



A Review Article on Formulation and Evaluation of Herbal Facewash

Mr. Rachit Shukla¹, Gulshan Kumar², Suneel Kumar Yadav³, Shagun Shukla⁴, Ishani Jaiswal⁵

Assistant Professor¹, Student², Student³, Student⁴, Student⁵
Chaudhary Institute of Pharmaceutical Science, India.

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ABSTRACT

Face wash is the cosmetic products which is generally used to cleanse face without drying it out. It is also known as the “cleanser”. This product is found to be equally good for all skin types. Herbal facewash are very popular now a days due to their natural properties. The global market for herbal formulations is expanding due to the fact that natural remedies are safer than the synthetic ones. Herbal facewash claims to be cleansing, antiaging, anti-acne, moisturizing, and also improve fairness of the skin making it healthy. Indian herbs are the richest source to be used in cosmetic industries. Herbal cosmetics are gaining tremendous demand in the world market. Herbal face wash consist of plant based ingredients consist of antimicrobial, antioxidant, anti-inflammatory properties aiding in improving the skin conditions. The plant ingredients used in the preparation of herbal facewash should able to soften the epidermis of skin and enhance the penetration to remove acne and also promote the quick healing and resolution of the skin.

INTRODUCTION

Cosmeceuticals:

The word ‘cosmeceutical’ is made up of two words one is “cosmetic” and another one is “pharmaceutical”. Cosmeceutical are the cosmetic products that have medicinal or drug like effects.

These products do more than just changing appearance but less than a therapeutic drug. These products are designed to have long term effect on the skin.

Cosmeceuticals are generally meant for topical application.

According to Marie Jhin ,MD , dermatologist in San Francisco “Cosmeceuticals will contain active ingredients that are known to be beneficial to humans in some way.”

Vitamin C , Vitamin A, Hyaluronic acid, etc. containing cosmetic products will fall in the category of cosmeceuticals as they not only aid in appearance of skin but also give some pharmaceutical benefits to it.

Herbal Cosmetics:

Herbal cosmetics use natural ingredients derived from plants, minerals for the formulation to enhance the health of skin and hairs.

These products often exclude the synthetic chemicals, making them popular for those seeking gentler alternatives. The study indicates that beneficial effect of herbal ingredients, such as neem and turmeric in the prevention and reduction of mild to moderate acne without any side effect.

The herbal cosmetics also include herbal excipients for the formulation for minimizing the possible side effects in comparison to chemical formulations.

Face Wash :

a face wash is a facial care solution used to clean the skin makeup, dead skin cells, oil/sebum, grime, dust, and other form of pollutants. This aid in pore cleaning and shields the skin from problems like acne.



herbal facewash refers to facial cleanser that emphasize the use of botanical ingredients. these products often appeal to consumer seeking natural or gentle skincare options.

Herbal face wash is skincare product formulated with the natural ingredients derived from plants and herbs, offering a gentle and effective way to cleanse and care for the skin, often free from harsh chemicals.

Face wash has many benefits including removing dirt, preventing acne and improving skin texture, exfoliating the skin, hydration, brightens skin tone, prevents breakouts, maintains skin barriers, improves skin cell regeneration.

There are various types of herbal face wash available in the market depending upon the type of skin such as dry skin, oily skin, combination skin.

Types of Herbal Face Wash :

Herbal and Natural

Gel face wash

Foaming Facewash

Cream Facewash

Anti Acne Facewash

Soap free Facewash

Herbal and Natural :

Herbal face washes are popular skincare products that utilize natural ingredients derived from plants. Here's a breakdown of what they are and some key considerations:

● Natural Ingredients:

- Herbal face washes are formulated with botanical extracts, essential oils, and other plant-based ingredients.
- Common ingredients include aloe vera, neem, turmeric, sandalwood, tea tree oil, and various fruit extracts.

● Gentle Cleansing:

- Many herbal face washes are designed to provide gentle cleansing, making them suitable for various skin types, including sensitive skin.
- They aim to remove dirt, oil, and impurities without harsh chemicals that can strip the skin's natural moisture.

● Potential Benefits:

- Depending on the ingredients, herbal face washes may offer various benefits, such as:

- Soothing irritation
- Reducing inflammation
- Controlling acne
- Brightening the complexion
- Providing antioxidant protection



Key Considerations:

• Skin Type:

- It's essential to choose an herbal face wash that suits your specific skin type (oily, dry, combination, sensitive).
- For example, tea tree oil is often recommended for acne-prone skin, while aloe vera is suitable for sensitive skin.

• Ingredient List:

- Carefully review the ingredient list to ensure the product doesn't contain any potential allergens or irritants.
- Look for products with natural preservatives and avoid those with harsh chemicals.

• Quality and Source:

- Choose reputable brands that use high-quality herbal extracts.
- Consider products that are certified organic or made with sustainably sourced ingredients.

• Individual Reactions:

- Even natural ingredients can cause allergic reactions in some individuals.
- It's always a good idea to perform a patch test before using a new face wash on your entire face.

Where to find them:

• Herbal face washes are widely available in:

- Pharmacies
- Health food stores
- Online retailers
- Cosmetic stores.

Ingredients :

SR. No.	Ingredients	Quantity
1	Turmeric	3.5 gm
2	Neem	3.5 gm
3	Tulsi	1 gm
4	Giloy Powder	4gm
5	Carbopol934	1 gm
6	Sodium Lauryl Sulphate	3gm
7	Rose Oil	1 ml
8	Vitamin E capsule	1 ml
9	Triethanolamine	3 ml
10	Distilled Water	25 ml
11	Methyl Paraben	4 ml



1. Turmeric Rhizome:



Turmeric Synonym: - Curcuma Longa, Indian saffron

Family: - Zingiberaceae

Biological Source:- Turmeric consists of dried, as well as fresh rhizomes of plant is known as curcuma longa linn.

Description

Colour – Yellow

Odour – Aromatic

Taste – Bitter Chief

Chemical Constituents – Curcumin, Curcuminoids

Uses :

Reduce acne, Glowing skin, lightens skin Antibacterial, antifungal and it protects the skin From Many skin infections and also adds glow to the face. Turmeric is also Known to reduce scarring.

The chemical constituent is the Vitamin, enzyme, minerals, sugars, lignin, saponin, salicylic acid and amino acid.

2. Neem :



Synonym – Nim

Biological Source-It consists of dried leaves of Azadirachta indica.



Family -Meliaceae.

Description:

Colour – Green

Odour– Pungent

Taste – Bitter

Chief chemical constituents- Nimbinin, Nimbidin, Quercetin **Uses**-Skin toner, Lightens skin blemishes, Remove blackheads.

3. Tulsi :



Biological Source-It mainly consists of dried leaves of *Ocimum sanctum*

Family- Lamiaceae.

Description :

Colour – Green

Odour – Aromatic

Taste – Pungent

Chief Chemical Constituents: Oleanolic acid, ursolic acid, rosmarinic acid

Uses : It helps to Prevent acne and pimples, Improve skin texture, Cleanser.

4. Aloe Vera :





Botanical Name: - Aloe berbadensis Linn (Aloe Vera)

Family: Liliaceae

Uses: It is used as a moisturizing agent.

Recently, the anti-fungal properties of aloe Vera leaves were investigated by Casian.

Aloe Vera is a stemless or very short-stemmed succulent plant growing to 60–100 cm (24–39in) tall, spreading by offsets.

Vitamins, enzymes, minerals, sugars, lignin, saponin, salicylic acid, and amino acids are chemical constituents.

The principal active composition of aloe is aloin Aloe Vera gel improves skin integrity.

5. Giloy:



Synonym- Amorita

Biological Source – it consists of dried leaves of *Tinospora cordifolia*

Family- menispermaceae

Description :

Colour – green

Odour – Aromatic

Taste – Bitter

Chemical Constituents : *Tinospora cordifolia* belong to different Classes of constituents such as the alkaloids, diterpenoid lactones, glycosides, steroids, sesquiterpenoid, Phenolics, and the aliphatic compounds.

Uses : Combating pimples, dark spots, and fine

6. Carbopol :

IUPAC Name : Poly (acrylic acid)

Other Names : PAA, PAAc, Acrysol, Acumer

Chemical Formula : $(C_3H_4O_2)_n$

Molar Mass : variable



Uses:

1. Polyacrylic acid and its derivatives are used in disposable diapers, ion exchange resins and adhesives.
2. They are also popular as thickening, dispersing, suspending and emulsifying agents in pharmaceuticals, cosmetics and paints.

7. Methyl Paraben:

IUPAC name : Methyl 4hydroxybenzoate

Other names : Methyl paraben

Chemical Formula : C₈H₈O₃

Molar mass : 152.15 g·mol⁻¹

Uses :

1. Methyl paraben is an antifungal agent often used in a variety of cosmetics and personal care products.
2. It is also used as a food Preservative. Methyl paraben is commonly used as a fungicide in Drosophila food media.

8.Triethanolamine:

IUPAC Name : Tris (2hydroxyethyl) Amine

Other Names : Triethanolamine

Chemical Formula : C₆H₁₅NO₃

Molar Mass : 149.19 g·mol⁻¹

Density : 1.124 g mL⁻¹

Melting Point : 21.60 °C , 70.88 °F , 294.75 K

Uses :

1. Triethanolamine is used primarily as an emulsifier as well as surfactant.
2. It is the common ingredient in formulations used for both Industrial and the consumer products.
3. The triethanolamine neutralizes the fatty acids, adjusts and buffers the pH, and solubilises oils and other ingredients that are not the completely soluble in water.

9. Sodium Lauryl Sulphate :

IUPAC Name : Sodium lauryl sulfate

Other Names : Sodium monododecyl sulfate

Chemical Formula : NaC₁₂H₂₅SO₄

Molar Mass : 288.372 g/mol

Density : 1.01 g/ cm³



Melting point : 206 °C (403 °F; 479 K)

Uses :

1. SLS is mainly used in detergents for laundry with many cleaning applications.
2. SLS is a highly effective surfactant and is used In any task requiring the removal of oily stains and residue.

Methodology

Ingredient Selection:

● **Herbal Extracts:**

- This is the core of an herbal face wash. Common choices include:

- **Neem:** For its antibacterial and anti-acne properties.
- **Aloe vera:** For its soothing and moisturizing effects.
- **Turmeric:** For its anti-inflammatory and skin-brightening properties.
- **Tulsi (holy basil):** For its purifying and antimicrobial properties.

● **Base Ingredients:**

- These provide the foundation of the face wash and include:

- **Glycerin:** A humectant that attracts moisture to the skin.
- **Natural Surfactants:** To cleanse the skin without harshness.
- **Water or Floral Waters (like Rose Water):** As a solvent.

● **Additional Ingredients:**

- These enhance the product's benefits:
- **Essential Oils:** For fragrance and therapeutic properties.
- **Vitamins (like Vitamin E):** For antioxidant benefits.
- **Natural Preservatives:** To prevent microbial growth.

2. Extraction and Preparation:

● **Extraction:**

- Herbal extracts can be obtained through various methods, such as:
- **Infusion:** Soaking herbs in hot water.
- **Decoction:** Boiling herbs in water.
- **Tincturing:** Soaking herbs in alcohol.
- The chosen method depends on the specific herb and its desired properties.



● **Processing:**

- Powdering of dried herbs.
- Filtering the herbal extractions.
- Heating processes, when needed, to melt certain ingredients.

3. Formulation:

● **Mixing:**

- Carefully combining the herbal extracts, base ingredients, and additional ingredients in precise proportions.
- This often involves gentle heating and stirring to ensure a homogeneous mixture.

● **pH Adjustment :**

- Ensuring the face wash has a skin-friendly pH.

● **Thickening:**

- The use of natural thickeners like xanthan gum, to achieve the desired consistency.

Preparation :

Preparation of Mixture- A

Take a clean and dried mortar and pestle.



Add stearic acid and sodium phosphate in to the mortar and pestle and triturate properly.



To this add gram of propyl paraben and continue trituration.

Preparation of Mixture- B

Take another clean and dried mortar and pestle and add propylene glycol, potassium hydroxide and triturate.



sodium lauryl sulphate, sorbitol, methyl paraben was added to the above mixture and triturate well.



Mixture A and Mixture B was mixed together and triturate until a proper consistency is obtained.



To this add of water and charcoal and mix well.



To this perfume was added. Properly mix all the above ingredients.



Advantages of Facewash:

Natural Ingredients :

These natural ingredient can provide essential vitamins ,minerals and antioxidant that nourish the skin.

They contain botanical extracts like aloe vera , neem turmeric and healing properties.

Reduce Risk of Irritation:

By avoiding harsh chemicals , sulfates and parabens , herbal face washes can minimize the risk of irritation and allergic reaction .Hydration and Nourishment.

Many herbal formulation include hydrating ingredients that help care the skin.

Eco-Friendly :

Often , herbal and environmentally friendly approach to skin care.

It help to keep skin hydrated soft, supple and youthful looking.

It help in removing dirt, pollutants, make up and dead skin cells.

The mixture of dead skin cells and excessive oil clog pores.

It help to removing dirt, oil and makeup effectively.

It helps to exfoliate dead skin cells.

Herbal face wash have lesser side effects than synthetic face wash

Disadvantages of Face Wash :

Allergic Reactions:

Natural ingredient can individuals may be sensitive to specific herbs causing skin irritation , redness ,or rashes.

Potential and Allergic reaction:

Essential oils, in particular are potent and can cause skin irritation or allergic contact dermatitis.

Shelf Life:

Products with natural preservatives may have a shorter shelf life than those with synthetic preservatives.

Variability in Ingredient Potency:

The potency and purity of herbal ingredient can vary depending on factors like growing condition and processing method.

EVALUATION OF HERBAL FACE WASH

1. Colour: The formulation's color is pale yellow, whereas the marketed formulation's color is yellow.

2. Odour: Due to the presence of a rose oil formulation having a rosy smell, the marketed formulation shows a characteristic smell.

3. Consistency: It was determined manually.



4. pH: A calibrated digital PH meter was used to measure the PH of a 1% aqueous solution of the formulation at a steady temperature.

5. Spreadability: The spread ability of the formulation was found manually by applying the gel to the skin with a gentle rub.

6. Washability: The product was applied on hand and showed under running water.

7. Foamability: A small quantity of gel was added to water in a breaker. After recording the initial volume, the breaker was shaken ten times to record the final volume.

8. Viscosity: A 10 ml sample that had been prepared was placed in a breaker and examined using a digital viscometer. The results were then recorded.

Conclusion

The herbal face wash is one of the most Well recognized acne treatments, herbal face wash Not only moisturized, they also used as a cleanser. Preferably they used for the oily as well as dry skin Physiology.

It provides numerous essential Nutrients required for the maintaining the normal Skin functioning.

It also promotes the natural glow To the skin. The herbal face wash was prepared From various herbs like Neem, Turmeric, Tulsi, giloy Extract , vitamin e capsule used for the various Parameters like colour, pH, consistency, Washability, irritability and spreadability was Checked and evaluated hence, from the present Investigation.

It was found that the formulated Herbal face wash was found to be more efficient as Compared to the marketed face wash.

At this formulation contains all the herbal ingredients its Nighters produce any harmful action on skin and Are reliable.

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18. Mr. Tejas L. Takale¹, Mr. Ajay S. Surwase², Mr. Akshay A. Pathade³, Mr. Kunal Hake⁴ 1-3Student, 4 Assistant Professor Mahadev Kanchan College of Pharmaceutical Education and Research Uruli Kanchan Tal-Haveli, Dist. Pune, 412202. Maharashtra, India.

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