

# Formulation and Evaluation of Herbal Face Wash

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**Abstract:** *It is more acceptable to believe that natural remedies are safer with synthetic subjects than with fewer side effects. The global market demand is increasing due to the fusion of herbs. Current work Herbal anti-acne is the development and evaluation of flammable extracts with facial spray containing leaf extract of Tulsi (Ocimum Sanctum), Hydroalcoholic extract of turmeric (curcuma longa), Although there are some specific local herbal formulas available on the market, we propose to make pure herbal formulations without using any artificial ingredient. The plants have been reported in the literature with microorganisms, anti oxidants and anti-inflammatory activity.*

**Keywords:** face wash, Turmaric, Rose water. Spreadability, Irritancy test

## I. INTRODUCTION

### Cosmetic science:

Cosmetic Science is a multidisciplinary applied science. Cosmetic science majors study the art, science and business of cosmetics. They learn to develop, formulate and produce cosmetics and personal care products. They also study regulations and how to assess products' safety, performance and quality.

### Introduction to cosmetic industry:

The cosmetic industry describes the industry that manufactures and distributes cosmetic products. These include colour cosmetics, like foundation and mascara, skincare such as moisturisers and cleansers, haircare such as shampoos, conditioners and hair colours, and toiletries such as bubble bath and soap.

The manufacturing industry is dominated by a small number of multinational corporations that originated in the early 20th century, but the distribution and sale of cosmetics is spread among a wide range of different businesses.

The largest cosmetic companies are Johnson & Johnson, L'Oreal Paris, Gillette, Neutrogena, Nivea. The market volume of the cosmetics industry in Europe and the United States is about EUR €70b per year, according to a 2005 publication. The worldwide cosmetics and perfume industry currently generates an estimated annual turnover of US\$170 billion (according to Eurostat May 2007). Europe is the leading market, representing approximately €63 billion. The cosmetic industry is a prosperous global business. According to the Cosmetics Europe.

It regulates the import, manufacture, distribution and sale of drugs, biosimilars and medical devices. The primary objective of the act is to ensure that the drugs, biosimilars and medical devices sold in India are safe, effective and conform to state quality standards. The original version of Act has 5 Chapters, 38 Sections and 2 schedules.

Drugs and Cosmetic Act defines cosmetic as "cosmetic" means any article intended to be rubbed, poured, sprinkled or sprayed on, or introduced into, or otherwise applied to, the human body or any part thereof for cleansing, beautifying, promoting attractiveness, or altering the appearance.

The Rules are established by the government of India through the Drugs and Cosmetics Act, 1940. The Rules have also been amended time to time to meet the needs of the time and to rectify any deficiencies noticed during the implementation.

### Objectives of Drug & Cosmetic Act 1940:

- To regulate the import, manufacture, distribution and sale of drugs & cosmetics through licensing.
- Manufacture, distribution and sale of drugs and cosmetics by qualified persons only.

- To prevent substandard in drugs, presumably for maintaining high standards of medical treatment.
- To regulate the manufacture and sale of Ayurvedic, Siddha and Unani drugs.
- To establish Drugs Technical Advisory Board (DTAB) and Drugs Consultative Committees (DCC) for Allopathic and allied drugs and cosmetics.

### **Schedules of Drug & Cosmetic Act 1940:**

First Schedule- Names of books under Ayurvedic and Siddha systems.

Second Schedule- Standard to be compiled with by imported drugs and by drugs manufactured for sale, sold, stocked or exhibited for sale or distributed. Act defines cosmetic as "cosmetic" means any article intended to be rubbed, poured, sprinkled or sprayed on, or introduced into, or otherwise applied to, the human body or any part thereof for cleansing, beautifying, promoting attractiveness, or altering the appearance, and includes any article intended for use as a component of cosmetic. It Regulate the import, manufacture and sale or distribution of drugs and cosmetics through Licenses and permits etc.

## **II. INTRODUCTION OF HERBAL FACE WASH**

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.

The skin is the largest organ of the body, accounting for about 15% of total adult body weight. It performs many vital functions, including protection against external, physical, chemical and biological assailants, as well as prevention of excess water loss from the body and role in thermoregulation. The skin is continuous, with the mucous membranes lining the body's surface. To keep skin healthy, clear, glossy, a balanced nutrition is required. Apart from the balanced nutrition, hormonal changes especially during puberty in both sexes cause many changes in the body. Among various changes, dryness, roughness and pimples are most common.

Acne vulgaris is an extremely common disorder of skin that affects virtually all individuals at least once during life. The incidence of acne peaks at teenage, but substantial numbers of men and women between 20-30 years of age are also affected by the disorder[1].

Acne may be classified as comedonal, popular, pustular, cystic & nodular. Comedonal acne is noninflammatory & divided into two types: whiteheads & blackheads. White heads (closed comedo) present as fresh or white coloured, raised bumps whereas blackhead (open comedo) present as open pores containing dark coloured skin roughage consisting of melanin, sebum & follicular cells.

Papules appear as red, solid, elevated lesions often less than 5mm in diameter. Pustules are circumscribed skin elevations containing purulent material. Cysts & nodules are solid, elevated lesions involving deeper dermal & subcutaneous tissue. Cysts are less than 5 mm.

The pathogenesis of acne involves multiple physiological factors. These include

### **Follicular hyperproliferation**

Increased sebum production due to higher androgen levels & colonization of organism

Propionibacterium acnes & staphylococcus epidermidis.[2]

Novel concept have emerged to help better understand its pathogenesis, these includes variation in target cell sensitivity, biological markers, neuro- endocrine, genetic, & environmental factors. Plenty of herbal as well as synthetic ingredients are reported to have remarkable beneficial effect on acne vulgaris.

They may have different mechanism secretion:-

### **Control sebum secretion.**

Antibiotics which inhibits Propionibacterium acne & Staphylococcus epidermidis, the main causative organism of acne.

Keratolytic which removes the keratin layer & prevents the trapping of sebum under the skin.

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Anti-inflammatory which prevents the worsening of condition due to inflammation or redness etc.

Numbers of formulations are available in the market with variety of active pharmaceutical ingredients for the treatment of acne. Topical formulations, available in the market are as follows: Gel, Cream, Lotion, Face wash or cleanser, Face pack or mask.

Skin is the major part of the body, which indicates the health of an individual. It is a consistof materials such as amino acids, lipids and carbohydratesetc. So that a balanced nutrition is required for the skin to keep it clear glossy and healthy, it deals with the formulation and characterization of cosmetic herbal face wash preparation.

In ancient times women are very conscious about their beauty and started to dress themselves because they wanted to increase their own beauty. [3].

Even today, people especially in rural areas, and hilly region select the natural remedies like plants extracts for cosmetics perposous like neem, orange rose. Herbal cosmetics are products which are used to purify and beautify the skin.

The main advantage for using an herbal cosmetic is that it is pure and does not have any side effects on the human body men have rough skin and when they don't take sufficient care then the skin turns dark due to over exposure of the Sun[4] In this article we share home best homemade face packs and face mask towhiten the skin naturally for men's and women skin. These face packs have natural skin lightening and can be easily prepared at home.

Facial skin is delicate and ordinary soaps can cause to lose moisture

Face wash is the products which are used to cleanse face without drying it out. Face wash is also commonly known as "cleanser". Face wash product found to be equally good for all skin type. Face wash is very helpful in removing dirt, oil and provide moisture to the dry skin. Both face washes & cleansers are used to rid your face of dirt, oil, pollution etc. A cleanser dissolves away excess oil makeup and grime from your face. These are oil soluble impurities. They can be removed by a face wash too, but that might be not 100% effective. Facial skin is the delicate and ordinary soaps can cause it to lose moisture.

A face wash is a mild cleanser that does the vital job of keeping skin clean. germ free smooth and fresh and moisturizes the horny layer without any harshness to the skin. So that skin look young and energetic. The purpose of face wash may be to impart cleansing, anti-wrinkle effect, anti-acne property, moisturizing effect and fairness of skin.

#### **Forms of Face Wash :-**

- Cream based face wash.
- Gel based face wash.

#### **Liquid based face wash.**

Face wash in powder form Types of face wash Generally a face wash suits all skin types however now aday different products are available in market that are formulated to suits different skin types for example: an oily skin face wash is made for people have oily skin conditions and does not contains oils and leaves a thin oily film on the skin.

These different types of face washes available in the market include.

#### **Oily skin face wash.**

#### **Dry skin face wash.**

#### **Normal skin face wash.**

Formulation Of Herbal Face Wash

Sr.No	Ingredients	Botanical Name
1	Turmeric Rhizomes	Curcuma longa
2	Honey	Apise Mellifera
3	Xanthan gum	XanthomonuScompestres
4	Rose water	Rosa
5	Propyl paraben	-
6	Methyl paraben	-
7	Sodium laurysulphate	-
8	Lemon juice	Citrus Lemon L

List Of Ingredients

Table No 1 : List Of Ingredients

Preparation Of Herbal Face Wash

Formula

Sr. No.	Ingredients	Uses	Quantity For 20 ml
1	Turmeric Extract	Anti-Inflametry	220mg
2	Lemon Juice	Lighten Skin	4.0ml
3	Honey	Thickening Agents,Antiseptic, Astringent	10ml
4	Xantham Gum	Stabilizer,Thickning Agents	4.5 ml
5	Rose Water	Solvent,Perfume	Q.S
6	Methyl Paraben	Preservative	0.2 mg
7	SLS	Foming Agent	1000mg

Table No 2 : Formula For Herbal Face Wash

### **PREPARATION METHODS**

#### **Collection:-**

Turmeric root, rosewater were collected from the local market.

#### **Preparation Of Extract:-**

Rhizomes of turmeric, were kept in hot air oven for draying purpose at 45°C and grinded into small pieces by using grinder. Desired quantities of herbal drugs were weighed and each herb macerated with rose water in conical flask. Dried herbs were allowed to mix with rose water by moderate shaking of conical flask for 3 days. Separately After 3 days, contents were filtered out by using simple filtration method and filtrates were collected in vessels separately

#### **Filtration:-**

Filtration of extract was done by using simple filter muclin cloth and funnel for two times.

#### **Evaporation:-**

Evaporation was done by using water bath. Filtrates were allowed to evaporate in water bath at 60°C temperature until the desired concentration of the extract was obtained.

#### **Development of Formulation:-**

The desired concentration of gelling agent i.e.xanthan gum was weighed accurately and dispersed in hot rose water (not more than 60°C; 50% weight of the batch size) with moderate stirring, avoiding air entrapment and allowed to soak overnight.

Desired quantity of lemon juice was dissolved in desired amount of honey by gentle stirring. Desired quantity of concentrated herbal extracts were added to the remaining amount of rose water and mixed with above honey mixture by gentle stirring.

This was finally mixed with previously soaked gel formulation. Prepared formulations were filled in a suitable container and labeled accordingly. EVALUATION OF PARAMETERS

#### **Physical Evaluation:-**

The prepared face wash was evaluated for various parameters as follows

Physical parameters such as colour, appearance & consistency were checked visually.

#### **Washability:-**

Formulations were applied on the skin then easily remove by washing with water were checked manually.

#### **Colour:-**

The colour of the face wash was checked visually

#### **pH:-**

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

#### **Spreadability Test:-**

Excess sample was placed between the two glass slides and 100 g weight was placed on the glass slide for 5 min to compress the sample to a uniform thickness. Weight (250 g) was added to the pan. The time in seconds required to separate the two slides was taken as a measure of spreadability.

**III. RESULT & DISCUSSION**

Sr.No	Parameter	Marketed Formulation	Formulated Batch
1	Colour	Yellowish	Lite Yellow
2	Consistency	Semisolid	Semisolid
3	Wash Ability	Good	Good
4	pH	7.6	7.4
5	Viscosity	1690cp	1566cp
6	Spreadability	2.16	1.15
7	Irritation Test	Non Irritant	Non Irritant

Table No 3: Observations

The results of evaluation are displayed in Table 3. Formulation was Lite Yellow in color, whereas, marketed formulation was yellowish in color.

Formulation was found to have semisolid consistency. The formulations were found homogenous, easily washable. The formulated face wash has slightly alkaline pH(7.4) which is compatible with normal physiology



#### IV. CONCLUSION

From the above study it is concluded that, natural remedies are more acceptable in the belief that they are safer with fewer side effects than the synthetic ones. Herbal formulations have growing demand in the world market. It is a very good attempt to establish the herbal face wash containing aqueous extracts of turmeric rhizomes.

This study revealed that the developed herbal formulation of batch f1 was comparatively better than other formulation. 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 oily and dry skin physiology. It provides numerous essential nutrients to the required for maintaining the normal skin functioning. It also promotes the natural glow to the skin. The herbal face wash was prepared from various herbs like Turmeric, Honey, and the soothing agent as Xanthungum 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 herbal ingredients its nighters produce any harmful action on skin and are reliable.

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