

Formulation of Guava Based Herbal Face Wash

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Abstract: *The idea that natural medicines have fewer negative effects than synthetic ones makes them more acceptable. The demand for herbal formulations is rising on the global market. The invention and assessment of aloe vera and rose water - infused herbal face cleanser, glycerine, face wash bass, Lemmon grass oil, coconut oil, vitamin c, etc. are the subjects of the current study. We aim to produce herbal formulations without utilising any synthetic ingredients, despite the fact that there are many There are accessible topical herbal acne treatments. on the Market. The effort to introduce the herbal face cleanser including aloe Vera was excellent.*

Keywords: Face wash, glycerine, Lemmon grass oil, coconut oil, aloe Vera gel.

1. Introduction

When we talk about face wash, it means face - cleansing items that don't cause the skin to become dry. Face wash is sometimes known as "cleanser. " All skin types can use face cleanser, according to research¹. The Greek word "kosmeticos, " which means to adorn, is the source of the English word "cosmetics. " Since then, a cosmetic is any substance used to enhance or improve one's appearance². The creation of a beautiful, safe product that is acceptable to a larger range of people is the primary goal of developing herbal formulations³. The skin is the biggest organ in the human body. It carries out a variety of essential tasks, such as safeguarding the body from physical, chemical, and biological threats from the outside, preventing excessive water loss from the body, and assisting with thermoregulation⁴.

Guava leaf

The fruit plant known as the guava (*P. guajava* L., Myrtaceae) is found in many tropical and subtropical locations, including South America, Africa, and Asia. This plant has historically been utilised for food, traditional medicine, colouring, and other purposes.⁵ Guava leaves (*P. guajava* L.) offer a wide range of beneficial qualities, including those that are antibacterial, anti - allergic, anti - inflammatory, antimicrobial, and anti - diarrheal. Previous studies have demonstrated that the bioactive substances alkaloids, steroids, flavonoids, tannins, and saponins are present in guava leaf extract (*P. guajava* L.)⁵.

Aloe Vera gel

Numerous antioxidants found in aloe Vera serve as a source of raw materials for a variety of goods in the culinary, pharmaceutical, and cosmetic industries. Aloe Vera has saponins, which have antiseptic, cleaning, and moisturising qualities. It also has accemanans, which have antiviral, antibacterial, and antifungal characteristics. Aloe Vera may be used to make soap that not only kills bacteria but also moisturises the skin. Lignin protects the skin by keeping it damp and retaining water so that excessive evaporation does not take place. The content of aloe Vera, which can influence how severe acne vulgarise is, is described above⁶.

Rose water

Rosa damascena mill the scientific name for the damask rose, is a member of the popular Rosacea plant family, which includes many decorative plants. There are more than 200 species of rose, and there are more than 18000 cultivars. About 3000 BC, it is said that China, Northern Africa, and Western Asia began cultivating roses. Rose is a priceless and significant primary resource used for scent and cosmetic purposes. Rose water, rose oil, concrete, and absolute are also taken from the rose. Many naturally occurring materials are excellent sources of antioxidants and are employed for cosmetic purposes due to their potent sunscreen and antioxidant properties. The skin, whose exterior is the most portion of the body, is in direct contact with the sun and UV radiation, which results in substantial skin damage that not only speeds up oxidation but also certain other diseases including erythema, photoaging, edoema, sunburn, and cell formation⁷.

Glycerine

Glycerine is a substance that has a long history of use in the cosmetics and pharmaceutical industries. Its significance in skin care items is well known. Studies have centered on its humectants and protecting qualities to describe its advantages. The stratum corneum absorbs glycerin. hydrates the skin more and reduces dehydration symptoms clinically. Scaling is a characteristic of skin, and research reveals that the human skin's top surface⁸.

Lemon grass oil

Large, striped leaves with an irregular border grow on a tall shrub called lemon grass. It is well known for its smoky, sweet, herbal, and lemony fragrance. *Cymbopogon flexuosus* is frequently used to make soups, curries, and teas. This plant has a relaxing quality. Lemon grass is a tall, sweet - smelling natural sedge. It belongs to poacher is the genus. It expands in a variety of tropical and subtropical regions of South East Asia, Africa, and other continents. Lemon grass is a grass that is indigenous to Sri Lanka, Pakistan, and India. Other than the foothills of Sikkim and Arunachal Pradesh, the States along the Western Ghats include Karnataka, Tamil Nadu, Kerala, and Maharashtra. are in India. Lemongrass, or *Cymbopogon citrates*, is a tall perennial grass⁹.

Coconut oil

Coconut - related items have shown a greater interest in people's lives. Coconut offers significant health benefits due to its beneficial ingredients, not only in the food sector but also in the cosmetics industry, particularly in personal care products. More and more research and development into coconut goods is being done to meet people's desires for beauty and health care¹⁰. The primary component for a topical skin moisturiser in this study is virgin coconut oil. Especially in South East Asia, virgin coconut oil is a widely used component in traditional skin care products¹¹.

Vitamin C

L - ascorbic acid, also referred to as vitamin C. being present for a necessary component Vitamin C is vital to survival and skin protection either be consumed through Citrus fruits and leafy veggies with a dark green color, as well as various formulations used topically on the skin¹².

Materials:

- a) **Guava leaf:** Guava leaves also assist in clearing up any skin imperfections that have been left behind as well as helping to brighten any dark areas on your face. Guava leaves are a fantastic skin - lightening component that will give you a clear complexion and spot - free skin.
- b) **Aloe Vera gel:** Using aloe Vera on the face has advantages since it encourages collagen production and release while reducing pain, swelling, and soreness associated with cuts and injuries.
- c) **Glycerin:** It is virtually insoluble in hydrocarbons, long - chain aliphatic alcohols, fatty lubricants, and halogenated solvents such as chloroform. Acetone, diethyl ether, and dioxin all make glycerin less liquid.
- d) **Rose water:** Natural skin oils are balanced by it: The natural oils on your face can be clarified and balanced with rose water, giving you skin that looks refreshed and revitalized
- e) **Lemmon grass oil:** Limonene, which can aid to lighten and brighten skin, unclog pores, and lessen acne and acne scarring, is a component of lemongrass volatile oil. Lemongrass volatile oil, a kind of volatile oil used frequently in aromatherapy for health and beauty, has a light, lemony scent.
- f) **Coconut oil:** Inflammation reduction, skin hydration, and wound healing are just a few of the possible advantages of coconut oil for the skin. Coconut oil contains the following medium - chain fatty acids also antibacterial, which can help treat acne and shield the skin from noxious microbes.
- g) **Vitamin c:** A few potential benefits of coconut oil for the skin include wound healing, reduced inflammation, and skin hydration. Medium - chain fatty acids are present in coconut oil that are also antimicrobial, helping to treat acne and protect the skin from harmful germs.

Methods:

I have used guava leaf. Rinse it with water and dried in sun light. Then converted into powder by using mixer. Rose water, aloe vera gel, lemongrass oil, coconut oil, glycerin, vitamin c tablet are collected from a nearby market. Water was introduced to the mixture in a small amount methyl paraben and sodium lauryl sulfate and stirred this solution to make a gel like formation and this is used as face wash base.

Above all materials are added one by one into the face wash base.

Formulation tab:

S. No	Ingredient name	Quantity
1	Guava powder	3 gm
2	Aloe Vera gel	2 ml
3	Rose water	1 ml
4	Lemongrass oil	1 ml
5	Coconut oil	1 ml
6	Glycerin	2 ml
7	Vitamin C tablet	1
8	face wash base	10 ml

Evaluation Test for Face Wash

- 1) **Colour:** Visual inspection was done to determine the color of the facial cleanser formulation.
- 2) **Odour:** The mixture was smelled to determine its odor.
- 3) **Consistency:** It was mechanically calculated. .
- 4) **PH:** The formulation's 1% water solution's pH was determined using a PH Analyzer.
- 5) **Washability:** On the skin, formulations were applied, and the extent of water washing was manually assessed.
- 6) **Foamability:** A small quantity of gel was ingested in a water - filled container. After recording the initial volume, the beaker was agitated ten times to record the end volume.
- 7) **Skin irritation test:** On the back of the hand, 1.0 g of specially formulated facial wash was spread over a two square inch region.

2. Result & Discussion

The formulation was determined to be for face wash. Coconut oil makes skin soft and is a fantastic natural source of vitamin c. The results of the in vivo and in vitro examination showed that the face wash made the skin smooth. All the goodness of natural ingredients is present in the prepared face wash. Aloe Vera is utilized as an antioxidant that can help with UV damage repair and slow down the ageing process of the skin. The antibacterial and antiseptic qualities of peppermint oil help to reduce acne.

3. Conclusion

In the modern world, people need a solution to their issues without side effects. Cosmetics without negative effects could be developed thanks to herbal ingredients. Herbal face washes are regarded as a long - lasting and efficient method to enhance the appearance of skin. In light of this, the current effort is a great Endeavour to create a herbal face wash using readily available ingredients including glycerin, aloe Vera gel, rose water, Lemmon grass oil, coconut oil, and vitamin c. The proposed formulation was claimed to have characteristics similar to standard cosmeceutical formulations for cosmetics and to be physically, chemically, and microbiologically stable.

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