

Formulation and Evaluation for Herbal Face Wash

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Abstract: *Hydroalcoholic extract of turmeric (curcuma longa), black pepper, orange peel and nutmeg (myristic aroma) Although there are some specific local herbal formulas available on the market. The plants have been reported in the literature having good anti-microbial, anti-oxidant and anti-inflammatory activity. Prepared formulation was evaluated for various parameters like colour, appearance, consistency, pH, viscosity. solubility*

Keywords: Herbal. Natural product cosmetic

I. INTRODUCTION

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. Cosmetics are developed to reduce wrinkles, fight acne and to control oil secretion.

1.1 Face Wash

A. 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

B. 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. Exfoliating the pores regularly, avoids all the above skin problems.
- 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.

C. 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
- It's 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.

1.2 Categories of therapeutic agents used in face wash

A. 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.

B. Anti acne

Different types of antiacne drugs are used for different treatment purposes, depending on the severity of the condition.

1.3 Advantages of Herbal Cosmetics over Synthetic Cosmetics

These agent are gaining popularity as nowadays most women prefer natural products over chemicals for their personal care to enhance their beauty as these products supply the body with nutrients and enhance health and provide satisfaction as these are free from synthetic chemicals and have relatively less side-effects compared to the synthetic cosmetics.

A. Compatible with all Skin Types

Natural cosmetics are suitable for all skin types. No matter if you are dark or fair, you will find natural cosmetics like foundation, eye shadow, and lipstick which are appropriate irrespective of your skin tone. Coal tar is recognized as a human carcinogen and the main concern with individual coal tar a color (whether produced from coal tar or synthetically) is they can cause cancer. But natural colors that are obtained from herbs are safer.

B. Wide Selection to Choose from

There exist a large variety of herbal extracts, to name a few *Andrographis Paniculata* (Kalmegh), *Asparagus Racemosus* (Shatawari), *Boswellia Serrata* (SalaiGuggal), *Asphalt* (Shilajit) etc.

C. Not Tested on Animals

Andrographis Paniculata (Kalmegh), However, natural cosmetics need not be tested on animals.

D. No Side Effects

With natural cosmetics, one need not worry about these. The natural ingredients used assure no side effects; one can apply them anytime, anywhere. And are suspected of interfering with hormone function. to clear up mild to moderately severe acne. Isotretinoin (Accutane) is an oral drug that is prescribed only for very severe, disfiguring acne.

1.4 Various Herbs used in Cosmetics

- **Amaranth (*Amaranthus Spinousus*):** Cover and boil for five minutes.
- **Neem (*Azadirachta Indica*):** Neem (*Azadirachta indica*) is valued in Ayurvedic medicine for its varied healing properties due to its antibacterial, antifungal, and antiviral capabilities.
- **Lemon(*Citrus Limon*):** This will loosen the dirt and oil. Then apply a cotton ball to remove the dirt and oil buildup. Use this method once a week.
- **Basil (*Ocimum basilicum*):** Make an infusion of Basil (*Ocimum basilicum*) leaves. leaves in a cup of boiling water, steep for 10 to 20 minutes, cool, and apply to the acne.
- **Lemon(*Citrus limon*):** Another variation of this remedy is to drink four or five cups of Cucumber juice daily for a week.
- **Grape (*Vitis vinifera*):** Grape (*Vitis vinifera*) seed extract is a powerful all around antimicrobial agent and is an excellent disinfectant.
- **Chickpea(*Cicer arietinum*):** Wash your face with Chickpea (*Cicer arietinum*) paste (mix one teaspoon of chickpea flour with a little water). Dry with a clean towel. This is also a good remedy to cure acne.
- **Beet (*Beta vulgaris*):** Use a blend of one part Beet (*Beta vulgaris*) root juice, three parts Carrot (*Daucus carota*) juice and two parts water to stimulate the liver and to cleanse the system.

1.5 Additives used in Face Wash

A. Gelling Agent

Gelling Agents are ingredients that will turn your water, or oil, phase into a gel, which is thickened but, without stiffness. Emulsions thickened with Gelling Agents will be more mobile, and fluid, than rather than stiff. Some of these gels will thin when force is applied (thixotropic)

B. Preservative

Some of these organisms can secrete poisonous substances (“toxins”), which are dangerous to human health and can even be fatal.

Examples; methyl paraben, propyl paraben.

C. Humectants

A humectants are a hygroscopic substance used to keep things moist; it is the opposite of a desiccant. It is often a molecule with several hydrophilic groups, most often hydroxyl groups. A humectants attract and retains the moisture in the air nearby via absorption, drawing the water vapor into and/or beneath the organism/object's surface.

1.6. Evaluation of Face Wash

Colour, odour, consistency, spreadability, washability, foamability, grittiness.etc. are the important evaluation parameters of the face wash formulation.

1.7. Uses of Face-Wash

- To remove all traces of makeup every day.
- For cleansing the skin.
- Anti-aging.
- Bath and renewal Keeping the skin clean and shiny.
- Stimulates there generation of the skin cells and their renewal.

II. MATERIALS AND METHOD

2.1 Herbal Drugs

A. Aloe vera



Figure 1: Alovera

Synonym: Aloe Biological source: Aloe barbadensis Family: Liliaceae Chemical constituent: Aloe-emodin Chemical nature: the principal active composition of aloe is aloin,

Cosmetic: Aloe vera gel improve the skin integrity

Uses: It used in Moisturizing agent in

B. Turmeric



Figure 2: Turmeric

Synonym: Orange cortex

Biological source: Citrus Aurantium Linn

Family: Chemical constituent: Vitamine C, Pectin, Volatile oil, Hesperidin, Iso-hesperidin, Neohesperidin, Aldehydes, Citral.

Uses: Orange peel are used as carminative, aromatic, .Flavoring agent.stimulant

C. Orange Peel



Figure 3: Orange peel

Synonym: Haldi, Indian saffron

Biological Source: Curcuma longa Linn.

Family: Zingiberaceae Chemical constituent: Curcumin Zingiberene Borneol Caprylic acid curcumanoid

Uses: Antiseptic, Anti-inflammatory, Spice, Carmitaive, Antimicrobial, Antioxidant Burns and wounds treatment, Itching, Skin cosmetics.

2.2 Formulation of Herbal Face Wash

Turmeric powder extract and orange peel extract to achieve anti-acne, anti-inflammatory, antibacterial property. We were formulated face wash gel for that purpose carbapol was used as gelling agent. Triethanol amine was used as alkalizing agent to achive good stability. Propylene glycol was added it also gives emollient effect on skin. Sodium lauryl sulphate was added to produce foam. While is application.

Table no. 1: Formulation table for herbal face wash (50 ml)

Sr.No.	Name of ingredients	Quantity for 50 ml	Uses
1	Extract of aloevera	0.5 gm	Antibacterial
2	Ethanollic extract of Turmeric powder	0.5 gm	Anti-inflammatory
3	Ethanollic extract of orange peel	0.5 gm	Antioxidant
4	Carbopol 940	0.025 gm	Gelling agent
5	Propyl paraben	1 gm	Preservative
6	Triethanolamine	1 ml	Neutralizer
7	Propylene glycol	1 ml	Humectants
8	Sodium lauryl sulphate	1 gm	Foaming agent
9	Bentonite	0.015 gm	Anti-static agent
10	Distilled water	Q.S.	Vehicle
11	Rose oil	Q.S	Flavoring Agent

III. EVALUATION OF HERBAL FACE WASH

The prepared face wash formulation was evaluated for following parameter

Table no. 2: Evaluation table

Formulation	Colour	Odour	Consistency	pH	Spreadability	Wash ability	Grittiness	Foam ability
Formulated	Pale yellow	Characteristic	Semisolid	7.3	Easily spreadable	Good	No gritty particles	Good
Marketed	Yellow	Characteristic	Semisolid	7	Easily spreadable	Good	No gritty particles	Good

- **Colour:** Colour of formulation are i.e pale yellow colour while as compare with marketed formulation having yellow colour.
- **Odour:** Due to presence of rose oil formulation having rosy smell while the marketed formulation show characteristic smell.
- **Consistency:** It was determined manually
- **Spreadability:** The spread ability of the formulation was found manually by applying the gel on the skin with gentle rub
- **Washability:** The product was applied on hand and showed under running water.

- **Foamability:** Small amount of gel was taken in a beaker containing water.
- **Grittiness:** The product was checked for the presence of any gritty particles by applying it on the skin
- **pH :**The pH of formulation is -7.3. The pH of marketed formulation is -7

IV. RESULTS AND DISCUSSION

The turmeric powder, aloe vera, orange peel containing 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 no.3.

Table 3: Observation and Evaluation of Herbal Face wash

Sr. No.	Parameters	Observations
1	Colour	Yellow
2	Odour	Characteristic
3	Consistency	Semi-solid
4	pH	7.3
5	Spread ability	Easily spreadable
6	Wash ability	Good
7	Grittiness	No gritty particles
8	Foam ability	Good

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

V. CONCLUSION

Prepared formulation was evaluated for colour, odour, consistency, pH, spread ability, wash ability, grittiness, foam ability studies and it shows acceptable results. Herbal face wash gel containing, turmeric powder extract, aloe vera extract, orange peel extract was formulated successfully by using carbapol as a gelling agent. So performed studies it can conclude that prepared formulation may effectively used of formulation are required to perform before to bring it in real use.

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CONFLICT OF INTEREST

The author declared no conflict of interest

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