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Preparation and Evaluation of Herbal Lotion

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Abstract: ***Ancient societies were familiar with the use of natural treatments. They are applied to cosmetics, medications, and food. Because synthetic components pose significant health hazards and contribute to environmental harm, there is an increasing demand for herbal items in cosmetics. Vitamins, antioxidants, lipids, colours, tannins, alkaloids, carbohydrates, proteins, and many more substances are examples of these bioactive components. The absence of adverse effects is the most significant characteristic of herbal cosmetics. Dandruff can be treated with the antifungal, antibacterial, and analgesic properties found in herbs. The herbs help heal wounds and protect the skin by producing antiseptic, anti-inflammatory, anti-oxidant, and insect repellent properties.***
Key words: Herbal Cosmetics, plant use in skin care, Classification, Marketing product

I. INTRODUCTION

A. Cosmetic

Substances that are meant to be applied to the human body or any portion of the body by rubbing, pouring, powdering, or spraying in order to purify, repair, enhance, or alter appearance in accordance with the Drug and Cosmetics Act. (1)-The Greek term "kosmtikos" (having the ability to arrange, decorate, and have authority) is where the word "cosmetic" originates. Originally, cosmetics were used to paint the bodies of animals and enemies in order to frighten them Cosmetics are designed to treat and manage a variety of skin conditions, including wrinkles, acne, ageing, and greasy skin. There are many different kinds of skin care products on the market, including sunscreen, anti-aging, anti-wrinkle, and anti-acne products. These products are made with natural ingredients and include lotions,
creams, and scents - Cosmetics are used to both beautify and protect the skin. It enhances our appearance without harming our skin.(2)

B. Herbal cosmetics

The term "Herbal Cosmetics" refers to products that are made with a variety of acceptable cosmetic ingredients to create a basis, and then one or more herbal compounds are employed to provide specific cosmetic benefits.
The need for natural materials and natural extracts in cosmetic preparations was sparked by customers' desire for herbal products and the usage of natural herbs and their products for their aromatic value.(3)

C. Lotion

A monophasic or biphasic solution, emulsion, or suspension intended for frictionless application on both intact and broken or irritated skin is called a lotion. An emollient and calming effect is the primary feature that lotion users look for.
-Lotion also enhances the water content of the skin by decreasing evaporation.(4)



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D. Herbal lotion

- In addition to natural or synthetic oils, humectants, emollients, lubricants, and other substances, commercial skin moisturisers may contain naturally occurring skin lipids and sterols .
-A sticky concoction called herbal body lotion is applied to the skin to improve its appearance.
- This chemical improves blood circulation, skin hydration, astringency, freshness, bleaching, and medicinal effects. A liquid solution called herbal lotion is applied externally to the skin to enhance its appearance.
-Herbal compounds are processed through extraction, distillation, expression, fractionation, purification, concentration, or fermentation to create herbal medicines. (5)



II. TYPE OF LOTION

1) Moisturising lotion: Made to keep the skin hydrated and avoid drying out. Perfect for daily usage to keep the moisture balance of the skin. Includes components including occlusive, emollients, and humectants.
2) Body Lotions: Made specifically for the body to hydrate the skin as a whole. May come in many textures, ranging from rich formulations to lightweight ones.
3) Facial Lotions: Made especially for the face, taking into account the particular requirements of the skin of the face. May contain sun protection agents (SPF), antioxidants, and anti-aging compounds. Might be further divided into specialised treatments, night creams, and day lotions
4) Hand lotion: The hands, which are prone to dryness and roughness, are the target of hand lotions. May have a composition that absorbs quickly and frequently incorporates moisturising agents
5) Sunscreen Lotions: Made to shield the skin from damaging UV radiation. Includes unblocking substances such as titanium dioxide or zinc oxide. Offered in a range of SPF ratings to accommodate varying sun exposure levels.
6) Anti-Aging Lotions: Designed to lessen wrinkles and fine lines, which are indications of ageing. May contain components like as antioxidants, peptides, and retinol.
7) Acne Lotions: Designed for people with skin prone to acne. Frequently includes substances like benzoyl peroxide or salicylic acid to treat acne.
8) Whitening/Brightening Lotions: Aimed at reducing hyperpigmentation and promoting a brighter complexion. May contain ingredients like vitamin C, niacin amide, or alpha abutting.
9) Exfoliating lotion :Use chemicals in exfoliating lotions that encourage mild exfoliation to get rid of dead skin cells. (6)

III. IDEAL CHARACTERISTICS OF HERBAL LOTION

1) Skin compatibility: The lotion should not cause skin toxicity and should be in harmony with the PH of the skin.
2) Cooling effect: When applied, lotion should have a cooling impact.
3) Emollient effect: This is what the lotion is supposed to do.
4) Non-irritating: The lotion should not cause skin irritation or allergies.
5) Non-Greasy Finish: Make sure the solution absorbs into the skin rapidly and doesn't leave a greasy afterglow. Make sure the formula is noncomedogenic and lightweight for comfortable daily use.

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6) Antioxidant Protection: Packed with antioxidants, the included herb shields the shin from oxidative stress and early ageing.(6)

A. Use of Constituent in Lotion

1) Aloe Vera
2) lemongrass.
3) lemon
4) Carrots
5) Outs.
6) Almond
7) Honey
8) Neem
9) sandalwood
10) Turmeric
11) Camphor
12) Papaya
13) Safron
14) coconut milk (7)

B. Aloe Vera lotion

Aloe Vera: In North Africa, the fleshy leaves of the aloe vera plant are used to make aloe vera gel. Vitamins, minerals, glycoproteins, and polysaccharides. These components support its anti- inflammatory, calming, and moisturising qualities. By forming a barrier on the skin, it simultaneously keeps moisture out and promotes hydration. Minor burns, wounds, and sunburn (8)

IV. BENEFIT OF ALOE VERA LOTION

1) Moisturising: Aloe Vera keeps skin moisturised and prevents dryness by retaining moisture.
2) Soothing and Healing: Helps soothe irritated or sunburnt skin by reducing inflammation and accelerating healing.
3) Anti-aging: Antioxidants combat dangerous chemicals to lessen wrinkles and fine lines.
4) Antimicrobial: Helps with acne and small cuts while shielding the skin from infections.
5) Skin Regeneration: Encourages skin healing and collagen synthesis (9)

V. CHEMICAL CONSTITUENTS

1) Vitamins: It has antioxidant vitamins A (beta-carotene), C, and E. Choline, folic acid, and vitamin B12 are also present. Free radicals are neutralised by antioxidants.
2) Hormones: Gibberellins and auxins, which have anti- inflammatory and wound-healing properties.
3) Minerals: It supplies potassium, sodium, magnesium, manganese, calcium, chromium, copper, selenium, and zinc. Few of them are antioxidants, and they are necessary for the correct operation of numerous enzyme systems in diverse metabolic pathways.
4) Anthraquinones -:contains twelve anthraquinones, which are phenolic substances that have historically been used as laxatives.
5) Enzymes: It has eight enzymes: peroxidase, cellulase, lipase, carboxypeptidase, catalase, amylase, bradykinase, aliiase, and alkaline phosphatase. When applied topically to the skin,
6) bradykinase helps to minimise excessive inflammation, and other enzymes aid in the breakdown of fats and sugars.
7) Amino acids: The amino acids needed for growth and repair are found in aloe Vera gel. It contains seven of the eight essential amino acids and twenty of the twenty-two non-essential ones.
8) Salicylic acid: An aspirin-like substance with antibacterial and anti-inflammatory properties (10)

VI. CHEMICAL CLASSIFICATION KINGDOM – PLANTAE

1) Subdivision-Angiosperms Class-Monocots
2) Order-Asparagine's
3) Family- Asphodelaceae
4) Genus-aloe L.
5) Synonyms: Aloe, Musabbar, Lolesara(in kannada).
6) Biological source: Aloe Vera, often known as Curacao aloes, is made from the dried juice of Aloe barbadensis Miller leaves.
7) Geographic origin: Grown in Cape Colony, Zanzibar, and the islands of Socotra, aloes are native to eastern and southern Africa. Throughout addition, it is grown throughout Europe, the Caribbean, and several regions of India, particularly the North West Himalayan region. (8)

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VII. FORMULATION TABLE

1) Aloe Vera
2) Saffron
3) Coconut milk
4) Honey
5) Almond Oil
6) Rose Wate
7) Glycerin
8) Lavender oil

VIII. MATHOD OF PREPARATION HERBAL LOTION

1) According to the recipe, weigh each component.
2) Aloe vera gel was placed in a different, clean beaker and swirled until it became somewhat creamy.
3) After that, saffron extract and honey were added and combined.
4) Next, another beaker was filled with vitamin, almond, and lavender oils. Glycerine and capsule oil were added.
5) After that, the oils solution was gradually added to the first beaker and thoroughly mixed.(11)

IX. EVALUATION TEST

1) Absorption test: The lotion was applied to the skin and rubbed in until it was fully absorbed as part of the absorption test.
2) Test for Skin Irritation: To screen for irritant reactions, such as swelling, itching, and redness, a formulation was applied to the back of the hand and left on for 15 minutes.
3) Test of homogeneity: Touch and visual inspection were used to evaluate the homogeneity test.
4) PH test: A digital pH meter was used to measure the pH of this all-herbal lotion.
5) Spread-ability test: A 500 mg lotion was placed between two slides. A 200g weight was placed on top of the slide The excess mixture was discarded once the weight was removed. The upper slide was fastened to a non-bending rope and subjected to a 100g load, while the bottom slide was fixed to the machine. It was noted how long it took for the top slide to come off.
6) Smoothness: We used a touch inspection to observe the lotion's texture by rubbing it between their fingers in order to gauge how smooth the formulation was. We noted if the lotion felt harsh, homogenous, clumped, or smooth.
7) Test of Washability: Applying a tiny bit of cream to the hand and then rinsing it with tap water was the washability test.(12)

X. CONCLUSION

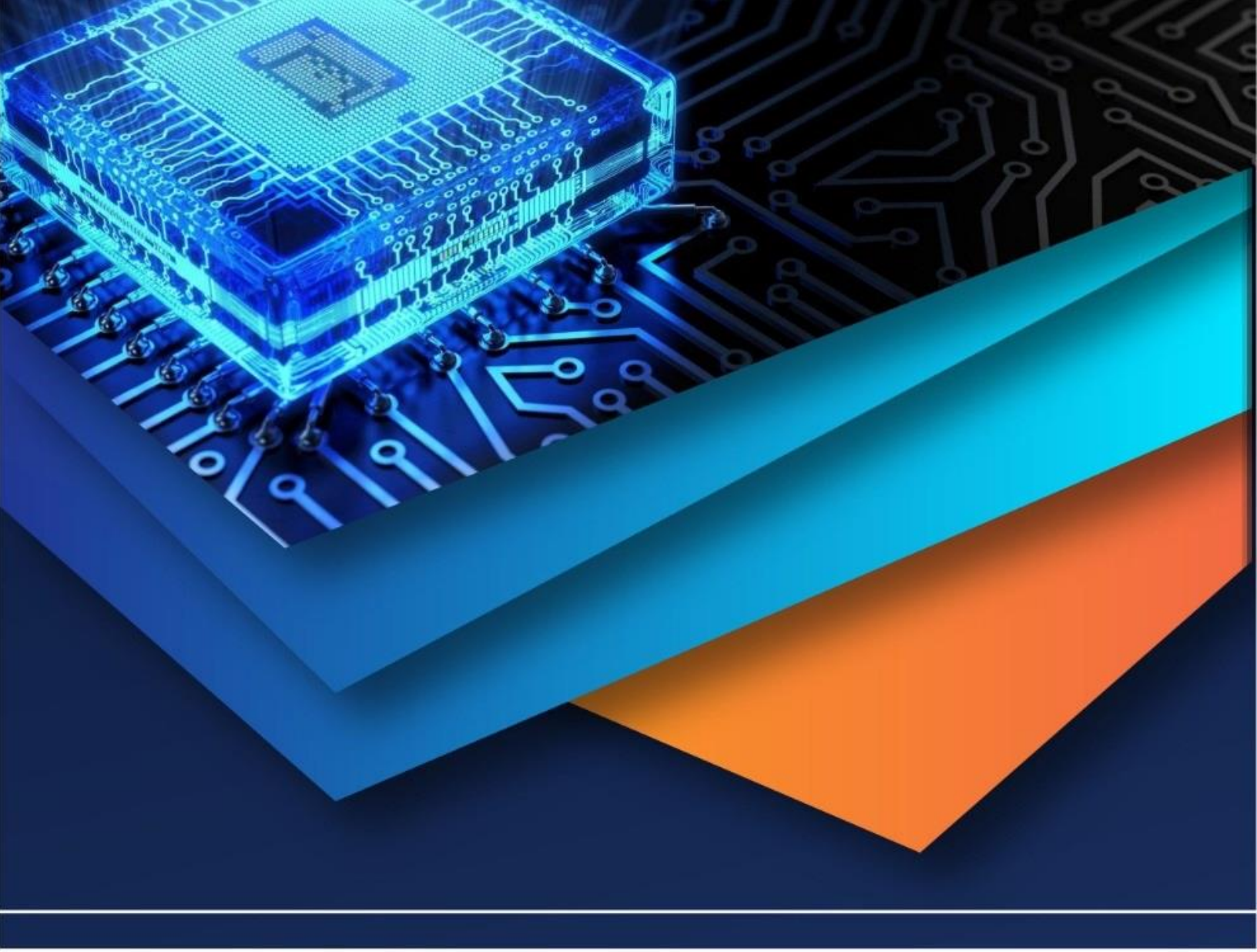
-Depending on your skin type and the ingredients you may need for optimal nourishment, lotions come in a variety of categories and are made to either restrict moisture from escaping your skin or absorb water from other sources to maintain your skin smooth and soft -Lotion is a semisolid formulation that is widely accepted worldwide. Since the skin is the body's most accessible area, it is also most prone to injury. Topical formulations like lotion are the most popular for treating cuts, burns, and wounds. -The application of bioactive

ingredients in cosmetics affects the biological processes of the skin and supplies the nutrients required for healthy skin. There are many naturally occurring herbs that can be used as antioxidants in skincare and cosmetic preparations. The main goal of this study is to produce a herbal body lotion. Give essential nutrients for healthy skin. There are numerous natural herbs accessible, and each one has special properties that make it beneficial in skincare solutions, particularly as antioxidants. According to the study, herbal cosmetics are harmless and safe. Herbal lotion keeps skin issues at bay.

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