



**INTERNATIONAL JOURNAL OF  
PHARMACEUTICAL SCIENCES**  
[ISSN: 0975-4725; CODEN(USA):IJPS00]  
Journal Homepage: <https://www.ijpsjournal.com>



## Research Article

# Formulation And Evaluation Of Herbal Face Wash

**Abubakar Shaikh\*, Tejashri Kedar, Sohel Shaikh, Aman Shaikh, Devang Shah,  
Harsh Meher**

*Arihant college of pharmacy Ahmednagar, 414005*

## ARTICLE INFO

Received: 28 May 2024  
Accepted: 01 June 2024  
Published: 10 June 2024

### Keywords:

Herbal Facewash, Neem,  
Tulsi, Turmeric, Vit. E ,  
Washability, Spreadability,  
irritancy test.

### DOI:

10.5281/zenodo.11543902

## 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 the skin types. Facewash is a cleanser that works without irritating skin. Facewash claims to be cleansing, anti-aging, anti-acne, moisturising, and also to improve the fairness of skin, making it look more healthy and youthful. Solution for this problem is to use scrub gel once or twice in week Which consist of all herbal ingredients which increases cleansing, softening, moisturizing, fairness of skin. In this present work we have formulated the herbal facial scrub by using the different herbal powders and later it was evaluated by Using the various parameters like smoothness, appearance, spreadability, irritation etc. Herbal facewash Preparation is the medicine or drug like medicinal properties like antibacterial, antifungal bring the skin and may Property. The crude drugs which used in the face wash preparation is given many property medicine or Cosmetics. The plant used in the facewash preparation is able to soft the skin epidermis enhance greater Penetration remove acne and also promote the healing and resolution in quickly in time.

## INTRODUCTION

The herbal drug industry which is present in the India is Probably the oldest medical care system in the World. The history of the herbs in ancient India is so old that the ancient form of herbal healing has even Been mentioned in the Vedas, an ancient religious Work of the Indians.

### Definition:

A face wash is a one type of facial cleanser that is specifically designed to remove the makeup, Dirt,

oil, dead skin cells, and other impurities from the skin of the face. A face wash can also be used to get rid of them, but its Effectiveness might not be 100%. Indian herbs are the richest Source to be used in cosmetic industries. Herbal Cosmetics were gaining tremendous demand in the World market. There is a wide range of herbal cosmetic Products used as the beauty regime to satisfy purpose of the Beautification.

### Face Wash:

**\*Corresponding Author:** Abubakar Shaikh

**Address:** Arihant college of pharmacy Ahmednagar, 414005

**Email** ✉: [abubakarshaikh705@gmail.com](mailto:abubakarshaikh705@gmail.com)

**Relevant conflicts of interest/financial disclosures:** The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.



Acne prevention necessitates a delicate balance of moisturising and oil control, exfoliation and cell renewal, and is a Must-have in any skincare regimen, acne or otherwise. Wash your face two times in a day, once in the morning and once At night. This aids in the removal of debris, germs, and sebum that clog pores and cause skin to seem murky or pimple-Prone. Facewash helps you to get rid of pimples. Some are designed to prevent acne while also reducing lines and Wrinkles, while others are designed to simply wash the skin.

#### A. Properties of face wash

- It should be stable and also have a pleasing appearance.
- It should soften on application to the skin and spread freely without dragging.
- It should not have an oily or greasy feel during application.

#### B. Function of Face wash

Face wash has the following functions:

- Removing dead cells
- Rejuvenating skin cells, elevating tension, and
- Removing oil, grime, and pollutants.

#### C. Face wash benefits include:

- Removing dead skin cells, which allows new skin cells to replace old ones;
- Keeping skin fresh and healthy; and
- Making the skin look beautiful.

#### Uses of face wash

1. To remove impurities, germs and makeup for every day.
2. Anti-aging.

#### Formulation Table

##### Batch 1

Sr No	Ingredients	Quantity
1	Turmeric	3.5 gm
2	Neem	3.5 gm
3	Tulsi	1 gm
4	Giloy Powder	4gm
5	Carbopol 934	1 gm
6	Sodium Lauryl Sulphate	3gm
7	Rose Oil	1 ml
8	Vitamin E capsule	1 ml

3. It helps other product to penetrate good into the skin.
4. For cleansing the skin.
5. To remove the impurities, germs and the makeup for every day.
6. It also Stimulates their generation of the skin cells and their renewal.
7. It helps other product to penetrate well into the skin.
8. For cleansing the skin.
9. It helps to remove dead skin cells that helps new skin cells replace old one.
10. It helps to keep skin fresh and healthy.
11. It makes the skin to look radiant.

#### Preparation Method

Propylene glycol and sodium lauryl sulphate, two preservatives, were added and mixed with a small amount of water. Carbopol was gradually added to the aforementioned solution and well mixed to create a gel-like dispersion. The extract was gradually added to this to get a gel-like consistency. Triethanolamine was then lastly added to the mixture Firstly Sodium Laurayl Sulphate preservative is added to the small amount of water . Then carbapol was gradually added to the above solution . And mixed well to get a gell like dispersion . Then the the extract of above herbal drugs were added . and then lastly triethanolamine was added to the mixture . By above prearation method the herbal product is prepared in two batches . which are Batch 1 and Batch 2 .



9	Triethanolamine	3 ml
10	Distilled Water	25 ml
11	Methyl Paraben	4 ml

## Batch 2

Sr No	Ingredients	Quantity
1	Turmeric	4.5 gm
2	Neem	2.5 gm
3	Tulsi	1 gm
4	Giloy Powder	4gm
5	Carbopol 934	2 gm
6	Sodium Lauryl Sulphate	3gm
7	Rose Oil	1 ml
8	Vitamin E capsule	0.5 ml
9	Triethanolamine	2 ml
10	Distilled Water	25 ml
11	Methyl Paraben	5 ml

## MATERIAL AND METHOD

### 1. Turmeric Rhizome



Fig.No.1.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 are the Vitamin, enzyme, minerals, sugars, lignin, saponin, salicylic acid and amino acid .

### 2. Neem



Fig. No.2 Neem leaves powder

#### Synonym –

Nim

#### Biological source-

It consists of dried leaves of Azadirachta indica Belonging to 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 leaves powder:



Fig No.3 Tulsi leaves powder

#### Synonym-

Tulsi

#### Biological source-

It mainly consists of dried leaves of *Ocimum sanctum* L

Belonging to 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. Giloy powder



Fig No 4 – Giloy Powder

#### synonym-

Amorita

#### Biological source –

it consists of dried leaves of *Tinospora cordifolia* belonging to 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 line

#### Excipient profile

##### 1.Carbopol

#### Structure:

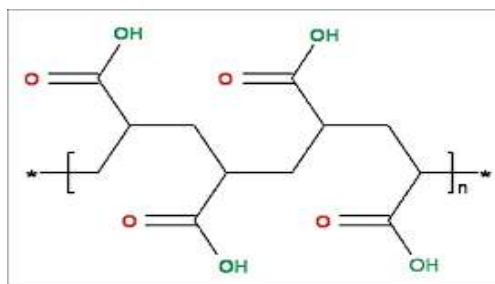


Fig No 5 – Carbapol 934 structure

#### IUPAC name :

Poly (acrylic acid)

#### Other names :

PAA, PAAc, Acrysol, Acumer.

#### Chemical formula :

(C<sub>3</sub>H<sub>4</sub>O<sub>2</sub>)<sub>n</sub>

#### Molar mass :

variable

#### Uses:

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

##### 2. Methyl paraben

#### Structure:

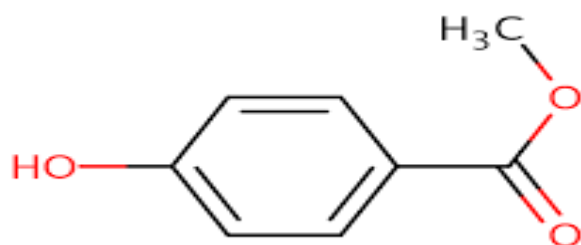


Fig No 6 – Methyl Paraben

**IUPAC name :**

Methyl 4hydroxybenzoate

**Other names :**

Methyl paraben

**Chemical Formula :**

C<sub>8</sub>H<sub>8</sub>O<sub>3</sub>

**Molar mass :**

152.15 g·mol<sup>-1</sup>

**Uses :**

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

**3.Triethanolamine**

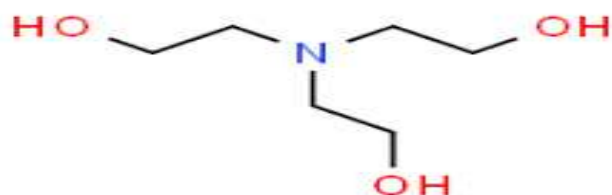


Fig No 7 - Triethanolamine

**IUPAC Name :**

Tris (2hydroxyethyl) Amine

**Other Names :**

Triethanolamine

**Chemical Formula :**

C<sub>6</sub>H<sub>15</sub>NO<sub>3</sub>

**Molar Mass :**

149.19 g·mol<sup>-1</sup>

**Density :**

1.124 g mL<sup>-1</sup>

**Melting Point :**

21.60 °C , 70.88 °F , 294.75 K

**Use :**

Triethanolamine is used primarily as an emulsifier as well as surfactant. It is the common ingredient in formulations used for both Industrial and the consumer products. 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.

**4.Sodium lauryl sulphate**

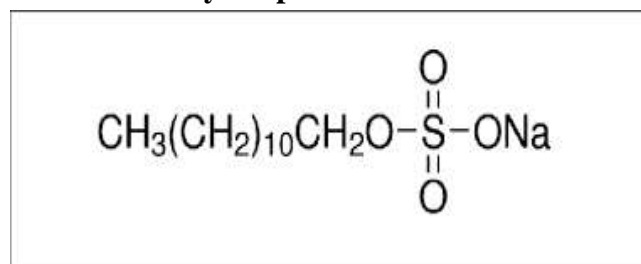


Fig No 8 - Sodium lauryl sulphate

**IUPAC Name :**

Sodium lauryl sulfate

**Other Names :**

Sodium monododecyl sulfate

**Chemical Formula :**

NaC<sub>12</sub>H<sub>25</sub>SO<sub>4</sub>

**Molar Mass :**

288.372 g/mol

**Density :**

1.01 g/ cm<sup>3</sup>

**Melting point :**

206 °C (403 °F; 479 K)

**Use :**

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

**EVALUATION**

To evaluate the quality of the prepared formulation, several Quality tests were performed. Some of them are as follows:-

1. Colour
2. Odour
3. Consistency
4. pH
5. Washability



6. Spreadability
7. Rheological study
8. Sensitivity

#### 1. Colour:

Visually the colour of the face scrub gel was identified .

#### 2. Odour:

The prepared formulation was evaluated for its odour by smelling It.

#### 3. Consistency:

Consistency of prepared formulation was determined manually.

#### 4. pH:

pH of 1% solution of the formulation was measured by using a calibrated digital pH meter at a constant temperature.

#### 5. Washability:

The prepared Formulation were applied on the skin easily remove by Washing with water were checked manually.

#### Formulation table

Sr No	Ingredients	Quantity
1	Turmeric	3.5 gm
2	Neem	3.5 gm
3	Tulsi	1 gm
4	Giloy Powder	4gm
5	Carbopol 934	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 gm

#### Evaluation Parameters

Sr No	Evaluation Test	Result
1	Colour	Pale Yellow
2	Oduor	Characteristics
3	Consistency	Semi – Solid
4	PH	7.2
5	Spreadability	Easily Spreadable
6	Washability	Good
7	Foamability	Good

#### 6. Spreadability:

The spread ability of the prepared gel was found manually by Applying it on the skin with hand or face gentle rub Which easily spread through the face.

#### 7. Rheological study:

The viscosity of the developed scrub gel formulation Was determined by using the Brookfield viscometer (DV- E Viscometer) with spindle no.62

#### 8. Sensitivity:

The formulated preparation applied on human Volunteer's (generally on hand and face) and observe for any side Effects.

#### RESULT

The turmeric Powder, alovera , tulsi , giloy powder containing face wash were prepared and evaluated for colour , Odour , Consistency , PH, Washability, foamability and obtained results are given below



## 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 formulation. It gives Beneficial effects to the face. 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.

## ACKNOWLEDGEMENT

We are happy to acknowledge the my honest gratitude to the all who gives us their valuable support and guidance and also convey my sincere to Resp. Principle and all teaching staff of Arihant College Of Pharmacy ,Ahmednagar for this encouragement .

## REFERENCES

1. Sanju nanda, arun nanda, roop k. khar. Cosmetics technology birla publication first edition 2006-2007 Page No. 243
2. P. P. sharma cosmetics-formulation, manufacturing and quality control by m. pharm. Vandana publication Third edition page no. 142.
3. [http://www.tufts.edu/med/apua/about\\_issue/agents.shtml](http://www.tufts.edu/med/apua/about_issue/agents.shtml).
4. McNally, Robert A. Skin Health Information for Teens: Health Tips about Dermatological Concerns and Skin Cancer Risks. Detroit (/topic/Detroit.aspx), MI: Omnigraphics, 2003.
5. Simons, Rae. For All to See: A Teen's Guide to Healthy Skin. Broomall, PA; Mason Crest. 2005.
5. Sharma A, Shanker C, Tyagi LK, Singh M, Rao ChV (2008) Herbal Medicine for Market Potential in India : An overview. Academic Journal of Plant Sciences 1: 26-36.
6. Shivanand, P., Nilam, M., & Viral, D. (2010). Herbs play an important role in the field of cosmetics. International Journal of PharmTech Research, 2(1), page no 632-639.
7. Amit, J., Subodh, D., Alka, G., Pushpendra, K., & Vivek, T., (2010). Potential of herbs as cosmaceuticals. International Journal of Research in Ayurveda and Pharmacy (IJRAP), 1(1), page no :- 71-77.
8. Kapoor, V. P. (2005). Herbal cosmetics for skin and hair care.4(4). 306-315.
9. Niharika, A., Aquicio, J. M., & Anand, A. (2010). Antifungal properties of neem (Azadirachta indica) Leaves extract to treat hair dandruff. E-ISRJ, 2; 244-52.
10. Kumar, K. P., Bhowmik, D., Tripathi, K. K., & Chandira, M. (2010). Traditional Indian Herbal Plants Tulsi and Its Medicinal Importance , Research Journal of Pharmacognosy and Phytochemistry, 2(2),page no :- 93-101.
11. Panda, H. (2011). Herbal facewash & soaps. NIIR Project Consultancy Services.
12. P. K. Mane, Aniket Dangare, Herbal Face Wash Gel Of Cynodon Dactylon Having antimicrobial, Anti –Inflammatory Action..
13. Dhanashri Sanjay Koli , Abhyangshree Nandkumar Mane, Vinayak Balu Kumbhar,Kalyani Sanjay Shaha, Formulation & Evaluation Of Herbal Anti-Acne Facewash.
14. Arun Rasheed, G. Avinash Kumar Reddy ,S. Mohanalakshmi & C.K. Ashok Kumar, Formulation and Comparative evaluation of poly herbal anti-acne face wash gel.



15. Santhosh Kumar Banotha, Formulation and Evaluation of Herbal Facewash for Antimicrobial Activity.
16. Rona Bae<sup>1</sup>, Young-Kyu Lee, and Seung-Koo Lee, Changes in Nutrient Levels of Aqueous Extracts from Radish (*Raphanus sativus* L.) Root during Liquefaction by Heat and Non-heat Processing, 30(4):409-416, 2012.
17. Khandagale Ganesh Sarjerao\*<sup>1</sup>, Dr. L.D. Hingne\*<sup>2</sup>, Prof. T.P. Akhare\*<sup>3</sup>, Aditya Pharmacy College Beed. 431122 Maharashtra, India.
18. Shaikh Arfat , Shaikh Nazeer, Rohit Prataprao Patil, Mrunal Anil Patil, 1, 2, and Dr. Uttamrao Mahajan College of B Pharmacy, Chalisgaon, Dist. Jalgaon, 424101
19. P. K. Mane\*, Aniket Dangare, Satara College of Pharmacy, Satara
20. Martha Srinivas\*<sup>1</sup>, Dumpty Supriya\*<sup>2</sup>, and Dr. Anoop Singh\*<sup>1</sup> Associate Professor, Department of Pharmaceutics, Joginpally B.R. Pharmacology College, Yenkapally (V), Moinabad (M), Hyderabad-Telangana, India

**HOW TO CITE:** Abubakar Shaikh, Tejashri Kedar, Sohel Shaikh, Aman Shaikh, Devang Shah, Harsh Meher, Formulation And Evaluation Of Herbal Face Wash, *Int. J. of Pharm. Sci.*, 2024, Vol 2, Issue 6, 539-546. <https://doi.org/10.5281/zenodo.11543902>

