothing and Calming: Relief from dryness, irritation, and discomfort.
4. Longevity: Duration of moisturization and protection.
5. Water Resistance: Ability to withstand water and humidity.

Chemical Parameters:

1. pH Level: Skin-friendly pH range (4.5-5.5).
2. Preservative Efficacy: Microbial growth inhibition.
3. Stability: Resistance to degradation and oxidation.
4. Extractable Content: Quantity and quality of herbal extracts.
5. Heavy Metal Content: Safety and compliance.

Microbiological Parameters:

1. Total Bacterial Count: Microbial load and safety.
2. Yeast and Mold Count: Fungal growth and contamination.
3. Pathogen Detection: Presence of harmful microorganisms.

Sensory Parameters:

1. Taste and Flavor: Pleasantness and acceptability.
2. After-Feel: Residual sensation and comfort.
3. Spreadability and Glidability: Ease of application.
4. Absorption Rate: Speed of absorption.
5. Overall Acceptability: User satisfaction.

Clinical Parameters:

1. Irritation and Sensitization: Skin reaction and allergy.
2. Allergic Contact Dermatitis: Skin sensitivity.
3. Human Repeat Insult Patch Test (HRIPT): Skin tolerance.
4. Clinical Efficacy: Lip balm performance in human trials.

Regulatory Parameters:

1. Compliance with FDA/Cosmetic Regulations.
2. Labeling and Claims: Accuracy and truthfulness.
3. Good Manufacturing Practices (GMP): Adherence to quality standards.
4. Safety Data Sheet (SDS): Availability and accuracy.

Shelf-Life Parameters:

1. Storage Stability: Lip balm stability during storage.
2. Shelf-Life Duration: Recommended usage period.
3. Expiration Date: Labeling and compliance.

Conclusion :

The cosmetics industry is thriving due to the increasing demand for beauty-enhancing products. This paper examines the current landscape of natural lip balm products, exploring various aspects such as natural ingredients, formulation techniques, evaluations, and potential applications. The comprehensive literature review conducted points to a significant opportunity for natural lip balms moving forward.

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