

# Formulation and Evaluation of Herbal Beetroot Soap

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**Abstract:** : The aim of our study was to develop the polyherbal hygienic soap by using cold process method and evaluate antimicrobial potential by agar Well diffusion method. Soap was prepared using olive oil, Almond oil, Glycerine, Aloe Vera gel, Coffee powder, Vitamin E capsule, Glycerine soap base. Nosocomial infection has been recognized as a crucial issue in the outcome of hospital care, with Significant morbidity and mortality results. The primary routes of infection transmission to patients are the hands of health-care workers. This also evokes utilization of antiseptics for hand-washing purposes. Many of the antiseptics commercially available are sanitizers dependent on alcohol that have certain shortcomings or harmful effects. Bacterial skin infections are most common amongst people, requiring significant attention for treatment and also for maintaining healthy skin. Some herbal plant extracts and their oils were found to have antibacterial activity. The aim and objective of the present study are to formulate and evaluate anti-bacterial herbal soap.

**Keywords:** Beetroot, Glycerine, olive oil, turmeric, neem powder, sandalwood, Aloe Vera, vit E capsule

## I. INTRODUCTION

Soap is a mixture of sodium salt of various naturally occurring fatty acids. Soap is produced by saponification, a basic hydrolysis reaction of fat oil. Herbal soaps are made using natural herbs and ingredients that are healthier and beneficial for the skin & less likely to cause any damaging effect.

Herbal soaps work great for the skin.

Herbal soaps prevent the



Fig. Beetroot 1- Beet Root :

Scientific Name – Beta Vulgaris Vulgaris Conditilla

The beetroot or the beat is the tap root portion of the beta vulgaris vulgaris plant, a quantitative group. This plant is also known as table beet, garden beat, and red beat.

Family : AMARANTHACE

Chemical constituents

Betalain

Pigments

anthocyanin

indicoxanthin

### Benefits

Beetroot is used to protect normal and diabetic liver.

Beetroot soup describes the wrinkle and fine line.

remove extra pigmentation remove the dirt front of the skin  
present the sign of aging  
A Natural Soap may be generally decided based on the production method. –  
Melt pour soap  
a hot pure saponification  
cold saponification method  
Trespae process soap is Called a transparent

**Types: of soap**

Non + toilet Soap :  
liquid Soap.

**Non- toilet soap**

Soap R key components of the most lubricating greases and thickeners non toilets of also used to thickeners to increase the uiscosity of oil  
Liquid soap liquid soap was not invented until 19<sup>th</sup> century 1865 liquid soap is made by mixing an oil or fat with alkyne it contains moisturizing and softening grease

**II. LITERATURE AND REVIEW**

**1) Ashlesha Ghanwat**

A herbal soap and hand sanitizer was formulated using the leaf and bark extract of 6Azadirachta indica, Ocimum tenuiflorum ,Sapindus mukorussi and Acacia concinna powder. Ayurvedic cosmetics are also known as the herbal cosmetics the natural content in the herbs does not have any side effect on the human bod mostherbal supplement are based on several botanical ingredients with long histories of traditional or folk medicine usage. Among the numerous botanical ingredients available in the market today . Numerous chemical toxins microorganism present in the atmosphere may cause chemical infection and damage to skin cosmetics alone are not sufficient to take care of skin and body parts. Neem (Azadirachta indica )tree has attracted worldwide prominence owing to its wide range of medicinal properties, neem leaves and its constituents have been demonstrated to exhibit antiinflammatory, antihyperglycemic, antiulcer .

**2) R. Margret Chandira**

The aim of our study was to develop the herbal soap by using melt and pour method. Soap was made by blending kapok gum, 20%, musk melon ,10% olive oil,5%, argan oil,3%, soap base,90%. Which formed a penny brown? Herbal soap has been used traditionally for treating several epidermal dysfunctions, such as eczema, psoriasis, and acne and helps to boost immune response in tissue of affected skin area. The results of the selected physical and chemical properties of this study show that the moisture content of the soap was 6% with 7%PH, foaming height 9cm, foam retention time 5mins, alcohol soluble 17%, free alkaline 0.26%. Also, the evaluation tests showed that the herbal soap has satisfactory antimicrobial results as compared to standard antibiotic.

**Aim:** Formulation and Evaluation of herbal beetroot soap by cold Saponification- method.

**Objective.**

- To promote the Bright Skin.
- To promote the healthy skin.
- Help. to prevent moisturizing skin.
- Help to stop dry skin smooth

**Experimental Methodology**

Material & method :-

Plant profile :

Turmeric-

Turmeric has been used for centuries to add flavour & colour to food, and Features in traditional healing practices From India and china :

Scientific Name - curcuma longa. Family : zingiberacea

Kingdom : Planta

Antioxidant and anti inflammatory properties are the two primary mechanisms that explain the majority of the effects of the curriculum of the various conditions oxidative stress has been impeticted to many chronic diseases

Use 8

Impoove skin complexion.

Inflammatory:.

Helpi skin coounds.

Bring out the glow

help brighten



Figure 2 turmeric

**Aloevera gel**

Botanical name : ALOE BARBACTENSIS Family : LILIACEAE

It is an subi perennial and zero fatigue plant and has organized it from the Arabian Peninsula use of the aloe vera on the skin is generally not associated with significant side effect

The Aloe Vera plant has been used for heel a variety of conditions burns wounds



Glycerin :

Molecular formula : C<sub>2</sub>H<sub>5</sub>N<sub>0</sub>O<sub>2</sub>.

Glycerin is one of the most commonly used substance in the cosmetic

Glycerin can use them to stay hydrated and protected

Glycerin moisturize your face and body and wrap water molecules



Fig 3 :

### Sandalwood powder

Sandalwood oil has warm woody odor and it is commonly used as fragrance incense cosmetic perfume and soap

It also used to azure sliver for food and beverages

In traditional medicine Sandalwood oil has been used as antiseptic



### Olive oil

Olive oil Has liquid paired obtained by wishing hole olives

The fruit of Olivia the traditional tree crop of the Mediterranean Basin



**Tulsi**

Biological name : *Optimum Tenuiflorem* Common name : Holly Basil

Chemical constituent

- eugenol
- germacrene
- terpenes



Part typically used leaves colour green

**Vitamin E capsule:**



Chemical constituents

- Tocopherolalpha – santalol
- Tocoteriods

Use:

Hyperpigmentation and improves skin

**Neem**

Name is a member of Mahogany family meliaceae Bot nickname : *Azadirachta indica*

Neem also exhibit's antibacterial: anti- fungal anti ulcer activity name has been used the traditional for the treatment of implementation infection fever skin disease and dental problem.



**Procedure**

The preparation of glycerine soap base  
 Add the lie solution to the plant oil such as coconut oil  
 Begin to heat the ingredients on the stove or the slow cooker  
 Add the liquid please ring and alcohol to the mixture  
 Add sodium Lauryl sulphate as foaming agent  
 Who is the ingredient fully dissolved pour the mixture into your mould of the choice allowed to cool



**Glycerine Soap base**

Preparation of herbal beet root soap :  
 Give 5 g op neem powder in beaker then these bigger then add 2g of beetroot then three gm of aloevera, then 2gm of e-capsule ,then one 1.5 g of sandalwood ,Outer GML Rosewater and turmeric din oil are mixed two to three minute  
 The double heat method gives for the melting glycerin soap base so give span on induction and add water then small content take in water and add 10 g up glycerin soap base in the container and melt it

**III. RESULT AND DISCUSSION**

**Physical properties Colour-** Dark brown

**Odor** – Aromatic

**Shape-** circular

**Determine the pH**

5 to 6 g of the soap was weighted accurately in a 100ml beaker 40ml water was added and dispersed the soap in it. The pH of the solution is determined by using ph meter. PH of soap is 11.

Foaming ability and foam stability

Foaming ability was determined by using cylinder shake method brittle 40ml of the formulation soap solution was placed graduate cylinder. It was covered with acne hand and shaken 10 times the total volume of the foam content after 1 min of shaking recovered foam stability was evaluated by recording the foam volume after 1 min and 4 min is 80 to 93/ foam formed.

**Moisture content**

A sample of soap weighing 10g was weighed right away and noted as "wet weight of the sample." Using the appropriate drying equipment, this wet sample was dried to a constant weight at a temperature not to exceed 115 °C. After cooling, the sample was weighed once more to determine its "dry weight." The following equation was used to calculate the sample's moisture content.

$$\%Weight = \frac{A-B}{B} \times 100$$

Where; %Weight = % of moisture in sample, A = weight of wet sample (gm), B = weight of dry sample (gm)

Table 1: Composition Of Soap Formulation

	Quantity	Quantity	Quantity
Ingredients	F1	F2	F3
Neem Powder	2 gm	2 gm	2 gm
Turmeric Powder	2 gm	2 gm	2 gm
Aloe vera Gel	2 ml	2 ml	2 ml
Sandlewood Powder	2 gm	2 gm	2 gm
Beetroot	2 ml	2 ml	2 ml
Glycerine	2 ml	2 ml	2 ml
Coconut Oil	2 ml	2 ml	2 ml
Vitamin E Capsule	2 ml	2 ml	2 ml

#### IV. CONCLUSION

- The plant of neem, beetroot, turmeric and aloe vera constituents extraction was studied. The prepared formulation when tested for different tests gave good results.
- It does not give any irritancy to skin; it was determined by using these soaps by a few volunteers. Hence, it is proved that soap does not give any irritancy to skin.
- Furthermore, the prepared soaps were standardized by evaluating various physico-chemical properties such as pH, appearance, and odour, in which the exhibit satisfactory effect.

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