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Review on polyherbal facial scrub containing walnut shell

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ABSTRACT

The Importance of Cosmetics has increased as many people want to stay young and attractive. There are many products available in market regarding skin care and face care.Scrub is one of the products which are used to cure different types of skin conditions, such as acne, aging, redness and dryness. Peoples having oily skin suffer from acne, whiteheads and blackheads often. So scrubbing is required. The objective behind the study was to formulate and evaluate polyherbal face scrub. By using polyherbal scrub, cleansings, moisturising skin brightening, smoothening of skin is observed. The use of fenugreek, turmeric and aloe vera is to give skin effects like antioxidant, antiseptic, antiaging, antimicrobial. Walnut Shell is natural and biodegradable ingredients which is use as a natural expoliator in facial scrub. The formulation was evaluated with various organoleptic properties and tests. With this, it is concluded that formulation was stable and safe for use. Hence, the problem of pimple and acne can be overcome by this Polyherbal Face scrub.

KEYWORD: - ***Facial scrub, Polyherbal, Walnut Shell Powder, Natural Expoliator.***

1. INTRODUCTION

In recent years, there has been a growing interest in the use of herbal formulations for Skincare products due to their potential benefits and minimal side effects. Facial scrubs are widely used to exfoliate the skin and remove dead cells, revealing a smoother and healthier complexion. The formulation and evaluation of polyherbal facial scrubs offer apromising approach to enhance the efficacy and safety of these products by harnessing the synergistic effects of multiple herbal ingredients.

Polyherbal formulations involve the combination of two or more herbs, each possessingdistinct therapeutic properties. This combination can lead to a more comprehensive andbalanced approach to skin care, targeting various skin concerns such as acne, dullness, and uneven texture. Furthermore, the use of polyherbal facial scrubs can provide asustainable and eco-friendly alternative to conventional synthetic-based products.

Formulating an effective polyherbal facial scrub requires careful selection and evaluationo herbal ingredients. Each ingredient should be chosen based on its documentedpharmacological activities, safety profile, and compatibility with other components.Furthermore, optimizing the extraction and formulation techniques is crucial to preservethe bioactive constituents and ensures their maximum efficacy.

The evaluation of polyherbal facial scrubs involves comprehensive assessment ofvarious parameters, including physical characteristics stability, safety, andefficacy.Physicochemical tests, such as pH determination, viscosity measurement, and particle size analysis, help in determining the product's quality and consistency. Stability studies are conducted to assess the shelf life and storage conditions required for maintaining the product's integrity over time.

Moreover, safety evaluation is of utmost importance to ensure that the polyherbal facial scrub does not cause any adverse effects on the skin. This involves conducting lskin irritation and sensitivity tests to assess the product's potential for irritation or allergic reactions. In addition, microbial tests are performed to verify the product's microbiological quality and safety.

The efficacy of polyherbal facial scrubs can be evaluated through in vitro and in vivo studies. In vitro assays assess the product's antioxidant activity, antimicrobial properties, and its ability to inhibit specific enzymes or cellular processes related to skin health. In vivo studies involve the assessment of the product's effects on human volunteers, including improvements in skin texture, hydration, and reduction in the appearance of blemishes or fine lines.

In conclusion, the formulation and evaluation of polyherbal facial scrubs represent an exciting avenue for the development of safe and effective skincare products. By harnessing the synergistic effects of multiple herbal ingredients, these formulations have the potential to provide holistic solutions to various skin concerns. However, rigorous testing and evaluation are necessary to ensure the quality, safety, and efficacy of these products.

2. INTRODUCTION TO HERBAL INGREDIENTS

FENUGREEK SEEDS:-

- Synonym: Methi, Genus trigonella.
- Biological Source: It consists of dried seeds of Trigonella foenum graecum
- Family: Fabaceae.
- Chemical Constituents: The main chemical constituents are Trigonellin, Diosgenin, Fenugrikin B, Fenugreekine, and Rutin.

- Uses: Fenugreek seed extract can help improve skin texture, reduce Inflammation, and protect against UV radiation damage. Fenugreek seeds also Have exfoliating properties that can help remove dead skin cells and unclog pores, making them a useful ingredient in facial scrubs.

BAEL LEAVES:-

- Synonym: Aegle Marmelos, Wood Apple.
- Biological Source: It consists of fresh leaves of Aegle Marmelos Linn.
- Family: Rutaceae.
- Chemical Composition: Bael contains number of chemical constituents such as alkaloid, caretenoids, flavonoids, terpenes which shows various
- pharmacological actions. Aegle marmelos leaves contained γ-sitosterol, aegelin, lupeol, rutin, marmesinin, β-sitosterol, flavones, glycoside, halfordiol, marmeline, marmelosin and phenylethyl cinnamamides.
- Uses: Bael is a tropical fruit that is commonly used in Ayurvedic medicine. Bael fruit extract has been shown to have anti-inflammatory and antibacterial Properties, making it a potentially useful ingredient in facial scrubs for acne-Prone skin.

KASTURI HALAD:-

- Synonym: Kasturi Halad (Curcuma aromatica): Synonym: Wild Turmeric, Musk turmeric, Amba halad.
- Biological source: It consist of fresh dried rhizomes of curcuma

- Family: Zingiberaceae.
- Chemical constituent: Wild turmeric has higher concentrations of curcumin, Demethoxycurcumin, bisdemethoxycurcumin, phenolic compounds and total Flavonoid-curcuminoid. It consists of α-curcumene (8.1–9.1%), zingiberene (11.3–15.8%), β-sesquiphellandrene (9.4–13.7%), β-elemenone (5.1–5.9%), β-turmerone (30.4–33.0%), and α-turmerone (10.9–13.0%).
- Uses: Kasturi Halad, also known as wild turmeric or Curcuma aromatica, is a Plant species closely related to common turmeric. It is known for its Antimicrobial, anti-inflammatory, and skin-brightening properties. Kasturi Halad helps in improving the complexion and reducing blemishes.

ORANGE PEEL (CITRUS SINENSIS):-

- Synonyms: Orange Cortex, Bitter orange peel.
- Biological source: It consists of fresh or dried outer part of the pericarp of citrus aurantium Linn.
- Family: Rutaceae
- Chemical constituent: Major constituents present in orange peel are Limonene (90%), Citral (4%), Vitamin C, and Pectin. Orange peels are also a rich source of flavonoids and phenolic acids. Flavonoids comprise primarily of flavanone glycosides (hesperidin, narirutin, and eriocitrin), polymethoxylated flavone (sinensetin, nobiletin, and tangeritin) and flavone glycosides (diosmin, Isorhoifolin, rutin). Regarding the phenolic acids, OPs are rich in hydroxycinnamic acids, such as ferulic, p-coumaric, sinapic, caffeic, and Chlorogenic acids.
- Uses: Orange peel, derived from the fruit Citrus sinensis, is rich in vitamins and antioxidants. It possesses exfoliating and brightening properties, helping to remove dead skin cells and improve the overall texture and tone of the skin.

SANDALWOOD:-

- Synonym: Yellow sandalwood, Lignum santali
- Biological source: It consists of heart wood of Santalum album.
- Family: Santalaceae
- Chemical constituents: It contains volatile oils, which contain 95% of two Isomeric sesquiterpene alcohols namely alpha-santalol and beta-santalol. It also contains santalal, santene, santanone, santalone and santalene.
- Uses: Sandal wood is used in perfumery, as skin conditioner, in creams, lotions, soaps and powders. It possesses anti-inflammatory, antimicrobial, and skin-soothing properties. Sandalwood is effective in reducing acne, soothing irritated skin, and improving skin complexion.

WALNUT SHELL:-

- Synonym: Juglans Regia
- Biological source: It is a powder of ground shells of Juglans Regia Linn.
- Family: Juglandaceae
- Chemical constituents: The chemical composition of walnut shell fibers
- Includes ash (3.4%), lignin (50.3%), hemicellulose (22.4%), and
- Cellulose (23.9%).

- Uses: Walnut shell powder is a natural exfoliant; it gently removes dull and dry skin cells to reveal soft, smooth healthy skin.

HONEY:-

- Synonyms: Madhu, Mel, Honey purified, Madh.
- Biological source: Honey is sugar like secretion deposited in honey comb by the various species of bees such as Apis mellifera, Apis dorsata, Apis florea and other species of Apis.
- Family: Apideae
- Chemical constituents: Honey is an aqueous solution containing 35% glucose,
- 45% fructose, 2% sucrose, Maltose, Gum and Acetic acid.
- Uses: Honey has moisturizing, anti-bacterial and wound healing properties.
- Honey help hydrate and soothes the skin, in reducing inflammation and
- Promoting a youthful complexion.

POTATO STARCH:-

- Synonym: Amylum
- Biological source: Starch consists of polysaccharide granules from the tubers of potato (Solanum tuberosum Linn.)
- Family: Solanaceae
- Chemical constituents: Starch contains chemically two different Polysaccharides, such as amylose (β-amylose) and amylopectin (α-amylose), in the proportion of 1:2.
- Uses: It acts as a natural thickener and binder in skincare products. Potato starch helps in providing a smooth and creamy texture to the facial scrub.

GLYCERINE:-

- Synonym: Glycerol
- Biological source: It can be obtained either from animal fats or botanical sources such as palm, coconut, or soyabean oil.
- Uses: Glycerin is a colorless and odorless liquid derived from plant or animal
- Fats. It is a humectant, which means it attracts and retains moisture in the skin.
- Glycerin helps in maintaining skin hydration, improving smoothness, and
- Enhancing the overall appearance of the skin.

3. CONCLUSION

In conclusion, the formulation and evaluation of a polyherbal facial scrub offers promising benefits for skincare enthusiasts. By combining various herbal ingredients, this type of facial scrub aims to provide a holistic and natural approach to skincare while addressing multiple skin concerns.

The formulation process involves carefully selecting and combining different herbs known for their beneficial properties for the skin, such as exfoliation, cleansing, moisturizing, and antioxidant effects. These herbs are typically chosen based on their traditional use in skincare practices and scientific evidence supporting their efficacy.During the evaluation phase, the polyherbal facial scrub undergoes rigorous testing to ensure its safety, effectiveness, and overall quality. This evaluation includes various

Assessments such as stability testing, microbial testing, sensory evaluation, and compatibility testing these tests help determine the product's shelf life, microbial safety, sensory attributes (e.g., texture, smell), and compatibility with different skin types.

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