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International Journal of Pharmacy and Herbal Technology (Online)

Home Page: https://www.ijprdjournal.com/

COMPARATIVE DETERMINATION OF QUALITY CONTROL PARAMETERS IN MARKETED HERBAL FACEWASH

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ABSTRACT

An abstract summarizing the goals, techniques, main results, and implications of a comparative study on quality control standards in herbal face wash products that are commercialized may be appropriate. It will give a quick summary of the methods used to assess and compare various herbal face wash products based on quality control metrics such ingredient composition, pH levels, microbiological contamination, and efficacy. Without searching into great depth, the abstract would provide readers with a quick overview of the study's significance and conclusions.

Keywords: *Herbal facewash, Quality control tests, Comparative analysis.*

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Received on 06 July, 2024, Accepted 15 July, 2024

Please cite this article as: Dum Jyoti et. Comparative Determination of Quality Control Parameters in Marketed Herbal Facewash
International Journal of Pharmacy And Herbal Technology 2024.

INTRODUCTION

The skin is the body's largest and most complicated sense organ. It comprises a composite of lipids, carbohydrates, and amino acids, and accounts for 15% of an adult's total weight. Its many functions include regulating body temperature, keeping monitoring out for excessive water loss, and shielding muscles and other organs from the physical and chemical effects of outside influences.[1]

A person's skin is one of their most delicate and unique characteristics. Moreover, Frequent washing is necessary to preserve the basic health and beauty of skin. Eating a balanced diet is necessary to keep your skin clear, balanced, and healthy. Puberty should bring about a variety of physical changes in both boys and females due to hormonal changes. Acne vulgaris is a common skin ailment caused by Propionibacterium acnes overgrowth, among other hormonal alterations. Face wash is usually used to cleanse the skin of dirt and oil and to moisturize dry skin. These are the face- cleansing products that are regularly used to avoid drying out the skin. It is also known as a "cleanser." Products for washing your face should be suitable for all skin types. Use face washes and cleansers together to effectively cleanse the face and remove debris, oil, and impurities.[2]

To assure herbal facewash products' safety, effectiveness, and adherence to legal requirements, quality control is crucial. Our goal in doing this comparison study is to examine and contrast the quality control factors. The growing affinity towards natural and organic skincare treatments has resulted in a considerable increase in demand for herbal facewash products across the entire world. Both traditional and conventional herbal facewash formulas make numerous claims about their advantages, including hydration, mild cleansing, and the use of natural substances that are said to be good for the skin. To ensure that herbal facewash products are genuine, effective, and safe, quality control testing is necessary. It assures that the articles adhere to the necessary guidelines and standards, protecting the wellbeing and delight of the customer. We can obtain an understanding of the degree of examination and testing conducted on these formulations by contrasting the quality control characteristics of herbal facewash products.[3]

This research will concentrate on a thorough examination of quality control factors, including heavy metal analysis, stability assessment, efficacy evaluation, microbiological contamination testing, and ingredient analysis. Our goal is to offer useful details on the different approaches taken by herbal facewash companies in terms of quality assurance by looking at these important aspects of quality control. This research will advance knowledge of the quality control procedures used in the formulation and manufacturing of herbal facewashes. In order in order to ensure the security and effectiveness of herbal facewash products, manufacturers, regulatory agencies, and consumers need to be aware of these insights.[4]

Types of Facewashes

Gel based Facewash

cream based Facewash

Liquid based Facewash

Facewash in powder form [5]

Advantages

Reduces open pores

Deep moisturization

Hydrating the skin

Eliminates excess oil and dirt from the skin
Treating acne [6]

Disadvantages

Dryness of the skin
Itching
Rashes on the skin
Redness on the skin [7]

METHODOLOGY/ EXPERIMENTAL WORK

EVALUATION TESTS OF MARKTED FACEWASH

First, we chose five distinct face wash brands that are available in market, such as Patanjali, Himalaya, and others Then we studied several physical, chemical, and rheological parameters using various analytical techniques on a subset of samples.

Figure No.1: Selection of five different types of herbal aloe vera facewash

METHODOLOGY

pH

To measure the pH or hydrogen ion concentration, we first prepare 1% of the sample. Using buffer solutions with pH values of 4 and 7, we calibrated our pH meter. As with the standard solution, submerge the electrode in the solution being studied and measure the pH at room temperature. Keep a record of the pH of the solution that was used to fix the electrode and the meter. Every sample was examined three times, and the final values were calculated using the average of the three tests.[8]

pH meter

The electric PH meter is used to measure the alkalinity or acidity of a solution based on hydrogen ion activity. The basic components of a pH meter are a reference (unvarying) electrode and a voltmeter connected to a pH-responsive electrode. The reference electrode is often a silver–silver chloride electrode, while a mercury–mercurous chloride (calomel) electrode is also occasionally employed. The pH-responsive electrode is typically made of glass. The two electrodes function as a battery when immersed in a solution. The voltmeter measures the potential difference between the glass and reference electrodes. The glass electrode creates an electric potential (charge) that is directly connected to the hydrogen-ion activity in the solution (59.2 millivolts per pH unit at 25 °C [77 °F]).[9]

Foaming capacity:

The cylinder shake method was utilized to ascertain the foaming ability. First, we prepare a 1% diluted sample of face wash (50 ml), which is then placed in a 100 ml Stoppard measuring cylinder and vigorously shaken ten times. Following a minute of shaking, the total volume of foam content was measured, and the height of the foam that was produced was measured right away. After carrying out the process and measuring the foam volume after ten minutes, evaluate the stability of the foam [10]

Figure No.2: Determination of Foaming Capacity

Dispersion of dirt

First, we make a 1% solution of each sample (500 mg of sample in 50 ml of water), to which two drops of ink are added. Stoppard shaken the measurement cylinder ten times. Sample that since it is thought that the ink used to concentrate in the foam is of low grade. Next, we locate the remaining dirt particles in the water component. The amount of ink that was visible in the foam.[11]

Wetting time

To find the sample's wetting time, weigh a piece of cotton material that has been cut into a disc with a diameter of one and weigh it. Next, prepare a diluted sample (1% solution) and place a piece of cotton cloth on the sample. The stopwatch was started and the fabric disc was floated on the surface of the 1% sample. Wetting time was precisely measured as the amount of time it took for the fabric disc to go from floating to sinking. The wetting efficiency increases with decreasing sinking time.[12]

Smell

We used two methods to identify the smell. The first included heating the sample on a hot plate. The second method involves five individuals, both male and female, inhaling a direct sample.

Washability

After applying the product by hand, it was examined under running water.

Grittiness

The product was applied to the skin to determine whether it contained any grit.[13]

RESULT

In the Research we choose five different brands of Aloe Vera Herbal Facewashes. viz. Joy aloe Vera herbal facewash, Patanjali herbal facewash, Himalaya aloe Vera facewash, VICCO aloe Vera facewash, DR. RASHEL BEAUTY ELIXIRS aloe Vera facewash respectively F1, F2, F3, F4, F5 ...

Sr No.	Physical parameters	FS-1	Interference FS-2	FS-3	FS-4	FS-5
1	Color	Slightly white	Slightly green	Slightly green	Slightly white	White
2	Odour	Pleasant	Pleasant	Pleasant	Pleasant	Pleasant
3	Appearance	Translucent	Translucent	Translucent	Translucent	Translucent
4	Feel on Application	Smooth and slipper	Smooth and slipper	Smooth and slipper	Smooth and slipper	Smooth and slipper

Table No.1: Physical Evaluation of Aloe vera Herbal Facewashes

Sr No.	PARAMETERS	FS-1	FS-2	FS-3	FS-4	FS-5
1	pH	5.35	6.10	5.99	5.90	6.57
2	Foaming Index	1.5	1.7	2.4	2.5	3.4
3	Dirt dispersion	Better	Poor	Good	Best	Good
4	Wetting Time	5.70	6.20	5.17	6.37	5.60
5	Smell	Fair	Fair	Strong	Strong	Very strong
6	Washability	Good	Good	Good	Better	Poor
7	Grittiness	No. gritty particles	No. gritty particles	Gritty particle present	No. gritty particles	No. gritty particles
8	Consistency	Semi-solid	Semi-solid	Semi-solid	Semi-solid	Liquid

Table No.2-Evaluation of Herbal Aloe vera Facewashes

DISCUSSION

It is predicted that studies comparing the results of quality control tests on herbal facewashes will assess a number of factors, including viscosity, pH, microbiological contamination, concentration of active ingredients, stability, and sensory qualities. It seeks to determine the best quality control procedures to guarantee the efficacy, consistency, and safety of herbal facewash products.

CONCLUSION

Herbal face washes are used to refresh the muscles, keep the skin elastic, get rid of stuck-on grime, and enhance blood flow. Herbal-based cosmetics have the advantage of being nontoxic. 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."

They aid in keeping skin cells elastic and prevent the skin from ageing too quickly. Natural face can be used to successfully control wrinkles, fine lines, and skin loosening. We discovered outstanding qualities in the face wash in our study, but more research is required to determine its full potential as a cosmetic. Natural medicines are now widely recognized since they are less likely to have negative effects.

than products with a chemical base and are safer. To meet the demands of the expanding global market, numerous herbal formulations are needed. It is a successful attempt to create an herbal face wash with a variety of plants that have therapeutic advantages**.**

Quality control tests play a crucial role in ensuring the safety, efficacy, and consistency of herbal facewash products.

By implementing a comprehensive quality control program, manufacturers can meet regulatory requirements and consumer expectations.

Continuous improvement and innovation in quality control testing are key to delivering high-quality herbal facewash products to the market.

REFERENCE

1. Lynn DD, Umari T, Dunnick CA, Dellavalle RP. The epidemiology of acne vulgaris in late adolescence. Adolesc Health Med Ther2016;(7)13–25. 5.Harshvardhan pal Singh, Anti-acne synergistic Herbal Facewash Gel, World Journal Of Pharmaceutical Research, 2015 ;4(9):1261-1273

2. Singh HP, Samnhotra N, Gullaiya S, Kaur I. Anti-acne synergistic Herbal face wash gel Formulation, Evaluation, & Stability study". World J Pharm Res. 2015;4(9):1261–73.

3.Biswas K, Chattopadhyay I, Ranajit K, Banerjee U. Biological activities and medicinal properties of neem (Azadirachtaindica). CurrSci. 2002;82(11):1336–1345.

4.Charade YM, Sharma PH, Choudhury NG. Development and evaluation of herbal formulation for the treatment of acne. Into J Pharm Sci Res. 2014;5:2250–2260.

5.Singh H, Gullaiya S, Kaur I. Anti-acne synergistic herbal face wash gel: formulation, evaluation and stability studies. World J Pharm Res.2015;4:1261–1273.

6.Mane PK, Dangare A. Herbal Face Wash Gel of Cynodon Dactylon Having Antimicrobial, Anti-inflammatory Action. Pharm Sci Res.2020;3(1):36–43.

7.Kanitakis J. "Anatomy, histology and immunohistochemistry of normal human skin". European Journal of Dermatology., 2002; 12(4): 390–401.

8.Burkhart CG, Burkhart CN, Lehmann PF. "Acne: a review of immunologic and microbiologic factors". J Post grad Med., 1999; 75: 328–331

9.Dnyaneshwar S. Solanki, Prof. Suraj Dattatray Sagrule, "Formulation, development and evaluation of instant whitening face wash". WJPR, 9(5):2541-255.

10.Singh H, Samnhotra N, Gullaiya S, Kaur I. Anti-Acne Synergistic Herbal Face Wash Gel. World J Pharm Res. 2015;4(9):1261–73.

11.Kanlayavattanakul M, Lourith N. Therapeutic agents and herbs in topical application for acne treatment. Int J Cosmetic Sci.2015;33(4):289–297.
12.Kanlayavattanakul M, Lourith N. Therapeutic agents & herbs in topical applications for acne treatment. Int J Cosmetic Sci.2011;33(4):289–297. Oge LK, Broussard A, Marshall MD. Acne Vulgaris: diagnosis and treatment. Am Fam Physician. 2019;108(8):475–484.
13. SD Sonawane SK Bais Suyash Kamble Quality Control and Quality Assurance in Pharmaceuticals International Journal of Advanced Research in Science Communication and Technology, January 2023,3(1) 543.