iJRASET
International Journal For Research in Applied Science and Engineering Technology



INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Volume: 13 **Issue:** IV **Month of publication:** April 2025

DOI: https://doi.org/10.22214/ijraset.2025.69517

www.ijraset.com

Call: 08813907089 | E-mail ID: ijraset@gmail.com

International Journal for Research in Applied Science & Engineering Technology (IJRASET)
ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.538
Volume 13 Issue IV Apr 2025- Available at www.ijraset.com

Formulation and Evaluation of Herbal Soap by Using Herbal Plant

Shweta Shitole[1], Pooja Gaikwad[2], Madhavi Kudale[3], Mr. Nitin Gawai[4], Sarika Lakade[5]
Mahadev Kanchan College of Pharmaceuticals Education and Research, Uruli Kanchan, Pune

Abstract: ***A herbal cleaner and hand sanitizer was formulated using the splint and dinghy excerpt of Azadirechta indica, Ocimum tenuiflorum, Sapindus mukorussi and Acacia concinna greasepaint. Ayurveda cosmetics are also Known as the herbal cosmetics the natural content in the sauces doesn't have any side effect on the mortal Body most herbal supplement are grounded on several botanical constituents with long histories of traditional Or familial drug operation(6). Neem (Azadirachta indica) tree has attracted worldwide elevation owing to its Wide range of medicinal parcels, neem leaves and its ingredients have been demonstrated to exhibition anti –Seditious, hyperglycemia, anti-ulcer antimalarial, anti-fungal, antibacterial, anti-mutagenic and anticarcinogenic parcels. Herbal cleaner constituents were used reetha, neem, shikekai and tulsi., in which neem Splint and seed were set up effective against some dermatophytes. Shikekai and Reetha acts as a soap and Having cleaning and raging exertion and Tulsi shows antiviral exertion(5).***

Keywords: Herbal soap, formulation, hand sanitizer, Azadirachta indica, Ocimum tenuiflorium.

I. INTROUDCTION

Ayurveda is one of the oldest traditional drugs rehearsed in India, Sri Lanka and other South Asian countries And has a good philosophical and empirical base (11). Atharvaveda, Charaka Samhita(12), and Sushruta Samhita are the major classics that detail over 700 sauces, minerals, and canvases for maintaining and Promoting healthy and beautiful skin. Acne is one of the most common skin problems among teenagers. And In youth(13) The word dress was deduced from the Greek word " kosm tikos " meaning having the power, arrange, skill in Decorating(18). The origin of cosmetics forms a nonstop narrative throughout the history of man as they Developed. The man in neolithic times 3000BC used colors for decoration to attract the creatures that he

Wished To hunt and also the man survived attack from the adversary by coloring his skin and adorned his body for Protection To provoke fear in an adversary(whether man or beast) (19) Cleaner is common sanctification agent well known to everyone. Numerous authors defined cleaner Indifferent ways. Warra, (20) Regarded it as any cleaning agent, manufactured in grains, bars, flakes, or liquid form attained from by Replying Swab of sodium or potassium of colorful adipose acids that are of natural origin(swab ofnon-volatile adipose Acids). Cleaner Can also be said to be any water answerable swab of adipose acids containing eight or further carbon tittles.Detergents are Produced for kinds of purpose ranging from washing, bathing, drug etc. The sanctification action of the Cleaner Is due to the negative ions on the hydrocarbon chain attached to the carboxylic group of the adipose acids20.The Affinity of the hydrocarbon chain to oil painting and grease, while carboxylic group to water is the main Reason cleaner is Being used substantially with water for drawing purposes(21.)

Herbal Cleaner is Preparation drug or medicine it Contain Antibacterial And Antifungal agent which are Substantially use in part of factory similar as the leaves, brume, roots and fruits to treatment for a injury or Achieve good health(1). This medication retain antimicrobial property are administered topically and Available to apply in colorful forms like cream, embrocation, gel, cleaner, solvent excerpt or ointment. TheVariety of creams and cleaner parcels have been used to treat colorful skin diseases(2). Substantially skin Infection are caused by fungi staphylococcus aureus and streptococcus species(1). Ethnomedically, juice and Excerpt from leaves of the factory are topically applied as antimicrobial and anti seditious agent in treatment Of skin complaint including eczema's, ringworm and pruritus(3). The succulent gel from is used to complaintOf psoriasis. Crude medication of adulatory factory are suitable to soften the skin epidermis acne and alsoPromote mending and resolution by snappily in time. In this review composition herbal cleaner containingNeem, tulsi, shikekai and reetha as natural factory constituents and this contain gives or shows antibacterial.Anti-fungal antibacterial antioxidantanti-carcinogenic property. Tulsi has got the topmost medicinal value.Tulsi to be effective for diabetes they blood glucose position tulsi also used in serve acute respiratory Syndrome.juice of its leaves gives relief in cold fever bronchitis and cough. Tulsi reduce stress, enhance Stamina inflammation and also showsanti-fungal exertion so tulsi also used main emulsion in this herbal Serve to be salutary in cleaner expression(4). Reetha is an exceptional cleanser.hence it's a perfect cover for Cleaner and face- marshland due the presence of saponin.

©IJRASET: All Rights are Reserved

It's also good for use in sensitive skin. A Combination of reetha and chickpeas gives a gentle and enriching experience to the skin it has exertion Parcels, it keep skin moisturized and cool. Reetha prevents the skin from drying and keeps it soft and supply it Also helps to treat eczema and psoriasis. Shikekai is quit effective in treating colorful infection like scabies And also used as anti wrinkles property(4).

Cleaner should contain antibacterial and not damage body apkins. Health care workers should use cleaner according to hygiene and sanitation norms. Thus, utmost people with disabled vulnerable systems are n't susceptible to infection by pathogens or opportunistic infections(14).

Herbal detergents are drugs containing antibacterial and antifungal agents attained from factory corridor similar as leaves, roots, stems and fruits, substantially for mending injuries and conditions and promoting health(17)

II. SKIN TYPE AND BASIC SKIN CARE

The requirement for the basic skin care

1) Cleansing agent: Which remove the dust dead cells and dirt that chokes the pores on the skin. Some of the common cleansers include vegetable oils like coconut, sesame and palm oil.
2) Use of Toners: The toners help to tighten the skin and keep it from being exposed to many of the toxins that are floating in the air or other environmental • pollutants. Some of the herbs used as toners are witch hazel, geranium, sage, lemon, ivy burdock and essential oils •
3) Moisturizing: The moisturizing helps the skin to become soft and supple. Moisturizing shows a healthy glow and are less prone to aging. Some of the herbal moisturizers include vegetable glycerin, sorbitol , rose water, jojoba oil, aloe vera and iris. Most common skin disease are Enzama, Acne, Rashes, Psoriasis, Allergy, Dry skin, Urticaria etc.

III. CONTENT OF THE SOAP

A. *Neem*

Synonym - Indian lilac
Biological Source - it consist of the fresh or dried leaves of Azadirchta indica.
Part of Typically used- Leaves
Colour- Green
Uses- Remove the dark spots, make your skin healthy

B. *Tulsi*

Synonym- Gauri, sulabha
Biological source - it consist of the fresh and dried laves of Ocimum tenuiflorum .
Part of typically used - leaves
Colour - Green
Uses - Fight acne, reduce pigmentation.

C. *Reetha*

Synonym- Soap berry
Biological source- It consist of dried seeds sapindus mukorossi.
Part of typically used- seeds
Colour - Brown
Uses- It clean oily secretions in the skin.

D. *Shikekai*

Synonym- Viral a, sari
Biological Source - it consist of fruits of plant Acacia
Part of typically used - Fruits pods
Colour – Brown
Uses-Anti-dandruff detergent .

©IJRASET: All Rights are Reserved | SJ Impact Factor 7.538 | ISRA Journal Impact Factor 7.894 |

Chemical constituents:
Lupeol, acacic acid, lactone, spinasterol, and the natural sugars glucose, arabinose and rhamnose.
Shikakai:-, generally known by its scientific name Acacia concina, is a climbing shrub with dark brown,
Pinnate leaves and pink flowers. It's substantially set up in the tropical timbers of the Indian key(15).
Shikakai is rich in vitamins and antioxidants that moisturize and nourish the skin. It also helps restore your
Skin's natural balance of oil painting and humidity and prevents blankness and cracking. Shikakai greasepaint
Protects the skin from free radical damage and unseasonable aging(16)

IV. EXPRIMENTAL MATERAL AND METHODS

Ingredients	Name of suppliers
Coconut oil	College lab
Caustic soda	College lab
Glycerin	College lab
Stearic acid	College lab
Ethanol	College lab
Soft paraffin	College lab
Triethanolamine	College lab
Sodium lauryl sulphate	College lab
Rose water	College lab

V. EVALUATION

The herbal cleaner formulated was estimated for the following.

1) Organoleptic evaluation.

Colour- brown ii. Odour- Aromatic iii. Appearance-Good

2) Physical evaluation(8,10)

The herbal cleaner formulated was estimated for the following parcels

- pH- the pH was determined by using pH paper. The pH was set up to be introductory in nature.
- Froth retention- 25 ml of the one percent cleaner result was taken into a 100 ml graduated measuring Cylinder the cylinder was covered with hand and10 twinkles times. The volume of the from at 1 twinkles Interval for 4 twinkles was recovered. It was set up to be 5 twinkles.
- Froth height- 10 cm
- Antimicrobial test- there was colorful study conducted on antimicrobial exertion of neem and hence According exertion of Azadirichta indica splint, dinghy and seed excerpt.(7,9)

VI. CONCLUSION

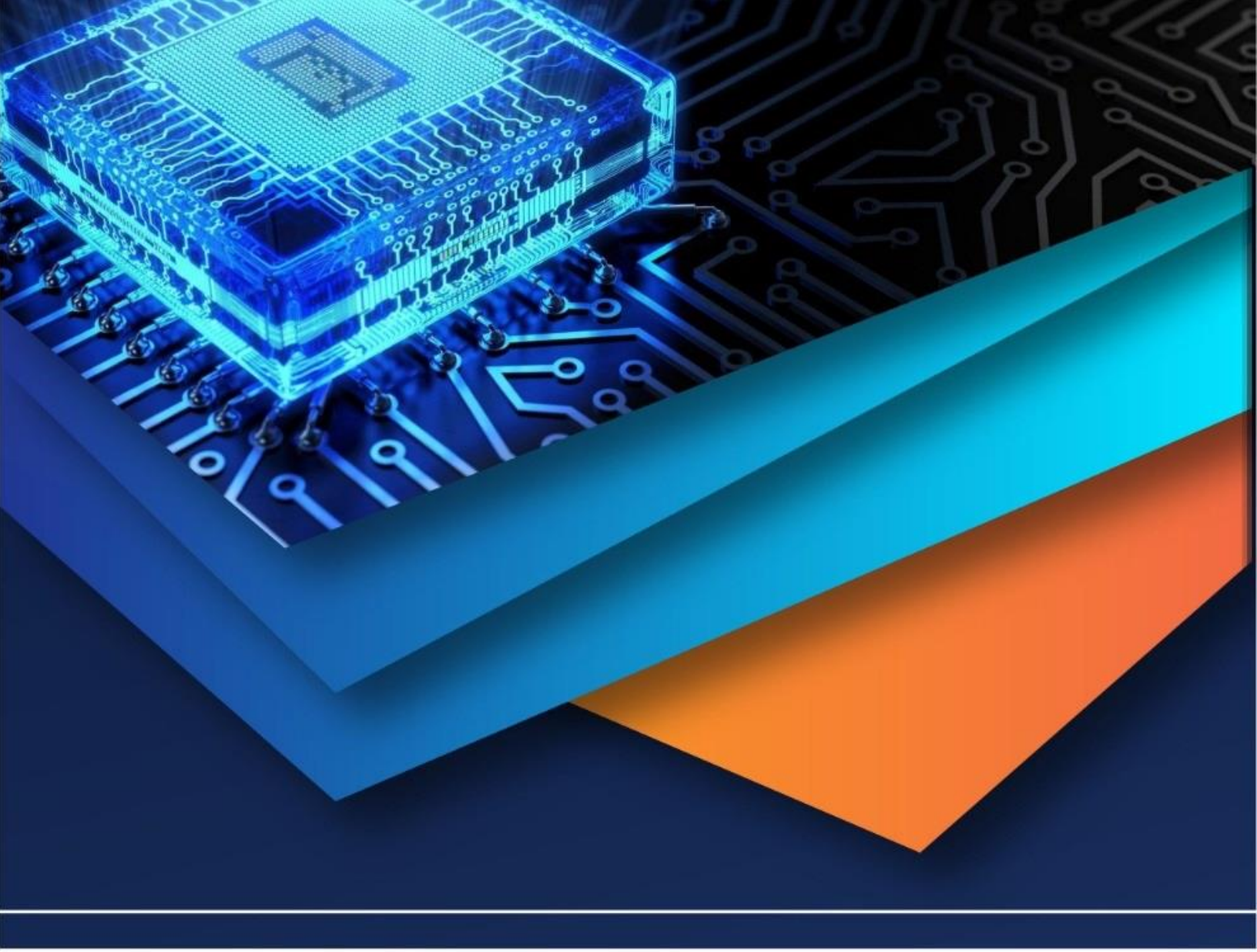
The factory Azadirichta India, Ocimum Tenuiflorum, Sapindus and Acacia concinna were uprooted using Water and subordinated to colorful evaluation test according to former exploration the antimicrobial exertion of NEEM was studies the set expression when tested for different test gave good results. It does n't give any Inconvenience to skin was determined by using these cleaner by many levy hence it's proved that cleaner Does n't set cleaner were standardization by assessing colorful physic o chemical parcels similar as pH Appearance odour in which the exhibition satisfactory effect.

©IJRASET: All Rights are Reserved | SJ Impact Factor 7.538 | ISRA Journal Impact Factor 7.894 |

REFERENCES

[1] Kareru , p. G., Keriko . , J. M., Kenji, G. M., Thiong o, G. T. N.(2010) . Antimicrobial activities of skincare preparation from plant extract. African Journal of Traditional complementary and alternative medicine,7(3).
[2] andyopadhyay , U, Biswas, K, Sengupta, A.. Moitra, P, Dutta, P., Sarkar, D., .. And Banerjee,R, K.(2004) . Clinical studies on the effect of NEEM bark extract on gastric secretion and gastrointestinal ulcer . life science, 75(24), 2867.2878.
[3] Sharma, J., Gairola, S., Sharma, Y. P., and Gaur, R.D. (2014). Ethnomedical plants used to treat skin disease by Thar u community of district Udham Singh Nagar, Uttarakhand, India. Journal of ethopharmacology, 158, 140.206.
[4] Kapoor, V. P. (2005). Herbal cosmetics for skin and hair care.4(4). 306.315.
[5] Niharika, A., Aquicio, J. M. and Anand, A. (2010). Anti fungal properties of NEEM leaves extract to treat hair dandruff. E. ISRJ , 2, 244.52.
[6] Amit, J., Subodh, D., Alka, G., Pushpendra, K., and Vivek, T. (2010) . Potential of herbs as cosmaceuticals . international journal of research in Ayurveda and pharmacy (IJRAP) , 1(1), 71/77.
[7] Joshi, M. G., Kamat, D. V., and Kamat , S. D. (2008). Evaluation of herbal hand-wash formulation .7 (5).413.15
[8] Afsar, Z., Khanam, S., and Amir,S. (2018) Formulation and comparative evaluation preparation for their disinfectant effect, (1), 54/65.
[9] Kumar, K. P., Bhowmik, D., Tripathi, K.K. and Chandira, M. (2010). Traditional Indian herbal plants tulsi and its medical importance . research journal of Pharmacognosy and Phytohemistry, (2), 93/101.
[10] Dhansekaran, M. (2016) International research journal of pharmacy. 7 (2), 31/35.
[11] Patwardhan B. Vaidya AD ,Chorghade M. Ayurveda and natural product drug discovery curr sci 2004;86:789-99.
[12] Dash B, Sharama BK. Charak Samhita, 7th ed. Varanasi , India :Chaukhamba Sanskrit Series office;2001.
[13] Datta HS ,Mitra SK ,Patwardhan B. Wound healing activity of topical application forms based on Ayurveda Evid Based Complement Alternat Med 2009.
[14] Riaz S. Ahmad A, Hasnain S ,Antibacterial activity of Soap against daily encountered bacteria .Afr. J Biotechnol. 2009;8:1431- 6.
[15] Mori R. Replacing all petroleum-based chemical products with natural biomass-based chemical products: a tutorial review. RSC Sustain. 2023;1:179– 212.
[16] Telange-Patil P.V, Sathe R.M, Salunkhe K.A. Formulation and Evaluation of Herbal Soap for Anti-Aging by using Aloe. IJCRT. 2022;10(10):a66-a76.
[17] Kareru , P.G., Keriko , J , M. ,Kenji , G ,M ., Thiong ,o , G,T., Gachanja , A.N., & Mukiir a, H.N. Antimicrobial activities of skin care preparation from plant extracts , African Journal of Traditional Complementary and Alternative Medicines , 2010;7(3)55-98.
[18] Hughes, G.R., J.Soc. Cosmet. Chem., 1959, X, 159.
[19] Encyclopaedia. Britannica, 14th Edn; 1929.
[20] Warra, A. A. (2013) Soap making in Nigeria using indigenous technology and raw materials, African Journal of Pure and Applied Chemistr, 7(4): 139- 145
[21] Adaku, U. And Melody, M. (2013) Soap Production Using Waste Materials of Cassava Peel and Plantain Peel Ash as an Alternative Active Ingredient, Implication for Entrepreneurship, IOSR Journal of VLSI and Signal Processing,3(3): 2319 – 4197

©IJRASET: All Rights are Reserved | SJ Impact Factor 7.538 | ISRA Journal Impact Factor 7.894 |



10.22214/IJRASET

45.98

IMPACT FACTOR: 7.129

IMPACT FACTOR: 7.429

INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Call : 08813907089 (24*7 Support on Whatsapp)