

REVIEW ARTICLE COMPREHENSIVE ON FACE WASH

**Miss. Bhandari Samruddhi*¹, Miss. Ghorpade Poonam*², Mr. Garje Sanjay*³,
Mr. Sayyed Gaffar*⁴**

*^{1,2,3,4}SAJVPM'S College Of Pharmaceutical Science And Research Centre, Kada, Beed,
Maharashtra, India.

DOI : <https://www.doi.org/10.56726/IRJMETS50617>

ABSTRACT

A face wash is a facial cleansing product used to cleanse the skin of the face of pollutants such as oil, grime, dead skin cells, and makeup. Products called face wash are used to cleanse faces without overly drying them out. Another frequent name for it is "cleanser." A face wash is a gentle cleanser that fulfills the essential tasks of keeping skin clear, smooth, germ-free, and fresh. It also hydrates the horny layer of the skin without being too harsh on it. That skin appears vibrant and youthful. The claims made for face wash include that it would cleanse, moisturize, prevent wrinkles and acne, and improve skin tone. Different ingredient concentrations were used to create face wash, and criteria such as pH, irritability, hardness, friability, thickness, foaming capacity, and accelerated stability were assessed. This article reviews the several kinds of essential oils and ayurvedic or herbal components that can be used to make face wash, including lavender, peppermint, turmeric, black cumin seed, jasmine, and cinnamon oils. All skin types are found to benefit equally from this product.

Keywords: Facewash, Types, Component Of Facial Cleanser, Marketed Product, Assessment Of Face Wash.

I. INTRODUCTION

Hygiene is a very important thing to consider. Outdoor activities expose the skin to sunlight, bacteria, dust, and pollution that can cause skin problems so that the skin loses elasticity. The skin is the outermost part of the human body, the skin will always be exposed to the surrounding environment, ranging from exposure to sunlight, temperature, and air humidity. Dusty environments and excessive air pollution can make the skin dull and dirty. This will disrupt the skin's balance. Healthy facial skin is everyone's dream, facial skin needs to be cared for to stay healthy. Facial skin care to keep it clean from dirt can be done by cleaning the facial skin. The face can be cleaned using clean milk or cleansing cream, washing solution or refresher, can also use facial wash. Cleaning the facial skin only with water without using soap becomes less clean and feels dirt is still attached because water cannot clean oil and dirt completely, so it takes some type of facial wash to clean the face from the dirt attached. [1-2]

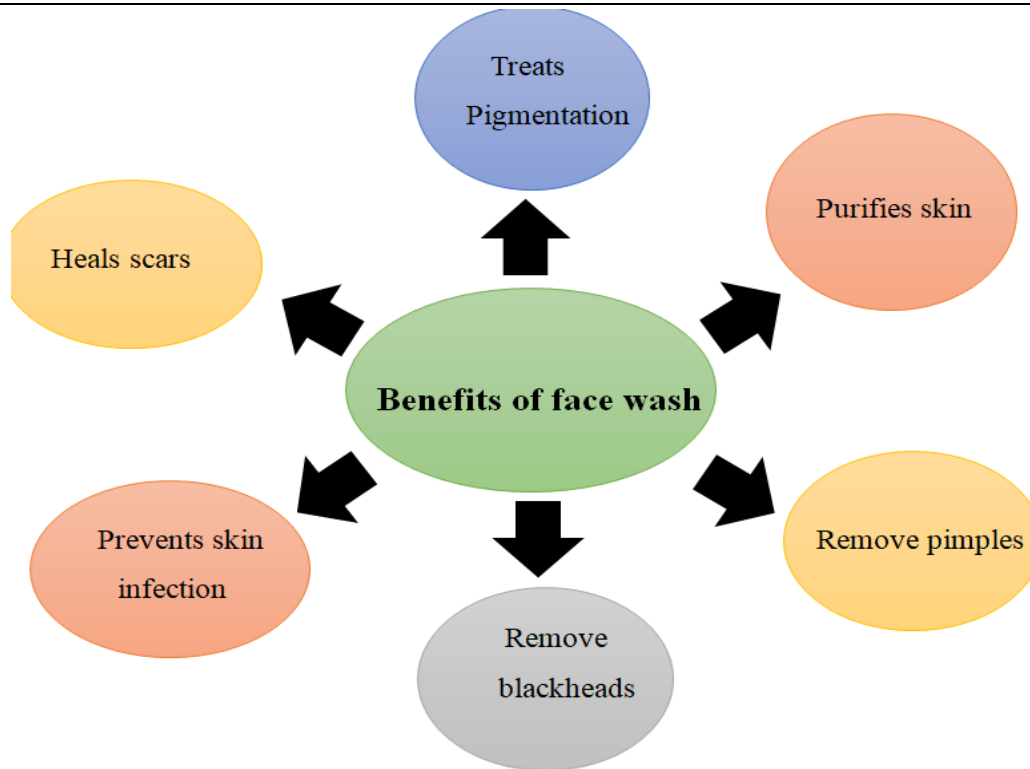
The items that are used to wash your face without drying it out are called face washes. [3]

A washing agent is a whole set of facial wash that removes cosmetics, dead skin cells, oil, dirt, and various pollutants from the skin. Facial wash helps unclog pores and ward off skin problems such as skin inflammation.[4]

A cleanser removes dirt, makeup, and extra oil from your face. These contaminants are oil soluble. A facial wash can also be used to get rid of them, but its effectiveness might not be 100%. Ordinary soaps might cause facial skin to dry out because it is so fragile. A face wash is a gentle cleanser that effectively moisturizes the horny layer of the skin without causing any harm to the skin and performs the essential task of keeping skin clean, sterile, smooth, and fresh. So that the skin seems vibrant and youthful. [5-6]

Essential oils are natural ingredients used in the cosmetic industry that have antimicrobial, antioxidant, anti-acne, anti-inflammatory, anti-aging, skin lightening, and sun protection properties. In recent years, essential oils have become a very popular ingredient for skincare. Many exploit essential oils in skincare by utilizing some of their biological properties to keep the skin youthful, healthy, and fresh and enable its protection from environmental damage.[7]

This aids in pore cleaning and shields the skin from conditions like acne. A cleanser, toner, moisturizer can all be used as part of a skin care routine. Acne develops more in females than in males, which shows the earlier onset of puberty in females and the severity of the diseases vary depending on the various factors.



➤ **Skin care preparation for face [8]**

1. Face pack and masks
2. Cleansing creams and lotion
3. Rouges
4. Face washes
5. Compact powder

FACE WASH:



Face washes may be used to impart cleansing, anti-wrinkle, anti-acne, moisturising, and skin fairness properties. Skin lightening substances are thought to work by preventing the development of melanin in melanocytes, therefore reducing the amount of melanin, on the metabolism and production of melanin in the skin. Due to their low toxicity to melanocytes, ingredients that suppress the development of melanin, such as propanediol, evodia rutaecarpa fruit extract, arbutin, kojic acid, and vitamin C and its derivatives, are used in whitening cosmetics.[9]

They are thought to function in at least four different ways, including restoring normalcy, increasing sebum production into pores to prevent obstruction, eliminating the propioni bacterium acnes bacteria, having anti-inflammatory properties, and affecting hormone levels. Because of the numerous negative impacts that using synthetic medications has on one's health, natural materials are increasingly being used in product composition. Although marigold, licorice, and orange peel are among the most potent antioxidants and free

radical scavengers, they also have a very favorable effect on acne thanks to their anti-microbial, anti-inflammatory, and anti-oxidant properties. Benzoyl peroxide, antibiotics (topically or orally), retinoids, antiseborrheic drugs, anti-androgen drugs, hormonal therapies, salicylic acid, alpha hydroxyl, azelaic, nicotinamide, and keratolytic soaps are some of the remedies for acne.[10]

ADVANTAGES OF FACE WASH [8]

1. It helps to remove dead skin cells that helps new skin cells replace old one.
2. It helps to keep skin fresh and healthy.
3. It makes the skin to look radiant.
4. The mixture of dead skin cells and excessive oil clog pores, which can lead to acne white heads, blackheads and total weary appearance. Exfoliating the pores regularly, avoids all the above skin problems.
5. Removing dead skin cells that means your skin will develop wrinkles at a slower pace. Advantages of facewash
6. Keep the skin hydrated, soft, supple, and youthful looking
7. Stimulate blood circulation, boosting blood flow to your face for glowing skin
8. Make the skin younger and help to fight any signs of aging.[11]
9. Help other skin care products penetrate properly into the skin.

DISADVANTAGES [12]

1. Itching
2. Skin rashes
3. A sensation of feeling warm

USES OF FACEWASH [13]

1. To remove all traces of makeup every day.
2. For cleansing the skin.
3. Anti-aging.
4. Bath and renewal keeping the skin clean and shiny.
5. Stimulates their generation of the skin cells and their renewal.
6. Help plug the pores clear.

PROPERTIES OF FACEWASH [14]

1. The exfoliation accelerates the blood circulation and promotes skin regeneration and rejuvenation.
2. Facial pores and Oily skin are caused by over secretion of sebum by sebaceous glands which clogs the makes the skin oilier.
3. Oily skin requires cleansers with herbs and botanicals which will clean the pores and reduce oil build-up. These exfoliating cleansers contain anti-inflammatory agents and antioxidants that improve and nourish the damaged skin.
4. Known for its beneficial properties, herbal face wash is used to treat acne and pimples. Containing rich plant-based ingredients like neem, herbal face wash removes excess oil without removing nutrients from the skin.
5. It should be stable and should have a good appearance.
6. It should soften on application to the skin.
7. It should spread easily without dragging.
8. During application it should not have oily or greasy feel.
9. After evaporation of water the cream residue should not become viscous.
10. Its physical action should be that of flushing on the skin and pore opening rather than absorption.
11. A thin emollient film should remain on the skin after its use.

FORMS OF FACE WASH [12]

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

- 1. Cream based facewash:-** [15] A cream-based facewashes as well as moisturizes your skin. A cream-based facewash is usually thick, creamy, and contains essential moisturizing elements like botanical oils. It will help you in getting rid of any dirt, sweat, makeup, or bacteria. Cream based facewashes creamy cleansers work best for dry skin. They leave the skin void of all impurities without further stripping it of essential natural oils.



- 2. Gel based facewash:-** [16] Gel facewash is a water-based facewash with a gel-like texture that are typically made from the extracts of flowers and essential oils. Gel facewash that can help balance your skin's PH. Gel facewash is recommended for sensitive and irritative or itchy skin types. Although many gel facewash remove extra oil, they do not bear your skin of all its oil and thus are good for dry skin as well. Gel facewash is the facewash for you if you are in need of deep cleansing. By unclogging your pores with a mild formula that causes little irritation to the skin, it allows for a thorough cleansing of your pores and removes dirt and excess oil off the surface of your skin at the same time.



- 3. Liquid based facewash:-**[17] Liquid based facewash have been widely used in pharmaceuticals due to their high dosing flexibility, ease of swallowing, and quick onset of action. Typically, they are categorized as monophasic and biphasic formulations, wherein within these two broad categories lies a wide range of dosage forms. In a monophasic liquid the active pharmaceutical ingredient (API) is completely dissolved within the vehicle, while in the case of biphasic liquids, the API does not completely dissolve and instead is suspended or dispersed within the vehicle, forming two phases. Indeed, the choice of liquid dosage form is dependent upon various factors, where the type of API and the desired therapeutic effect are considered the major elements.



INGREDIENTS USED IN FACE WASH:

Herbal ingredient	Synthetic ingredient	Essential oil
<p>multani mitti, yoghurt, sandalwood powder, besan, rose water, aloe vera, Peach Extract, Witch hazel Extract, Cucumber Extract, Pea Extract, Turmeric, Neem Extract, Tulsi Extract, Vitamin-C-rich fruits, milk, curd, honey,</p>	<p>retinol, salicylic acid, ceramides, vitamin C, glycerin, fragrance, Formaldehyde, Parabens, Phthalates, Alcohol, Synthetic colors, Caprylyl glycol, Petrolatum, Sodium lauryl sulfate, Triclosan, Glycerin, Toluene, Phenoxyethanol, Diethanolamine, Preservative, Sulfates, Thickeners</p>	<p><i>Carum nigrum</i> (Black caraway), <i>Anethum graveolens</i>, <i>Apium graveolens</i> (Celery), <i>Foeniculum vulgare</i> (Fennel), <i>Pimpinella anisum</i> (Anise), <i>Cuminum cyminum</i>, <i>Corriandrum sativum</i> <i>Origanum vulgare</i>, <i>Melissa officinalis</i> (Lemon balm), <i>Salvia officinalis</i>, <i>Mentha longifolia</i> (Wild Mint), <i>Mentha piperita</i> (Peppermint), <i>Mentha spicata</i>, <i>Ocimum basilicum</i> (Sweet Basil), <i>Rosmarinus officinalis</i> (Rosemary), <i>Lavandula officinalis</i> (Lavender), <i>Salvia sclarea</i> (Sage Clary) <i>Citrus medica</i> (Lemon), <i>Citrus paradisi</i> (Grape fruit)</p>

MARKETED PRODUCT OF FACE WASH:



EVALUATION STUDIES: [19]

- 1. Organoleptic Properties:** The prepared facewash evaluated for its appearance, colour and odour. It produces characteristics floral odour.
- 2. Consistency:** The prepared formulation produces liquid consistency. This was confirmed by visual observation.
- 3. Greasiness:** The prepared formulations are does not greasiness upon application to the skin.
- 4. pH:** The pH of formulation was found to be satisfactory of range in 5.5-5.7. It is new to the skin pH which indicates that prepared formulation can be compatible with skin.
- 5. Washability:** Prepared formulations were easily washed with water.

6. **Homogeneity:** Under visual inspection of the prepared formulation indicates no lumps and to hour uniform colour dispersion free from any fiber and particle.
7. **Grittiness:** The prepared formulation is shown no grittiness.
8. **Extrudability:** The prepared formulations shows that good extrudability of formulation
9. **Skin irritability test:** Small amount of facewash applied on the skin and kept for few minutes and found to show redness, oedema, inflammation and irritation during studies.
10. **Foamability test:** 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. Foamability was also analysed by applying on the skin and rub the hand. The formulation was found to produce consistent foam
11. **Viscosity:** Viscosity of the gel was determined using Brookfield viscometer. The values obtained for the sample and for water were noted down
12. **Spreadability:** [3] By personally putting the gel to the skin and gently rubbing it, the spreadability of the gel was determined. The area to which a gel easily spreads after application to the skin or affected part is referred to as spreadability. The Spreadability rating affects the gel's bioavailability effectiveness as well. Spreadability is measured in seconds and is determined by the amount of stress required for the upper slide to separate from the gel between the two slides. The spreadability is improved by the speed at which two slides are separated. Each slide had measurements of 6 cm x 2 cm, and 500 mg of the formulation was sandwiched between them. A weight of 100 g was placed upon the upper slide so that the formulation between the two slides get pressured uniformly to form a thin layer.

Spreadability = $M \cdot L / T$

Where,

- M = Weight tied to upper slide,
- L = Length of the glass slide (6 cm),
- T = Time in seconds

PACKAGING AND LABELLING [19]

A package is a manufactured article which partially or totally encloses a quantity of products. [18] Packaging is the art and science of operation involved in the safe delivery of product to the ultimate consumer in sound condition at minimum overall cost. In fact, Packaging sells what it protects and protects what it sells.

PURPOSE OF PACKAGING:

Products are packed in a suitable package for the following purpose:

1. To facilitate transportation and storage.
2. To guard against contamination.
3. To prevent accidental spoilage.
4. To prevent from pilferage.
5. To minimize spoilage.
6. To identify the products contained and the quality.
7. To proclaim the manufacturer of the product contained.
8. To explain how the product should be used.
9. To attract the shopper's attention and
10. To convince the customers to buy.
11. To add convenience in distribution, handling, stacking, display, sale, opening, reclosing, use, dispensing, reuse, recycling, and ease of disposal.
12. To have portion control– Single serving or single dosage packaging has a precise amount

CONTAINER:

Foaming face wash could be packaged in white PET bottles with matching foaming pumps.

The specialized foaming pumps mix your face soap formula with air through a quick stroke of the pump, producing a light, gentle foam cleanser. Dispense skin care products like face wash cleanly and evenly without the use of added gas propellants with these white plastic face wash bottles.



II. CONCLUSION

Face washes are used to refresh the muscles, keep the skin elastic, get rid of stuck-on grime, and enhance blood flow. It nourishes the skin on the face. The face wash gives the skin the necessary nutrition. It aids in the removal of scars, marks, and pimples. Skin is exfoliated by face washes, which also have a cooling, soothing, and soothing impact on the skin. They do so in the quickest possible time to bring back the skin's natural radiance. Regular usage of natural face wash enhances the appearance and texture of the skin. The impact of pollution and harsh conditions on the skin can be mitigated by using face wash on a regular basis. The face wash prepared such that they were fit for daily use. Various tests were conducted which proved that the pH of the face wash was the same as what ideally should be used in a facial product. Cleaning action of the facewash also tested to check the accuracy of the face wash. The goal of this study was to develop a liquid-based face wash that may be used on a daily basis by people of all ages. It aids in the maintenance and nourishment of skin.

III. REFERENCE

- [1] Syahrana N.A., Suryanita S., Asri SR M., Indah I. 2022. Formulasi Sediaan Kosmetik Facial wash Ekstrak Etanol Daun Kelor (*Moringa oleifera* L.) dengan Variasi Konsentrasi Sodium Lauryl Sulfat. *Journal of Pharmaceutical and Health Research*. 3(2): 36-38.
- [2] Rohmani S., Ningrum S.K., Wardhani W.D., Kundarto W. 2022. Pengaruh Variasi Konsentrasi Surfaktan Iselux Ultra Mild pada Formulasi Hydrating Facial Wash Potassium Azeloyl Diglycinate. *Jurnal Kefarmasian Indonesia*. 58-68.
- [3] Shital A. Tiware, Komal KhondWarghane, PriyankaWaghmare, Neha P. Rumale A review on herbal face wash *International Journal of Pharmaceutical Chemistry and Analysis* 2023;10(4):220–228
- [4] Bhavana P., Neelima S., Sanjidha S., Prathyusha S. 2019. Preparation and evaluation of fruit face wash. *International Journal of Research in Phytochemistry and Pharmacology*. 9(1): 1-5.
- [5] Uhlenhake E, Yentzer BA, Feldman SR. Acne vulgaris and depression: a retrospective examination. *J Cosmet Dermatol*. 2010; 9:59–63.
- [6] Vogel HG. *Drug Discovery and evaluation, Pharmacological assays*. 3rd ed. and others, editor. Springer; 2012. p. 1336.
- [7] Syaharani et al. *Journal of Patchouli and Essential Oil Products*, Vol. 2, No. 1, June 2023
- [8] India G. *Ayurvedic Pharmacopoeia of India Part I & Part II*. Govt. Of India; Ghaziabad; 2007. p. 589.
- [9] Brown SK, Shalita A. Acne vulgaris. *Lancet*. 1998;351(9119):1871– 6.
- [10] Burkhart CG, Burkhart CN, Lehmann PF. Acne: a review of immunologic and microbiologic factors. *J Post grad Med*. 2012;75(884):328–31.
- [11] Jennifer C. Stephanie C.M., Abhishri S.B. and Shalini B. U, A research article on: skin whitening property of plant extracts, *international journal of pharma and bio sciences*, 2012 Oct; 3(4): (b) 332 – 347.
- [12] Enas M. Ahmed, A research article on: Hydrogel: Preparation, characterization and applications, *Cairo University Journal of Advanced Research*, 2015; 6: 105–121
- [13] Muhammad Shoaib Zafar, Faqir Muhammad, Ijaz Javed, Masood Akhtar, Tanweer Khaliq, Bilal Aslam, Abdul Waheed, Riffat Yasmin and Hira Zafar, A research article on: White Mulberry (*Morus alba*): A Brief Phytochemical and Pharmacological Evaluations Account, *International Journal of Agriculture & Biology*, 1560–8530.
- [14] Milla Gabriela Belarmino Dantaset. al, A research article on: development and evaluation of stability of a gel formulation containing the monoterpene borneol, *the scientific world journal*, 2015; 2016, Article ID 7394685.

- [15] Naveed Akhtar et. al, A research article on: Whitening and antierythemic effect of a cream contain in gromus alba extract, hygeia journal of drugs and medicine, April 2012- Sept. 2012; 4(1): 97-103.
- [16] Sowmya. K. V, Darsikaet. al, A research article on: formulation and evaluation of a polyherbal facewash gel, world journal of pharmacy and pharmaceutical sciences, 2015; 4: 585-588.
- [17] Pauline Burger et. al, A research article on: Skin whitening cosmetics: feedback and challenges in the development of natural skin lighteners, 2016; 2-24.
- [18] Ivana Binic a research article on Skin ageing: natural weapons and strategies, hindawi publishing corporation evidencebased complementary and alternative medicine, 2013; Article ID 827248, 1-10
- [19] Jaseer J J, Meera Ajay, Muhammed Jasmal, Nivin George, Vaishna V V, Remya S B. Formulation and Evaluation of Liquid Based Face Wash International Journal of Pharmaceutical Research and Applications Volume 7, Issue 2 Mar-Apr 2022, pp: 1533-1547
- [20] Sharma P. P.; Cosmetic Formulation, Manufacturing & Quality Control; Vandan Publication Pvt Ltd. Delhi; 4th edition; 319.
- [21] Rathi SK. Acne vulgaris treatment: the current scenario. Indian J Dermatol. 2011;56(1):7-13.
- [22] Baldi A. Herbal Cosmetics: Used for Skin and Hair. Inventi Rapid J. 2012;2012(4):1-7.
- [23] Chopra RN, Nayer SL, Chopra IC. Glossary of Indian Medicinal Plants. In: and others, editor. Council of Scientific and Industrial Research; 1992. p. 7-246.
- [24] Tuchayi SM, Makrantonaki E, Ganceviciene R, Dessinioti C, Feldman SR, Zouboulis CC. Acne vulgaris. Nat Rev Dis Primers. 2015;17(1):15029.
- [25] Singh H, Samnhotra N, Gullaiya S, Kaur I. Anti-Acne Synergistic Herbal Face Wash Gel. World J Pharm Res. 2015;4(9):1261-73
- [26] Bourgou S, Pichette A, Marzouk B, Legault J. 2010. Bioactivities of black cumin essential oil and its main terpenes from Tunisia. South African Journal of Botany. 76(2): 210-216.
- [27] Koli D.S., Mane A.N., Kumbhar V.B., Shaha K.S. 2016. Formulation & evaluation of herbal anti-acne face wash. World J. Pharm. Pharm. Sci. 5(6): 2001-2200.
- [28] Kumar S.M., Chandrasekar M.J.N., Nanjan M.J., Suresh B., 2005. Herbal remedies for acne. Natural Product Radiance. 4(4): 328-334.
- [29] Ingle A, Meshram MB. Formulation and evaluation of Ayurvedic face wash. Int J Phytopharm. 2018;8(4):26-30.
- [30] Charde YM, Sharma PH, Choudhury NG. Development and evaluation of herbal formulation for the treatment of acne. Int J Pharm Sci Res. 2014; 5:2250-60.