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Review Article

OVERALL REVIEW ON ANTI-ACNE FACEWASHAyesha Siddiqua Gazi, Abdul Sami Asghar*, Syed Salman, Adeeba Kausar
Department of Pharmaceutics, Deccan School Of Pharmacy, Hyderabad-500001**Abstract:**

Exfoliation, deep pore cleansing agents, and skin care products designed specifically for acne sufferers can all be used to treat acne since accumulation leads to the formation of cysts, black and white heads, and other skin-damaging growths. Using a foam cleansing composition result in better cleaning power because bubbles are actively created without the need for extra physical force. As a result, your everyday life demands less effort. Based on their chemical characteristics, natural ingredients such glycerin, aloe vera, turmeric, neem oil, and rosehip oil were selected. The plants have strong antibacterial, anti-inflammatory, antioxidant, and antimicrobial properties, according to published studies. These chemicals are thought to be the active ones that, when combined with excipients that improve their stability and characteristics, can successfully resolve the problem in our life. The concept behind the creation of the face wash was that it should be used responsibly. Because of its transparency, it doesn't cause skin disruption or scarring. Different constituent concentrations are used to create formulations, which are then examined. According to the results of our research, our product needs to be stable at room temperature, have good spreadability throughout a pH range of 5-7, and function well without causing allergies or irritability.

KEYWORDS: exfoliation , anti oxidant, skin disruption, spreadability.**Corresponding author:****Abdul Sami Asghar,**
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INTRODUCTION:

Face washes are made to remove dirt off greasy faces since grime, pollution, and sun exposure oxidise skin, resulting in breakouts, acne, blackheads, and whiteheads, among other defects. Cleaning the skin is an important aspect of maintaining healthy skin since it helps get rid of pollutants, oil, and makeup and gets the skin ready for topical treatment. But it may damage skin because it eliminates natural moisturising ingredients and damages the skin barrier. Acne vulgaris is a common skin condition that is defined as "happening when hair follicles under the skin become clogged."

An abnormal desquamation of the hair and excessive sebum production by the sebaceous glands of hair

follicles cause follicles to lead to follicular distention, which is frequently accompanied by bacterial growth, are characteristics of acne, also known as a chronic inflammatory condition of the pilo sebaceous unit. Propionibacterium acnes causes an inflammatory response.[1]

DEFINITION OF FACEWASH:

A face wash is a particular kind of facial cleanser used to rid the skin of impurities such as dead skin cells, oil, dirt, and makeup. This leaves the skin feeling clean and renewed while also helping to prevent skin disorders like acne by unclogging pores. Face washes are usually used in conjunction with toner and moisturiser as part of a regular skincare regimen.[2] [3]

Key Benefits



- 1 Unclog Pores & Balance Sebum
- 2 Remove Excess Oils From Skin
- 3 Reduce & Control Acne
- 4 Control Dryness & Moisturise
- 5 Antioxidant & Anti Inflammatory
- 6 Anti Microbial & Anti Allergic



TYPES OF FACEWASHES:

1. Cream based face wash
2. Gel based face wash
3. Liquid based face wash
4. Facewash in powder form

A face wash is typically suitable for all skin types, but these days, there are products on the market that are designed to work with specific skin types. For instance, an oily skin face wash is designed for people with oily skin conditions; it doesn't contain oils and instead leaves a thin oily film on the skin.[4]

ADVANTAGES OF FACEWASH:

- aids in the removal of dead skin cells and the replacement of old with new skin cells.
- Preserves skin youthful and radiant.
- Gives the skin more brightness.
- Excess sebum and dead skin cells can clog pores, causing acne, pimples, and a completely exhausted appearance.
- Regular pore cleaning will help you prevent all of the aforementioned skin issues.
- Prevents wrinkles and gets rid of dead skin cells.[5]

DISADVANTAGES OF FACEWASH:

- As a safer alternative to body wash, facial cleanser just cleans the face.
- Only wash your face twice a day. Using more than twice could result in skin dryness.
- Gets rid of dead skin cells, which delays the ageing process of your skin.
- Its restricted use is the main disadvantage.[6][7]

HERBAL INGREDIENTS USED IN ANTI ACNE FACE WASH:

- **NEEM:** Because of its antibacterial, antifungal, and antiviral qualities, neem is prized in Ayurvedic medicine for its many therapeutic benefits.
- **LEMON:** Gets rid of grease and grime. After that, use a cotton ball to wipe away the oil and grime. Apply this technique once a week.
- **BASIL:** Allow the leaves to soak. After soaking the leaves in a cup of boiling water for ten to twenty minutes, allow them to cool, then apply them to the pimples.
- **CUCUMBER:** Drinking four or five glasses of cucumber juice every day for a week is another way to follow this diet.
- **GRAPE:** Extract from grape seeds has strong antibacterial properties and works well as a disinfectant.

- **CHICKPEAS:** Use hummus paste to cleanse your face. Using a fresh towel, dry. It's a fantastic acne treatment as well.
- **BEETROOT:** To activate the liver and detoxify the system, combine one part beetroot juice, three parts carrot juice, and two parts water.[8]

SYNTHETIC INGREDIENTS USED IN ANTI ACNE FACE WASH:

- **GELLING AGENT:** Ingredients known as gelling agents change an aqueous or oily phase into a thick but flexible gel. A lotion that has been strengthened with gelling ingredients will be more runny than a stiff one. As a result of the force (thixotropy), some of these gels thin down.
Ex:- Carbapol940, carboner ultrez 20
- **WETTING AGENT:** In reality, the main component of cleaning products is anionic surfactants, of which alkyl sulphates are the most prevalent type. They are surfactant ions with a positive charge.
Ex: sodium lauryl sulphate, sodium lauryl ether sulphate
- **CHEMICAL PRESERVATIVES:** certain creatures have the ability to release chemicals that are poisonous and potentially lethal to humans.
Ex: Methyl and propyl parabens salicylic acid, benzoyl peroxide, glycolic acid and pyrithione zinc
- **HUMECTANT:** A humectant, on the other hand, is a hygroscopic material that is used in place of a desiccant to keep objects moist. Typically, it is a molecule with several hydrophilic groups, most of which are hydroxyl groups. Humectants attract water vapour into and/or beneath the surface of organisms and things by absorbing and holding moisture from surrounding air.[9]
Ex:-glycerin, urea, AHAs, and hyaluronic acid.

GENERAL METHOD OF PREPARATION OF ANTI ACNE FACE WASH:

- **COLLECTION:** Neem leaves were gathered from the neighbourhood. The following items were gathered from the neighbourhood: walnut, orange peel, licorice root, turmeric root, rosewater, honey, and Shahi Jeera.
- **PREPARATION OF EXTRACT:** For this aim, hot air ovens at 45°C were used to

preserve neem leaves, turmeric rhizomes, liquorice roots, and orange peels.

These materials were then ground into little bits using a grinder. Crushed cinnamon bark, nutmeg seeds, and Shahi Jeera (cumin) were used to form the powder.

Each herb was macerated with rose water in a conical flask after the desired amounts of herbal medications were weighed.

Separately, for three days, conical flasks were gently shaken to combine dried herbs with rose water.

The filtrates were collected in separate vessels after the contents were removed after three days using a straightforward filtration technique.

- **FILTRATION:** Simple filter paper and a funnel were used twice to filter the extract.
- **EVAPORATION** A water bath was used to aid in the evaporation process. Filtrates were left to evaporate in an evaporating pan at 60°C until the extract concentration reached the target value.

- **DEVELOPMENT OF FORMULATION:** The desired concentration of gelling agent i.e. Xanthum gum as weighed accurately and dispersed in hot rose water (not more than 60°C, 50% weight of the batch size) with moderate stirring.

Desired quantity of lemon juice was dissolved in desired amount of honey by gentle stirring.

Desired quantity of concentrated herbal extract were added to the remaining amount of rose water and mixed with above honey by gentle stirring, this was finally mixed with previous soaked gel formulation.

Prepared formulations filled in a suitable container and labelled accordingly [10][11]

GENERAL COMPOSITION OF ANTI ACNE FACE WASH: [12]

Ingredients	Concentration
Synergistic Herbal Extract	3.0%
De-mineralized Water	Q.s to 100
Mint distillate	10.0%
Carbomer Ultrez 20	1.0%
Glycerine	4.0%
Sodium Lauryl Ether Sulphate (SLES)	15%
NaOH (18% Solution)	2.4%
Sodium Methyl Paraben	0.1%
Sodium Propyl Paraben	0.1%

EVALUATION PARAMETERS:

PHYSICAL APPEARANCE:

VISUAL: examined the formulation's physical appearance with the naked eye

COLOUR: The formulation's colour was examined against a white backdrop.

ODOUR: A manual inspection was done to determine the face wash's odour.

CONSISTENCY: Applying it to the skin allowed for the evaluation of consistency.

PH: The formulation's 1% aqueous solution's pH was determined at constant temperature using a digital PH metre that had been calibrated.

GREASINESS: the method of evaluating greasiness was putting directly into the skin.

SPREADABILITY: A sample of herbs was placed on one of the two slides that were taken. The first slide had another slide on it. On the slides, 100 g of weight was maintained in order for it to spread into a thin layer. Much more weight was being removed than in the prisons. A 20 g weight was then maintained on the upper slide. Three times through the process, the average was determined.

Spreadability was calculated by using the following formula, $S=M \times L/T$

Where,

S- Spreadability, M- Weight tied to the upper slide (20 g) Length of the glass (6.5 cm), T –Time.

WASHABILITY: After applying the product by hand, it was examined beneath flowing water.

FOAMABILITY: Small amount of gel was taken in a beaker containing water. The initial volume was noted, beaker was shaken for 10 times and the final volume was noted. Foamability was also analysed by applying onto skin with contact with water.

S. N.	Parameters	Observations
1	Colour	Transparent
2	Odour	None
3	Consistency	Consistent
4	pH	5.9
5	Viscosity (cp)	5549cp
6	Spreadability (gm.cm/sec)	1.8
7	Washability	Washable
8	Foamability	Passed
9	Grittiness	Nil

ACCELERATED STABILITY STUDIES:

Accelerated stability testing of prepared formulation was conducted for most stable formulation at room temperature studied for 7 days.

GRITTIENESS: The product was checked for the presence of any gritty particles by applying it to the skin [13][14][15]

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