



A Review On Formulation And Evaluation Of Face Wash

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ABSTRACT :

Cosmetics are developed to reduce wrinkles, fight acne and to control oil secretion. Hence, face wash is important formulation to fight against excessive pollution, UV- radiation. Considering different, therapeutic properties such as antibacterial, antiacne, of face wash formulation and its method of application.

In the literature survey, I referred to Harsharan Pal Singh, PK Mane, Aniket Dangare. Face wash is formed to liquid castile soap so, firstly formulate the Liquid castile soap in lab. Then formulate the face wash with liquid castile soap adding the honey and oil and formulation the face wash and take observation and evaluation test of face wash like color, odour, consistency, pH, spreadability, washability, and grittiness. Face wash prepared in light green color, odour is characteristics, pH is 7.1 easily spreadable good washability and good foamability, no greety particle.

It makes the skin to look radiant. Use to cleanse the skin and Stimulate the generation of the skin cells and their renewal.

Keywords- cosmetics , facewash , c

INTRODUCTION:

Cosmetics are developed to reduce wrinkles, fight acne and to control oil secretion. By considering this parameter face wash is one of the important formulation. Skin is the major part of body and face skin is one of the sensitive and representative parameter human personality. Also it indicates the health of an individual it is composite of material such as carbohydrates, amino acids, lipids etc. A balanced nutrition is required for the skin to keep it healthy, clear and glossy. A part sexes causes many changes in the body the acne is one of the problem in adult and teenager, also due to excessive pollution, UV- radiation there is decreases tone of face skin and also these is the one of the reason of premature ageing of face skin. So to avoid these or to prevent at specific level herbal face wash is one of the effective formulation. As it does not contain synthetic ingredient so there is no side effects.

Face wash

Definition

A cleanser is a facial care product that is used to remove makeup, dead skin cells, oil, dirt, and other types of pollutants from the skin of the face. This helps to unclog pores and prevent skin conditions such as acne. A cleanser can be used as part of a skin care regimen together with a toner and moisturizer.

Properties of face-wash:

- It should be stable and should have a good appearance.
- It should soften on application to the skin.
- It should spread easily without dragging.
- During application it should not have oily or greasy feel.
- After evaporation of water the cream residue should not become viscous.
- Its physical action should be that of flushing on the skin and pore opening rather than absorption.
- A thin emollient film should remain on the skin after its use.

Role of face wash

- To remove all traces of make –up every day.
- Forcleansing the skin.
- For used as anti-aging.
- Bath and renewal keeping the skin clean and shiny.
- It stimulates three generation of the skin cells and their renewal.
- It also helps plug the pores clear.

Formulation of face wash**Categories of therapeutic agents used in face wash**

- **Antibacterial**

In its broadest definition, an antibacterial is an agent that interferes with the growth and reproduction of bacteria. While antibiotics and antibacterials both attack bacteria, these terms have evolved over the years to mean two different things. Antibacterials are now most commonly described as agents used to disinfect surfaces and eliminate potentially harmful bacteria.

Examples; alcohols, chlorine, peroxides, and aldehydes.

- **Anti acne**

Different types of antiacne drugs are used for different treatment purposes, depending on the severity of the condition. For example, lotions, soaps, gels, and creams containing substances called benzoyl peroxide or tretinoin may be used.

- **ACNE**

Acne is a skin disorder that leads to an outbreak of lesions called pimples. Acne usually starts shortly after puberty and begins because of hormonal changes and increased oil secretion. Acne develops when hair follicles, the site of acne, get plugged with dead skin cells. It is common to see patients (particularly women) in their 30s, 40s, and 50s with adult onset.

Types of acne lesions

- Blackhead (open comedone): Oil and dead cells leave a black plug on the skin surface.
- Whitehead (closed comedone): Oil and dead skin cells leave a plug below the skin surface.
- Papules (red pimples) and white pustules: The material in the plugged hair follicle seeps through the walls of the follicle and causes redness and tenderness.

Acne treatment

Therapy should help lessen the severity and reduce the amount of scarring, which could result from acne if left untreated. Different combinations of medications may need to be tried to determine which combination is best for you. It will take 8 to 12 weeks to see results in most people. Medications only suppress acne. If you stop your therapy, your acne is likely to recur.

- Topical antibiotics (clindamycin, erythromycin): These help decrease or kill skin bacteria.
- Oral antibiotics (tetracycline, doxycycline, minocycline, erythromycin, and others): Help decrease redness and kill bacteria. These are most helpful for red papules and cysts.
- Retinoids (Retin A, Differin, Avita, Tazorac): These unclog pores to eliminate blackheads and whiteheads.
- Benzoyl peroxides (Triaz, Brevoxyl): These unclog pores and prevent bacteria growth. They help prevent antibiotic resistance.

Skin care

Wash your face two times per day with a mild soap or soap-free cleanser. (Dove, Oil of Olay Foaming Face Wash, Cetaphil Cleanser, Neutrogena or Purpose cleansers for sensitive skin.) DO NOT use harsh soaps and do not scrub vigorously.

Washing

Wash gently but thoroughly twice daily with the recommended cleanser. Avoid harsh scrubs, masks, and other non-prescription products. Glycolic acid products aid in reduction of comedones (whiteheads and blackheads). These may be used as an after-cleansing step, before benzoyl peroxide, Differin or Retin-A, or topical antibiotics once or twice daily. To keep the skin free from acne, it should have antioxidants, smoothing and moisturizing property. Antioxidants will help to reduce the presence of free radicals which prevent ageing and inflammatory effects of skin. Moisturizing property will keep the skin smooth and impart cooling effect and prevent from dehydrating the skin.

LITERATURE SURVEY

Harsharan Pal Singh. et al., (2015)

Acne is a chronic inflammatory disorder of pilosebaceous unit, which involves increased sebum production by sebaceous glands and abnormal desquamation of hair follicles occur in response to increasing androgen levels with the onset of puberty. Obstruction of follicles causes follicular distention which is often accompanied by the proliferation of the bacteria *Propionibacterium acnes* and the activation of an inflammatory response. The Aim of this study was to formulate and evaluate the face wash.

PK Mane, Aniket Dangare (2020)

The skin care preparations has grown phenomenally over the years. People utilize a range of skin care preparations, from mouth wash, from lipsticks to complexion creams to foot powders and so on, in the hope of developing a charming personality, protecting their bodies and avoiding bad smell. Skin care preparations are described as substances that are intended to be rubbed, poured, sprinkled and sprayed on or, introduced into or otherwise applied to human body or any part of body, for cleansing, beautifying, promoting attractiveness or altering the appearance of skin.

AIM AND OBJECTIVES

Aim :- Formulation And Evaluation Of Face Wash.

Objectives :-

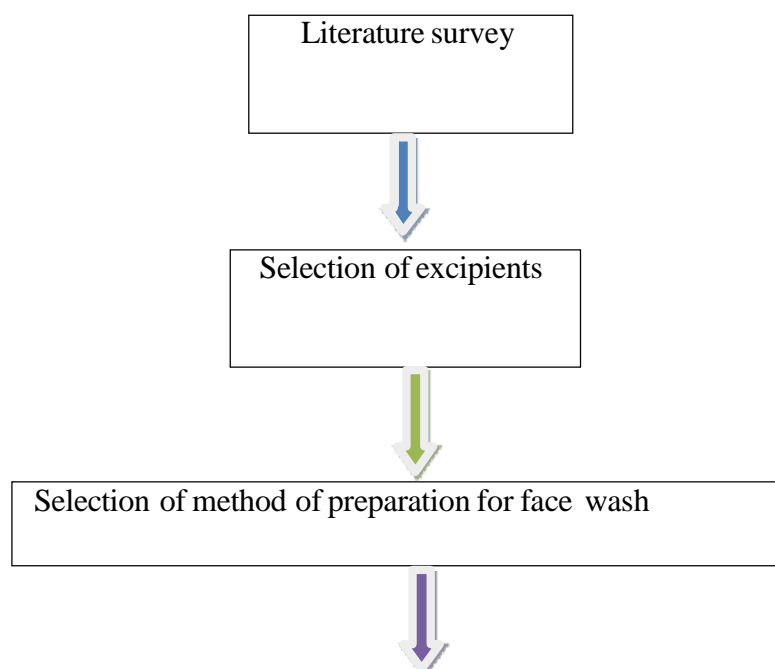
This study was carried out with the following objectives

- To formulate face wash.
- To evaluate face wash for colour, odour, consistency, pH, spread ability, washability, grittiness, foam ability.
- To study the ideal characteristics of face wash formulation.

- Objective - Face washes are designed to remove impurities, germs, dirt and makeup that can irritate the skin. Here's the tough part: when skin is cleansed too frequently, in contact with water or subject to harsh soaps, your skin's natural moisture is stripped—leaving it vulnerable to dryness and irritation.

- It helps remove dirt, pollutants, and grime that water cannot sweep alone. A good face wash also regulates excess sebum production in the skin. That's why skin care experts recommend using face wash for morning and night care routines (or AM and PM routines) to remove dust and grime in a hassle-free manner.

PLAN OF WORK



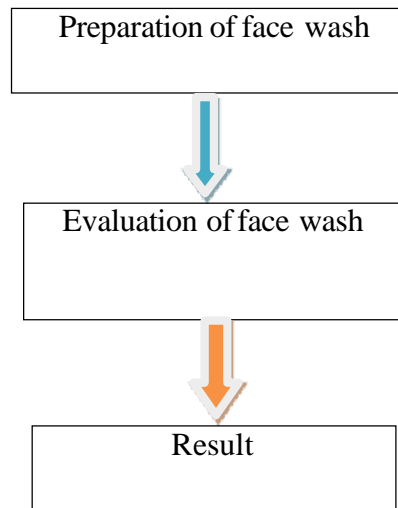


Fig.1 Face Wash

Ingredients

- ¼ cup (56.25 milliliters) liquid Castile soap
- ¼ cup (56.25 milliliters) chamomile tea or honey
- ¾ teaspoon oil
- 8 drops essential oil (optional)
- Several drops of Vitamin E oil (optional)

MATERIAL

Olive oil

Commonly use in Heart disease, Diabetes and High blood pressure also used in Highcholesterol , cancer, migrane, obesity and many other condition.

Potassium Hydroxide

It is used to see fungal elements more clearly by cleaning the clinical materials.

Glycerine

It is use to moisturizes skin , protect skin, heal skin and also use in soap and face wash.

Liquid Castile Soap

Used for formulation of shampoos, shower gel. Bubble bath or liquid hand washes.

Honey

It is used as anti-inflammatory, antioxidant and antibacterial.

Oil

It is used for lubricant and release agent in many pharmaceuticals ingredient in many medication and topical ointments.

Formulation of liquid castile soap: -

Step 1: Add 50 mL of olive oil to your slow container on high heat. Add 59 mL of olive oil to your slow container using a measuring cup. Then, on high, heat the oil in the slow container.

Step 2: Put on safety gloves and eyewear in a well-ventilated area. Wear protective gloves and goggles while the oil is heating up to protect your skin and eyes. Then, switch on the vent hood and open one or two windows to ventilate your space.

Step 3: Combine the potassium hydroxide lye flakes and distilled water in a mixing bowl. Using a measuring cup, pour 15 mL of distilled water into a glass mixing bowl. Then, gently add 10 g of potassium hydroxide lye flakes to the distilled water. Mix the lye solution with a silicone spatula, stirring slowly and carefully until the flakes dissolve.

Add glycerine and continuous stirring. Liquid castile soap is form

Formulation of Face Wash

- Pour some liquid Castile soap into a clean container. You will need a ¼ cup (56.25 milliliters) of liquid Castile soap. Make sure that it is uncolored and unscented. Any dyes or scents may irritate your skin.
- Consider adding chamomile tea to your face wash. Chamomile tea has anti-inflammatory properties and can help reduce redness.[1] If you wish to use chamomile tea in your face wash, brew a cup of chamomile tea and measure out a ¼ cup (56.25 milliliters). Let the tea cool before adding it to the container.
- Consider adding some honey to your face wash. For a more moisturizing cleanser, use raw honey instead. You will need a ¼ cup (56.25 milliliters). Make sure that it is the runny, translucent sort.
- Add the oil. You will need a ¾ teaspoon of natural oil. Here are the types of oil you can use: avocado, coconut, grapeseed, hazelnut, jojoba, olive oil, sunflower oil, or sweet almond.
- Consider adding some essential oil. Essential oils can not only make your face wash smell nice, but some oils can be beneficial to certain skin types. You will need about 8 drops of essential oil.
- Consider adding some vitamin E oil. You will only need a few drops. It will help moisturize and nourish your skin.
- Close the container tightly and shake it. Do this for a few minutes until everything is combined.
- Use and store your face wash. You can use this face wash as you would any other face wash. Because you have used some shippable ingredients, such as chamomile tea and honey, however, you will need to store it in the fridge so that it does not expire.



Pour some liquid castile soap into a clean



container



Add chamomile tea to your face wash



Add some honey to your face wash



Add the oil



Add some essential oil



Add some vitamin E oil



Close the container tightly and shake it.



Use and store the face wash



Fig.2 Flow chart

Uses of face-wash

Facewash uses go beyond simple cleaning. Incorporate it into your skincare routine in the following additional ways

1. Morning Routine

- Gently wash your face in the morning; this effectively clears away perspiration, extra oil, and pollutants that may have accumulated overnight.

2. Removal of Makeup

- Prior to retiring for the night, meticulously eliminate every hint of makeup using either micellar water or an oil-based facial cleanser.

3. Double Cleansing

- The double washing technique requires an initial application of an oil-based cleanser; this is subsequently followed by a water-based face wash—an approach that guarantees a thorough and deep clean.

4. Post-Workout Cleansing

- After an intense workout, meticulously wash your face to eliminate sweat and bacteria; doing so will effectively prevent post-workout breakouts.

5. Travel Essential

- Utilising face washes simplifies adherence to your skin care regimen during travel periods
- To remove all traces of makeup every day
- For cleansing the skin,
- Anti-aging,
- Bath and renewal Keeping the skin clean and shiny
- Stimulates the generation of the skin cells and their renewal.
- Help plug the pores clear.

Advantages of face wash

- It helps to remove dead skin cells that helps new skin cells replace old one.
- It helps to keep skin fresh and healthy.
- It makes the skin to look radiant.
- The mixture of dead skin cells and excessive oil clog pores, which can lead to acne white heads, blackheads and total weary appearance.
- Removing dead skin cells that means your skin will develop wrinkles at a slower pace.
- The exfoliation accelerates the blood circulation and promotes skin regeneration and rejuvenation.
- Facial pores and Oily skin is caused by over secretion of sebum by sebaceous glands which clogs the makes the skin oilier.
- Oily skin requires cleansers with herbs and botanicals which will clean the pores and reduce oil buildup. These exfoliating cleansers contain anti-inflammatory agents and antioxidants that improve and nourish the damaged skin
- Known for its beneficial properties, Herbal Face Wash is used to treat acne and pimples. Containing rich plant-based ingredients like feverfew and neem, Herbal Face Wash removes excess oil without removing nutrients from the skin.

Disadvantages of Face Wash:

1. **Overuse:** Excessive use of face wash can strip the skin of its natural oils and disrupt the skin's moisture barrier. This can lead to dryness, irritation, and even overproduction of oil as the skin tries to compensate.
2. **Sensitivity:** Some face washes may contain harsh chemicals or fragrances that can cause skin sensitivity, redness, or allergies in individuals with sensitive skin.
3. **Ineffectiveness on Makeup:** While face washes can help remove makeup to some extent, they may not be as effective as dedicated makeup removers, especially for heavy or waterproof makeup. In such cases, a double cleansing routine may be necessary.
4. **Environmental Impact:** Some face washes contain microplastics or harmful chemicals that can have adverse effects on the environment when washed down the drain. Choosing eco-friendly, biodegradable products can help mitigate this issue.
5. **Cost:** High-quality face washes with beneficial ingredients may be relatively more expensive than generic, lower-quality options. However, it's essential to balance cost with the quality and suitability of the product for your skin.
6. **Not Suitable for All Skin Types:** Not all face washes are created equal. What works well for one person may not work for another, depending on their skin type and specific concerns. It can take some trial and error to find the right

11. product for your skin
12. 7 .Overuse Can Dry Skin: Excessive use or using a face wash with harsh ingredient can strip the skin of its natural oils, leading to dryness and irritation
13. 8 .Not Always Effective for Deep Cleaning: Face washes may not effectively remove
14. stubborn
15. makeup or deeply embedded impurities, necessitating additional cleansing steps. 9 .Potential for Allergic Reactions: Some face washes contain fragrances and
16. Intergands may trigger allergic reactions or skin sensitivities in certain individuals.

EVALUATION PARAMETER

The prepared face wash formulation was evaluated for following parameter

Table No: 1 Evaluation table

Formulation	colour	Odour	Consistency	pH	Spreadability	Wash ability	Grittiness
Face wash	Light Green	Characteristic	Semisolid	7.1	Easily spreadable	Good	No gritty particles
Marketed (GRATUS)	Green	Characteristic	Semisolid	7	Easily spreadable	Good	No gritty particles

Colour: Colour of all formulation are same i.e Green colour while the marketed formulation having yellow colour. It was evaluated by visual observation.

Odour: Due to presence of rose oil all formulation having rosy smell while the marketed formulation show characteristic smell. We are rose oil as a perfume because there is chances to change in their odour at the time of storage so rose oil due proper perfume which will increase the acceptance of facewash.

pH: The pH of formulation was found to be 7.1 respectively.

Consistency: It was determined manually.

All three formulation shows semisolid consistency and also the marketed formulation shows semisolid consistency.



Fig. 2 Consistency

Spreadability: The spread ability of the formulation was found manually by applying the gel on the surface and spread..

Easy spreadability is one of the important characteristics of any face preparation as far consumer acceptance higher spreadability allows ease of application thereby increased surface area available for active ingredient permeation. The value of spreadability indicate herbal face wash easily spreadable small amount of shear.



Fig. 4 Spreadability

Washability: The product was applied on surface and showed under running water. When formulation were applied to the surface it was evenly applied and it shows good wash ability, when washed in running taf water that adherence of formulation is good it doesn't take so much timefor removing from the surface.



Fig. 5 Washability

Foamability: Small amount of gel was taken in a beaker containing water. Initial volume was noted, beaker was shaken for 10 times and the final volume was noted. It was determined by taking 19m sample on 10ml of water initial volume is measured and when it shaken with water it shows final volume is more than that of initial one.



Fig. 6 Foamability

Grittiness: The product was checked for the presence of any gritty particles by applying it on the surface. One of the important parameter by which we can say that such formulation can easy to apply and evenly apply on face skin if it does not contain any gritty particle, so it can gives batches does not contain any gritty particle so there are easy to apply.

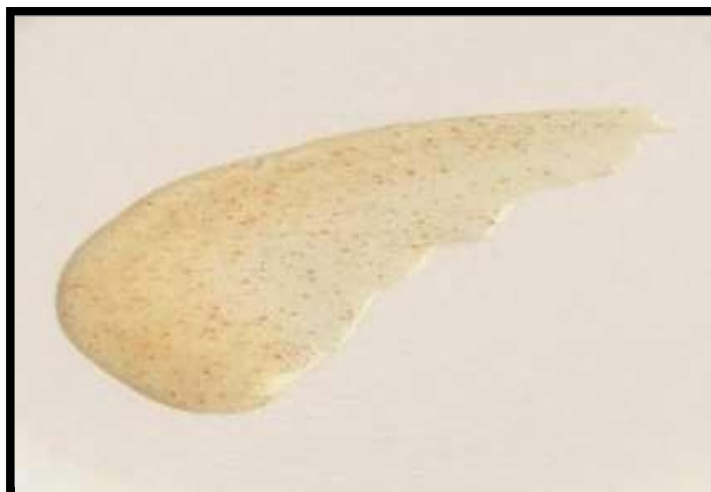


Fig. 7 Grittiness

RESULTS AND DISCUSSION

The face wash were formulated and evaluated for color, odour, Consistency, pH, Spread ability, Wash ability, Grittiness, Foam ability and obtained results are given into table.

Table No: 2 Observation and Evaluation of Face wash

Sr. No.	Parameters	Observations
1	Colour	Light Green
2	Odour	Characteristic
3	Consistency	Semi-solid
4	pH	7.0
5	Spread ability	Easily spreadable
6	Wash ability	Good
7	Grittiness	No gritty particles

Colour of formulation was Green. It shows characteristic odour. Consistency of formulation is semi liquid and it is easily pourable from container. Formulation showed easy spreadability and it was easily washable. Also it was free from grittiness. was checked and it shows good foam ability.

CONCLUSION

- Face wash observed with good spreadability, grittiness and consistency, Foam ability . It helped to enhance glowing skin that's not only healthy and clean but also aesthetically appealing. Given the vast assortment catering to an array of skin requirements, be it your type or specific issues, it becomes imperative to properly select a suitable one.

- More overt regardless of whether you aim to eliminate makeup residues, address acne concerns, or simply rejuvenate your complexion, incorporating a quality face wash into your daily skincare routine should remain non-negotiable. So, cleanse away and allow your inherent beauty to emerge!

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